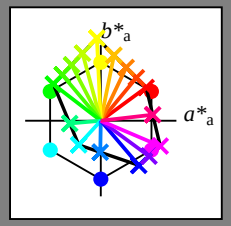
Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

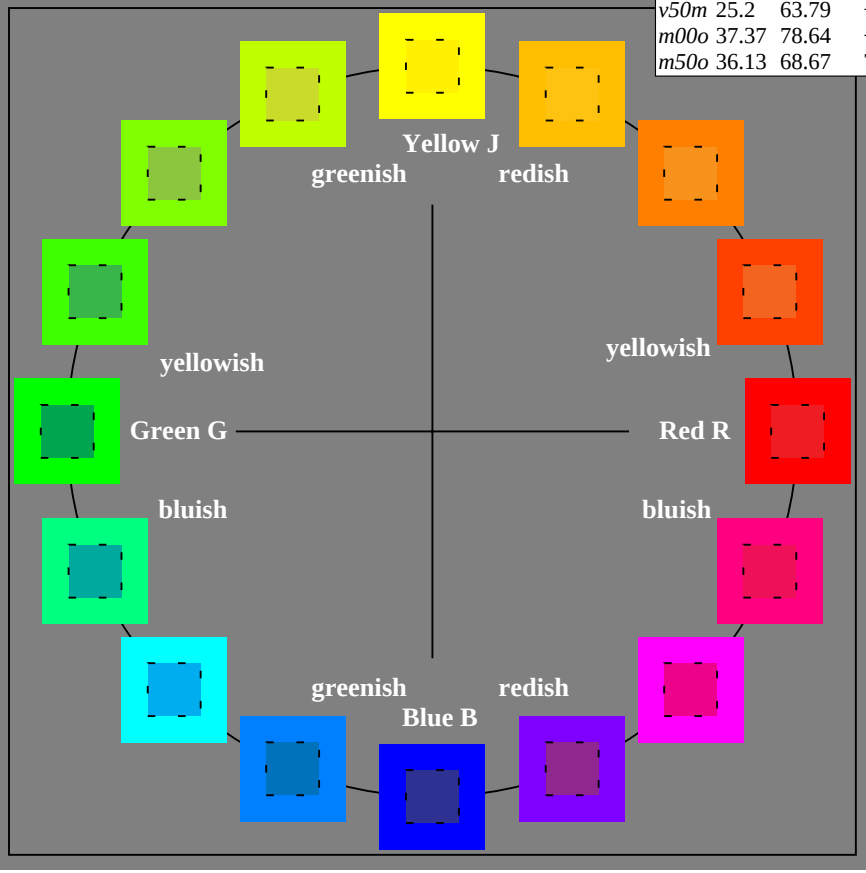
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

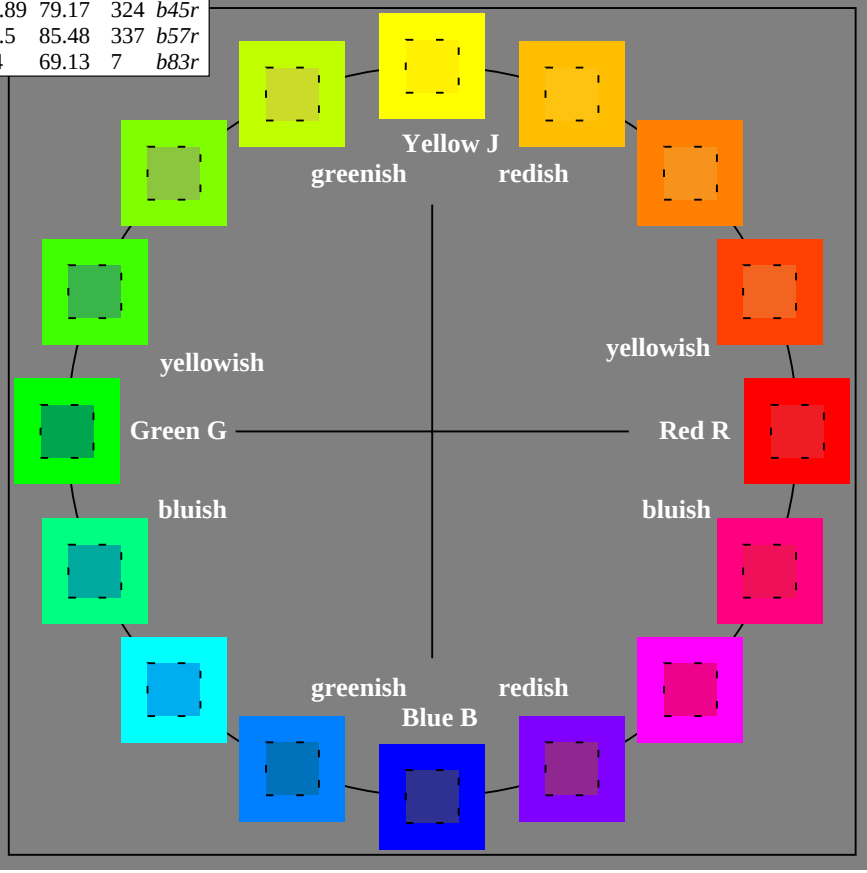


%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$ **$u^*_d = o00y$**

data for any colour:

lab*tch** and *lab*icu*

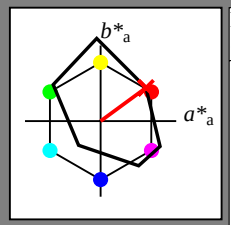
Hue texts:

$u^*_d = o00y$ $u^*_e = r16j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 35 60 44**

***LAB*LCH**$_{Ma}$: 35 74 36**

***lab*olv**$_{Ma}$: 1.0 0.0 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.16 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

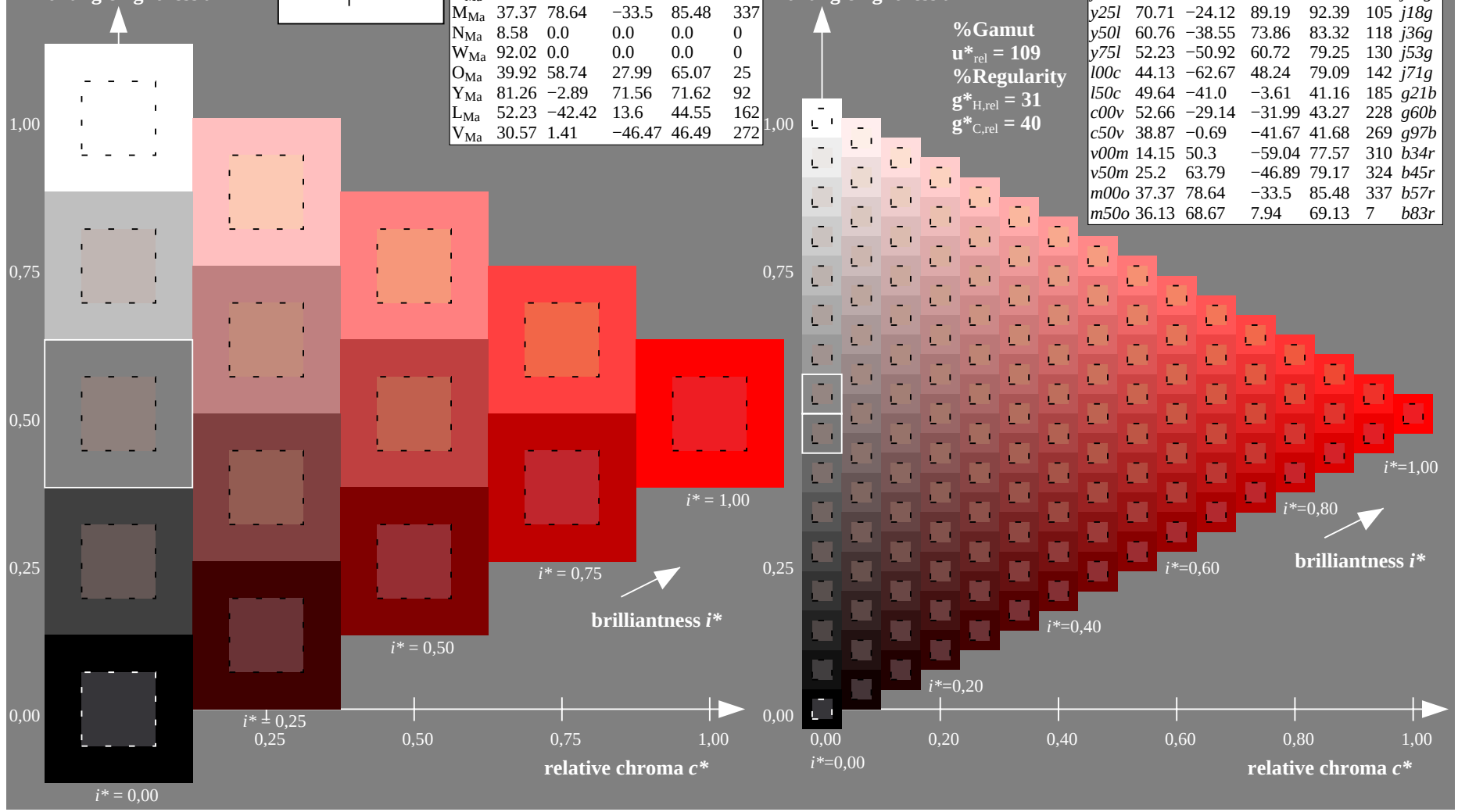
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$ $u^*_d = o25y$

data for any colour:

*lab*tch** **and** *lab*icu**

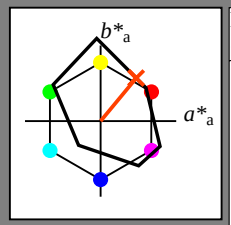
Hue texts:

$u^*_d = o25y$ $u^*_e = r37j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 45 47 57

$LAB^*LCH^*_{Ma}$: 45 74 50

$lab^*olv^*_{Ma}$: 1.0 0.25 0.0

$lab^*rgb^*_{Ma}$: 1.0 0.37 0.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

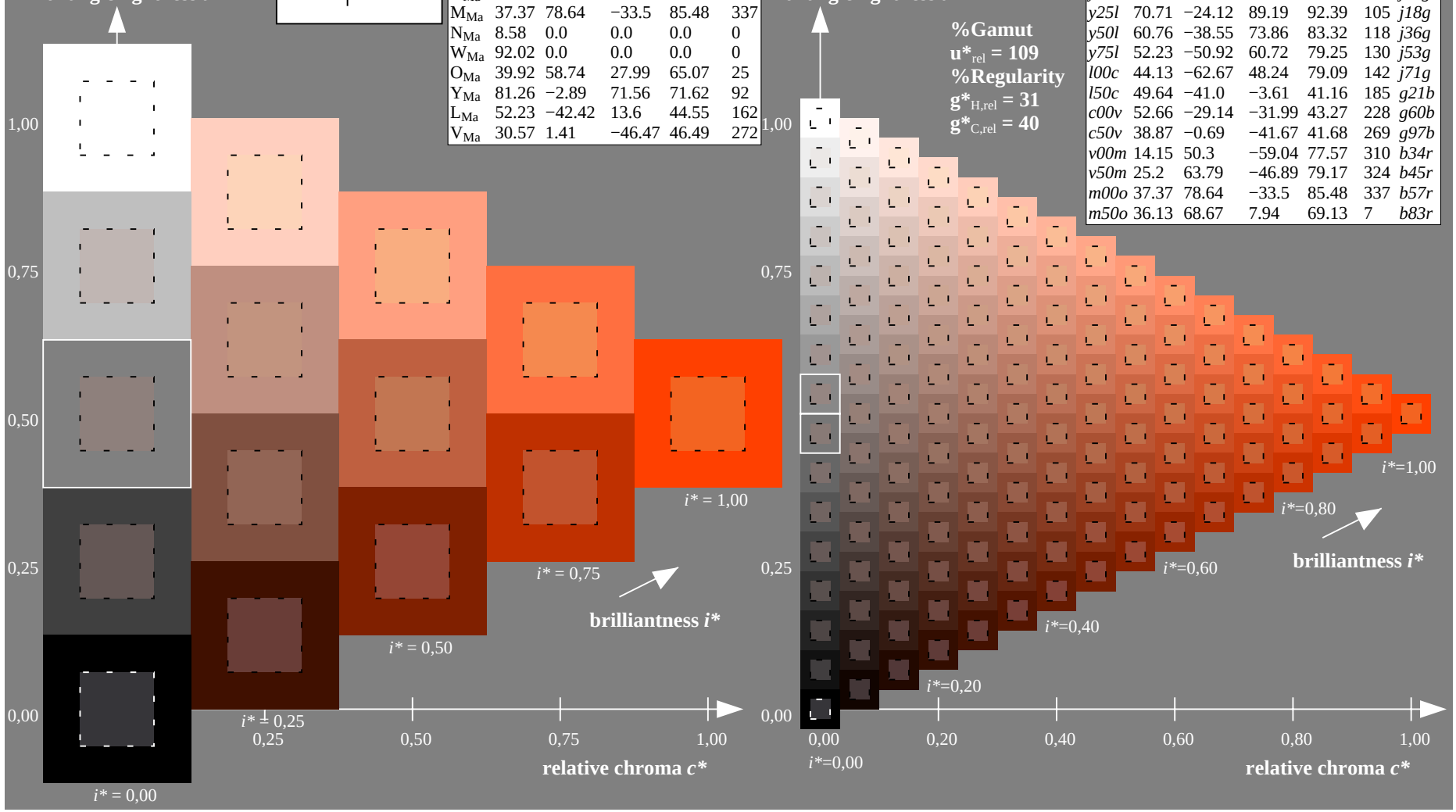
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$ $u^*_d = o50y$

data for any colour:

*lab*tch** **and** *lab*icu**

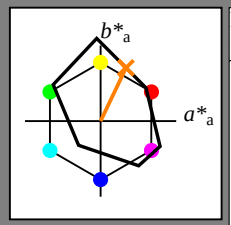
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 55 34 70

$LAB^*LCH^*_{Ma}$: 55 78 64

$lab^*olv^*_{Ma}$: 1.0 0.5 0.0

$lab^*rgb^*_{Ma}$: 1.0 0.58 0.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

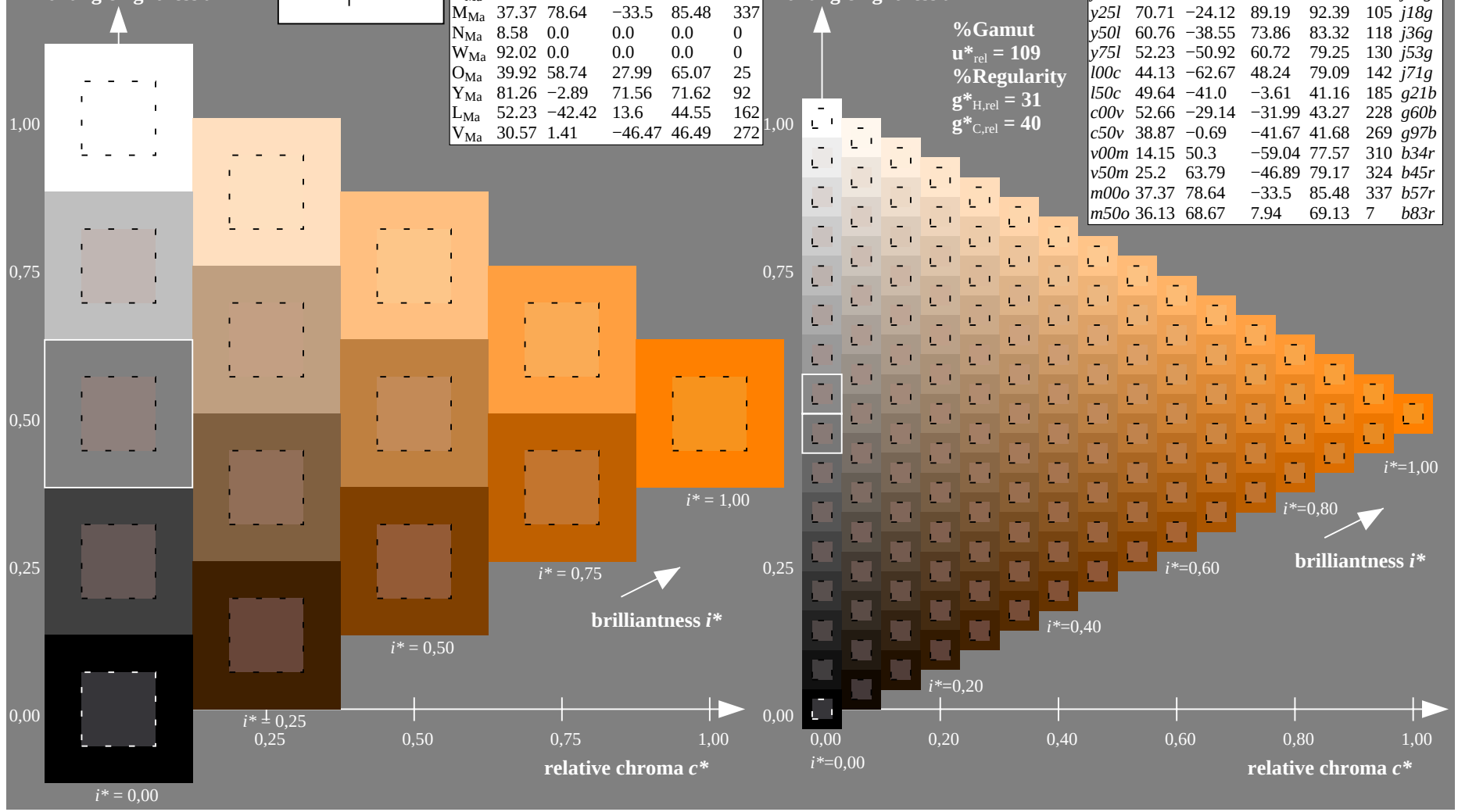
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$ **$u^*_d = o75y$**

data for any colour:

lab*tch* **and** ***lab*icu****

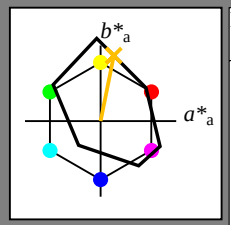
Hue texts:

$u^*_d = o75y$ $u^*_e = r79j$

contrast reduction factor:

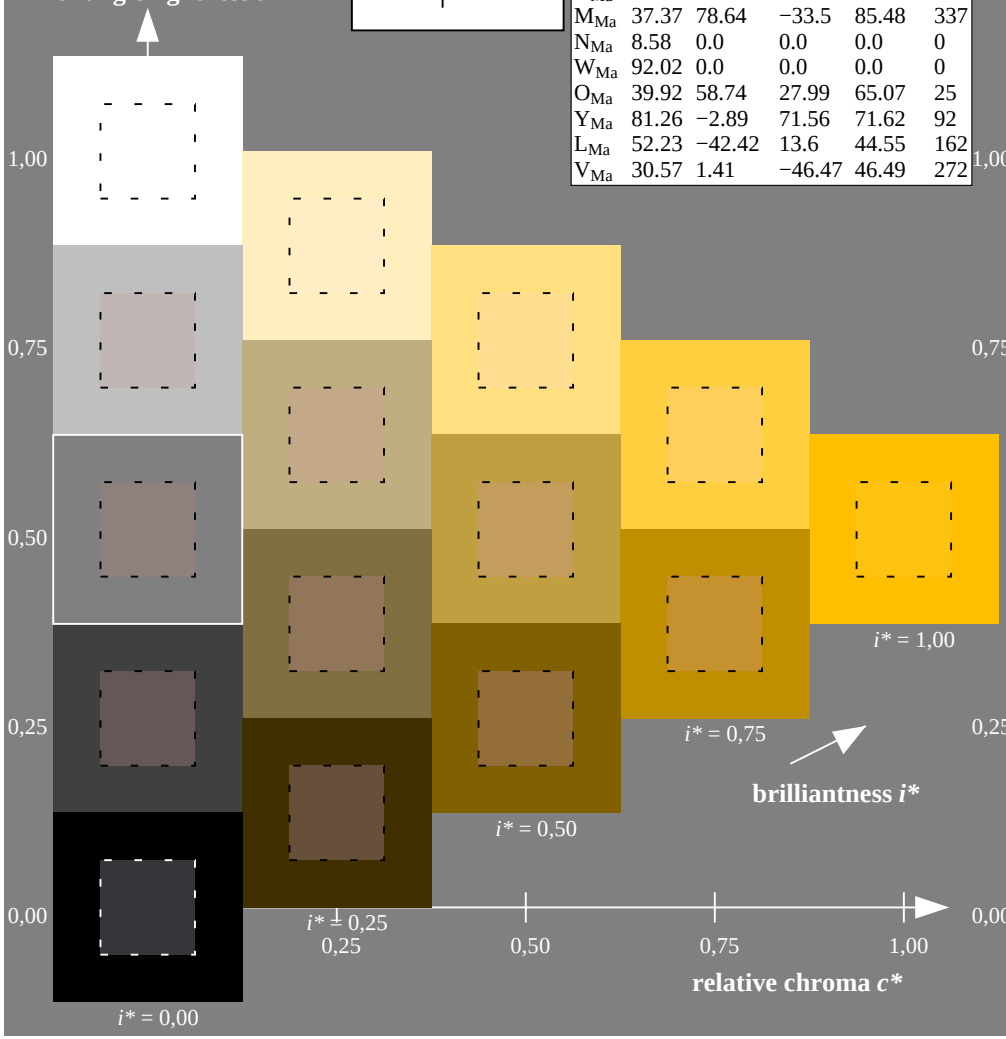
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 67 17 87**

LAB*LCH*$_{Ma}$**: 67 88 78**

lab*olv*$_{Ma}$**: 1.0 0.75 0.0**

lab*rgb*$_{Ma}$**: 1.0 0.79 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

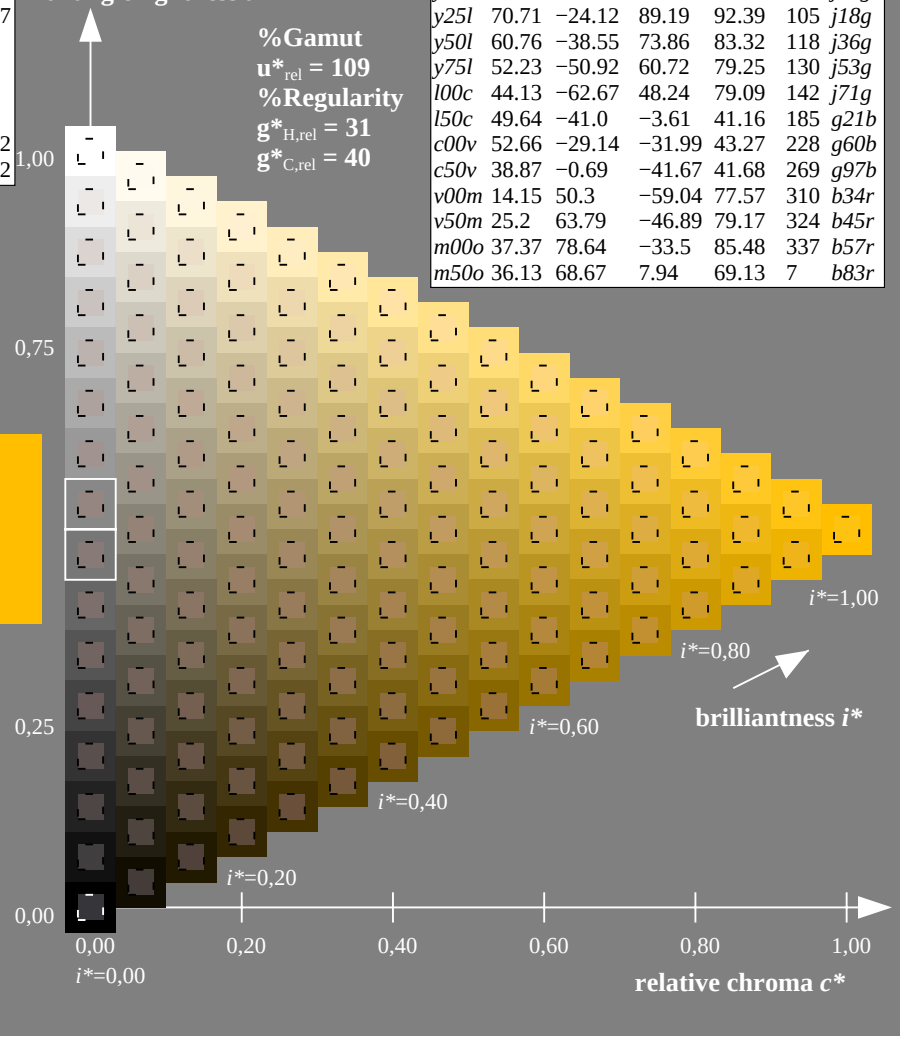
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$ $u^*_d = y00l$

data for any colour:

*lab*tch** **and** *lab*icu**

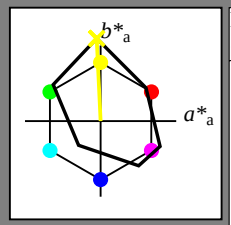
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 84 −5 109

$LAB^*LCH^*_{Ma}$: 84 109 92

$lab^*olv^*_{Ma}$: 1.0 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.99 1.0 0.0

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

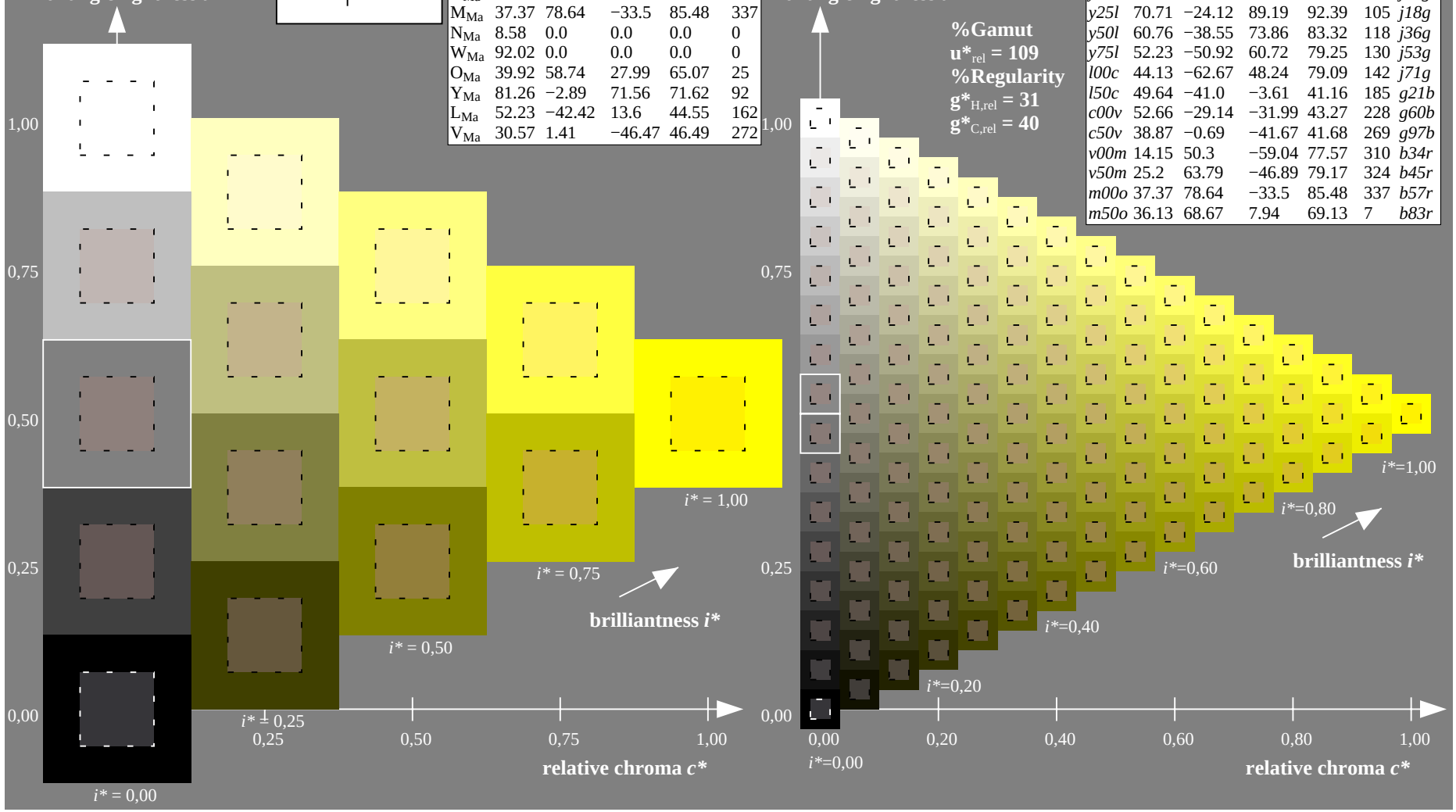
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$ $u^*_d = y25l$

data for any colour:

*lab*tch** **and** *lab*icu**

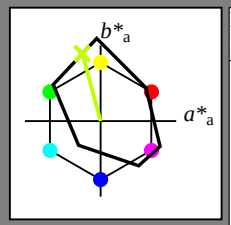
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 71 −24 89

$LAB^*LCH^*_{Ma}$: 71 92 105

$lab^*olv^*_{Ma}$: 0.75 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.82 1.0 0.0

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

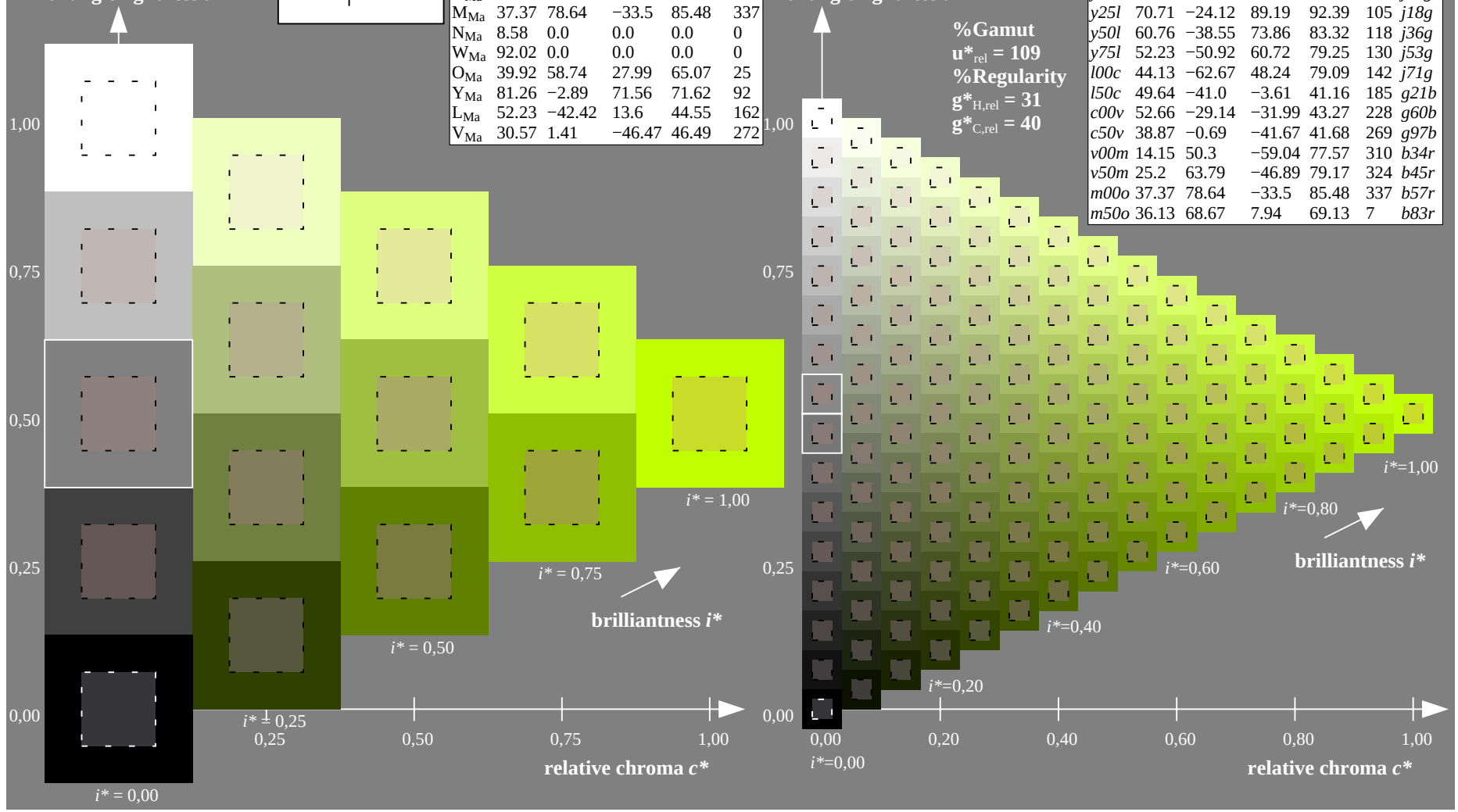
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$ $u^*_d = y50l$

data for any colour:

*lab*tch** **and** *lab*icu**

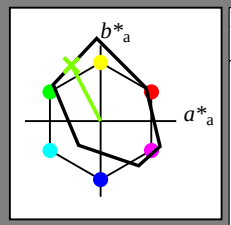
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 61 −39 74

$LAB^*LCH^*_{Ma}$: 61 83 117

$lab^*olv^*_{Ma}$: 0.5 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.64 1.0 0.0

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

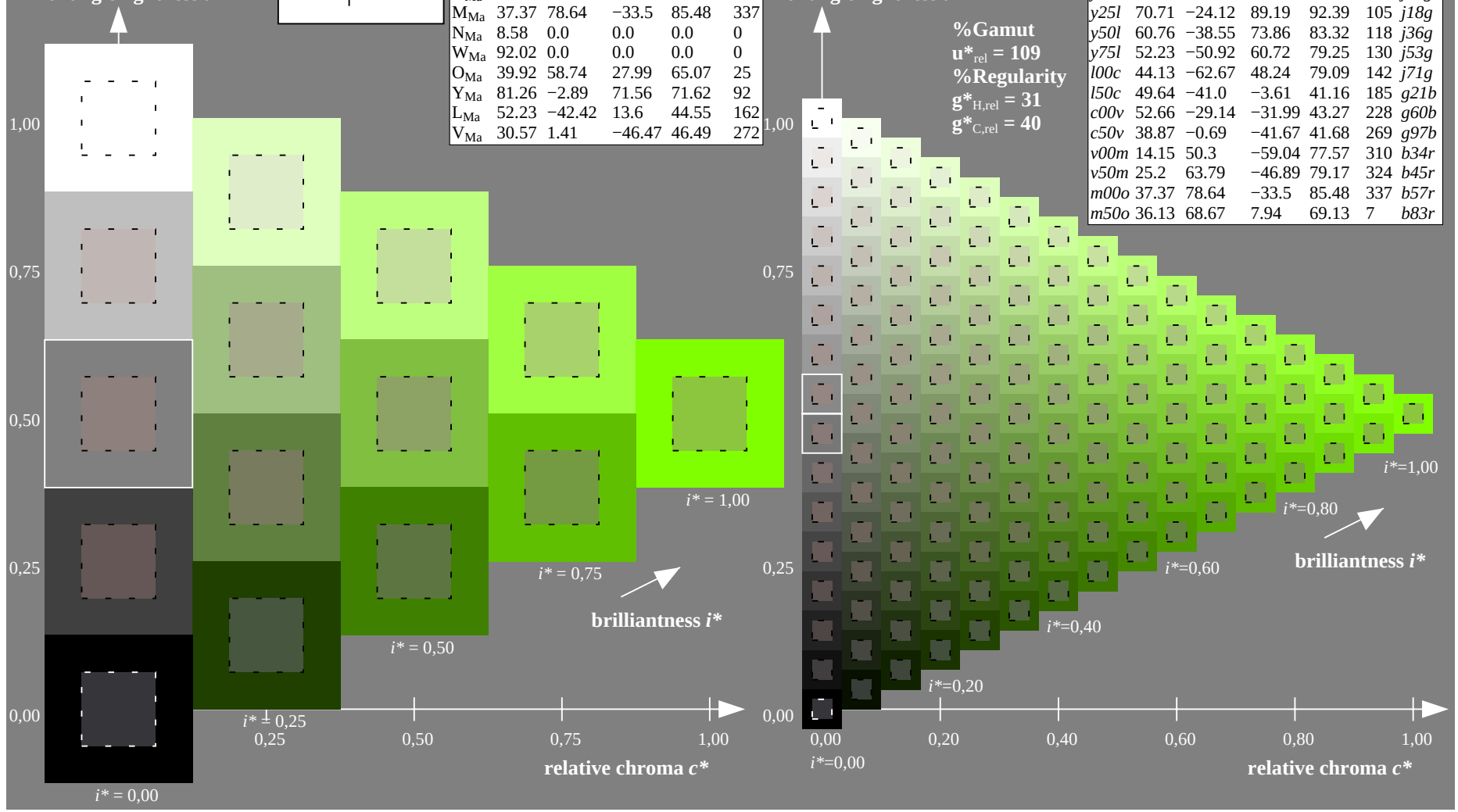
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$ **$u^*_d = y75l$**

data for any colour:

lab*tch* **and** ***lab*icu****

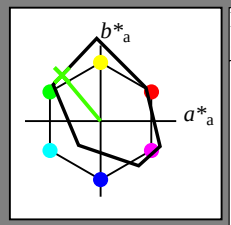
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 52 −51 61**

LAB*LCH*$_{Ma}$**: 52 79 129**

lab*olv*$_{Ma}$**: 0.25 1.0 0.0**

lab*rgb*$_{Ma}$**: 0.46 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

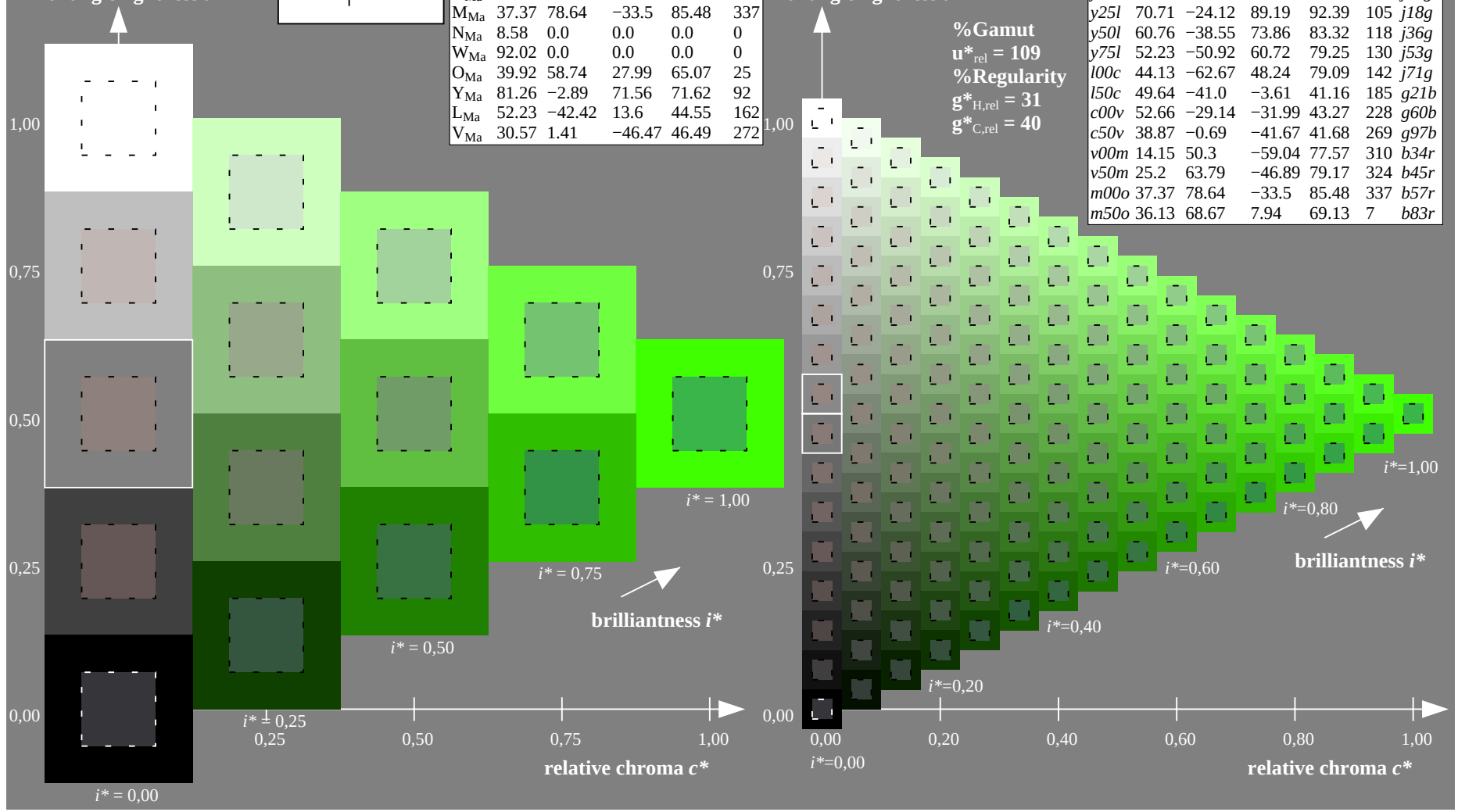
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$ $u^*_d = l00c$

data for any colour:

lab*tch** and *lab*icu*

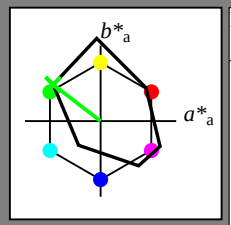
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 44 −63 48**

***LAB*LCH**$_{Ma}$: 44 79 142**

***lab*olv**$_{Ma}$: 0.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.28 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

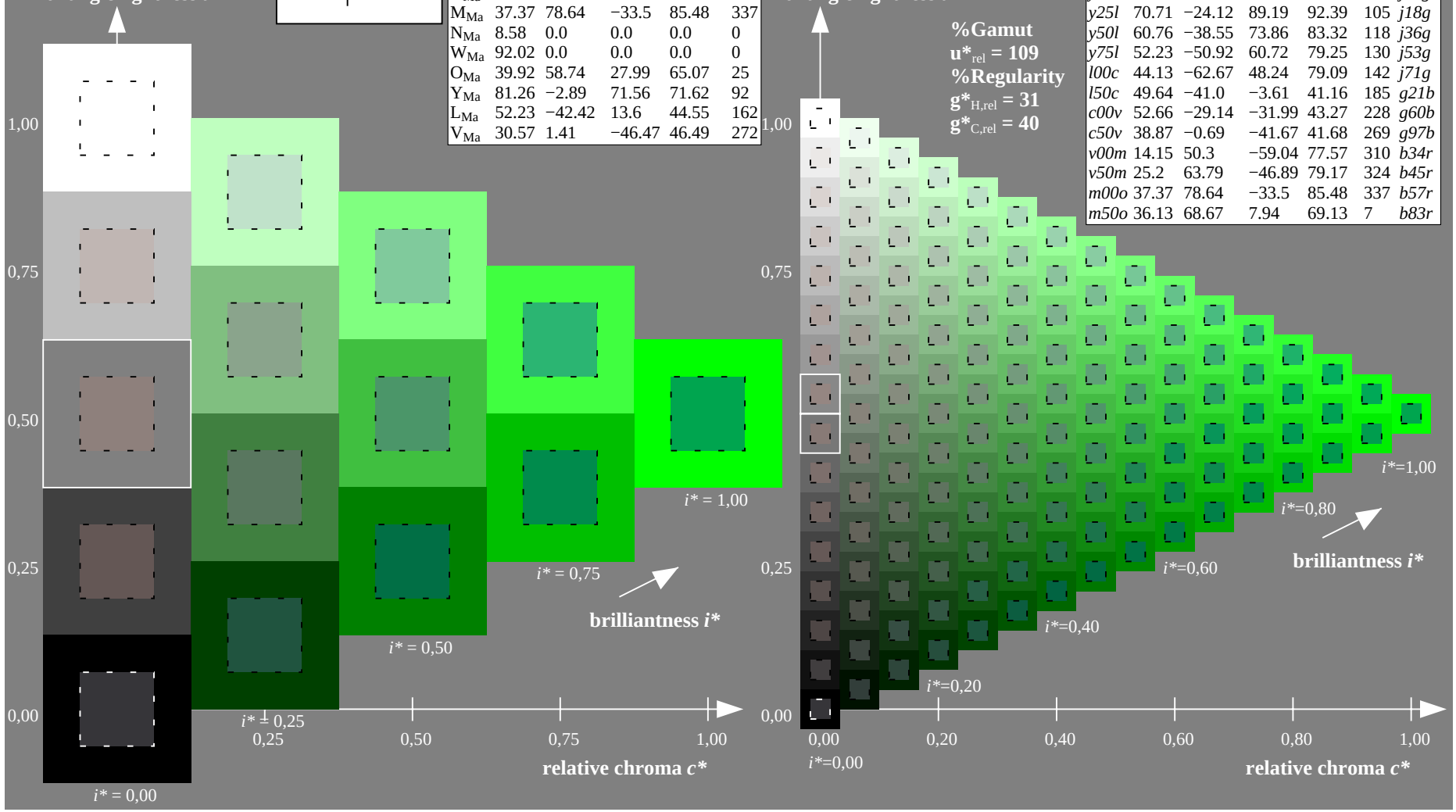
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$ **$u^*_d = l50c$**

data for any colour:

lab*tch* **and** ***lab*icu****

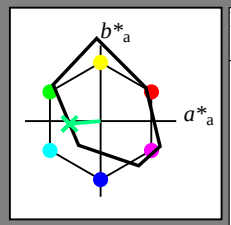
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 50 −41 −4**

LAB*LCH*$_{Ma}$**: 50 41 185**

lab*olv*$_{Ma}$**: 0.0 1.0 0.5**

lab*rgb*$_{Ma}$**: 0.0 1.0 0.42**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

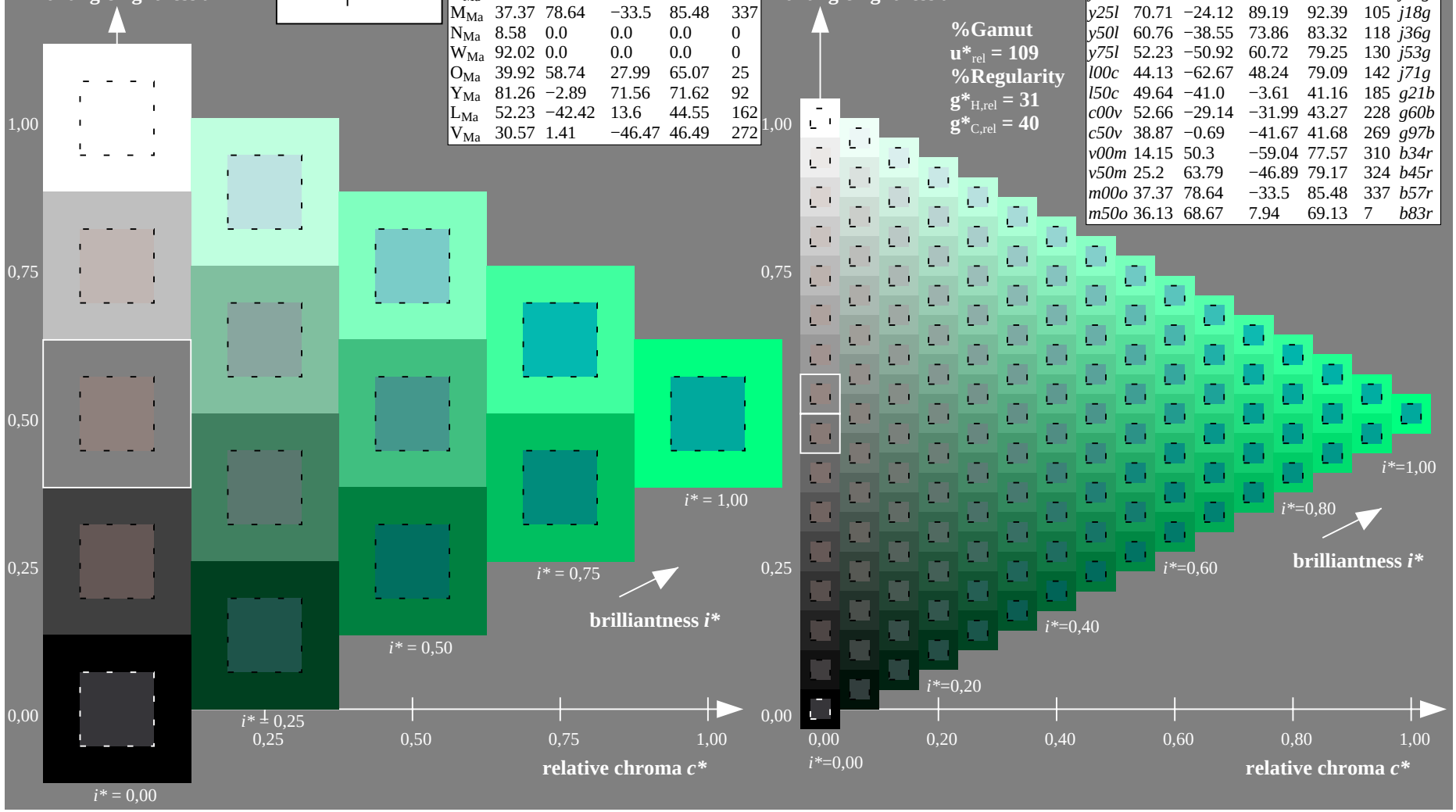
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$ $u^*_d = c00v$

data for any colour:

*lab*tch** **and** *lab*icu**

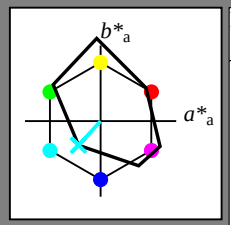
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 53 −29 −32

$LAB^*LCH^*_{Ma}$: 53 43 227

$lab^*olv^*_{Ma}$: 0.0 1.0 1.0

$lab^*rgb^*_{Ma}$: 0.0 0.8 1.0

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

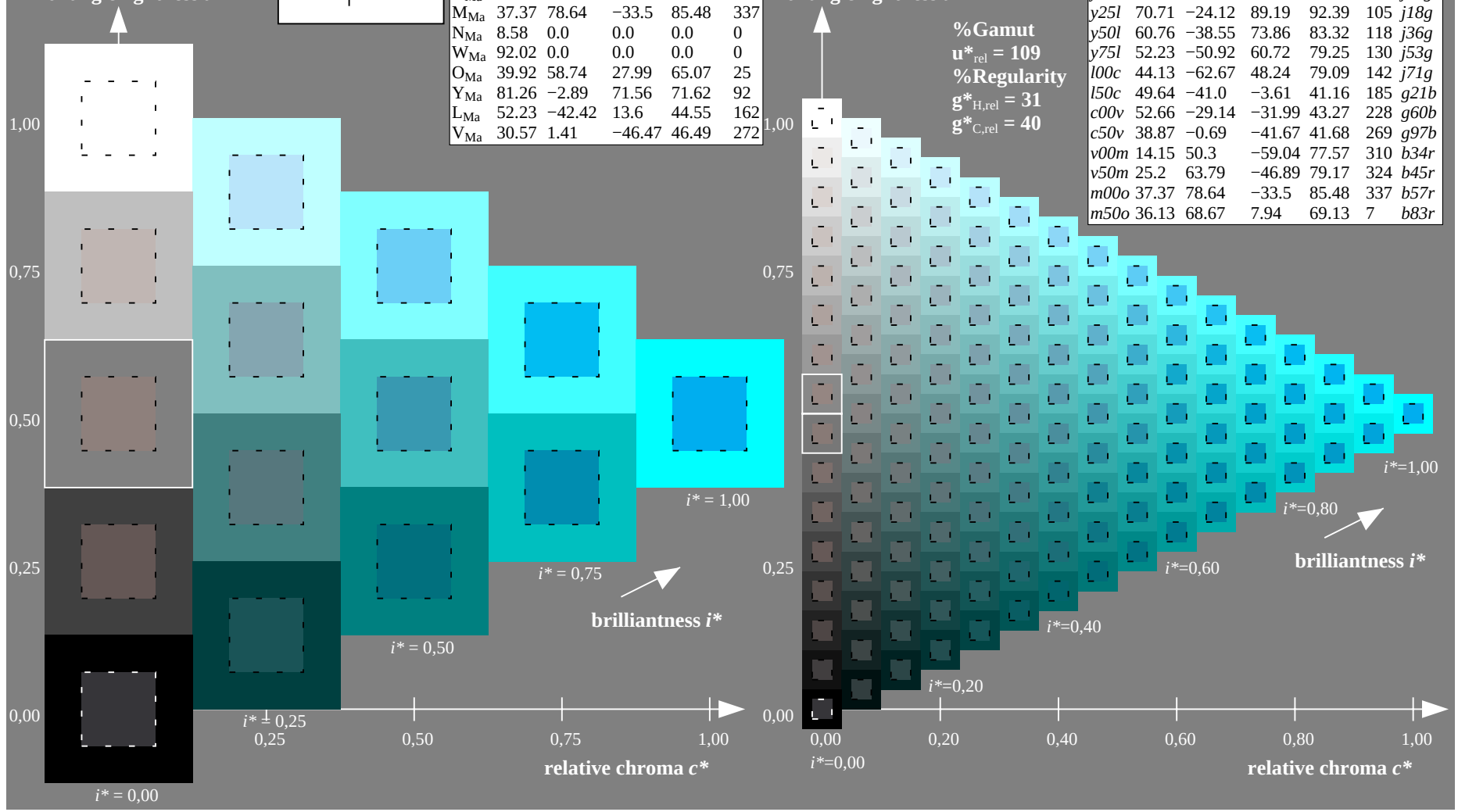
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$ **$u^*_d = c50v$**

data for any colour:

lab*tch* **and** ***lab*icu****

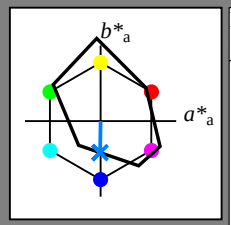
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 39 −1 −42**

LAB*LCH*$_{Ma}$**: 39 42 269**

lab*olv*$_{Ma}$**: 0.0 0.5 1.0**

lab*rgb*$_{Ma}$**: 0.0 0.05 1.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

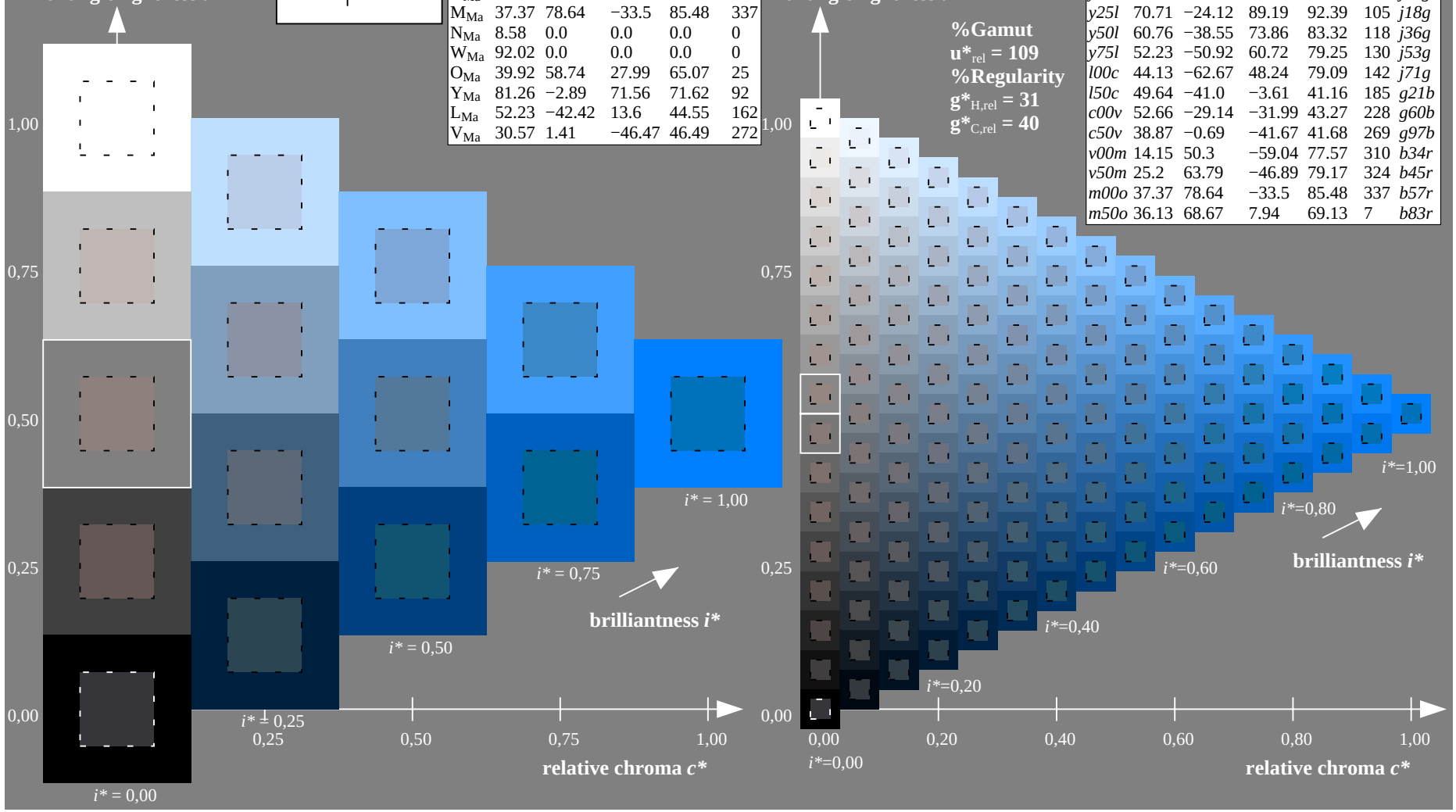
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$ **$u^*_d = v00m$**

data for any colour:

lab*tch* **and** ***lab*icu****

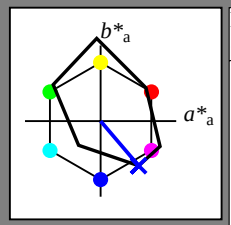
Hue texts:

$u^*_d = v00m$ $u^*_e = b34r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 14 50 −59**

LAB*LCH*$_{Ma}$**: 14 78 310**

lab*olv*$_{Ma}$**: 0.0 0.0 1.0**

lab*rgb*$_{Ma}$**: 0.68 0.0 1.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

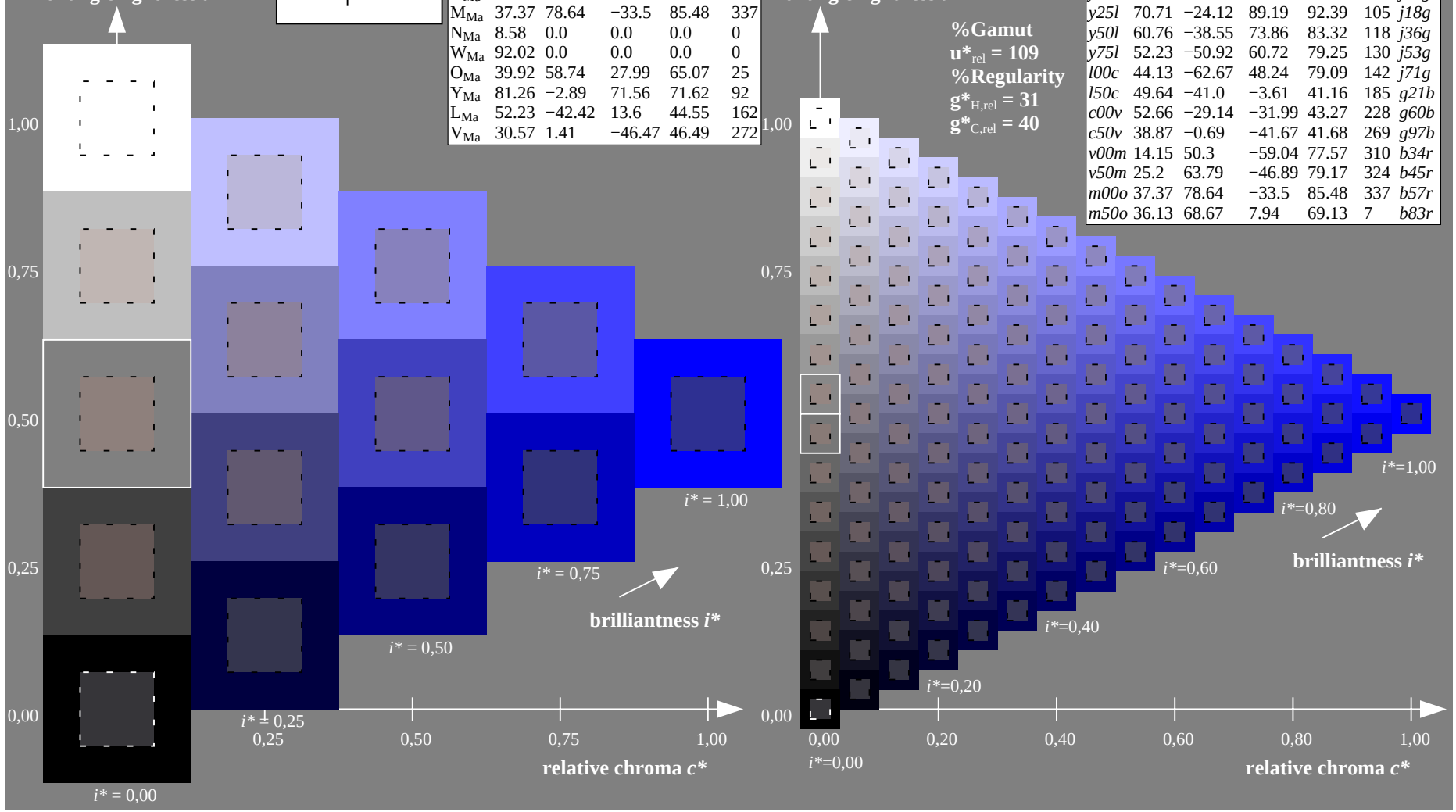
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$ $u^*_d = v50m$

data for any colour:

*lab*tch** **and** *lab*icu**

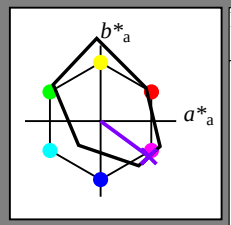
Hue texts:

$u^*_d = v50m$ $u^*_e = b45r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 25 64 −47

$LAB^*LCH^*_{Ma}$: 25 79 323

$lab^*olv^*_{Ma}$: 0.5 0.0 1.0

$lab^*rgb^*_{Ma}$: 0.91 0.0 1.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

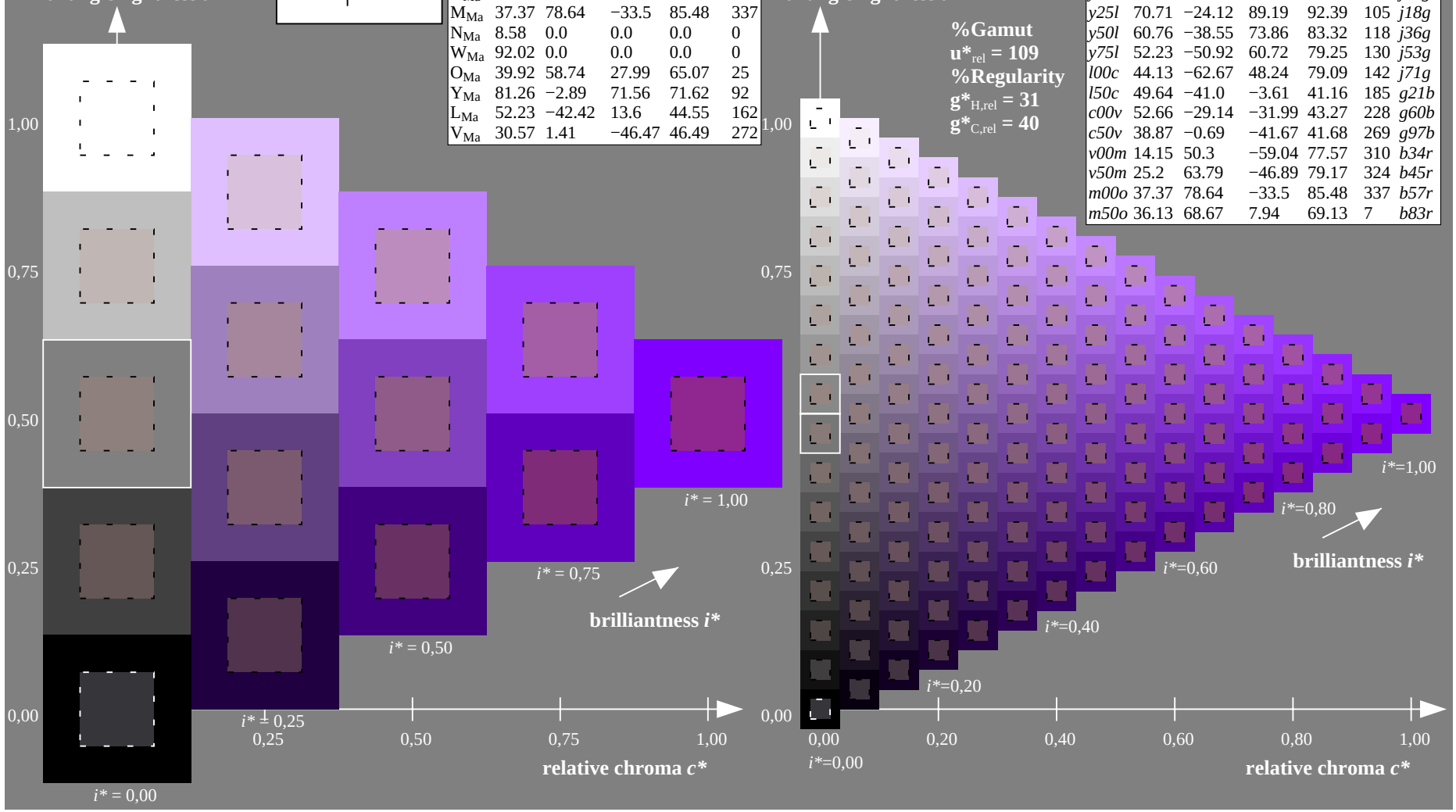
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$ **$u^*_d = m00o$**

data for any colour:

lab*tch* **and** ***lab*icu****

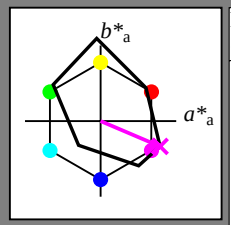
Hue texts:

$u^*_d = m00o$ $u^*_e = b57r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 37 79 −34**

LAB*LCH*$_{Ma}$**: 37 85 336**

lab*olv*$_{Ma}$**: 1.0 0.0 1.0**

lab*rgb*$_{Ma}$**: 1.0 0.0 0.85**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

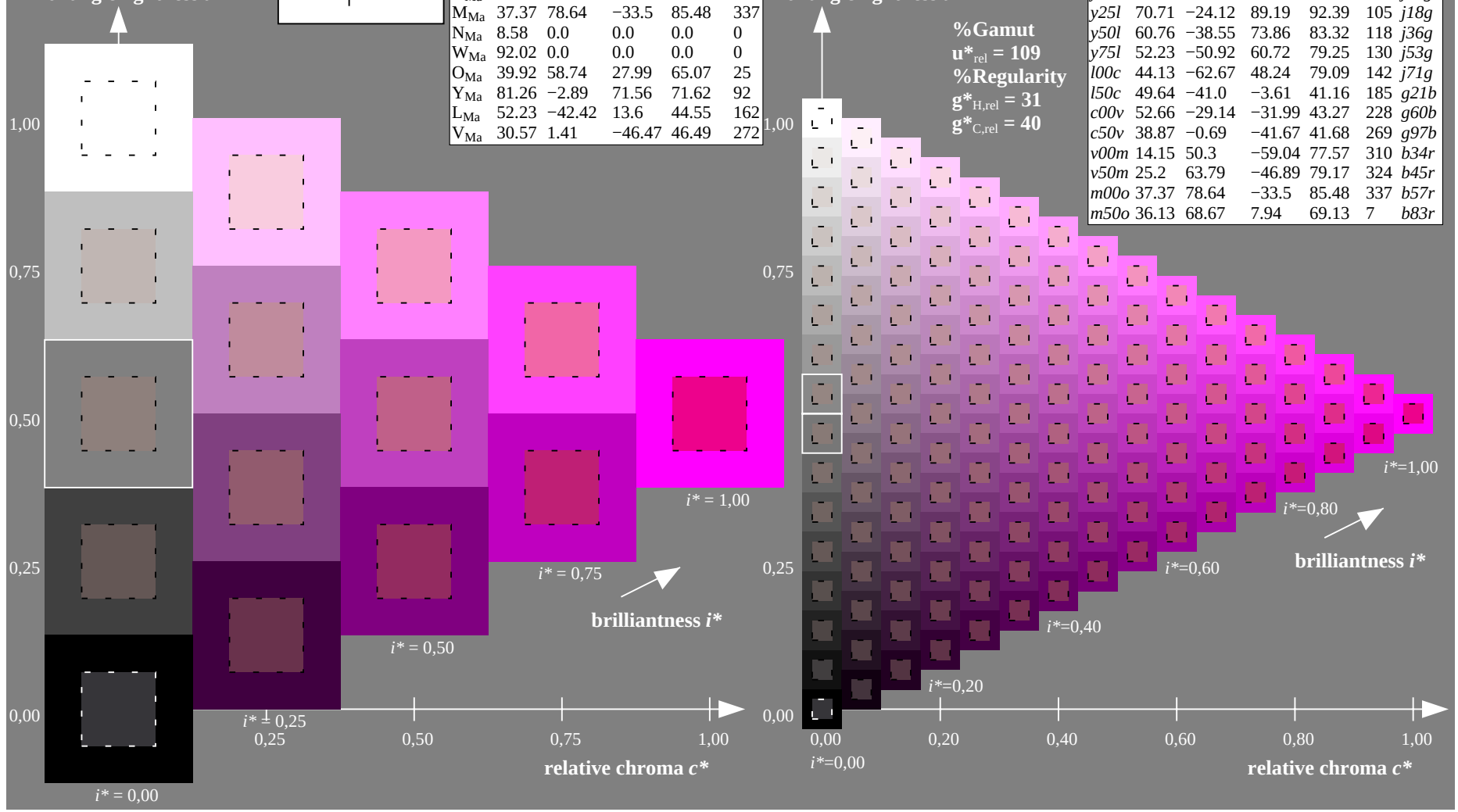
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$ **$u^*_d = m50o$**

data for any colour:

lab*tch** and *lab*icu*

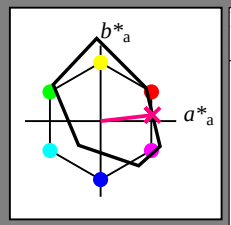
Hue texts:

$u^*_d = m50o$ $u^*_e = b83r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 36 69 8**

***LAB*LCH**$_{Ma}$: 36 69 6**

***lab*olv**$_{Ma}$: 1.0 0.0 0.5**

***lab*rgb**$_{Ma}$: 1.0 0.0 0.33**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

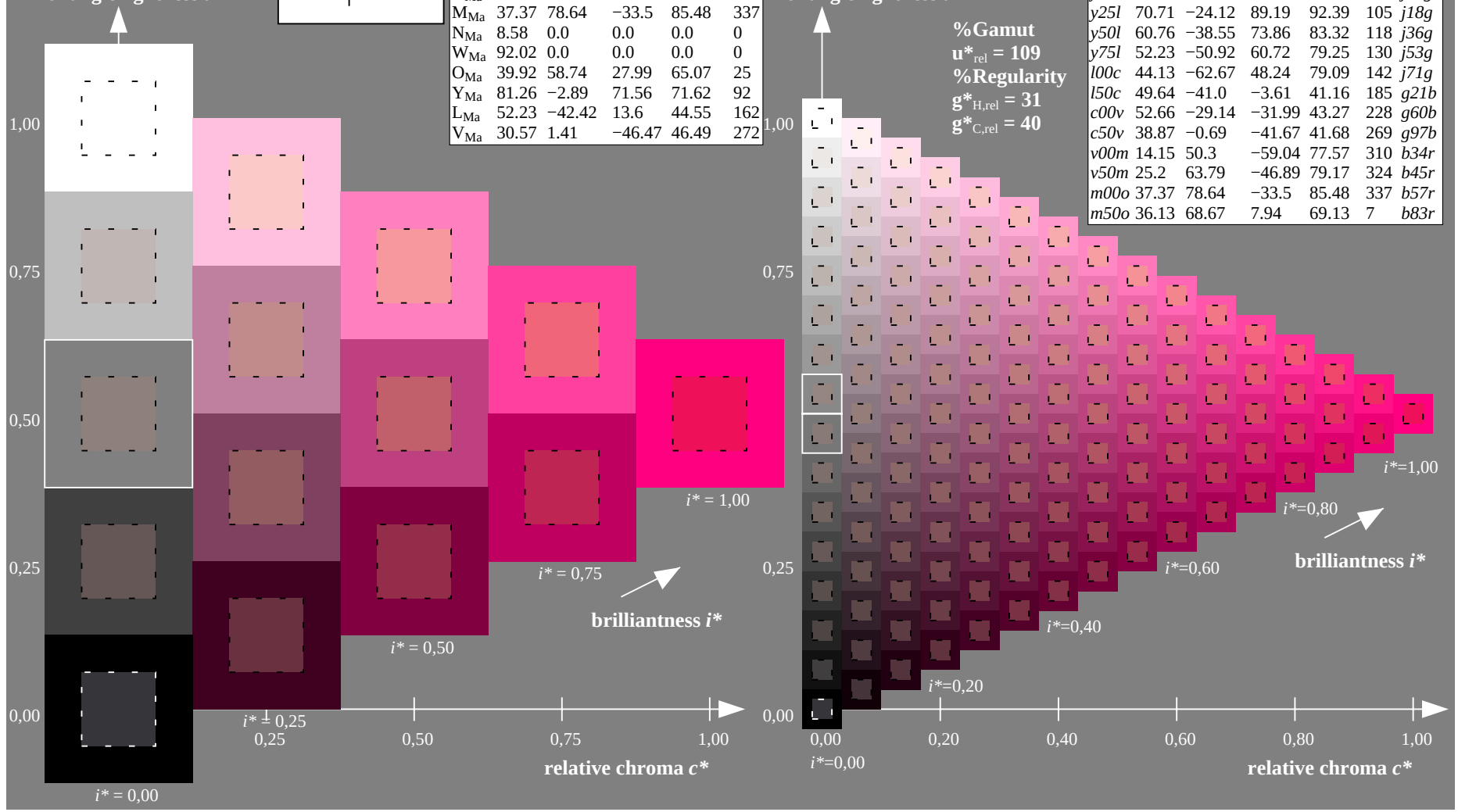
%Regularity

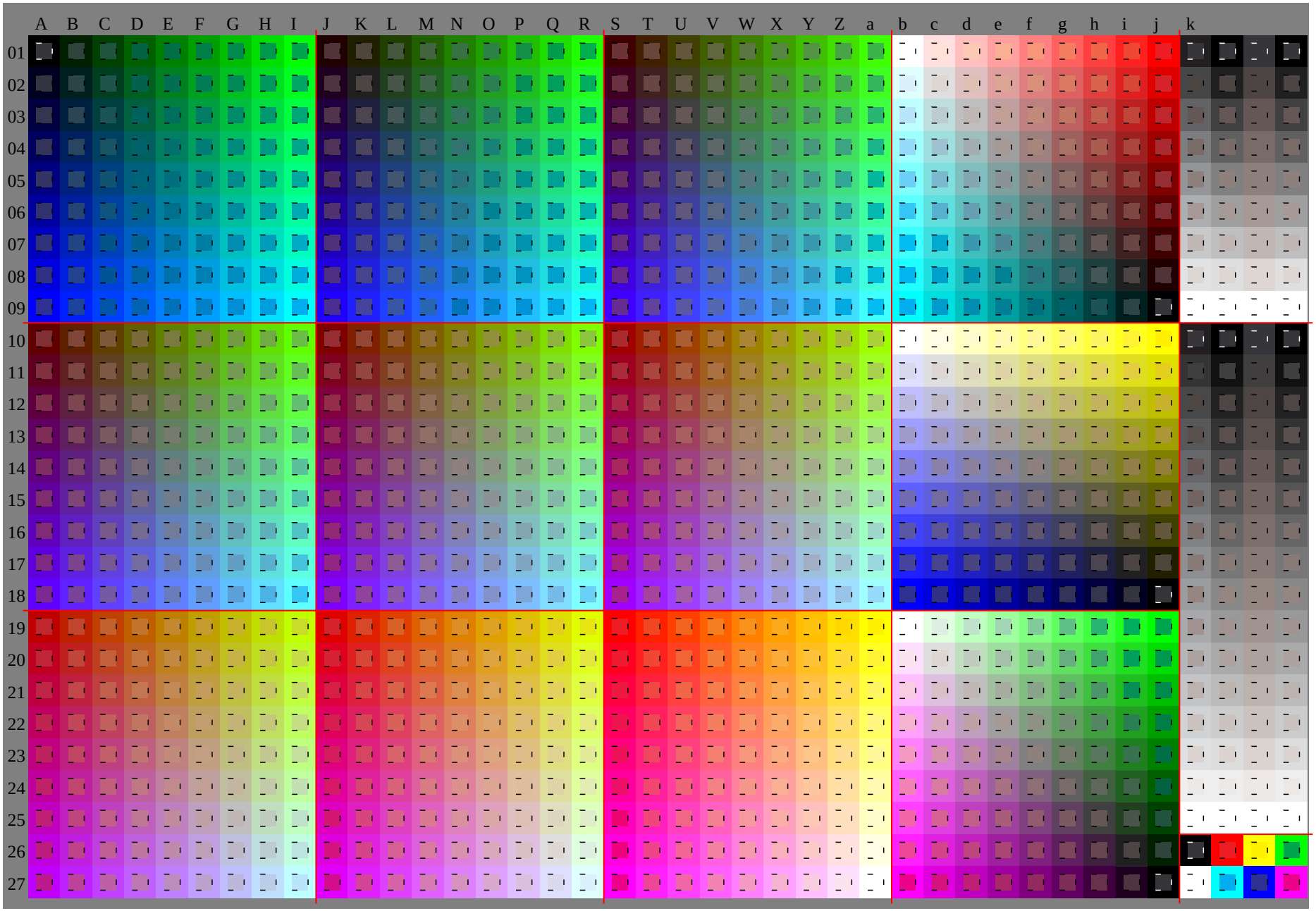
$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

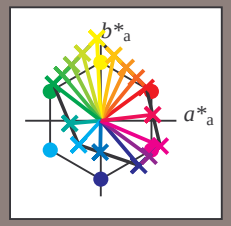



A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

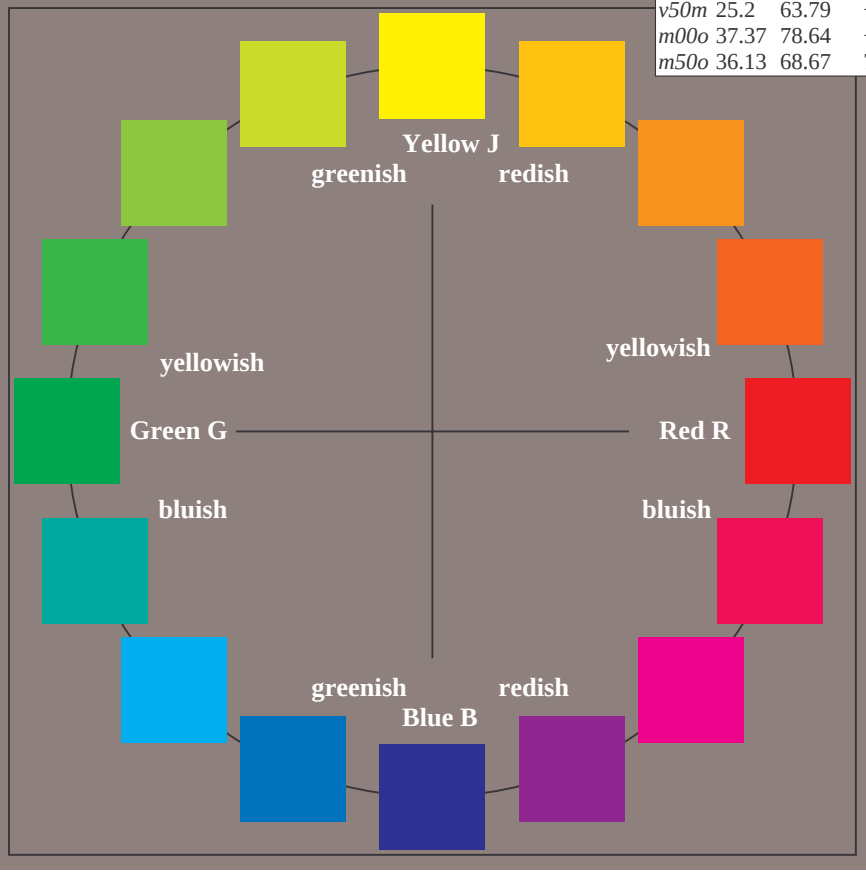
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

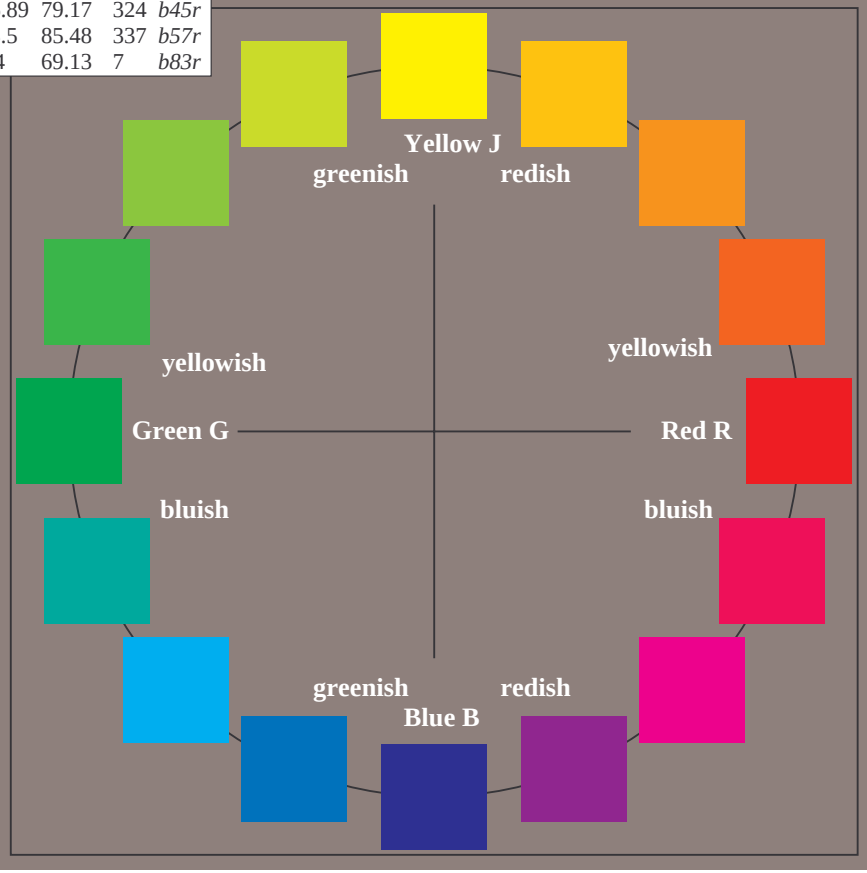


%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$ $u^*_d = o00y$

data for any colour:

*lab*tch** **and** *lab*icu**

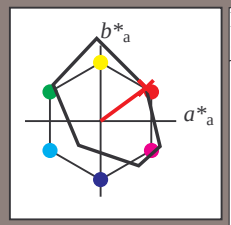
Hue texts:

$u^*_d = o00y$ $u^*_e = r16j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 35 60 44

$LAB^*LCH^*_{Ma}$: 35 74 36

$lab^*olv^*_{Ma}$: 1.0 0.0 0.0

$lab^*rgb^*_{Ma}$: 1.0 0.16 0.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

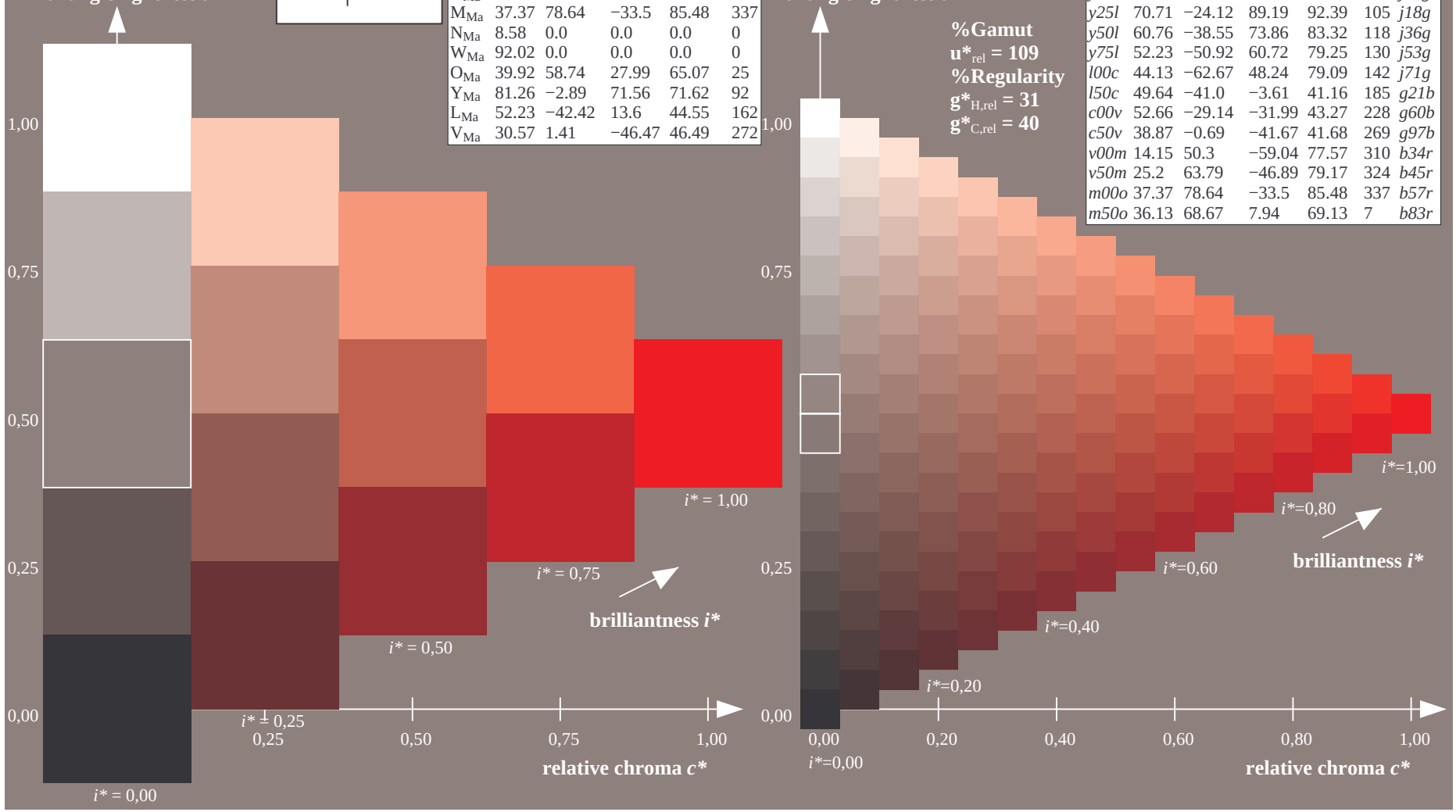
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$ $u^*_d = o25y$

data for any colour:

*lab*tch** **and** *lab*icu**

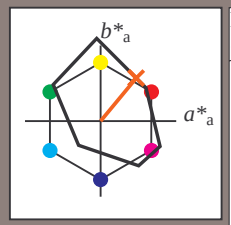
Hue texts:

$u^*_d = o25y$ $u^*_e = r37j$

contrast reduction factor:

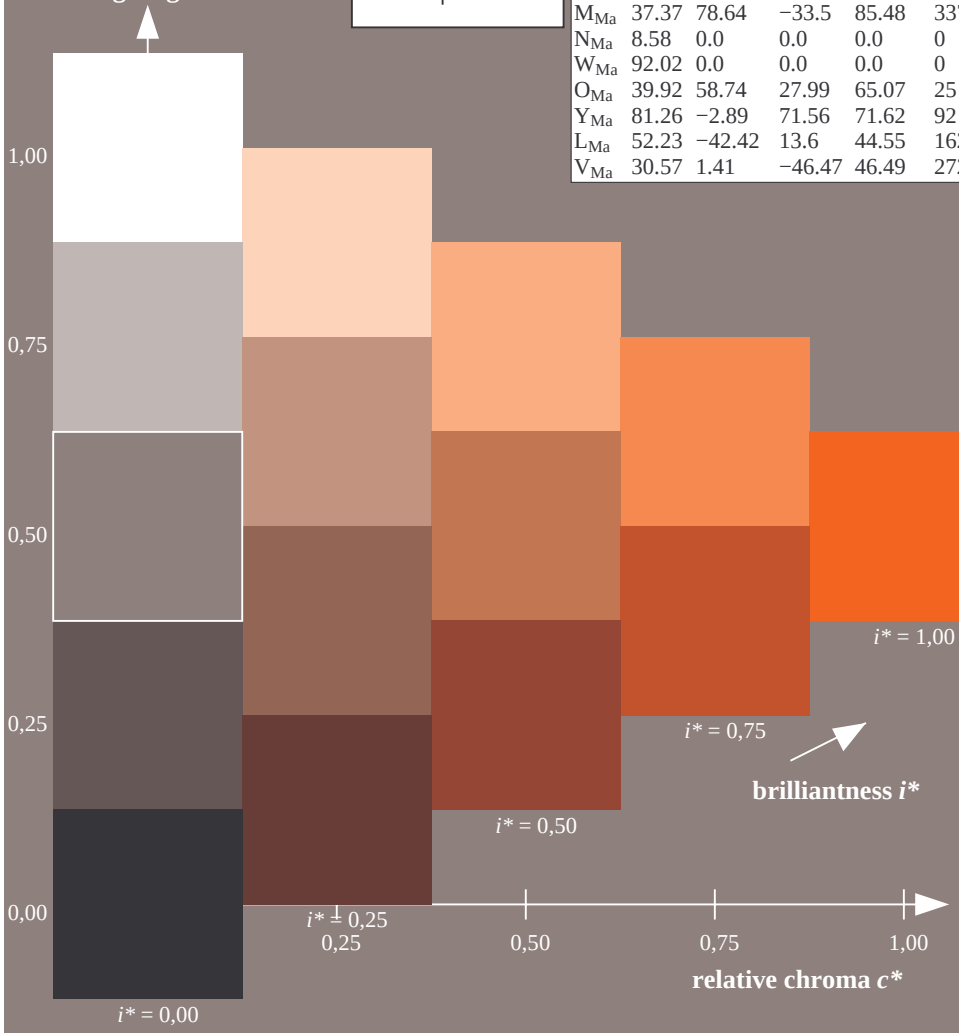
$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 45 47 57

$LAB^*LCH^*_{Ma}$: 45 74 50

$lab^*olv^*_{Ma}$: 1.0 0.25 0.0

$lab^*rgb^*_{Ma}$: 1.0 0.37 0.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

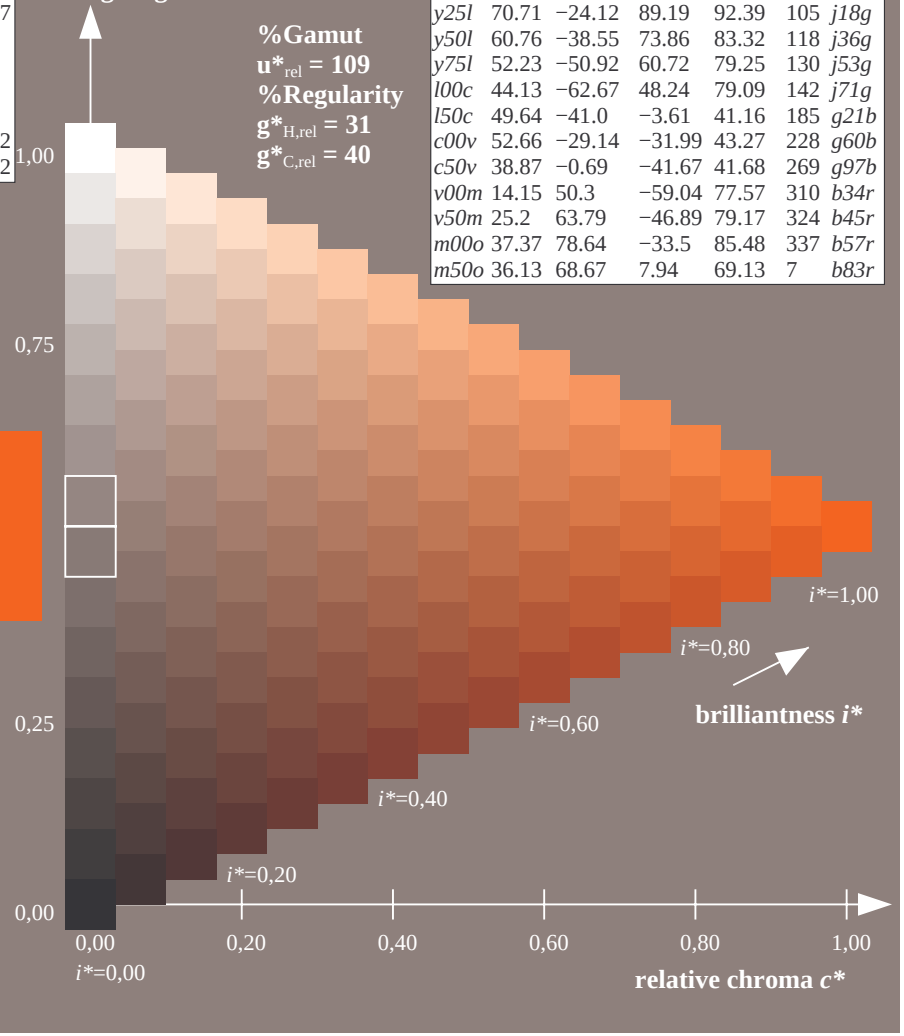
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$ $u^*_d = o50y$

data for any colour:

lab*tch* **and** ***lab*icu****

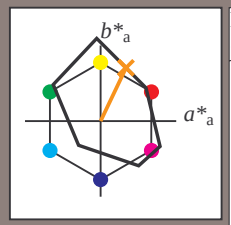
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness ***t****



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 55 34 70**

LAB*LCH*$_{Ma}$**: 55 78 64**

lab*olv*$_{Ma}$**: 1.0 0.5 0.0**

lab*rgb*$_{Ma}$**: 1.0 0.58 0.0**

triangle lightness ***t****

%Gamut

$u^*_{rel} = 109$

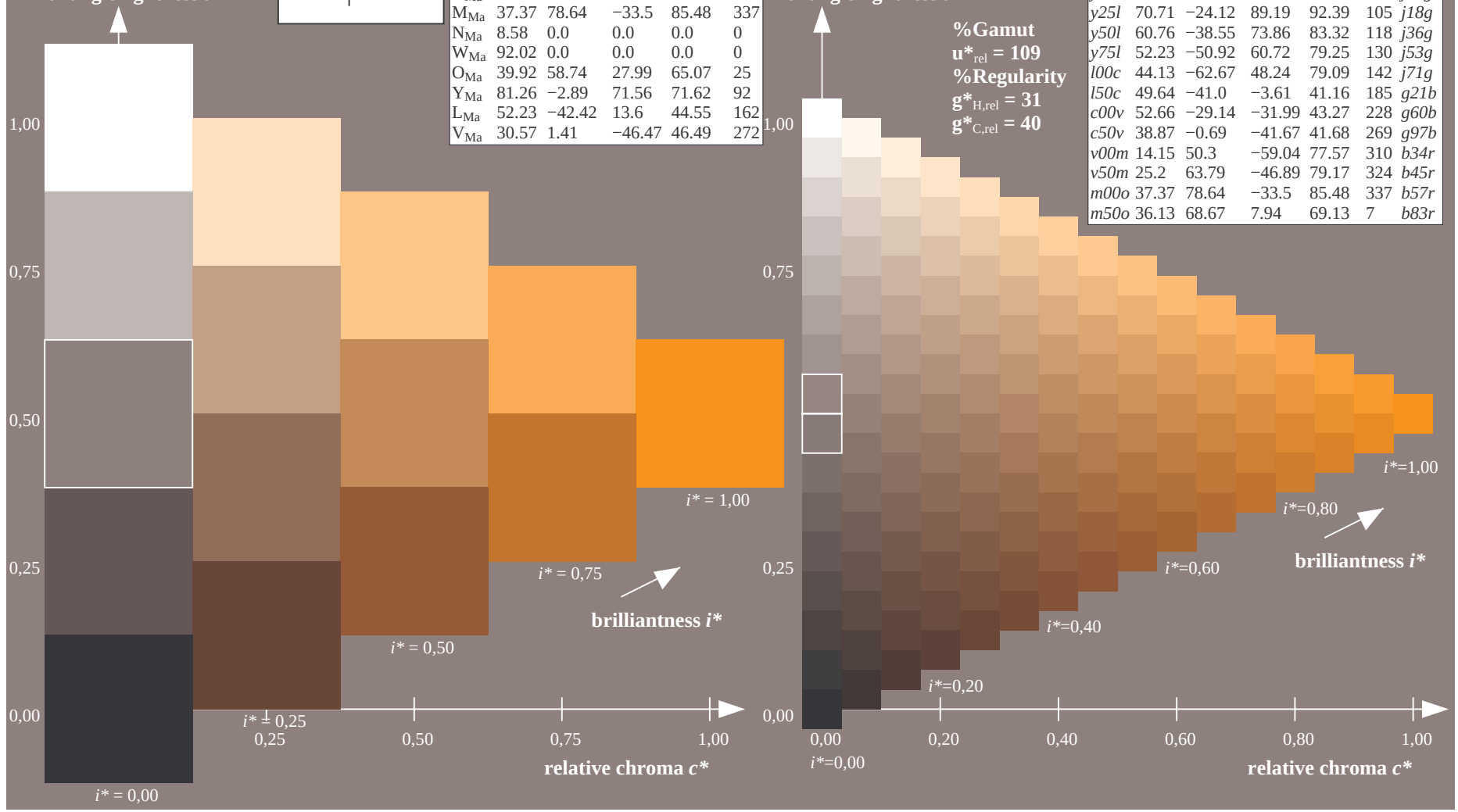
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$ $u^*_d = o75y$

data for any colour:

*lab*tch** **and** *lab*icu**

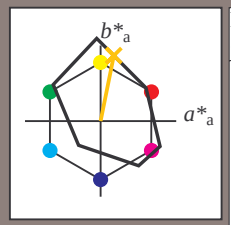
Hue texts:

$u^*_d = o75y$ $u^*_e = r79j$

contrast reduction factor:

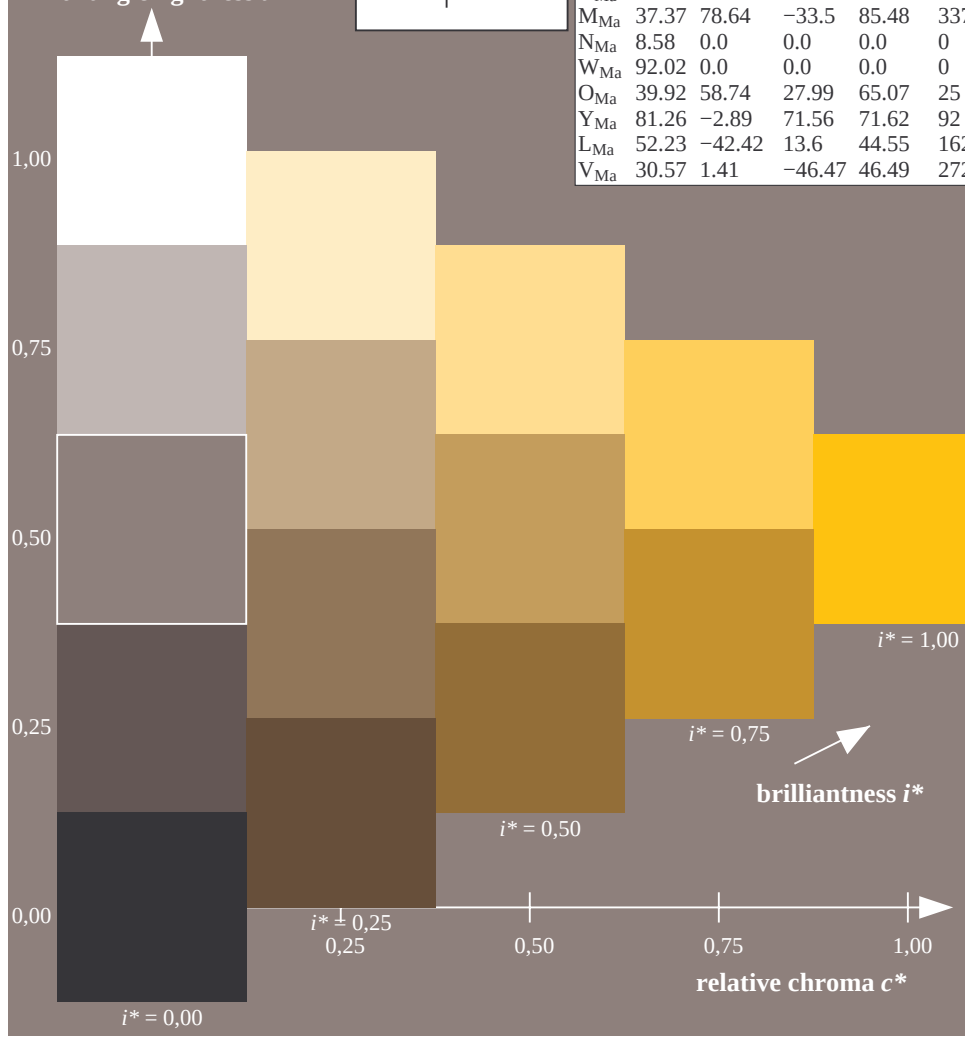
$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 67 17 87**

***LAB*LCH**$_{Ma}$: 67 88 78**

***lab*olv**$_{Ma}$: 1.0 0.75 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.79 0.0**

triangle lightness t^*

%Gamut

u^*_{rel} = 109

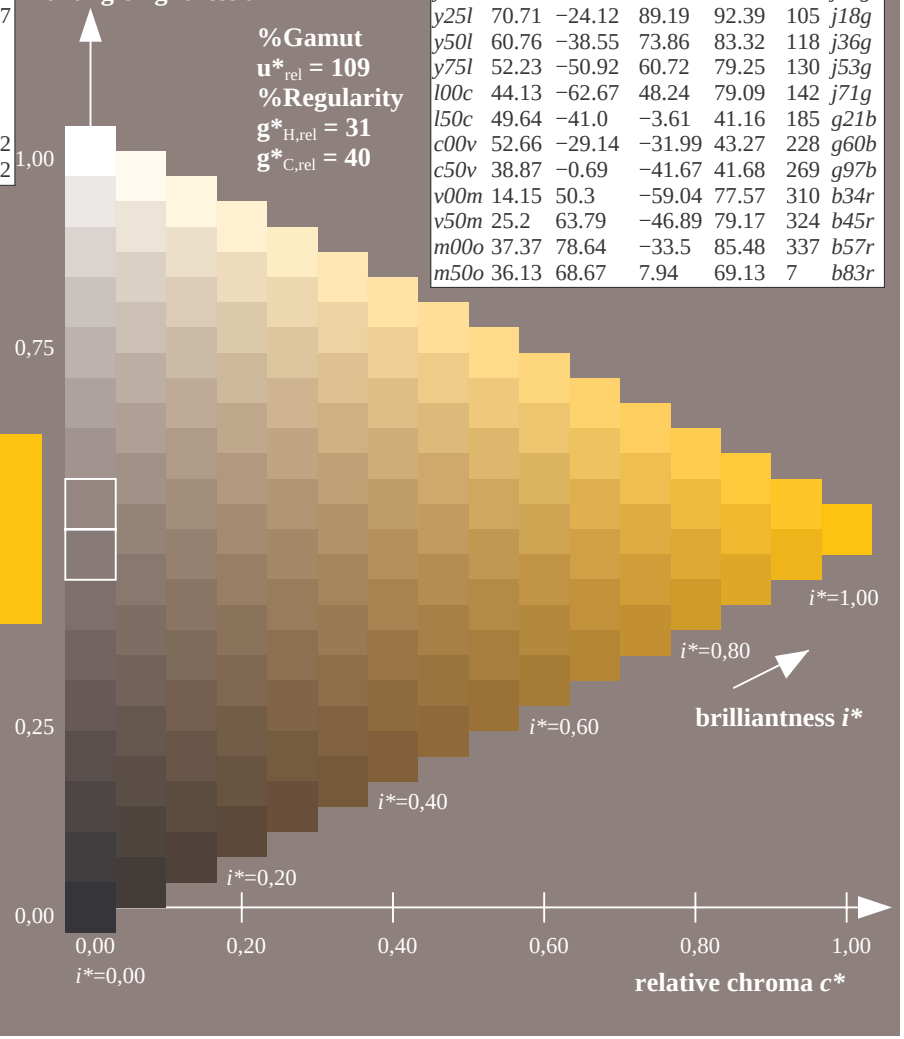
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$ $u^*_d = y00l$

data for any colour:

lab*tch** and *lab*icu*

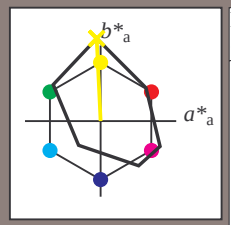
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

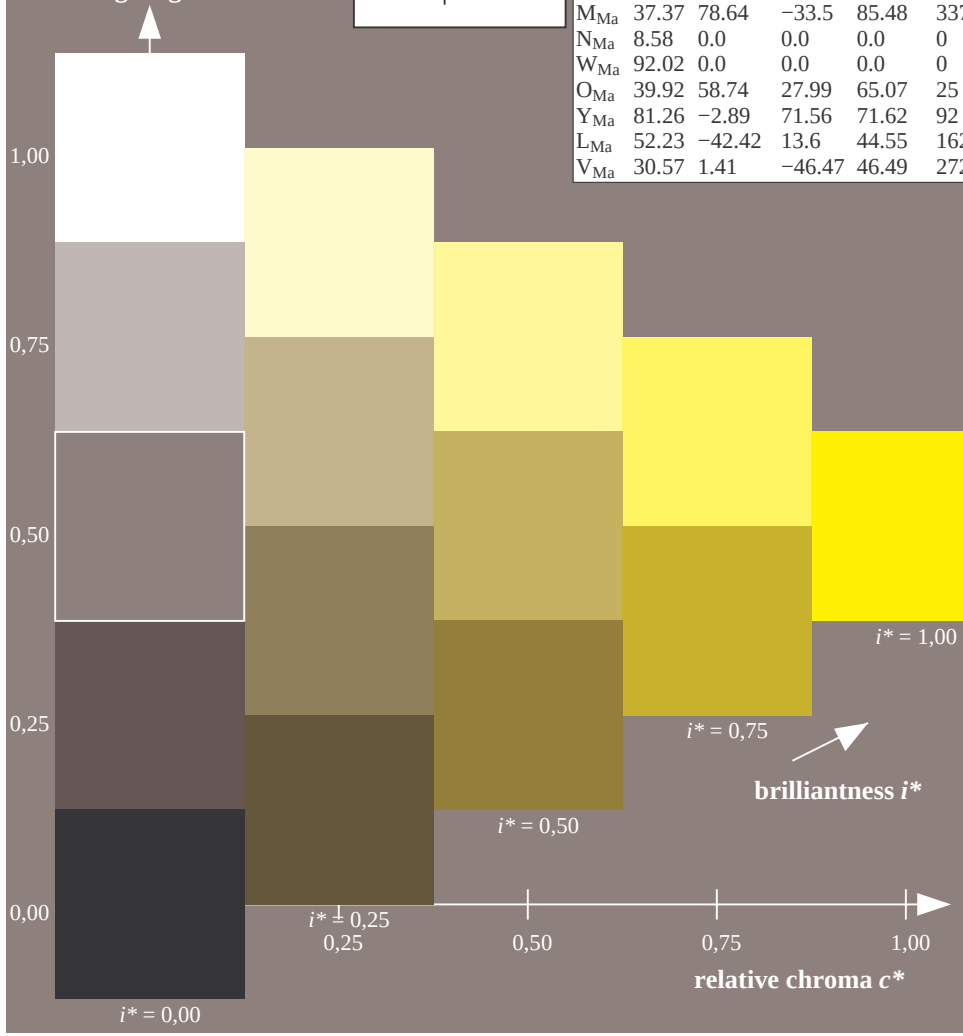
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 84 −5 109**

***LAB*LCH**$_{Ma}$: 84 109 92**

***lab*olv**$_{Ma}$: 1.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.99 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

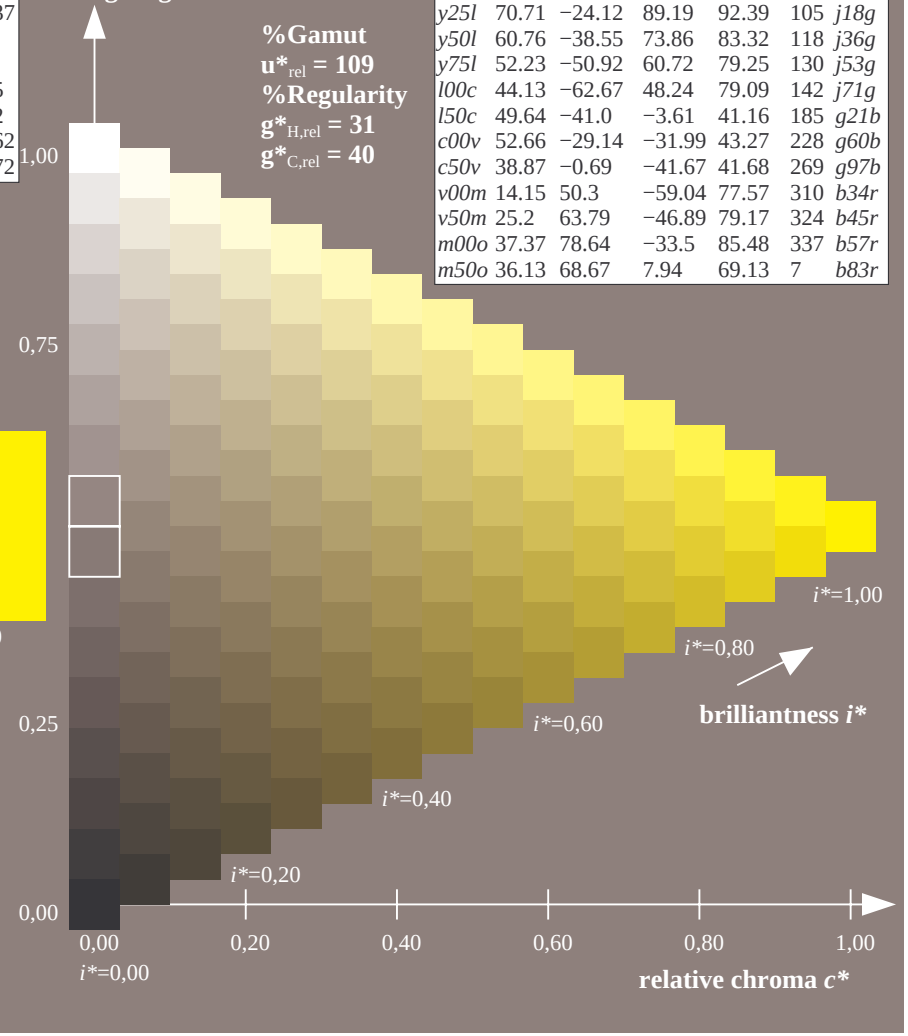
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$ $u^*_d = y25l$

data for any colour:

lab*tch* **and** ***lab*icu****

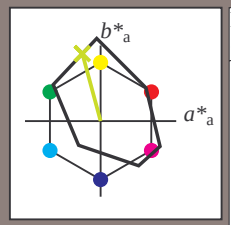
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 71 −24 89**

LAB*LCH*$_{Ma}$**: 71 92 105**

lab*olv*$_{Ma}$**: 0.75 1.0 0.0**

lab*rgb*$_{Ma}$**: 0.82 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

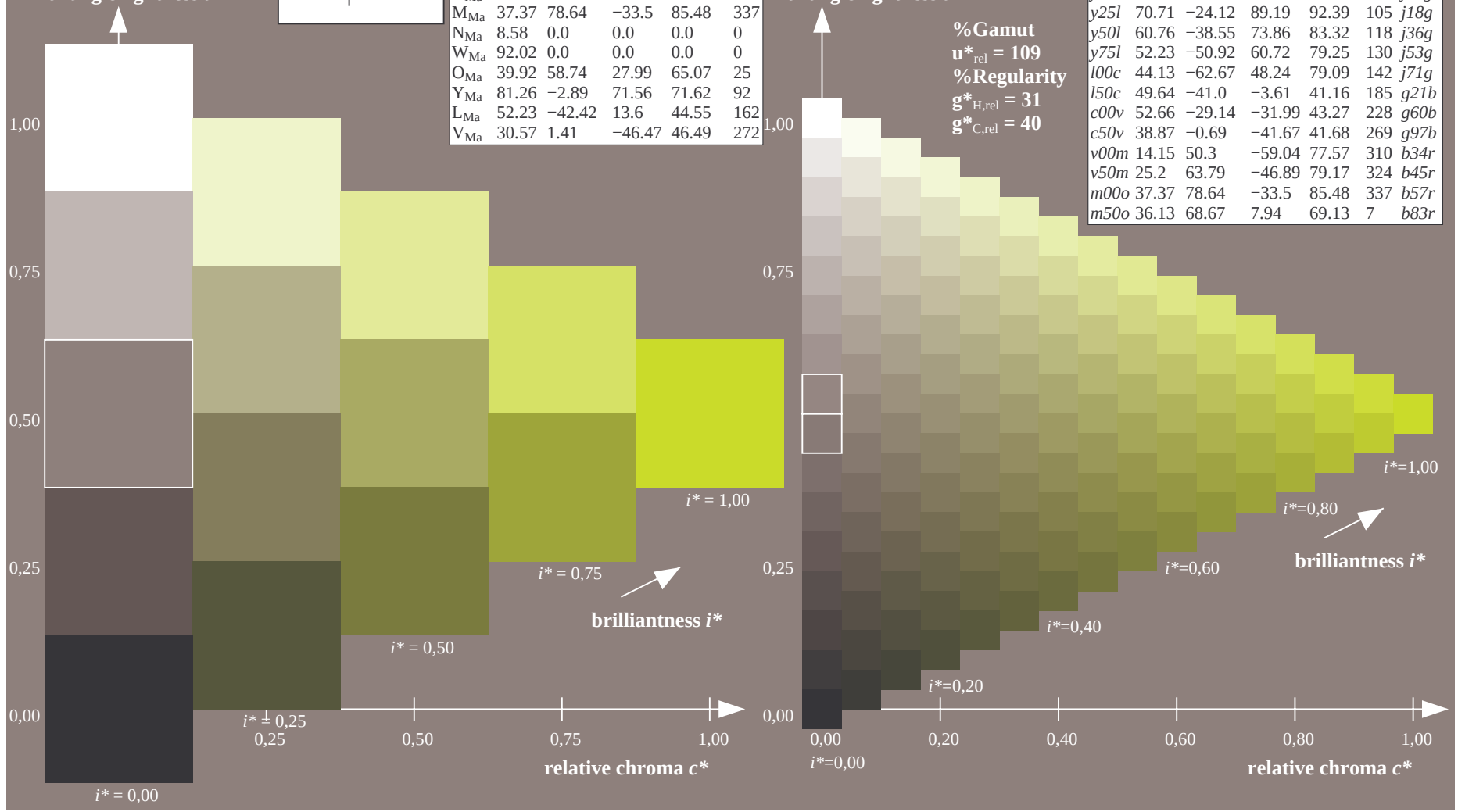
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$ $u^*_d = y50l$

data for any colour:

*lab*tch** **and** *lab*icu**

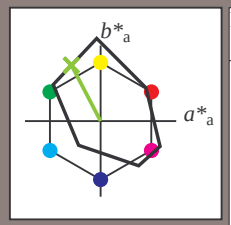
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 61 −39 74

$LAB^*LCH^*_{Ma}$: 61 83 117

$lab^*olv^*_{Ma}$: 0.5 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.64 1.0 0.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

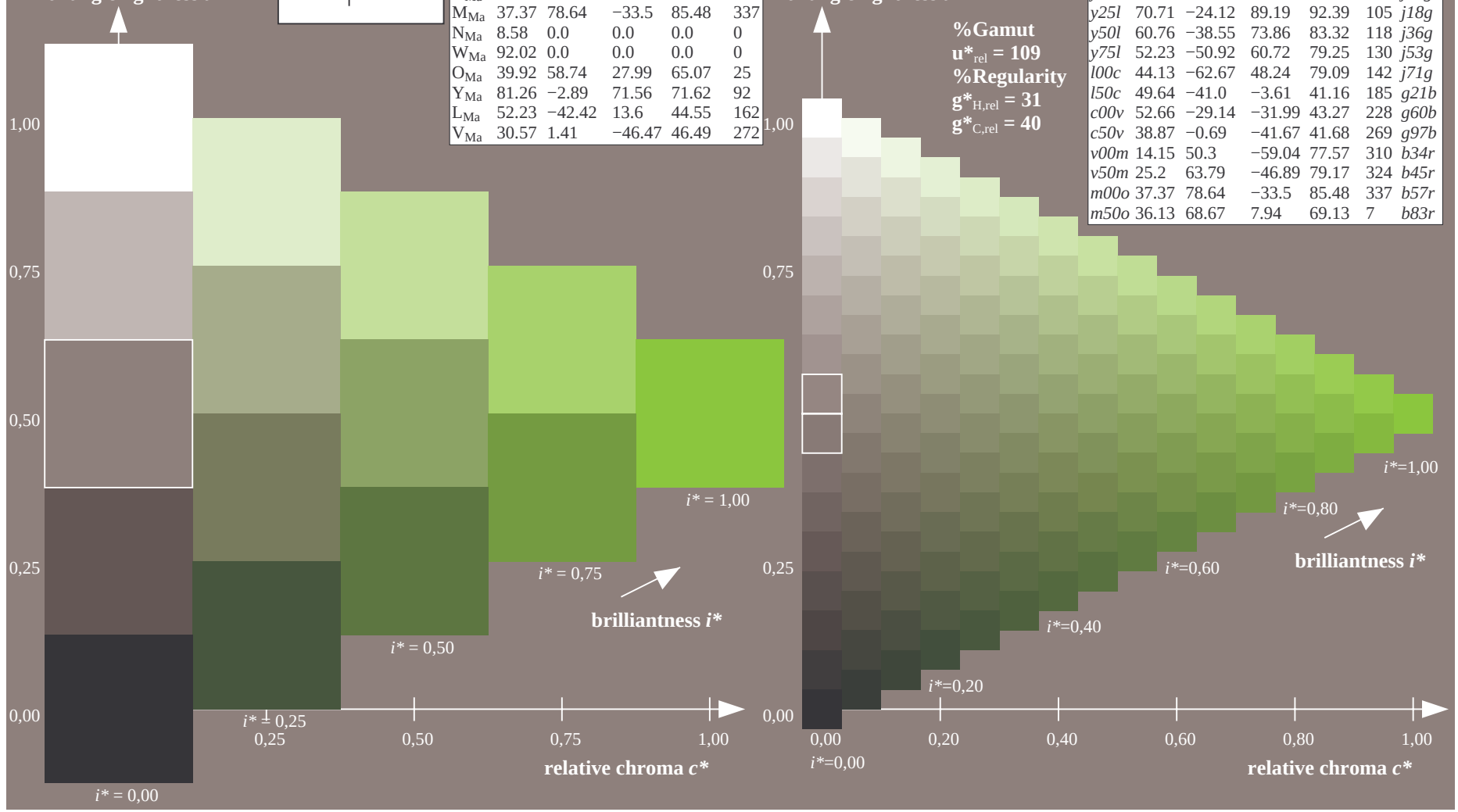
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$ $u^*_d = y75l$

data for any colour:

lab*tch** and *lab*icu*

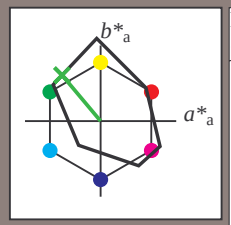
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

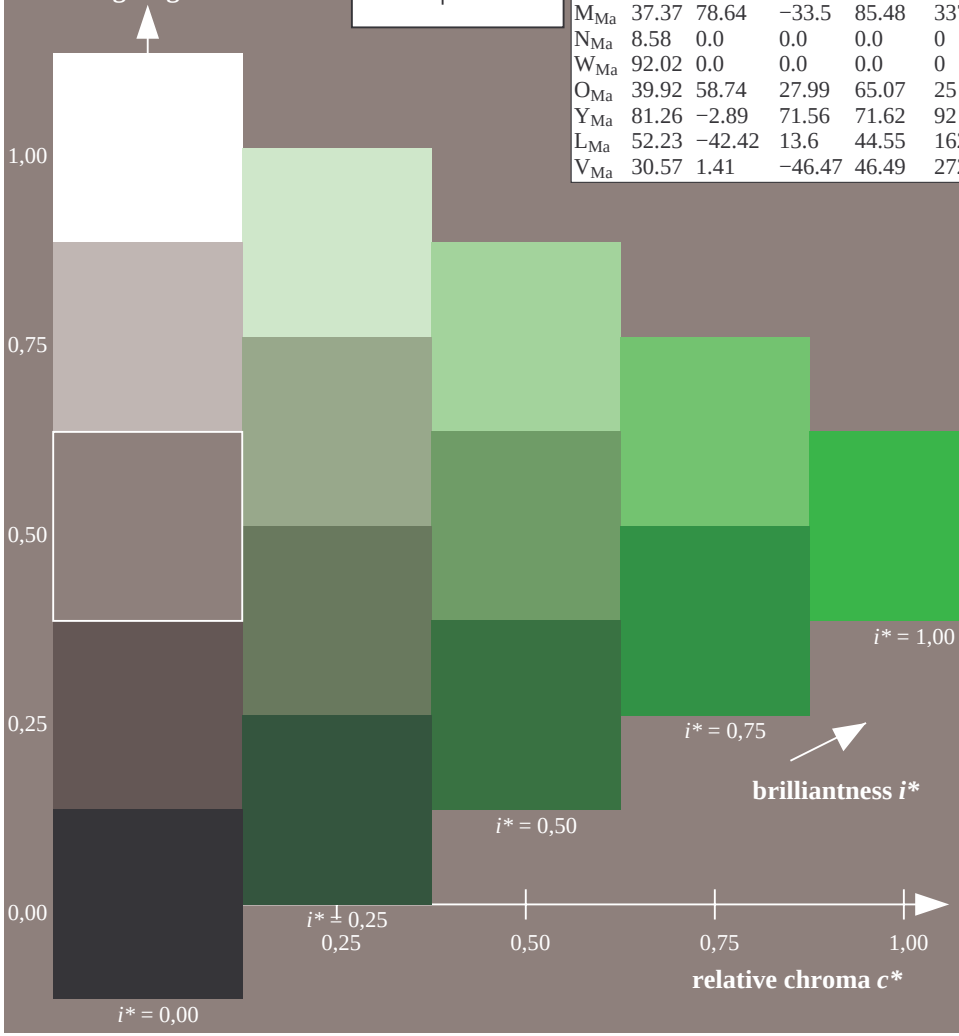
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 52 −51 61**

***LAB*LCH**$_{Ma}$: 52 79 129**

***lab*olv**$_{Ma}$: 0.25 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.46 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

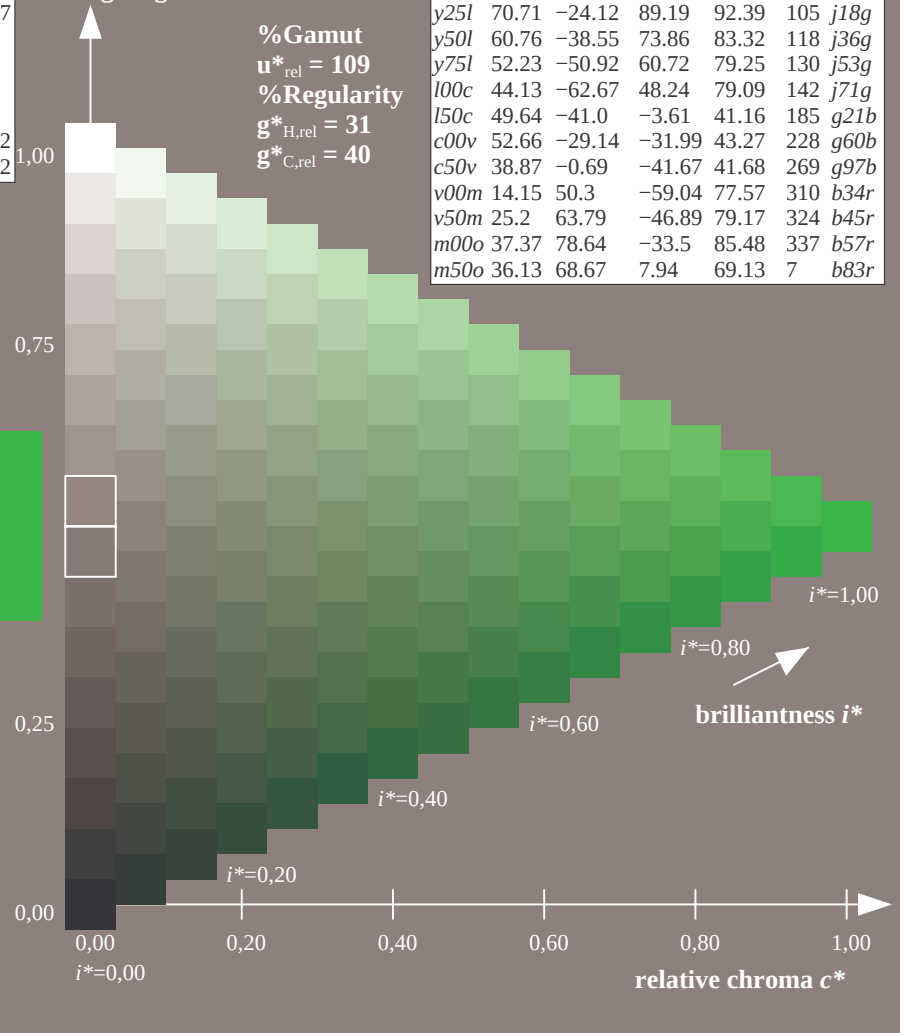
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$ $u^*_d = l00c$

data for any colour:

lab*tch** and *lab*icu*

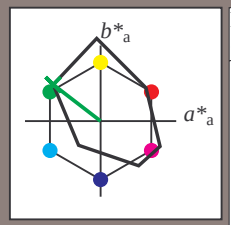
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

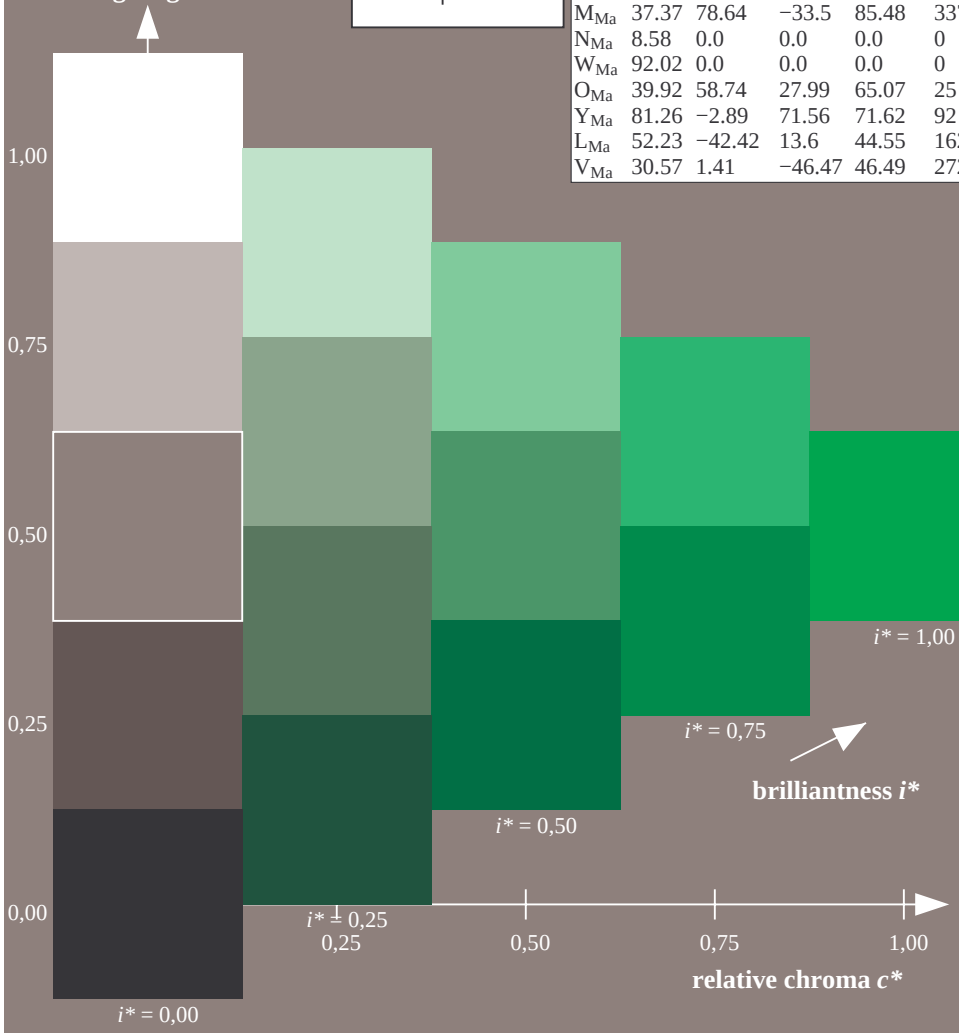
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 44 −63 48**

***LAB*LCH**$_{Ma}$: 44 79 142**

***lab*olv**$_{Ma}$: 0.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.28 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

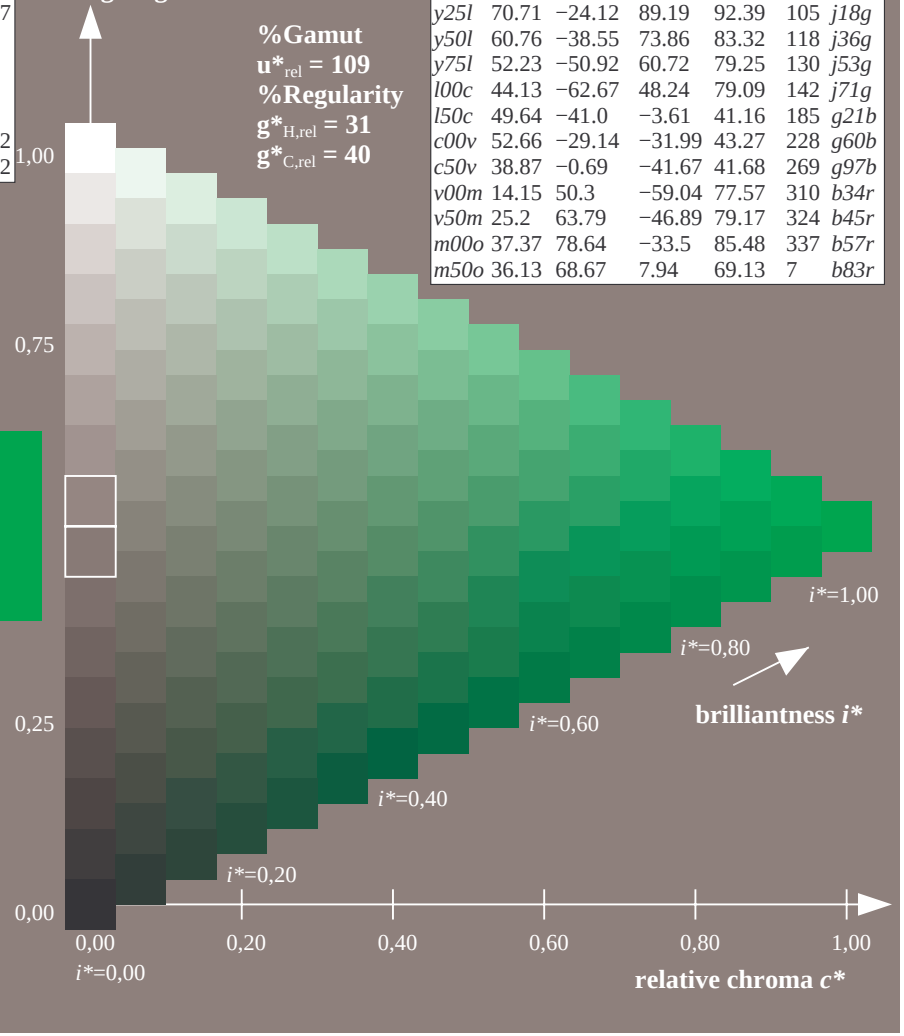
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$ $u^*_d = l50c$

data for any colour:

*lab*tch** **and** *lab*icu**

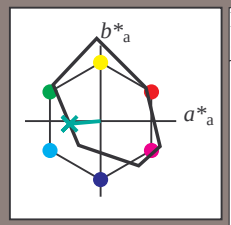
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 50 −41 −4

$LAB^*LCH^*_{Ma}$: 50 41 185

$lab^*olv^*_{Ma}$: 0.0 1.0 0.5

$lab^*rgb^*_{Ma}$: 0.0 1.0 0.42

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

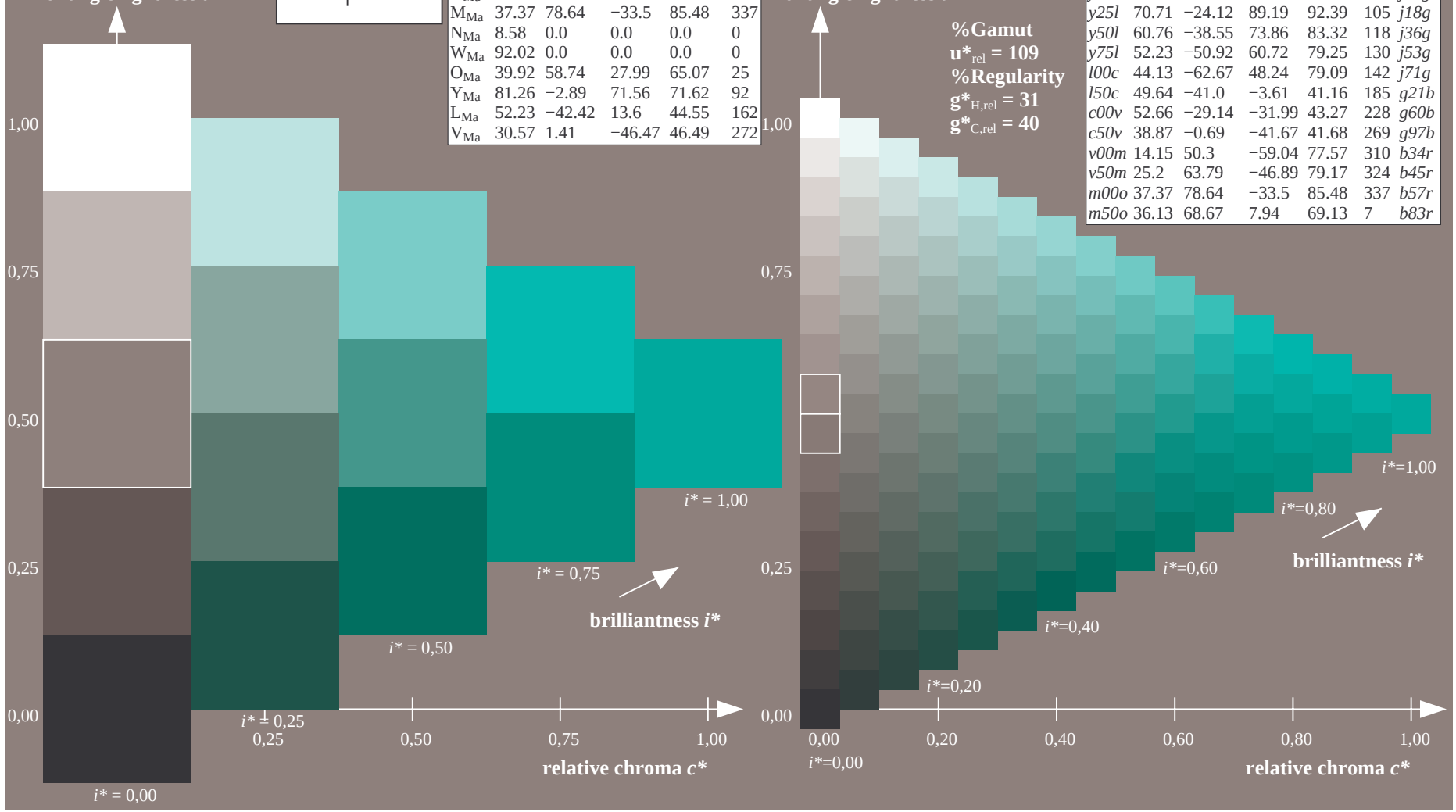
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$ $u^*_d = c00v$

data for any colour:

*lab*tch** **and** *lab*icu**

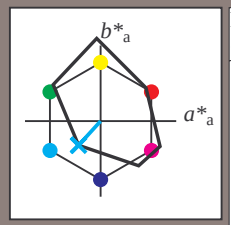
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 53 −29 −32

$LAB^*LCH^*_{Ma}$: 53 43 227

$lab^*olv^*_{Ma}$: 0.0 1.0 1.0

$lab^*rgb^*_{Ma}$: 0.0 0.8 1.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

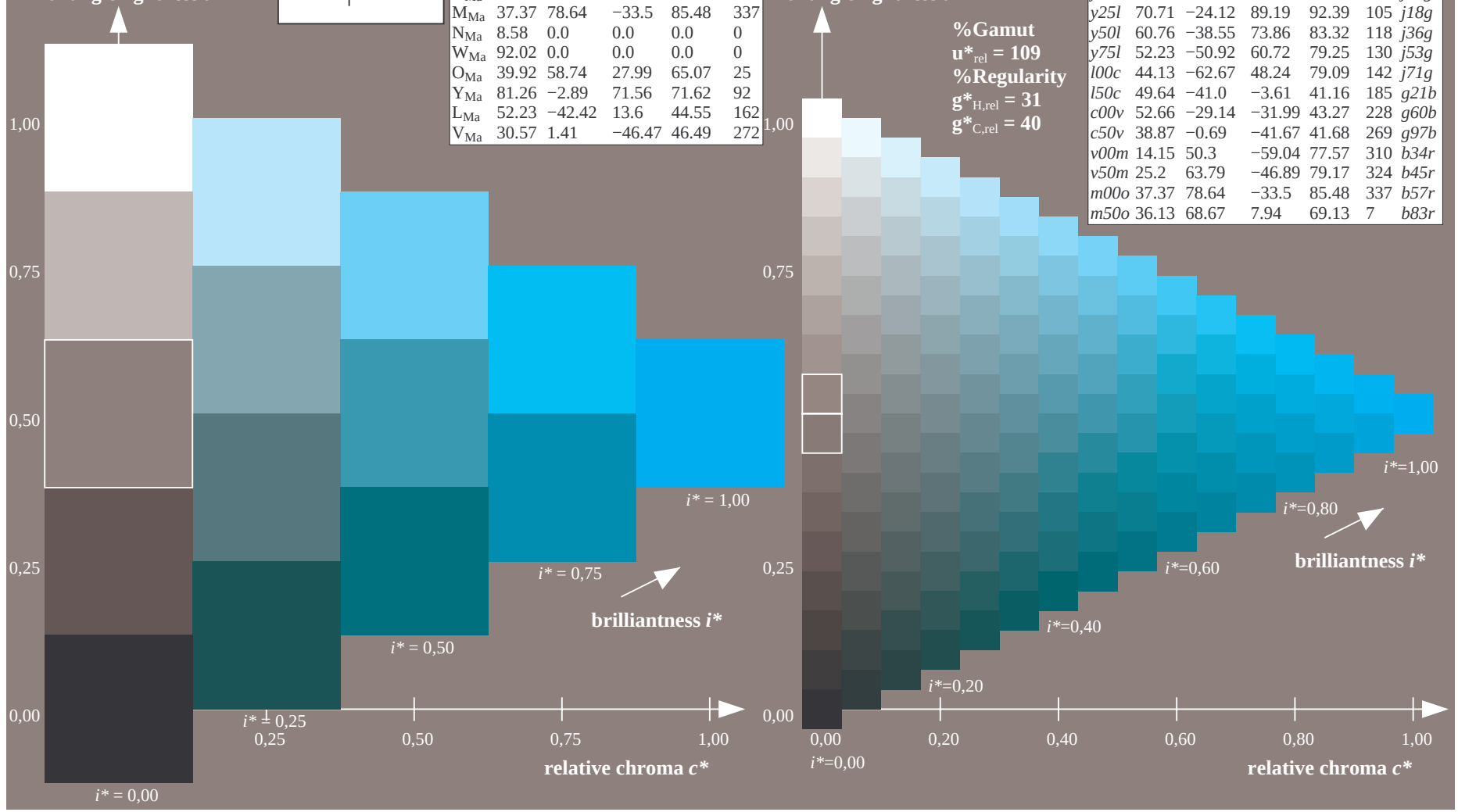
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$ $u^*_d = c50v$

data for any colour:

lab*tch* **and** ***lab*icu****

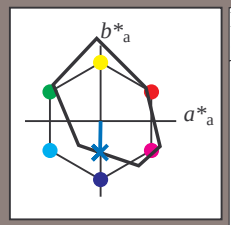
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

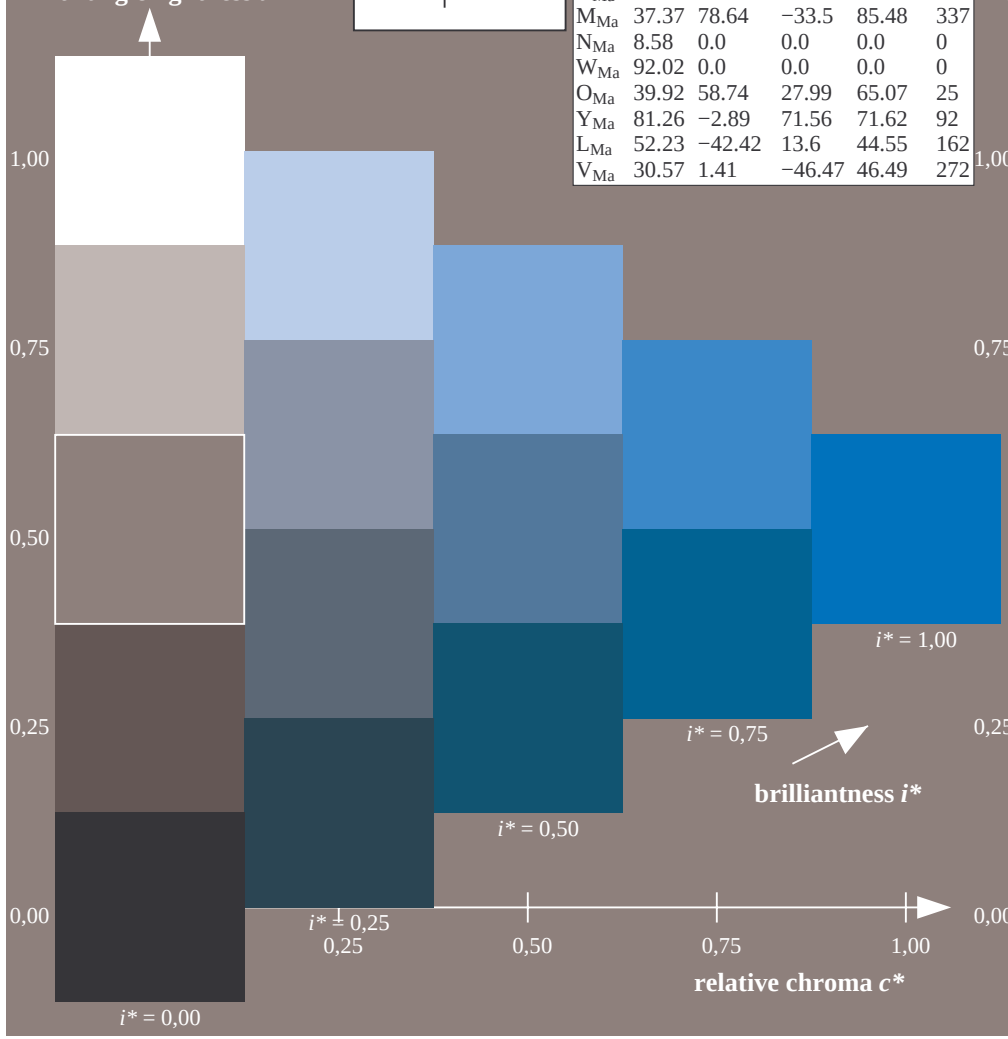
$c_R = 1.0$

triangle lightness ***t****



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 39 −1 −42**

LAB*LCH*$_{Ma}$**: 39 42 269**

lab*olv*$_{Ma}$**: 0.0 0.5 1.0**

lab*rgb*$_{Ma}$**: 0.0 0.05 1.0**

triangle lightness ***t****

%Gamut

u^*_{rel} = 109

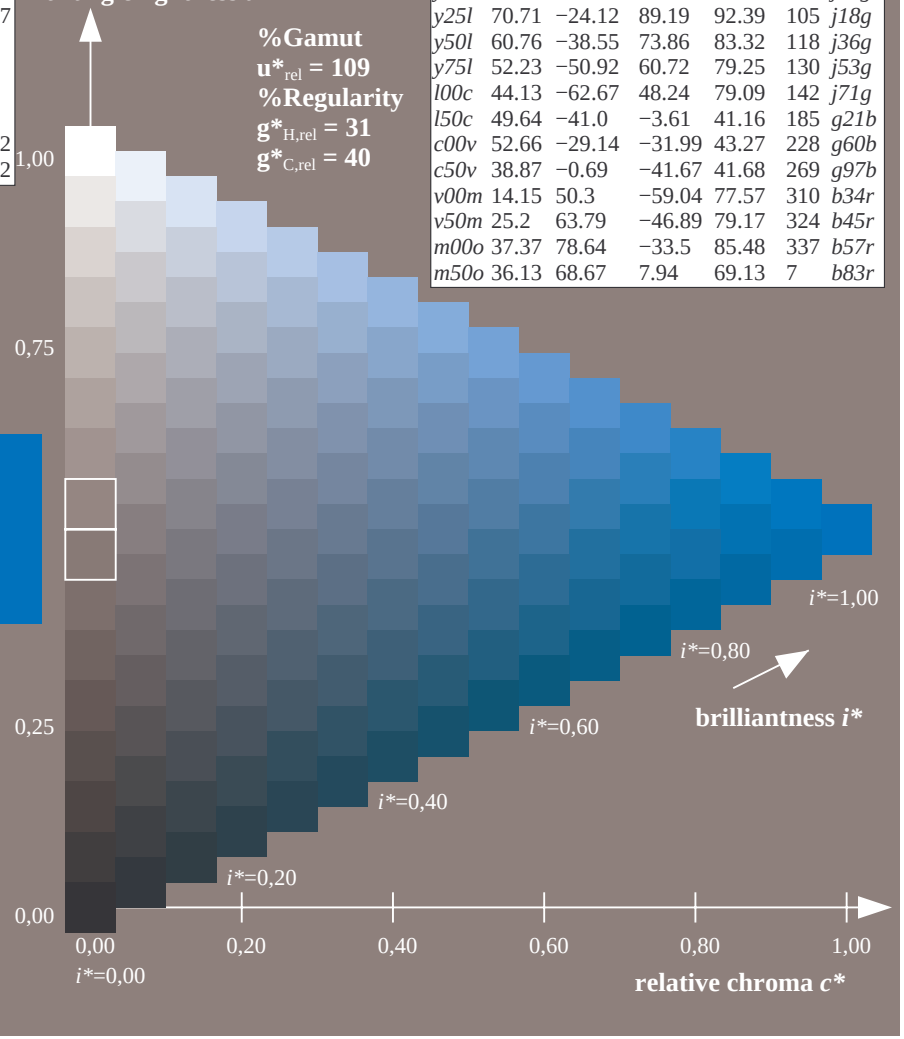
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$ $u^*_d = v00m$

data for any colour:

lab*tch* **and** ***lab*icu****

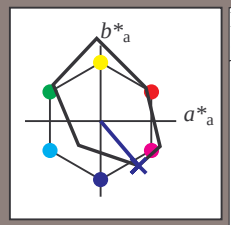
Hue texts:

$u^*_d = v00m$ $u^*_e = b34r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 14 50 −59**

LAB*LCH*$_{Ma}$**: 14 78 310**

lab*olv*$_{Ma}$**: 0.0 0.0 1.0**

lab*rgb*$_{Ma}$**: 0.68 0.0 1.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

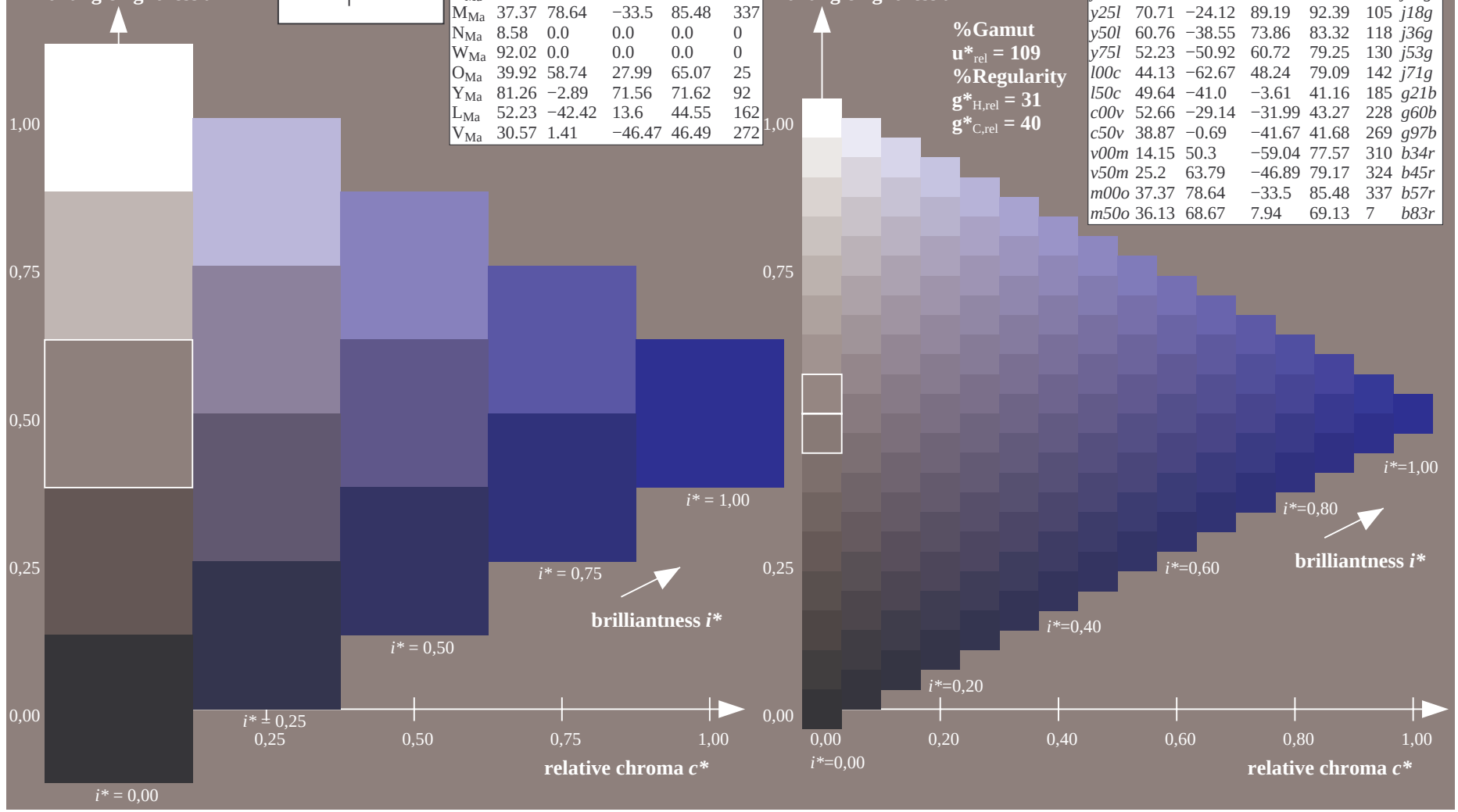
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$ $u^*_d = v50m$

data for any colour:

lab*tch* **and** ***lab*icu****

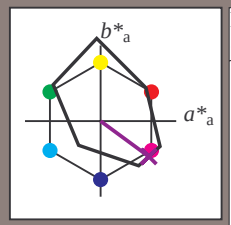
Hue texts:

$u^*_d = v50m$ $u^*_e = b45r$

contrast reduction factor:

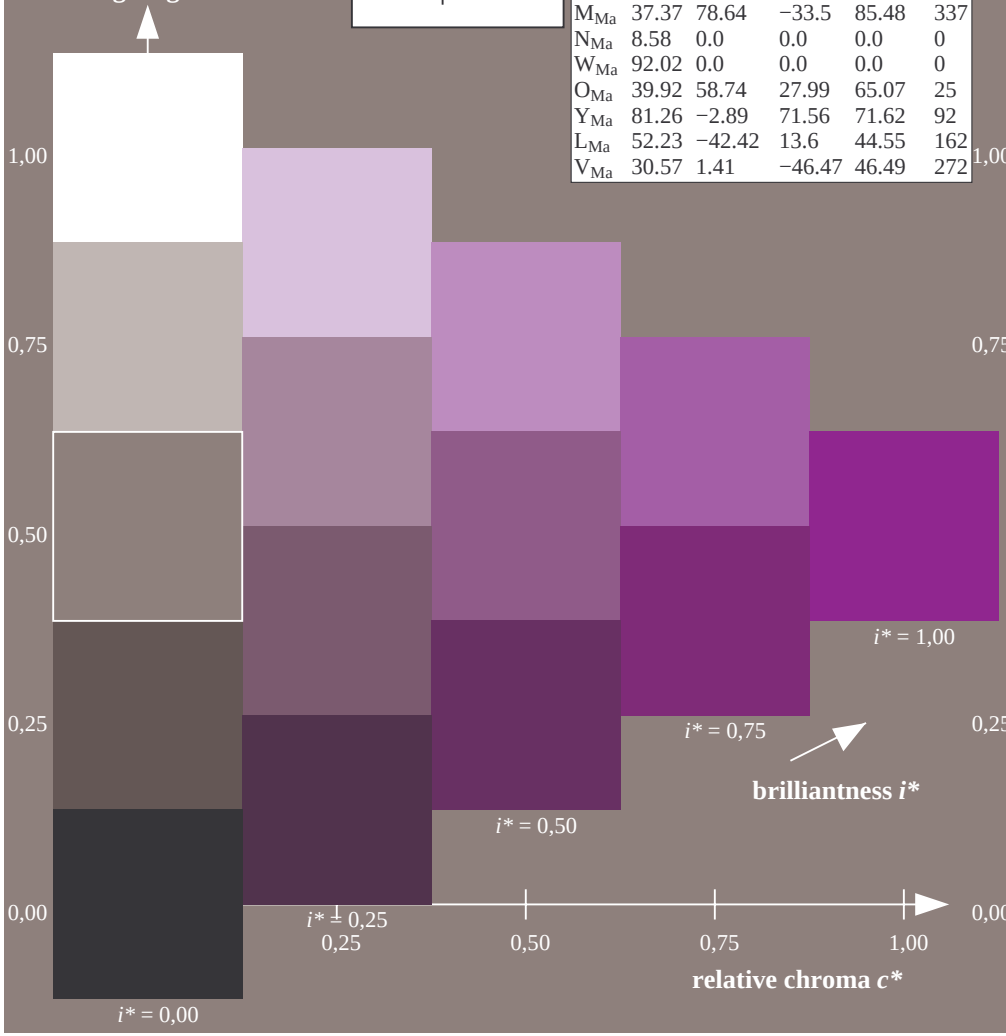
$c_R = 1.0$

triangle lightness ***t****



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 25 64 −47**

LAB*LCH*$_{Ma}$**: 25 79 323**

lab*olv*$_{Ma}$**: 0.5 0.0 1.0**

lab*rgb*$_{Ma}$**: 0.91 0.0 1.0**

triangle lightness ***t****

%Gamut

$u^*_{rel} = 109$

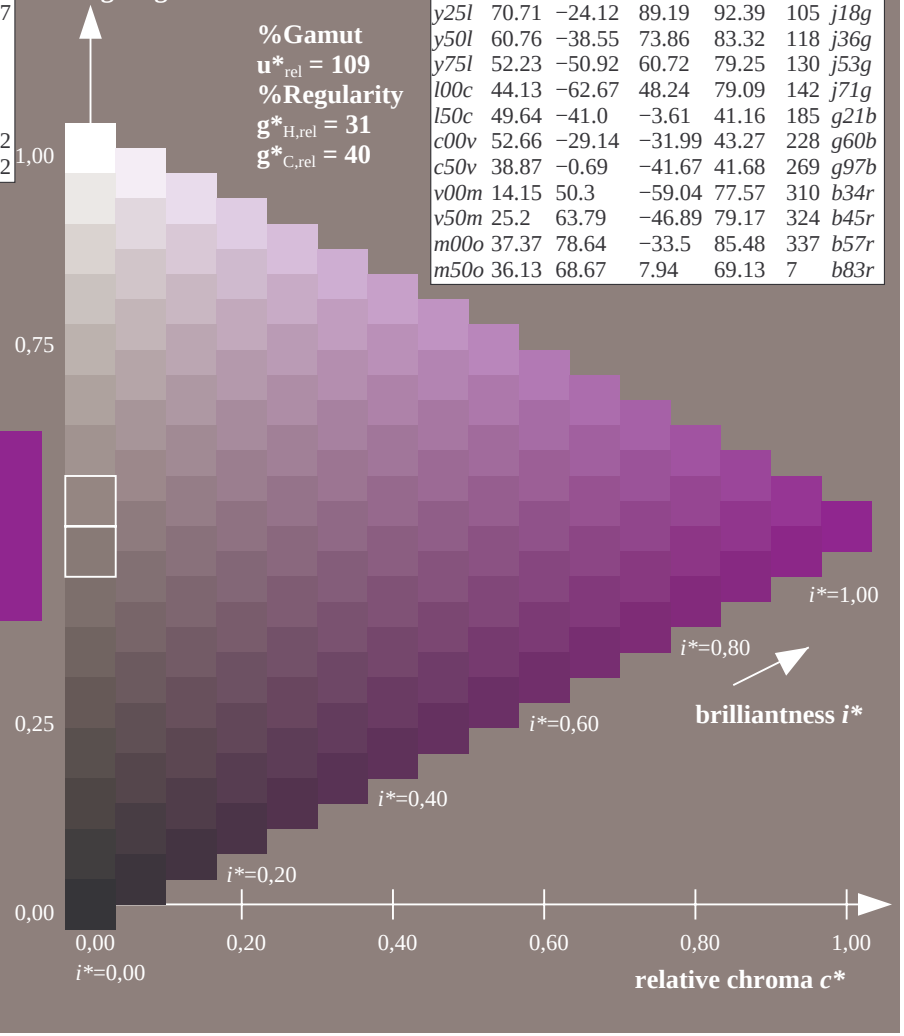
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$ $u^*_d = m00o$

data for any colour:

lab*tch** and *lab*icu*

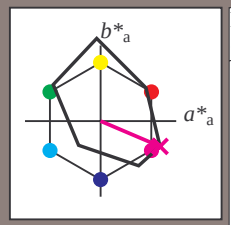
Hue texts:

$u^*_d = m00o$ $u^*_e = b57r$

contrast reduction factor:

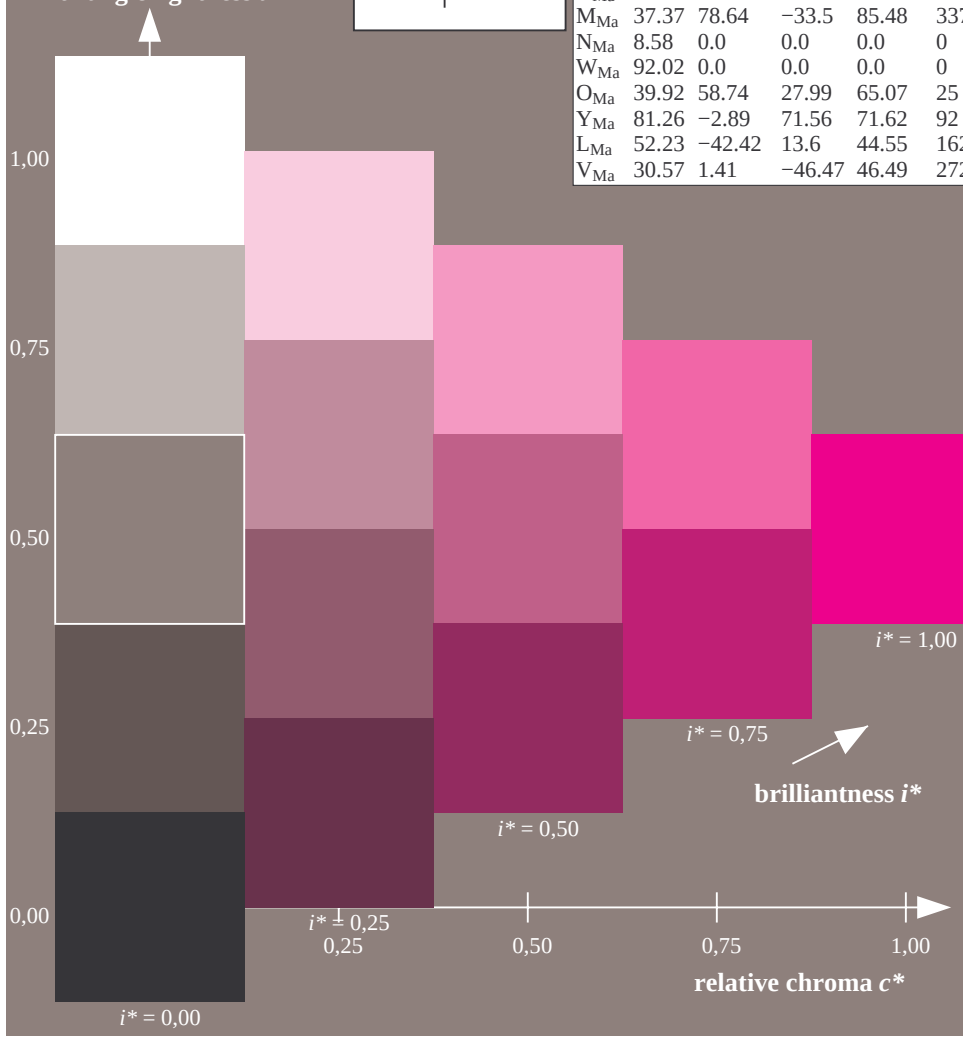
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 37 79 −34**

***LAB*LCH**$_{Ma}$: 37 85 336**

***lab*olv**$_{Ma}$: 1.0 0.0 1.0**

***lab*rgb**$_{Ma}$: 1.0 0.0 0.85**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

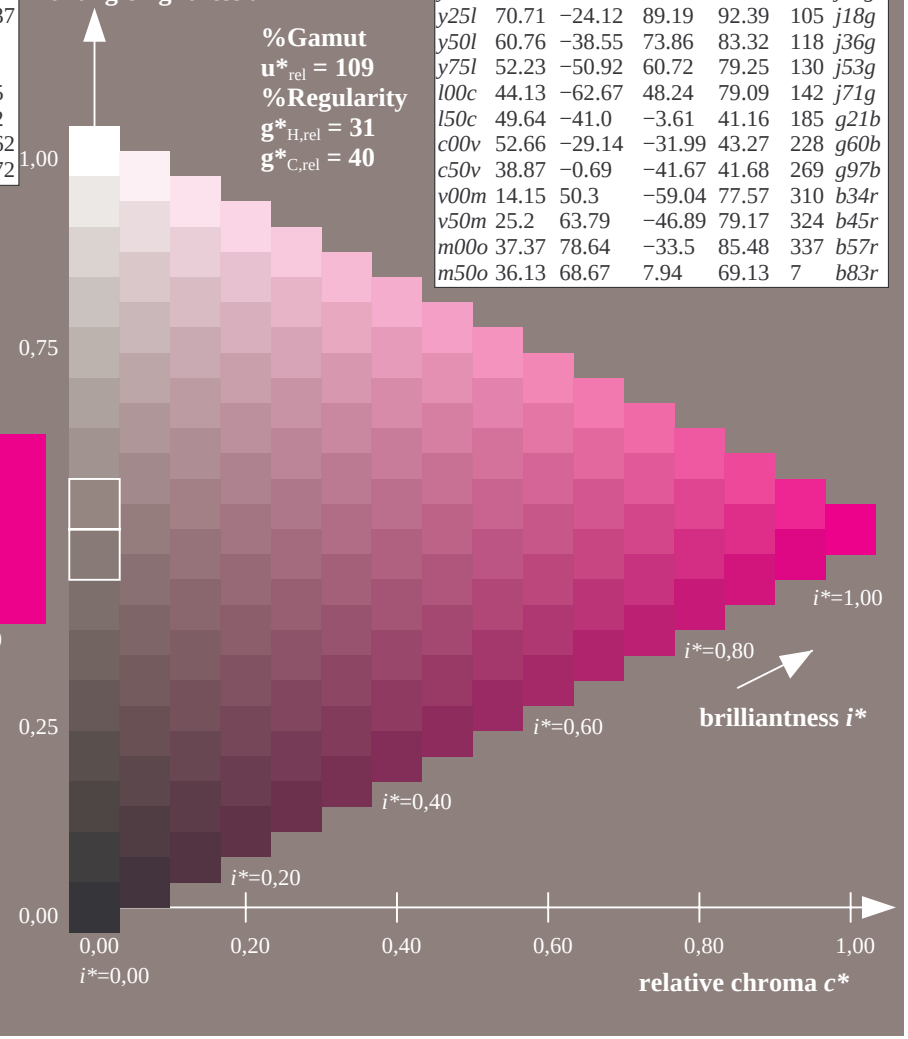
%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$ $u^*_d = m50o$

data for any colour:

lab*tch* **and** ***lab*icu****

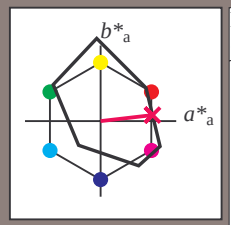
Hue texts:

$u^*_d = m50o$ $u^*_e = b83r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness ***t****



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 36 69 8**

LAB*LCH*$_{Ma}$**: 36 69 6**

lab*olv*$_{Ma}$**: 1.0 0.0 0.5**

lab*rgb*$_{Ma}$**: 1.0 0.0 0.33**

triangle lightness ***t****

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

1,00
0,75
0,50
0,25
0,00

*i** = 0,00
*i** = 0,25
*i** = 0,50
*i** = 0,75
*i** = 1,00

brilliantness ***i****

0,25 0,50 0,75 1,00

relative chroma ***c****

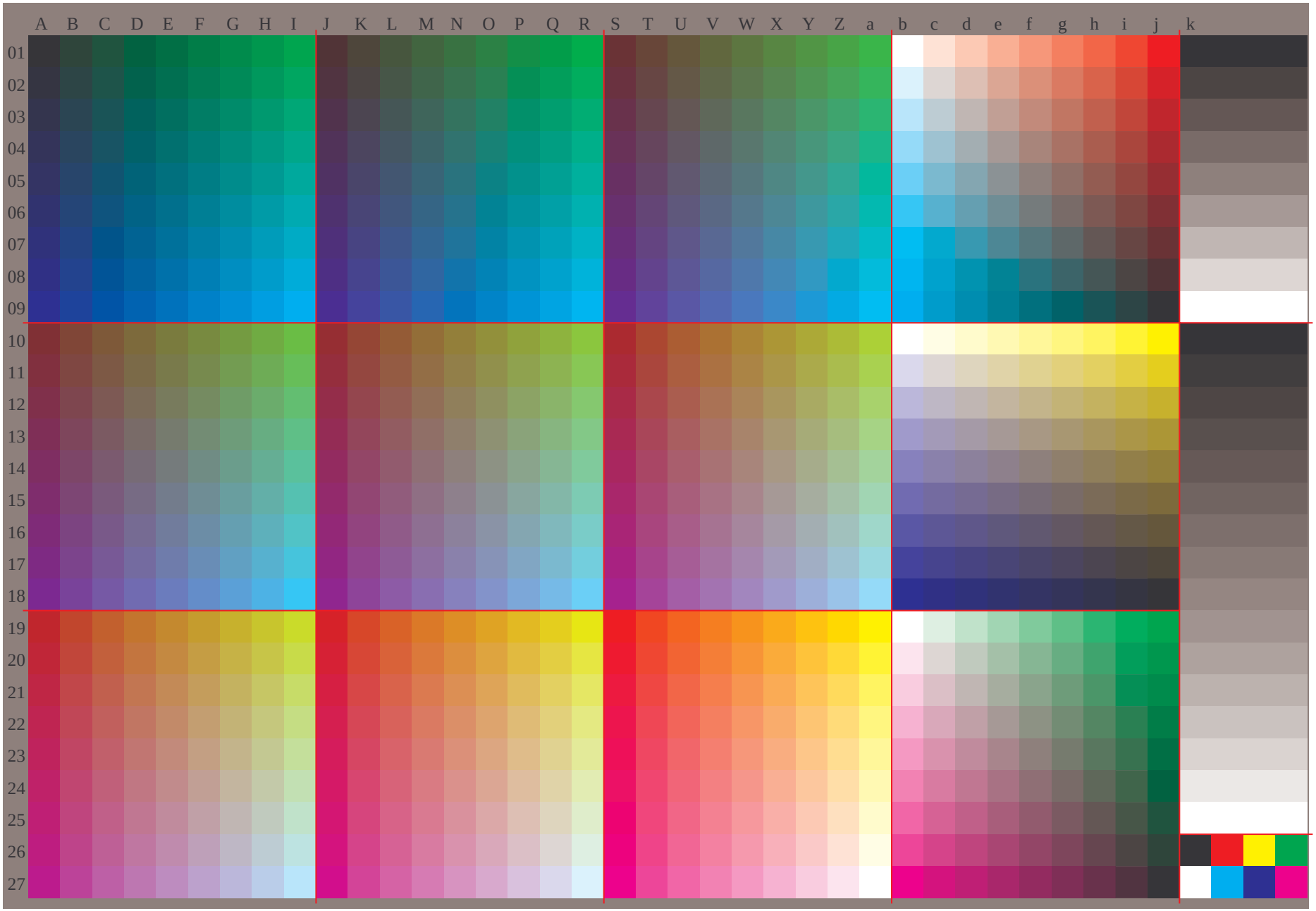
1,00
0,75
0,25
0,00

*i**=0,00
*i**=0,20
*i**=0,40
*i**=0,60
*i**=0,80
*i**=1,00

brilliantness ***i****

0,00 0,20 0,40 0,60 0,80 1,00

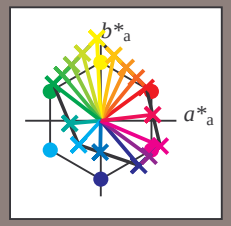
relative chroma ***c****


A B C D E F G H I J K L M N O P Q R S T U V W X Y Z a b c d e f g h i j k
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

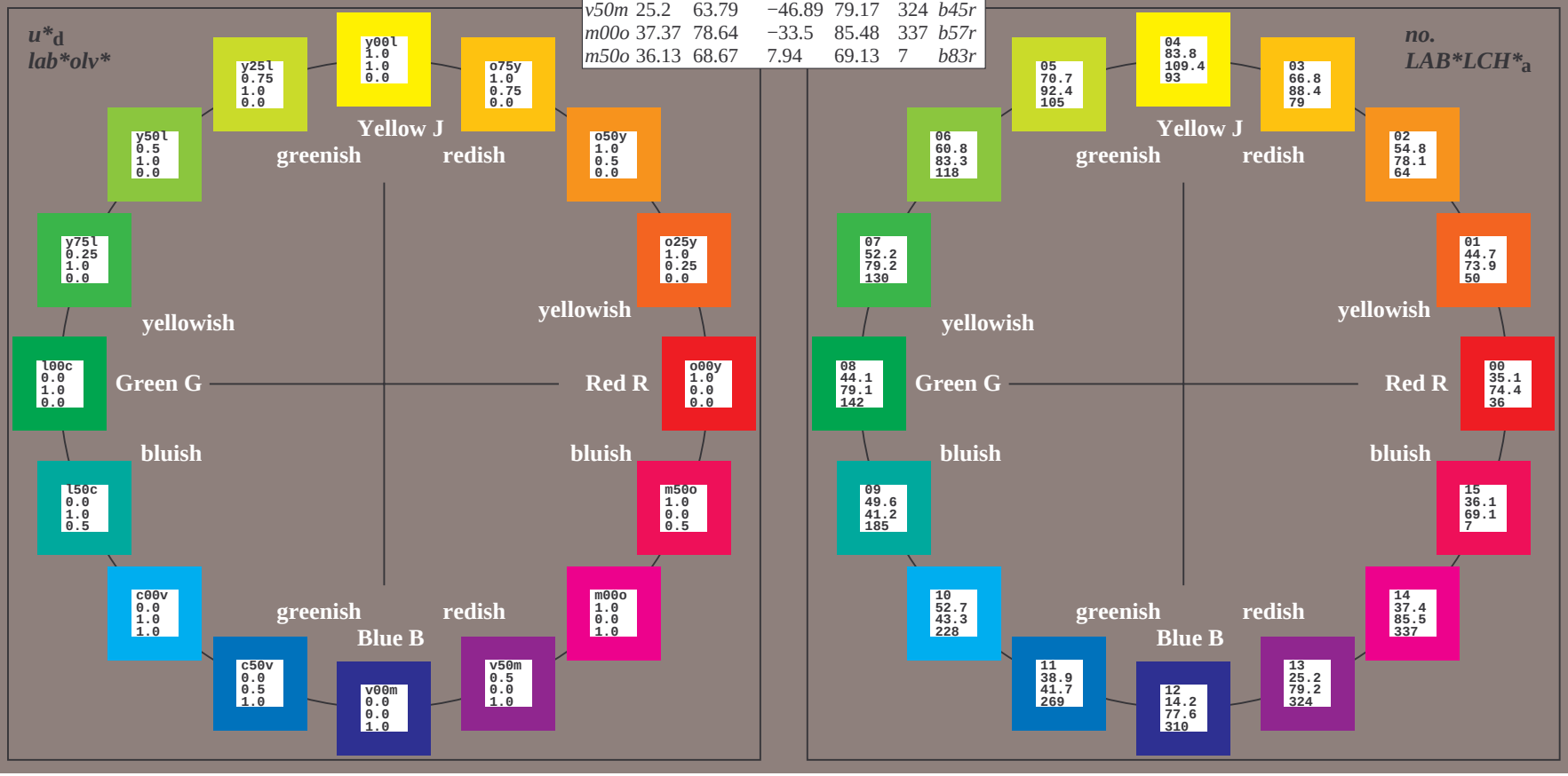
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** **and** *lab*icu**

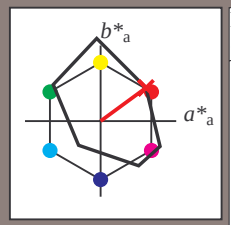
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 35 60 44

*LAB*LCH**$_{Ma}$: 35 74 36

*lab*olv**$_{Ma}$: 1.0 0.0 0.0

*lab*rgb**$_{Ma}$: 1.0 0.16 0.0

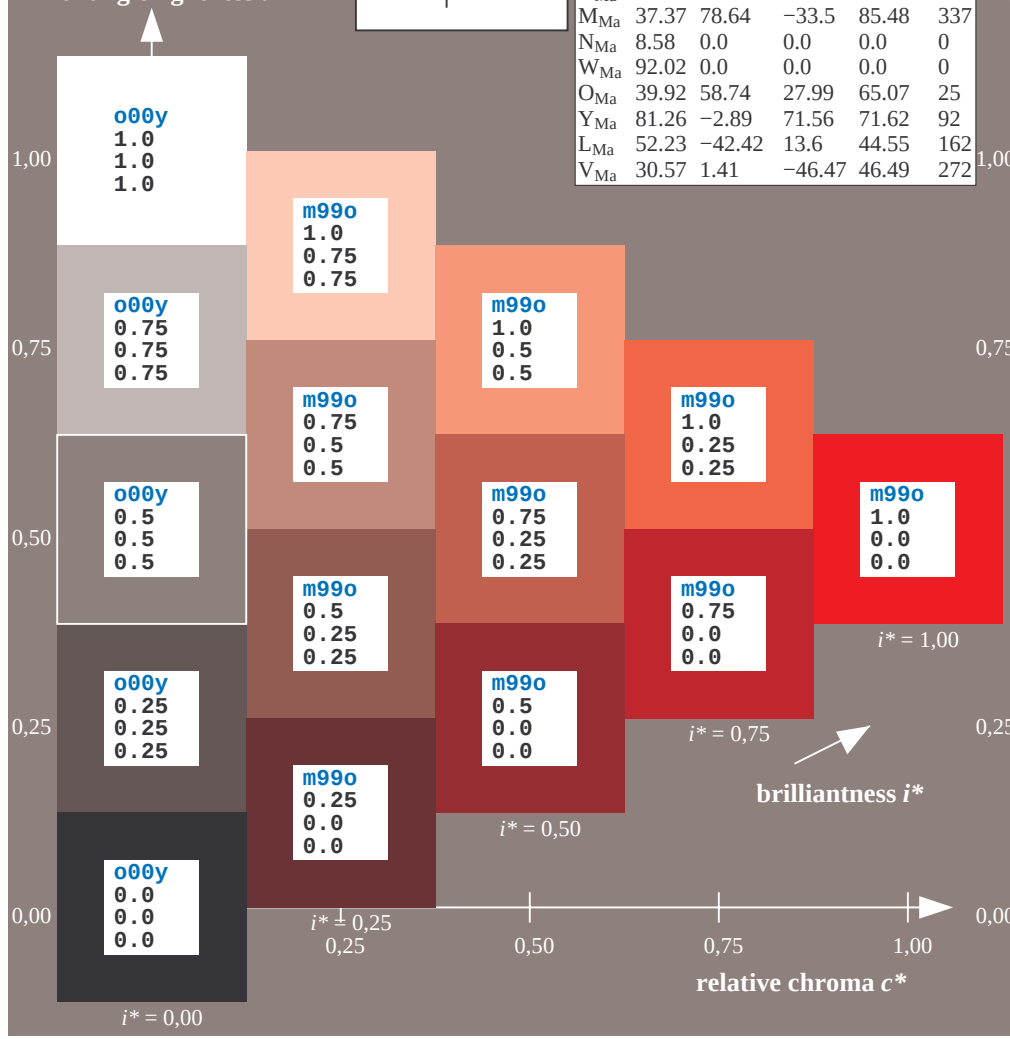
triangle lightness *t**

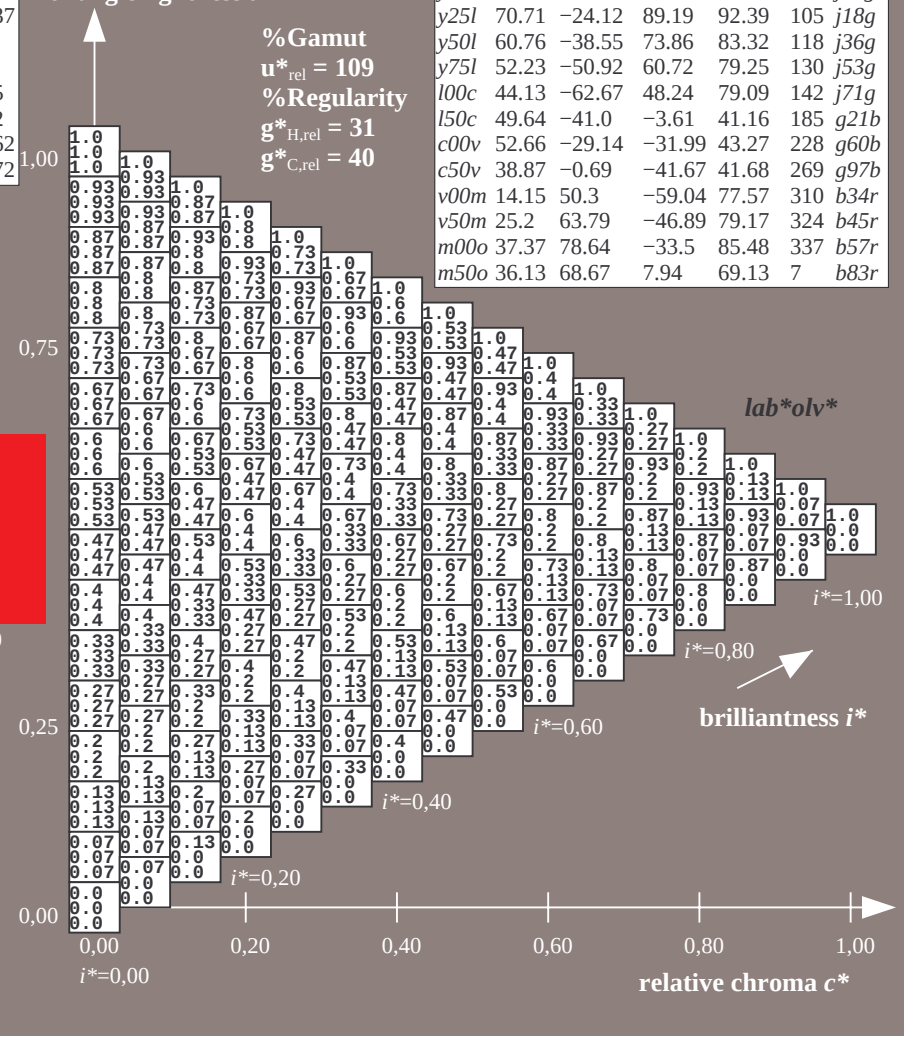
u^*_d = *o00y*

*lab*olv**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** **and** *lab*icu**

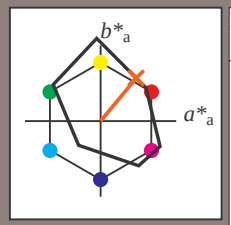
Hue texts:

$u^*_d = o25y$ $u^*_e = r37j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 45 47 57**

***LAB*LCH**$_{Ma}$: 45 74 50**

***lab*olv**$_{Ma}$: 1.0 0.25 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.37 0.0**

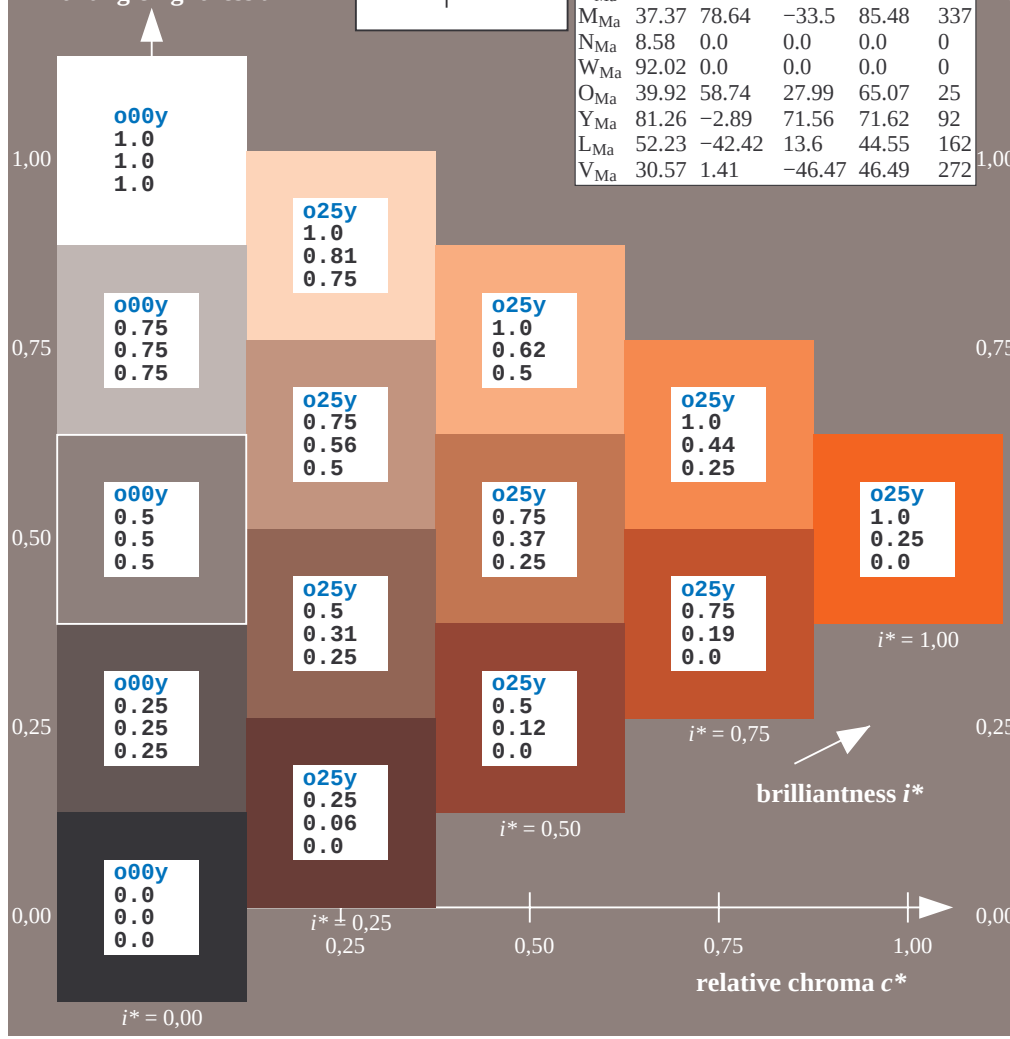
triangle lightness *t**

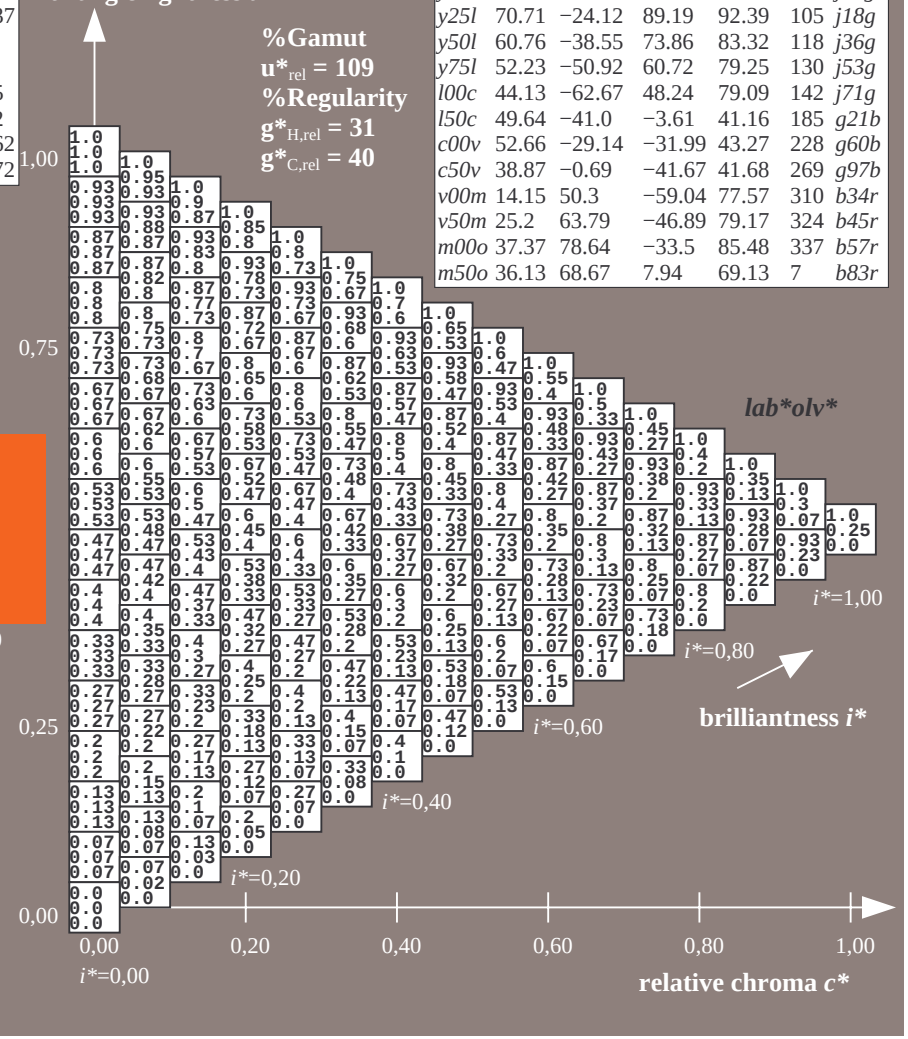
$u^*_d = o25y$

*lab*olv**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** and *lab*icu**

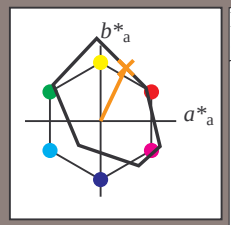
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

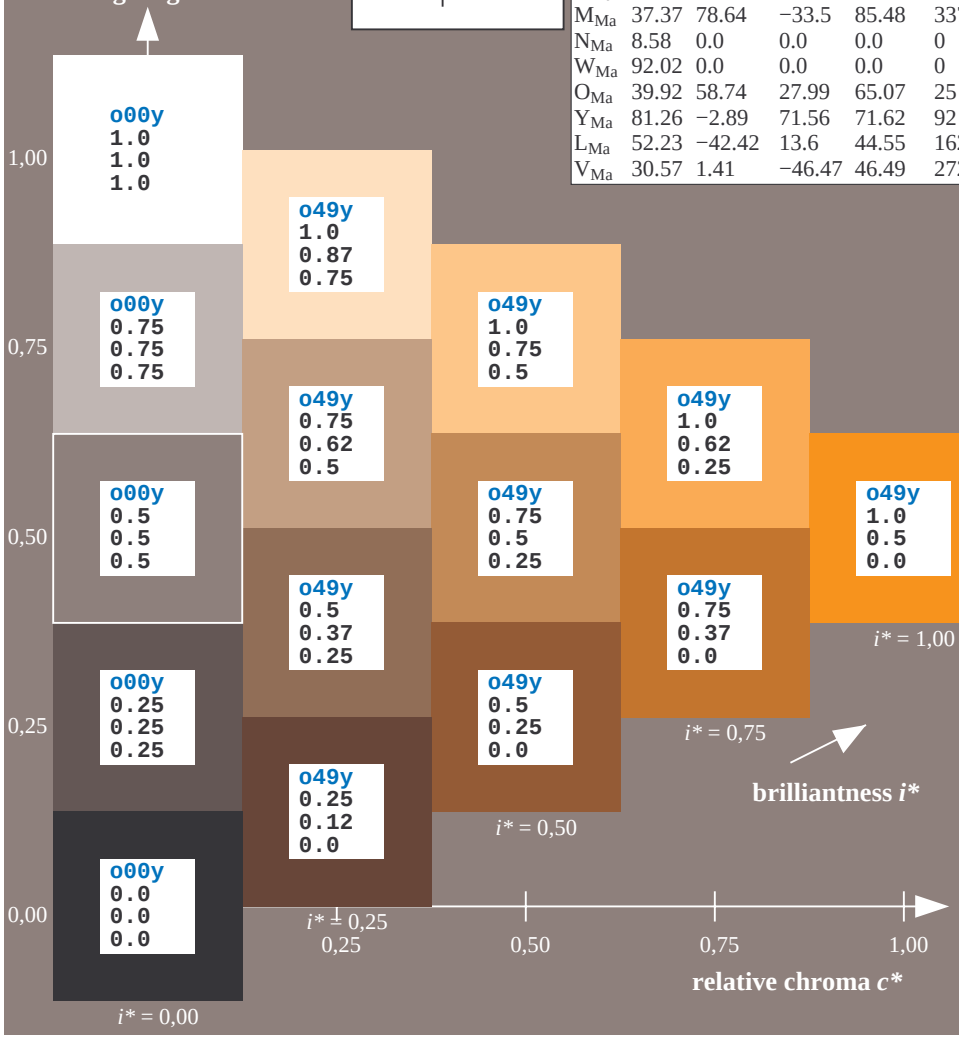
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB*Ma*: 55 34 70**

***LAB*LCH*Ma*: 55 78 64**

***lab*olv*Ma*: 1.0 0.5 0.0**

***lab*rgb*Ma*: 1.0 0.58 0.0**

triangle lightness *t**

$u^*_d = o50y$

lab*olv*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

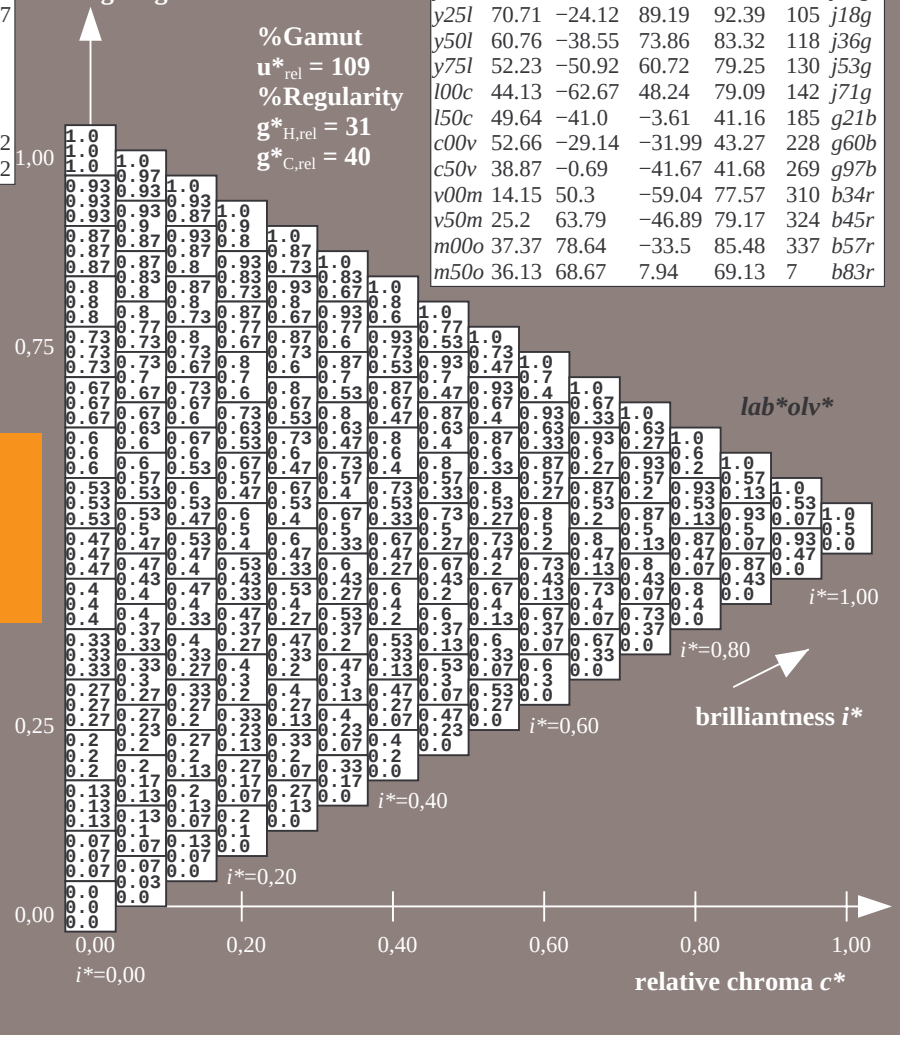
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

data for any colour:

*lab*tch** and *lab*icu**

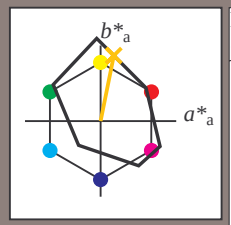
Hue texts:

u^*_d = *o75y* u^*_e = *r79j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 67 17 87**

***LAB*LCH*$_{Ma}$*: 67 88 78**

***lab*olv*$_{Ma}$*: 1.0 0.75 0.0**

***lab*rgb*$_{Ma}$*: 1.0 0.79 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

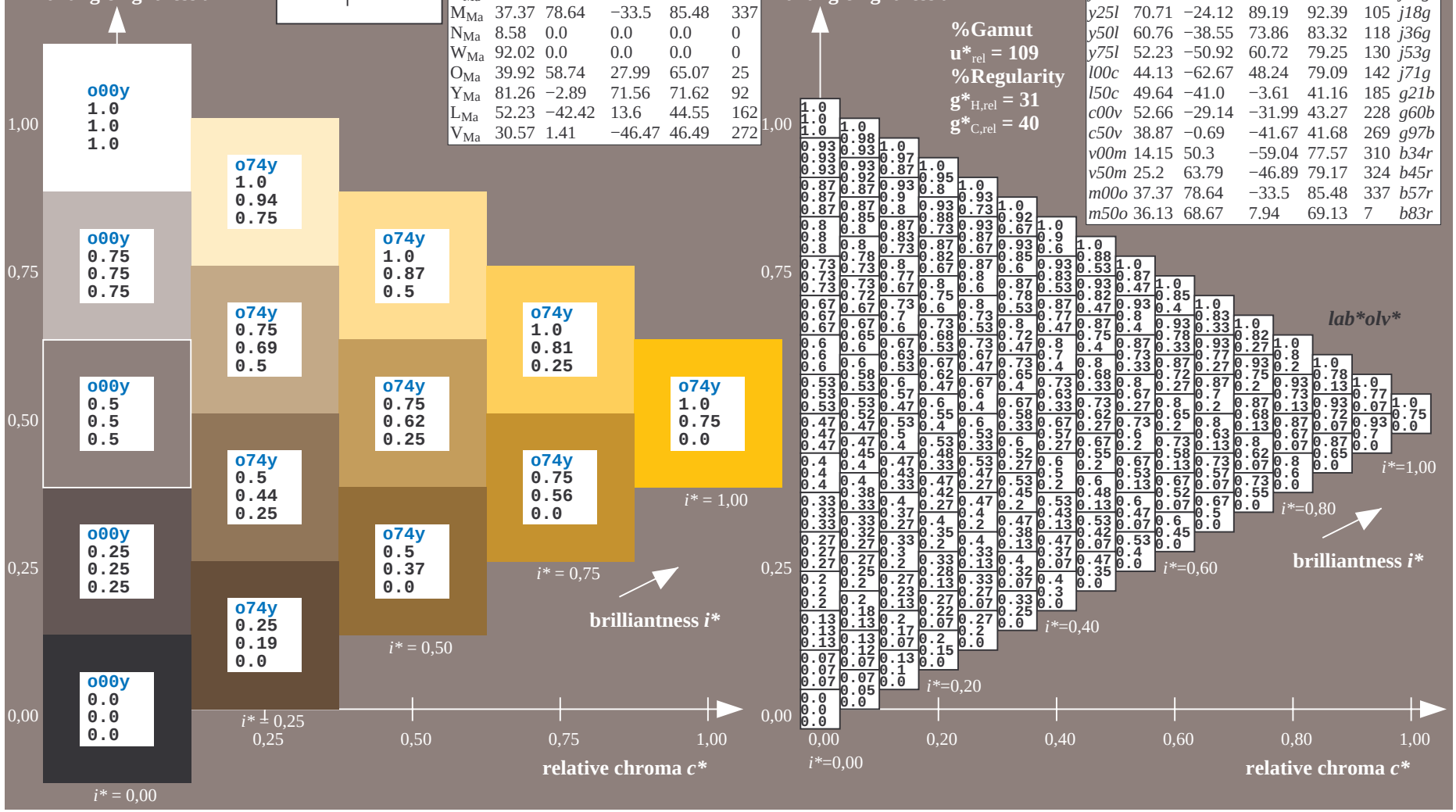
$g^*_{C,rel}$ = 40

u^*_d = *o75y*

*lab*olv**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** **and** *lab*icu**

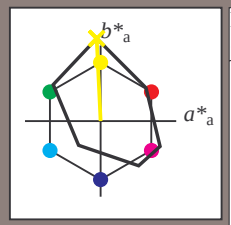
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 84 −5 109**

***LAB*LCH*Ma*: 84 109 92**

***lab*olv*Ma*: 1.0 1.0 0.0**

***lab*rgb*Ma*: 0.99 1.0 0.0**

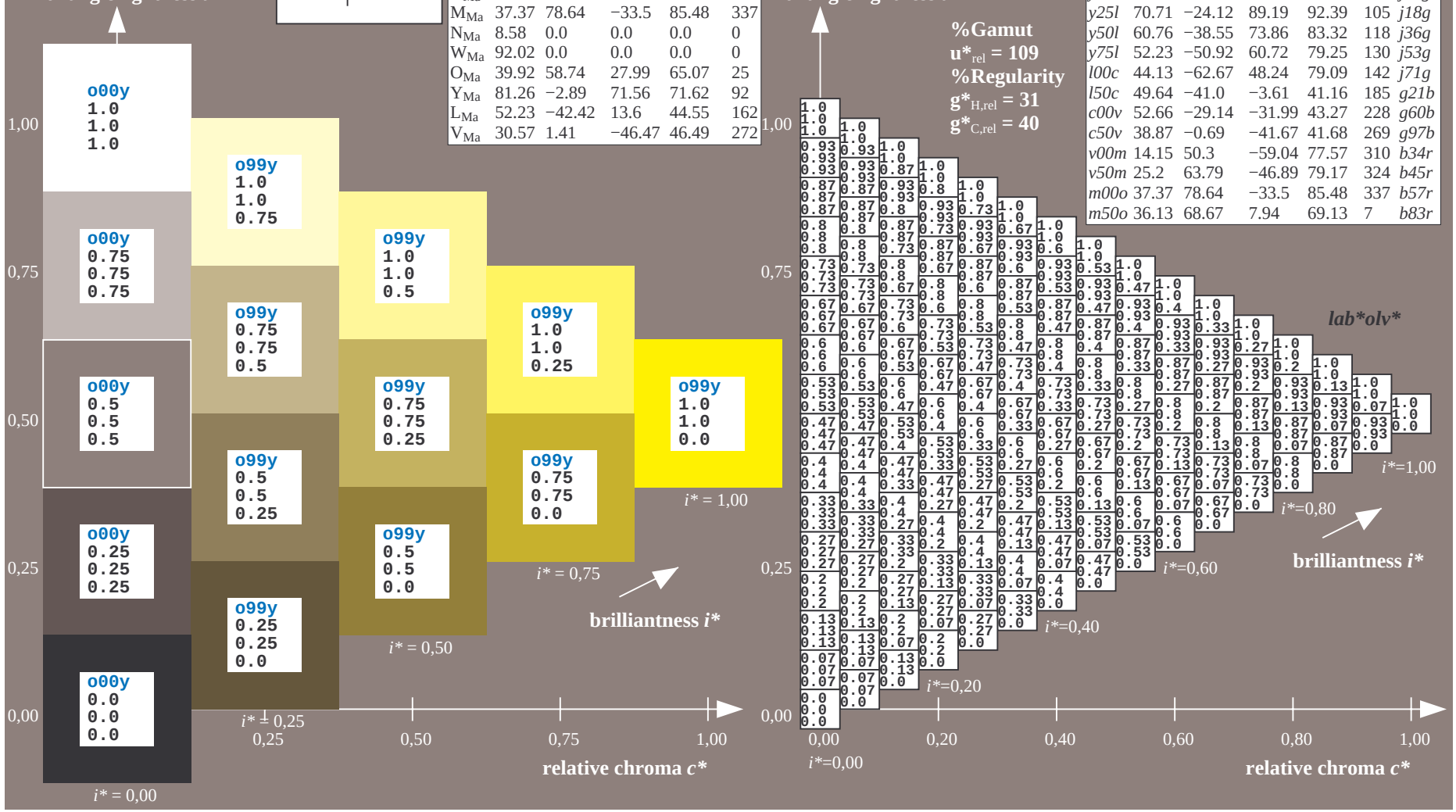
triangle lightness *t**

$u^*_d = y00l$

*lab*olv**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** **and** *lab*icu**

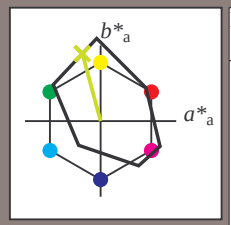
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 71 −24 89

$LAB^*LCH^*_{Ma}$: 71 92 105

$lab^*olv^*_{Ma}$: 0.75 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.82 1.0 0.0

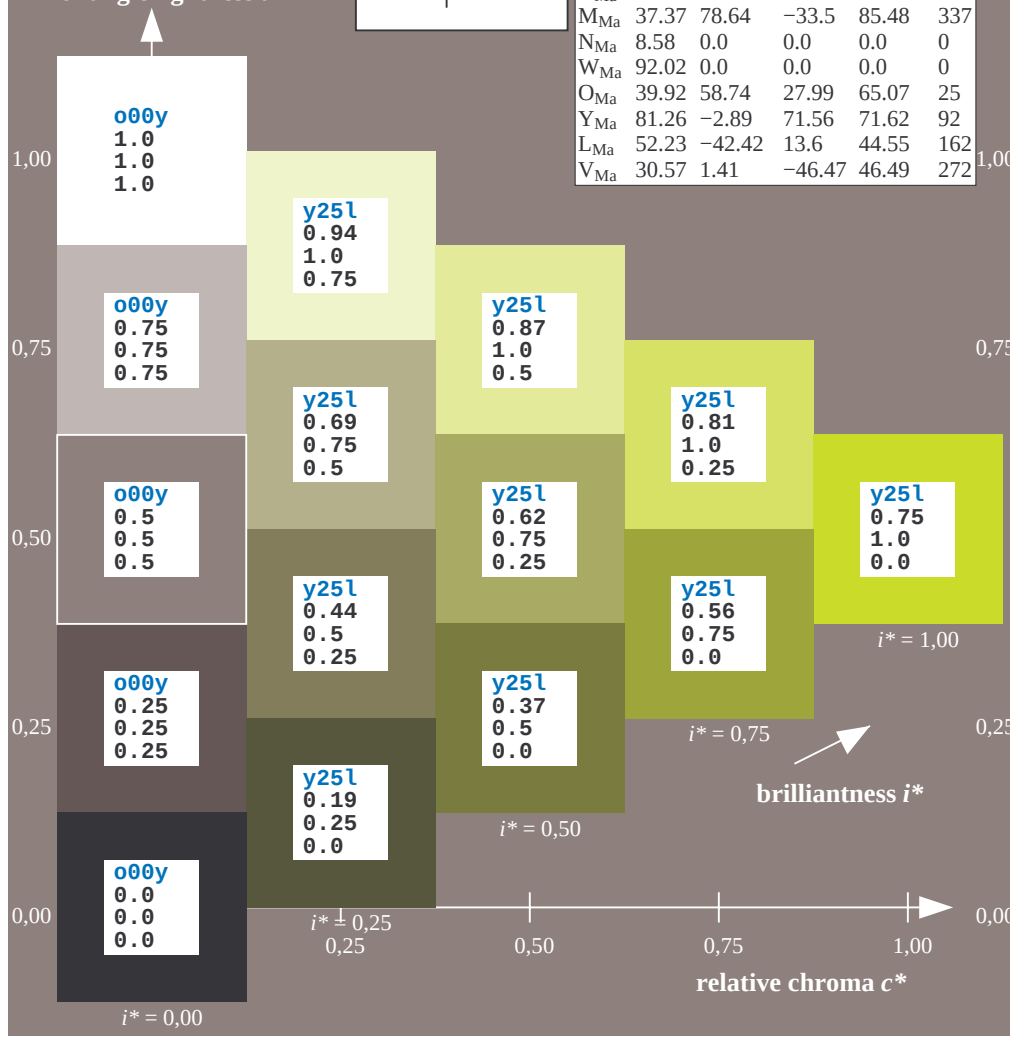
triangle lightness t^*

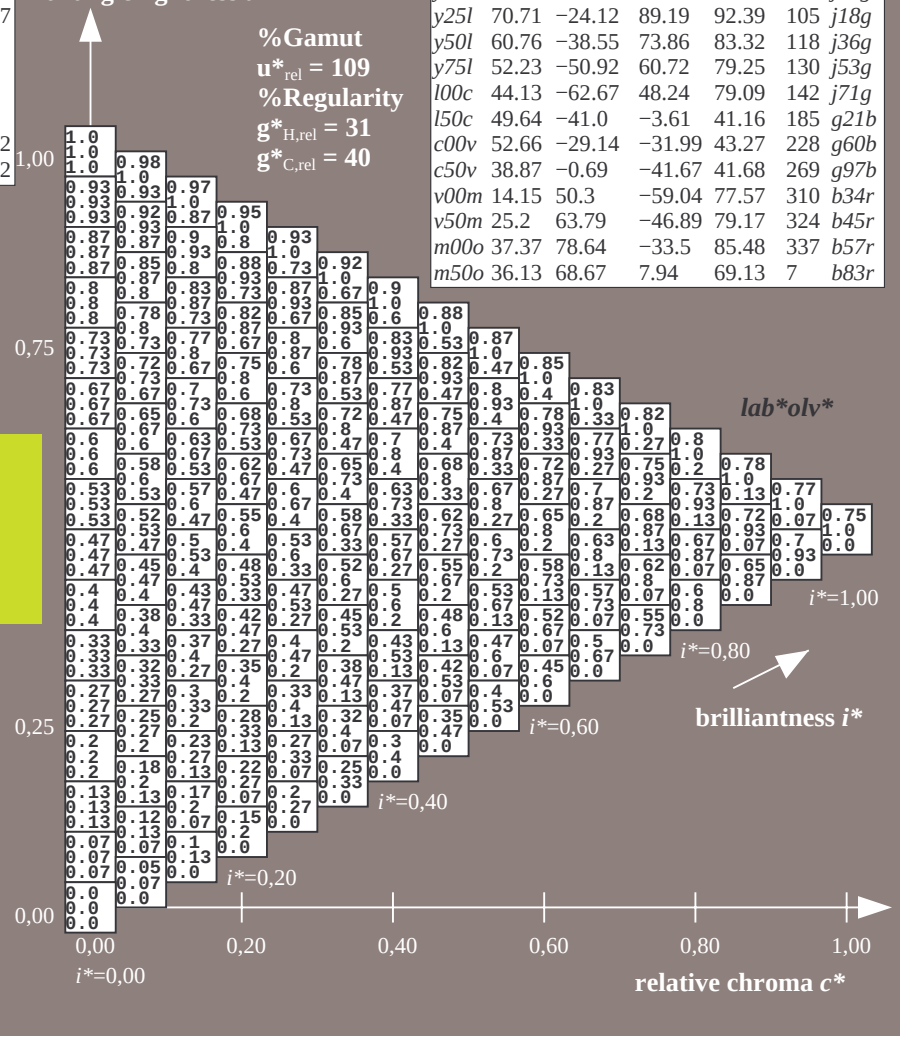
$u^*_d = y25l$

lab^*olv^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** and *lab*icu**

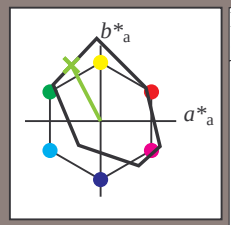
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

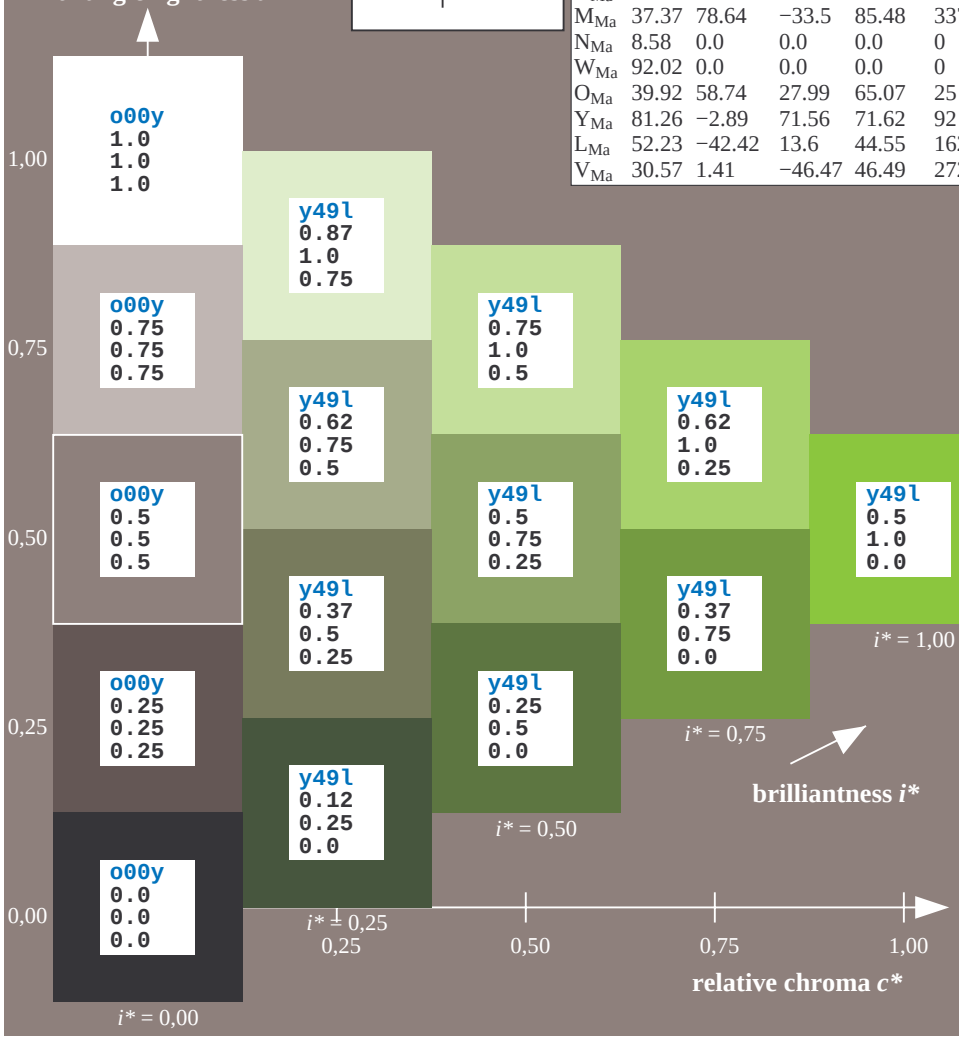
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 61 −39 74**

***LAB*LCH**$_{Ma}$: 61 83 117**

***lab*olv**$_{Ma}$: 0.5 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.64 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

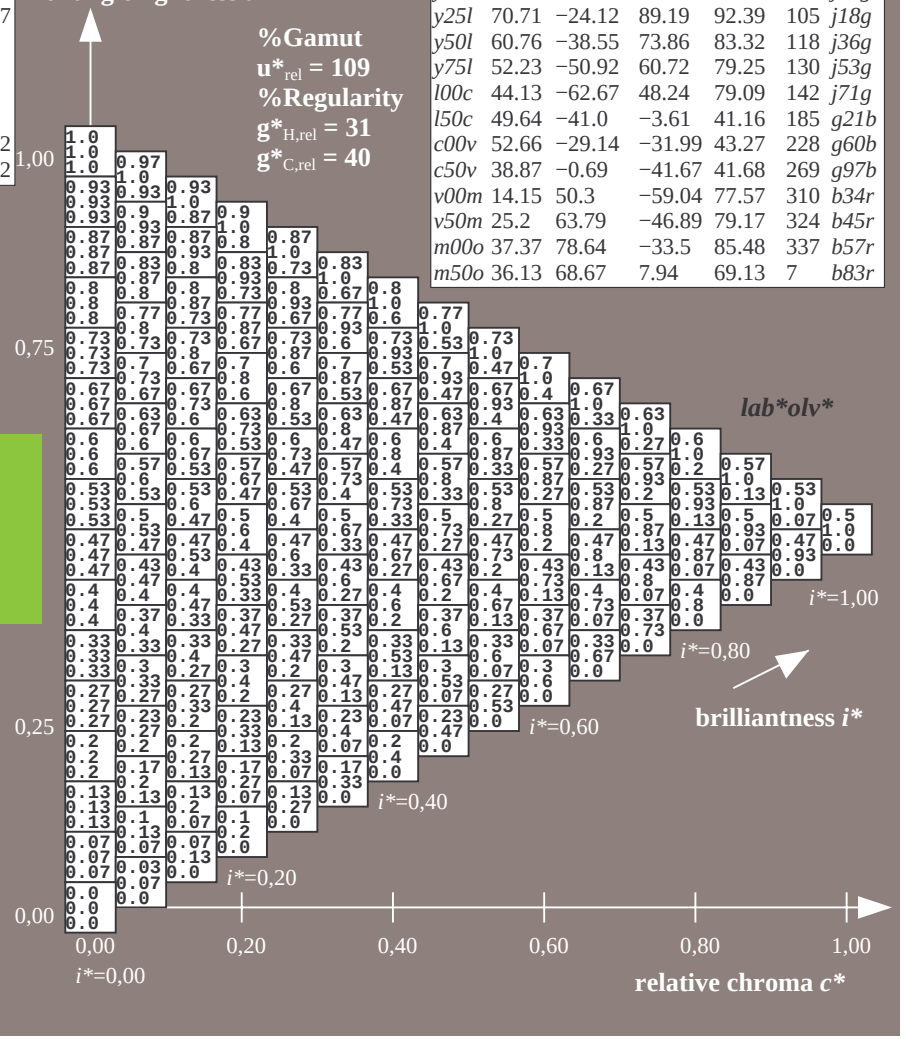
$g^*_{C,rel}$ = 40

$u^*_d = y50l$

lab*olv*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** **and** *lab*icu**

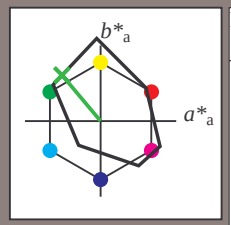
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 52 −51 61**

***LAB*LCH*Ma*: 52 79 129**

***lab*olv*Ma*: 0.25 1.0 0.0**

***lab*rgb*Ma*: 0.46 1.0 0.0**

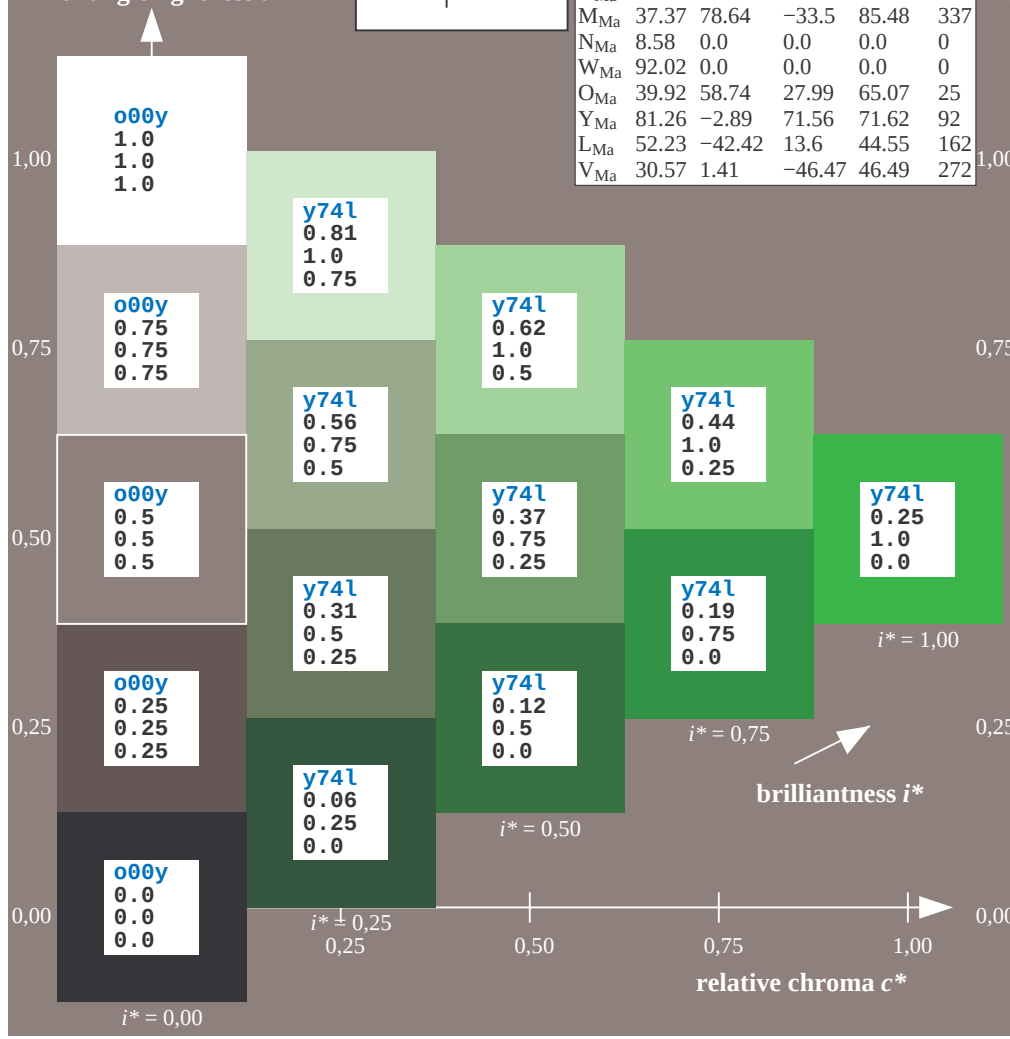
triangle lightness *t**

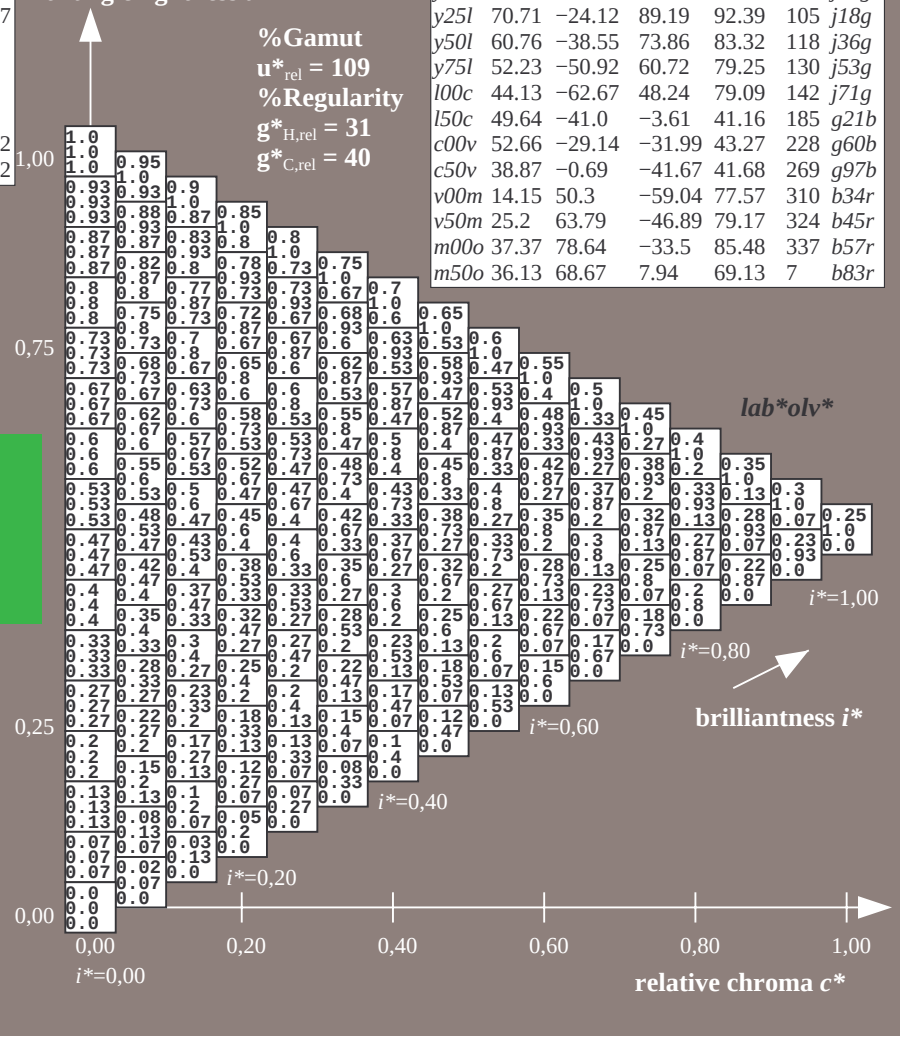
$u^*_d = y75l$

lab*olv*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

data for any colour:

*lab*tch** and *lab*icu**

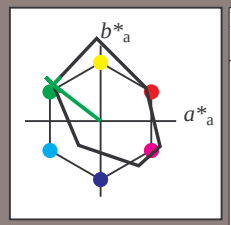
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 44 −63 48**

***LAB*LCH**$_{Ma}$: 44 79 142**

***lab*olv**$_{Ma}$: 0.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.28 1.0 0.0**

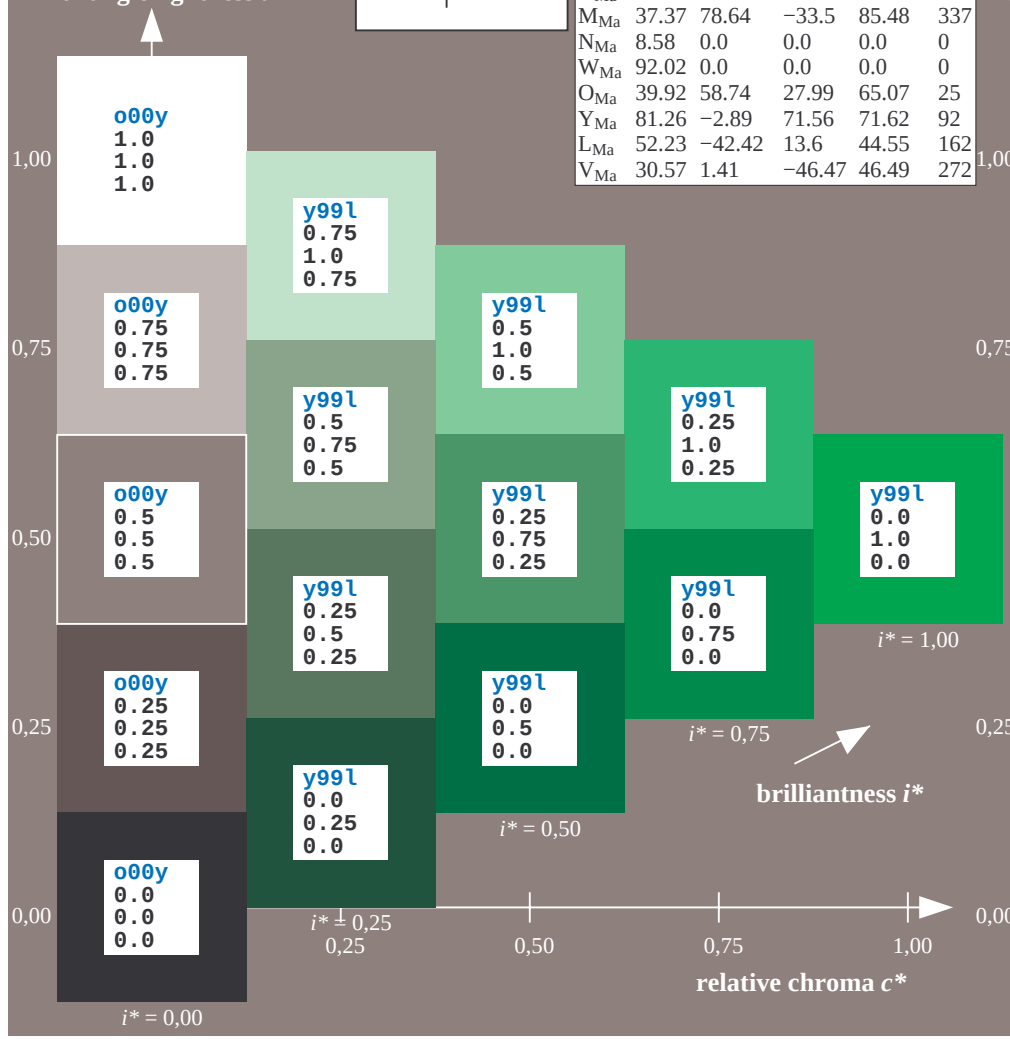
triangle lightness *t**

$u^*_d = l00c$

lab*olv*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



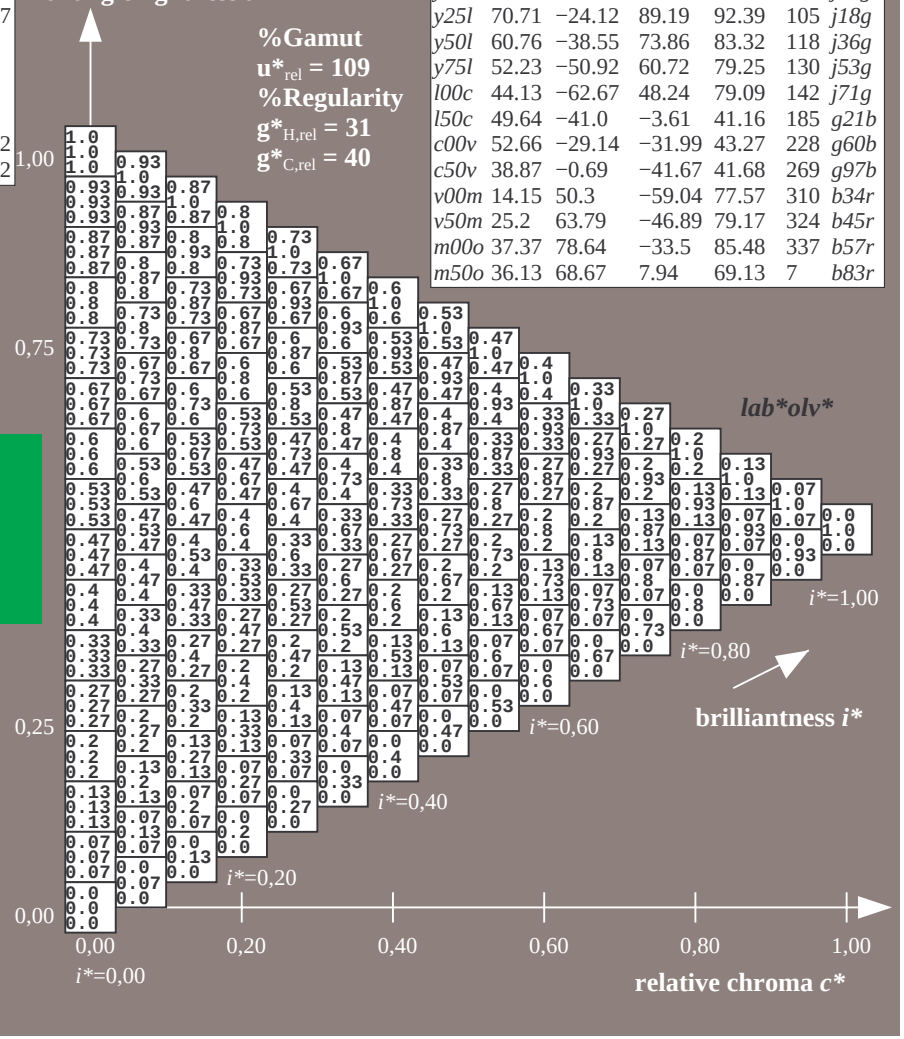
%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** and *lab*icu**

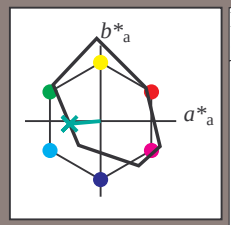
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 50 −41 −4**

***LAB*LCH**$_{Ma}$: 50 41 185**

***lab*olv**$_{Ma}$: 0.0 1.0 0.5**

***lab*rgb**$_{Ma}$: 0.0 1.0 0.42**

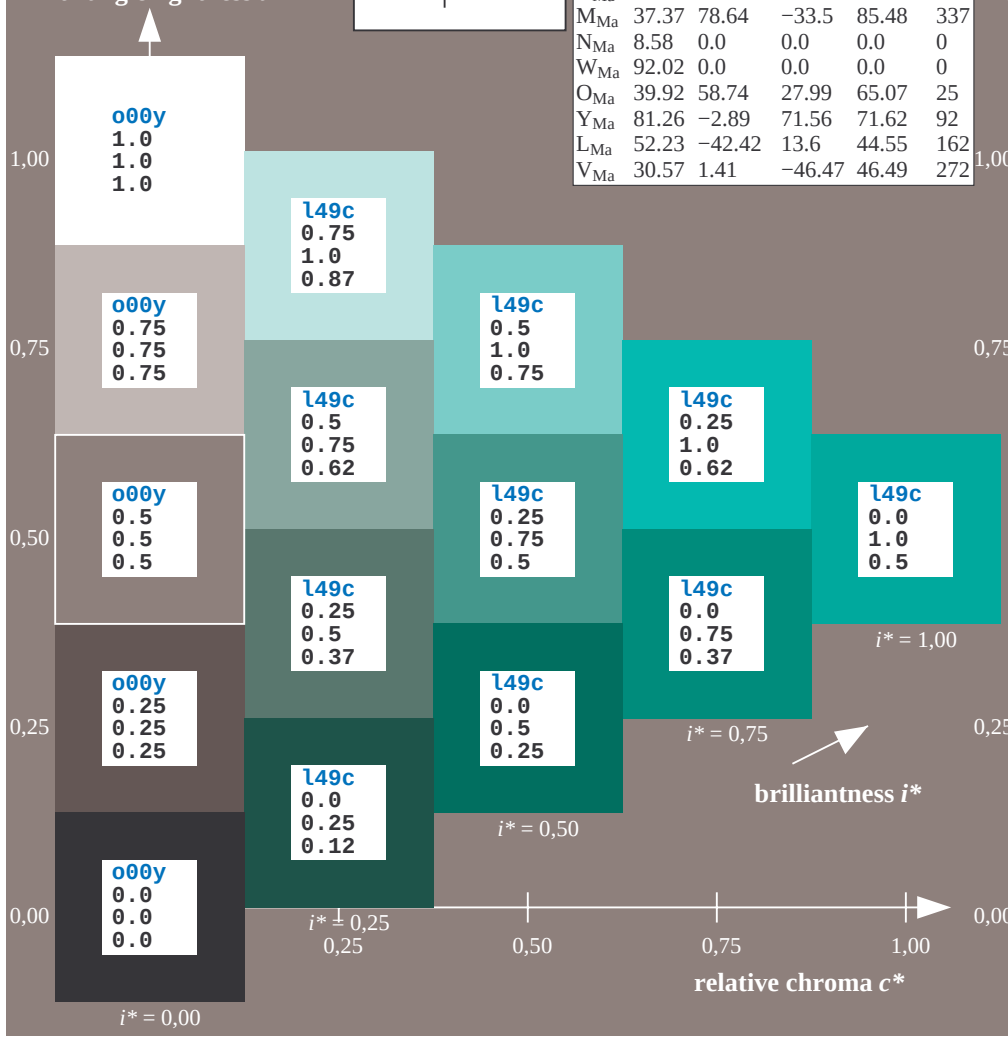
triangle lightness *t**

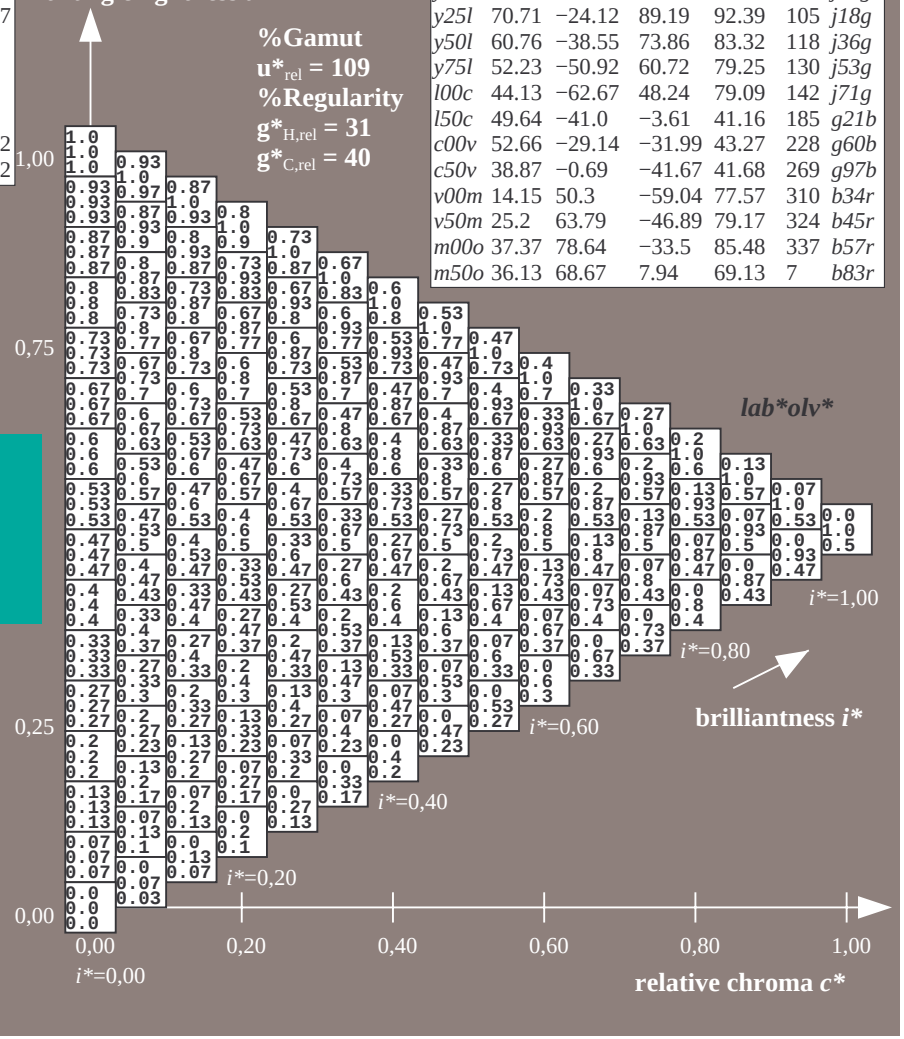
$u^*_d = l50c$

lab*olv*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** and *lab*icu**

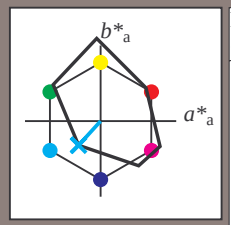
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 53 −29 −32**

***LAB*LCH**$_{Ma}$: 53 43 227**

***lab*olv**$_{Ma}$: 0.0 1.0 1.0**

***lab*rgb**$_{Ma}$: 0.0 0.8 1.0**

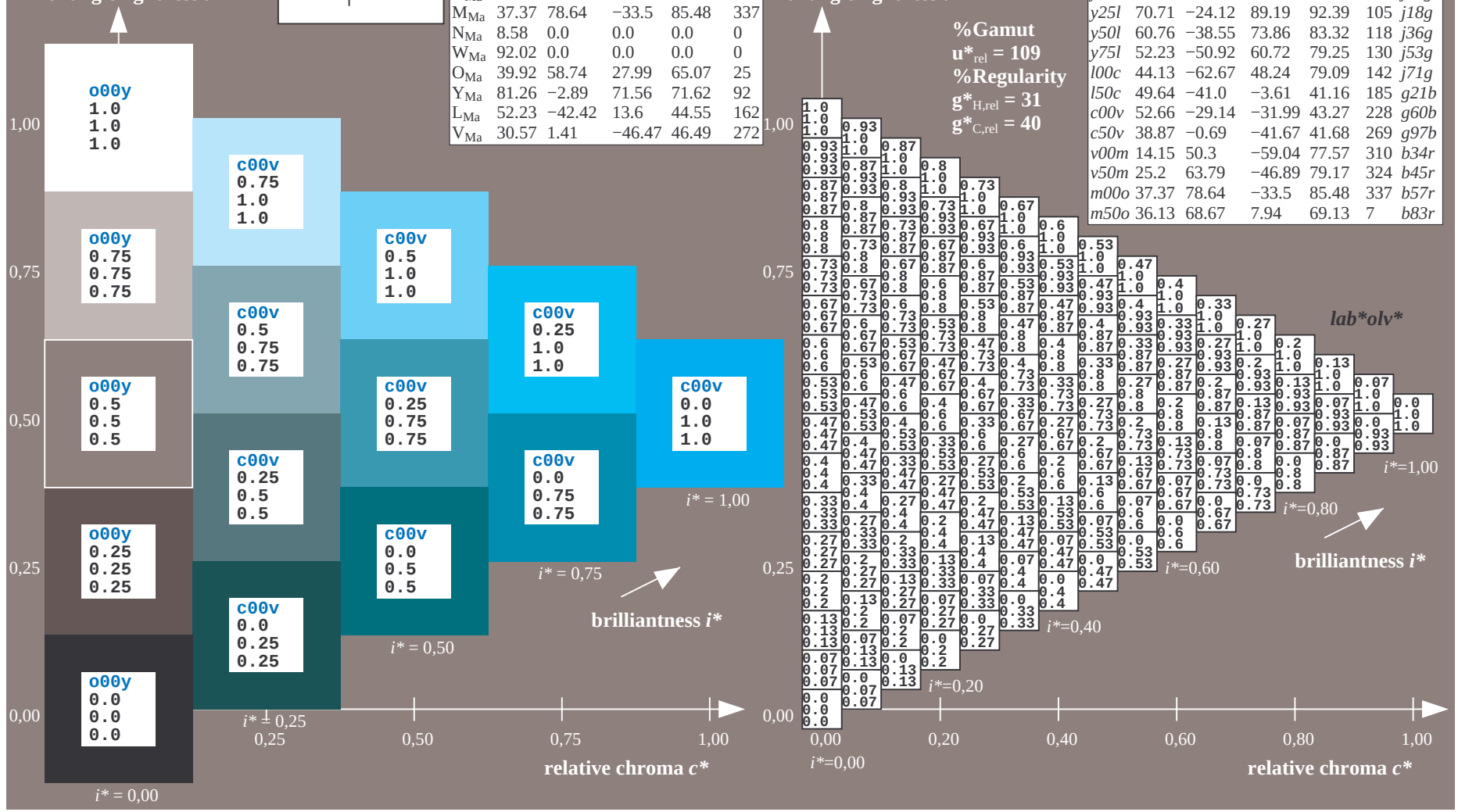
triangle lightness *t**

$u^*_d = c00v$

lab*olv*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** and *lab*icu**

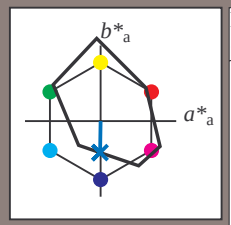
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 39 −1 −42**

***LAB*LCH*Ma*: 39 42 269**

***lab*olv*Ma*: 0.0 0.5 1.0**

***lab*rgb*Ma*: 0.0 0.05 1.0**

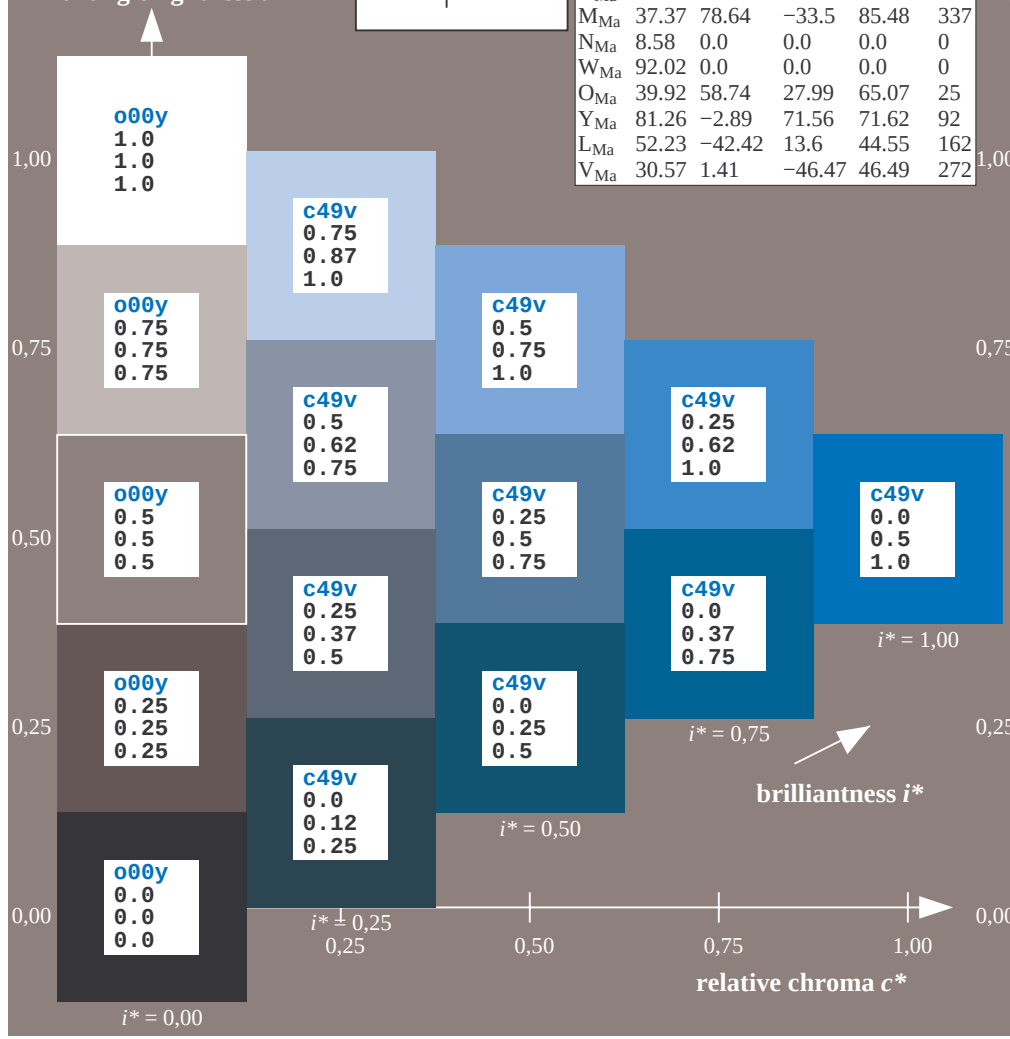
triangle lightness *t**

$u^*_d = c50v$

lab*olv*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



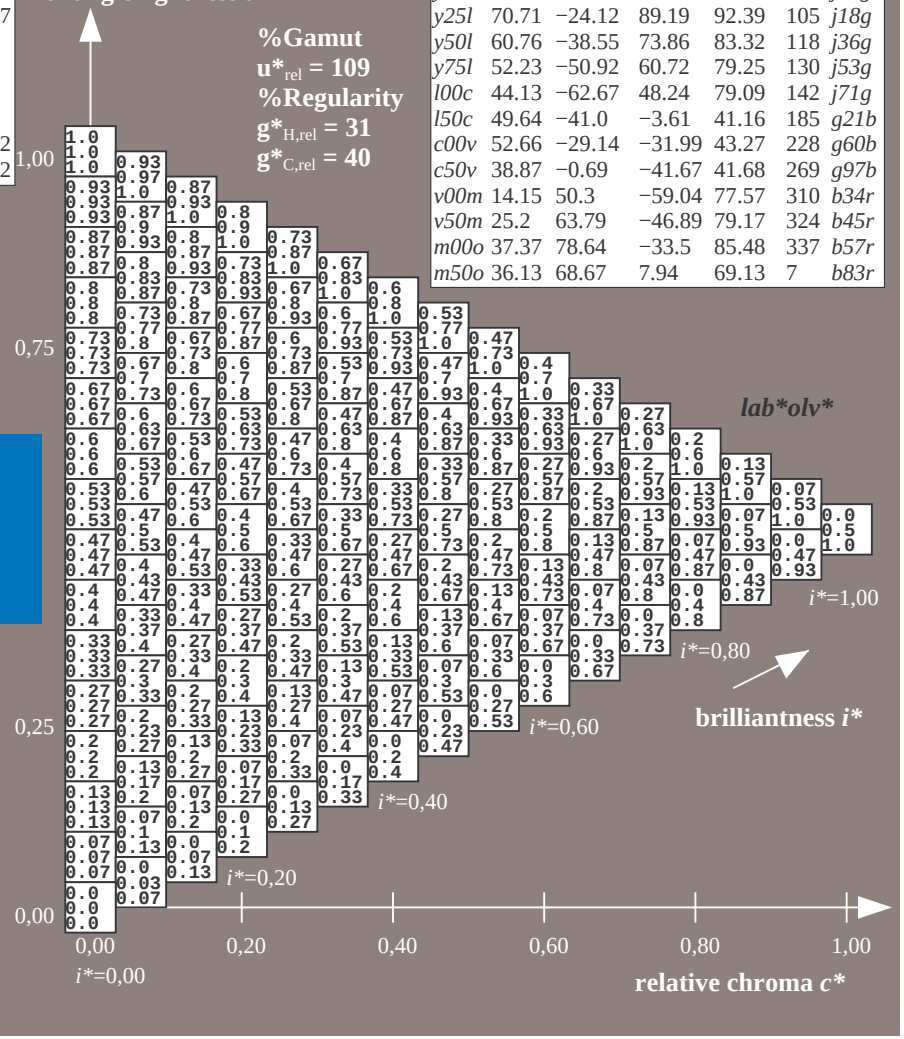
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

data for any colour:

*lab*tch** **and** *lab*icu**

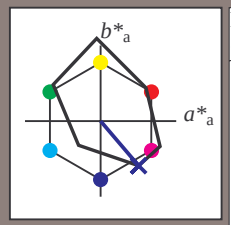
Hue texts:

u^*_d = *v00m* u^*_e = *b34r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 14 50 −59

*LAB*LCH**$_{Ma}$: 14 78 310

*lab*olv**$_{Ma}$: 0.0 0.0 1.0

*lab*rgb**$_{Ma}$: 0.68 0.0 1.0

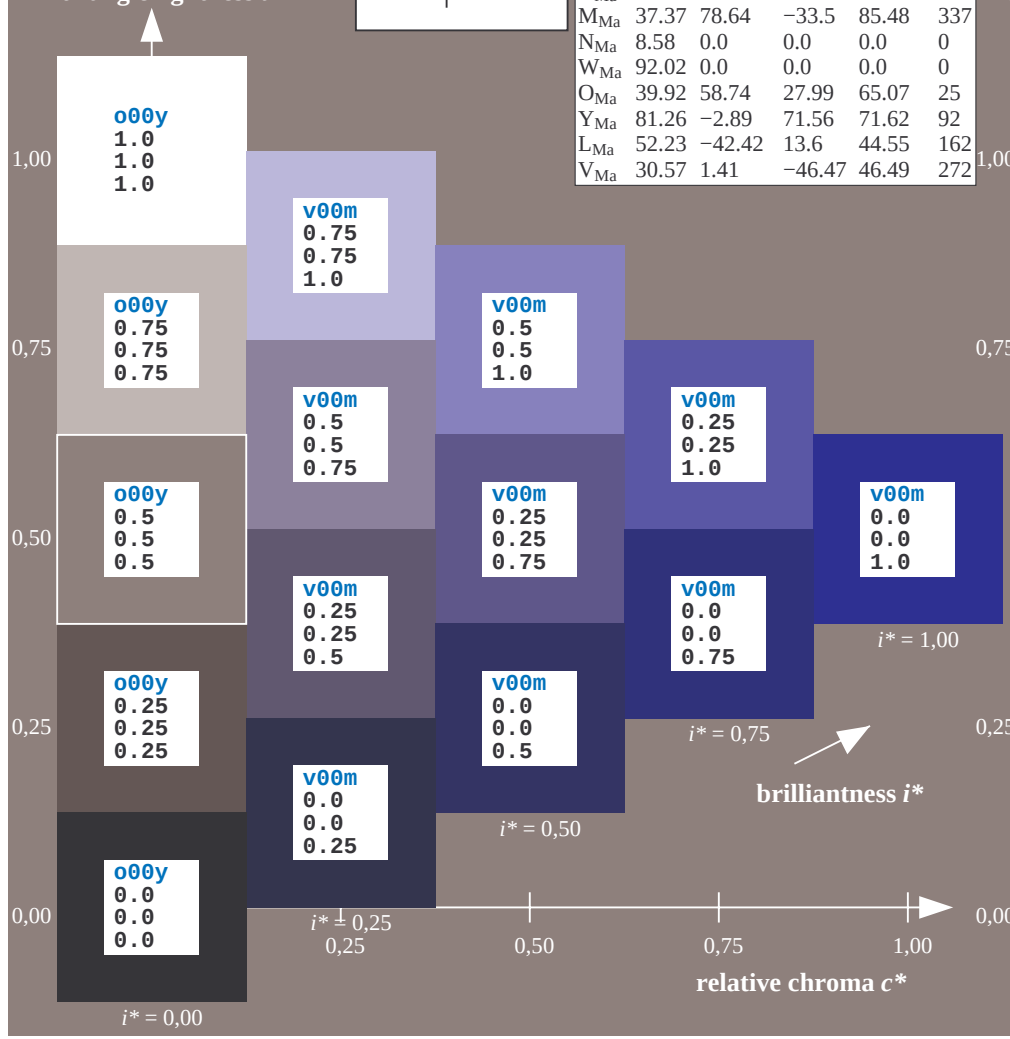
triangle lightness *t**

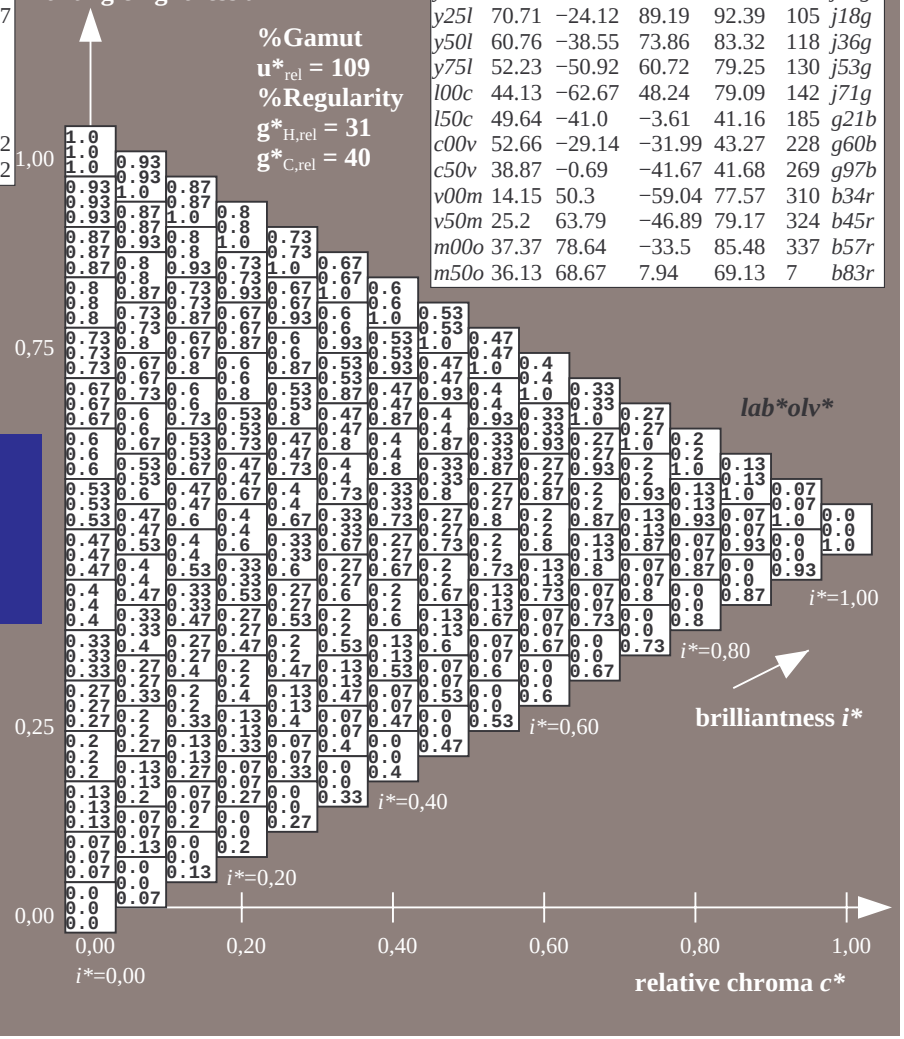
u^*_d = *v00m*

*lab*olv**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

data for any colour:

*lab*tch** and *lab*icu**

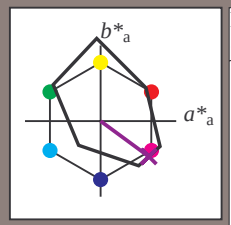
Hue texts:

u^*_d = *v50m* u^*_e = *b45r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 25 64 −47**

***LAB*LCH**$_{Ma}$: 25 79 323**

***lab*olv**$_{Ma}$: 0.5 0.0 1.0**

***lab*rgb**$_{Ma}$: 0.91 0.0 1.0**

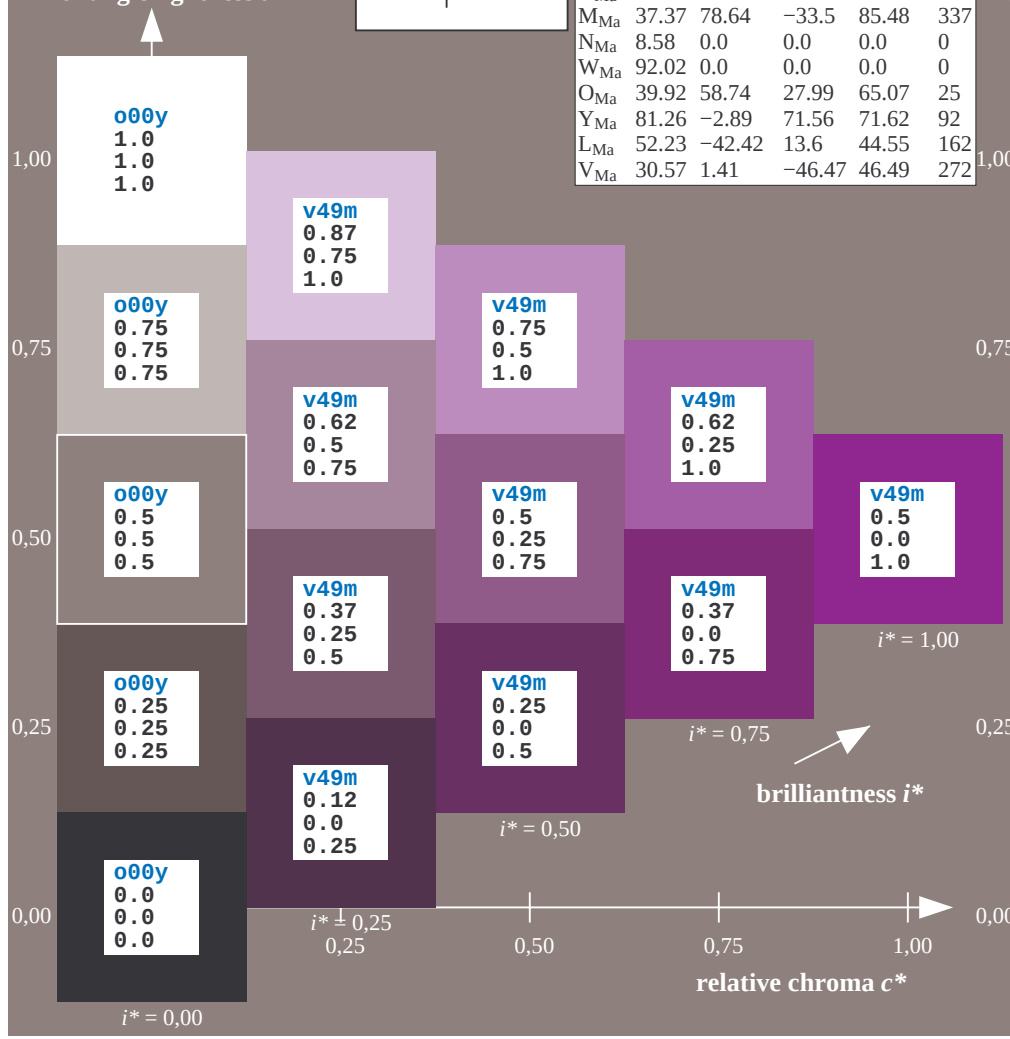
triangle lightness *t**

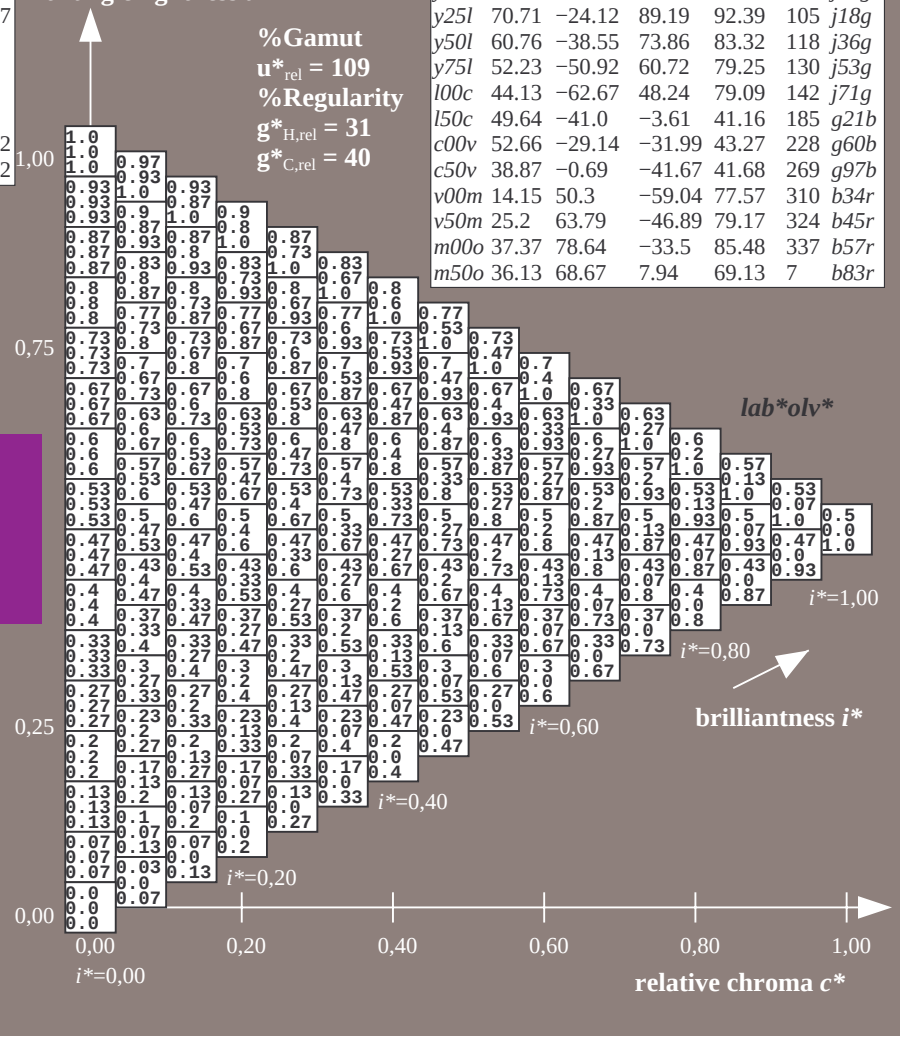
u^*_d = *v50m*

*lab*olv**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

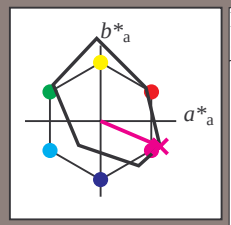
$u^*_d = m00o$
lab*olv*

data for any colour:
lab*tch* **and** ***lab*icu****

Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$

contrast reduction factor:
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 37 79 −34**

LAB*LCH*$_{Ma}$**: 37 85 336**

lab*olv*$_{Ma}$**: 1.0 0.0 1.0**

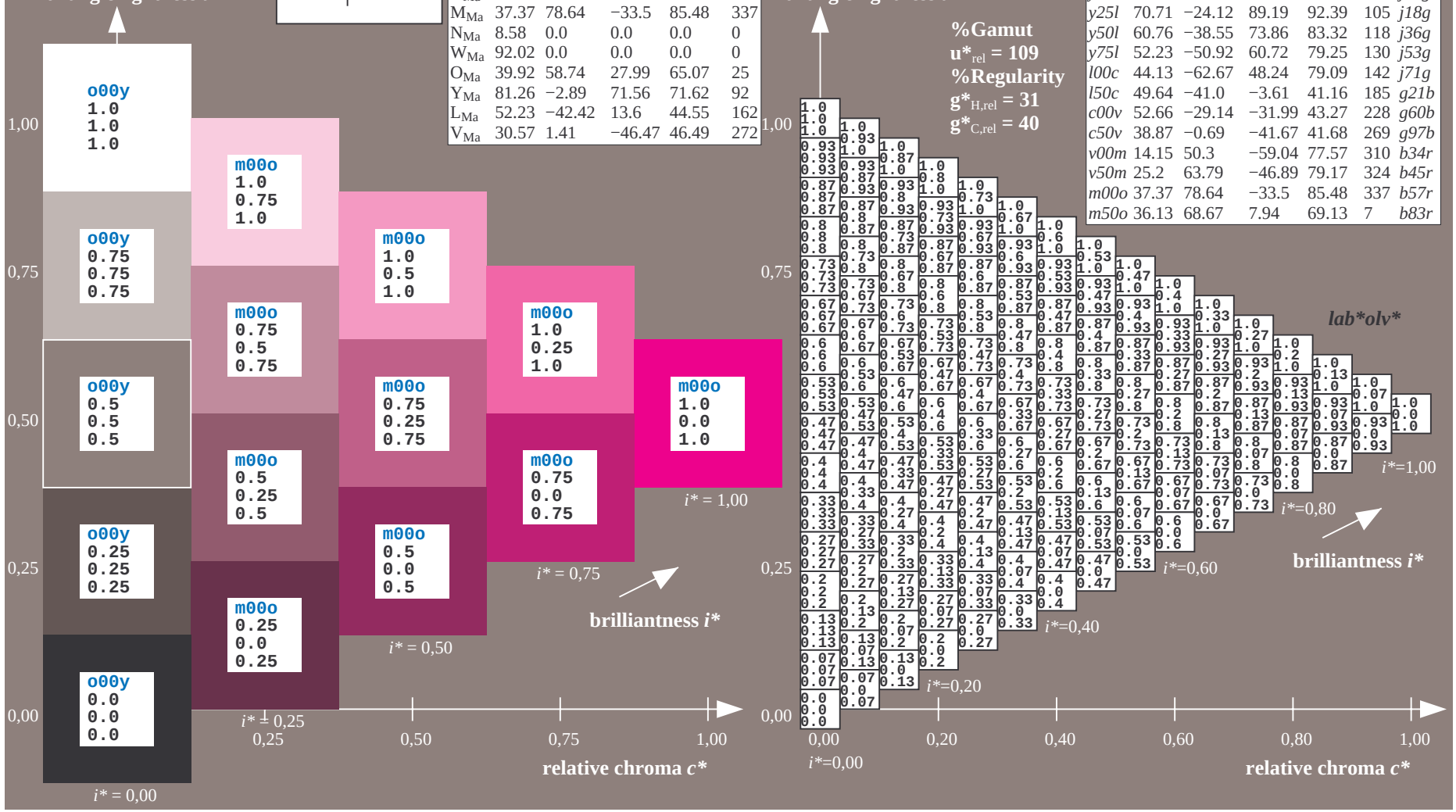
lab*rgb*$_{Ma}$**: 1.0 0.0 0.85**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

triangle lightness *t**

%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

data for any colour:

*lab*tch** **and** *lab*icu**

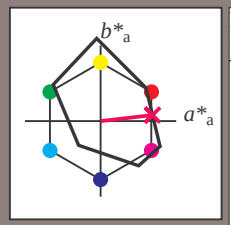
Hue texts:

$u^*_d = m50o$ $u^*_e = b83r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 36 69 8

$LAB^*LCH^*_{Ma}$: 36 69 6

$lab^*olv^*_{Ma}$: 1.0 0.0 0.5

$lab^*rgb^*_{Ma}$: 1.0 0.0 0.33

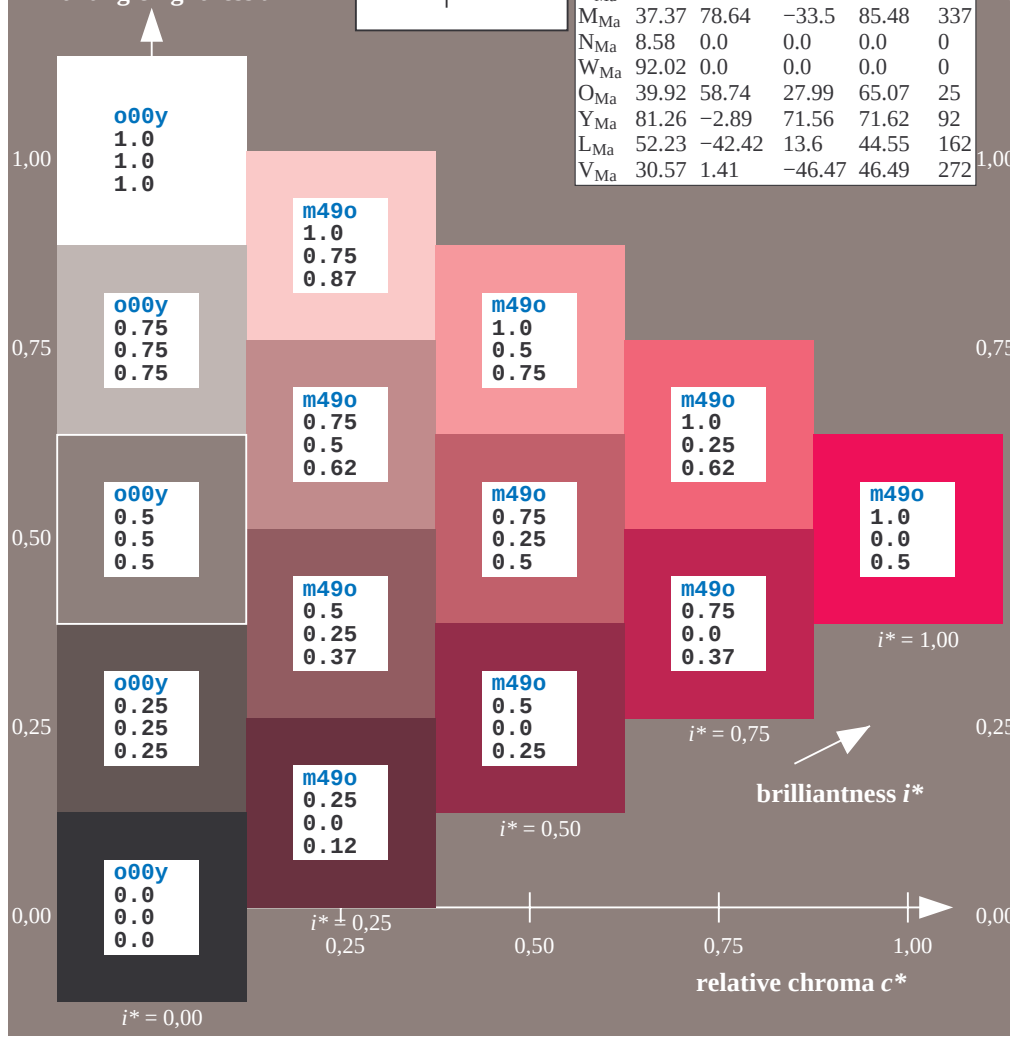
triangle lightness t^*

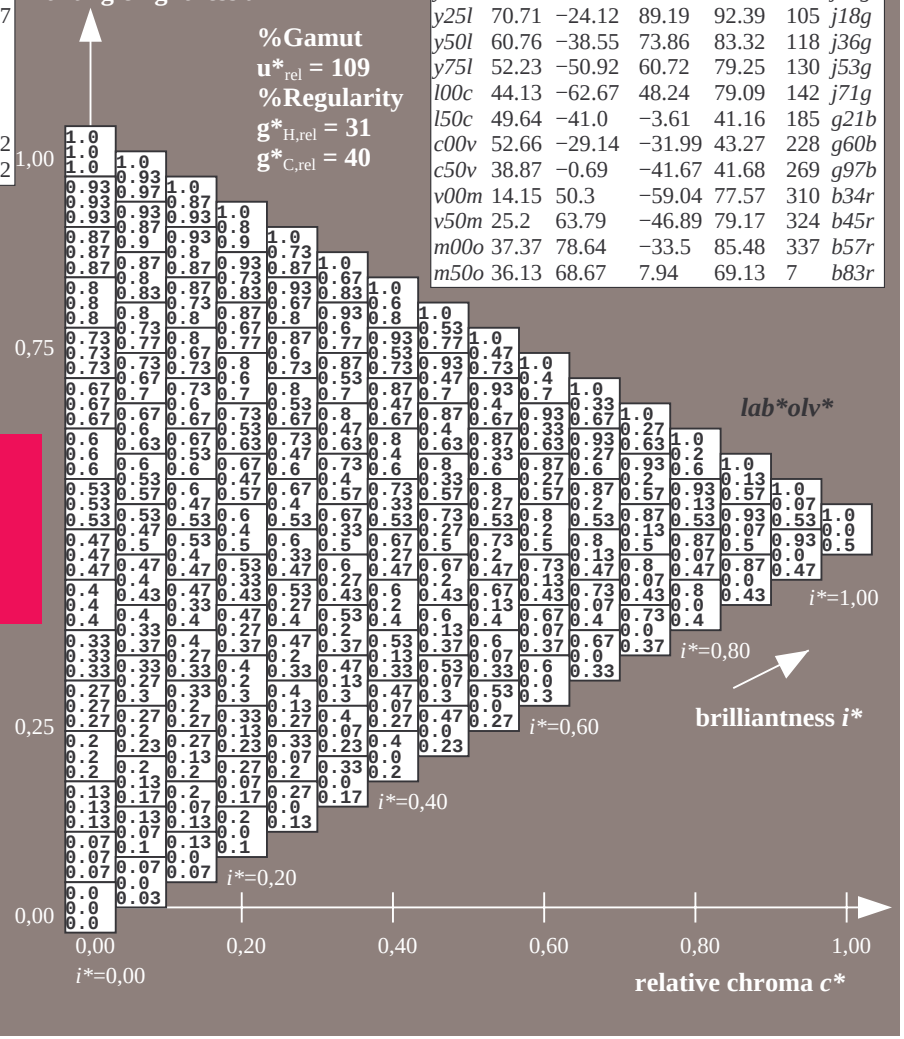
$u^*_d = m50o$

lab^*olv^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



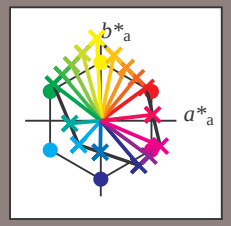


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	*lab*olv**			
01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.13	0.13	0.13	0.13
	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.25	0.25	0.25	0.25
	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.25	0.25	0.25	0.25
	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.25	0.25	0.25	0.25
04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.38	0.38	0.38	0.38
	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.38	0.38	0.38	0.38
	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.38	0.38	0.38	0.38
05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	1.0	0.87	0.75	0.62	0.5	0.38	0.25	0.13	0.0	0.5	0.5	0.5	0.5
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.5	0.5	0.5	0.5
06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.63	0.63	0.63	0.63
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	1.0	0.87	0.75	0.62	0.5	0.38	0.25	0.13	0.0	0.63	0.63	0.63	0.63
	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.63	0.63	0.63	0.63
07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.75	0.75	0.75	0.75
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	1.0	0.87	0.75	0.62	0.5	0.37	0.25	0.13	0.0	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.75	0.75	0.75	0.75
08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.88	0.88	0.88	0.88
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	1.0	0.87	0.75	0.62	0.5	0.37	0.25	0.13	0.0	0.88	0.88	0.88	0.88
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.88	0.88	0.88	0.88
09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	1.0	0.87	0.75	0.62	0.5	0.37	0.25	0.12	0.0	1.0	1.0	1.0	1.0
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	1.0	1.0	1.0	1.0
10	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
11	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.88	0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.07	0.07	0.07	0.07
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.07	0.07	0.07	0.07
	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.07	0.07	0.07	0.07
12	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.13	0.13	0.13	0.13
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.13	0.13	0.13	0.13
	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
13	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.62	0.2	0.2	0.2	0.2
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.2	0.2	0.2	0.2
	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.2	0.2	0.2	0.2
14	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.27	0.27	0.27	0.27
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.27	0.27	0.27	0.27
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.27	0.27	0.27	0.27
15	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.33	0.33	0.33	0.33
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.33	0.33	0.33	0.33
	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.33	0.33	0.33	0.33
16	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.4	0.4	0.4	0.4
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.4	0.4	0.4	0.4
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.4	0.4	0.4	0.4
17	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.47	0.47	0.47	0.47
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.87	1.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.47	0.47	0.47	0.47
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.47	0.47	0.47	0.47
18	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.53	0.53	0.53	0.53
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.87	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.53	0.53	0.53	0.53
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.53	0.53	0.53	0.53
19	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.6	0.6	0.6	0.6
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.6
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.6	0.6	0.6	0.6
20	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.67	0.67	0.67	0.67
	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.67	0.67	0.67	0.67
	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.67	0.67	0.67	0.67
21	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.73	0.73	0.73	0.73
	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.73	0.73	0.73	0.73
	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.73	0.73	0.73	0.73
22	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.8	0.8	0.8	0.8
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.63	0.63	0.63	0.63	0.

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

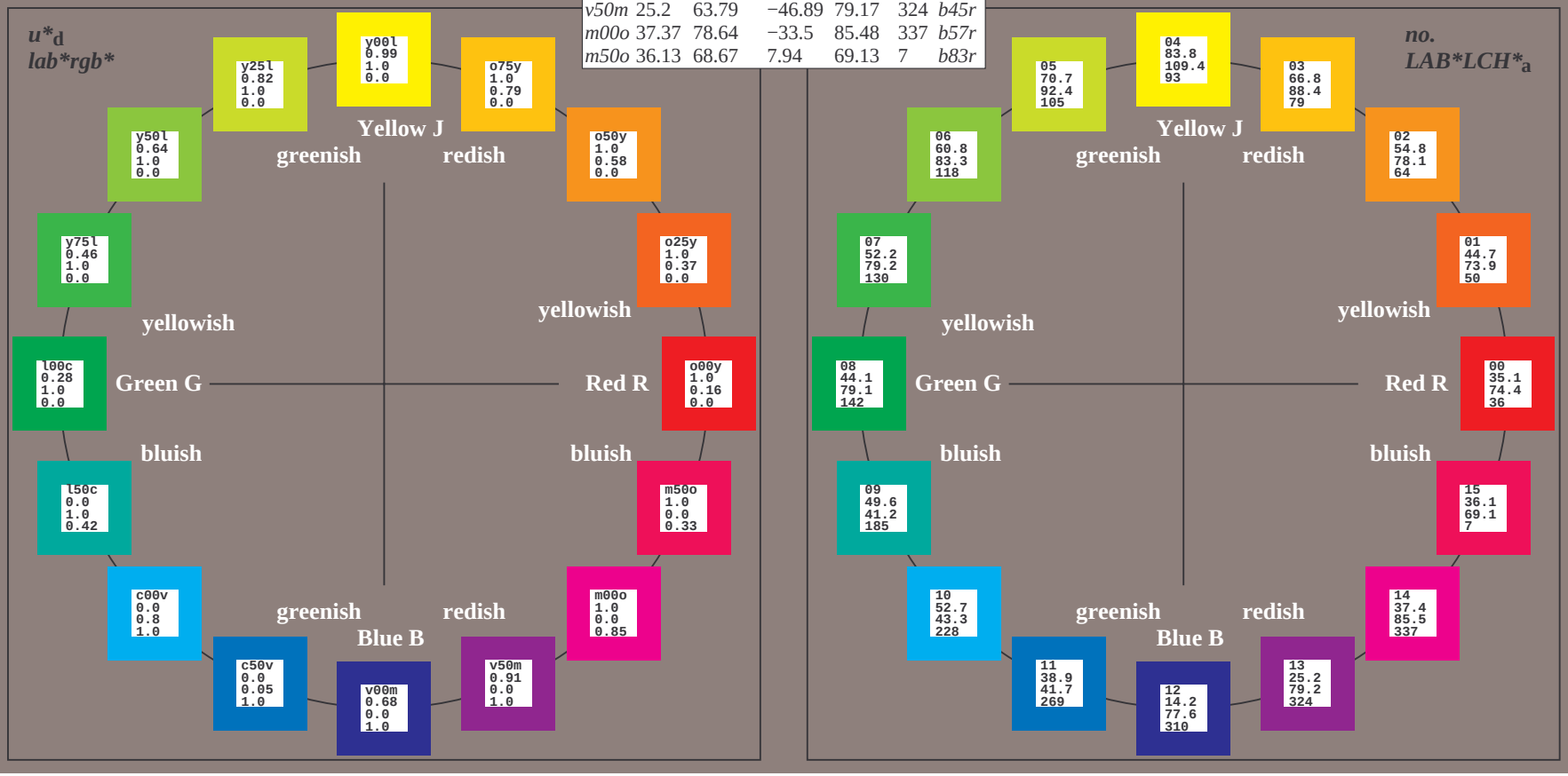
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** **and** *lab*icu**

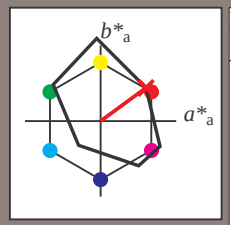
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 35 60 44

*LAB*LCH**$_{Ma}$: 35 74 36

*lab*olv**$_{Ma}$: 1.0 0.0 0.0

*lab*rgb**$_{Ma}$: 1.0 0.16 0.0

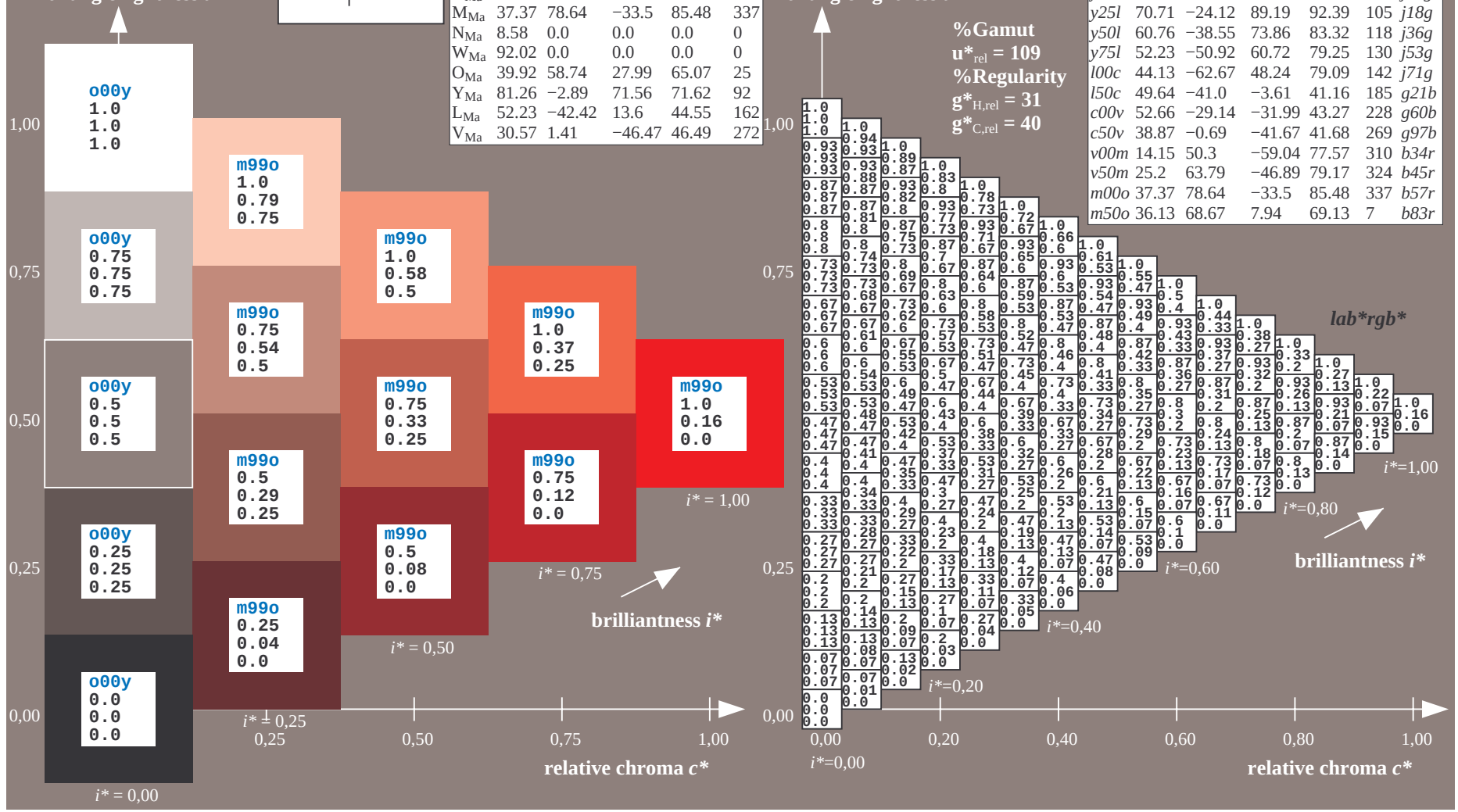
triangle lightness *t**

u^*_d = *o00y*

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** **and** *lab*icu**

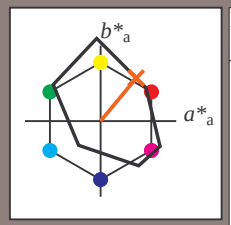
Hue texts:

$u^*_d = o25y$ $u^*_e = r37j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 45 47 57

*LAB*LCH**$_{Ma}$: 45 74 50

*lab*olv**$_{Ma}$: 1.0 0.25 0.0

*lab*rgb**$_{Ma}$: 1.0 0.37 0.0

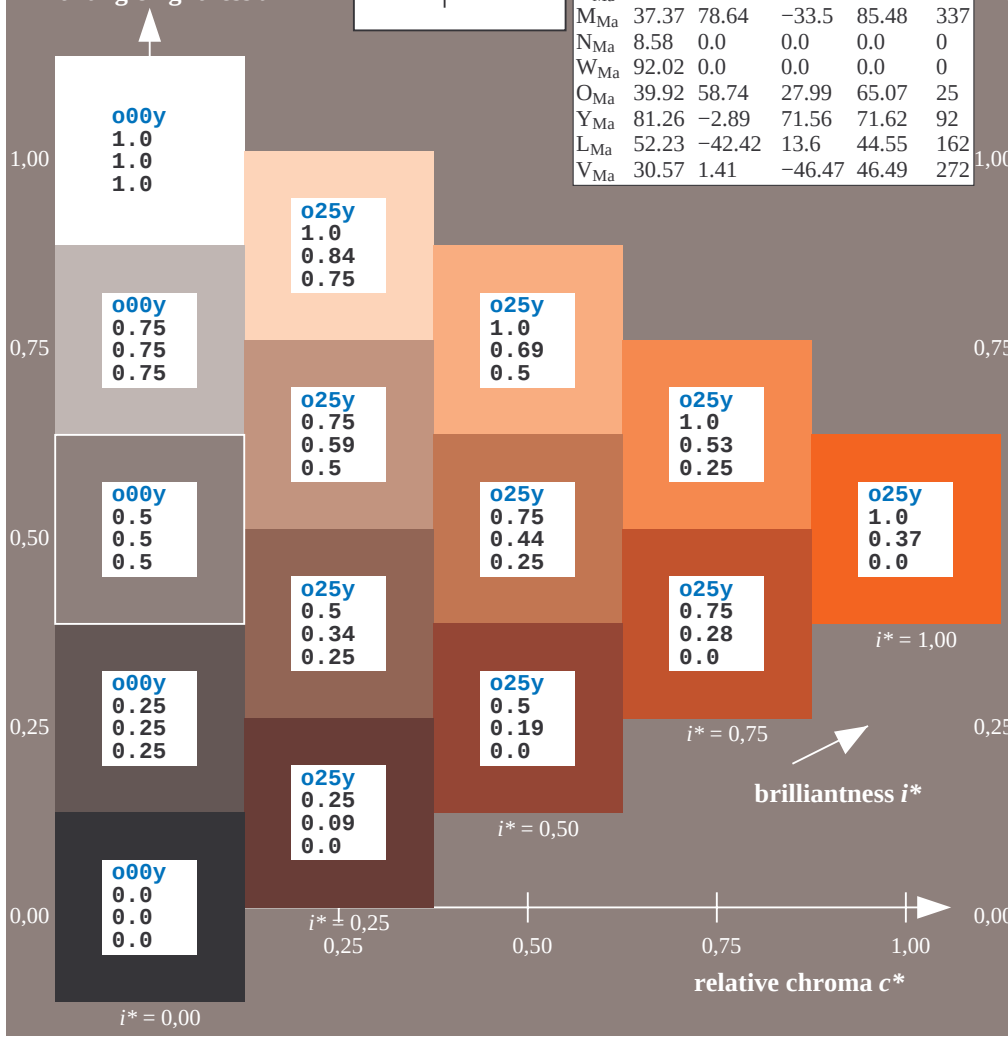
triangle lightness *t**

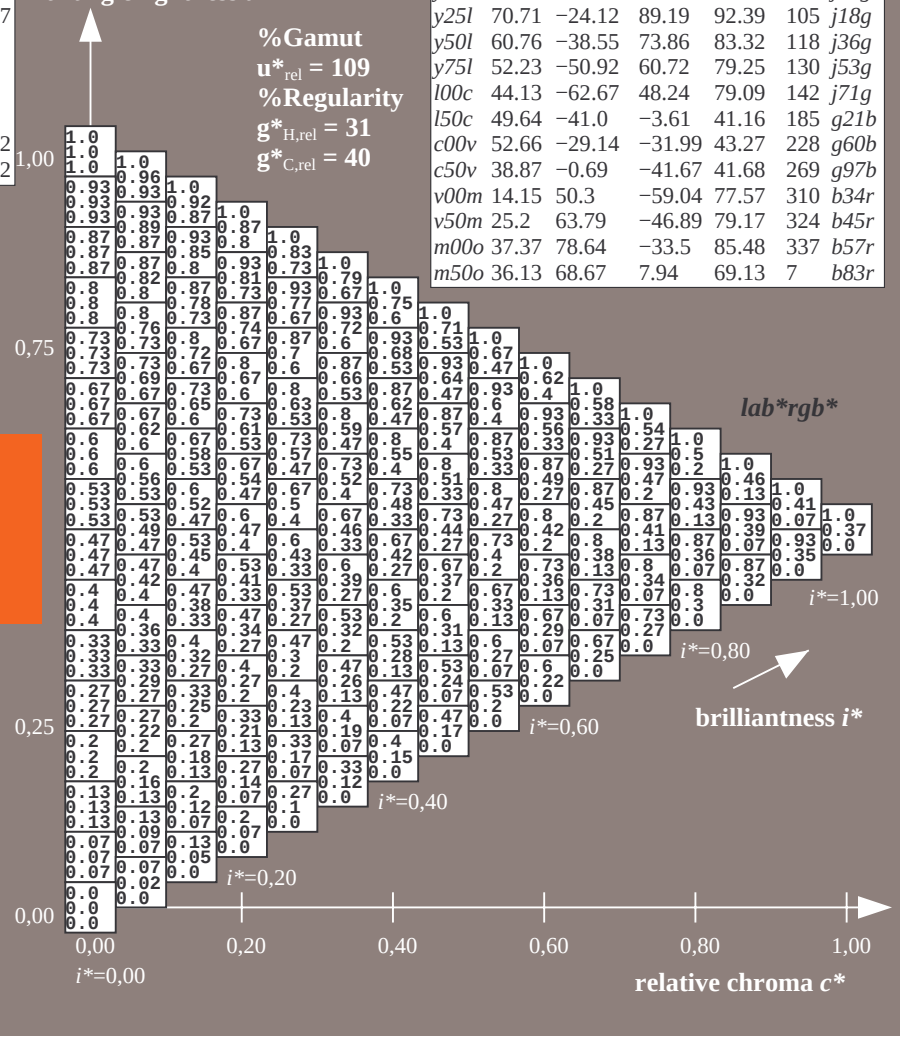
$u^*_d = o25y$

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** **and** *lab*icu**

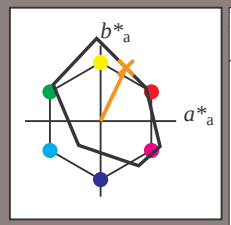
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

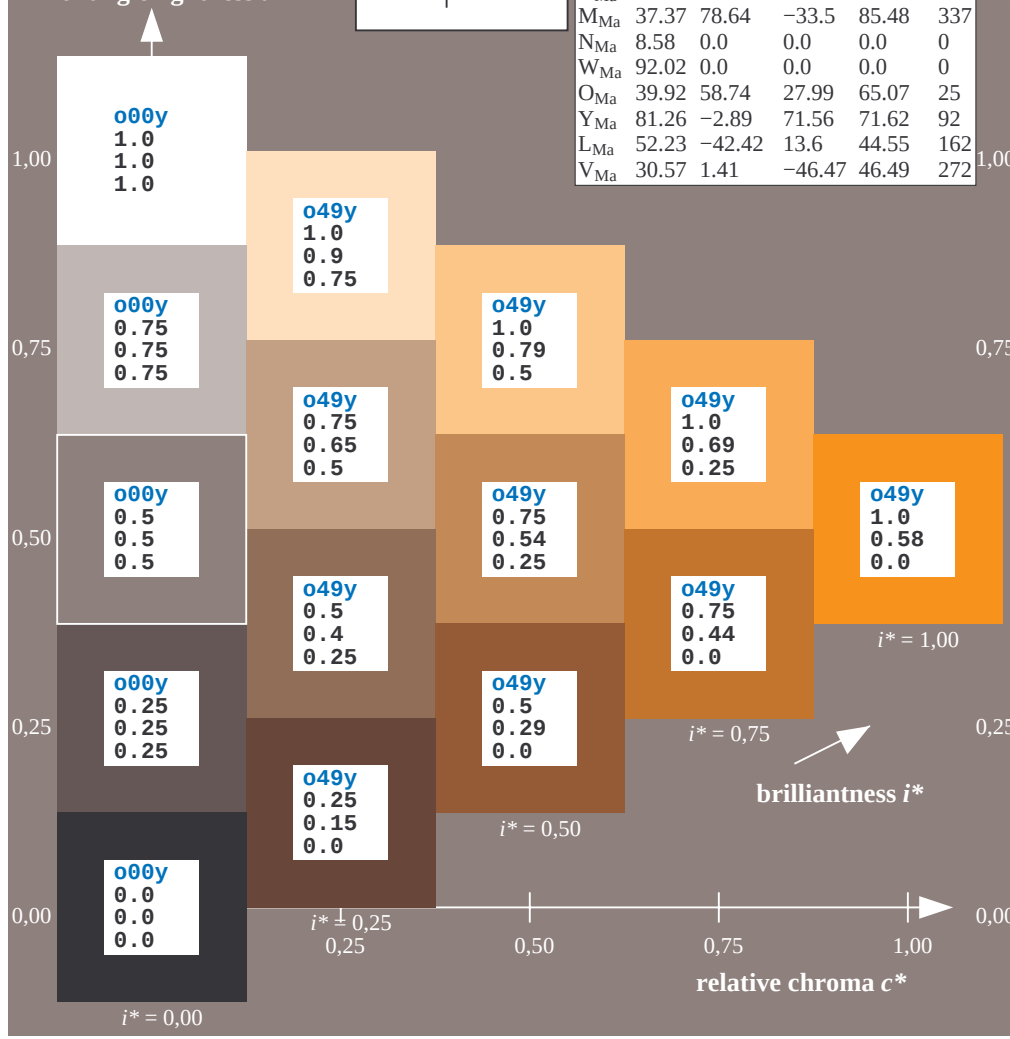
$LAB^*LAB^*_{Ma}$: 55 34 70

$LAB^*LCH^*_{Ma}$: 55 78 64

$lab^*olv^*_{Ma}$: 1.0 0.5 0.0

$lab^*rgb^*_{Ma}$: 1.0 0.58 0.0

triangle lightness t^*



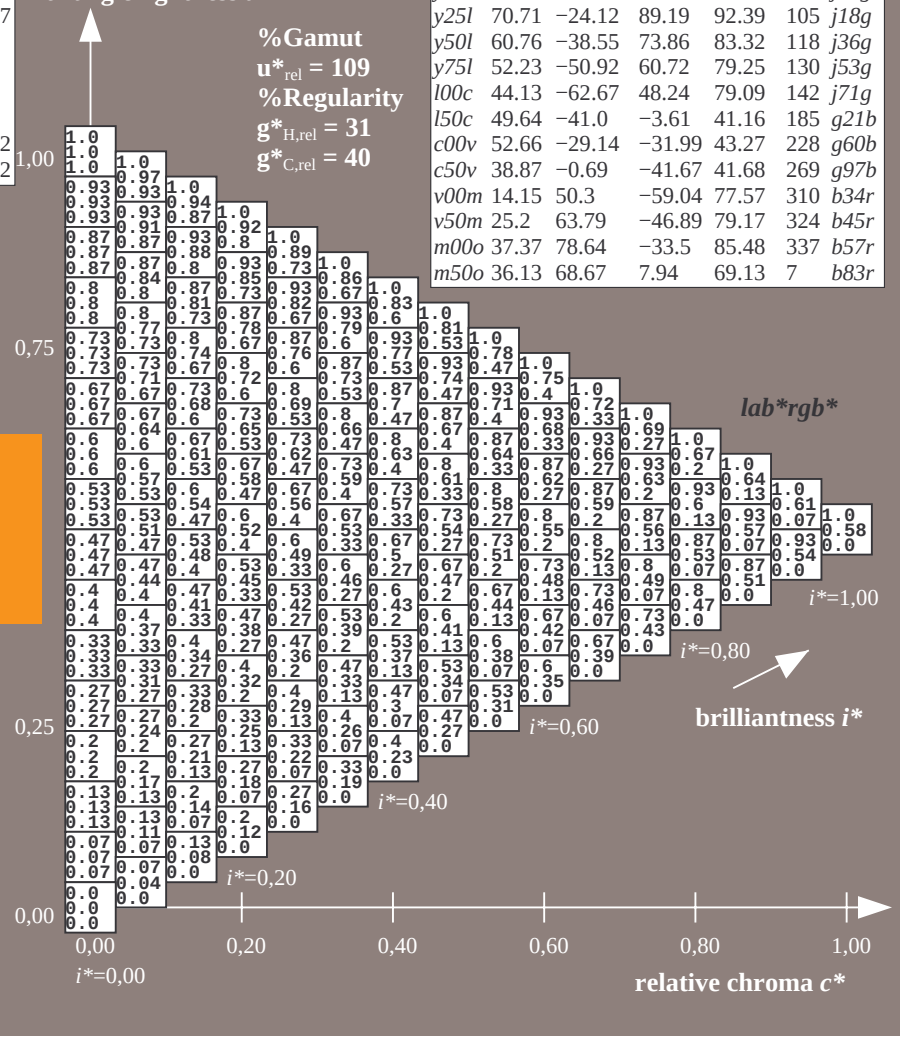
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



$u^*_d = o50y$

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

data for any colour:

*lab*tch** **and** *lab*icu**

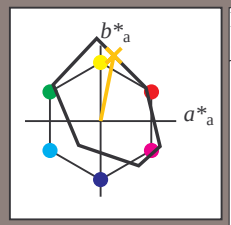
Hue texts:

$u^*_d = o75y$ $u^*_e = r79j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 67 17 87**

***LAB*LCH*Ma*: 67 88 78**

***lab*olv*Ma*: 1.0 0.75 0.0**

***lab*rgb*Ma*: 1.0 0.79 0.0**

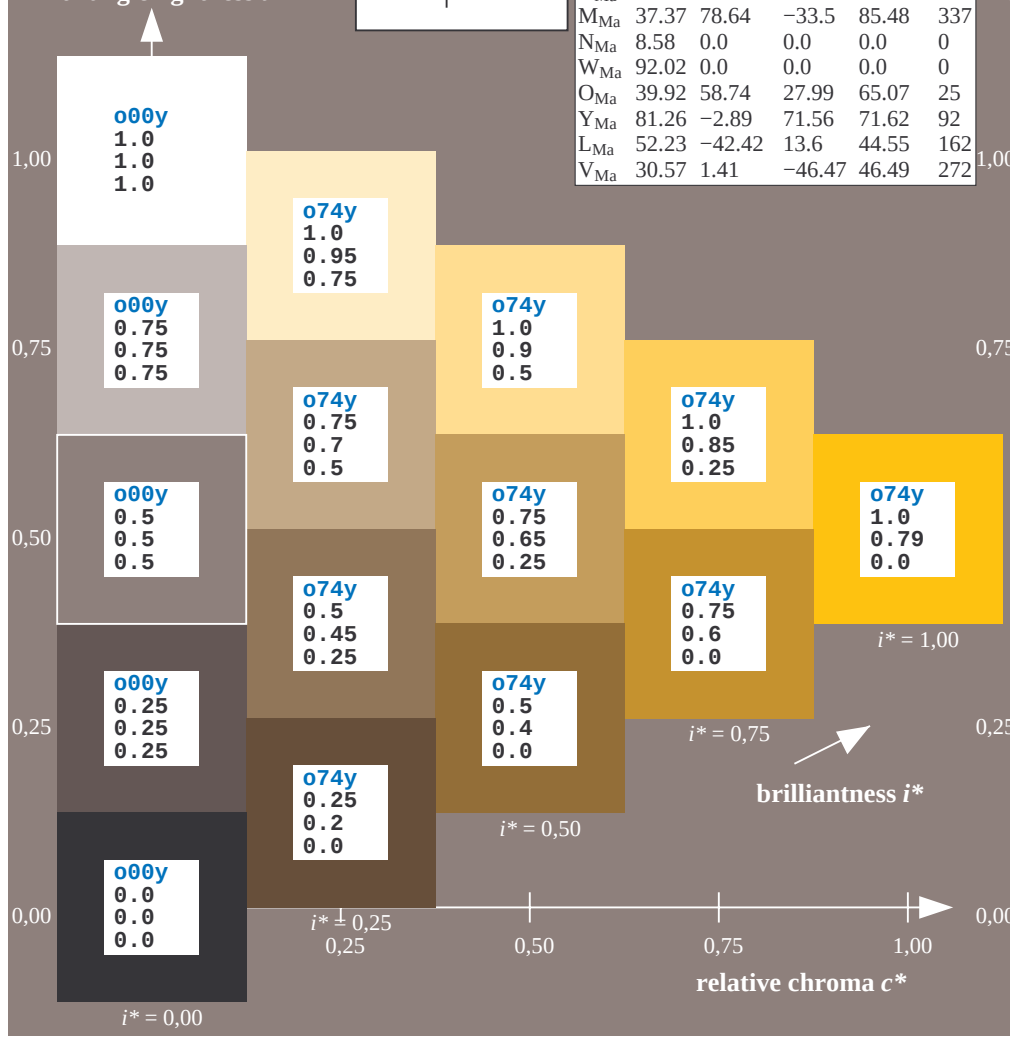
triangle lightness *t**

$u^*_d = o75y$

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



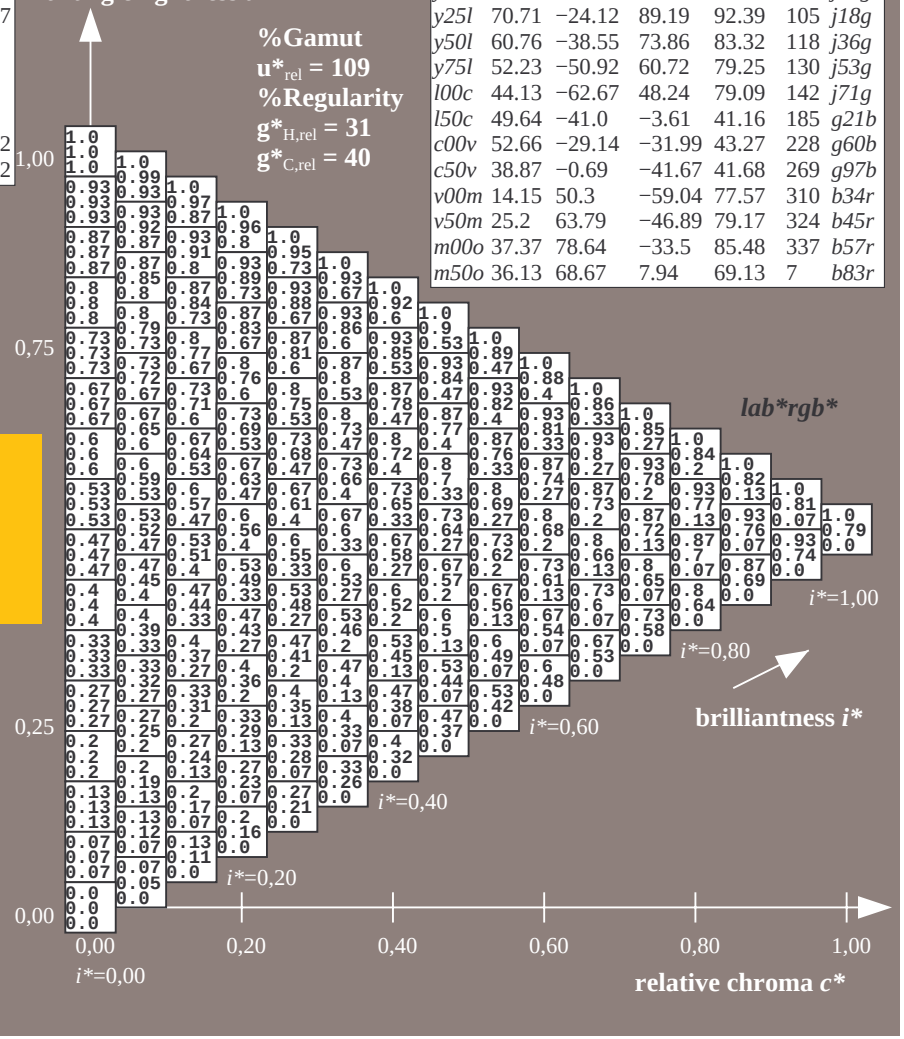
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** and *lab*icu**

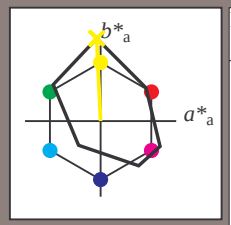
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 84 −5 109**

***LAB*LCH*$_{Ma}$*: 84 109 92**

***lab*olv*$_{Ma}$*: 1.0 1.0 0.0**

***lab*rgb*$_{Ma}$*: 0.99 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

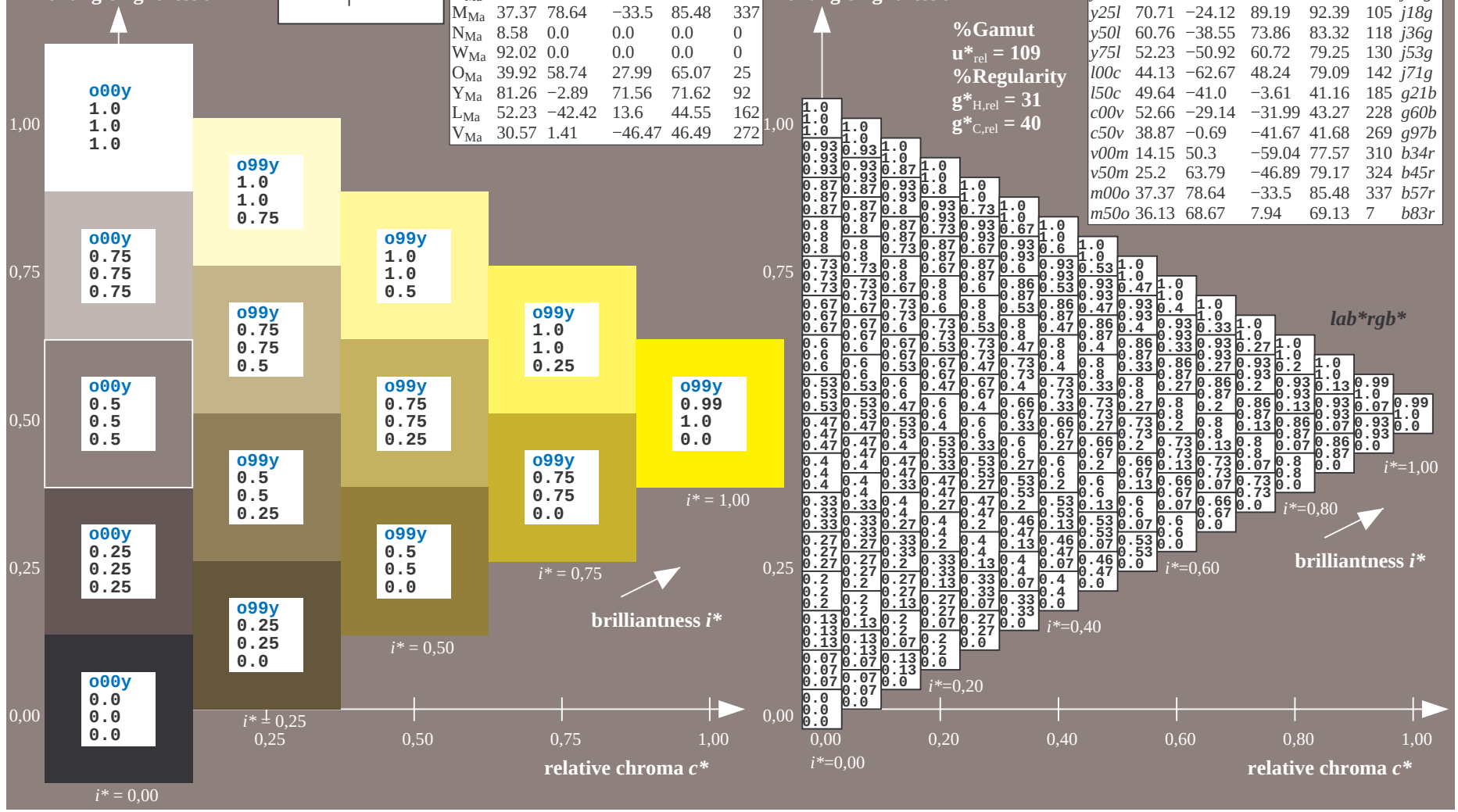
$g^*_{C,rel}$ = 40

u*$_d$ = y00l

lab*rgb*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** **and** *lab*icu**

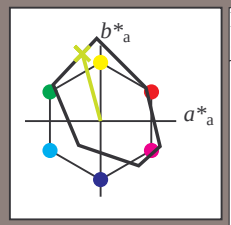
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

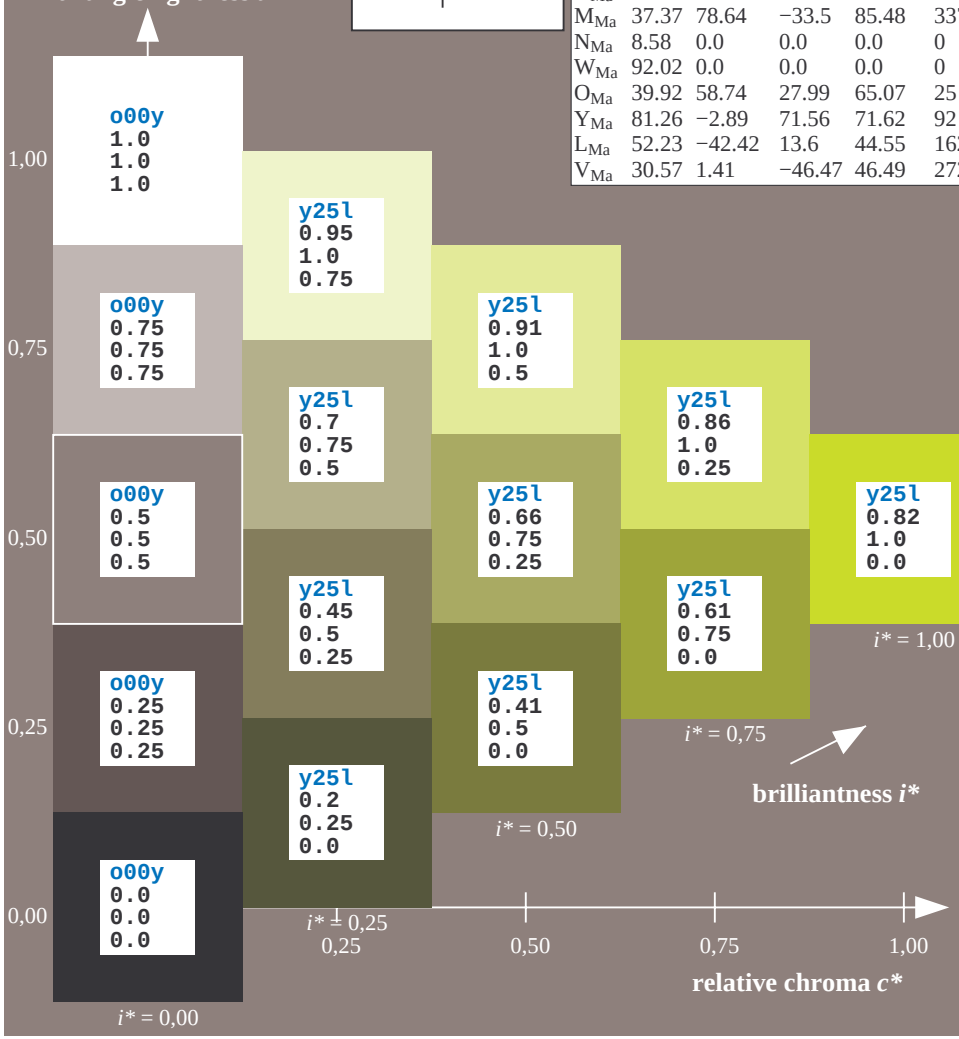
$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB*Ma*: 71 −24 89**

***LAB*LCH*Ma*: 71 92 105**

***lab*olv*Ma*: 0.75 1.0 0.0**

***lab*rgb*Ma*: 0.82 1.0 0.0**

triangle lightness t^*

$u^*_d = y25l$

lab*rgb*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

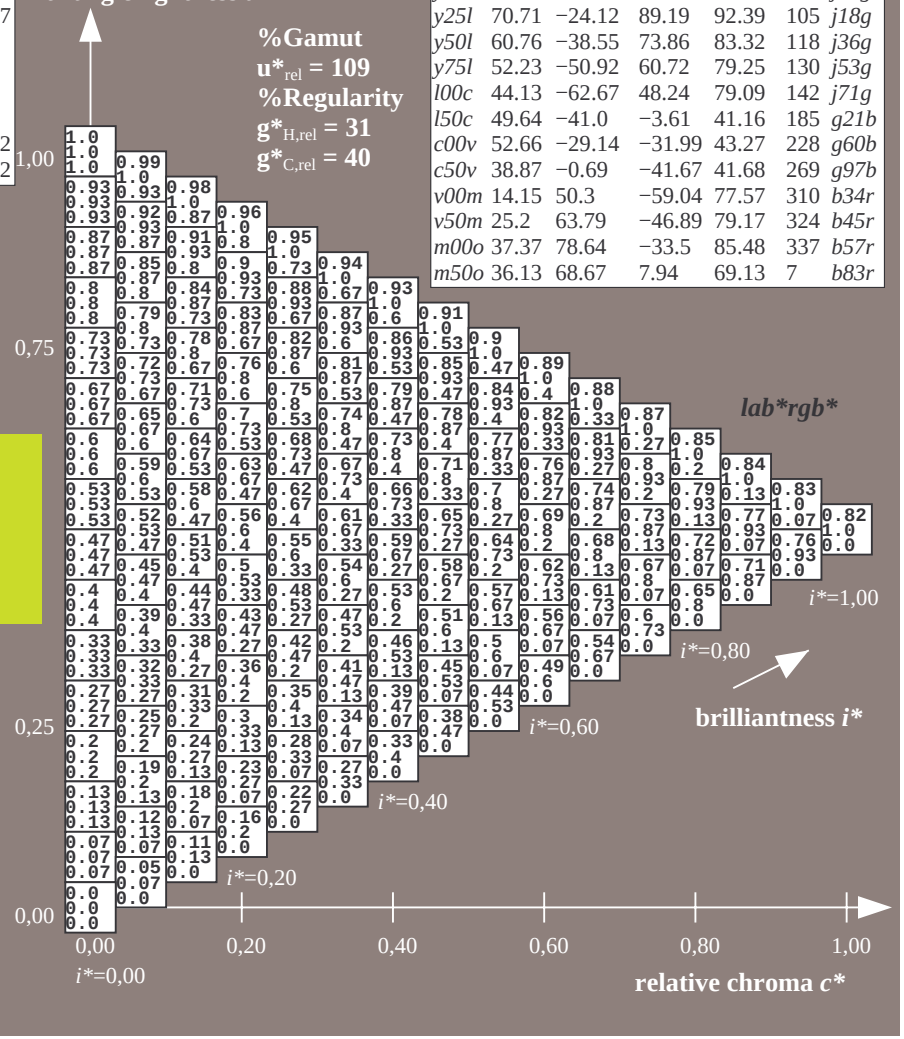
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** **and** *lab*icu**

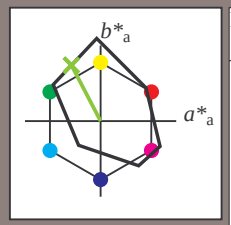
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 61 −39 74**

***LAB*LCH*Ma*: 61 83 117**

***lab*olv*Ma*: 0.5 1.0 0.0**

***lab*rgb*Ma*: 0.64 1.0 0.0**

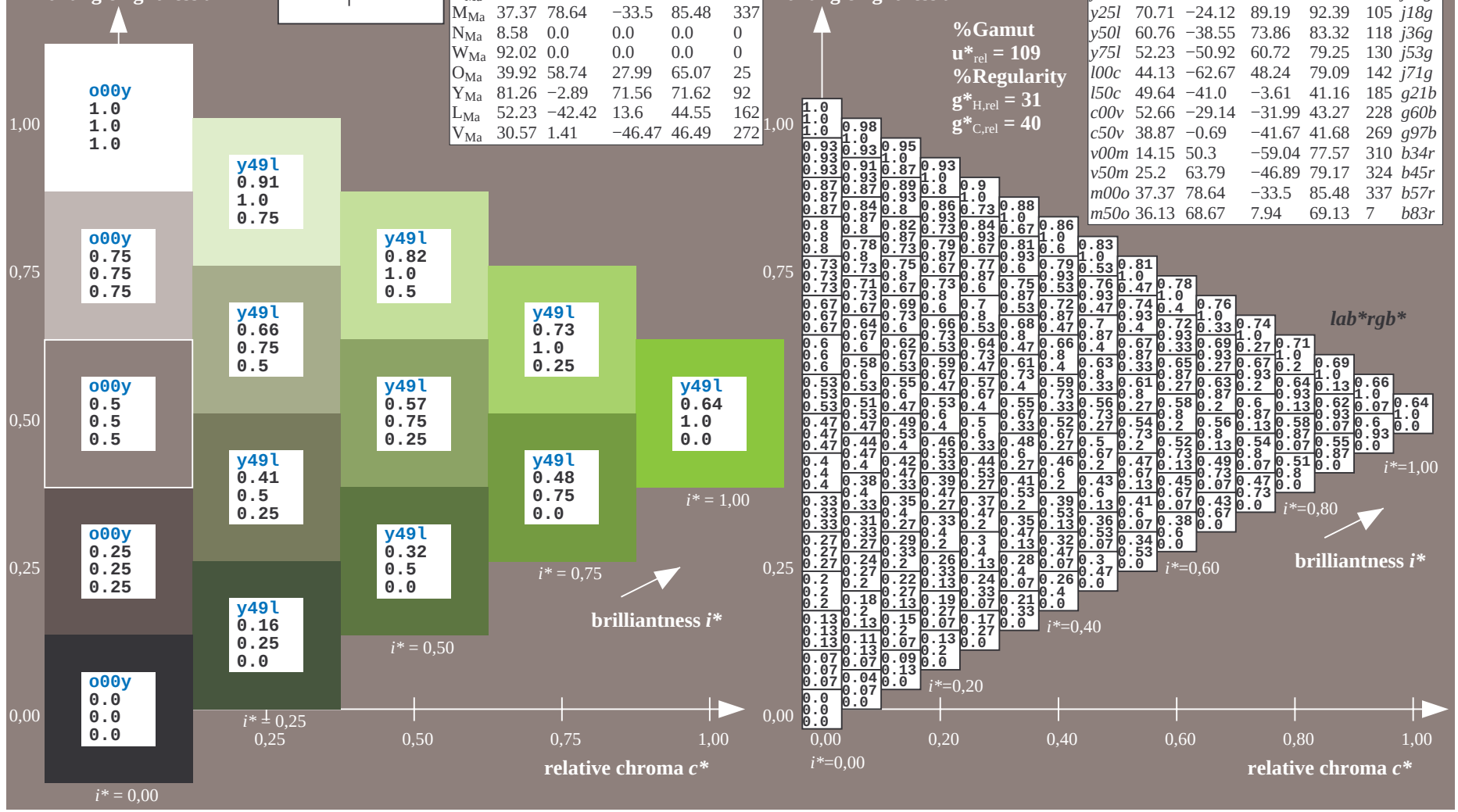
triangle lightness *t**

$u^*_d = y50l$

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

lab*tch** and *lab*icu*

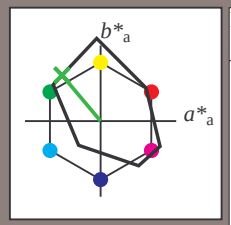
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 52 −51 61**

***LAB*LCH**$_{Ma}$: 52 79 129**

***lab*olv**$_{Ma}$: 0.25 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.46 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

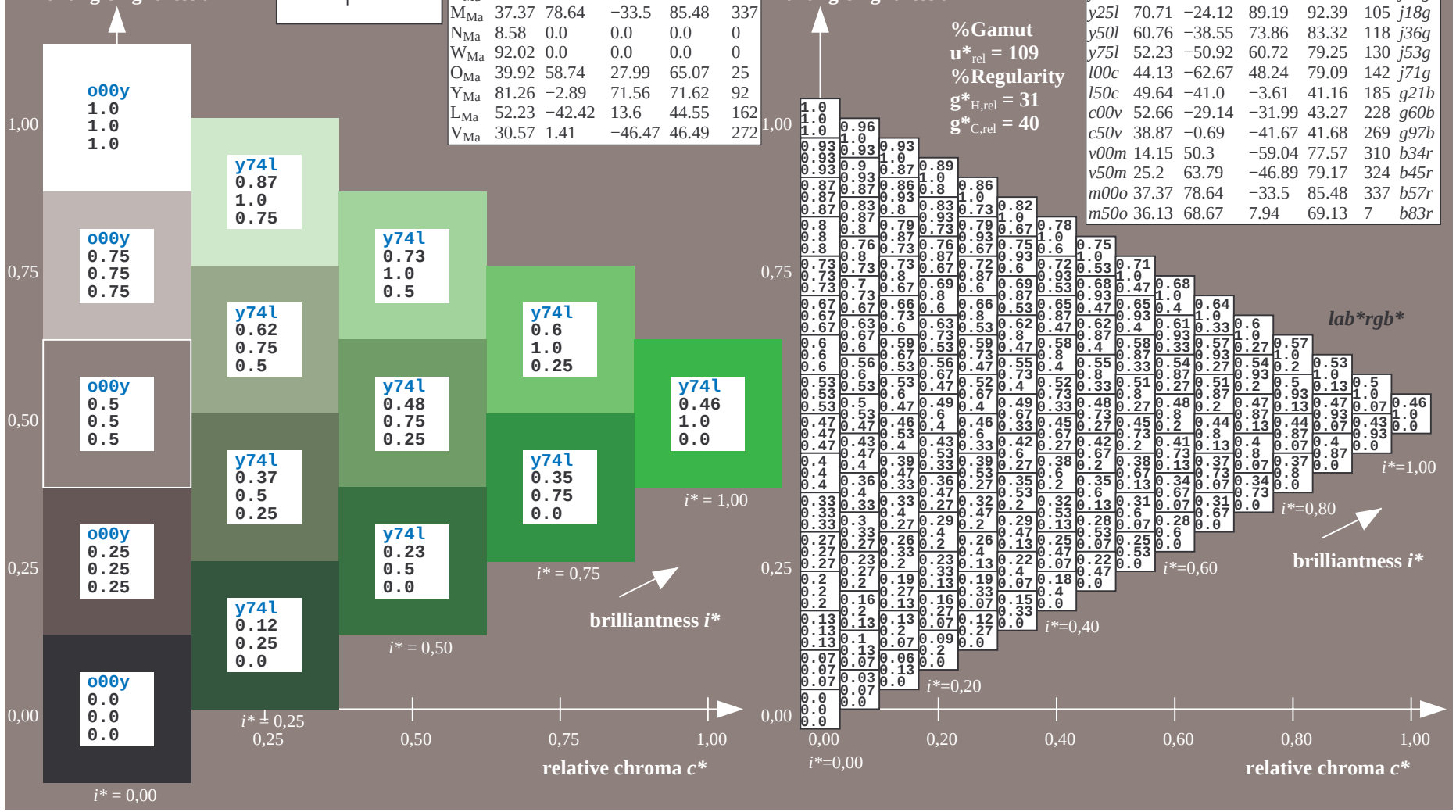
$g^*_{C,rel}$ = 40

$u^*_d = y75l$

lab*rgb*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

data for any colour:

*lab*tch** **and** *lab*icu**

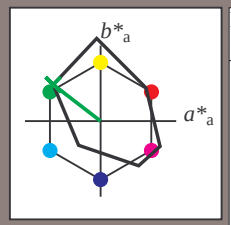
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 44 −63 48

$LAB^*LCH^*_{Ma}$: 44 79 142

$lab^*olv^*_{Ma}$: 0.0 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.28 1.0 0.0

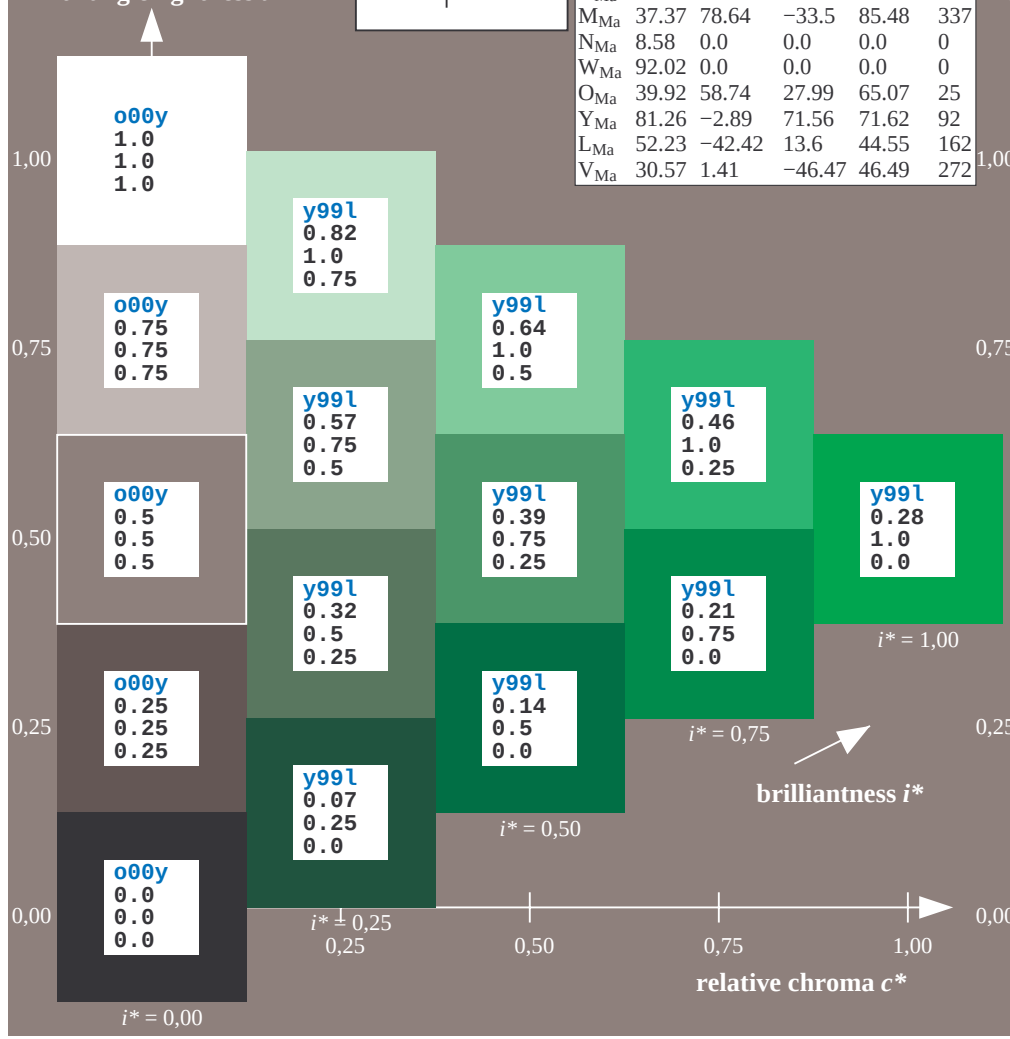
triangle lightness t^*

$u^*_d = l00c$

lab^*rgb^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



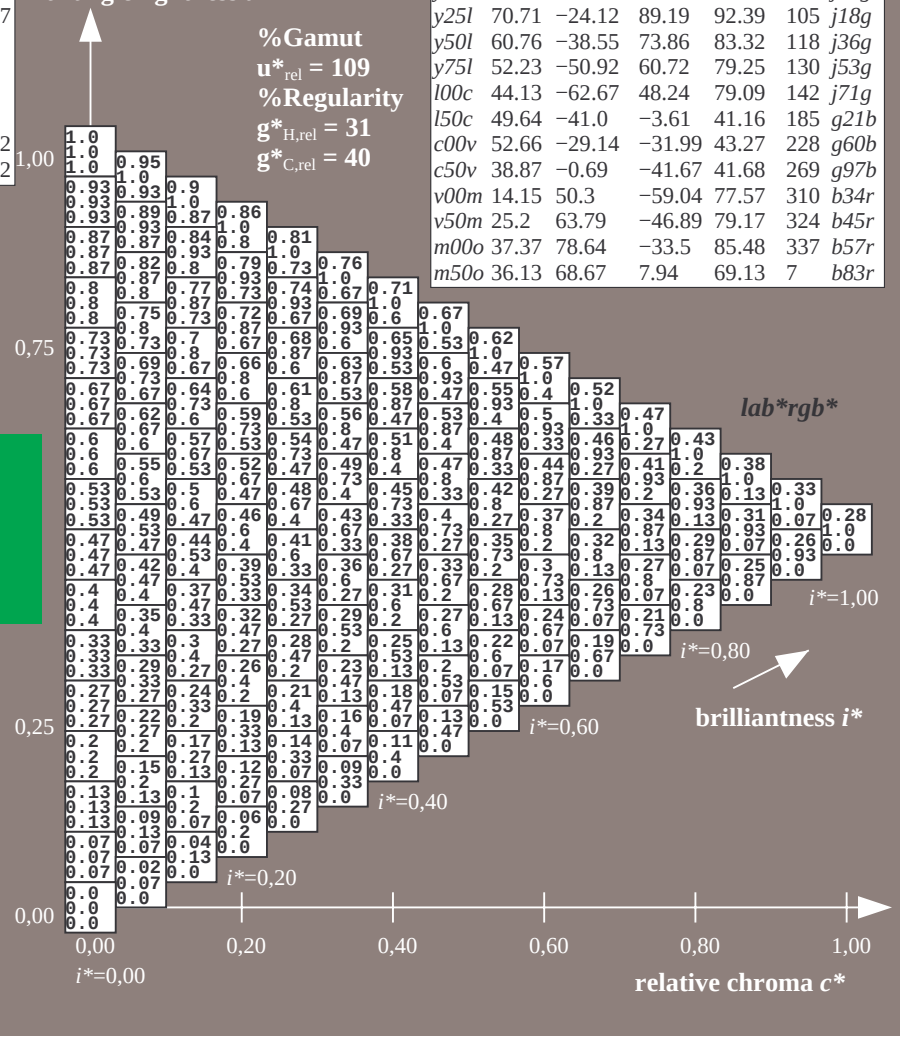
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** **and** *lab*icu**

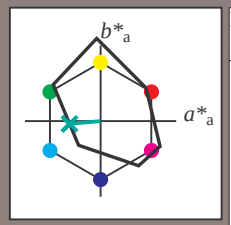
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 50 −41 −4**

***LAB*LCH**$_{Ma}$: 50 41 185**

***lab*olv**$_{Ma}$: 0.0 1.0 0.5**

***lab*rgb**$_{Ma}$: 0.0 1.0 0.42**

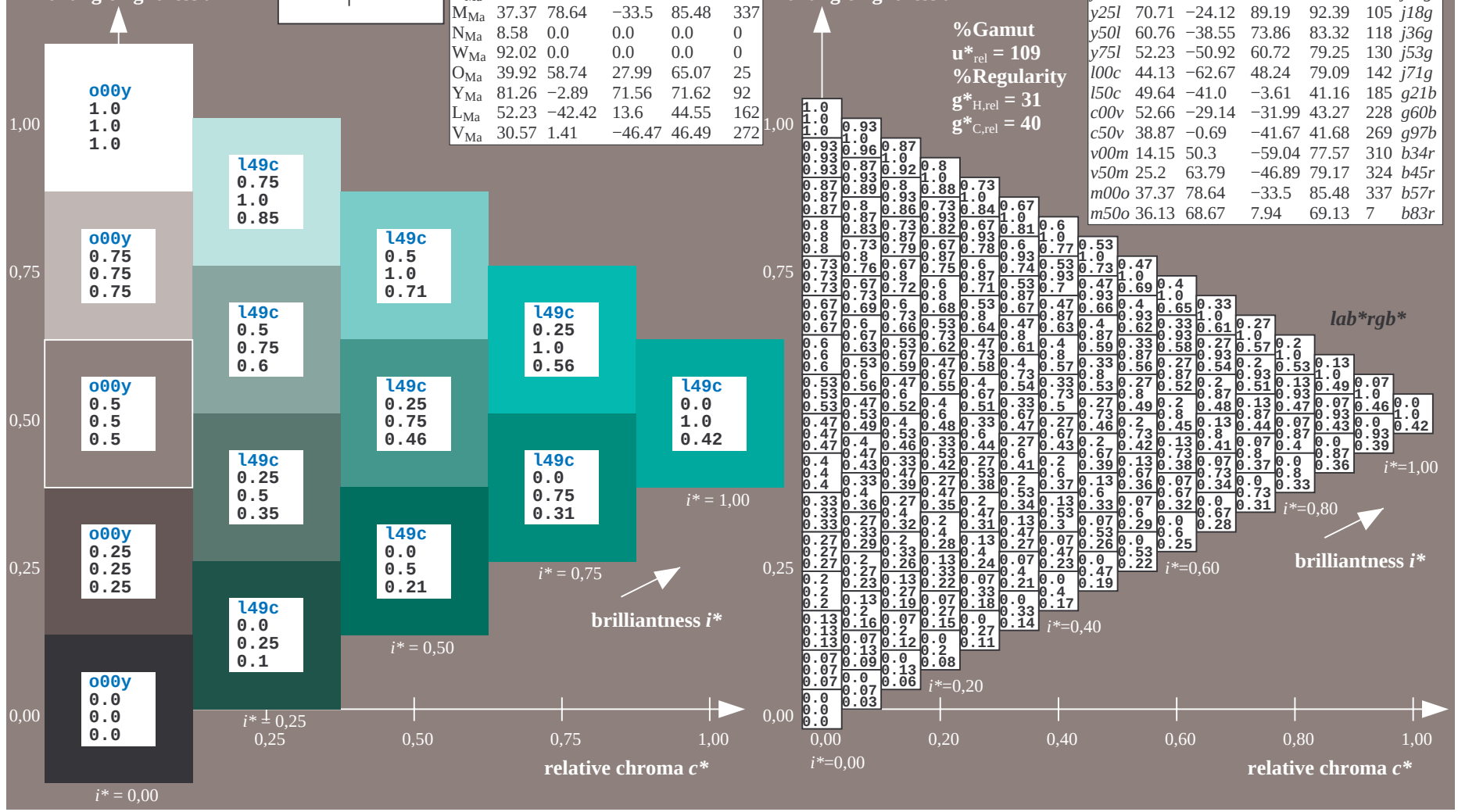
triangle lightness *t**

$u^*_d = l50c$

lab*rgb*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** **and** *lab*icu**

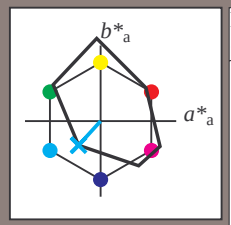
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 53 −29 −32**

***LAB*LCH*Ma*: 53 43 227**

***lab*olv*Ma*: 0.0 1.0 1.0**

***lab*rgb*Ma*: 0.0 0.8 1.0**

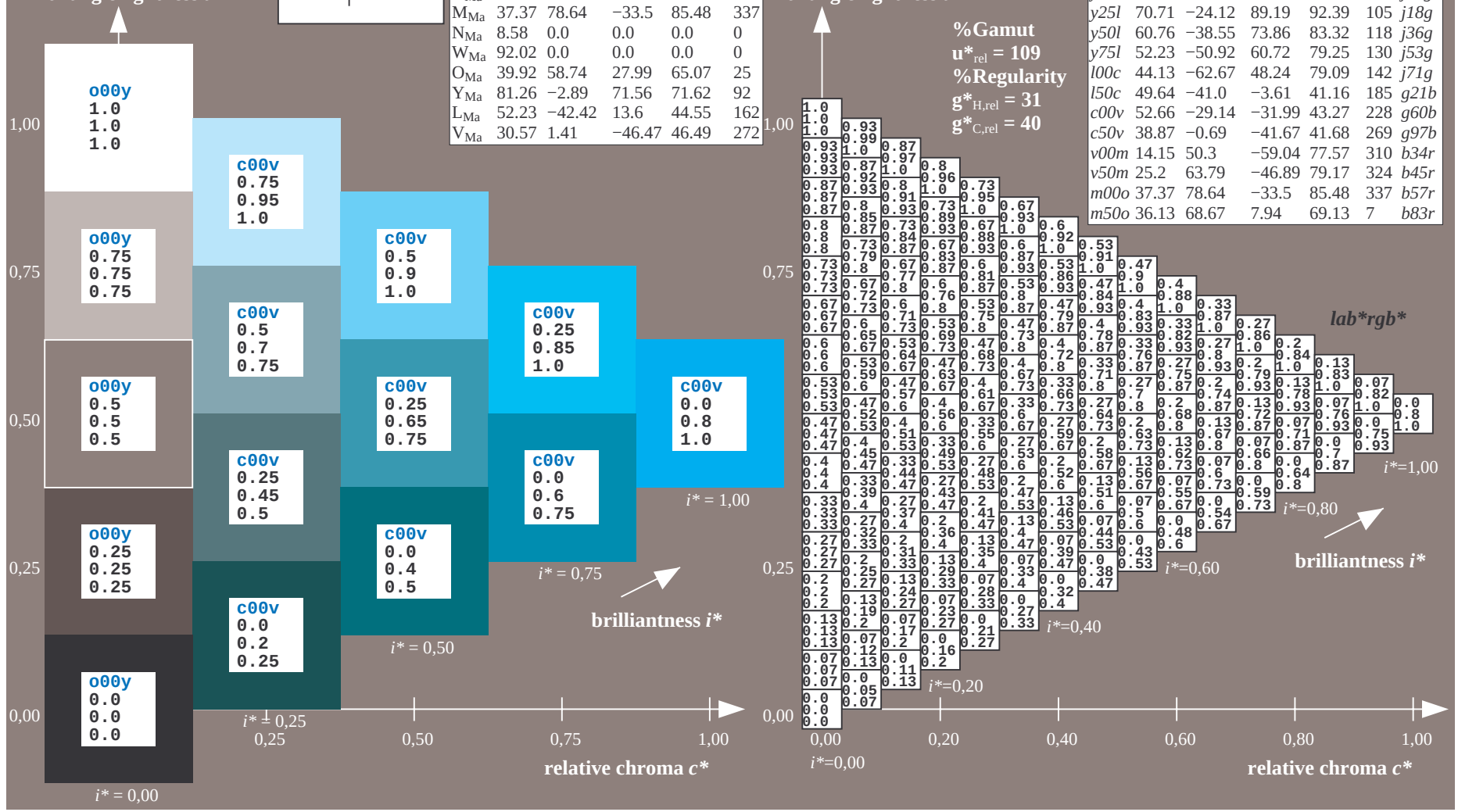
triangle lightness *t**

$u^*_d = c00v$

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** and *lab*icu**

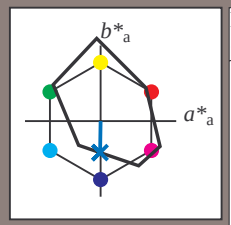
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 39 −1 −42

*LAB*LCH**$_{Ma}$: 39 42 269

*lab*olv**$_{Ma}$: 0.0 0.5 1.0

*lab*rgb**$_{Ma}$: 0.0 0.05 1.0

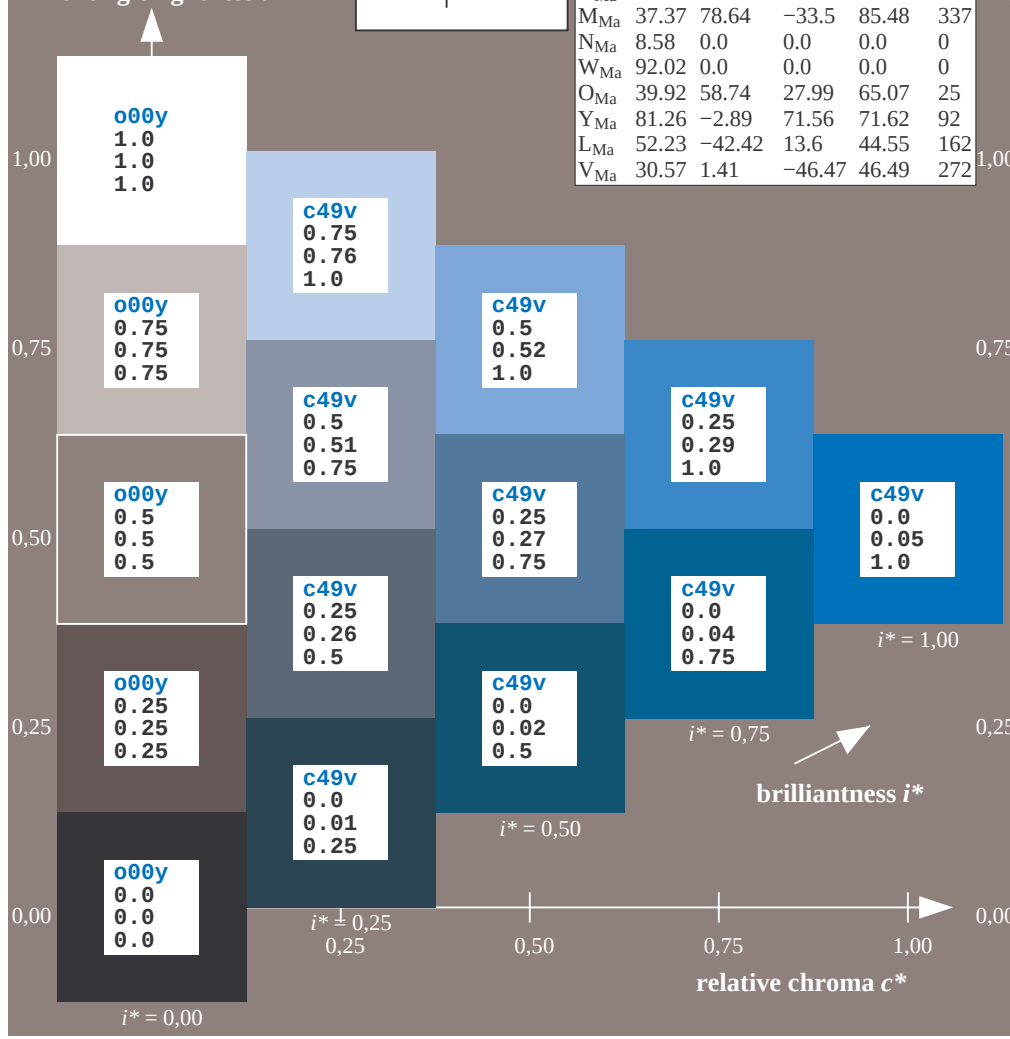
triangle lightness *t**

$u^*_d = c50v$

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



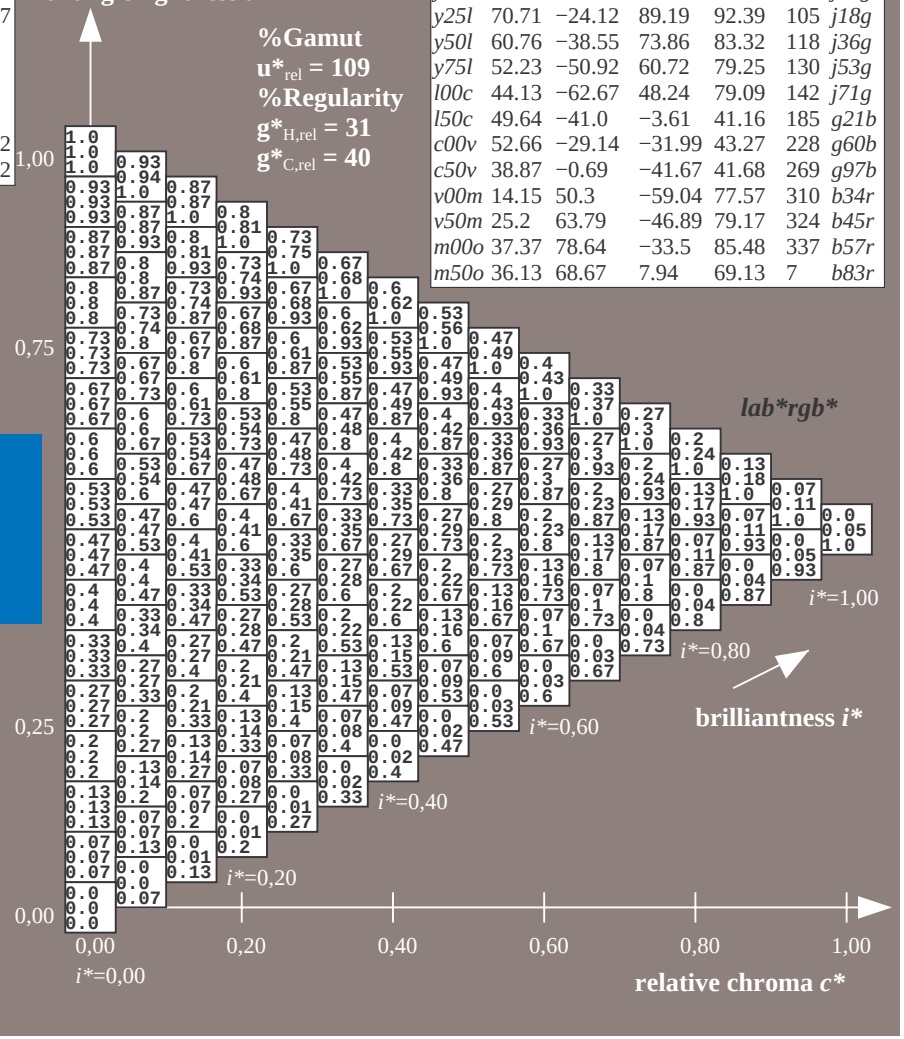
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

data for any colour:

*lab*tch** and *lab*icu**

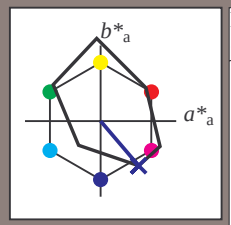
Hue texts:

u^*_d = *v00m* u^*_e = *b34r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 14 50 −59

*LAB*LCH**$_{Ma}$: 14 78 310

*lab*olv**$_{Ma}$: 0.0 0.0 1.0

*lab*rgb**$_{Ma}$: 0.68 0.0 1.0

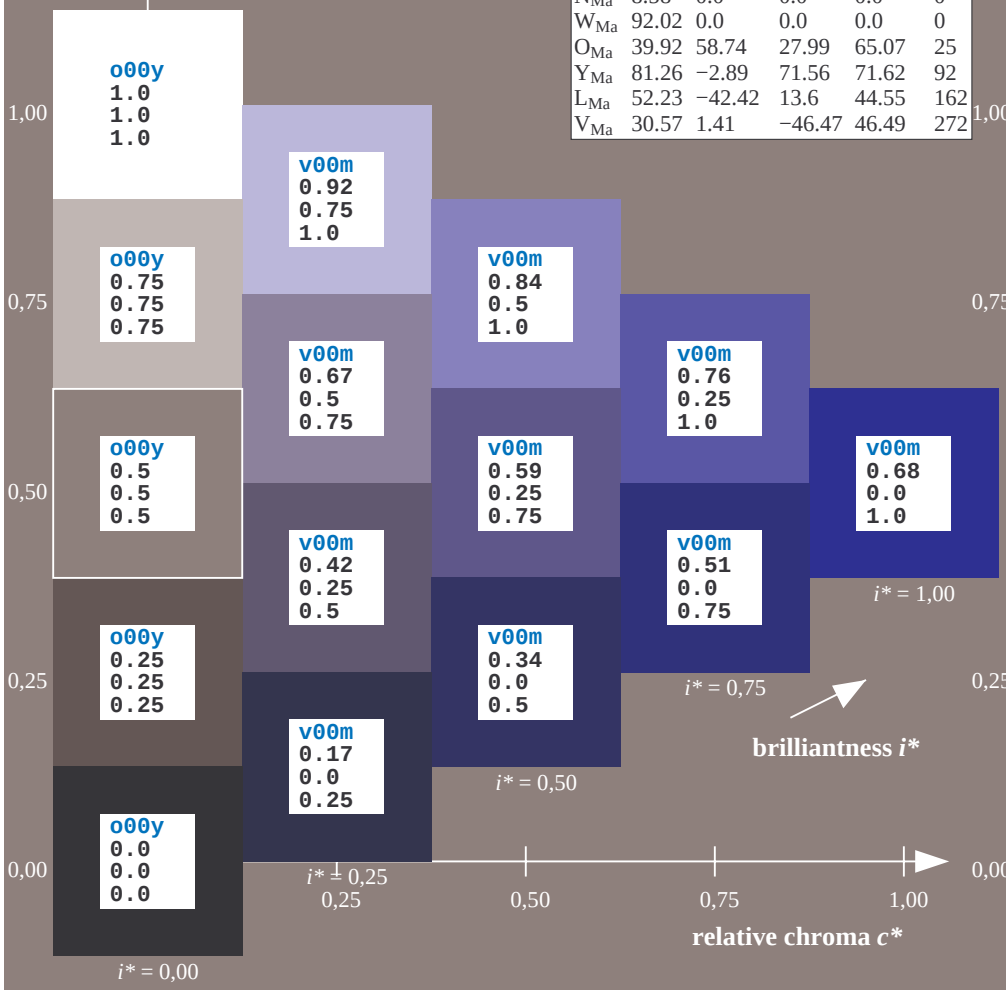
triangle lightness *t**

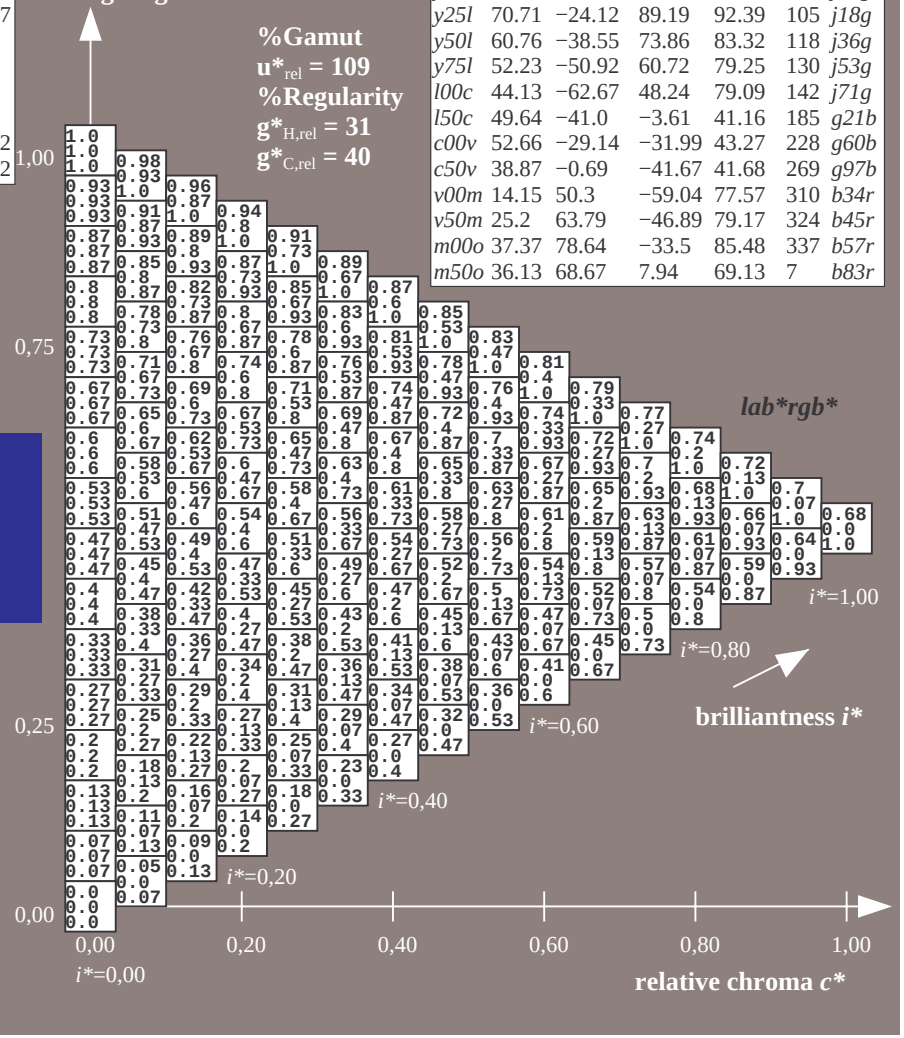
u^*_d = *v00m*

*lab*rgb**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

data for any colour:

*lab*tch** **and** *lab*icu**

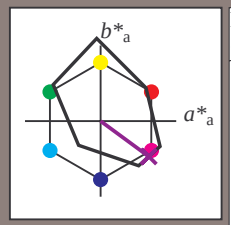
Hue texts:

$u^*_d = v50m$ $u^*_e = b45r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 25 64 −47

$LAB^*LCH^*_{Ma}$: 25 79 323

$lab^*olv^*_{Ma}$: 0.5 0.0 1.0

$lab^*rgb^*_{Ma}$: 0.91 0.0 1.0

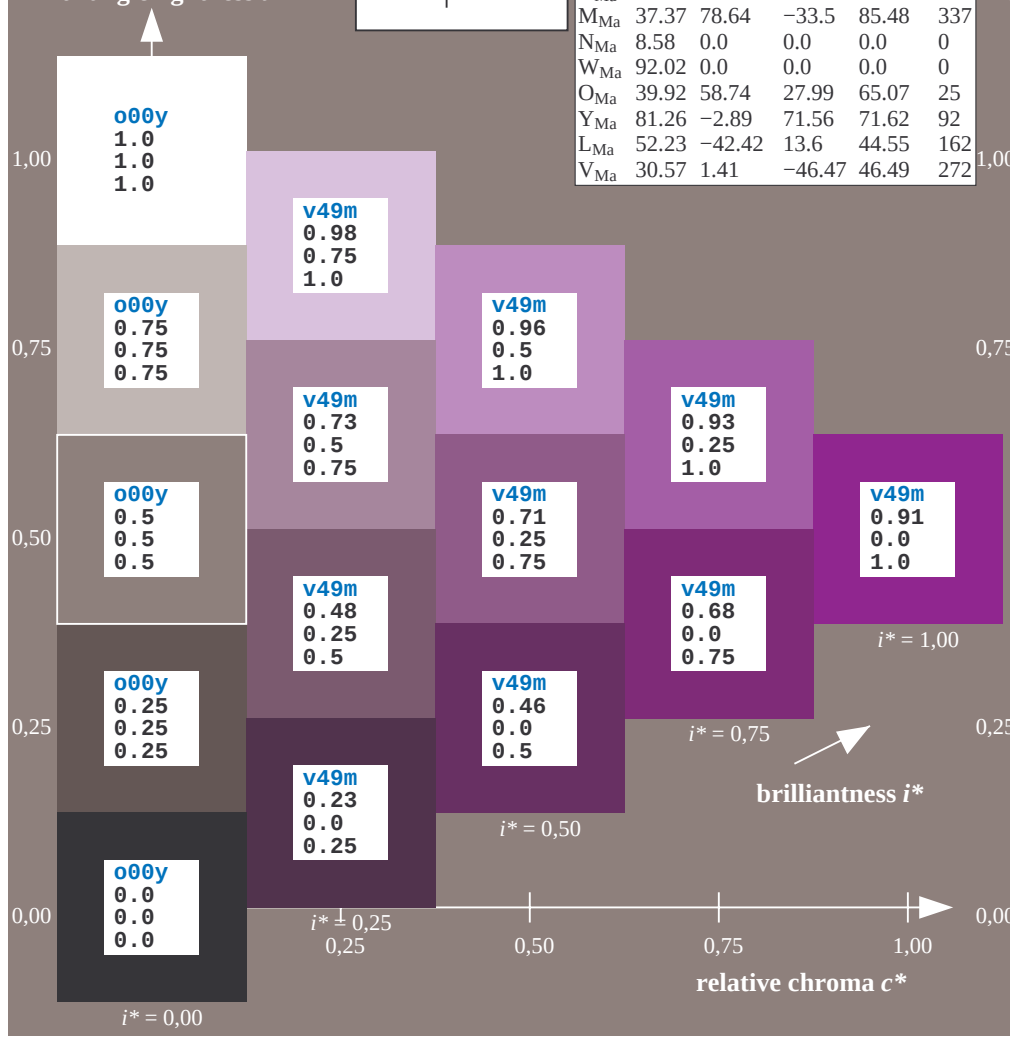
triangle lightness t^*

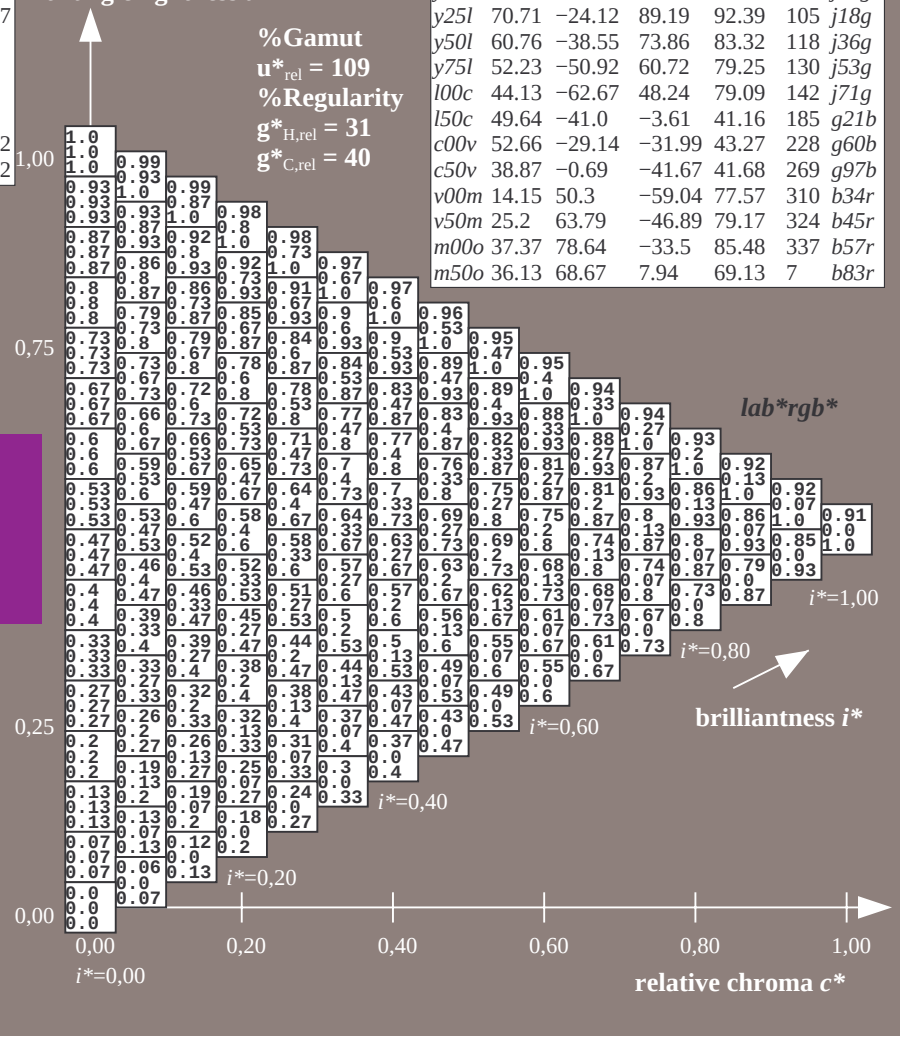
$u^*_d = v50m$

lab^*rgb^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	r16j
o25y	44.68	47.13	56.9	73.88	50	r37j
o50y	54.77	33.62	70.44	78.05	64	r58j
o75y	66.84	17.48	86.62	88.37	79	r79j
y00l	83.77	−5.17	109.32	109.44	93	j01g
y25l	70.71	−24.12	89.19	92.39	105	j18g
y50l	60.76	−38.55	73.86	83.32	118	j36g
y75l	52.23	−50.92	60.72	79.25	130	j53g
l00c	44.13	−62.67	48.24	79.09	142	j71g
l50c	49.64	−41.0	−3.61	41.16	185	g21b
c00v	52.66	−29.14	−31.99	43.27	228	g60b
c50v	38.87	−0.69	−41.67	41.68	269	g97b
v00m	14.15	50.3	−59.04	77.57	310	b34r
v50m	25.2	63.79	−46.89	79.17	324	b45r
m00o	37.37	78.64	−33.5	85.48	337	b57r
m50o	36.13	68.67	7.94	69.13	7	b83r

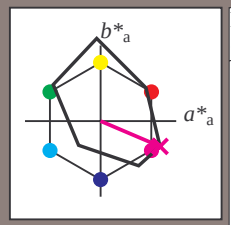




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

$u^*_d = m00o$
lab^*rgb^*

data for any colour:
lab*tch** and *lab*icu*
Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



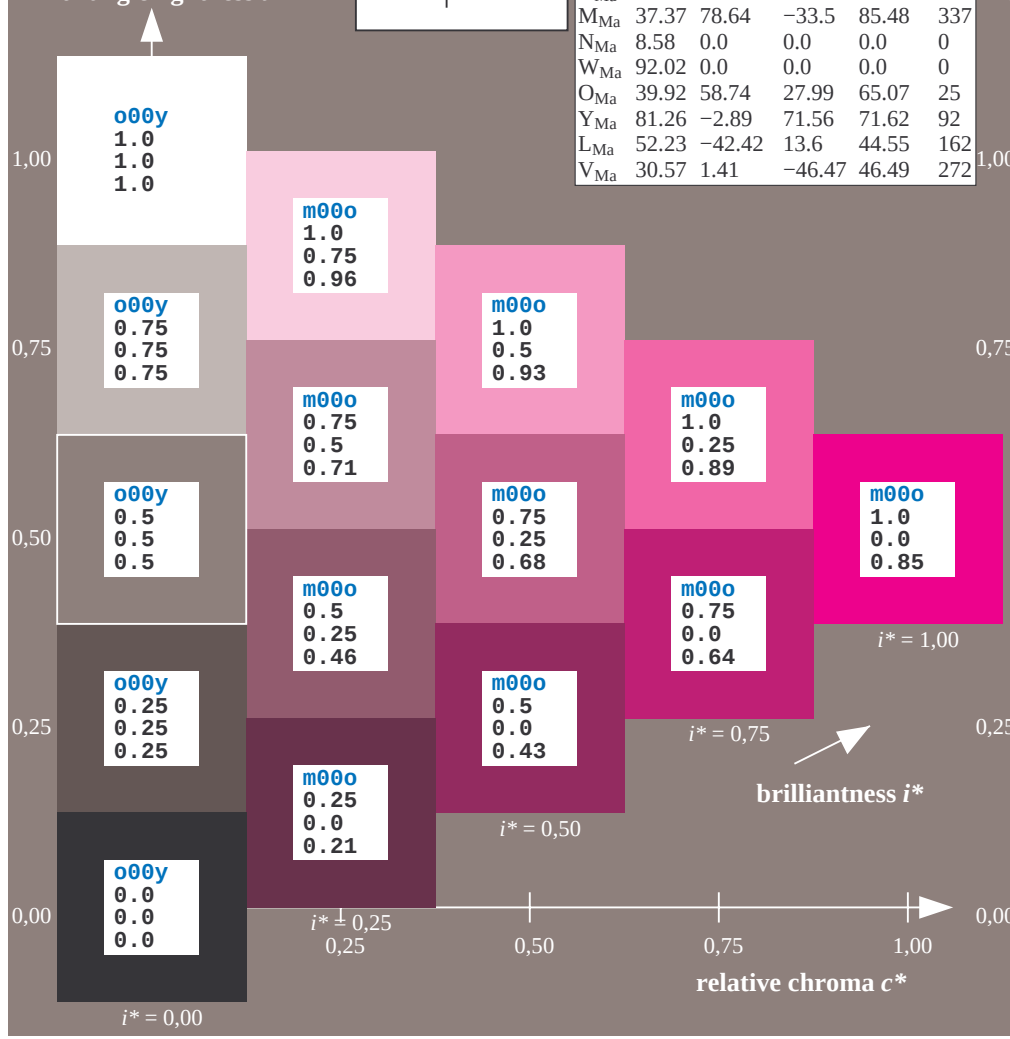
FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

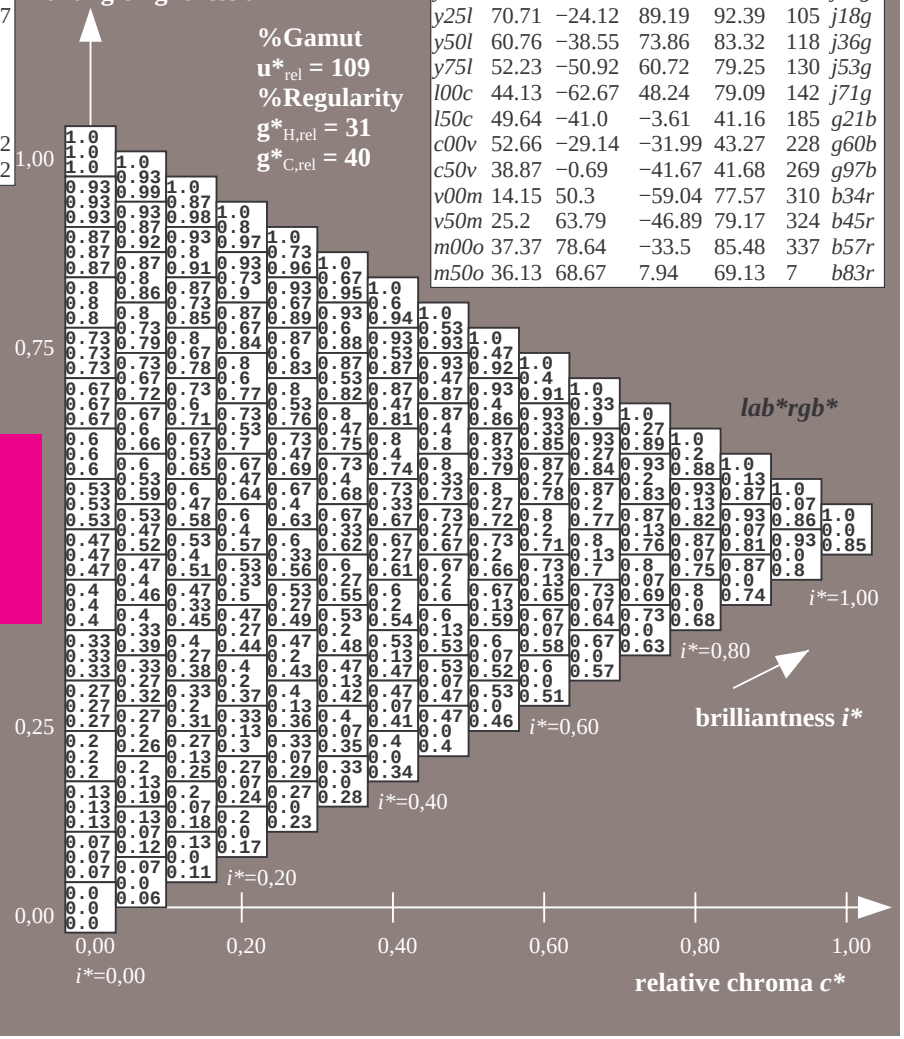
Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 37 79 −34**
***LAB*LCH**$_{Ma}$: 37 85 336**
***lab*olv**$_{Ma}$: 1.0 0.0 1.0**
***lab*rgb**$_{Ma}$: 1.0 0.0 0.85**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

data for any colour:

lab*tch** and *lab*icu*

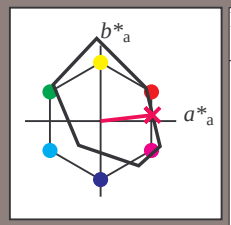
Hue texts:

u^*_d = *m50o* u^*_e = *b83r*

contrast reduction factor:

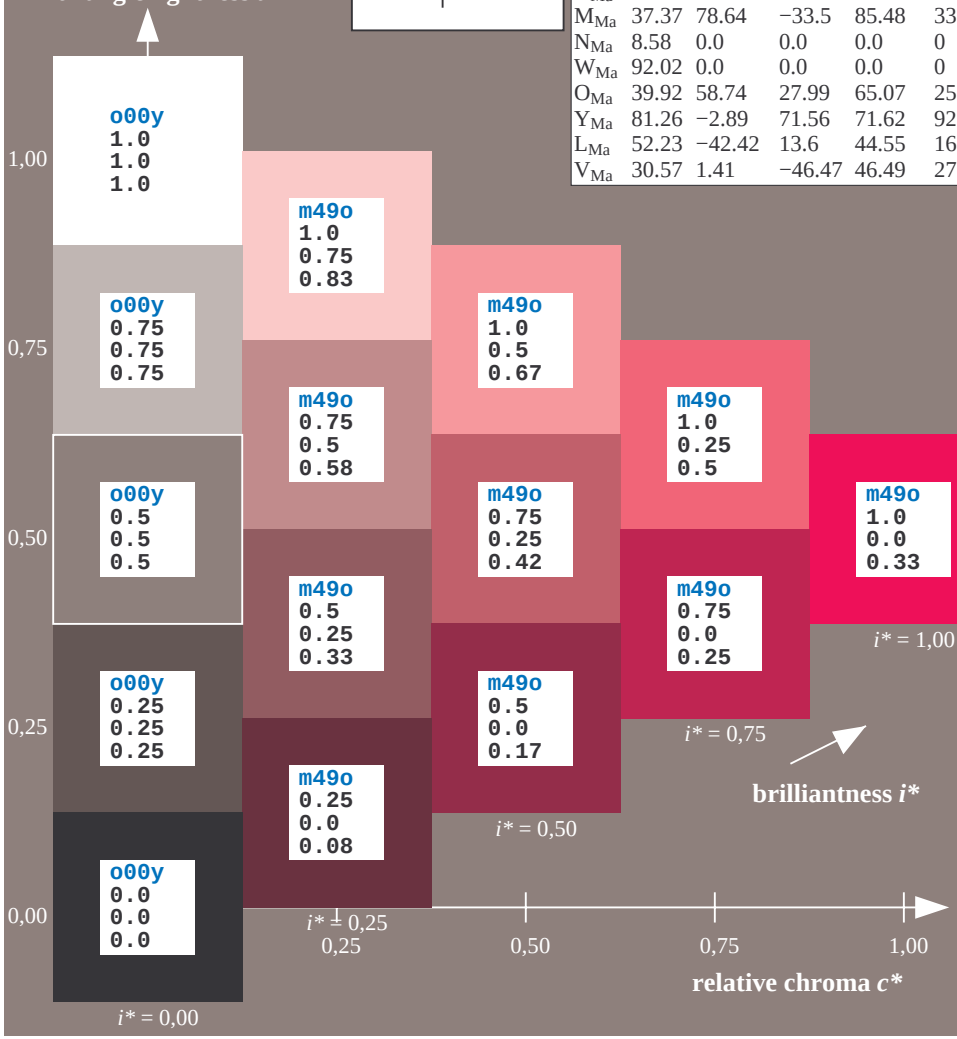
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 36 69 8**

***LAB*LCH**$_{Ma}$: 36 69 6**

***lab*olv**$_{Ma}$: 1.0 0.0 0.5**

***lab*rgb**$_{Ma}$: 1.0 0.0 0.33**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

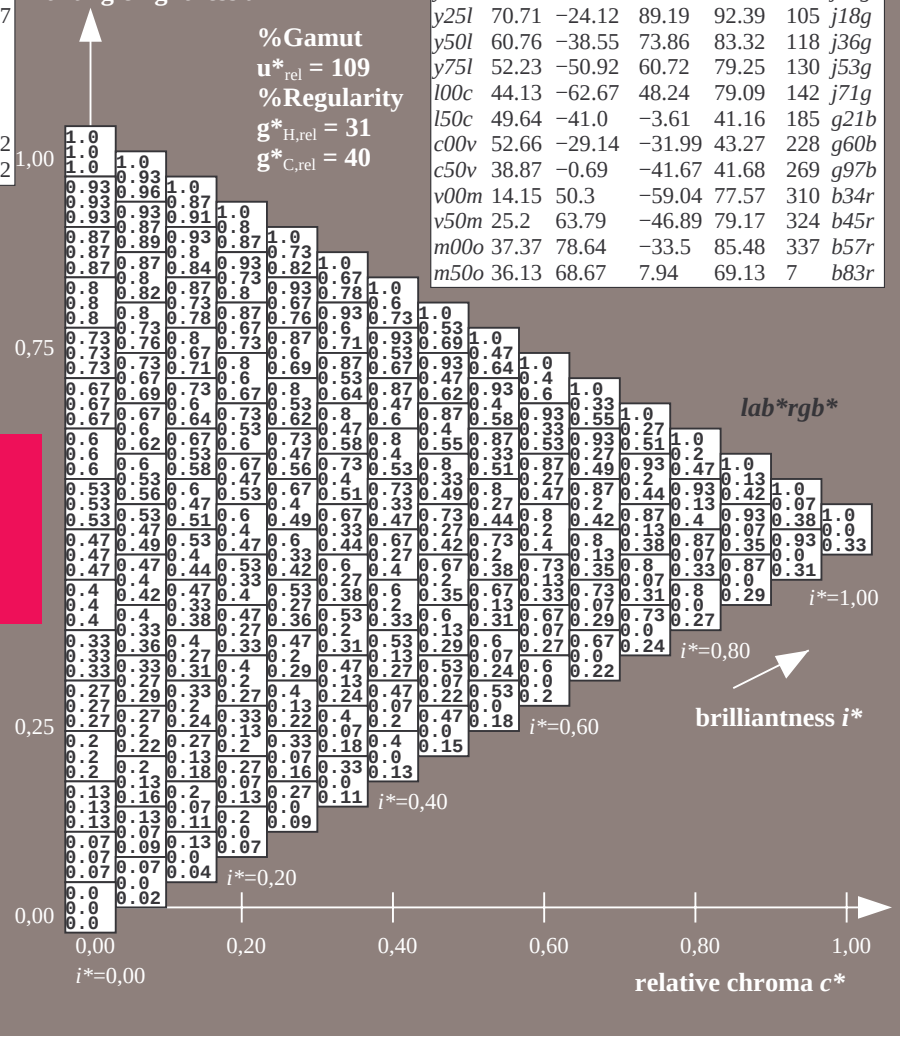
$g^*_{C,rel}$ = 40

u^*_d = *m50o*

lab*rgb*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

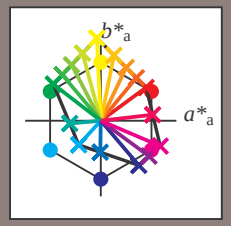


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	lab*rgb*		
01	0.0	0.04	0.07	0.11	0.14	0.18	0.21	0.25	0.28	0.13	0.12	0.16	0.2	0.23	0.27	0.3	0.34	0.37	0.25	0.25	0.25	0.28	0.32	0.35	0.39	0.43	0.46	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.02	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.04	0.15	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.9	0.79	0.69	0.58	0.48	0.37	0.27	0.16	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
02	0.09	0.0	0.0	0.0	0.0	0.02	0.06	0.1	0.13	0.13	0.13	0.16	0.2	0.23	0.27	0.3	0.34	0.37	0.25	0.25	0.25	0.28	0.32	0.36	0.39	0.43	0.46	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.13	0.13	0.13	0.13
	0.0	0.1	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.15	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.98	0.88	0.77	0.67	0.56	0.46	0.35	0.25	0.14	0.13	0.13	0.13	0.13
	0.13	0.13	0.1	0.06	0.01	0.0	0.0	0.0	0.0	0.11	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.08	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
03	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.23	0.21	0.13	0.13	0.13	0.13	0.15	0.19	0.22	0.25	0.25	0.25	0.29	0.32	0.36	0.39	0.43	0.46	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.25	0.25	0.25	0.25
	0.0	0.01	0.2	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.23	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.95	0.85	0.75	0.65	0.54	0.44	0.33	0.23	0.12	0.25	0.25	0.25	0.25
	0.25	0.25	0.25	0.25	0.21	0.16	0.12	0.07	0.03	0.25	0.25	0.25	0.23	0.18	0.14	0.13	0.13	0.13	0.21	0.23	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.25	0.25	0.25	0.25
04	0.26	0.07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.31	0.3	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.37	0.35	0.34	0.25	0.25	0.25	0.25	0.27	0.31	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.38	0.38	0.38	0.38
	0.0	0.0	0.11	0.3	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.14	0.33	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.35	0.5	0.63	0.75	0.88	1.0	0.93	0.83	0.73	0.63	0.52	0.42	0.31	0.21	0.1	0.38	0.38	0.38	0.38
	0.38	0.38	0.38	0.38	0.4	0.36	0.31	0.27	0.22	0.38	0.38	0.38	0.38	0.38	0.33	0.29	0.24	0.2	0.38	0.38	0.38	0.38	0.35	0.31	0.26	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.38	0.38	0.38	0.38
05	0.34	0.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.38	0.2	0.13	0.13	0.13	0.13	0.13	0.13	0.46	0.44	0.42	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	0.0	0.0	0.02	0.21	0.4	0.63	0.75	0.88	1.0	0.0	0.13	0.13	0.24	0.43	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.26	0.45	0.63	0.75	0.88	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.29	0.19	0.08	0.5	0.5	0.5	0.5
	0.5	0.5	0.5	0.5	0.5	0.55	0.51	0.46	0.42	0.5	0.5	0.5	0.5	0.5	0.53	0.48	0.44	0.39	0.5	0.5	0.5	0.5	0.5	0.5	0.46	0.41	0.37	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.5	0.5	0.5	0.5
06	0.43	0.24	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.48	0.47	0.28	0.13	0.13	0.13	0.13	0.13	0.13	0.54	0.52	0.51	0.32	0.25	0.25	0.25	0.25	0.25	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.63	0.63	0.63	0.63
	0.0	0.0	0.0	0.13	0.31	0.5	0.75	0.88	1.0	0.0	0.13	0.13	0.15	0.34	0.53	0.75	0.88	1.0	0.0	0.13	0.25	0.25	0.36	0.55	0.75	0.88	1.0	0.88	0.78	0.68	0.58	0.48	0.38	0.27	0.17	0.06	0.63	0.63	0.63	0.63
	0.63	0.63	0.63	0.63	0.63	0.63	0.7	0.66	0.61	0.63	0.63	0.63	0.63	0.63	0.63	0.68	0.63	0.59	0.63	0.63	0.63	0.63	0.63	0.63	0.65	0.61	0.56	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.63	0.63	0.63	0.63
07	0.51	0.33	0.15	0.0	0.0	0.0	0.0	0.0	0.0	0.57	0.55	0.37	0.19	0.13	0.13	0.13	0.13	0.13	0.63	0.61	0.59	0.41	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.75	0.75	0.75	0.75
	0.0	0.0	0.04	0.23	0.41	0.6	0.88	1.0	0.0	0.0	0.13	0.13	0.13	0.25	0.44	0.63	0.88	1.0	0.0	0.13	0.25	0.25	0.27	0.46	0.65	0.88	1.0	0.85	0.75	0.65	0.55	0.45	0.35	0.25	0.15	0.04	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.85	0.81	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.83	0.78	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.8	0.76	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.75	0.75	0.75	0.75
08	0.6	0.41	0.23	0.05	0.0	0.0	0.0	0.0	0.0	0.65	0.64	0.45	0.27	0.13	0.13	0.13	0.13	0.13	0.71	0.69	0.68	0.49	0.31	0.25	0.25	0.25	0.25	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.88	0.88	0.88	0.88
	0.0	0.0	0.0	0.0	0.14	0.33	0.52	0.7	1.0	0.0	0.13	0.13	0.13	0.16	0.35	0.54	0.73	1.0	0.0	0.13	0.25	0.25	0.25	0.38	0.56	0.75	1.0	0.83	0.73	0.63	0.53	0.43	0.33	0.23	0.13	0.02	0.88	0.88	0.88	0.88
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.98	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.95	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.88	0.88	0.88	0.88
09	0.68	0.5	0.32	0.13	0.0	0.0	0.0	0.0	0.0	0.74	0.72	0.54	0.36	0.17	0.13	0.13	0.13	0.13	0.8	0.78	0.76	0.58	0.4	0.25	0.25	0.25	0.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
	0.0	0.0	0.0	0.0	0.05	0.24	0.43	0.62	0.8	0.0	0.13	0.13	0.13	0.13	0.26	0.45	0.64	0.83	0.0	0.13	0.25	0.25	0.25	0.29	0.48	0.66	0.85	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	1.0	1.0	1.0	1.0
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	1.0	1.0	1.0	1.0
10	0.38	0.38	0.38	0.37	0.41	0.44	0.48	0.51	0.55	0.5	0.5	0.5	0.5	0.5	0.53	0.57	0.6	0.64	0.63	0.63	0.63	0.63	0.63	0.62	0.66	0.69	0.73	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.99	0.0	0.0	0.0	0.0
	0.06	0.17	0.27	0.38	0.5	0.63	0.75	0.88	1.0	0.08	0.19	0.29	0.4	0.5	0.63	0.75	0.88	1.0	0.1	0.21	0.31	0.42	0.52	0.63	0.75	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
11	0.38	0.38	0.38	0.37	0.41	0.44	0.48	0.52	0.55	0.5	0.5	0.5	0.5	0.5	0.53	0.57	0.6	0.64	0.63	0.63	0.63	0.63	0.63	0.62	0.66	0.69	0.73	0.96	0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.07	0.07	0.07	0.07
	0.0	0.17	0.27	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.19	0.29	0.4	0.5	0.63	0.75	0.88	1.0	0.0	0.21	0.31	0.42	0.52	0.63	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.07	0.07	0.07	0.07
	0.06	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.04	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.01	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.07	0.07	0.07	0.07
12	0.38	0.38	0.38	0.37	0.41	0.45	0.48	0.52	0.55	0.5	0.5	0.5	0.5	0.5	0.53	0.57	0.6	0.64	0.63	0.63	0.63	0.63	0.63	0.62	0.66	0.69	0.73	0.92	0.84	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.13	0.13	0.13	0.13
	0.0	0.13	0.27	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.29	0.4	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.31	0.42	0.52	0.63	0.75	0.88	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.13	0.13	0.13	0.13
	0.19	0.21	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.17	0.18	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.14	0.16	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
13	0.38	0.38	0.38	0.38	0.41	0.45	0.48	0.52	0.55	0.5	0.5	0.5	0.5	0.5	0.53	0.57	0.61	0.64	0.63	0.63	0.63	0.63	0.63	0.62	0.66	0.69	0.73	0.88	0.8	0.71	0.63	0.62	0.62	0.62	0.62	0.62	0.2	0.2	0.2	0.2
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.4	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.42	0.52	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.2	0.2	0.2	0.2
	0.32	0.34	0.36	0.38	0.38	0.38	0.38	0.38	0.38	0.3	0.31	0.33	0.38	0.38	0.38	0.38	0.38	0.38	0.27	0.29	0.31	0.38	0.38	0.38	0.38	0.38	0.38	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.2	0.2	0.2	0.2
14	0.5	0.5	0.48	0.46	0.38	0.38	0.38	0.38	0.4	0.5	0.5	0.5	0.5	0.5	0.54	0.57	0.61	0.64	0.63	0.63	0.63	0.63	0.63	0.62	0.66	0.7	0.73	0.84	0.76	0.67	0.59	0.5	0.5	0.5	0.5	0.5	0.27	0.27	0.27	0.27
	0.0	0.13	0.25	0.38	0.48	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.52	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.27	0.27	0.27	0.27
	0.49	0.5	0.5	0.5	0.5	0.48	0.43	0.39	0.38	0.43	0.45	0.46	0.48	0.5	0.5	0.5	0.5	0.5	0.4	0.42	0.44	0.46	0.5	0.5	0.5	0.5	0.5	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.27	0.27	0.27	0.27
15	0.6	0.58	0.56	0.55	0.38	0.38	0.38	0.38	0.38	0.63	0.63	0.62	0.6	0.59	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.63	0.66	0.7	0.73	0.8	0.72	0.63	0.55	0.46	0.38	0.37	0.37	0.37	0.33	0.33	0.33	0.33
	0.0	0.13	0.25	0.38	0.39	0.58	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.6	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.33	0.33	0.33	0.33
	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.58	0.54	0.59	0.61	0.63	0.63	0.63	0.63	0.6	0.56	0.51	0.53	0.55	0.57	0.59	0.61	0.63	0.63	0.63	0.63	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.33	0.33	0.33	0.33
16	0.68	0.67	0.65	0.63	0.45	0.38	0.38	0.38	0.38	0.74	0.72	0.71	0.69	0.67	0.5	0.5	0.5	0.5	0.75	0.75	0.75	0.75	0.73	0.71	0.63	0.63	0.63	0.76	0.68	0.59	0.51	0.42	0.34	0.25	0.25	0.25	0.4	0.4	0.4	0.4
	0.0	0.13	0.25	0.38	0.38	0.49	0.68	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.51	0.7	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.73	0.88	1.0	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.4	0.4	0.4	0.4
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.78	0.73	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.71	0.7	0.72	0.74	0.75	0.75	0.75	0.75	0.73	0.68	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.4	0.4	0.4	0.4
17	0.77	0.75	0.73	0.72	0.53	0.38	0.38	0.38	0.38	0.83	0.81	0.79	0.77	0.76	0.57	0.5	0.5	0.5	0.88	0.87	0.85	0.83	0.81	0.8	0.63	0.63	0.63	0.72	0.64	0.55	0.47	0.38	0.3	0.21	0.13	0.12	0.47	0.47	0.47	0.47
	0.0	0.13	0.25	0.38	0.38	0.4	0.59	0.78	1.0	0.0	0.13	0.25	0.38	0.5	0.5	0.61	0.8	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.64	0.83	1.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.47	0.47	0.47	0.47
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.93	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.9	0.86	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.47	0.47	0.47	0.47
18	0.86	0.84	0.82	0.8	0.62	0.44	0.38	0.38	0.38	0.91	0.9	0.88	0.86	0.84	0.66	0.5	0.5	0.5	0.97	0.95	0.93	0.92	0.9	0.88	0.7	0.63	0.63	0.68	0.6	0.51	0.43	0.34	0.26	0.17	0.09	0.0	0.53	0.53	0.53	0.53
	0.0	0.13	0.25	0.38	0.38	0.38	0.5	0.69	0.88	0.0	0.13	0.25	0.38	0.5	0.5	0.52	0.71	0.9	0.0	0.13	0.25	0.38	0.5	0.63	0.63	0.74	0.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.53	0.53	0.53	0.53
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.53	0.53	0.53	0.53
19	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.78	0.82	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.91	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.99	1.0	0.91	0.82	0.73	0.64	0.55	0.46	0.37	0.28	0.6	0.6	0.6	0.6
	0.12	0.23	0.33	0.44	0.54	0.65	0.75	0.88	1.0	0.14	0.25	0.35	0.46	0.56	0.67	0.77	0.88	1.0	0.16	0.27	0.37	0.48	0.58	0.69	0.79	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.6
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.6	0.6	0.6	0.6
20	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.78	0.82	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.91	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.79	0.7	0.61	0.52	0.43	0.34	0.25	0.67	0.67	0.67	0.67
	0.01	0.23	0.33	0.44	0.54	0.65	0.75	0.88	1.0	0.03	0.25	0.35	0.46	0.56	0.67	0.77	0.88	1.0	0.05	0.27	0.37	0.48	0.58	0.69	0.79	0.9	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.67	0.67	0.67	0.67
	0.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.98	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.67	0.67	0.67	0.67
21	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.78	0.82	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.91	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.66	0.57	0.48	0.39	0.3	0.21	0.73	0.73	0.73	0.73
	0.0	0.13	0.33	0.44	0.54	0.65	0.75	0.88	1.0	0.0	0.13	0.35	0.46	0.56	0.67	0.77	0.88	1.0	0.0	0.16	0.37	0.48	0.58	0.69	0.79	0.9	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.73	0.73	0.73	0.73
	0.12	0.14	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.09	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.07	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.96	0.86	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.73	0.73	0.73	0.73
22	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.78	0.82	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.91	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.54	0.45	0.36	0.27	0.18	0.8	0.8	0.8	0.8
	0.0	0.13	0.25	0.44	0.54	0.65	0.75	0.88	1.0	0.0	0.13	0.25	0.46	0.56	0.67	0.77	0.88	1.0	0.0	0.13	0.26	0.48	0.58	0.69	0.79	0.9	1.0	0.63	0.63	0.63	0.63	0.63	0

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

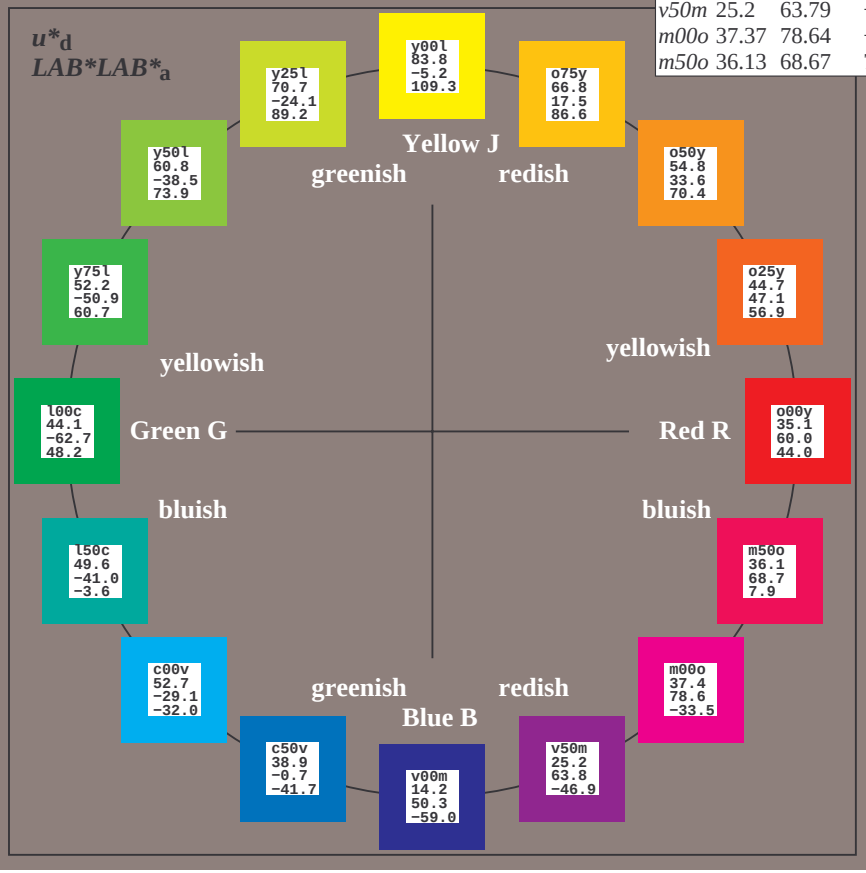
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

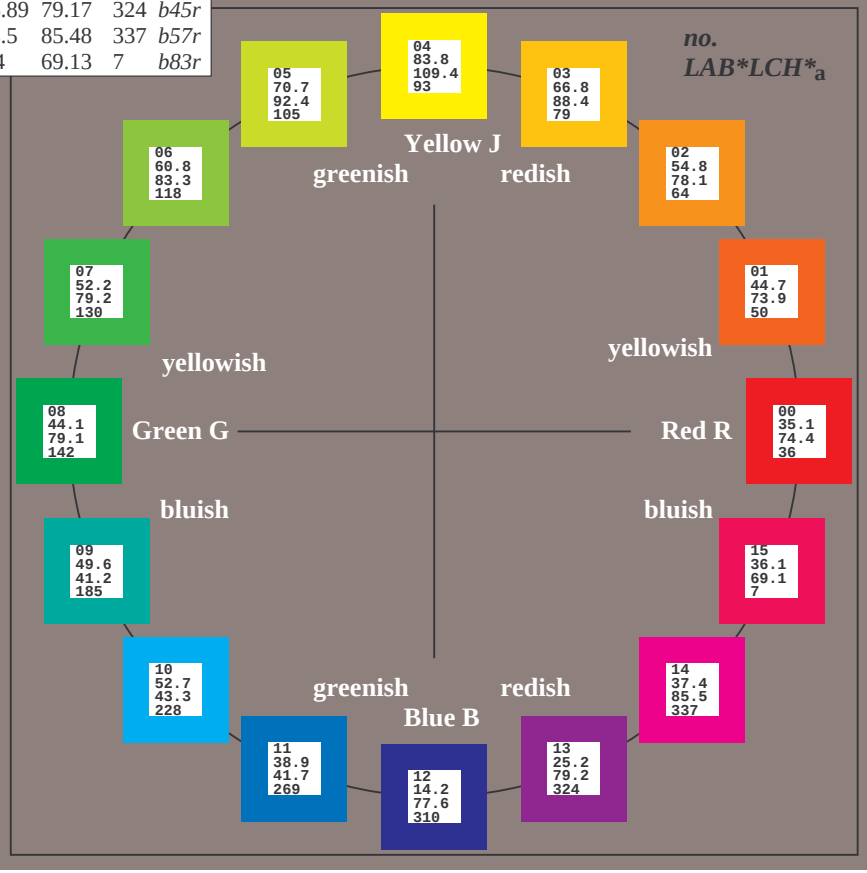


%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** and *lab*icu**

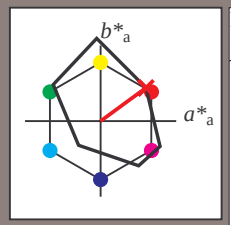
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 35 60 44**

***LAB*LCH**$_{Ma}$: 35 74 36**

***lab*olv**$_{Ma}$: 1.0 0.0 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.16 0.0**

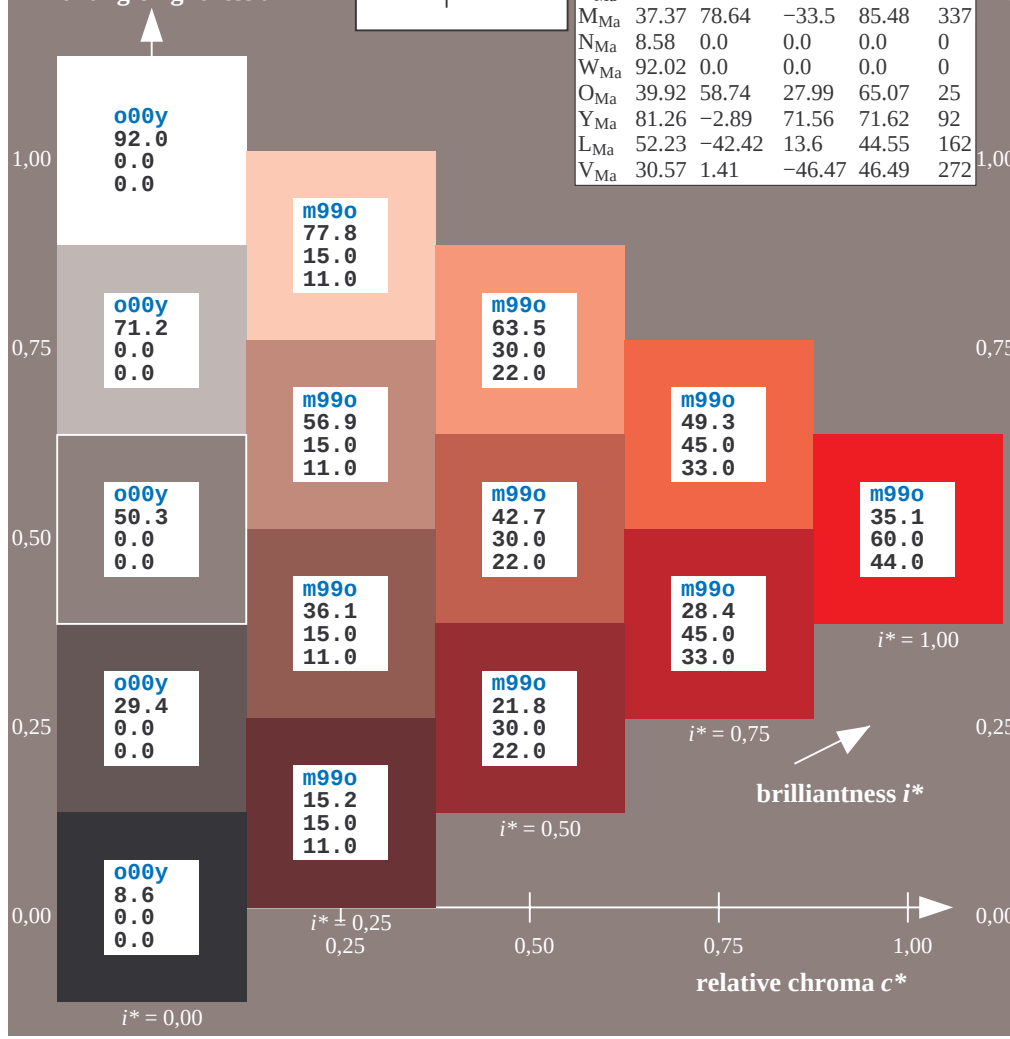
triangle lightness *t**

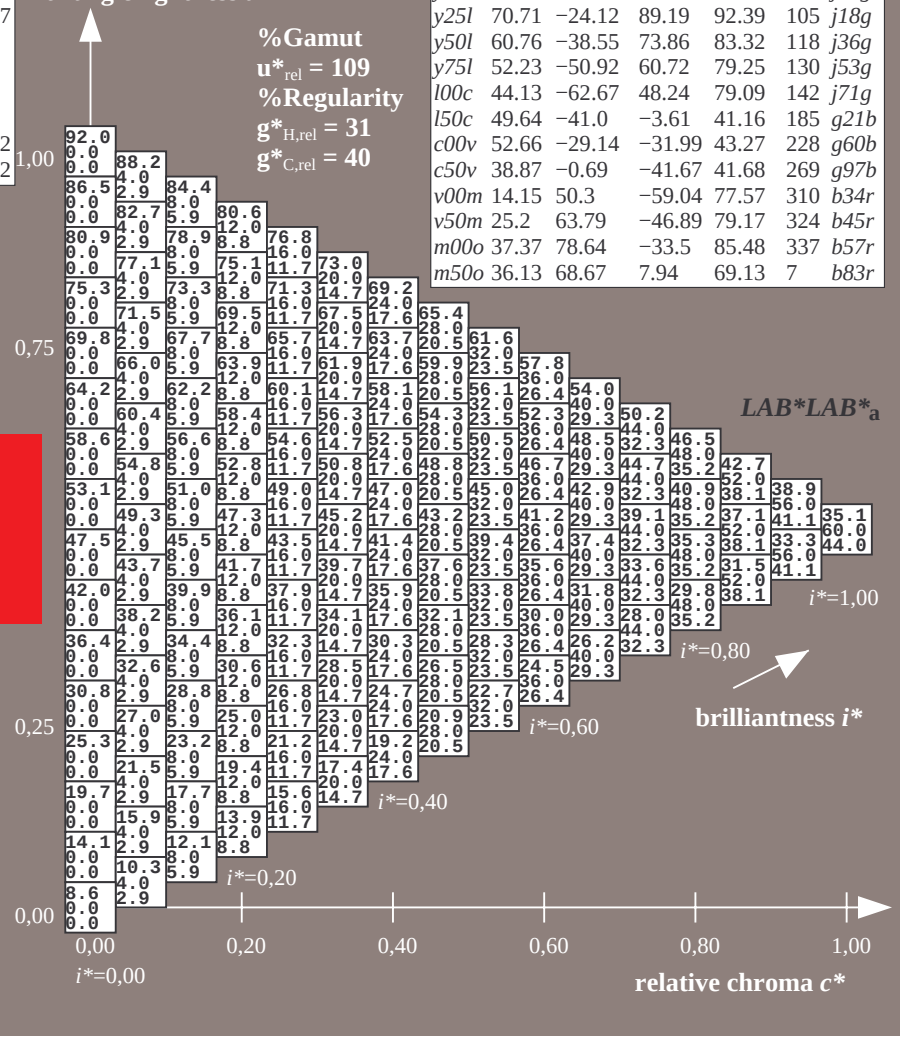
u^*_d = *o00y*

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** and *lab*icu**

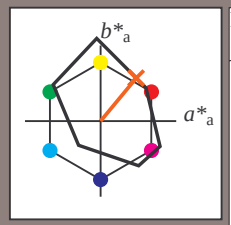
Hue texts:

$u^*_d = o25y$ $u^*_e = r37j$

contrast reduction factor:

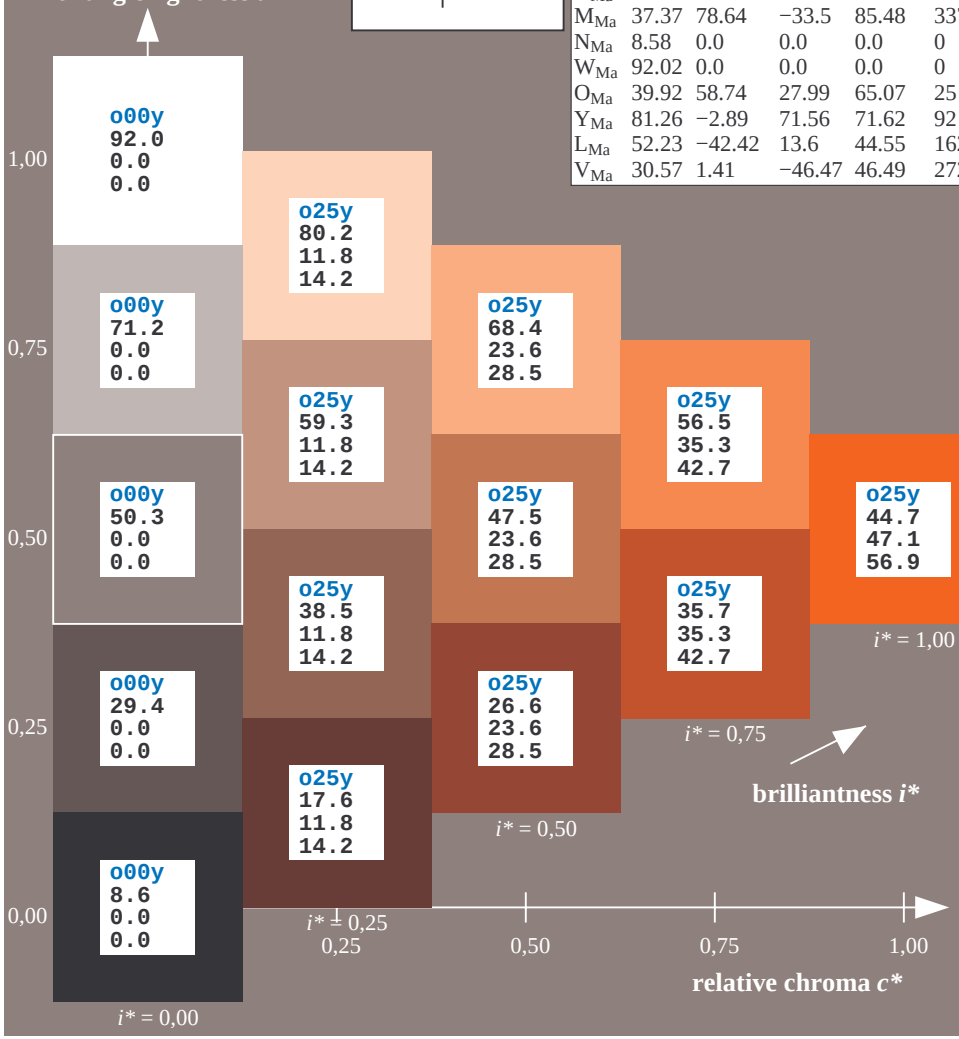
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 45 47 57**

***LAB*LCH**$_{Ma}$: 45 74 50**

***lab*olv**$_{Ma}$: 1.0 0.25 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.37 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

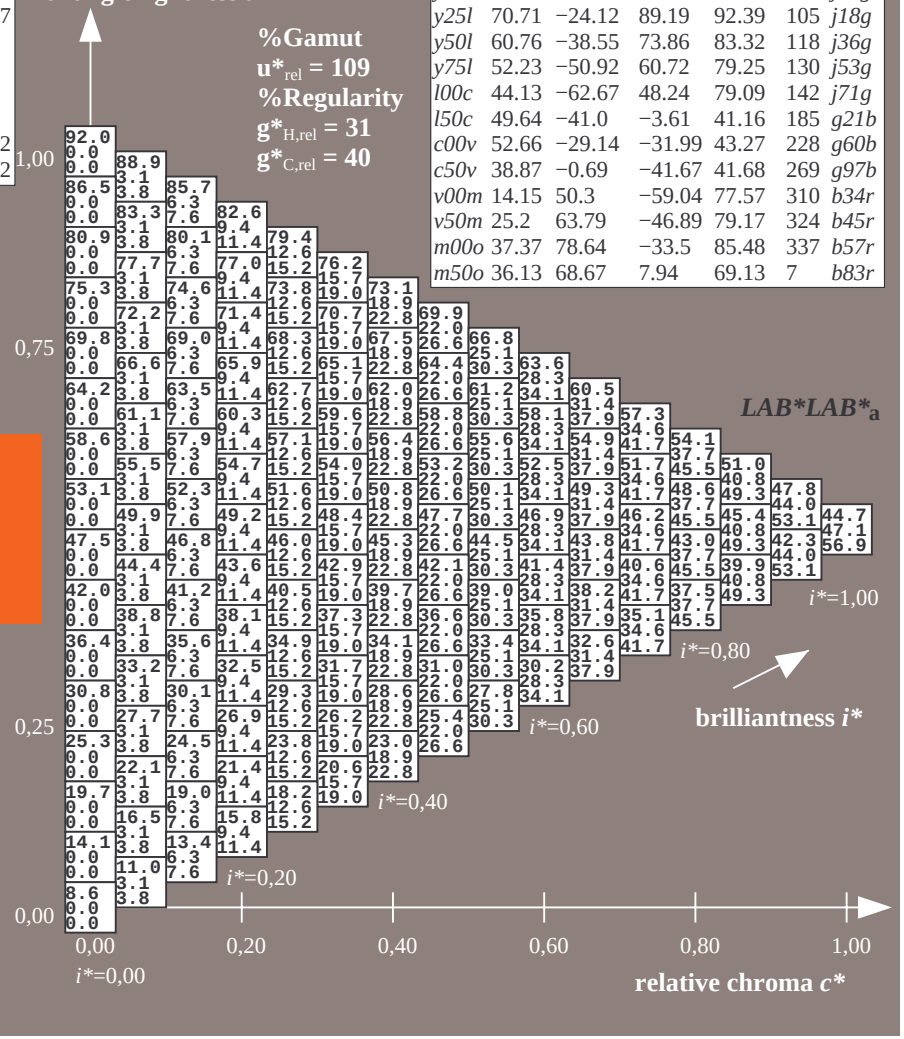
$g^*_{C,rel} = 40$

$u^*_d = o25y$

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** and *lab*icu**

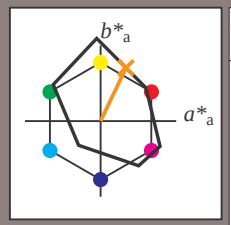
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

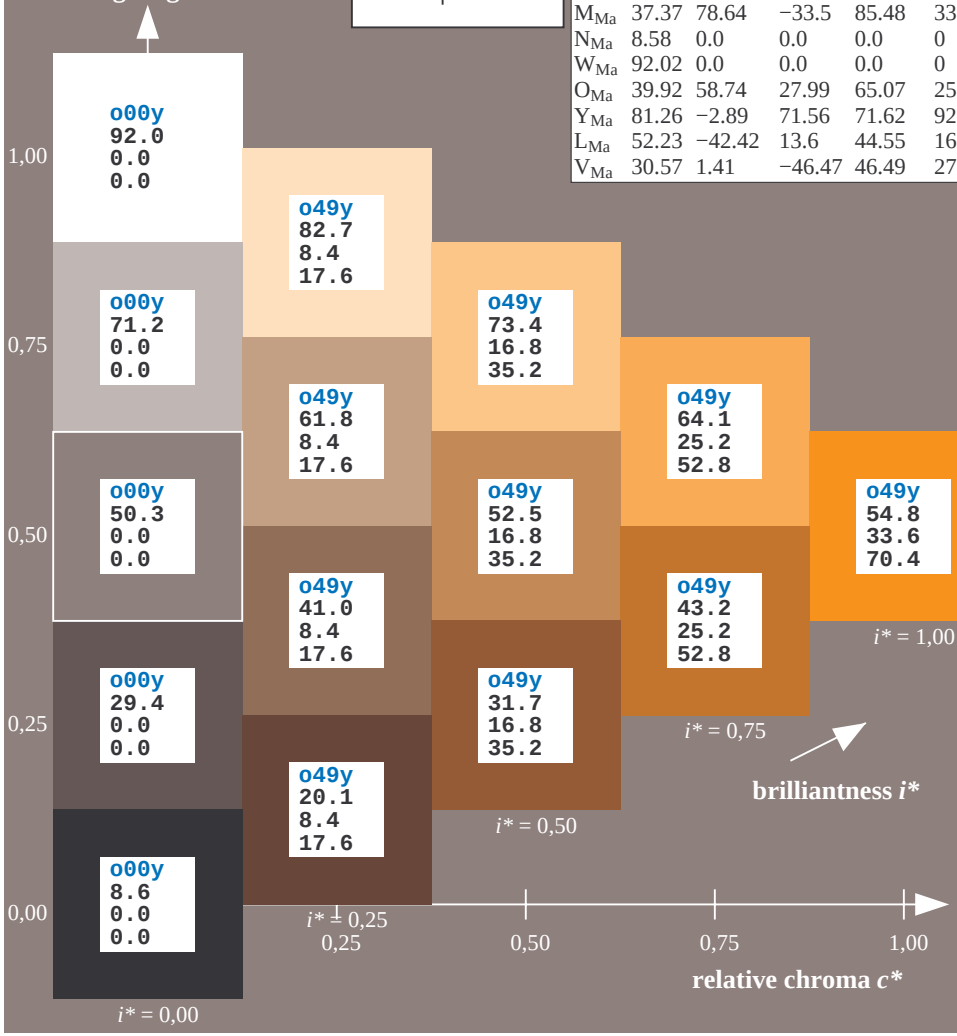
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 55 34 70**

***LAB*LCH**$_{Ma}$: 55 78 64**

***lab*olv**$_{Ma}$: 1.0 0.5 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.58 0.0**

triangle lightness *t**

$u^*_d = o50y$

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

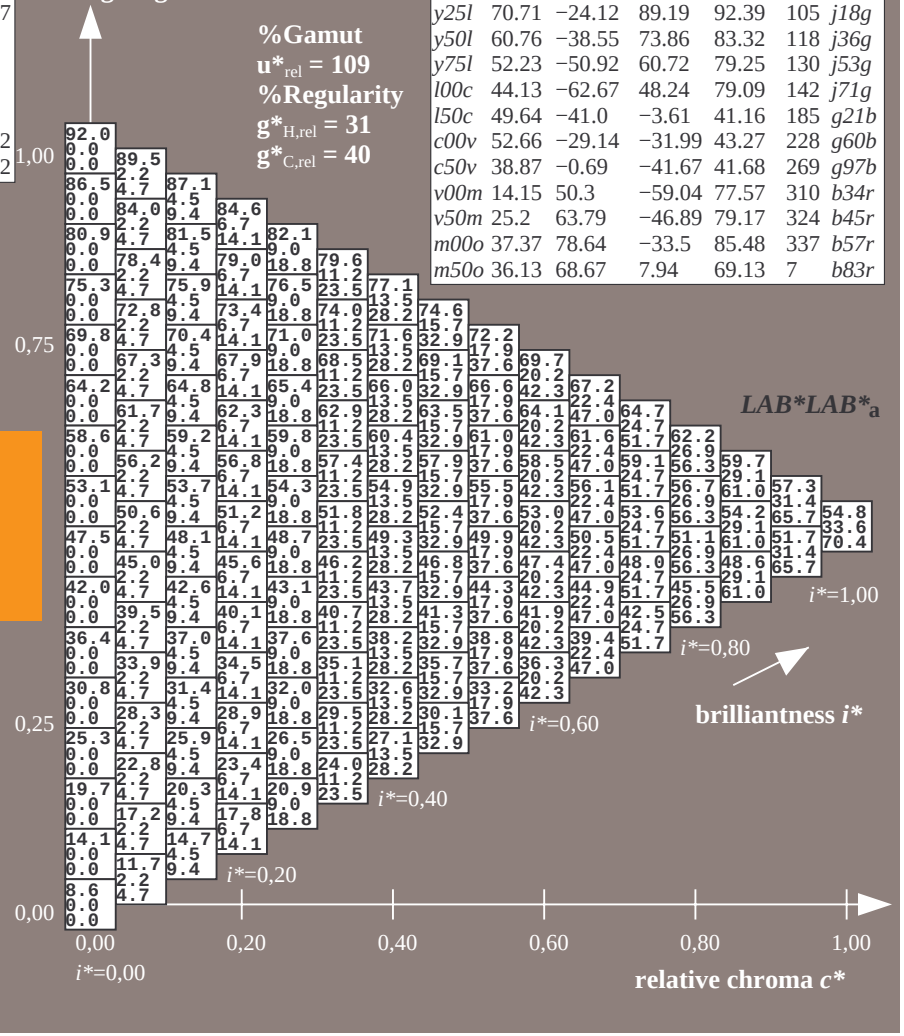
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

data for any colour:

*lab*tch** and *lab*icu**

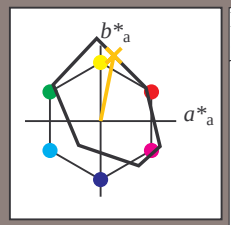
Hue texts:

u^*_d = *o75y* u^*_e = *r79j*

contrast reduction factor:

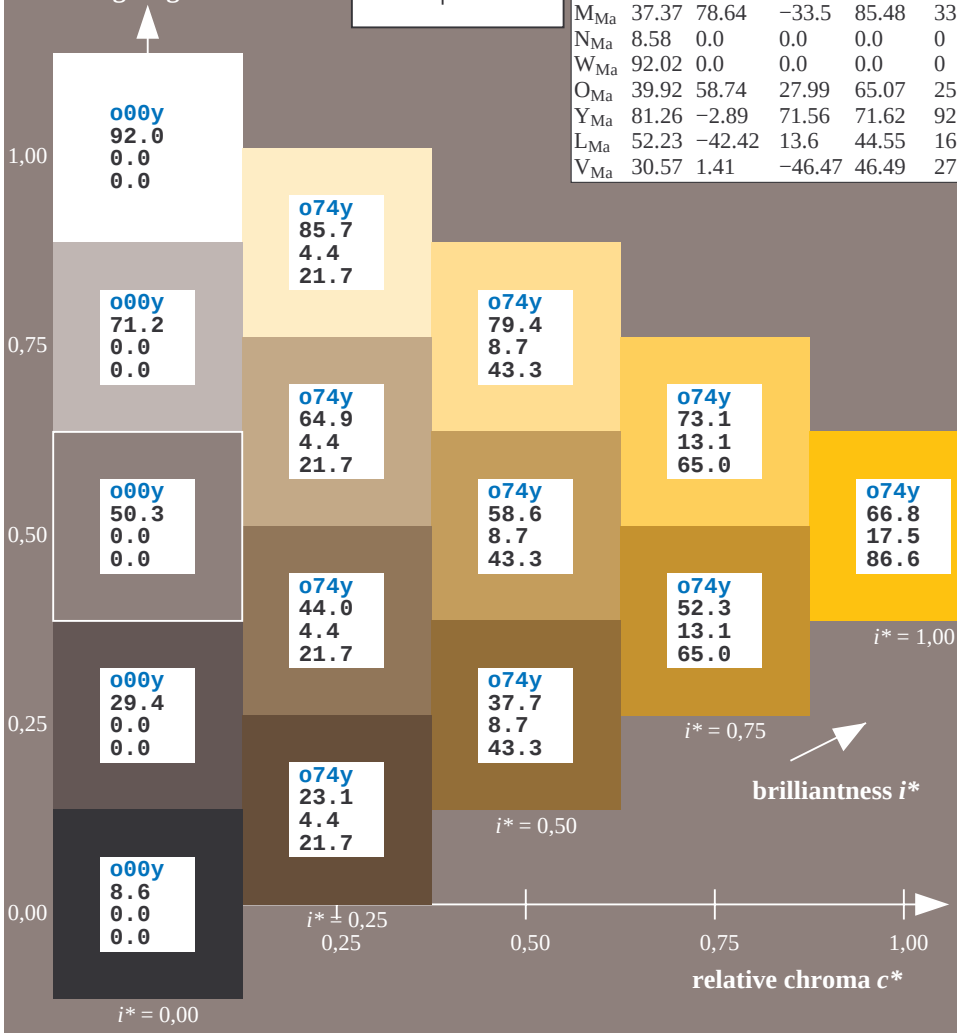
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 67 17 87

*LAB*LCH**$_{Ma}$: 67 88 78

*lab*olv**$_{Ma}$: 1.0 0.75 0.0

*lab*rgb**$_{Ma}$: 1.0 0.79 0.0

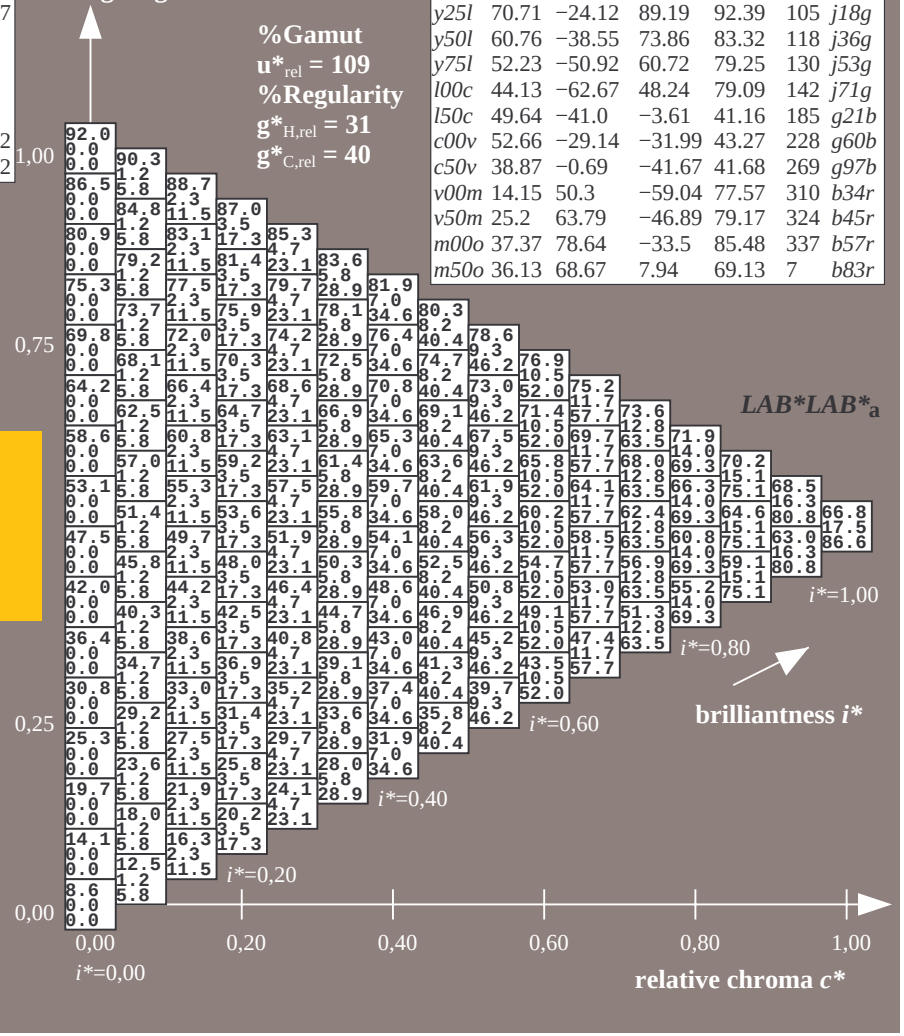
triangle lightness *t**

u^*_d = *o75y*

*LAB*LAB**$_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** and *lab*icu**

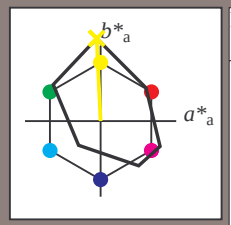
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

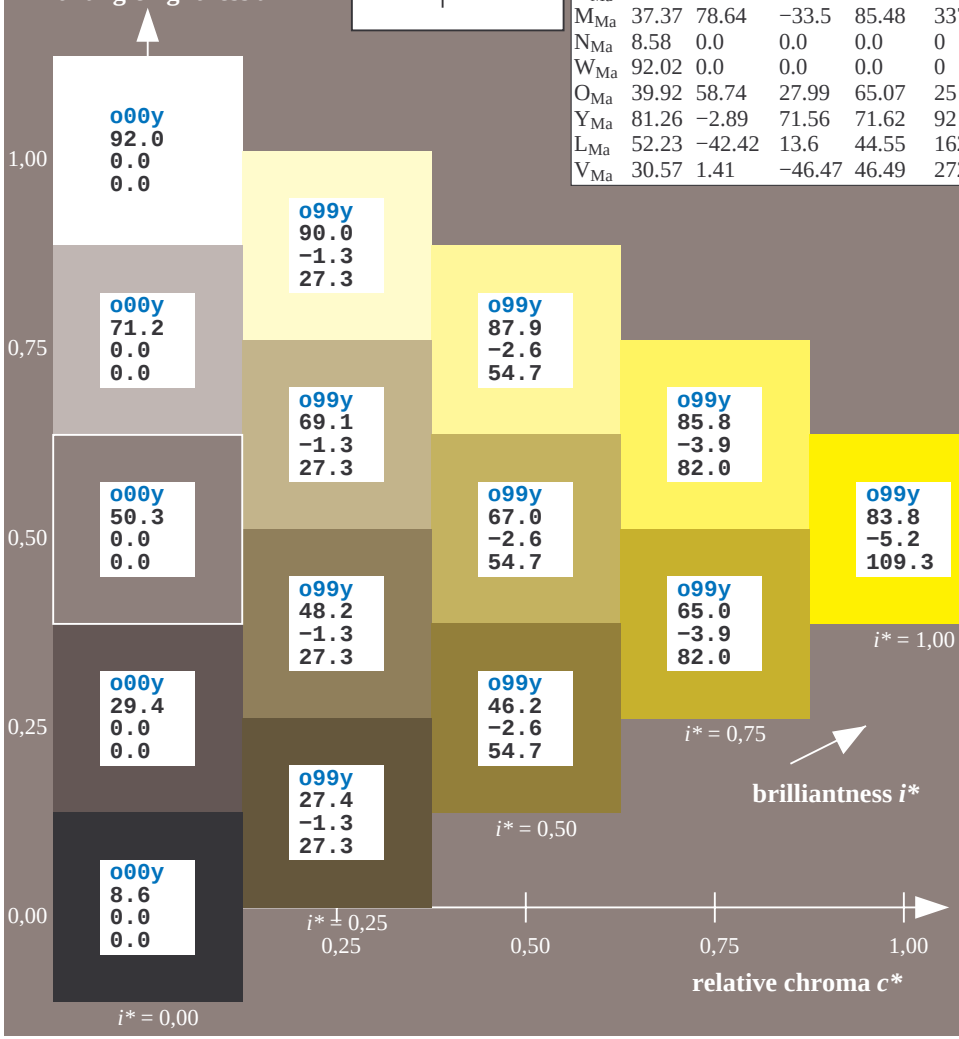
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 84 −5 109**

***LAB*LCH**$_{Ma}$: 84 109 92**

***lab*olv**$_{Ma}$: 1.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.99 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

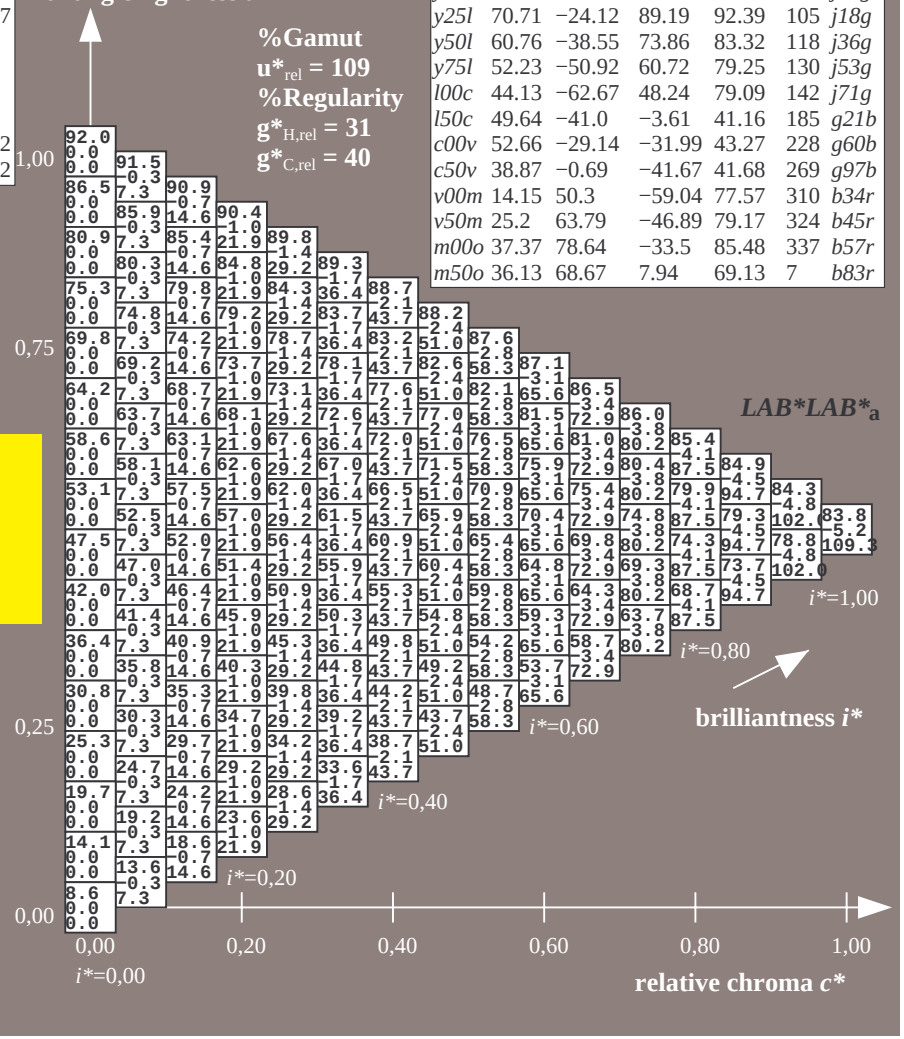
$g^*_{C,rel} = 40$

$u^*_d = y00l$

$LAB^*LAB^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** and *lab*icu**

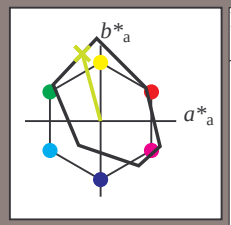
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

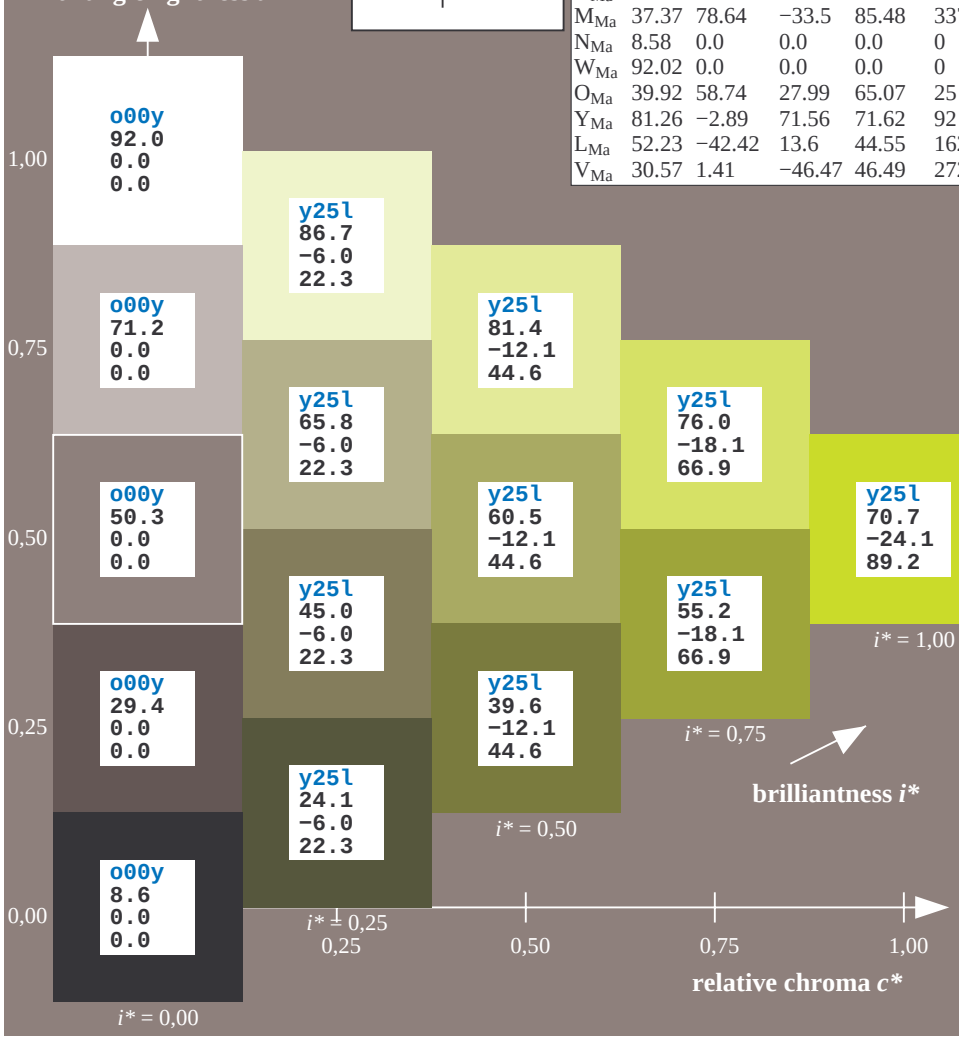
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 71 −24 89**

***LAB*LCH**$_{Ma}$: 71 92 105**

***lab*olv**$_{Ma}$: 0.75 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.82 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

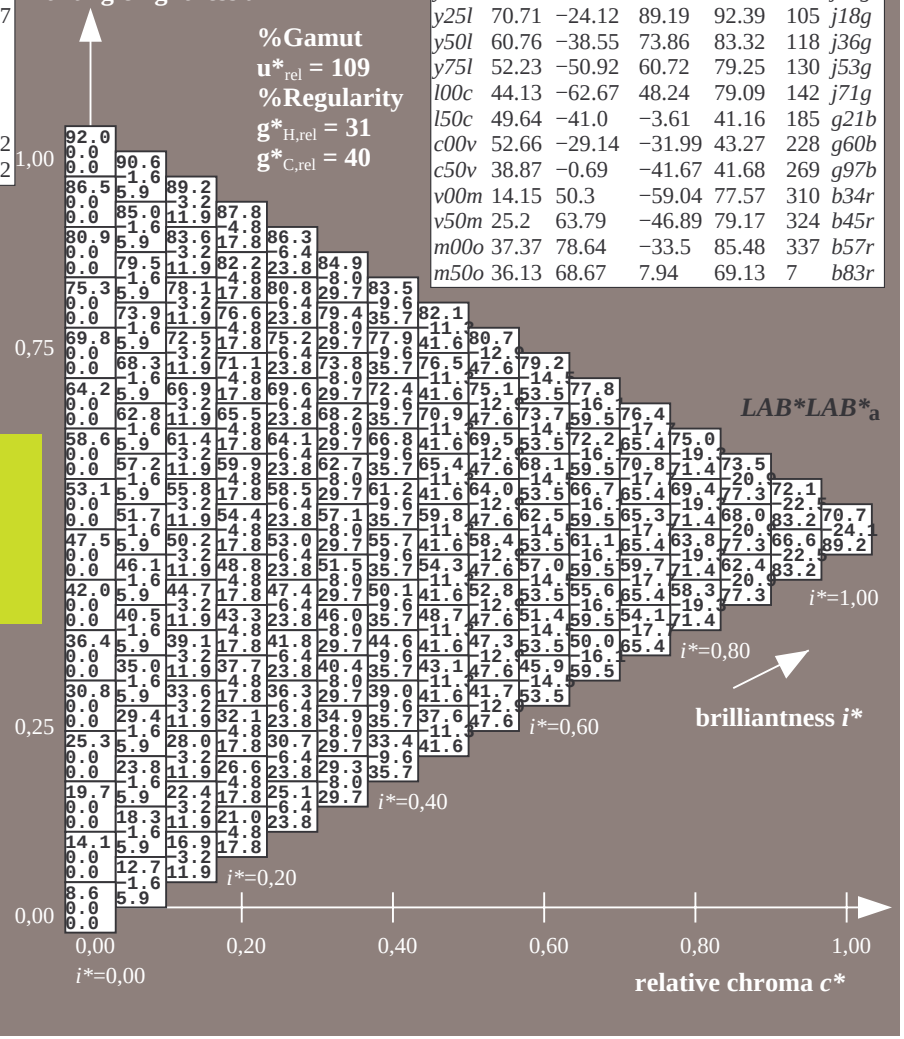
$g^*_{C,rel} = 40$

$u^*_d = y25l$

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** and *lab*icu**

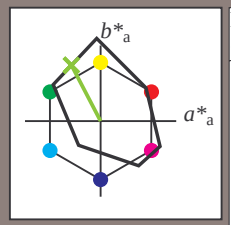
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

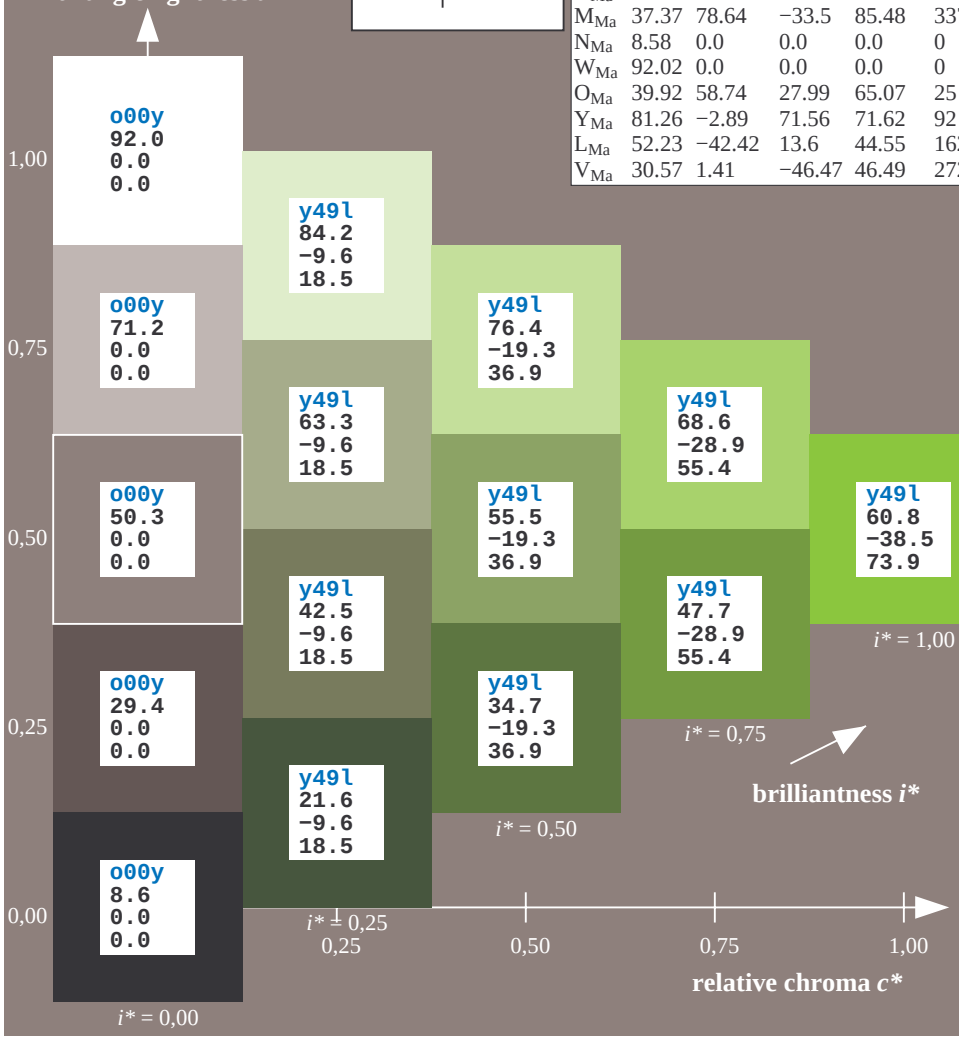
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 61 −39 74**

***LAB*LCH**$_{Ma}$: 61 83 117**

***lab*olv**$_{Ma}$: 0.5 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.64 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

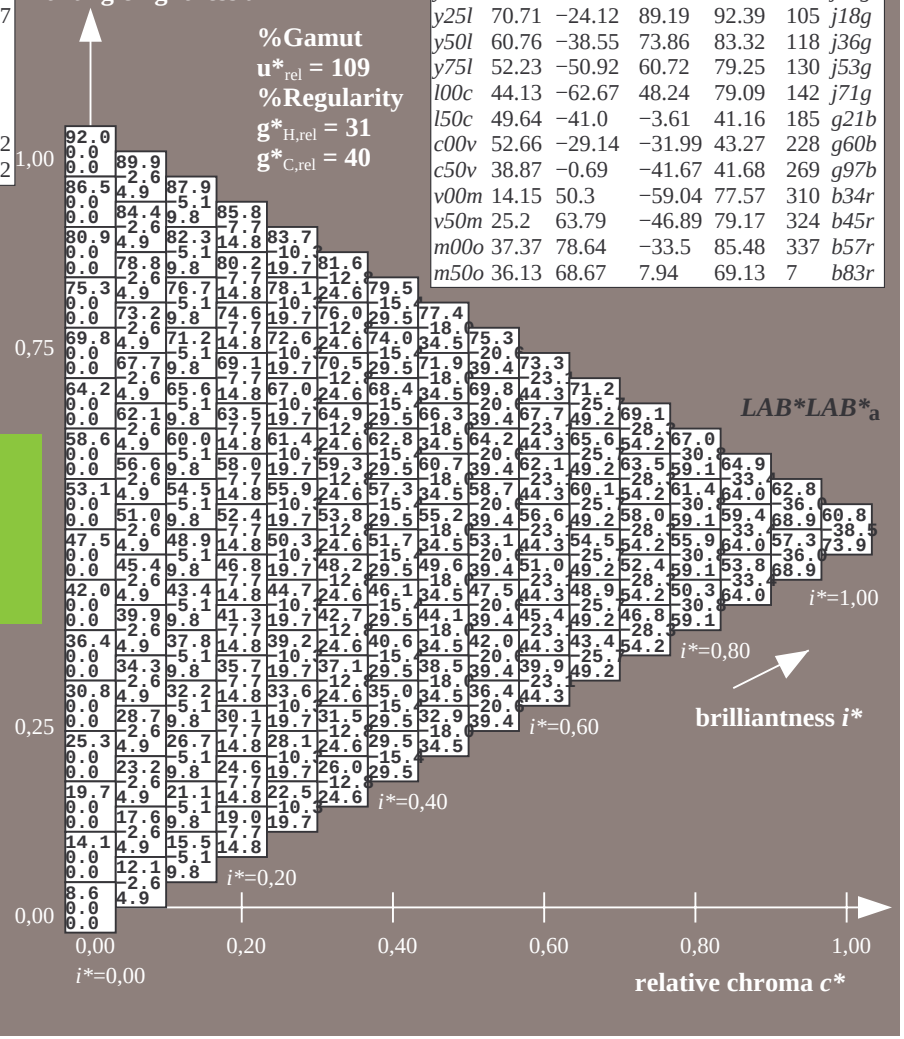
$g^*_{C,rel} = 40$

$u^*_d = y50l$

$LAB^*LAB^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** and *lab*icu**

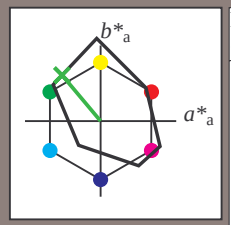
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

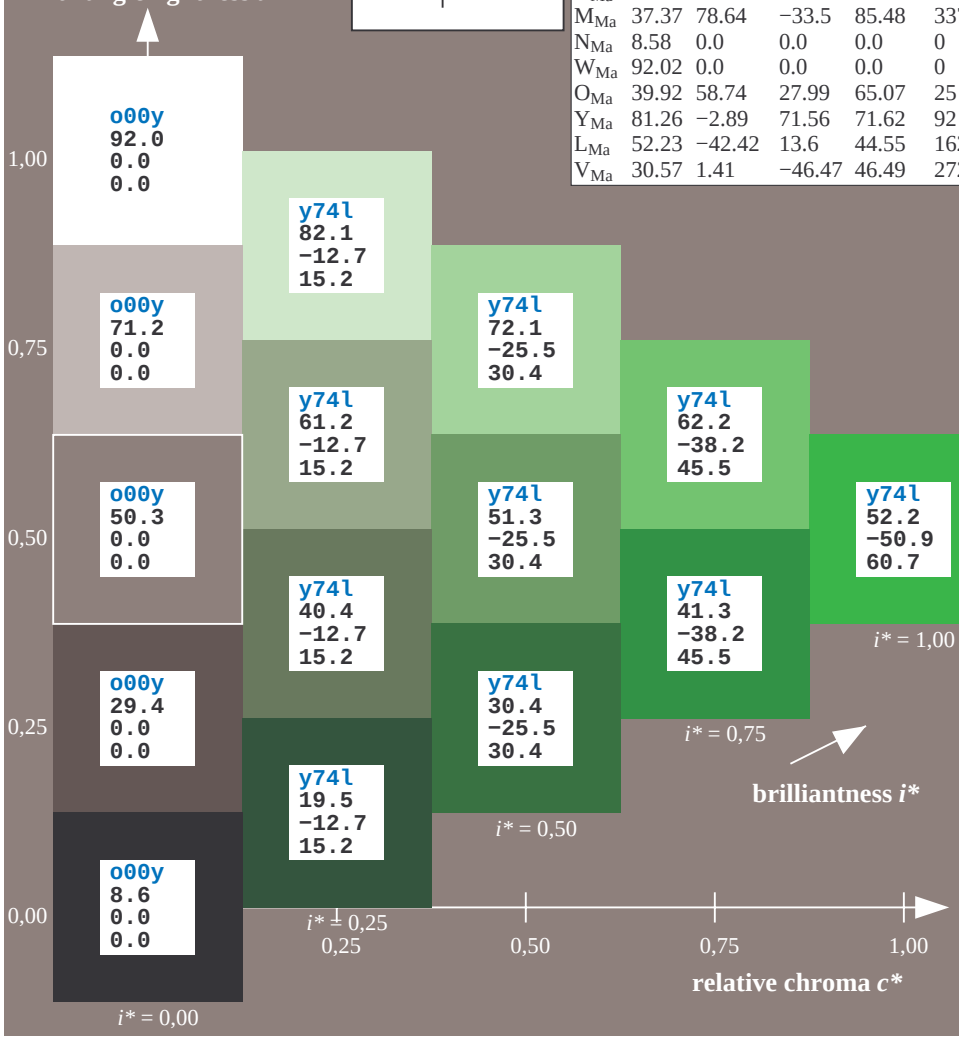
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 52 −51 61

$LAB^*LCH^*_{Ma}$: 52 79 129

$lab^*olv^*_{Ma}$: 0.25 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.46 1.0 0.0

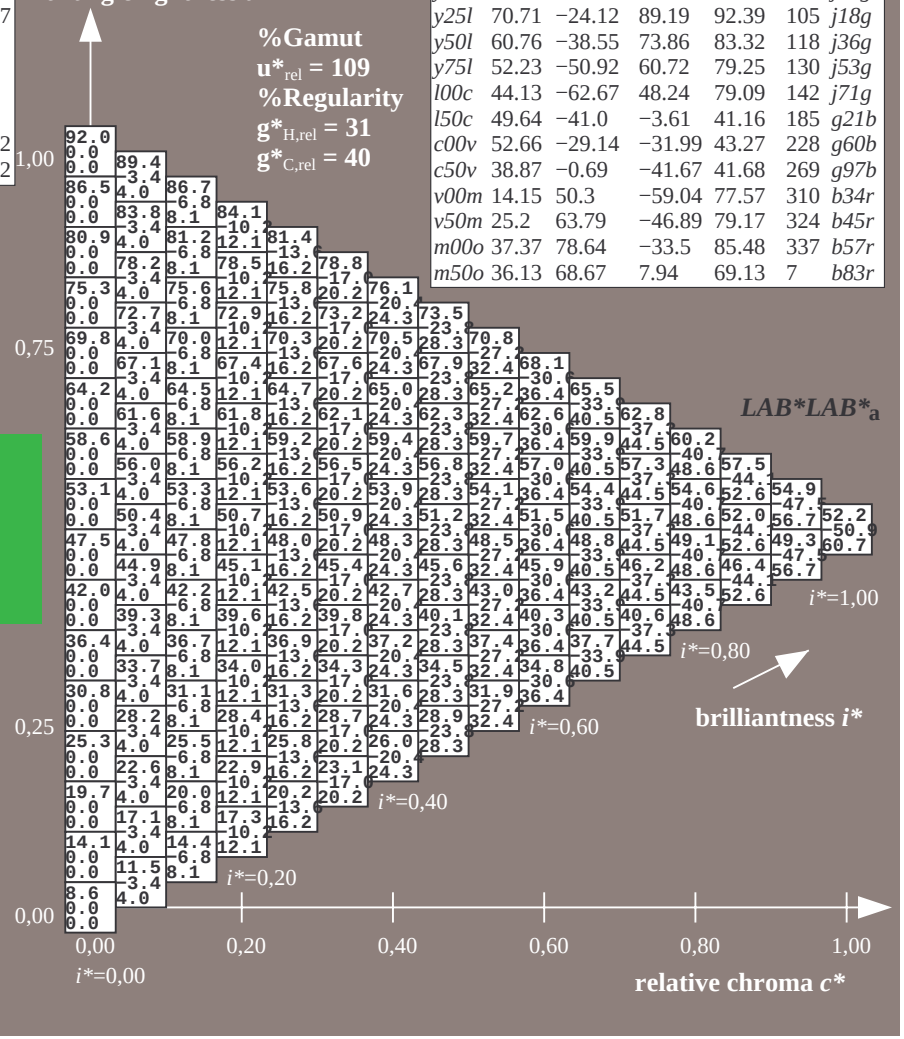
triangle lightness *t**

$u^*_d = y75l$

$LAB^*LAB^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

data for any colour:

*lab*tch** and *lab*icu**

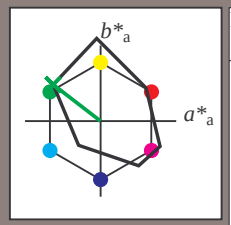
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

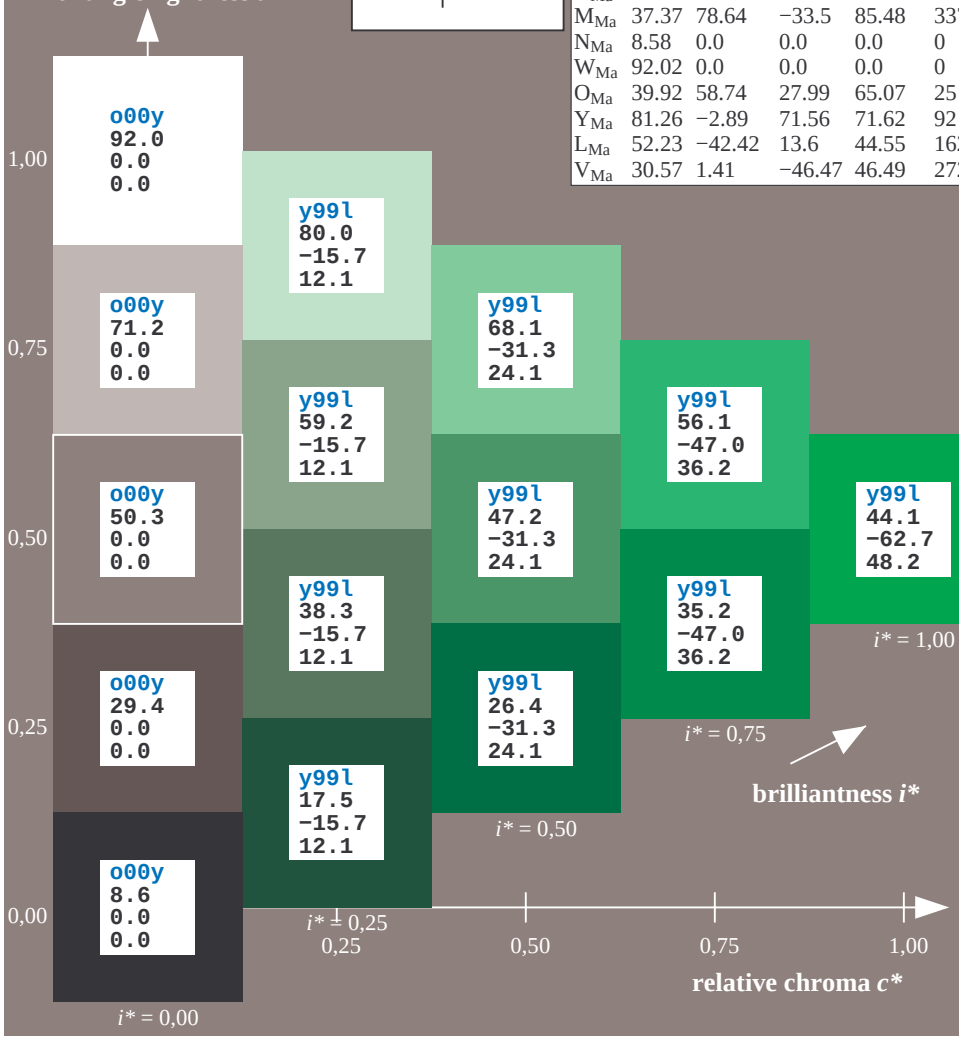
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 44 −63 48**

***LAB*LCH**$_{Ma}$: 44 79 142**

***lab*olv**$_{Ma}$: 0.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.28 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

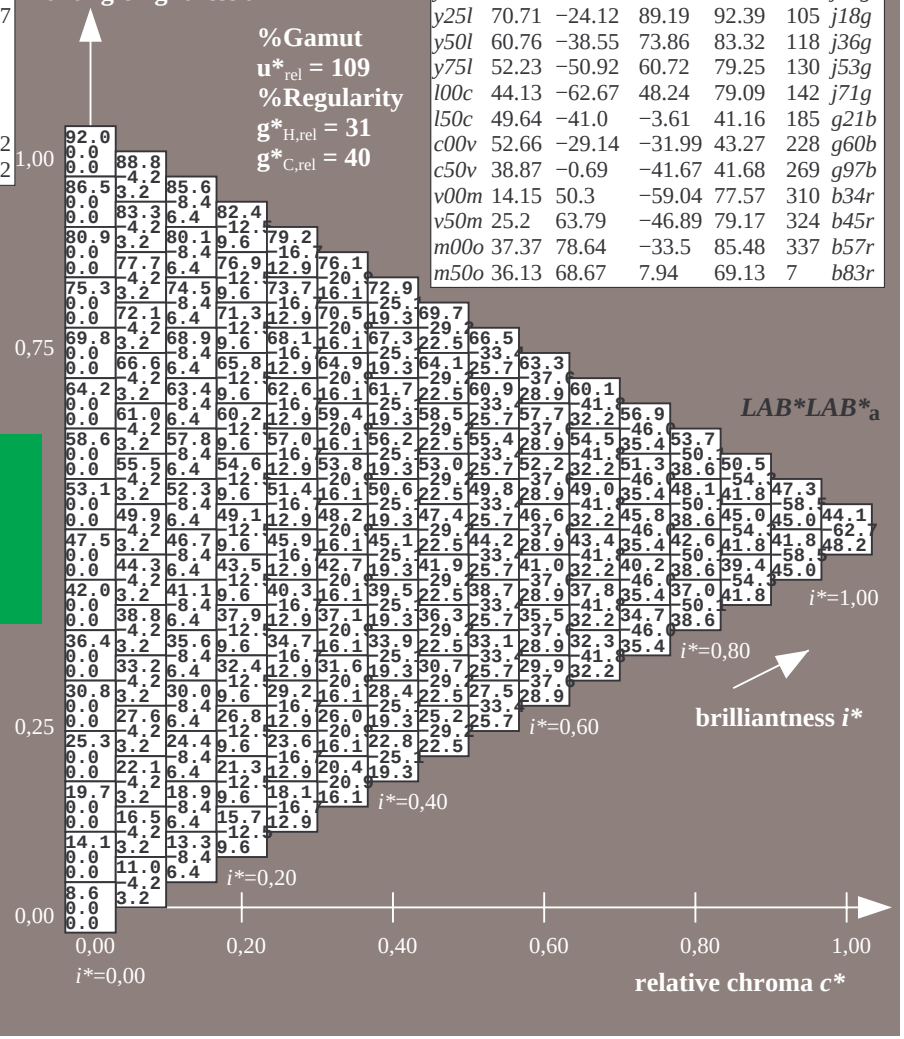
$g^*_{C,rel}$ = 40

$u^*_d = l00c$

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** and *lab*icu**

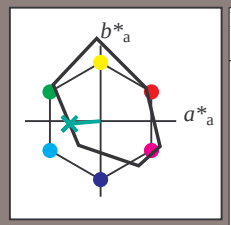
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

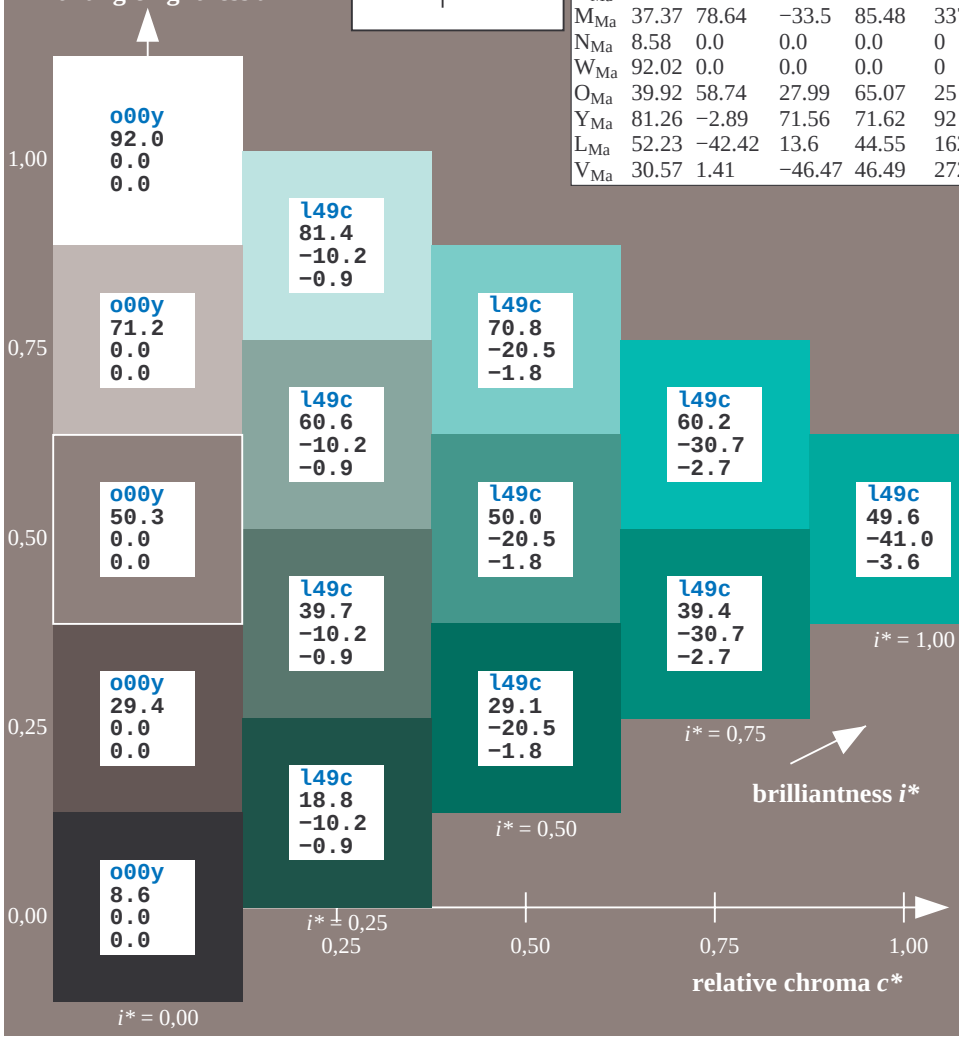
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 50 −41 −4**

***LAB*LCH**$_{Ma}$: 50 41 185**

***lab*olv**$_{Ma}$: 0.0 1.0 0.5**

***lab*rgb**$_{Ma}$: 0.0 1.0 0.42**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

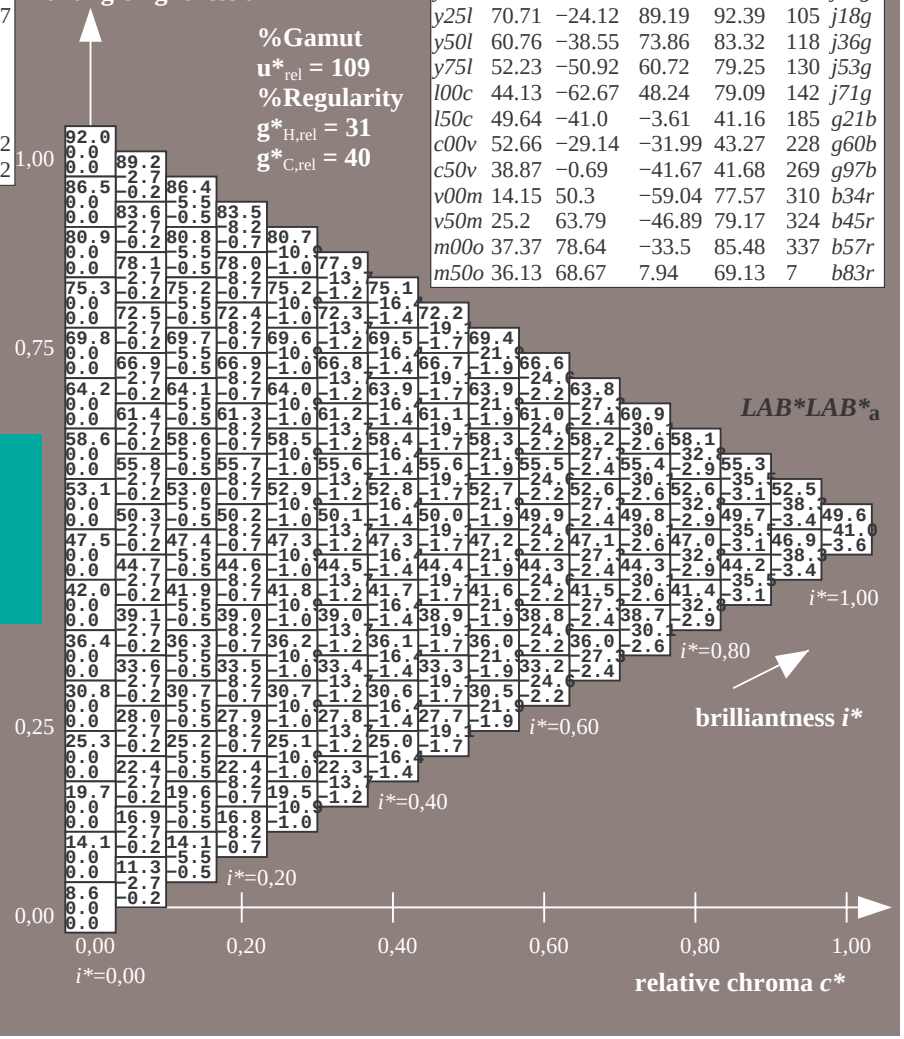
$g^*_{C,rel} = 40$

$u^*_d = l50c$

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** and *lab*icu**

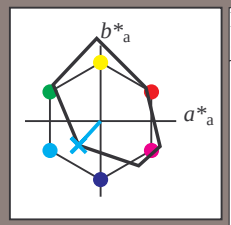
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

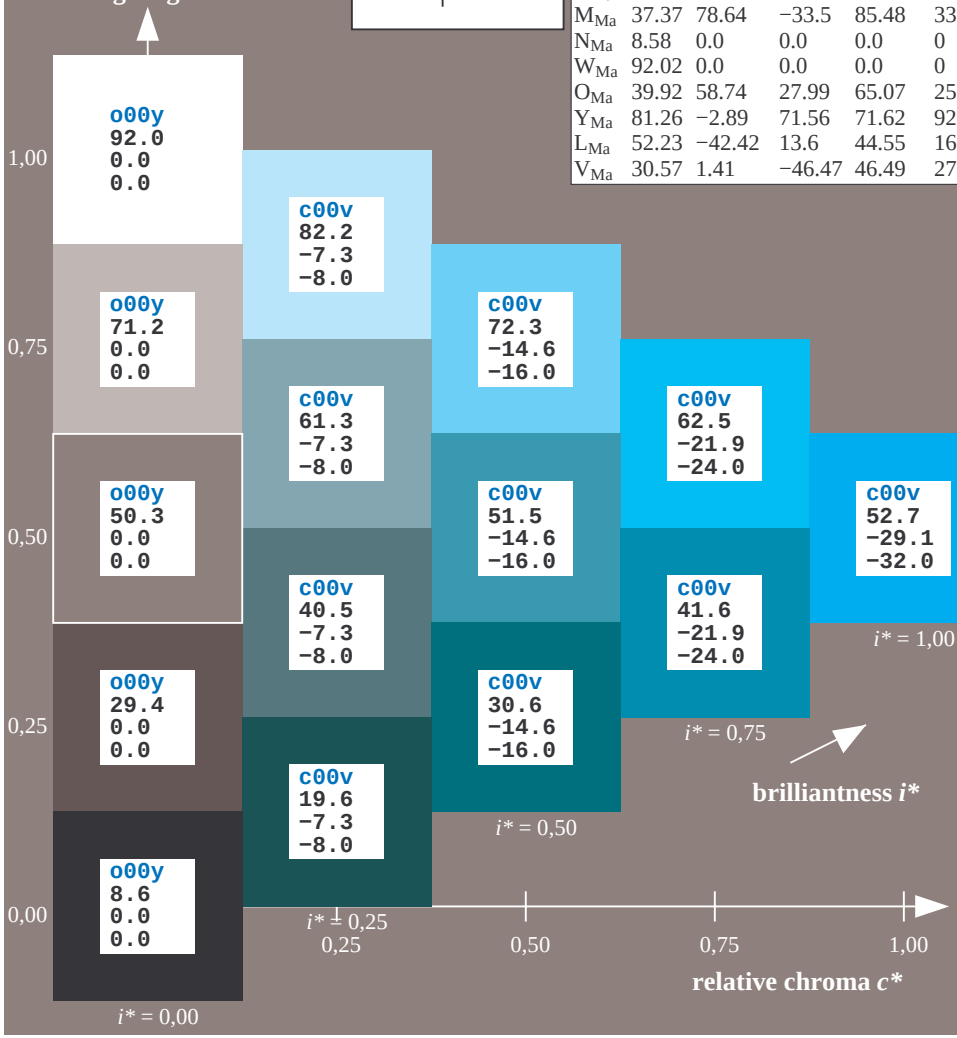
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 53 −29 −32**

***LAB*LCH**$_{Ma}$: 53 43 227**

***lab*olv**$_{Ma}$: 0.0 1.0 1.0**

***lab*rgb**$_{Ma}$: 0.0 0.8 1.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

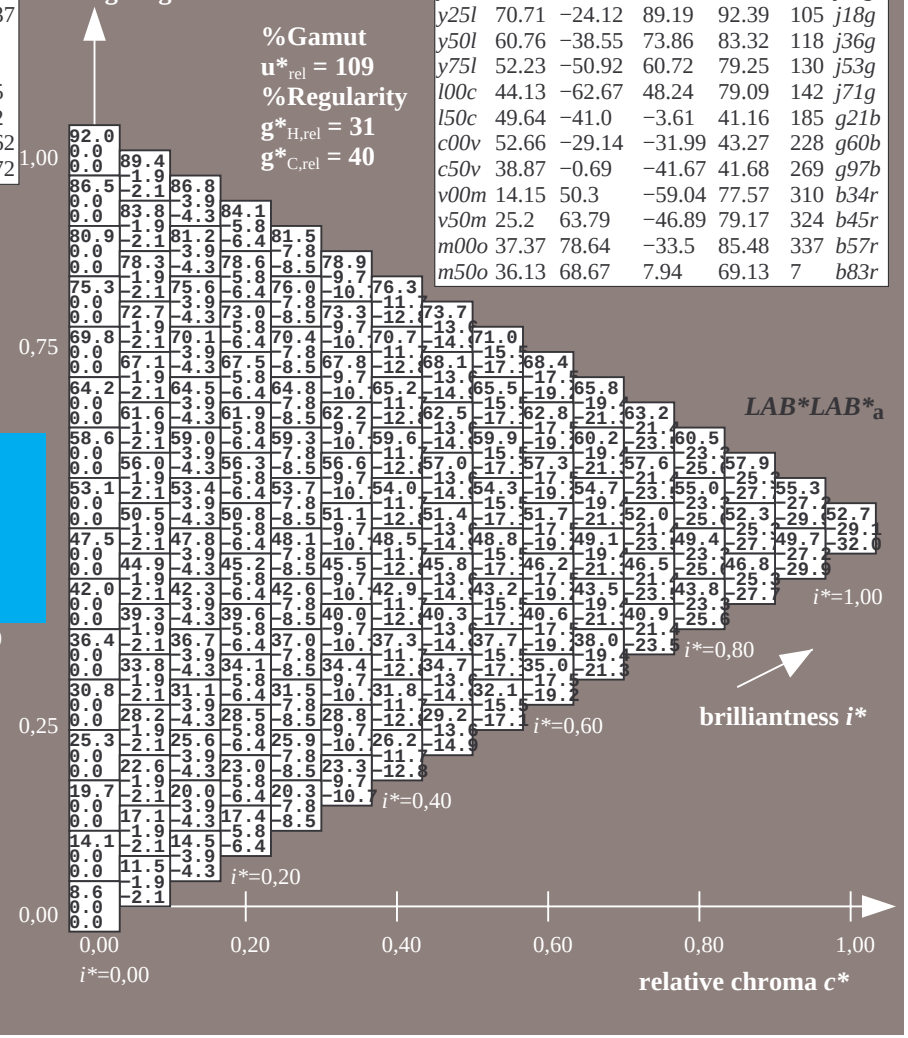
$g^*_{C,rel}$ = 40

$u^*_d = c00v$

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** and *lab*icu**

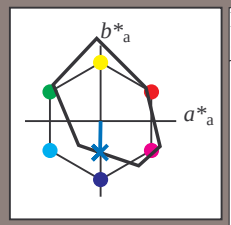
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

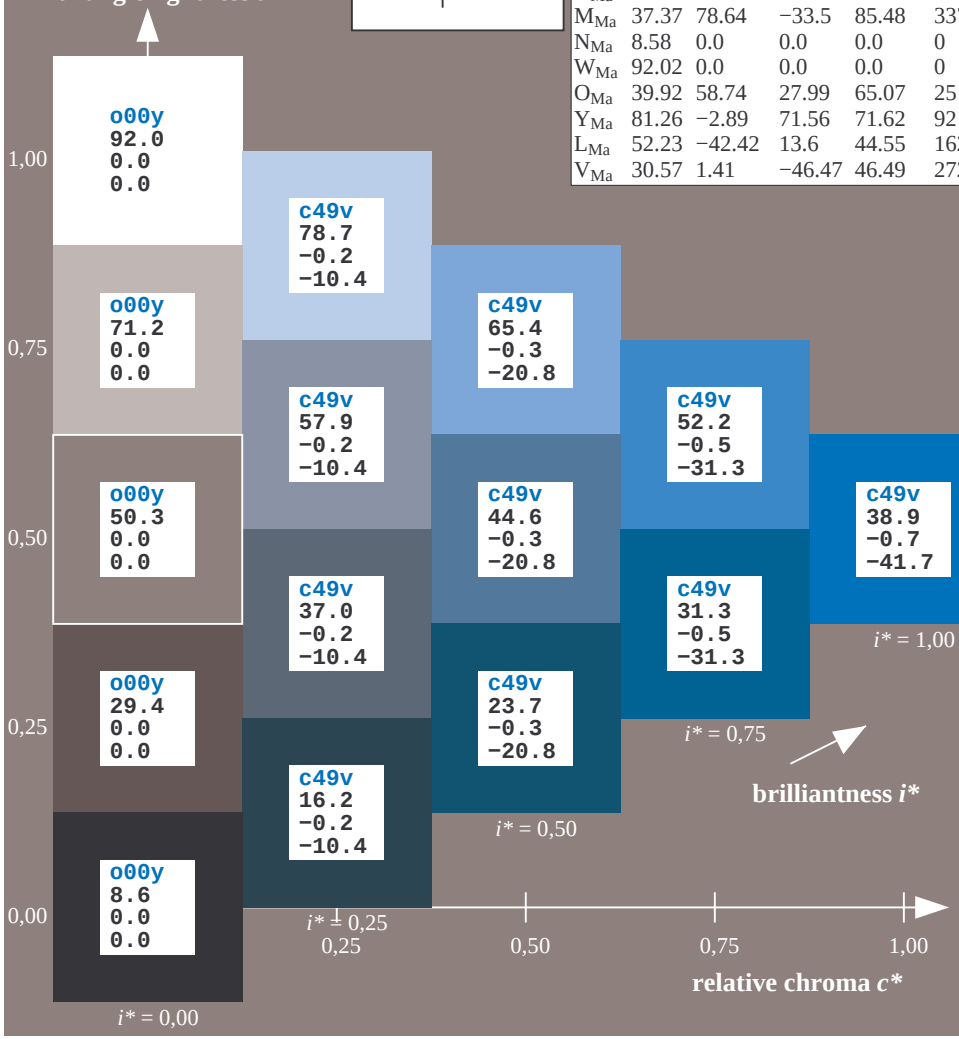
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 39 −1 −42**

***LAB*LCH**$_{Ma}$: 39 42 269**

***lab*olv**$_{Ma}$: 0.0 0.5 1.0**

***lab*rgb**$_{Ma}$: 0.0 0.05 1.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

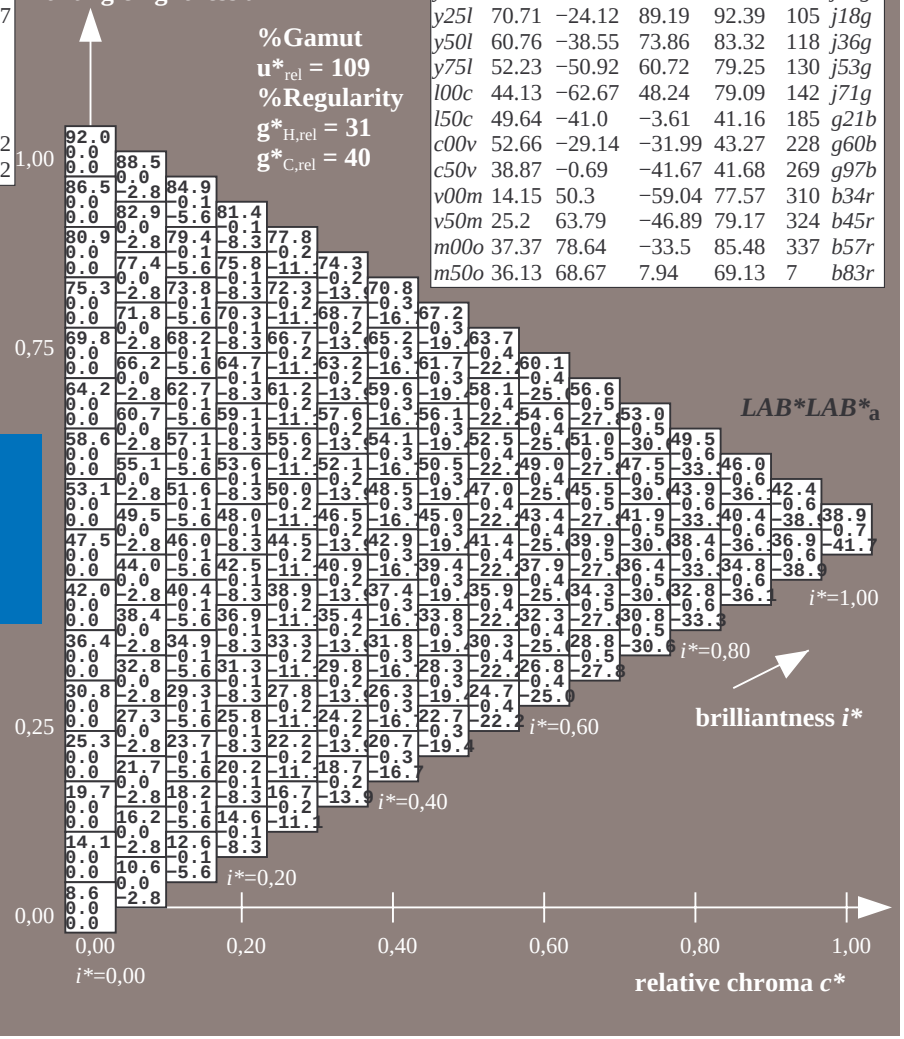
$g^*_{C,rel}$ = 40

$u^*_d = c50v$

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

data for any colour:

*lab*tch** and *lab*icu**

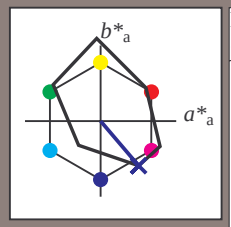
Hue texts:

u^*_d = *v00m* u^*_e = *b34r*

contrast reduction factor:

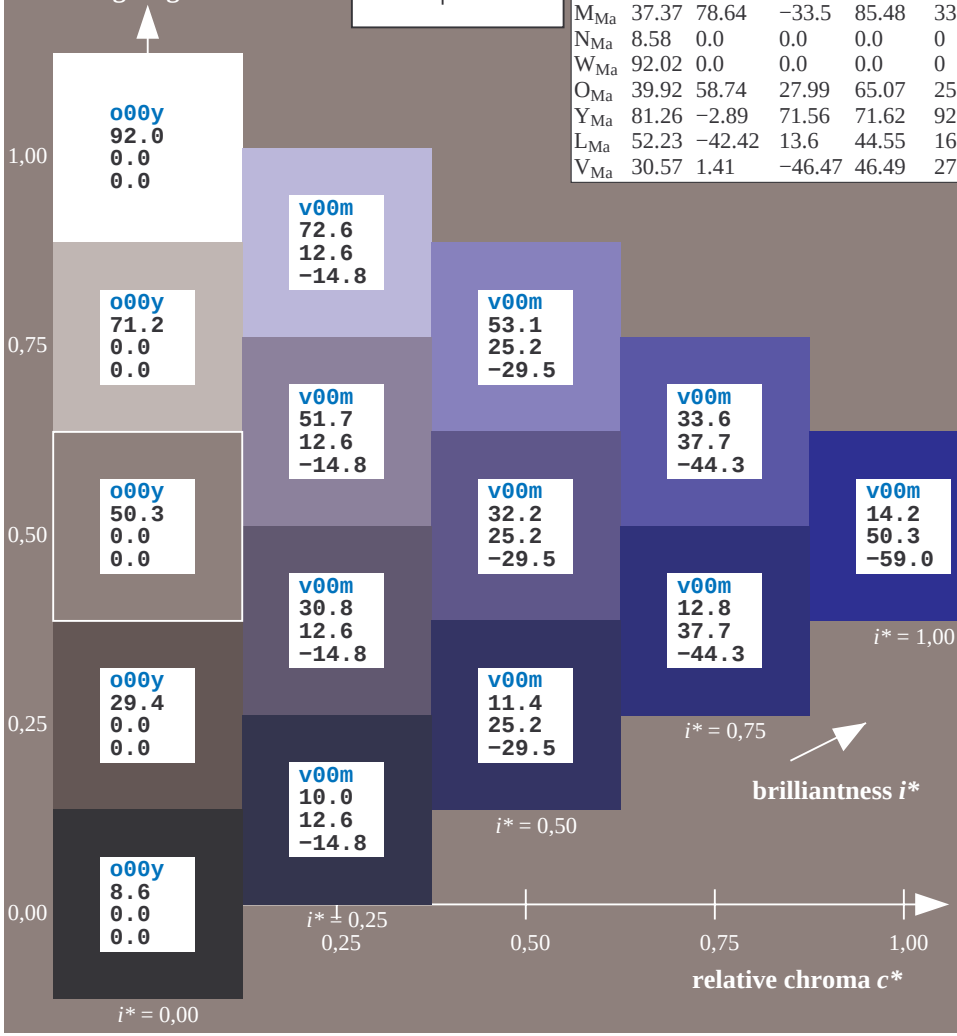
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 14 50 −59**

***LAB*LCH**$_{Ma}$: 14 78 310**

***lab*olv**$_{Ma}$: 0.0 0.0 1.0**

***lab*rgb**$_{Ma}$: 0.68 0.0 1.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

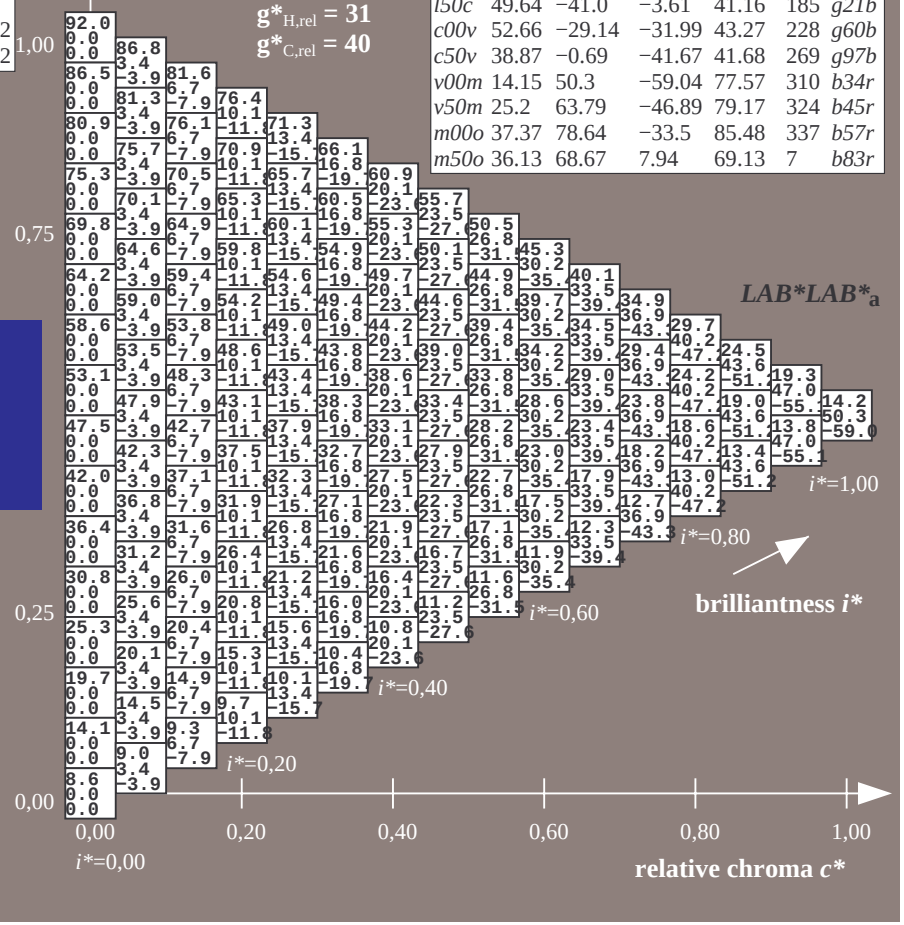
$g^*_{C,rel}$ = 40

u^*_d = *v00m*

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

data for any colour:

*lab*tch** and *lab*icu**

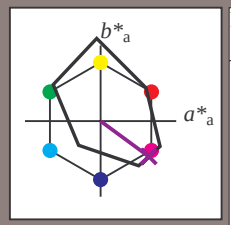
Hue texts:

u^*_d = *v50m* u^*_e = *b45r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 25 64 −47

*LAB*LCH**$_{Ma}$: 25 79 323

*lab*olv**$_{Ma}$: 0.5 0.0 1.0

*lab*rgb**$_{Ma}$: 0.91 0.0 1.0

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

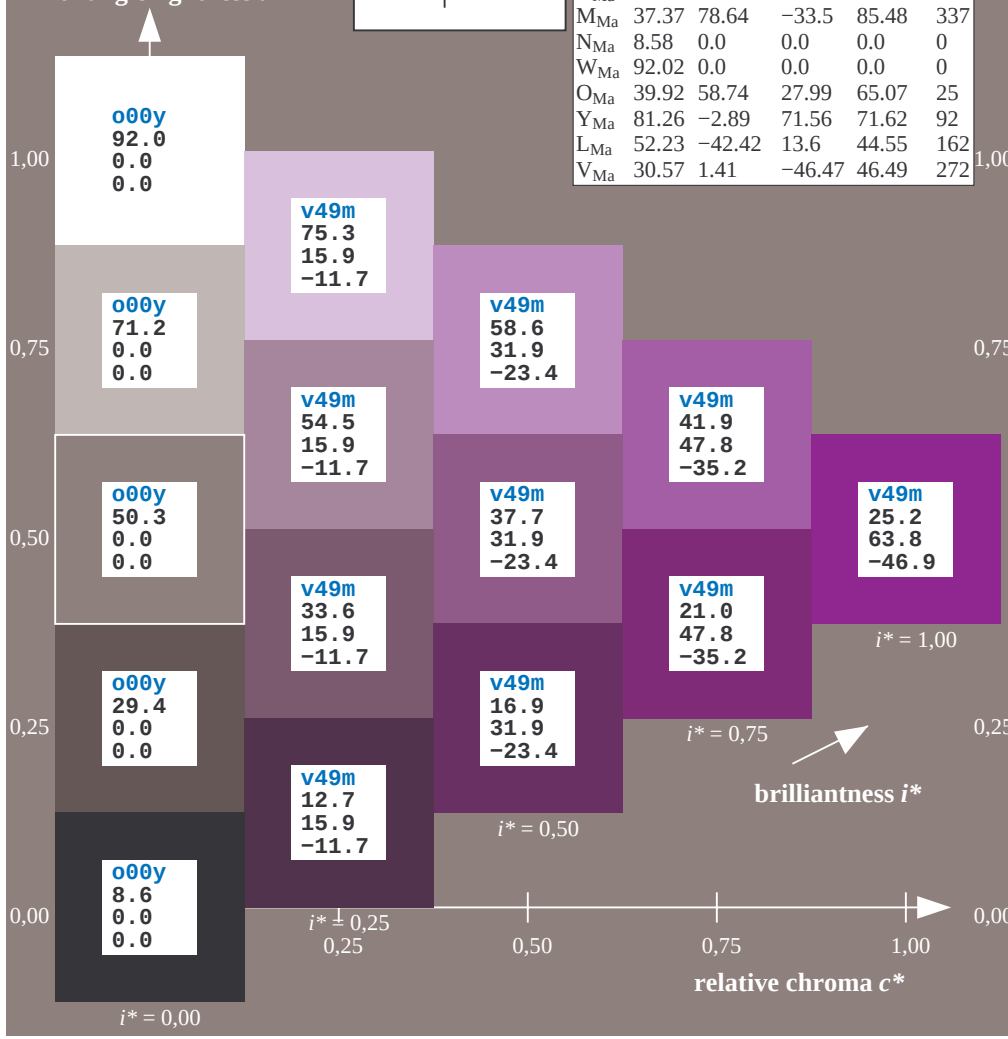
$g^*_{C,rel}$ = 40

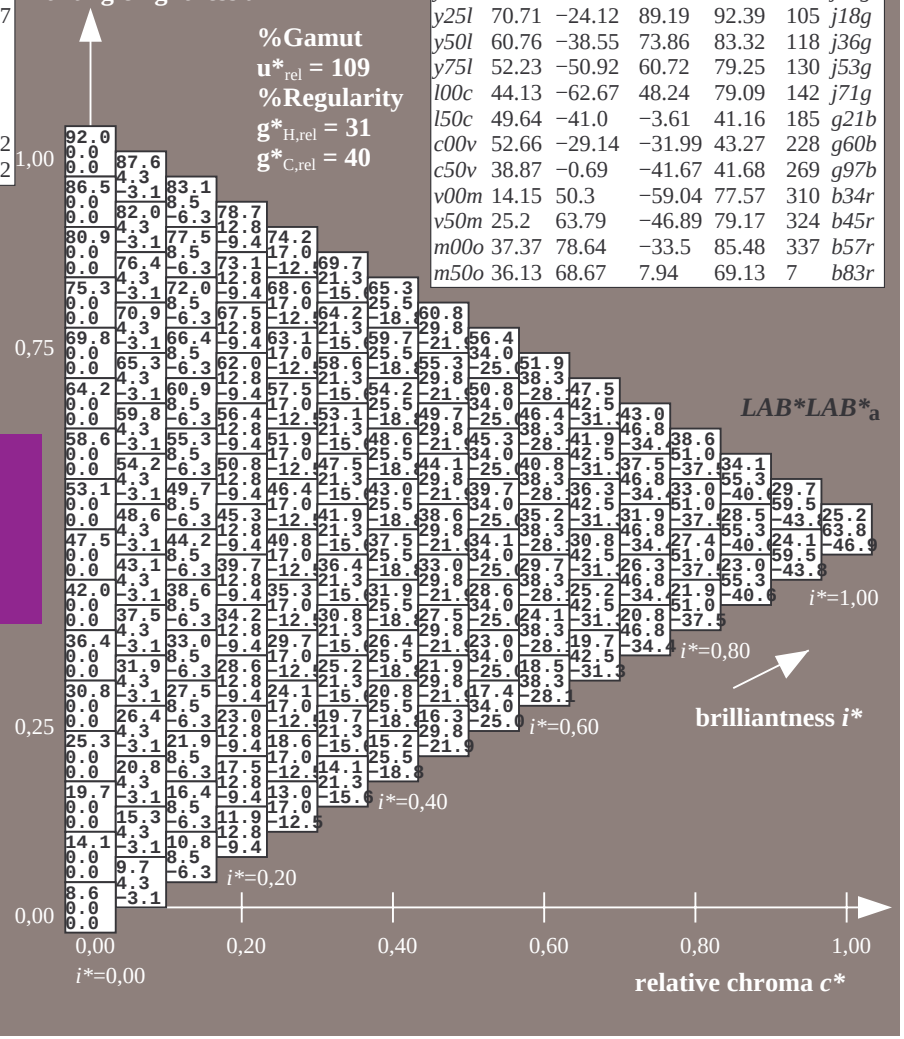
u^*_d = *v50m*

*LAB*LAB**$_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

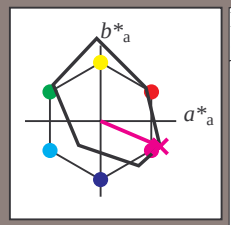




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

$u^*_d = m00o$
$LAB^*LAB^*_a$

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



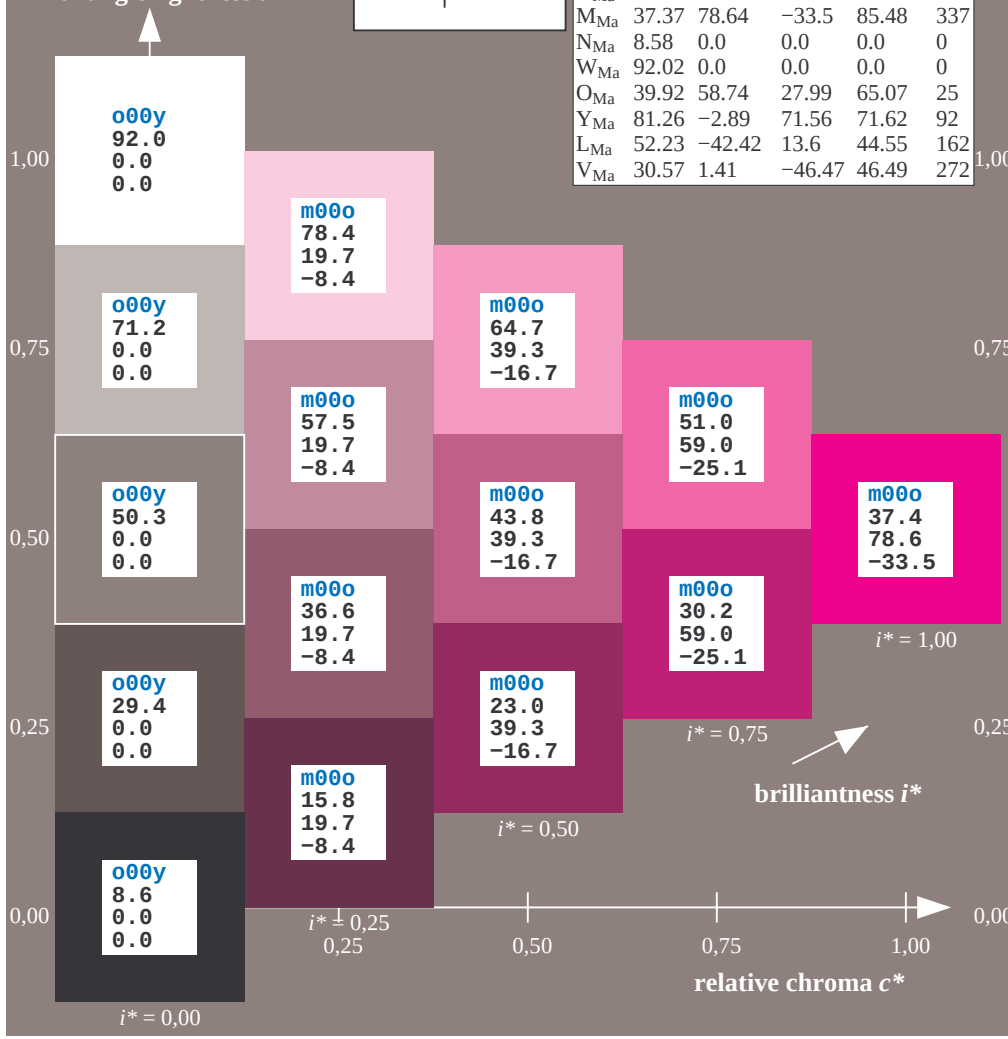
FRS09_92a; adapted (a) CIELAB data

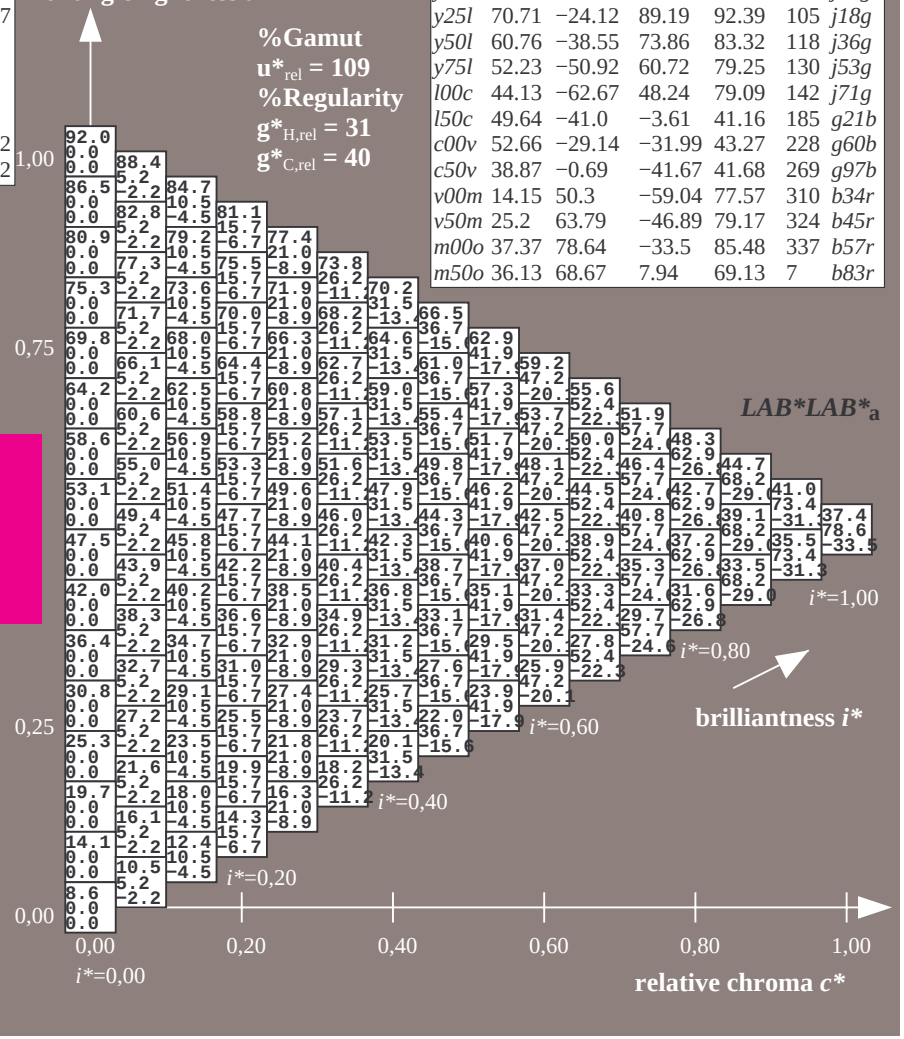
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 37 79 −34**
***LAB*LCH**$_{Ma}$: 37 85 336**
***lab*olv**$_{Ma}$: 1.0 0.0 1.0**
***lab*rgb**$_{Ma}$: 1.0 0.0 0.85**
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

data for any colour:

*lab*tch** and *lab*icu**

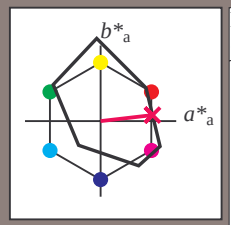
Hue texts:

u^*_d = *m50o* u^*_e = *b83r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 36 69 8**

***LAB*LCH**$_{Ma}$: 36 69 6**

***lab*olv**$_{Ma}$: 1.0 0.0 0.5**

***lab*rgb**$_{Ma}$: 1.0 0.0 0.33**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

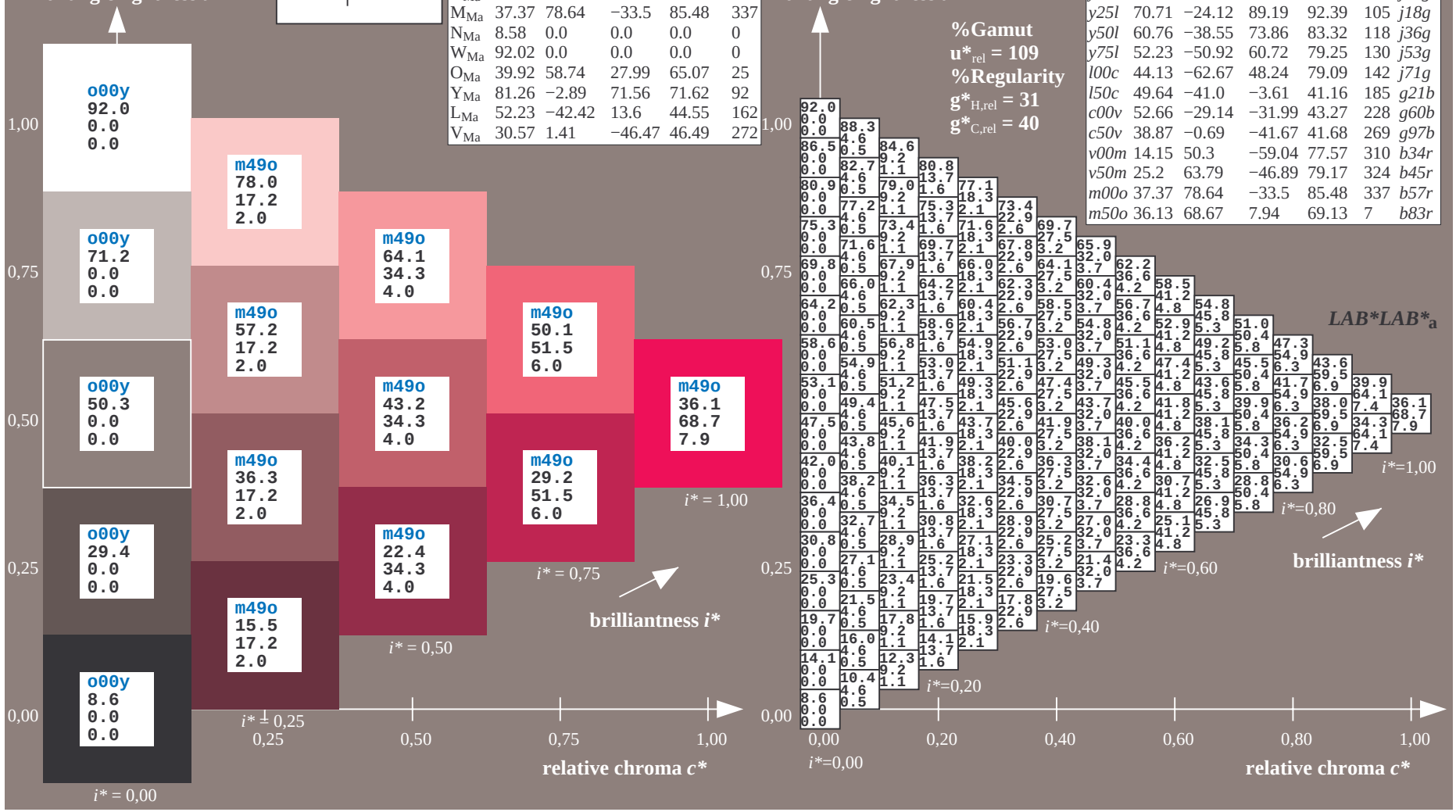
$g^*_{C,rel}$ = 40

u^*_d = *m50o*

***LAB*LAB**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

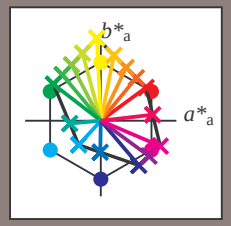


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	LAB*	LAB*a		
01	8.6	13.0	17.5	21.9	26.4	30.8	35.2	39.7	44.1	11.9	18.0	21.6	26.0	30.4	34.8	39.3	43.7	48.2	15.2	20.1	27.4	30.5	34.7	39.0	43.4	47.8	52.2	92.0	84.9	77.8	70.7	63.5	56.4	49.3	42.2	35.1	8.6	8.6	8.6	8.6
	0.0	-7.8	-15.7	-23.5	-31.3	-39.2	-47.0	-54.8	-62.7	7.5	-0.6	-9.6	-17.6	-25.5	-33.3	-41.1	-49.0	-56.8	15.0	8.4	-1.3	-11.0	-19.3	-27.3	-35.2	-43.1	-50.9	0.0	7.5	15.0	22.5	30.0	37.5	45.0	52.5	60.0	0.0	0.0	0.0	0.0
	0.0	6.0	12.1	18.1	24.1	30.2	36.2	42.2	48.2	5.5	13.7	18.5	24.4	30.4	36.4	42.4	48.4	54.5	11.0	17.6	27.3	31.4	36.9	42.8	48.7	54.7	60.7	0.0	5.5	11.0	16.5	22.0	27.5	33.0	38.5	44.0	0.0	0.0	0.0	0.0
02	9.3	14.1	18.8	23.5	28.2	32.7	37.3	41.8	46.3	12.2	19.0	23.5	27.9	32.3	36.8	41.2	45.7	50.1	15.5	22.3	28.4	32.1	36.4	40.8	45.3	49.7	54.2	87.1	81.6	74.5	67.4	60.2	53.1	46.0	38.9	31.7	19.0	19.0	19.0	19.0
	6.3	-3.6	-10.2	-17.1	-24.2	-31.5	-38.9	-46.4	-54.0	9.8	0.0	-7.8	-15.7	-23.5	-31.3	-39.2	-47.0	-54.8	17.2	7.5	-0.6	-9.6	-17.6	-25.5	-33.3	-41.1	-49.0	-3.6	0.0	7.5	15.0	22.5	30.0	37.5	45.0	52.5	0.0	0.0	0.0	0.0
	-7.4	-4.0	-0.9	2.8	7.1	11.8	16.8	22.0	27.4	-4.2	0.0	6.0	12.1	18.1	24.1	30.2	36.2	42.2	2.0	5.5	13.7	18.5	24.4	30.4	36.4	42.4	48.4	-4.0	0.0	5.5	11.0	16.5	22.0	27.5	33.0	38.5	0.0	0.0	0.0	0.0
03	10.0	16.2	19.6	24.4	29.1	33.8	38.5	43.1	47.8	12.7	19.7	24.5	29.3	34.0	38.6	43.2	47.7	52.3	15.8	22.6	29.4	33.9	38.3	42.8	47.2	51.7	56.1	82.2	76.7	71.2	64.0	56.9	49.8	42.7	35.6	28.4	29.4	29.4	29.4	29.4
	12.6	-0.2	-7.3	-13.9	-20.5	-27.3	-34.2	-41.2	-48.4	15.9	6.3	-3.6	-10.2	-17.1	-24.2	-31.5	-38.9	-46.4	19.7	9.8	0.0	-7.8	-15.7	-23.5	-31.3	-39.2	-47.0	-7.3	-3.6	0.0	7.5	15.0	22.5	30.0	37.5	45.0	0.0	0.0	0.0	0.0
	-14.8	-10.4	-8.0	-4.9	-1.8	1.7	5.5	9.7	14.1	-11.7	-7.4	-4.0	-0.9	2.8	7.1	11.8	16.8	22.0	-8.4	-4.2	0.0	6.0	12.1	18.1	24.1	30.2	36.2	-8.0	-4.0	0.0	5.5	11.0	16.5	22.0	27.5	33.0	0.0	0.0	0.0	0.0
04	10.7	17.9	21.7	25.1	29.8	34.6	39.4	44.1	48.8	13.4	20.4	26.6	30.0	34.8	39.5	44.3	48.9	53.6	16.3	23.2	30.1	34.9	39.7	44.4	49.0	53.6	58.2	77.3	71.7	66.2	60.7	53.6	46.5	39.4	32.3	25.1	39.9	39.9	39.9	39.9
	18.9	3.9	-3.8	-10.9	-17.6	-24.1	-30.7	-37.5	-44.3	22.2	12.6	-0.2	-7.3	-13.9	-20.5	-27.3	-34.2	-41.2	25.7	15.9	6.3	-3.6	-10.2	-17.1	-24.2	-31.5	-38.9	-10.9	-7.3	-3.6	0.0	7.5	15.0	22.5	30.0	37.5	0.0	0.0	0.0	0.0
	-22.1	-17.0	-14.4	-12.0	-8.7	-5.8	-2.7	0.7	4.4	-19.1	-14.8	-10.4	-8.0	-4.9	-1.8	1.7	5.5	9.7	-16.0	-11.7	-7.4	-4.0	-0.9	2.8	7.1	11.8	16.8	-12.0	-8.0	-4.0	0.0	5.5	11.0	16.5	22.0	27.5	0.0	0.0	0.0	0.0
05	11.4	19.4	23.7	27.1	30.6	35.3	40.1	44.9	49.6	14.1	21.1	28.4	32.1	35.5	40.3	45.1	49.8	54.5	16.9	23.8	30.8	37.0	40.5	45.2	50.0	54.7	59.4	72.3	66.8	61.3	55.8	50.3	43.2	36.1	28.9	21.8	50.3	50.3	50.3	50.3
	25.2	8.6	-0.3	-7.3	-14.6	-21.3	-27.8	-34.4	-41.0	28.5	18.9	3.9	-3.8	-10.9	-17.6	-24.1	-30.7	-37.5	31.9	22.2	12.6	-0.2	-7.3	-13.9	-20.5	-27.3	-34.2	-14.6	-10.9	-7.3	-3.6	0.0	7.5	15.0	22.5	30.0	0.0	0.0	0.0	0.0
	-29.5	-23.9	-20.8	-18.5	-16.0	-12.6	-9.7	-6.8	-3.6	-26.5	-22.1	-17.0	-14.4	-12.0	-8.7	-5.8	-2.7	0.7	-23.4	-19.1	-14.8	-10.4	-8.0	-4.9	-1.8	1.7	5.5	-16.0	-12.0	-8.0	-4.0	0.0	5.5	11.0	16.5	22.0	0.0	0.0	0.0	0.0
06	12.1	20.7	25.6	29.3	32.6	36.1	40.8	45.6	50.4	14.8	21.8	29.8	34.2	37.5	41.0	45.8	50.6	55.3	17.6	24.5	31.5	38.8	42.5	46.0	50.7	55.5	60.2	67.4	61.9	56.4	50.9	45.4	39.9	32.8	25.6	18.5	60.7	60.7	60.7	60.7
	31.4	13.7	3.5	-4.0	-10.9	-18.2	-25.0	-31.5	-38.0	34.8	25.2	8.6	-0.3	-7.3	-14.6	-21.3	-27.8	-34.4	38.1	28.5	18.9	3.9	-3.8	-10.9	-17.6	-24.1	-30.7	-18.2	-14.6	-10.9	-7.3	-3.6	0.0	7.5	15.0	22.5	0.0	0.0	0.0	0.0
	-36.9	-30.8	-27.4	-24.8	-22.5	-20.0	-16.5	-13.6	-10.7	-33.9	-29.5	-23.9	-20.8	-18.5	-16.0	-12.6	-9.7	-6.8	-30.9	-26.5	-22.1	-17.0	-14.4	-12.0	-8.7	-5.8	-2.7	-20.0	-16.0	-12.0	-8.0	-4.0	0.0	5.5	11.0	16.5	0.0	0.0	0.0	0.0
07	12.8	21.8	27.3	31.3	34.7	38.0	41.6	46.3	51.1	15.5	22.5	31.1	36.0	39.7	43.0	46.6	51.3	56.0	18.2	25.2	32.2	40.3	44.6	48.0	51.5	56.2	61.0	62.5	57.0	51.5	46.0	40.5	34.9	29.4	22.3	15.2	71.2	71.2	71.2	71.2
	37.7	19.0	7.8	-0.5	-7.6	-14.4	-21.9	-28.7	-35.2	41.1	31.4	13.7	3.5	-4.0	-10.9	-18.2	-25.0	-31.5	44.4	34.8	25.2	8.6	-0.3	-7.3	-14.6	-21.3	-27.8	-21.9	-18.2	-14.6	-10.9	-7.3	-3.6	0.0	7.5	15.0	0.0	0.0	0.0	0.0
	-44.3	-37.9	-34.1	-31.3	-28.8	-26.5	-24.0	-20.4	-17.4	-41.3	-36.9	-30.8	-27.4	-24.8	-22.5	-20.0	-16.5	-13.6	-38.3	-33.9	-29.5	-23.9	-20.8	-18.5	-16.0	-12.6	-9.7	-24.0	-20.0	-16.0	-12.0	-8.0	-4.0	0.0	5.5	11.0	0.0	0.0	0.0	0.0
08	13.5	22.9	28.8	33.2	36.8	40.2	43.5	47.1	51.8	16.2	23.2	32.3	37.7	41.7	45.2	48.5	52.1	56.8	18.9	25.9	32.9	41.5	46.5	50.1	53.4	57.0	61.7	57.6	52.1	46.6	41.0	35.5	30.0	24.5	19.0	11.9	81.6	81.6	81.6	81.6
	44.0	24.6	12.3	3.3	-4.2	-11.1	-18.0	-25.5	-32.3	47.3	37.7	19.0	7.8	-0.5	-7.6	-14.4	-21.9	-28.7	50.7	41.1	31.4	13.7	3.5	-4.0	-10.9	-18.2	-25.0	-25.5	-21.9	-18.2	-14.6	-10.9	-7.3	-3.6	0.0	7.5	0.0	0.0	0.0	0.0
	-51.7	-45.0	-40.9	-37.8	-35.2	-32.9	-30.5	-28.0	-24.4	-48.7	-44.3	-37.9	-34.1	-31.3	-28.8	-26.5	-24.0	-20.4	-45.6	-41.3	-36.9	-30.8	-27.4	-24.8	-22.5	-20.0	-16.5	-28.0	-24.0	-20.0	-16.0	-12.0	-8.0	-4.0	0.0	5.5	0.0	0.0	0.0	0.0
09	14.2	23.9	30.2	35.0	38.9	42.3	45.6	49.0	52.7	16.9	23.9	33.3	39.2	43.6	47.3	50.6	53.9	57.6	19.6	26.6	33.6	42.7	48.1	52.2	55.6	58.9	62.5	52.7	47.1	41.6	36.1	30.6	25.1	19.6	14.1	8.6	92.0	92.0	92.0	92.0
	50.3	30.2	17.1	7.3	-0.7	-7.8	-14.7	-21.6	-29.1	53.6	44.0	24.6	12.3	3.3	-4.2	-11.1	-18.0	-25.5	57.0	47.3	37.7	19.0	7.8	-0.5	-7.6	-14.4	-21.9	-29.1	-25.5	-21.9	-18.2	-14.6	-10.9	-7.3	-3.6	0.0	0.0	0.0	0.0	0.0
	-59.0	-52.2	-47.7	-44.4	-41.7	-39.2	-36.9	-34.6	-32.0	-56.0	-51.7	-45.0	-40.9	-37.8	-35.2	-32.9	-30.5	-28.0	-53.0	-48.7	-44.3	-37.9	-34.1	-31.3	-28.8	-26.5	-24.0	-32.0	-28.0	-24.0	-20.0	-16.0	-12.0	-8.0	-4.0	0.0	0.0	0.0	0.0	0.0
10	18.5	23.3	28.8	36.8	39.6	43.5	47.7	52.0	56.4	21.8	26.6	31.7	37.7	46.2	48.8	52.5	56.5	60.8	25.1	29.9	34.8	40.3	46.8	55.6	58.1	61.6	65.5	92.0	91.0	90.0	88.9	87.9	86.9	85.8	84.8	83.8	8.6	8.6	8.6	8.6
	22.5	16.0	8.7	-1.9	-12.1	-20.7	-28.9	-36.9	-44.9	30.0	23.6	16.8	8.7	-2.6	-13.0	-22.0	-30.4	-38.5	37.5	31.1	24.5	17.3	8.5	-3.2	-13.9	-23.1	-31.7	0.0	-6.6	-1.3	-1.9	-2.6	-3.2	-3.9	-4.5	-5.2	0.0	0.0	0.0	0.0
	16.5	23.0	30.3	41.0	44.6	49.8	55.4	61.2	67.1	22.0	28.5	35.2	43.3	54.7	57.9	62.8	68.2	73.9	27.5	34.0	40.5	47.8	56.5	68.3	71.4	75.9	81.1	0.0	13.7	27.3	41.0	54.7	68.3	82.0	95.7	109.3	0.0	0.0	0.0	0.0
11	18.8	25.6	30.6	37.8	41.0	45.1	49.4	53.8	58.2	22.1	28.9	33.8	39.2	47.2	50.1	54.0	58.1	62.5	25.4	32.3	37.1	42.1	48.1	56.6	59.3	62.9	67.0	82.3	81.6	80.6	79.5	78.5	77.5	76.4	75.4	74.4	14.1	14.1	14.1	14.1
	24.7	15.0	8.4	-1.3	-11.0	-19.3	-27.3	-35.2	-43.1	32.2	22.5	16.0	8.7	-1.9	-12.1	-20.7	-28.9	-36.9	39.8	30.0	23.6	16.8	8.7	-2.6	-13.0	-22.0	-30.4	6.3	0.0	-0.6	-1.3	-1.9	-2.6	-3.2	-3.9	-4.5	0.0	0.0	0.0	0.0
	7.3	11.0	17.6	27.3	31.4	36.9	42.8	48.7	54.7	12.7	16.5	23.0	30.3	41.0	44.6	49.8	55.4	61.2	18.0	22.0	28.5	35.2	43.3	54.7	57.9	62.8	68.2	-7.4	0.0	13.7	27.3	41.0	54.7	68.3	82.0	95.7	0.0	0.0	0.0	0.0
12	19.0	25.9	32.8	38.8	42.5	46.8	51.3	55.7	60.1	22.4	29.2	36.1	41.0	48.2	51.4	55.5	59.9	64.2	25.7	32.5	39.4	44.2	49.6	57.6	60.5	64.4	68.6	72.6	71.9	71.2	70.1	69.1	68.1	67.0	66.0	65.0	19.7	19.7	19.7	19.7
	26.8	17.2	7.5	-0.6	-9.6	-17.6	-25.5	-33.3	-41.1	34.3	24.7	15.0	8.4	-1.3	-11.0	-19.3	-27.3	-35.2	41.9	32.2	22.5	16.0	8.7	-1.9	-12.1	-20.7	-28.9	12.6	6.3	0.0	-0.6	-1.3	-1.9	-2.6	-3.2	-3.9	0.0	0.0	0.0	0.0
	-1.5	2.0	5.5	13.7	18.5	24.4	30.4	36.4	42.4	4.0	7.3	11.0	17.6	27.3	31.4	36.9	42.8	48.7	9.3	12.7	16.5	23.0	30.3	41.0	44.6	49.8	55.4	-14.8	-7.4	0.0	13.7	27.3	41.0	54.7	68.3	82.0	0.0	0.0	0.0	0.0
13	19.4	26.2	33.0	39.9	44.3	48.8	53.2	57.6	62.1	22.6	29.5	36.3	43.2	49.3	52.9	57.3	61.7	66.1	25.9	32.8	39.6	46.5	51.4	58.7	61.8	66.0	70.3	62.8	62.1	61.4	60.7	59.7	58.7	57.6	56.6	55.6	25.3	25.3	25.3	25.3
	29.5	19.7	9.8	0.0	-7.8	-15.7	-23.5	-31.3	-39.2	36.6	26.8	17.2	7.5	-0.6	-9.6	-17.6	-25.5	-33.3	44.0	34.3	24.7	15.0	8.4	-1.3	-11.0	-19.3	-27.3	18.9	12.6	6.3	0.0	-0.6	-1.3	-1.9	-2.6	-3.2	0.0	0.0	0.0	0.0
	-12.6	-8.4	-4.2	0.0	6.0	12.1	18.1	24.1	30.2	-5.3	-1.5	2.0	5.5	13.7	18.5	24.4	30.4	36.4	0.5	4.0	7.3	11.0	17.6	27.3	31.4	36.9	42.8	-22.1	-14.8	-7.4	0.0	13.7	27.3	41.0	54.7	68.3	0.0	0.0	0.0	0.0
14	19.8	26.7	33.6	40.6	45.4	50.1	54.8	59.5	64.0	23.0	29.8	36.6	43.5	50.3	54.7	59.2	63.6	68.1	26.2	33.1	39.9	46.8	53.6	59.7	63.3	67.7	72.1	53.1	52.4	51.7	51.0	50.3	49.3	48.2	47.2	46.2	30.8	30.8	30.8	30.8
	35.5	25.7	15.9	6.3	-3.6	-10.2	-17.1	-24.2	-31.5	39.3	29.5	19.7	9.8	0.0	-7.8	-15.7	-23.5	-31.3	46.3	36.6	26.8	17.2	7.5	-0.6	-9.6	-17.6	-25.5	25.2	18.9	12.6	6.3	0.0	-0.6	-1.3	-1.9	-2.6	0.0	0.0	0.0	0.0
	-20.2	-16.0	-11.7	-7.4	-4.0	-0.9	2.8	7.1	11.8	-16.8	-12.6	-8.4	-4.2	0.0	6.0	12.1	18.1	24.1	-9.2	-5.3	-1.5	2.0	5.5	13.7	18.5	24.4	30.4	-29.5	-22.1	-14.8	-7.4	0.0	13.7	27.3	41.0	54.7	0.0	0.0	0.0	0.0
15	20.4	27.3	34.3	41.3	47.4	50.9	55.6	60.4	65.1	23.4	30.2	37.1	44.0	51.0	55.8	60.6	65.3	69.9	26.6	33.4	40.2	47.1	53.9	60.7	65.2	69.6	74.1	43.4	42.7	42.0	41.3	40.6	39.9	38.8	37.8	36.8	36.4	36.4	36.4	36.4
	41.6	31.9	22.2	12.6	-0.2	-7.3	-13.9	-20.5	-27.3	45.3	35.5	25.7	15.9	6.3	-3.6	-10.2	-17.1	-24.2	49.2	39.3	29.5	19.7	9.8	0.0	-7.8	-15.7	-23.5	31.4	25.2	18.9	12.6	6.3	0.0	-0.6	-1.3	-1.9	0.0	0.0	0.0	0.0
	-27.7	-23.4	-19.1	-14.8	-10.4	-8.0	-4.9	-1.8	1.7	-24.4	-20.2	-16.0	-11.7	-7.4	-4.0	-0.9	2.8	7.1	-20.9	-16.8	-12.6	-8.4	-4.2	0.0	6.0	12.1	18.1	-36.9	-29.5	-22.1	-14.8	-7.4	0.0	13.7	27.3	41.0	0.0	0.0	0.0	0.0
16	21.0	28.0	35.0	42.0	49.2	52.9	56.4	61.1	65.9	23.9	30.8	37.7	44.7	51.7	57.9	61.3	66.1	70.8	27.0	33.8	40.7	47.5	54.5	61.4	66.2	71.0	75.7	33.6	32.9	32.2	31.5	30.8	30.1	29.4	28.4	27.4	42.0	42.0	42.0	42.0
	47.8	38.1	28.5	18.9	3.9	-3.8	-10.9	-17.6	-24.1	51.4	41.6	31.9	22.2	12.6	-0.2	-7.3	-13.9	-20.5	55.1	45.3	35.5	25.7	15.9	6.3	-3.6	-10.2	-17.1	37.7	31.4	25.2	18.9	12.6	6.3	0.0	-0.6	-1.3	0.0	0.0	0.0	0.0
	-35.2	-30.9	-26.5	-22.1	-17.0	-14.4	-12.0	-8.7	-5.8	-32.0	-27.7	-23.4	-19.1	-14.8	-10.4	-8.0	-4.9	-1.8	-28.7	-24.4	-20.2	-16.0	-11.7	-7.4	-4.0	-0.9	2.8	-44.3	-36.9	-29.5	-22.1	-14.8	-7.4	0.0	13.7	27.3	0.0	0.0	0.0	0.0
17	21.7	28.7	35.7	42.7	50.7	55.0	58.4	61.9	66.6	24.6	31.5	38.4	45.4	52.4	59.6	63.4	66.8	71.6	27.5	34.4	41.3	48.2	55.1	62.1	68.3	71.7	76.5	23.9	23.2	22.5	21.8	21.1	20.4	19.7	19.0	18.0	47.5	47.5	47.5	47.5
	54.1	44.4	34.8	25.2	8.6	-0.3	-7.3	-14.6	-21.3	57.6	47.8	38.1	28.5	18.9	3.9	-3.8	-10.9	-17.6	61.1	51.4	41.6	31.9	22.2	12.6	-0.2	-7.3	-13.9	44.0	37.7	31.4	25.2	18.9	12.6	6.3	0.0	-0.6	0.0	0.0	0.0	0.0
	-42.6	-38.3	-33.9	-29.5	-23.9	-20.8	-18.5	-16.0	-12.6	-39.5	-35.2	-30.9	-26.5	-22.1	-17.0	-14.4	-12.0	-8.7	-36.2	-32.0	-27.7	-23.4	-19.1	-14.8	-10.4	-8.0	-4.9	-51.7	-44.3	-36.9	-29.5	-22.1	-14.8	-7.4	0.0	13.7	0.0	0.0	0.0	0.0
18	22.4	29.4	36.3	43.4	52.0	56.9	60.5	63.9	67.4	25.2	32.1	39.1	46.1	53.1	61.1	65.4	68.8	72.3	28.1	35.0	41.9	48.8	55.8	62.8	70.1	73.8	77.3	14.2	13.5	12.8	12.1	11.4	10.7	10.0	9.3	8.6	53.1	53.1	53.1	53.1
	60.4	50.7	41.1	31.4	13.7	3.5	-4.0	-10.9	-18.2	63.8	54.1	44.4	34.8	25.2	8.6	-0.3	-7.3	-14.6	67.3	57.6	47.8	38.1	28.5	18.9	3.9	-3.8	-10.9	50.3	44.0	37.7	31.4	25.2	18.9	12.6	6.3	0.0	0.0	0.0	0.0	0.0
	-50.0	-45.6	-41.3	-36.9	-30.8	-27.4	-24.8	-22.5	-20.0	-46.9	-42.6	-38.3	-33.9	-29.5	-23.9	-20.8	-18.5	-16.0	-43.7	-39.5	-35.2	-30.9	-26.5	-22.1	-17.0	-14.4	-12.0	-59.0	-51.7	-44.3	-36.9	-29.5	-22.1	-14.8	-7.4	0.0	0.0	0.0	0.0	0.0
19	28.4	33.3	38.1	43.2	49.0	55.9	65.0	67.4	70.7	31.7	36.6	41.4	46.4	51.8	57.9	65.2	74.4	76.7	35.1	39.9	44.7	49.6	54.8	60.4	66.8	74.4	83.8	92.0	86.0	80.0	74.1	68.1	62.1	56.1	50.1	44.1	58.6	58.6	58.6	58.6
	45.0	38.6	32.1	25.2	17.5	8.2	-3.9	-14.7	-24.1	52.5	46.0	39.6	32.9	25.7	17.5	7.8	-4.5	-15.4	60.0	53.5	47.1	40.6	33.6	26.1	17.5	7.4	-5.2	0.0	-7.8	-15.7	-23.5	-31.3	-39.2	-47.0	-54.8	-62.7	0.0	0.0	0.0	0.0
	33.0	39.5	45.9	52.8	60.6	69.9	82.0	84.9	89.2	38.5	45.0	51.4	58.1	65.3	73.5	83.3	95.7	98.4	44.0	50.5	56.9	63.5	70.4	78.0	86.6	96.8	109.3	0.0	6.0	12.1	18.1	24.1	30.2	36.2	42.2	48.2	0.0	0.0	0.0	0.0
20	28.7	35.6	40.4	45.3	50.7	57.2	66.0	68.5	72.0	32.0	38.9	43.7	48.5	53.7	59.4	66.4	75.4	77.8	35.3	42.2	47.0	51.8	56.8	62.2	68.3	75.6	84.8	85.2	81.6	75.6	69.6	63.6	57.6	51.7	45.7	39.7	64.2	64.2	64.2	64.2
	47.3	37.5	31.1	24.5	17.3	8.5	-3.2	-13.9	-23.1	54.8	45.0	38.6	32.1	25.2	17.5	8.2	-3.9	-14.7	62.3	52.5	46.0	39.6	32.9	25.7	17.5	7.8	-4.5	9.8	0.0	-7.8	-15.7	-23.5	-31.3	-39.2	-47.0	-54.8	0.0	0.0	0.0	0.0
	23.4	27.5	34.0	40.5	47.8	56.5	68.3	71.4	75.9	28.9	33.0	39.5	45.9	52.8	60.6	69.9	82.0	84.9	34.3	38.5	45.0	51.4	58.1	65.3	73.5	83.3	95.7	-4.2	0.0	6.0	12.1	18.1	24.1	30.2	36.2	42.2	0.0	0.0	0.0	0.0
21	29.0	35.8	42.7	47.5	52.5	58.6	67.0	69.7	73.4	32.3	39.2	46.0	50.8	55.7	61.1	67.6	76.4	78.9	35.6	42.5	49.3	54.1	59.0	64.1	69.9	76.8	85.8	78.4	74.8	71.2	65.2	59.2	53.2	47.2	41.2	35.2	69.8	69.8	69.8	69.8
	49.4	39.8	30.0	23.6	16.8	8.7	-2.6	-13.0	-22.0	57.0	47.3	37.5	31.1	24.5	17.3	8.5	-3.2	-13.9	64.5	54.8	45.0	38.6	32.1	25.2	17.5	8.2	-3.9	19.7	9.8	0.0	-7.8	-15.7	-23.5	-31.3	-39.2	-47.0	0.0	0.0	0.0	0.0
	14.6	18.0	22.0	28.5	35.2	43.3	54.7	57.9	62.8	20.0	23.4	27.5	34.0	40.5	47.8	56.5	68.3	71.4	25.3	28.9	33.0	39.5	45.9	52.8	60.6	69.9	82.0	-8.4	-4.2	0.0	6.0	12.1	18.1	24.1	30.2	36.2	0.0	0.0	0.0	0.0
22	29.2	36.1	43.0	49.8	54.6	60.1	68.1	70.9	74.8	32.6	39.4	46.3	53.1	57.9	63.0	69.0	77.5	80.1	35.9	42.7	49.6	56.4	61.2	66.1	71.5	78.1	86.9	71.5	67.9	64.3	60.7	54.7	48.8	42.8	36.8	30.8	75.3	75.3	75.3	75.3
	51.5	41.9	32.2	22.5	16.0	8.7	-1.9	-12.1	-20.7	59.0	49.4	39.8	30.0	23.6	16.8	8.7	-2.6	-13.0	66.6	57.0	47.3	37.5	31.1	24.5	17.3	8.5	-3.2	29.5	19.7	9.8	0.0	-7.8

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

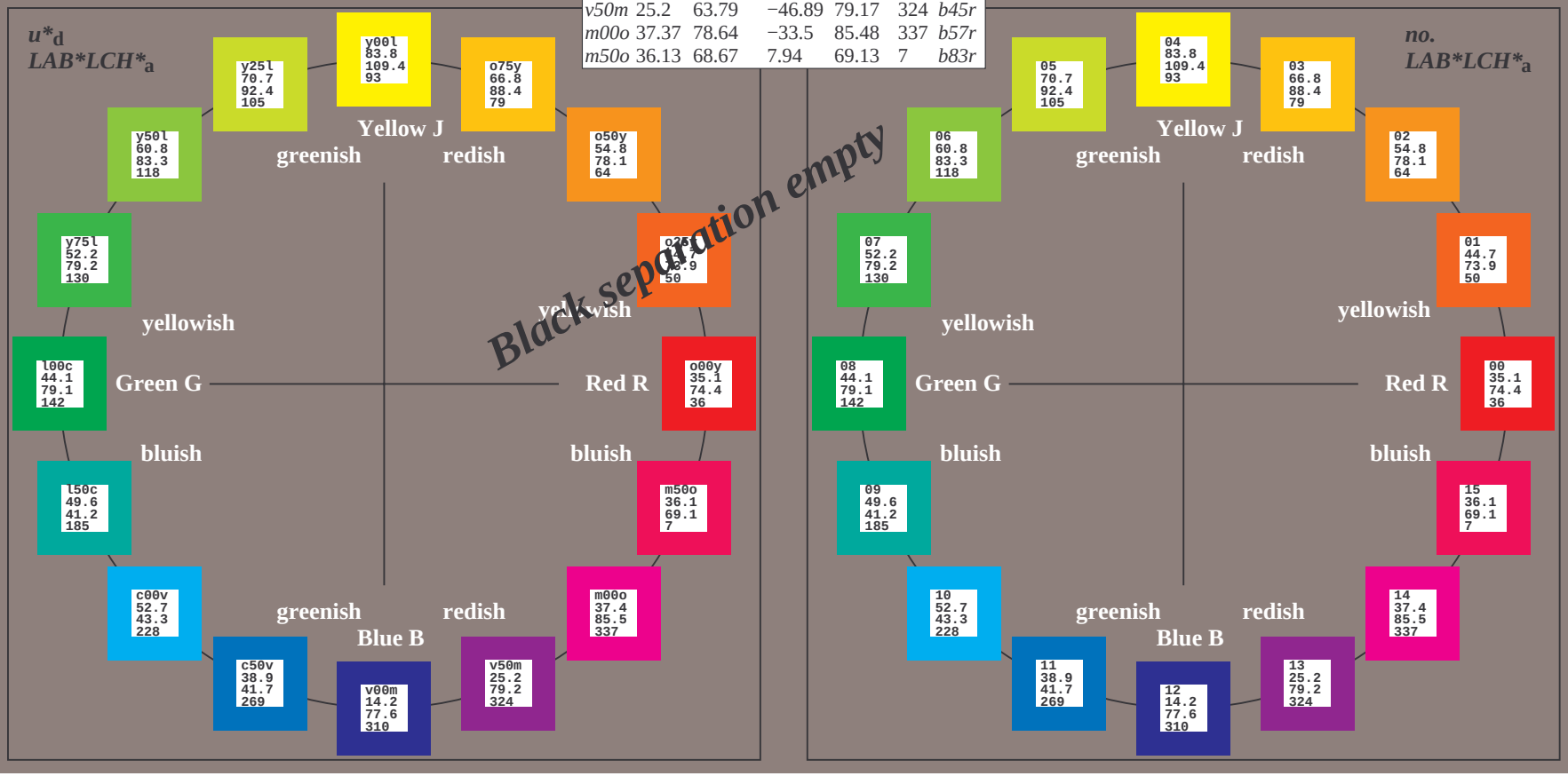
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** **and** *lab*icu**

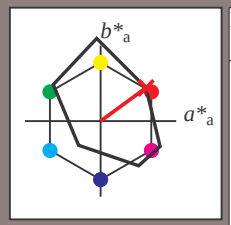
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 35 60 44

*LAB*LCH**$_{Ma}$: 35 74 36

*lab*olv**$_{Ma}$: 1.0 0.0 0.0

*lab*rgb**$_{Ma}$: 1.0 0.16 0.0

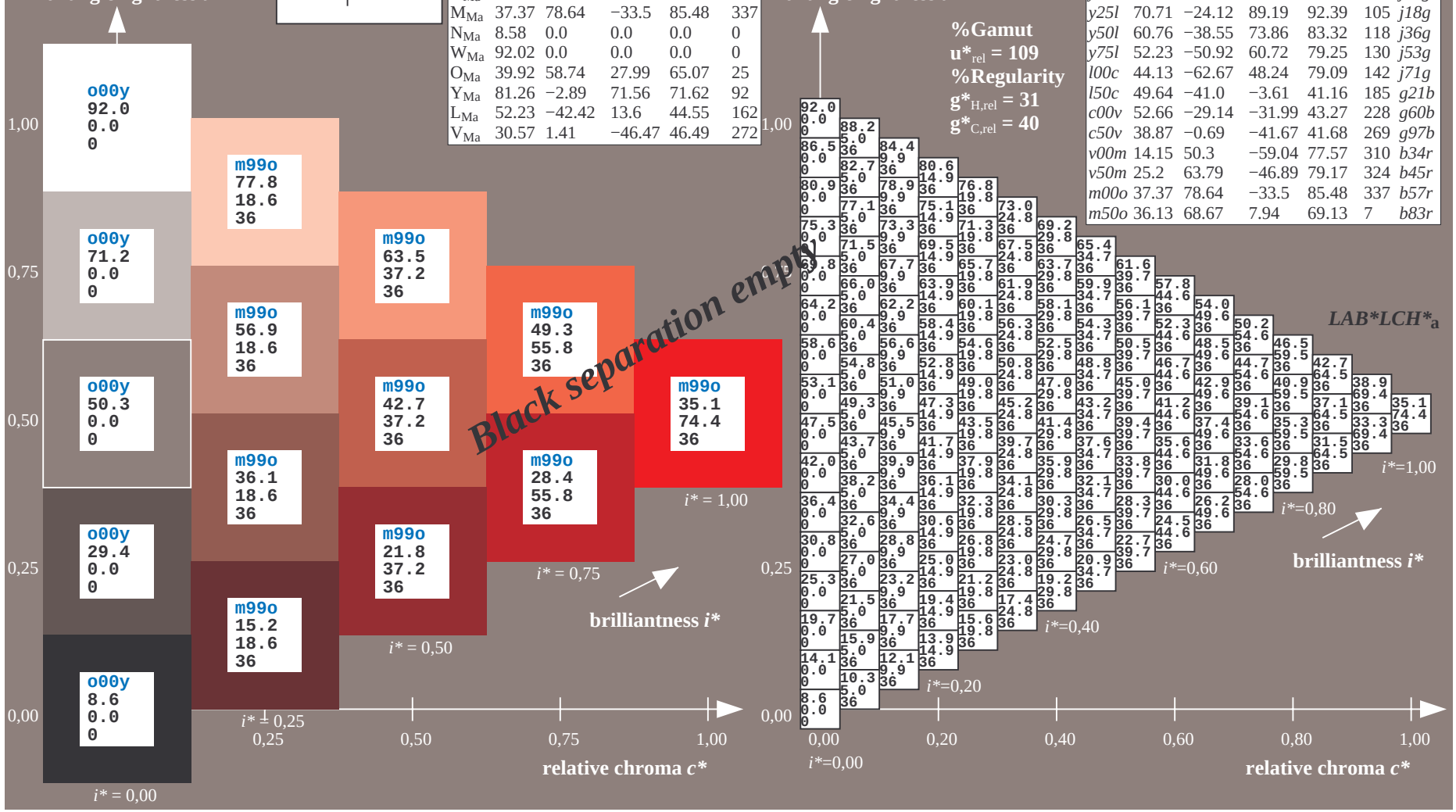
triangle lightness *t**

u^*_d = *o00y*

*LAB*LCH**$_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** **and** *lab*icu**

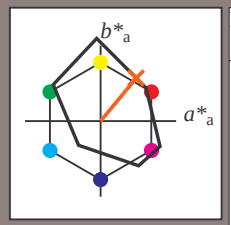
Hue texts:

$u^*_d = o25y$ $u^*_e = r37j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 45 47 57**

***LAB*LCH*Ma*: 45 74 50**

***lab*olv*Ma*: 1.0 0.25 0.0**

***lab*rgb*Ma*: 1.0 0.37 0.0**

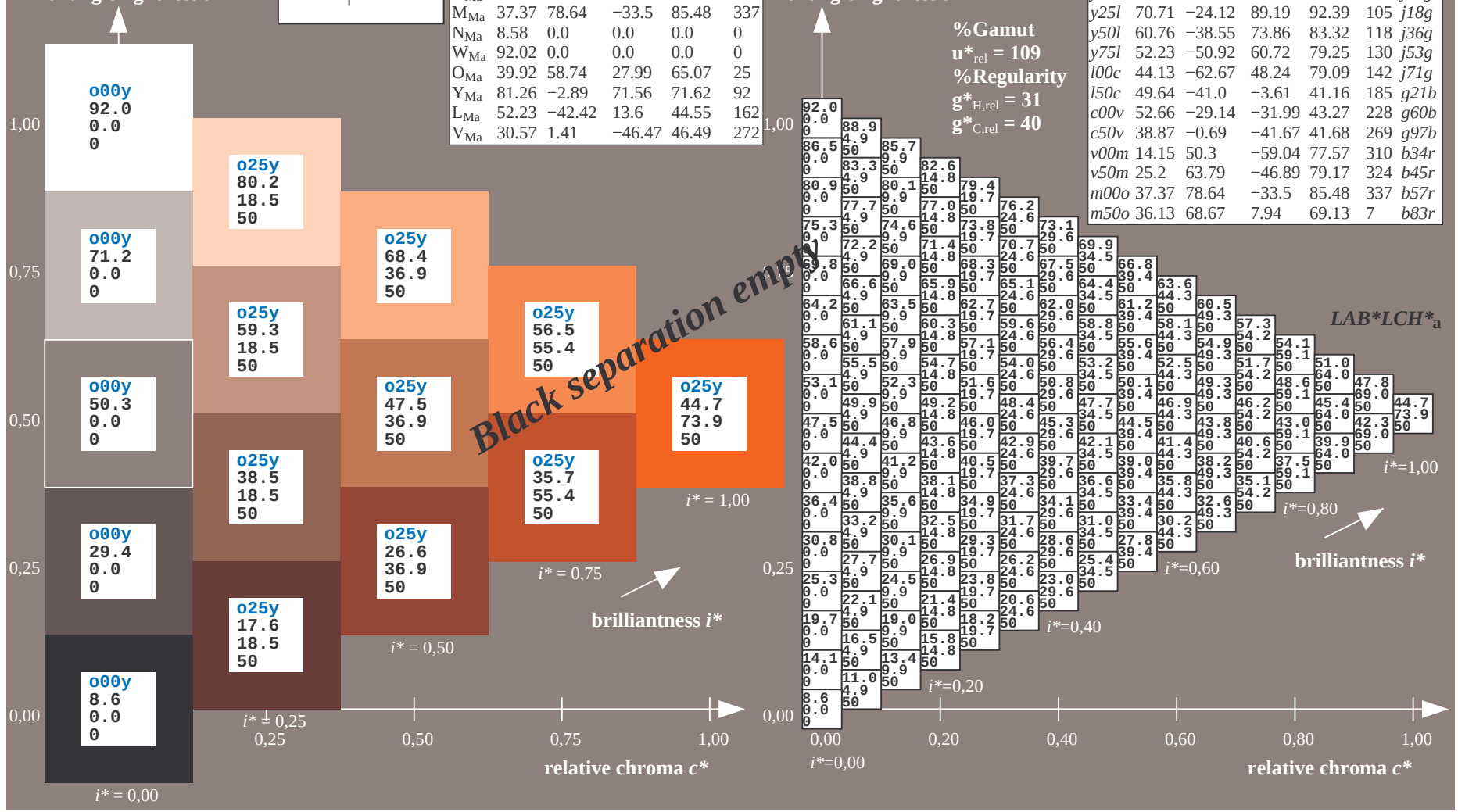
triangle lightness t^*

$u^*_d = o25y$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** **and** *lab*icu**

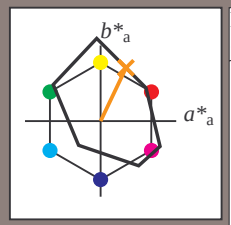
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 55 34 70

$LAB^*LCH^*_{Ma}$: 55 78 64

$lab^*olv^*_{Ma}$: 1.0 0.5 0.0

$lab^*rgb^*_{Ma}$: 1.0 0.58 0.0

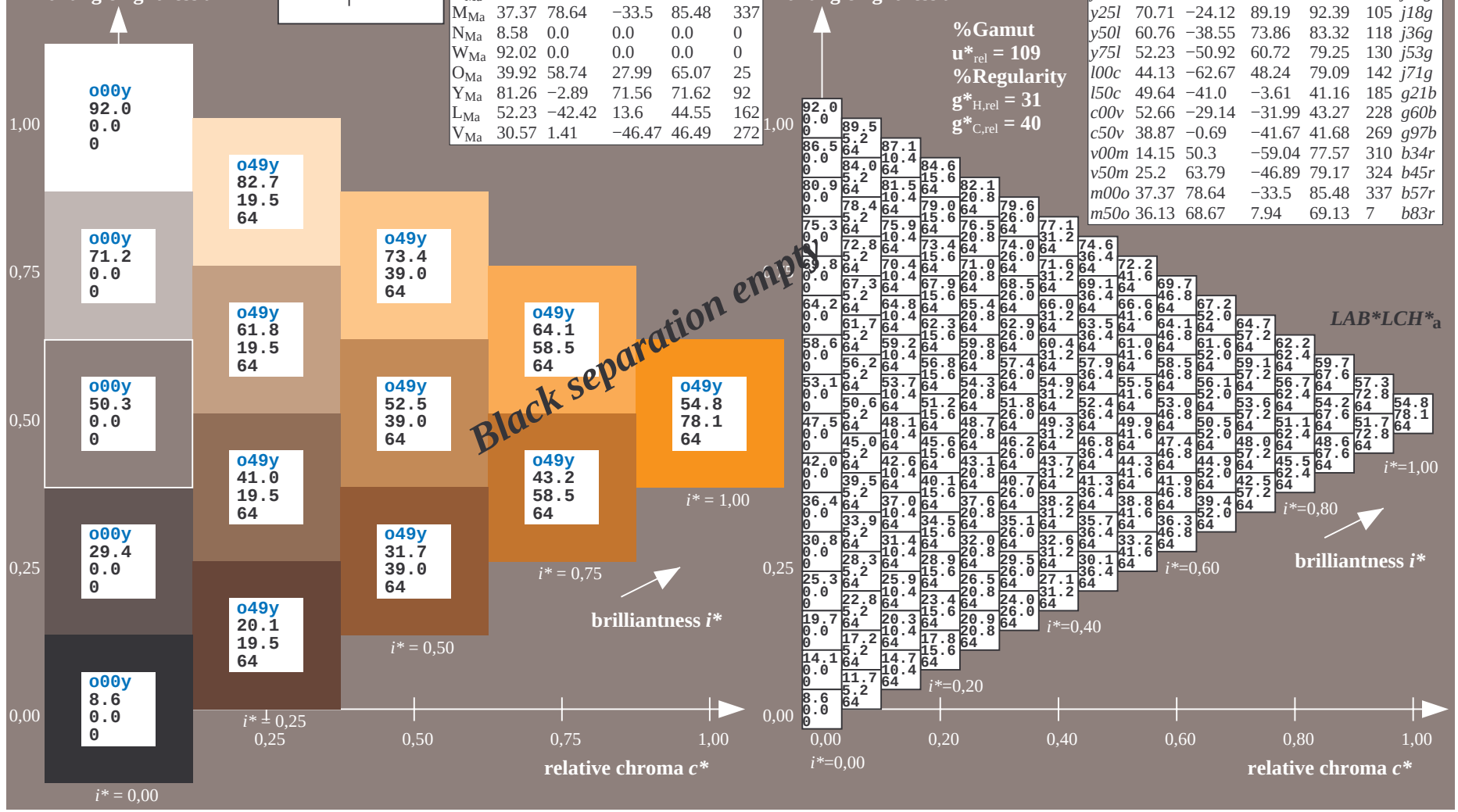
triangle lightness t^*

$u^*_d = o50y$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

data for any colour:

*lab*tch** **and** *lab*icu**

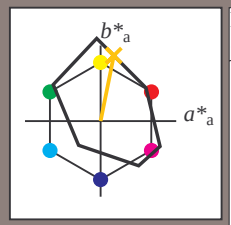
Hue texts:

$u^*_d = o75y$ $u^*_e = r79j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 67 17 87

$LAB^*LCH^*_{Ma}$: 67 88 78

$lab^*olv^*_{Ma}$: 1.0 0.75 0.0

$lab^*rgb^*_{Ma}$: 1.0 0.79 0.0

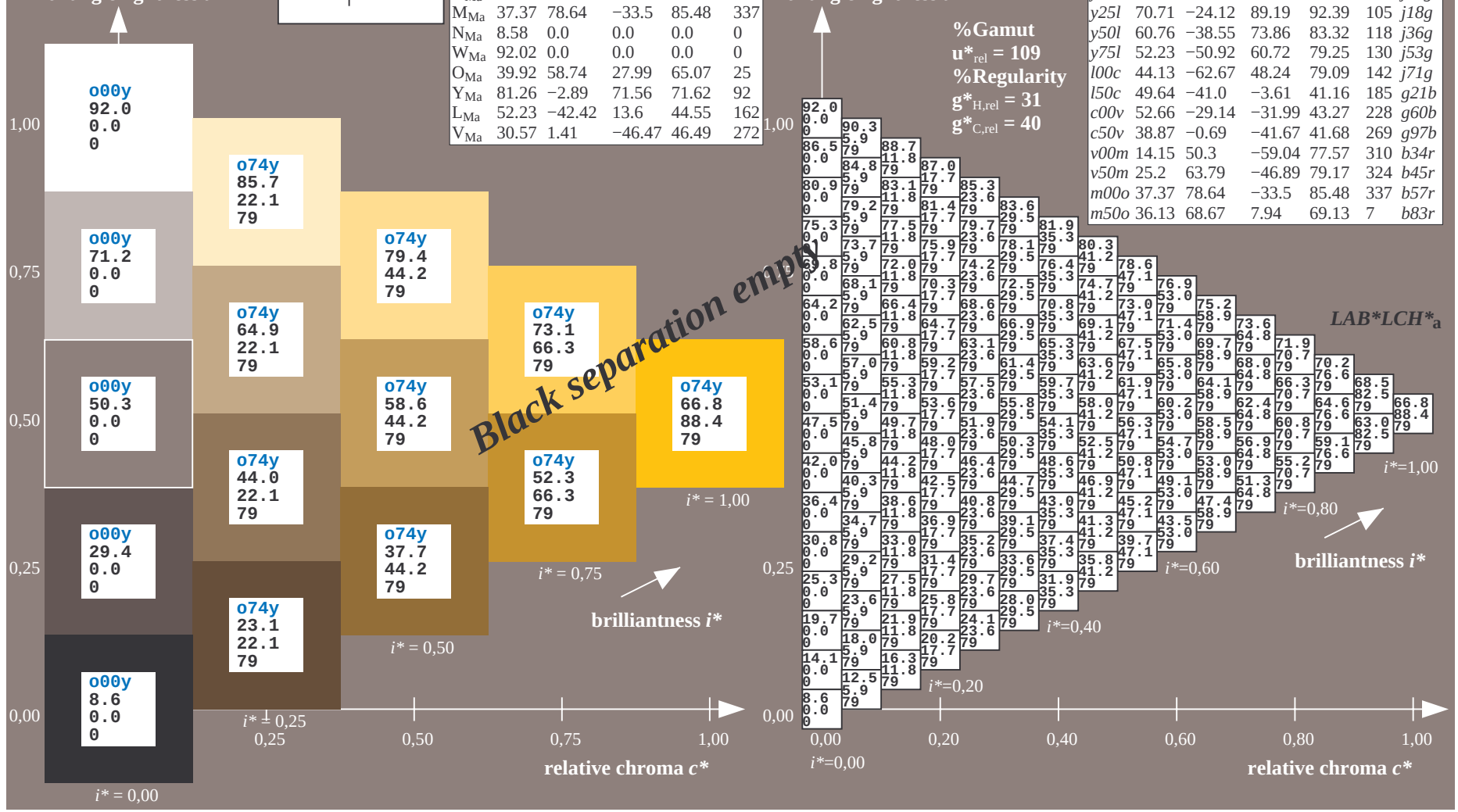
triangle lightness t^*

$u^*_d = o75y$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** and *lab*icu**

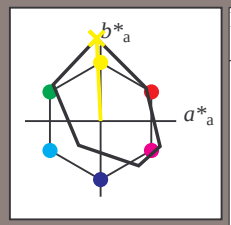
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 84 −5 109**

***LAB*LCH**$_{Ma}$: 84 109 92**

***lab*olv**$_{Ma}$: 1.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.99 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

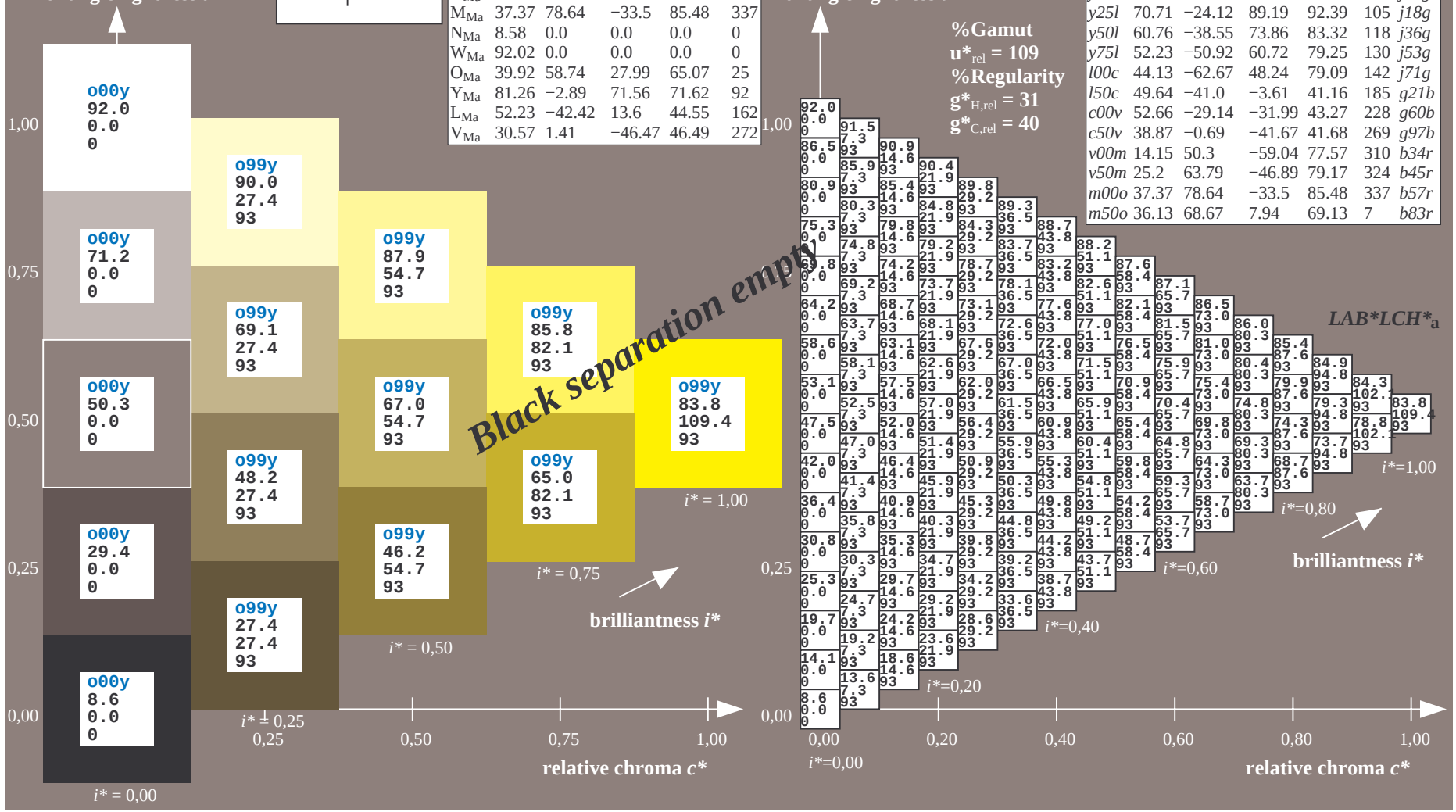
$g^*_{C,rel} = 40$

$u^*_d = y00l$

***LAB*LCH**$_a$**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** and *lab*icu**

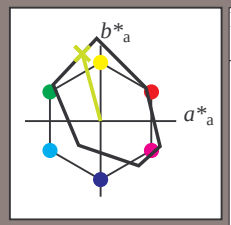
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

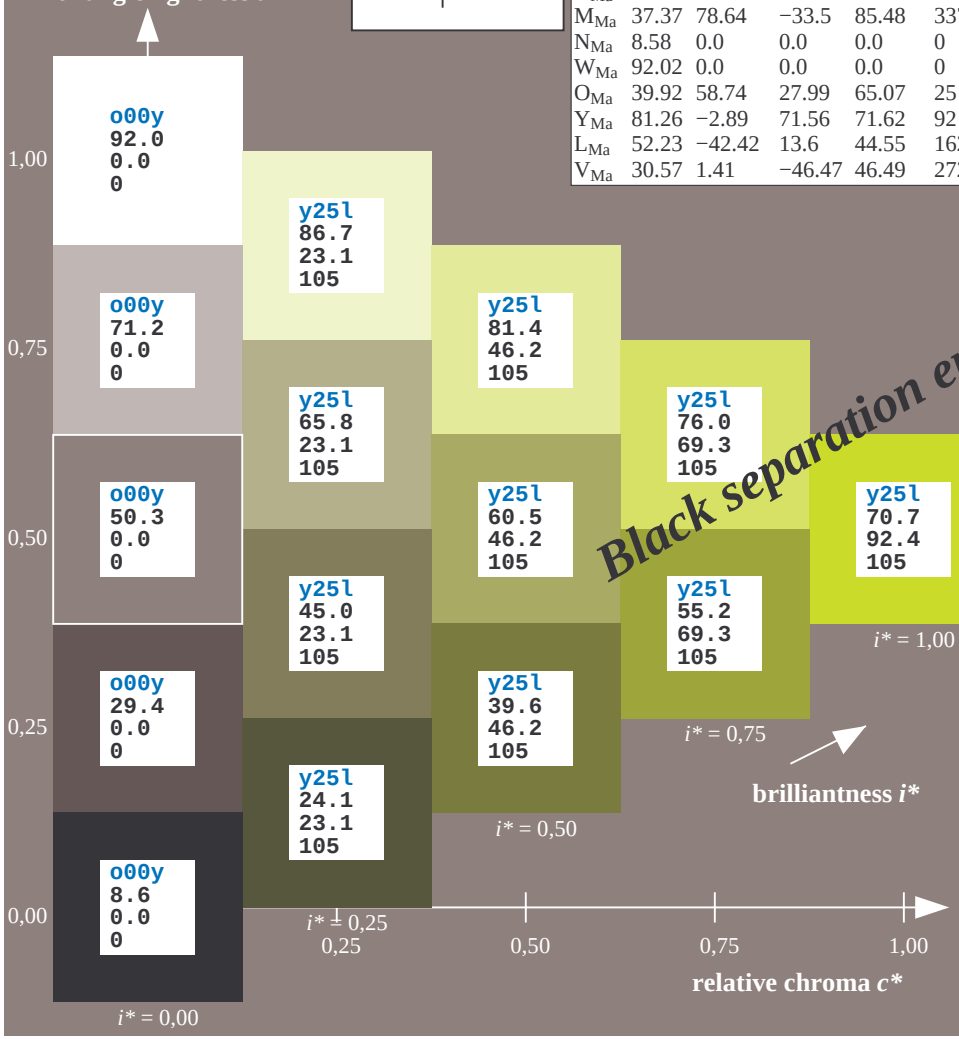
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB*Ma*: 71 −24 89**

***LAB*LCH*Ma*: 71 92 105**

***lab*olv*Ma*: 0.75 1.0 0.0**

***lab*rgb*Ma*: 0.82 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

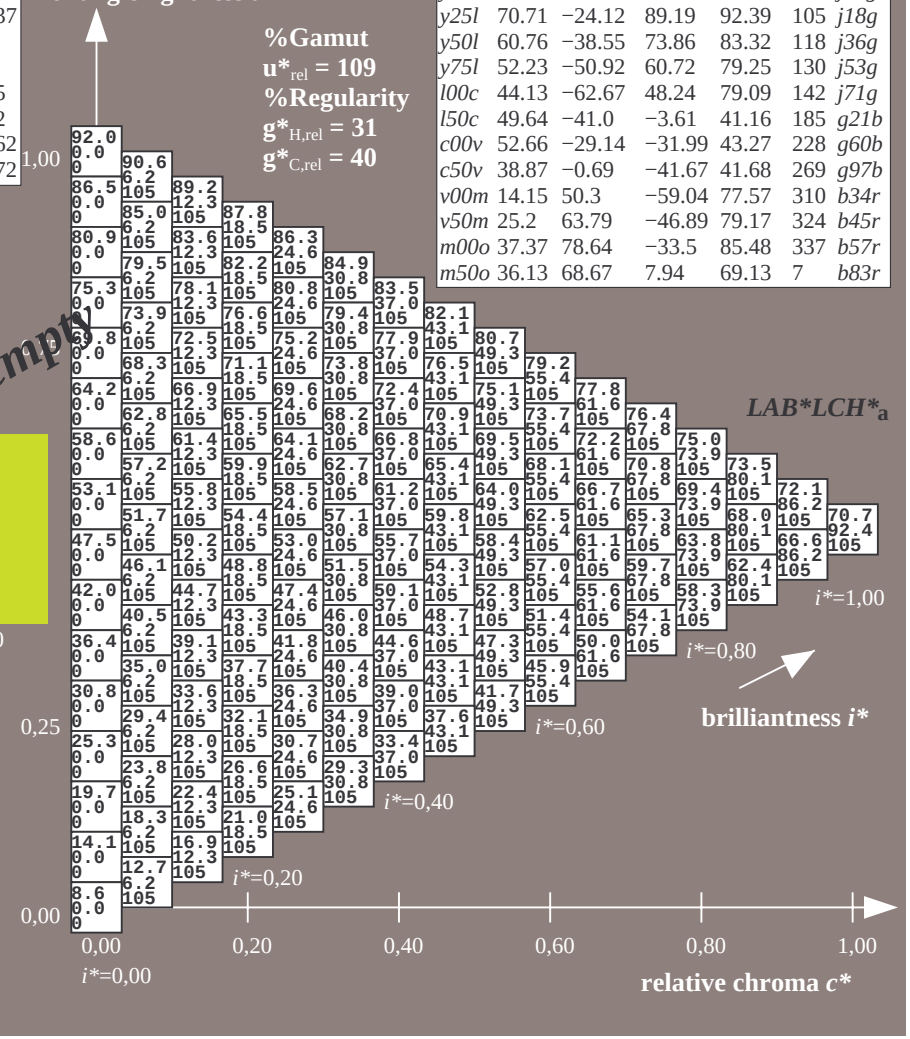
$g^*_{C,rel} = 40$

$u^*_d = y25l$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** **and** *lab*icu**

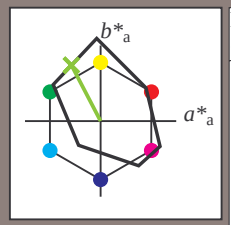
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 61 −39 74

$LAB^*LCH^*_{Ma}$: 61 83 117

$lab^*olv^*_{Ma}$: 0.5 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.64 1.0 0.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

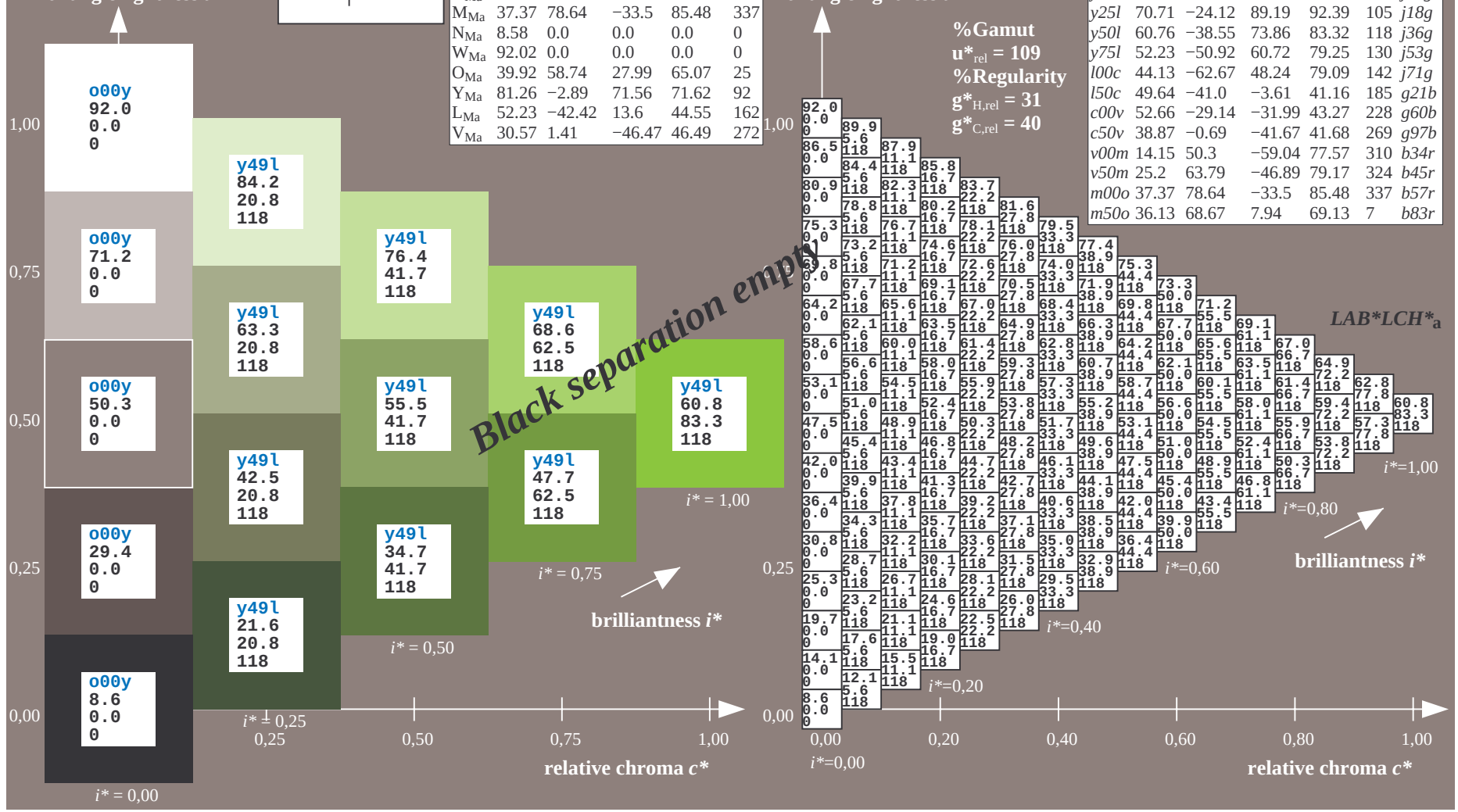
$g^*_{C,rel} = 40$

$u^*_d = y50l$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** and *lab*icu**

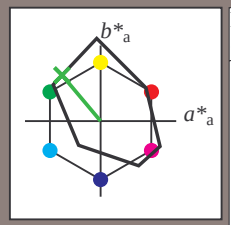
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 52 −51 61

$LAB^*LCH^*_{Ma}$: 52 79 129

$lab^*olv^*_{Ma}$: 0.25 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.46 1.0 0.0

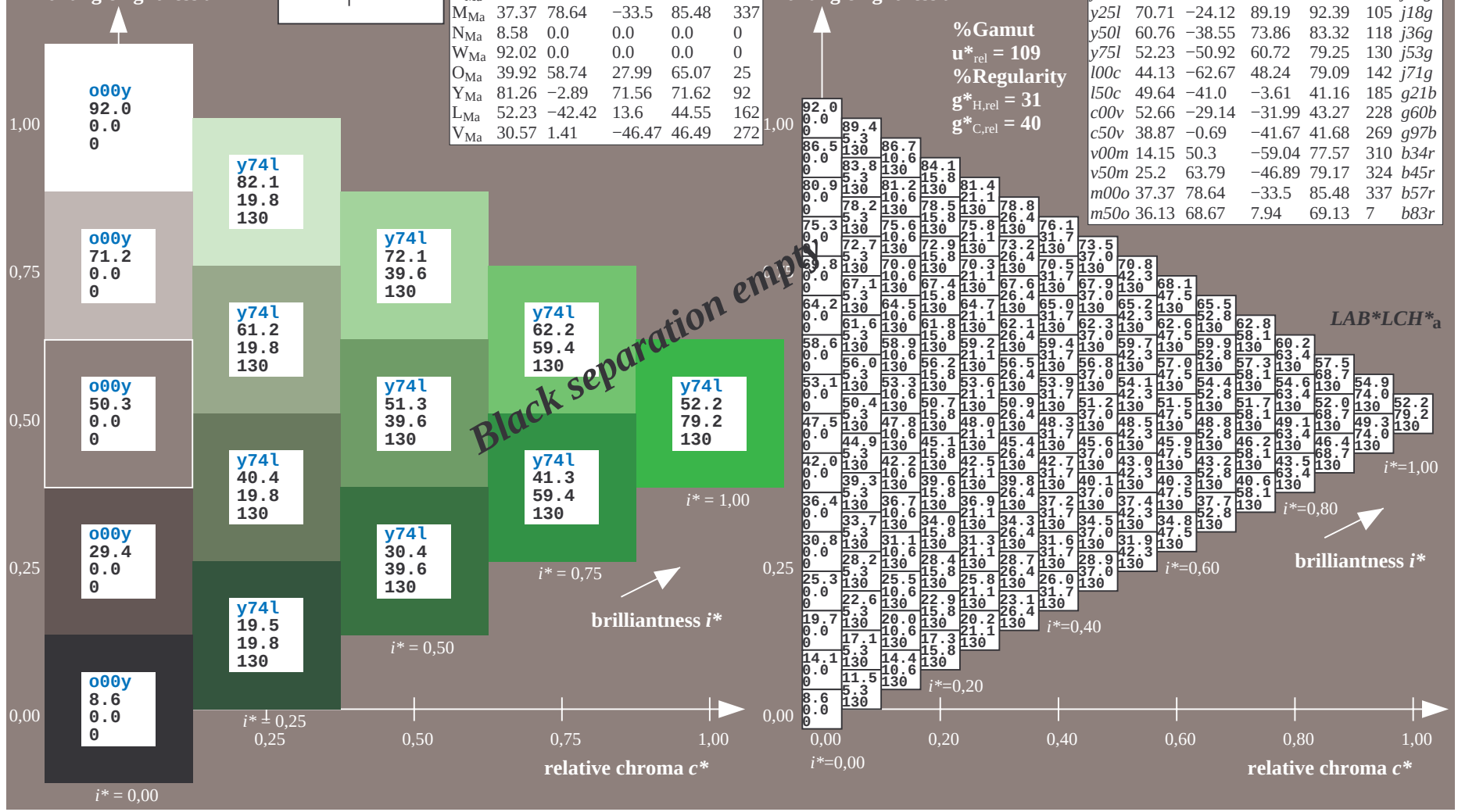
triangle lightness *t**

$u^*_d = y75l$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

data for any colour:

*lab*tch** and *lab*icu**

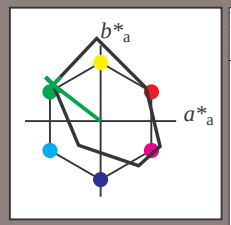
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 44 −63 48**

***LAB*LCH*Ma*: 44 79 142**

***lab*olv*Ma*: 0.0 1.0 0.0**

***lab*rgb*Ma*: 0.28 1.0 0.0**

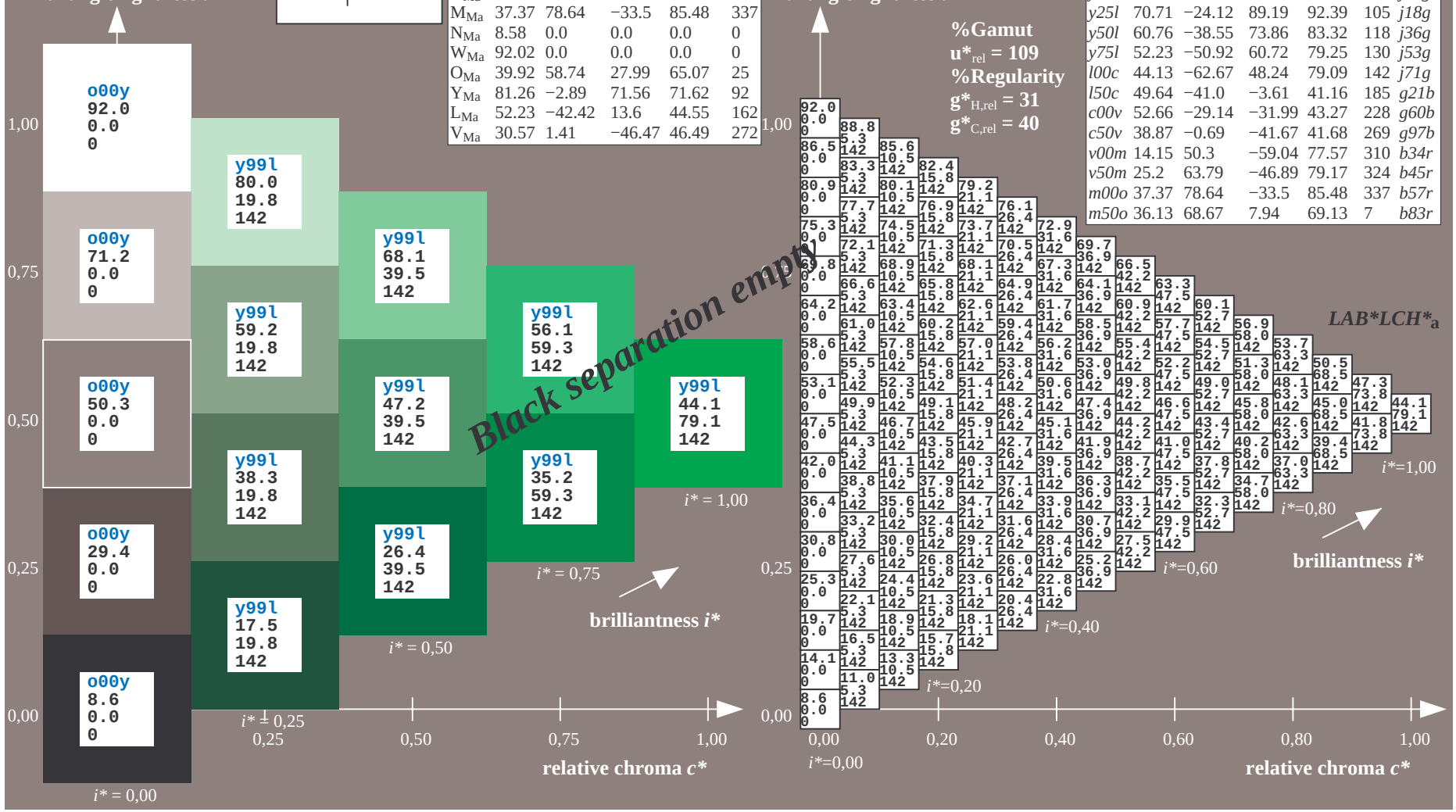
triangle lightness *t**

$u^*_d = l00c$

LAB*LCH*a

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** **and** *lab*icu**

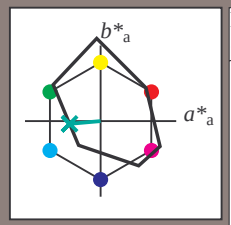
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 50 −41 −4

$LAB^*LCH^*_{Ma}$: 50 41 185

$lab^*olv^*_{Ma}$: 0.0 1.0 0.5

$lab^*rgb^*_{Ma}$: 0.0 1.0 0.42

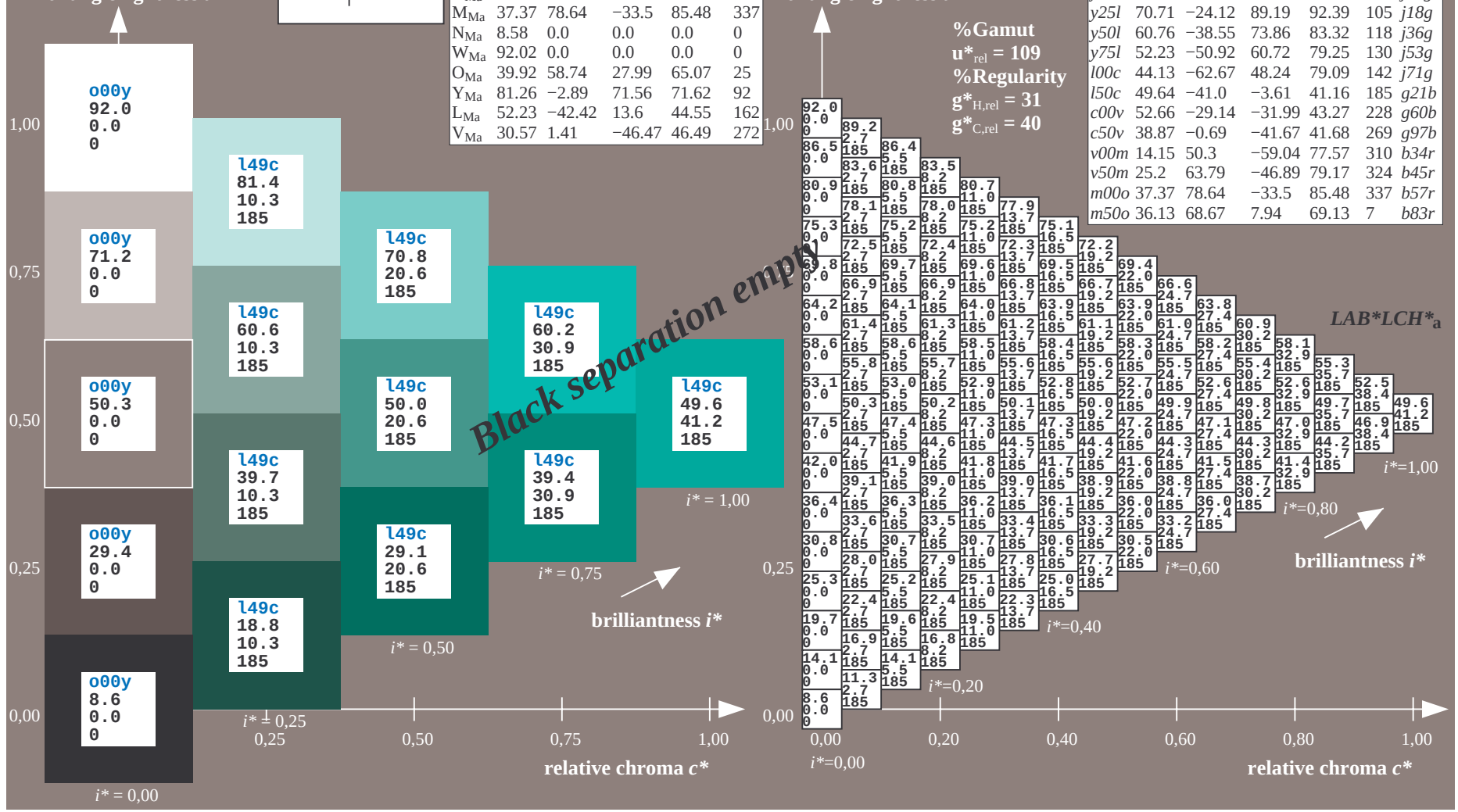
triangle lightness t^*

$u^*_d = l50c$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** and *lab*icu**

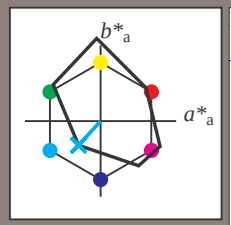
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 53 −29 −32**

***LAB*LCH*Ma*: 53 43 227**

***lab*olv*Ma*: 0.0 1.0 1.0**

***lab*rgb*Ma*: 0.0 0.8 1.0**

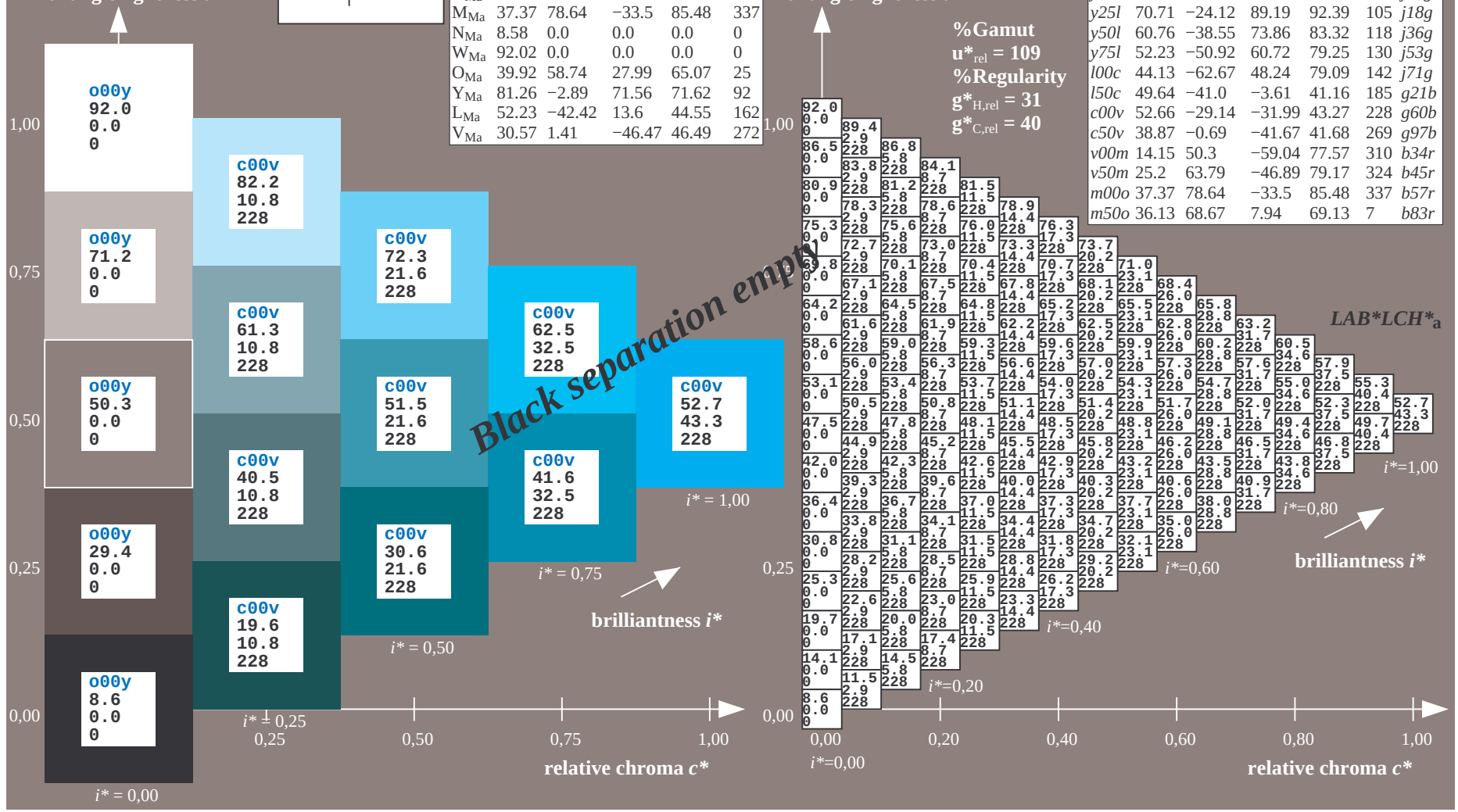
triangle lightness *t**

$u^*_d = c00v$

LAB*LCH*a

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** **and** *lab*icu**

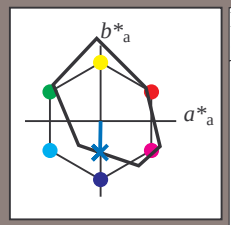
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 39 −1 −42

$LAB^*LCH^*_{Ma}$: 39 42 269

$lab^*olv^*_{Ma}$: 0.0 0.5 1.0

$lab^*rgb^*_{Ma}$: 0.0 0.05 1.0

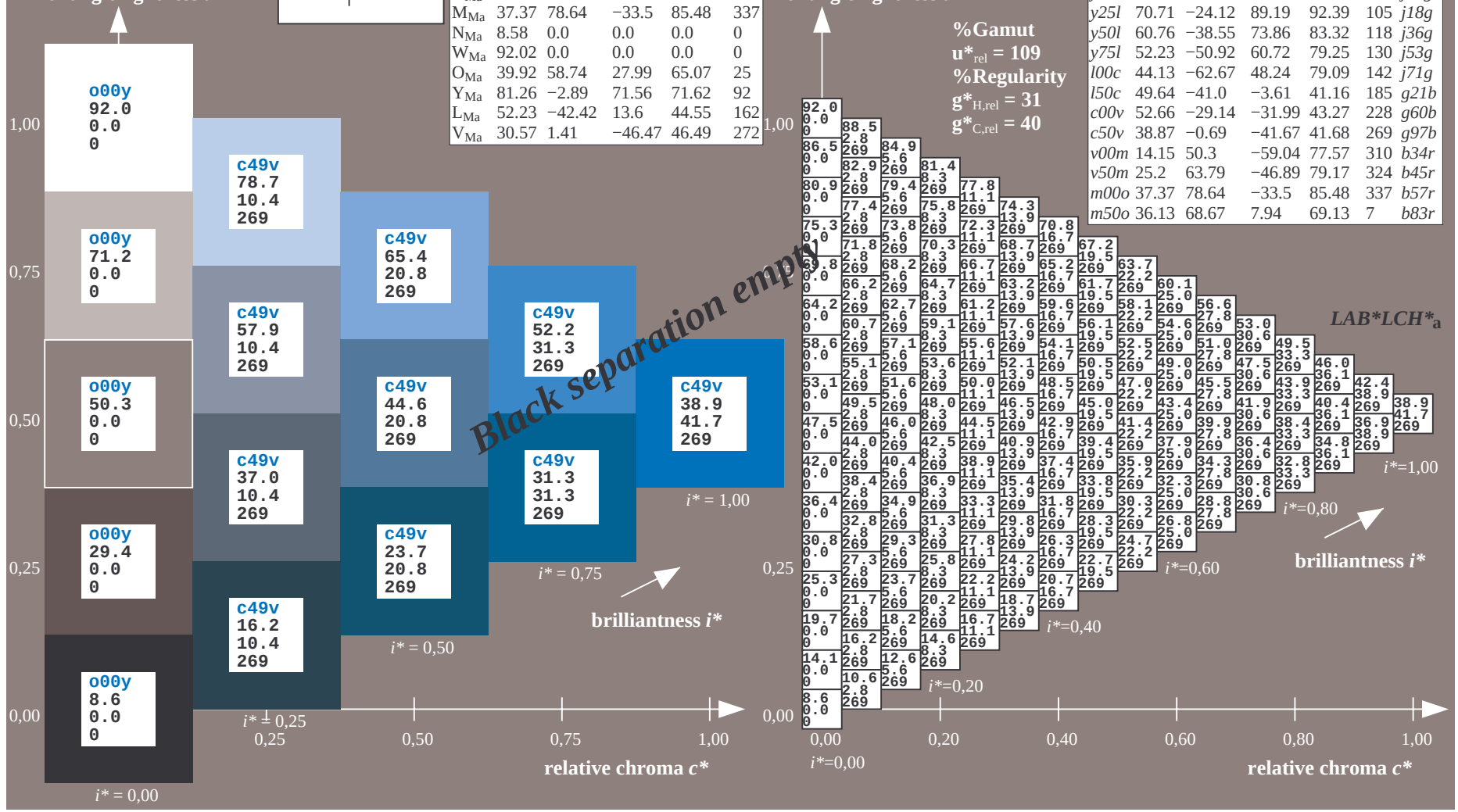
triangle lightness t^*

$u^*_d = c50v$

$LAB^*LCH^*_a$

FRS09_92a; adapted (a) CIELAB data

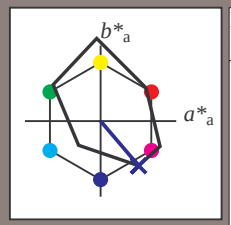
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

u^*_d = *v00m*
LAB*LCH*$_a$

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
u^*_d = *v00m* u^*_e = *b34r*
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



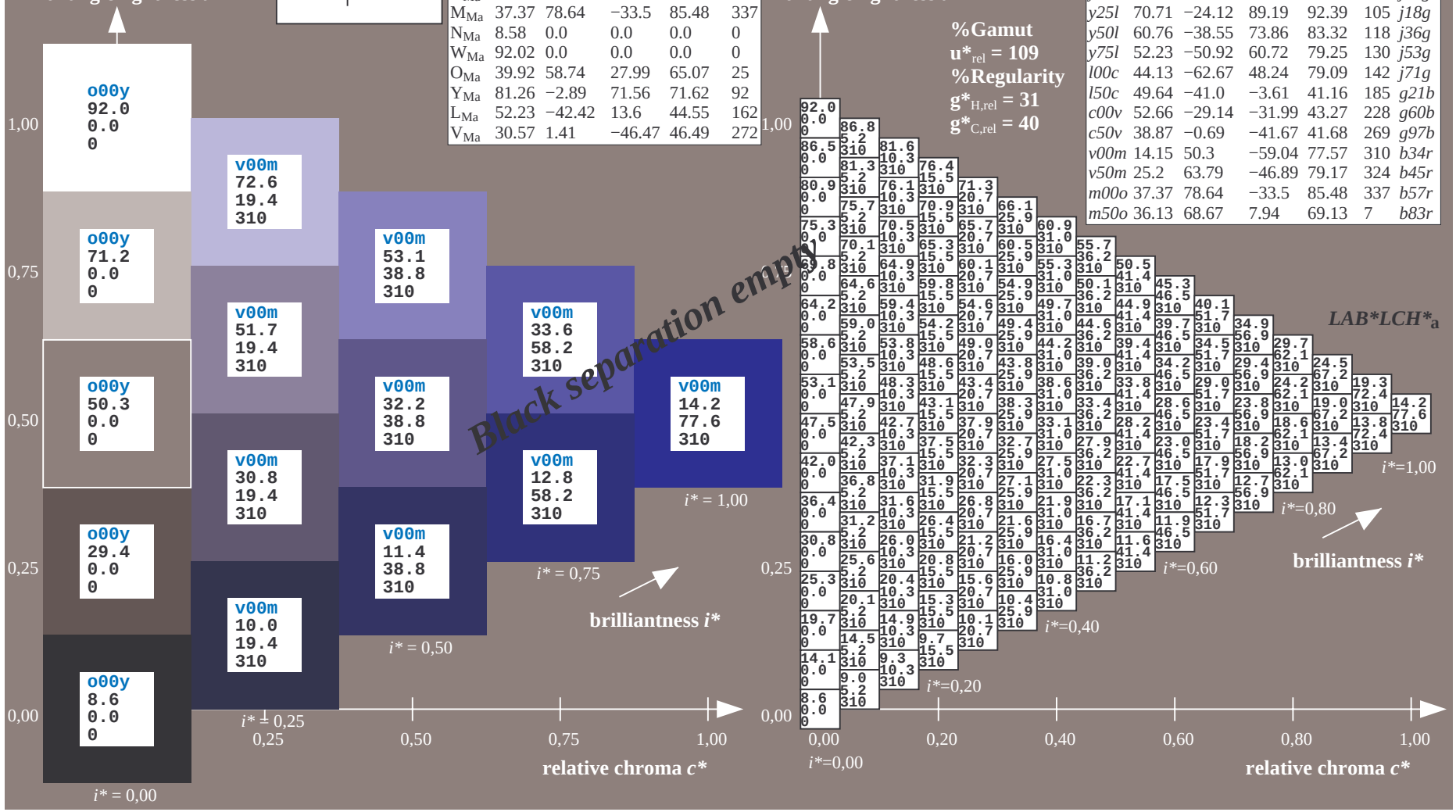
FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB*$_{Ma}$*: 14 50 −59**
***LAB*LCH*$_{Ma}$*: 14 78 310**
***lab*olv*$_{Ma}$*: 0.0 0.0 1.0**
***lab*rgb*$_{Ma}$*: 0.68 0.0 1.0**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

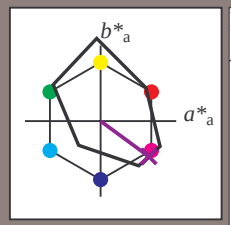
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

$u^*_d = v50m$
$LAB^*LCH^*_a$

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = v50m$ $u^*_e = b45r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



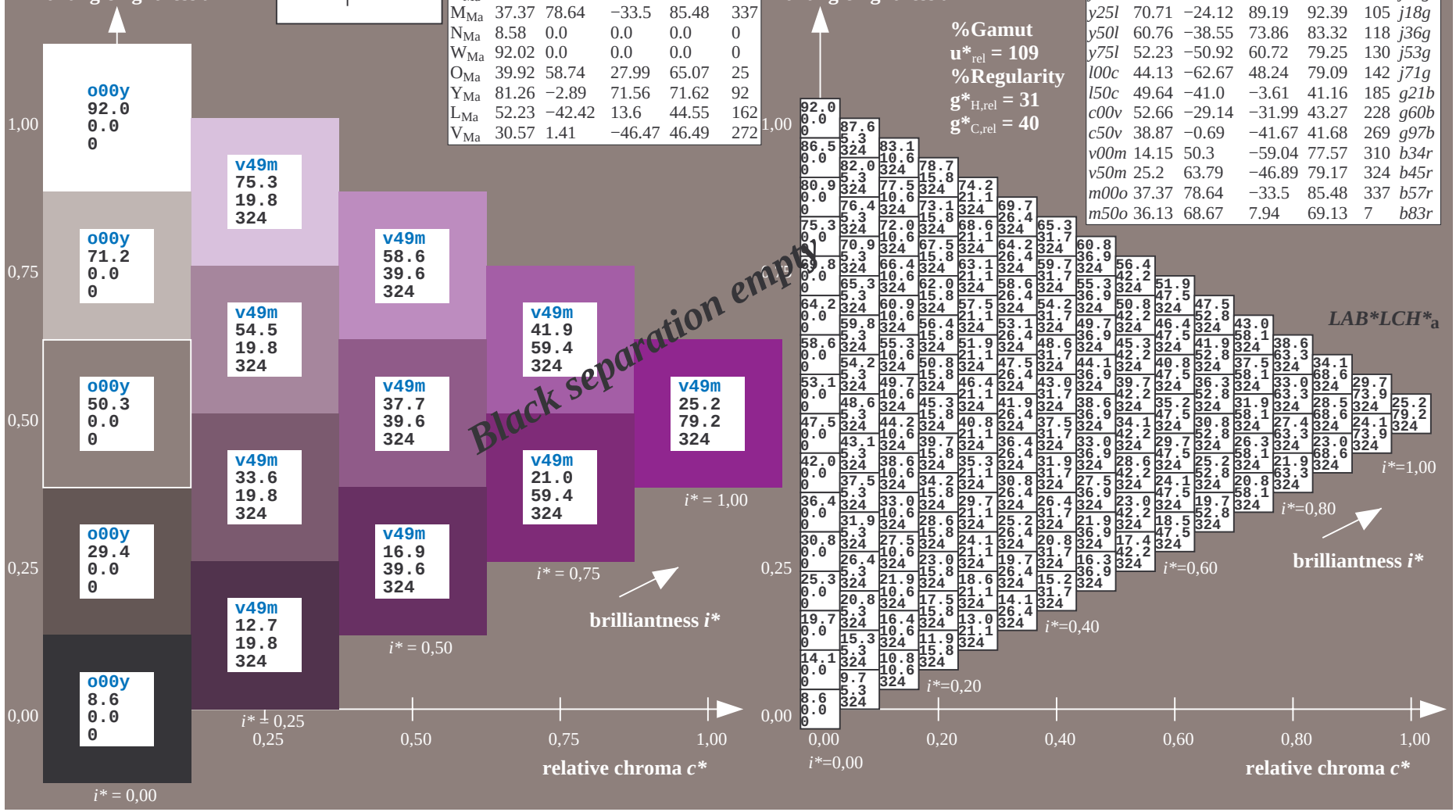
FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
$LAB^*LAB^*_{Ma}$: 25 64 −47
$LAB^*LCH^*_{Ma}$: 25 79 323
$lab^*olv^*_{Ma}$: 0.5 0.0 1.0
$lab^*rgb^*_{Ma}$: 0.91 0.0 1.0
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

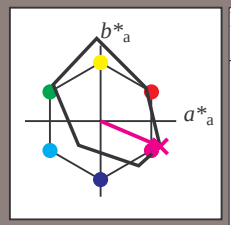
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

$u^*_d = m00o$
$LAB^*LCH^*_a$

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



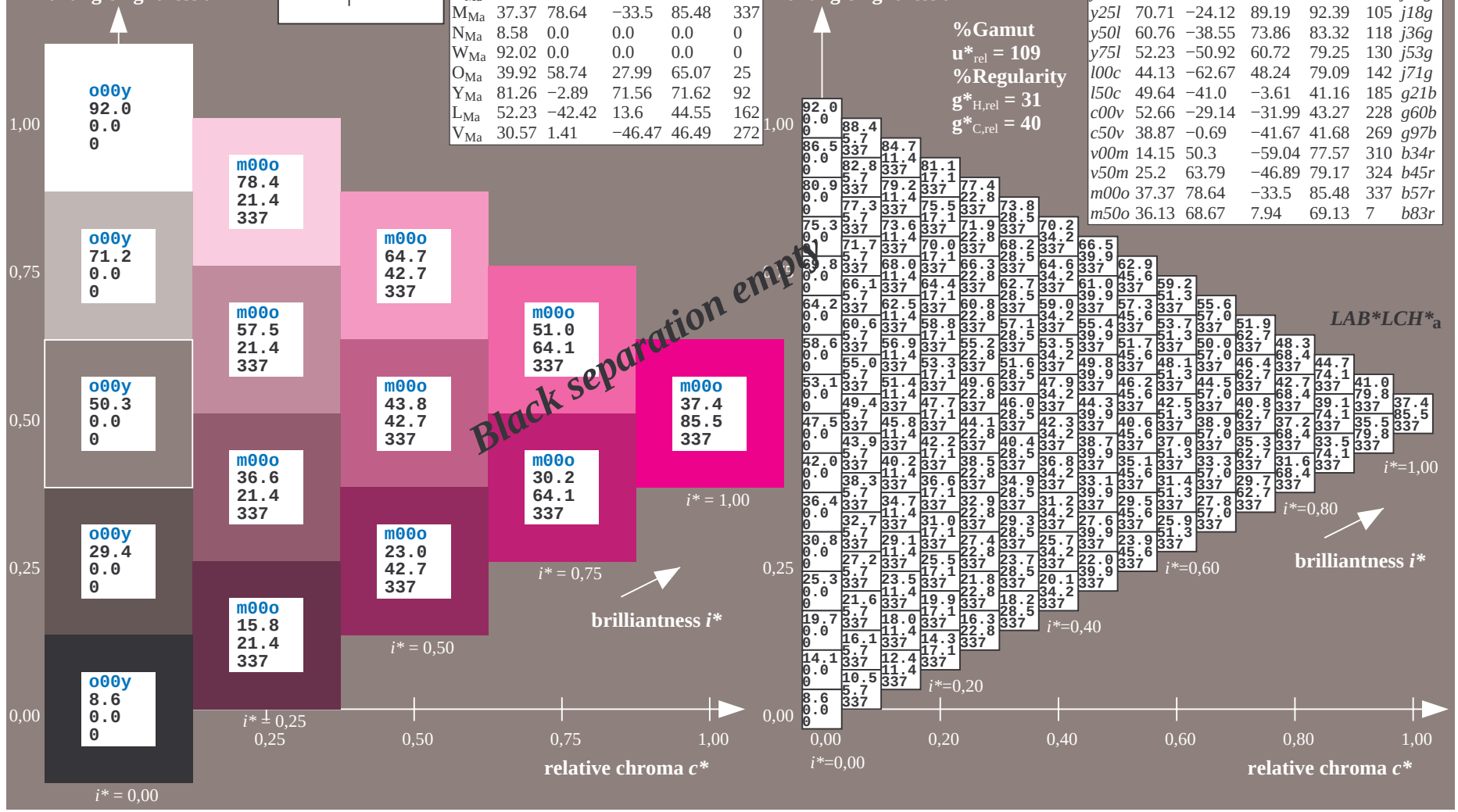
FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
$LAB^*LAB^*_{Ma}$: 37 79 −34
$LAB^*LCH^*_{Ma}$: 37 85 336
$lab^*olv^*_{Ma}$: 1.0 0.0 1.0
$lab^*rgb^*_{Ma}$: 1.0 0.0 0.85
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

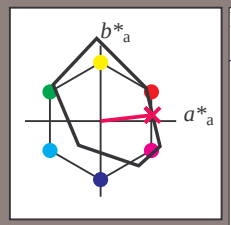
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

$u^*_d = m50o$
$LAB^*LCH^*_a$

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = m50o$ $u^*_e = b83r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



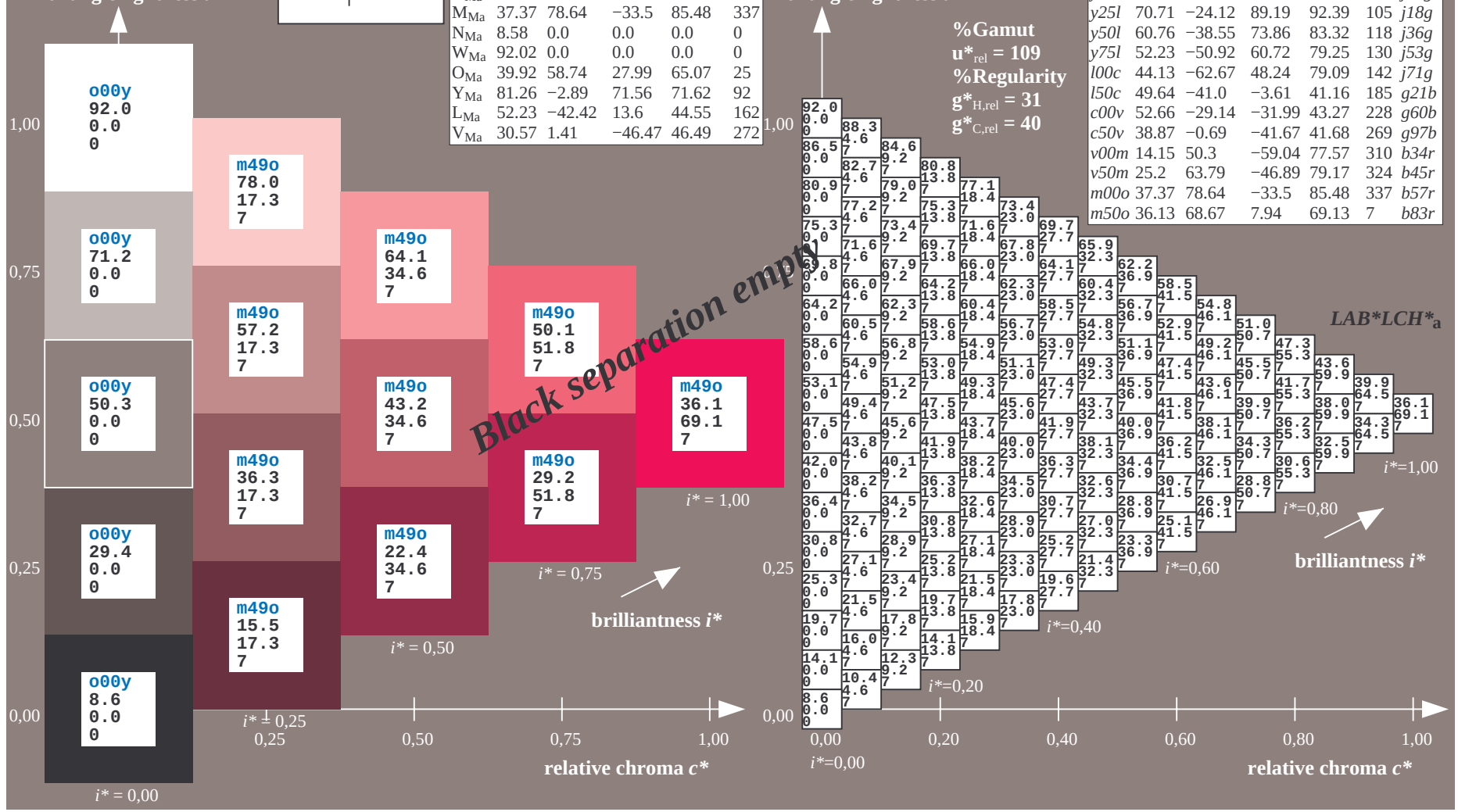
FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 36 69 8**
***LAB*LCH**$_{Ma}$: 36 69 6**
***lab*olv**$_{Ma}$: 1.0 0.0 0.5**
***lab*rgb**$_{Ma}$: 1.0 0.0 0.33**
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

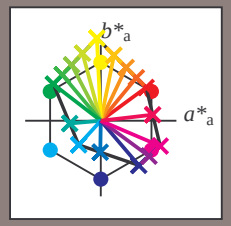


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	LAB*LCH*a
01	8.6	13.0	17.5	21.9	26.4	30.8	35.2	39.7	44.1	11.9	18.0	21.6	26.0	30.4	34.8	39.3	43.7	48.2	15.2	20.1	27.4	30.5	34.7	39.0	43.4	47.8	52.2	92.0	84.9	77.8	70.7	63.5	56.4	49.3	42.2	35.1	8.6	8.6	8.6	8.6
	0.0	9.9	19.8	29.7	39.5	49.4	59.3	69.2	79.1	9.3	13.7	20.8	30.1	39.6	49.3	59.1	68.9	78.7	18.6	19.5	27.4	33.3	41.7	50.7	60.1	69.6	79.2	0.0	9.3	18.6	27.9	37.2	46.5	55.8	65.1	74.4	0.0	0.0	0.0	0.0
	0	142	142	142	142	142	142	142	142	36	93	118	126	130	132	134	135	136	36	64	93	109	118	123	126	128	130	0	36	36	36	36	36	36	36	36	0	0	0	0
02	9.3	14.1	18.8	23.5	28.2	32.7	37.3	41.8	46.3	12.2	19.0	23.5	27.9	32.3	36.8	41.2	45.7	50.1	15.5	22.3	28.4	32.1	36.4	40.8	45.3	49.7	54.2	87.1	81.6	74.5	67.4	60.2	53.1	46.0	38.9	31.7	19.0	19.0	19.0	19.0
	9.7	5.4	10.3	17.3	25.2	33.6	42.4	51.4	60.5	10.7	0.0	9.9	19.8	29.7	39.5	49.4	59.3	69.2	17.3	9.3	13.7	20.8	30.1	39.6	49.3	59.1	68.9	5.4	0.0	9.3	18.6	27.9	37.2	46.5	55.8	65.1	0.0	0.0	0.0	0.0
	310	228	185	171	164	159	157	155	153	337	0	142	142	142	142	142	142	142	7	36	93	118	126	130	132	134	135	228	0	36	36	36	36	36	36	36	0	0	0	0
03	10.0	16.2	19.6	24.4	29.1	33.8	38.5	43.1	47.8	12.7	19.7	24.5	29.3	34.0	38.6	43.2	47.7	52.3	15.8	22.6	29.4	33.9	38.3	42.8	47.2	51.7	56.1	82.2	76.7	71.2	64.0	56.9	49.8	42.7	35.6	28.4	29.4	29.4	29.4	29.4
	19.4	10.4	10.8	14.7	20.6	27.3	34.6	42.4	50.4	19.8	9.7	5.4	10.3	17.3	25.2	33.6	42.4	51.4	21.4	10.7	0.0	9.9	19.8	29.7	39.5	49.4	59.3	10.8	5.4	0.0	9.3	18.6	27.9	37.2	46.5	55.8	0.0	0.0	0.0	0.0
	310	269	228	199	185	177	171	167	164	324	310	228	185	171	164	159	157	155	337	337	0	142	142	142	142	142	142	228	228	0	36	36	36	36	36	36	0	0	0	0
04	10.7	17.9	21.7	25.1	29.8	34.6	39.4	44.1	48.8	13.4	20.4	26.6	30.0	34.8	39.5	44.3	48.9	53.6	16.3	23.2	30.1	34.9	39.7	44.4	49.0	53.6	58.2	77.3	71.7	66.2	60.7	53.6	46.5	39.4	32.3	25.1	39.9	39.9	39.9	39.9
	29.1	17.5	14.9	16.2	19.7	24.8	30.9	37.5	44.5	29.3	19.4	10.4	10.8	14.7	20.6	27.3	34.6	42.4	30.3	19.8	9.7	5.4	10.3	17.3	25.2	33.6	42.4	16.2	10.8	5.4	0.0	9.3	18.6	27.9	37.2	46.5	0.0	0.0	0.0	0.0
	310	283	255	228	206	194	185	179	174	319	310	269	228	199	185	177	171	167	328	324	310	228	185	171	164	159	157	228	228	228	0	36	36	36	36	36	0	0	0	0
05	11.4	19.4	23.7	27.1	30.6	35.3	40.1	44.9	49.6	14.1	21.1	28.4	32.1	35.5	40.3	45.1	49.8	54.5	16.9	23.8	30.8	37.0	40.5	45.2	50.0	54.7	59.4	72.3	66.8	61.3	55.8	50.3	43.2	36.1	28.9	21.8	50.3	50.3	50.3	50.3
	38.8	25.4	20.8	19.9	21.6	24.8	29.5	35.0	41.2	38.9	29.1	17.5	14.9	16.2	19.7	24.8	30.9	37.5	39.6	29.3	19.4	10.4	10.8	14.7	20.6	27.3	34.6	21.6	16.2	10.8	5.4	0.0	9.3	18.6	27.9	37.2	0.0	0.0	0.0	0.0
	310	290	269	248	228	211	199	191	185	317	310	283	255	228	206	194	185	179	324	319	310	269	228	199	185	177	171	228	228	228	228	0	36	36	36	36	0	0	0	0
06	12.1	20.7	25.6	29.3	32.6	36.1	40.8	45.6	50.4	14.8	21.8	29.8	34.2	37.5	41.0	45.8	50.6	55.3	17.6	24.5	31.5	38.8	42.5	46.0	50.7	55.5	60.2	67.4	61.9	56.4	50.9	45.4	39.9	32.8	25.6	18.5	60.7	60.7	60.7	60.7
	48.5	33.7	27.6	25.1	25.0	27.0	29.9	34.3	39.5	48.6	38.8	25.4	20.8	19.9	21.6	24.8	29.5	35.0	49.1	38.9	29.1	17.5	14.9	16.2	19.7	24.8	30.9	27.0	21.6	16.2	10.8	5.4	0.0	9.3	18.6	27.9	0.0	0.0	0.0	0.0
	310	294	277	261	244	228	213	203	196	316	310	290	269	248	228	211	199	191	321	317	310	283	255	228	206	194	185	228	228	228	228	228	0	36	36	36	0	0	0	0
07	12.8	21.8	27.3	31.3	34.7	38.0	41.6	46.3	51.1	15.5	22.5	31.1	36.0	39.7	43.0	46.6	51.3	56.0	18.2	25.2	32.2	40.3	44.6	48.0	51.5	56.2	61.0	62.5	57.0	51.5	46.0	40.5	34.9	29.4	22.3	15.2	71.2	71.2	71.2	71.2
	58.2	42.4	35.0	31.3	29.8	30.2	32.5	35.2	39.3	58.2	48.5	33.7	27.6	25.1	25.0	27.0	29.9	34.3	58.6	48.6	38.8	25.4	20.8	19.9	21.6	24.8	29.5	32.5	27.0	21.6	16.2	10.8	5.4	0.0	9.3	18.6	0.0	0.0	0.0	0.0
	310	297	283	269	255	241	228	215	206	315	310	294	277	261	244	228	213	203	319	316	310	290	269	248	228	211	199	228	228	228	228	228	228	0	36	36	0	0	0	0
08	13.5	22.9	28.8	33.2	36.8	40.2	43.5	47.1	51.8	16.2	23.2	32.3	37.7	41.7	45.2	48.5	52.1	56.8	18.9	25.9	32.9	41.5	46.5	50.1	53.4	57.0	61.7	57.6	52.1	46.6	41.0	35.5	30.0	24.5	19.0	11.9	81.6	81.6	81.6	81.6
	67.9	51.3	42.7	37.9	35.5	34.7	35.5	37.9	40.5	67.9	58.2	42.4	35.0	31.3	29.8	30.2	32.5	35.2	68.2	58.2	48.5	33.7	27.6	25.1	25.0	27.0	29.9	37.9	32.5	27.0	21.6	16.2	10.8	5.4	0.0	9.3	0.0	0.0	0.0	0.0
	310	299	287	275	263	251	239	228	217	314	310	297	283	269	255	241	228	215	318	315	310	294	277	261	244	228	213	228	228	228	228	228	228	228	0	36	0	0	0	0
09	14.2	23.9	30.2	35.0	38.9	42.3	45.6	49.0	52.7	16.9	23.9	33.3	39.2	43.6	47.3	50.6	53.9	57.6	19.6	26.6	33.6	42.7	48.1	52.2	55.6	58.9	62.5	52.7	47.1	41.6	36.1	30.6	25.1	19.6	14.1	8.6	92.0	92.0	92.0	92.0
	77.6	60.3	50.7	45.0	41.7	40.0	39.7	40.7	43.3	77.6	67.9	51.3	42.7	37.9	35.5	34.7	35.5	37.9	77.8	67.9	58.2	42.4	35.0	31.3	29.8	30.2	32.5	43.3	37.9	32.5	27.0	21.6	16.2	10.8	5.4	0.0	0.0	0.0	0.0	0.0
	310	300	290	279	269	259	248	238	228	314	310	299	287	275	263	251	239	228	317	314	310	297	283	269	255	241	228	228	228	228	228	228	228	228	228	0	0	0	0	0
10	18.5	23.3	28.8	36.8	39.6	43.5	47.7	52.0	56.4	21.8	26.6	31.7	37.7	46.2	48.8	52.5	56.5	60.8	25.1	29.9	34.8	40.3	46.8	55.6	58.1	61.6	65.5	92.0	91.0	90.0	88.9	87.9	86.9	85.8	84.8	83.8	8.6	8.6	8.6	8.6
	27.9	28.0	31.5	41.0	46.2	53.9	62.5	71.5	80.8	37.2	36.9	39.0	44.2	54.7	59.4	66.5	74.7	83.3	46.5	46.0	47.4	50.8	57.2	68.4	72.7	79.4	87.1	0.0	13.7	27.4	41.0	54.7	68.4	82.1	95.8	109.4	0.0	0.0	0.0	0.0
	36	55	74	93	105	113	118	121	124	36	50	64	79	93	103	109	114	118	36	48	59	70	81	93	101	107	111	0	93	93	93	93	93	93	93	93	0	0	0	0
11	18.8	25.6	30.6	37.8	41.0	45.1	49.4	53.8	58.2	22.1	28.9	33.8	39.2	47.2	50.1	54.0	58.1	62.5	25.4	32.3	37.1	42.1	48.1	56.6	59.3	62.9	67.0	82.3	81.6	80.6	79.5	78.5	77.5	76.4	75.4	74.4	14.1	14.1	14.1	14.1
	25.8	18.6	19.5	27.4	33.3	41.7	50.7	60.1	69.6	34.6	27.9	28.0	31.5	41.0	46.2	53.9	62.5	71.5	43.7	37.2	36.9	39.0	44.2	54.7	59.4	66.5	74.7	9.7	0.0	13.7	27.4	41.0	54.7	68.4	82.1	95.8	0.0	0.0	0.0	0.0
	16	36	64	93	109	118	123	126	128	21	36	55	74	93	105	113	118	121	24	36	50	64	79	93	103	109	114	310	0	93	93	93	93	93	93	93	0	0	0	0
12	19.0	25.9	32.8	38.8	42.5	46.8	51.3	55.7	60.1	22.4	29.2	36.1	41.0	48.2	51.4	55.5	59.9	64.2	25.7	32.5	39.4	44.2	49.6	57.6	60.5	64.4	68.6	72.6	71.9	71.2	70.1	69.1	68.1	67.0	66.0	65.0	19.7	19.7	19.7	19.7
	26.9	17.3	9.3	13.7	20.8	30.1	39.6	49.3	59.1	34.6	25.8	18.6	19.5	27.4	33.3	41.7	50.7	60.1	42.9	34.6	27.9	28.0	31.5	41.0	46.2	53.9	62.5	19.4	9.7	0.0	13.7	27.4	41.0	54.7	68.4	82.1	0.0	0.0	0.0	0.0
	357	7	36	93	118	126	130	132	134	7	16	36	64	93	109	118	123	126	13	21	36	50	74	93	105	113	118	310	310	0	93	93	93	93	93	93	0	0	0	0
13	19.4	26.2	33.0	39.9	44.3	48.8	53.2	57.6	62.1	22.6	29.5	36.3	43.2	49.3	52.9	57.3	61.7	66.1	25.9	32.8	39.[illegible]	50.5	51.4	58.7	61.8	66.0	70.3	62.8	62.1	61.4	60.7	59.7	58.7	57.6	56.6	55.6	25.3	25.3	25.3	25.3
	32.1	21.4	10.7	0.0	9.9	19.8	29.7	39.5	49.4	36.9	26.9	17.3	9.3	13.7	20.8	30.1	39.6	49.3	44.0	34.6	[illegible]	13.6	19.5	27.4	33.3	41.7	50.7	29.1	19.4	9.7	0.0	13.7	27.4	41.0	54.7	68.4	0.0	0.0	0.0	0.0
	337	337	337	0	142	142	142	142	142	352	357	7	36	93	118	126	130	132	1	[illegible]	16	36	64	93	109	118	123	310	310	310	0	93	93	93	93	93	0	0	0	0
14	19.8	26.7	33.6	40.6	45.4	50.1	54.8	59.5	64.0	23.0	29.8	36.6	43.5	50.3	54.7	59.2	63.6	68.1	26.2	[illegible].1	39.9	46.8	53.6	59.7	63.3	67.7	72.1	53.1	52.4	51.7	51.0	50.3	49.3	48.2	47.2	46.2	30.8	30.8	30.8	30.8
	40.8	30.3	19.8	9.7	5.4	10.3	17.3	25.2	33.6	42.7	32.1	21.4	10.7	0.0	9.9	19.8	29.7	39.5	[illegible]	[illegible].9	26.9	17.3	9.3	13.7	20.8	30.1	39.6	38.8	29.1	19.4	9.7	0.0	13.7	27.4	41.0	54.7	0.0	0.0	0.0	0.0
	330	328	324	310	228	185	171	164	159	337	337	337	337	0	142	142	142	142	[illegible]	352	357	7	36	93	118	126	130	310	310	310	310	0	93	93	93	93	0	0	0	0
15	20.4	27.3	34.3	41.3	47.4	50.9	55.6	60.4	65.1	23.4	30.2	37.1	44.0	51.0	55.8	60.6	65.3	[illegible]	26.6	33.4	40.2	47.1	53.9	60.7	65.2	69.6	74.1	43.4	42.7	42.0	41.3	40.6	39.9	38.8	37.8	36.8	36.4	36.4	36.4	36.4
	50.0	39.6	29.3	19.4	10.4	10.8	14.7	20.6	27.3	51.4	40.8	30.3	19.8	9.7	5.4	10.3	17.[illegible]	15.2	53.4	42.7	32.1	21.4	10.7	0.0	9.9	19.8	29.7	48.5	38.8	29.1	19.4	9.7	0.0	13.7	27.4	41.0	0.0	0.0	0.0	0.0
	326	324	319	310	269	228	199	185	177	332	330	328	324	310	228	185	[illegible]	164	337	337	337	337	337	0	142	142	142	310	310	310	310	310	0	93	93	93	0	0	0	0
16	21.0	28.0	35.0	42.0	49.2	52.9	56.4	61.1	65.9	23.9	30.8	37.7	44.7	51.7	57.9	61.[illegible]	[illegible].1	70.8	27.0	33.8	40.7	47.5	54.5	61.4	66.2	71.0	75.7	33.6	32.9	32.2	31.5	30.8	30.1	29.4	28.4	27.4	42.0	42.0	42.0	42.0
	59.4	49.1	38.9	29.1	17.5	14.9	16.2	19.7	24.8	60.5	50.0	39.6	29.3	19.4	[illegible]	[illegible]	[illegible]	20.6	62.1	51.4	40.8	30.3	19.8	9.7	5.4	10.3	17.3	58.2	48.5	38.8	29.1	19.4	9.7	0.0	13.7	27.4	0.0	0.0	0.0	0.0
	324	321	317	310	283	255	228	206	194	328	326	324	319	310	[illegible]	228	199	185	333	332	330	328	324	310	228	185	171	310	310	310	310	310	310	0	93	93	0	0	0	0
17	21.7	28.7	35.7	42.7	50.7	55.0	58.4	61.9	66.6	24.6	31.5	38.4	45.4	52.[illegible]	59.6	63.4	66.8	71.6	27.5	34.4	41.3	48.2	55.1	62.1	68.3	71.7	76.5	23.9	23.2	22.5	21.8	21.1	20.4	19.7	19.0	18.0	47.5	47.5	47.5	47.5
	68.8	58.6	48.6	38.8	25.4	20.8	19.9	21.6	24.8	69.8	59.4	49.1	38.[illegible]	[illegible]	17.5	14.9	16.2	19.7	71.1	60.5	50.0	39.6	29.3	19.4	10.4	10.8	14.7	67.9	58.2	48.5	38.8	29.1	19.4	9.7	0.0	13.7	0.0	0.0	0.0	0.0
	322	319	316	310	290	269	248	228	211	326	324	321	31[illegible]	[illegible]	283	255	228	206	329	328	326	324	319	310	269	228	199	310	310	310	310	310	310	310	0	93	0	0	0	0
18	22.4	29.4	36.3	43.4	52.0	56.9	60.5	63.9	67.4	25.2	32.1	39.1	46.[illegible]	53.1	61.1	65.4	68.8	72.3	28.1	35.0	41.9	48.8	55.8	62.8	70.1	73.8	77.3	14.2	13.5	12.8	12.1	11.4	10.7	10.0	9.3	8.6	53.1	53.1	53.1	53.1
	78.4	68.2	58.2	48.5	33.7	27.6	25.1	25.0	27.0	79.2	68.8	58.6	48.6	38.8	25.4	20.8	19.9	21.6	80.3	69.8	59.4	49.1	38.9	29.1	17.5	14.9	16.2	77.6	67.9	58.2	48.5	38.8	29.1	19.4	9.7	0.0	0.0	0.0	0.0	0.0
	320	318	315	310	294	277	261	244	228	324	322	319	316	310	290	269	248	228	327	326	324	321	317	310	283	255	228	310	310	310	310	310	310	310	310	0	0	0	0	0
19	28.4	33.3	38.1	43.2	49.0	55.9	65.0	67.4	70.7	31.7	36.6	41.4	46.4	51.8	57.9	65.2	74.4	76.7	35.1	39.9	44.7	49.6	54.8	60.4	66.8	74.4	83.8	92.0	86.0	80.0	74.1	68.1	62.1	56.1	50.1	44.1	58.6	58.6	58.6	58.6
	55.8	55.2	56.0	58.5	63.0	70.4	82.1	86.1	92.4	65.1	64.4	64.9	66.8	70.2	75.6	83.7	95.8	99.6	74.4	73.6	73.9	75.3	78.1	82.3	88.4	97.0	109.4	0.0	9.9	19.8	29.7	39.5	49.4	59.3	69.2	79.1	0.0	0.0	0.0	0.0
	36	46	55	64	74	83	93	100	105	36	44	52	60	69	77	85	93	99	36	43	50	57	64	72	79	86	93	0	142	142	142	142	142	142	142	142	0	0	0	0
20	28.7	35.6	40.4	45.3	50.7	57.2	66.0	68.5	72.0	32.0	38.9	43.7	48.5	53.7	59.4	66.4	75.4	77.8	35.3	42.2	47.0	51.8	56.8	62.2	68.3	75.6	84.8	85.2	81.6	75.6	69.6	63.6	57.6	51.7	45.7	39.7	64.2	64.2	64.2	64.2
	52.8	46.5	46.0	47.4	50.8	57.2	68.4	72.7	79.4	62.0	55.8	55.2	56.0	58.5	63.0	70.4	82.1	86.1	71.2	65.1	64.4	64.9	66.8	70.2	75.6	83.7	95.8	10.7	0.0	9.9	19.8	29.7	39.5	49.4	59.3	69.2	0.0	0.0	0.0	0.0
	26	36	48	59	70	81	93	101	107	28	36	46	55	64	74	83	93	100	29	36	44	52	60	69	77	85	93	337	0	142	142	142	142	142	142	142	0	0	0	0
21	29.0	35.8	42.7	47.5	52.5	58.6	67.0	69.7	73.4	32.3	39.2	46.0	50.8	55.7	61.1	67.6	76.4	78.9	35.6	42.5	49.3	54.1	59.0	64.1	69.9	76.8	85.8	78.4	74.8	71.2	65.2	59.2	53.2	47.2	41.2	35.2	69.8	69.8	69.8	69.8
	51.5	43.7	37.2	36.9	39.0	44.2	54.7	59.4	66.5	60.4	52.8	46.5	46.0	47.4	50.8	57.2	68.4	72.7	69.3	62.0	55.8	55.2	56.0	58.5	63.0	70.4	82.1	21.4	10.7	0.0	9.9	19.8	29.7	39.5	49.4	59.3	0.0	0.0	0.0	0.0
	16	24	36	50	64	79	93	103	109	19	26	36	48	59	70	81	93	101	21	28	36	46	55	64	74	83	93	337	337	0	142	142	142	142	142	142	0	0	0	0
22	29.2	36.1	43.0	49.8	54.6	60.1	68.1	70.9	74.8	32.6	39.4	46.3	53.1	57.9	63.0	69.0	77.5	80.1	35.9	42.7	49.6	56.4	61.2	66.1	71.5	78.1	86.9	71.5	67.9	64.3	60.7	54.7	48.8	42.8	36.8	30.8	75.3	75.3	75.3	75.3
	51.8	42.9	34.6	27.9	28.0	31.5	41.0	46.2	53.9	60.1	51.5	43.7	37.2	36.9	39.0	44.2	54.7	59.4	68.6	60.4	52.8	46.5	46.0	47.4	50.8	57.2	68.4	32.1	21.4	10.7	0.0	9.9	19.8	29.7	39.5	49.4	0.0	0.0	0.0	0.0
	7	13	21	36	55	74	93	105	113	11	16	24	36	50	64	79	93	103	14	19	26	36	48	59	70	81	93	337	337	337	0	142	142	142	142	142	0	0	0	0
23	29.5	36.4	43.2	50.1	56.9	61.8	69.1	72.3	76.4	32.8	39.7	46.5	53.4	60.2	65.1	70.5	78.5	81.4	36.1	43.0	49.8	56.7	63.5	68.4	73.4	79.4	87.9	64.7	61.1	57.5	53.9	50.3	44.3	38.3	32.3	26.4	80.9	80.9	80.9	80.9
	53.8	44.0	34.6	25.8	18.6	19.5	27.4	33.3	41.7	61.2	51.8	42.9	34.6	27.9	28.0	31.5	41.0	46.2	69.1	60.1	51.5	43.7	37.2	36.9	39.0	44.2	54.7	42.7	32.1	21.4	10.7	0.0	9.9	19.8	29.7	39.5	0.0	0.0	0.0	0.0
	357	1	7	16	36	64	93	109	118	2	7	13	21	36	55	74	93	105	7	11	16	24	36	50	64	79	93	337	337	337	337	0	142	142	142	142	0	0	0	0
24	29.8	36.7	43.5	50.3	57.2	64.0	70.1	73.8	78.1	33.1	39.9	46.8	53.6	60.5	67.4	72.3	79.5	82.7	36.4	43.3	50.1	57.0	63.8	70.7	75.5	80.9	88.9	57.9	54.3	50.7	47.1	43.5	39.9	33.9	27.9	21.9	86.5	86.5	86.5	86.5
	57.6	47.2	36.9	26.9	17.3	9.3	13.7	20.8	30.1	63.8	53.8	44.0	34.6	25.8	18.6	19.5	27.4	33.3	70.8	61.2	51.8	42.9	34.6	27.9	28.0	31.5	41.0	53.4	42.7	32.1	21.4	10.7	0.0	9.9	19.8	29.7	0.0	0.0	0.0	0.0
	347	349	352	357	7	36	93	118	126	354	357	1	7	16	36	64	93	109	359	2	7	13	21	36	55	74	93	337	337	337	337	337	0	142	142	142	0	0	0	0
25	30.2	37.0	43.8	50.7	57.5	64.3	71.2	75.6	80.0	33.4	40.2	47.1	53.9	60.8	67.6	74.5	80.6	84.2	36.7	43.5	50.4

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

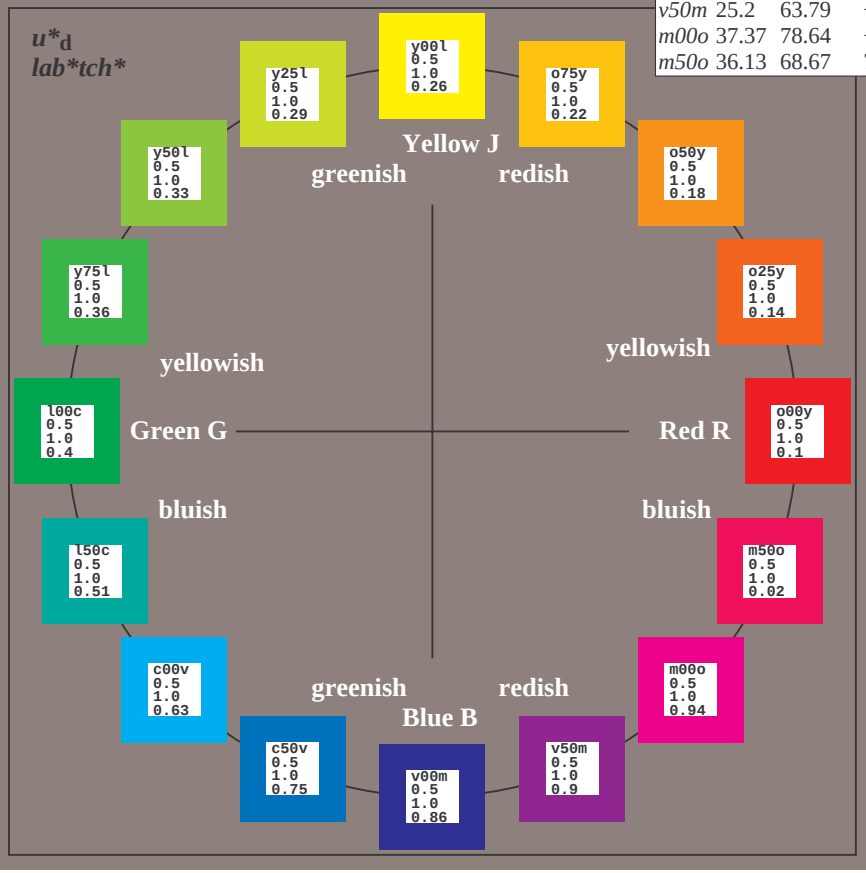
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

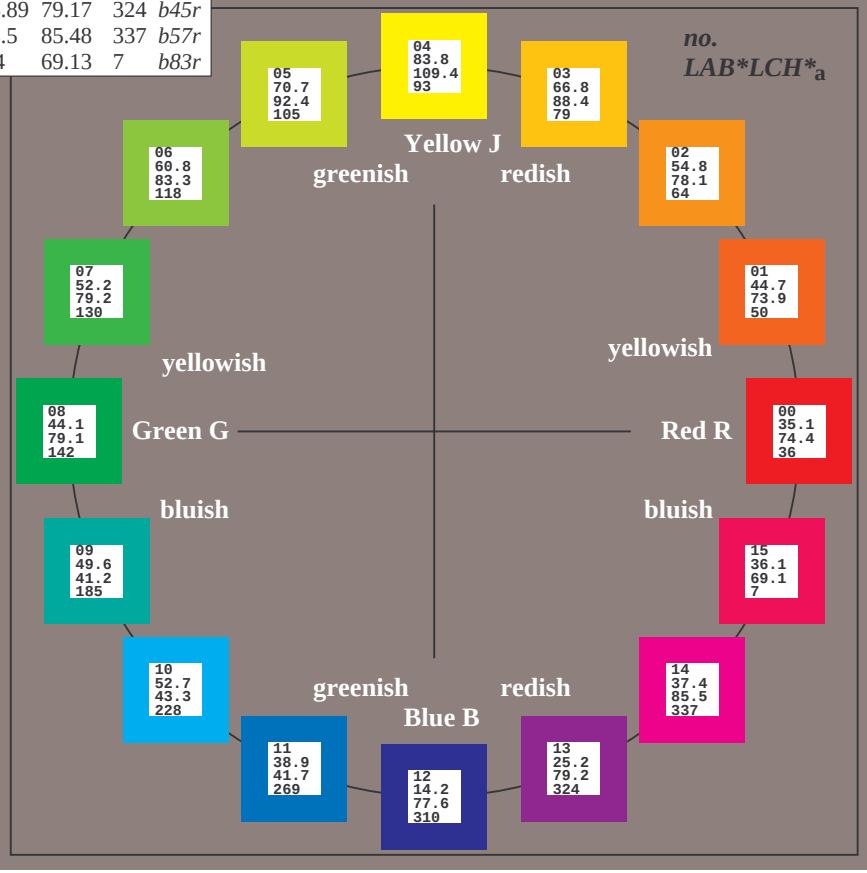


%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** **and** *lab*icu**

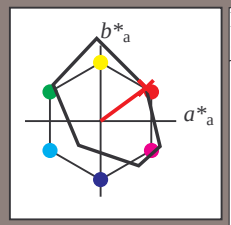
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 35 60 44

*LAB*LCH**$_{Ma}$: 35 74 36

*lab*olv**$_{Ma}$: 1.0 0.0 0.0

*lab*rgb**$_{Ma}$: 1.0 0.16 0.0

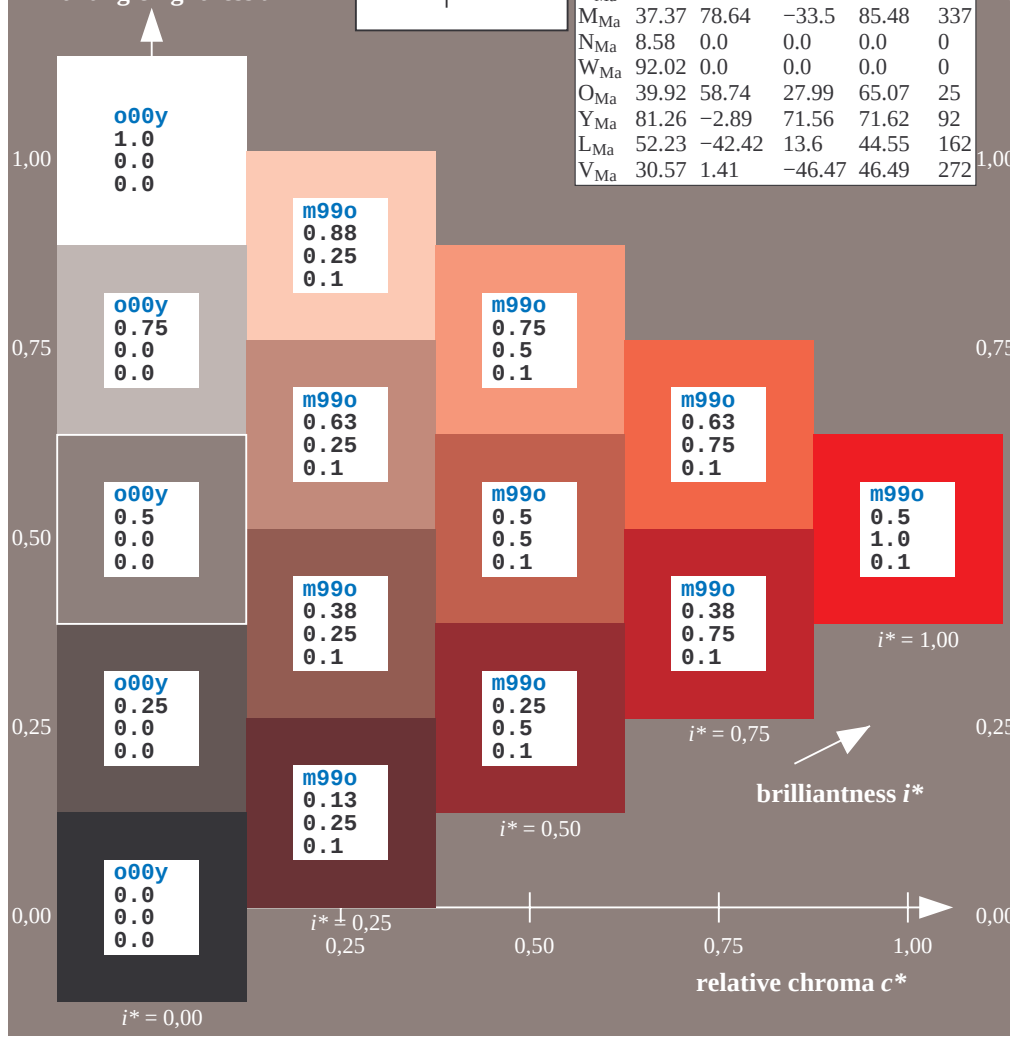
triangle lightness *t**

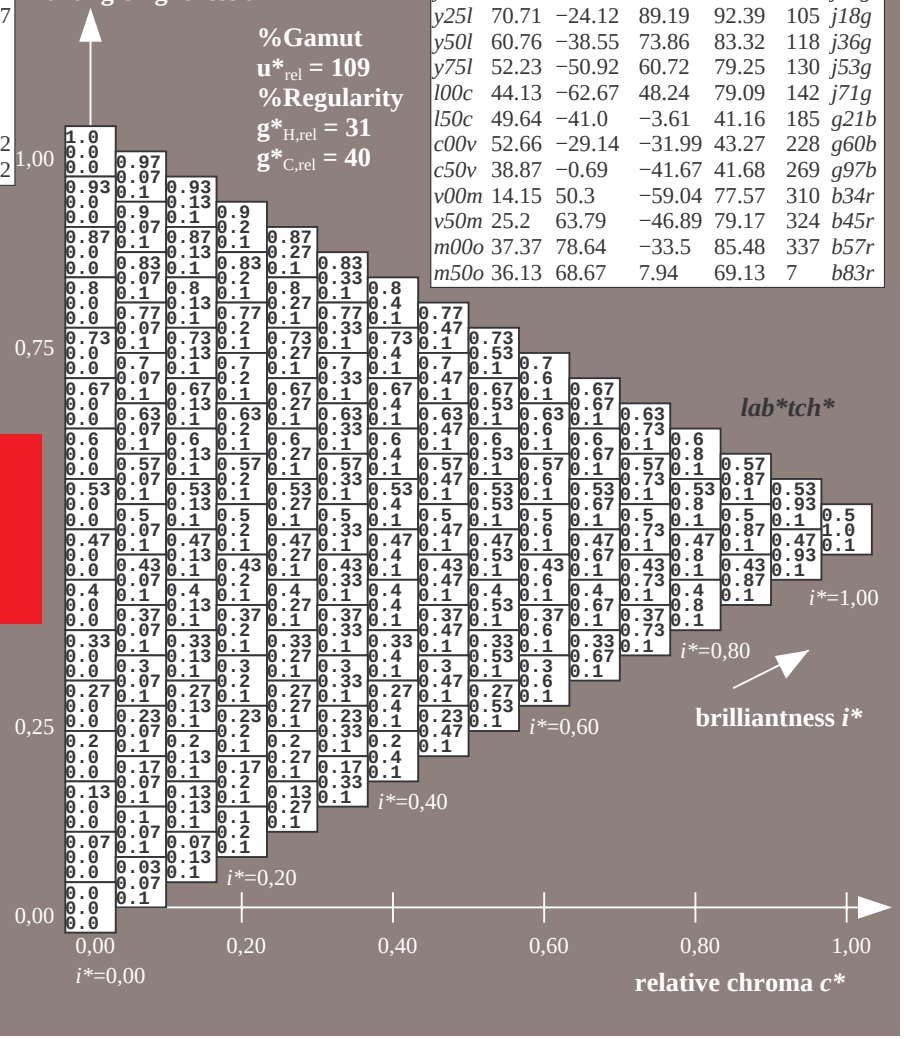
u^*_d = *o00y*

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** **and** *lab*icu**

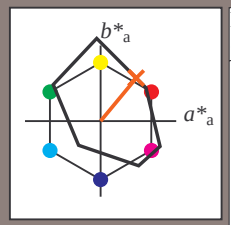
Hue texts:

$u^*_d = o25y$ $u^*_e = r37j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 45 47 57**

***LAB*LCH**$_{Ma}$: 45 74 50**

***lab*olv**$_{Ma}$: 1.0 0.25 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.37 0.0**

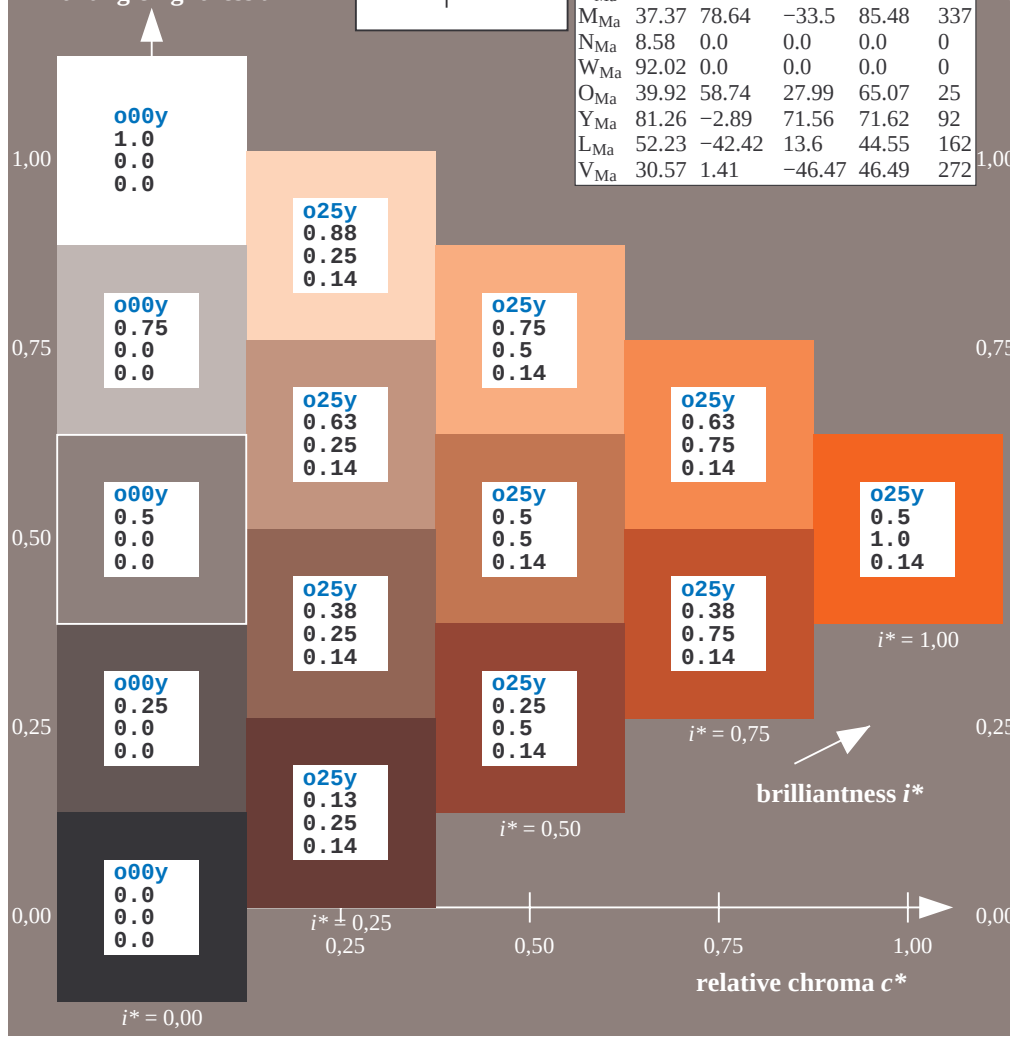
triangle lightness *t**

$u^*_d = o25y$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



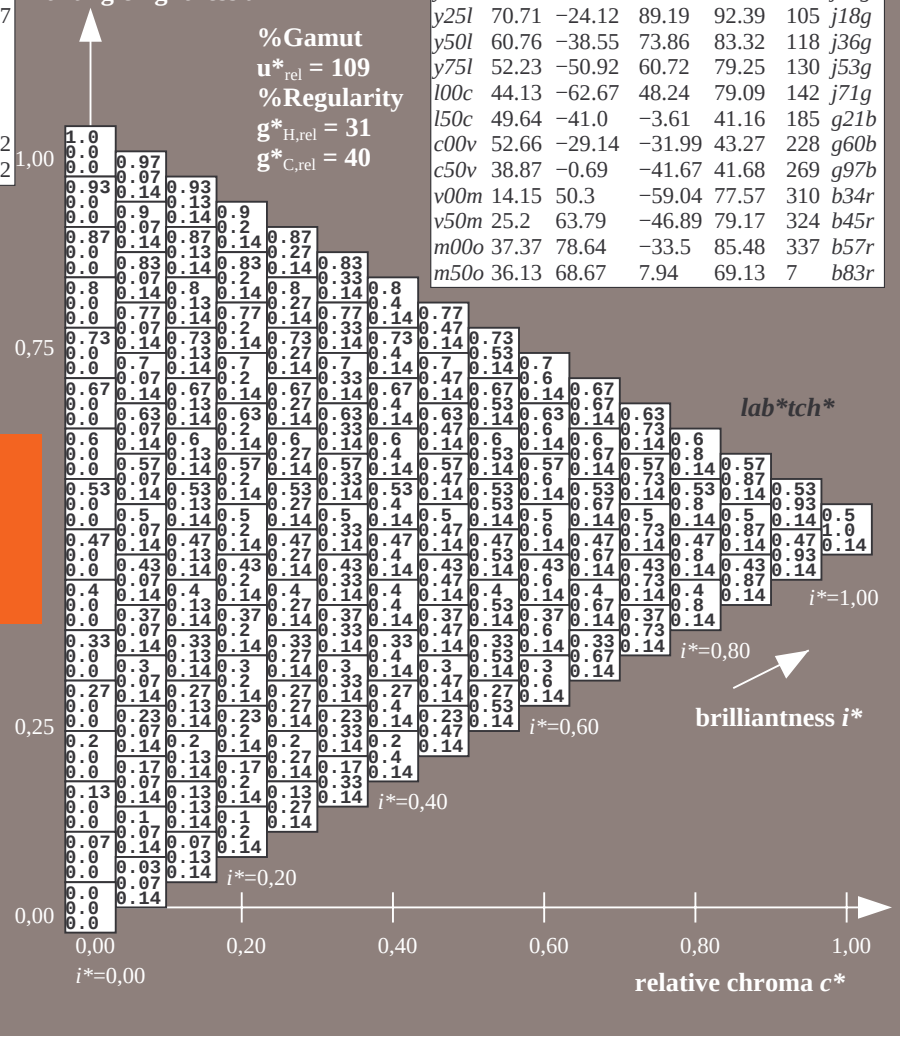
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** **and** *lab*icu**

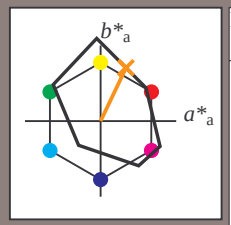
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 55 34 70**

***LAB*LCH*Ma*: 55 78 64**

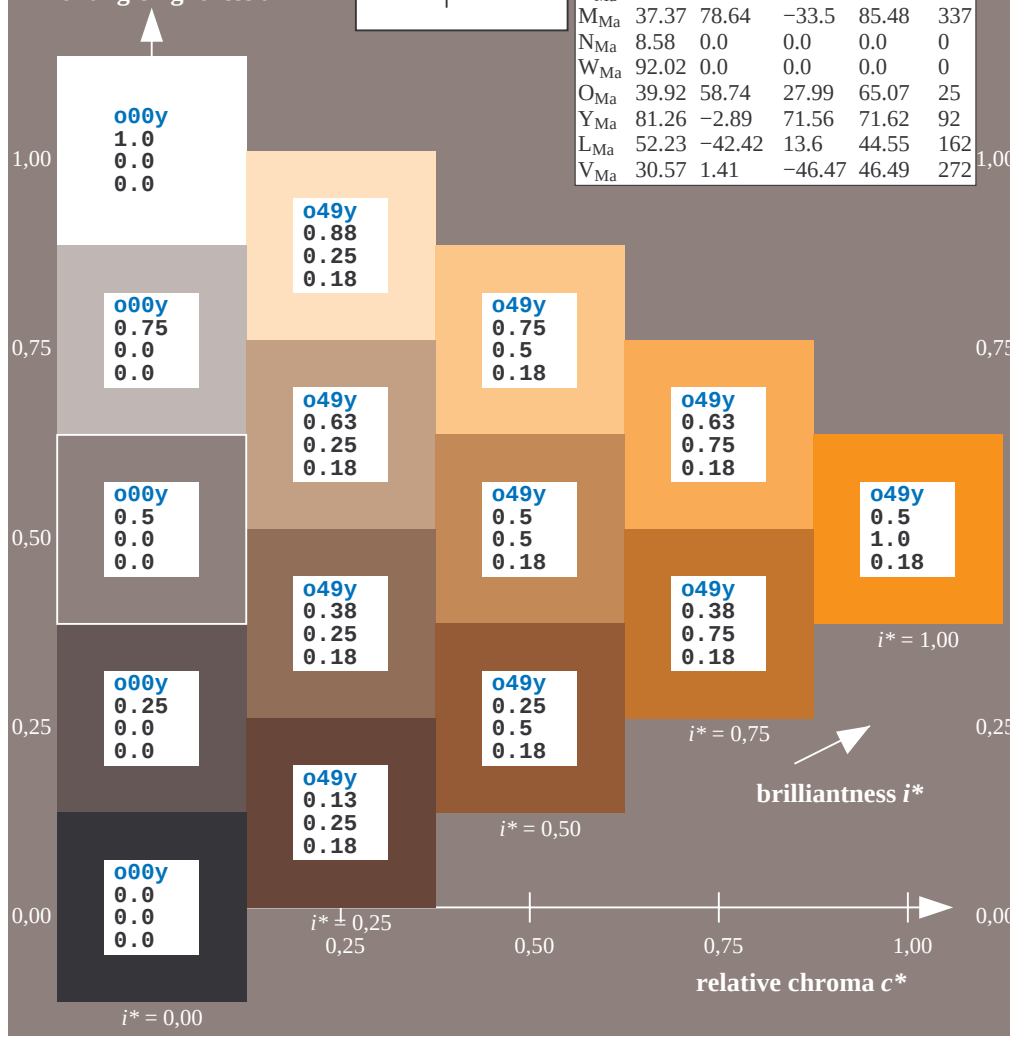
***lab*olv*Ma*: 1.0 0.5 0.0**

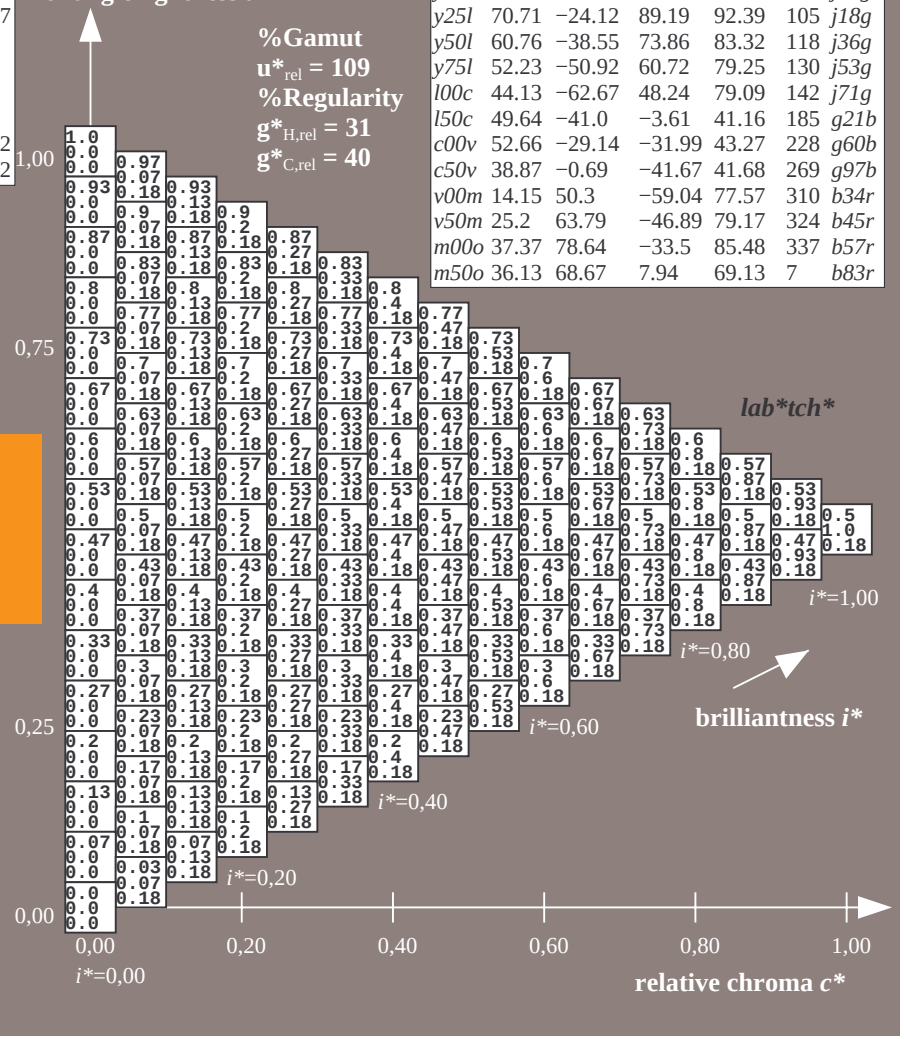
***lab*rgb*Ma*: 1.0 0.58 0.0**

$u^*_d = o50y$
*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

data for any colour:

*lab*tch** and *lab*icu**

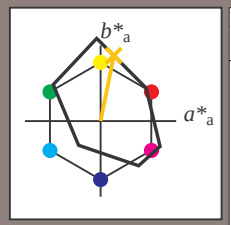
Hue texts:

$u^*_d = o75y$ $u^*_e = r79j$

contrast reduction factor:

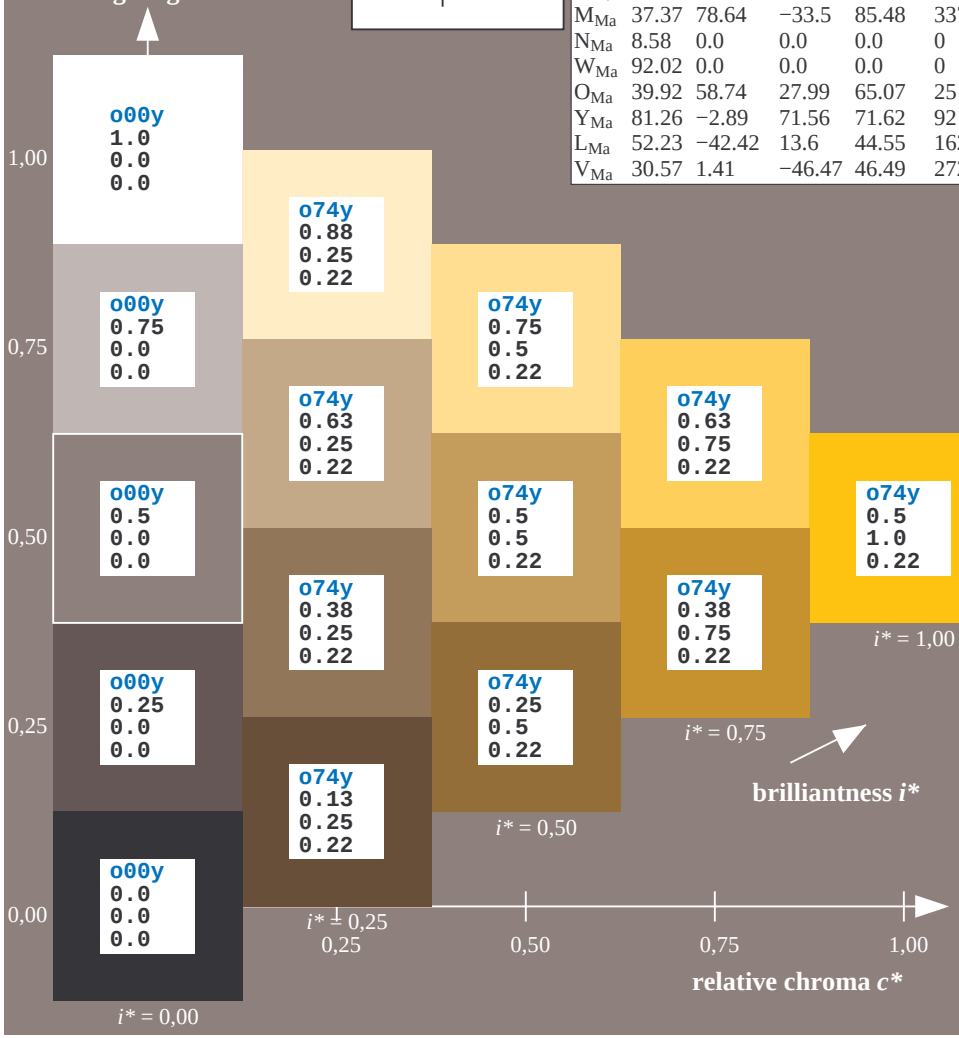
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 67 17 87

*LAB*LCH**$_{Ma}$: 67 88 78

*lab*olv**$_{Ma}$: 1.0 0.75 0.0

*lab*rgb**$_{Ma}$: 1.0 0.79 0.0

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

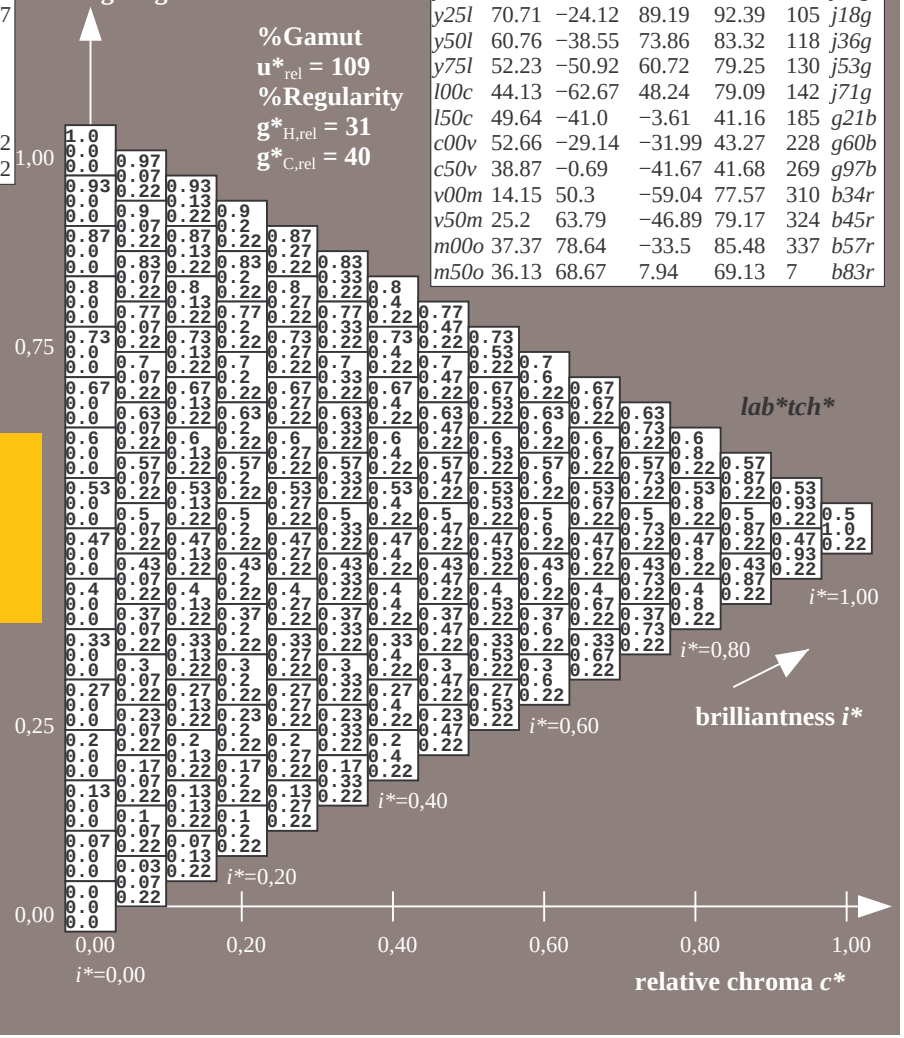
$g^*_{C,rel} = 40$

$u^*_d = o75y$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** **and** *lab*icu**

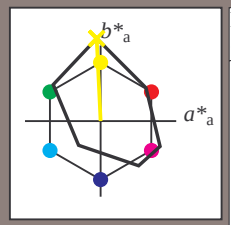
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 84 −5 109

$LAB^*LCH^*_{Ma}$: 84 109 92

$lab^*olv^*_{Ma}$: 1.0 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.99 1.0 0.0

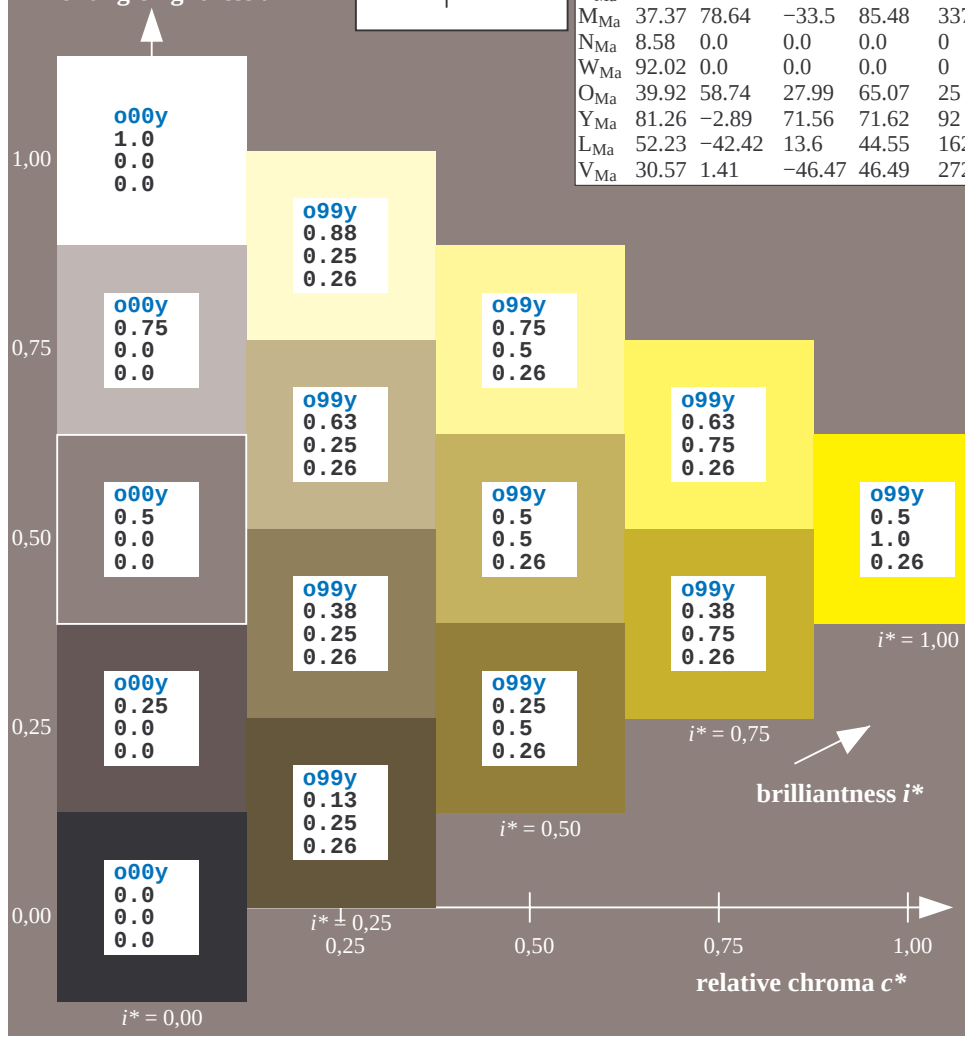
triangle lightness *t**

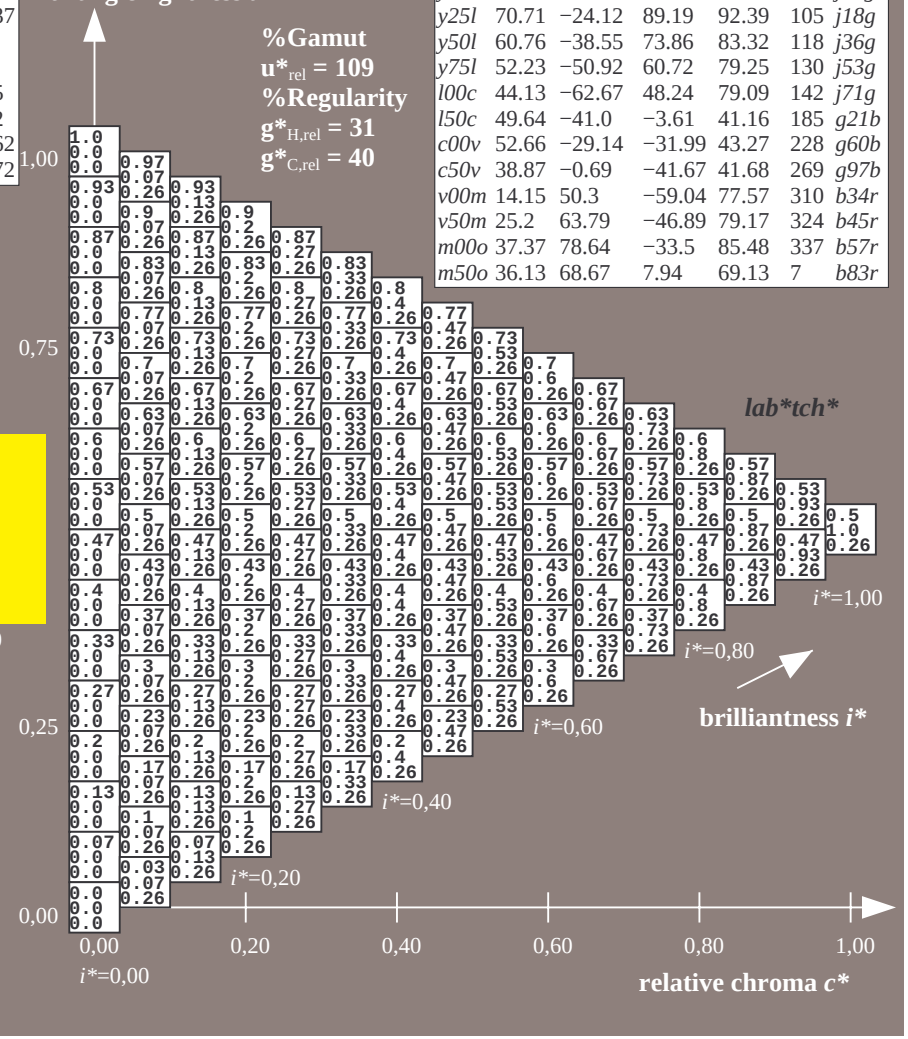
$u^*_d = y00l$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** **and** *lab*icu**

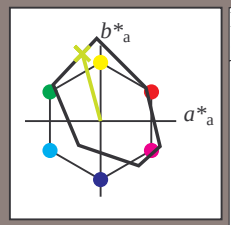
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 71 −24 89

$LAB^*LCH^*_{Ma}$: 71 92 105

$lab^*olv^*_{Ma}$: 0.75 1.0 0.0

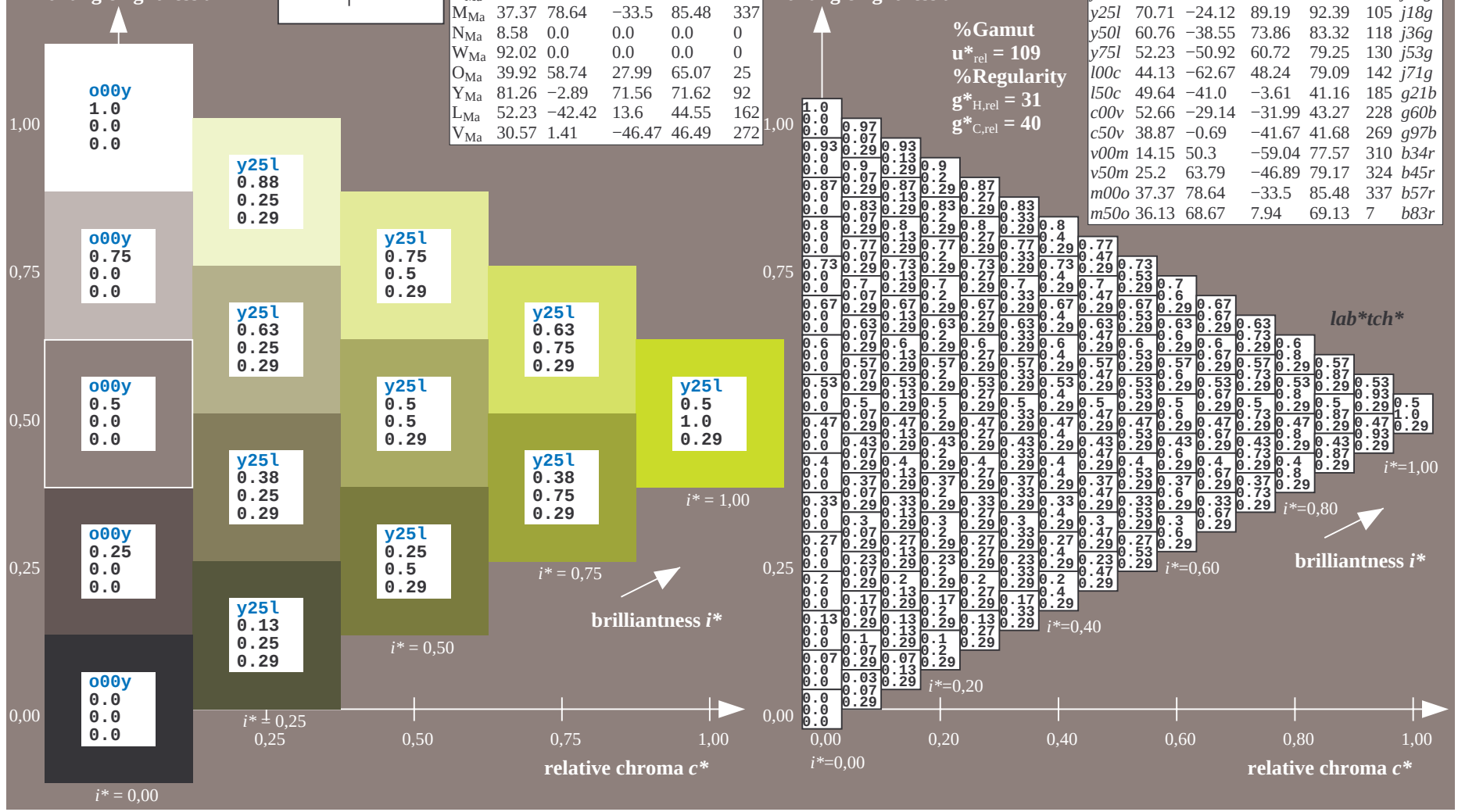
$lab^*rgb^*_{Ma}$: 0.82 1.0 0.0

triangle lightness t^*

$u^*_d = y25l$
lab^*tch^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** **and** *lab*icu**

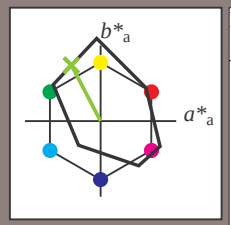
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 61 −39 74**

***LAB*LCH*Ma*: 61 83 117**

***lab*olv*Ma*: 0.5 1.0 0.0**

***lab*rgb*Ma*: 0.64 1.0 0.0**

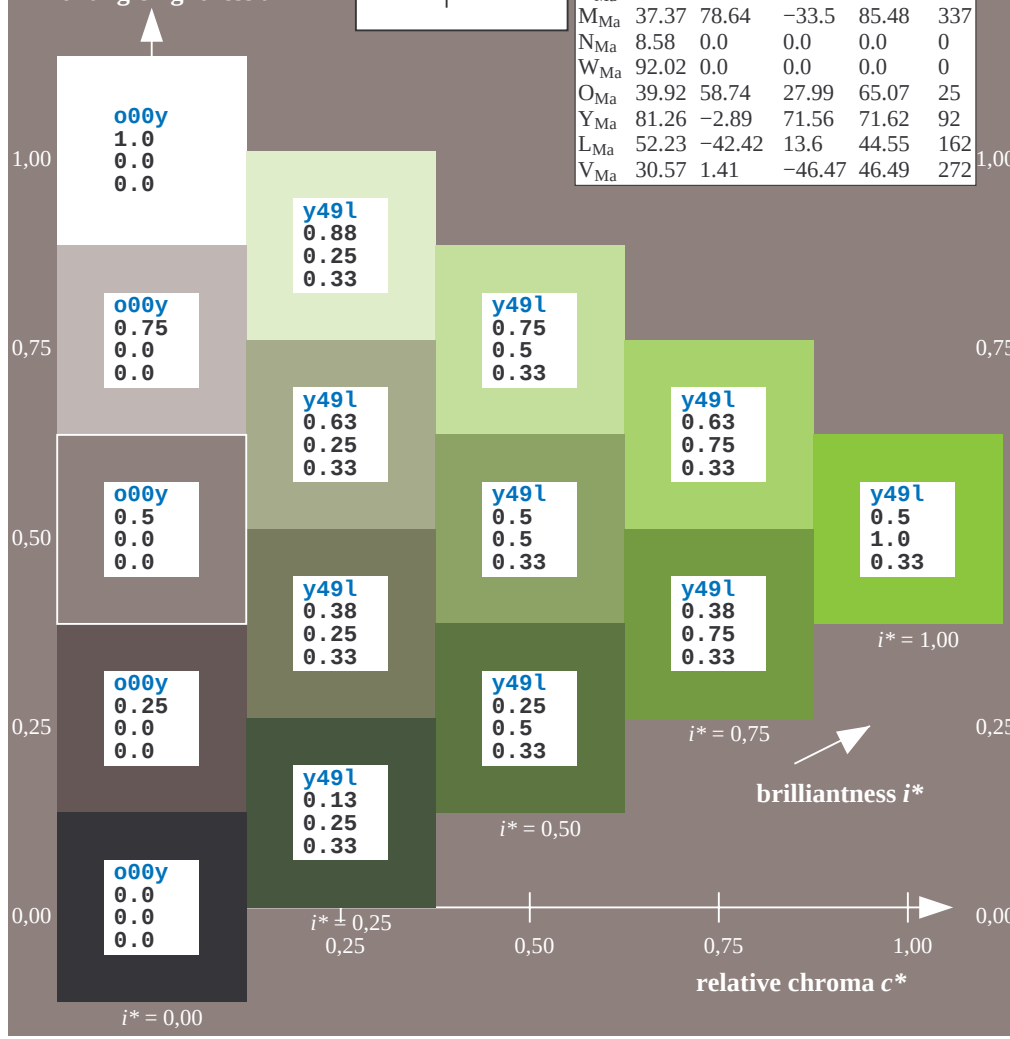
triangle lightness *t**

$u^*_d = y50l$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



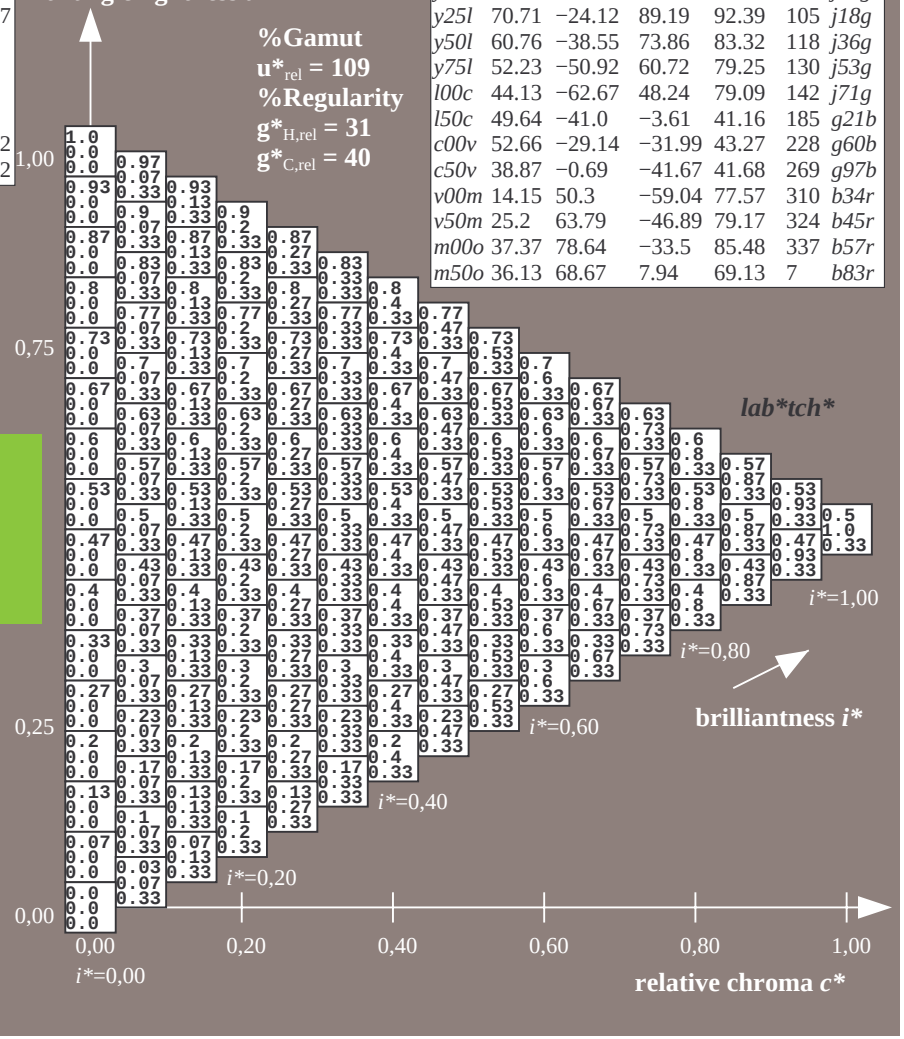
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** **and** *lab*icu**

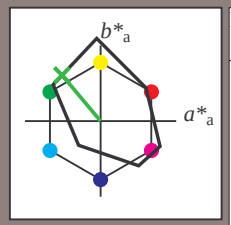
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 52 −51 61**

***LAB*LCH*Ma*: 52 79 129**

***lab*olv*Ma*: 0.25 1.0 0.0**

***lab*rgb*Ma*: 0.46 1.0 0.0**

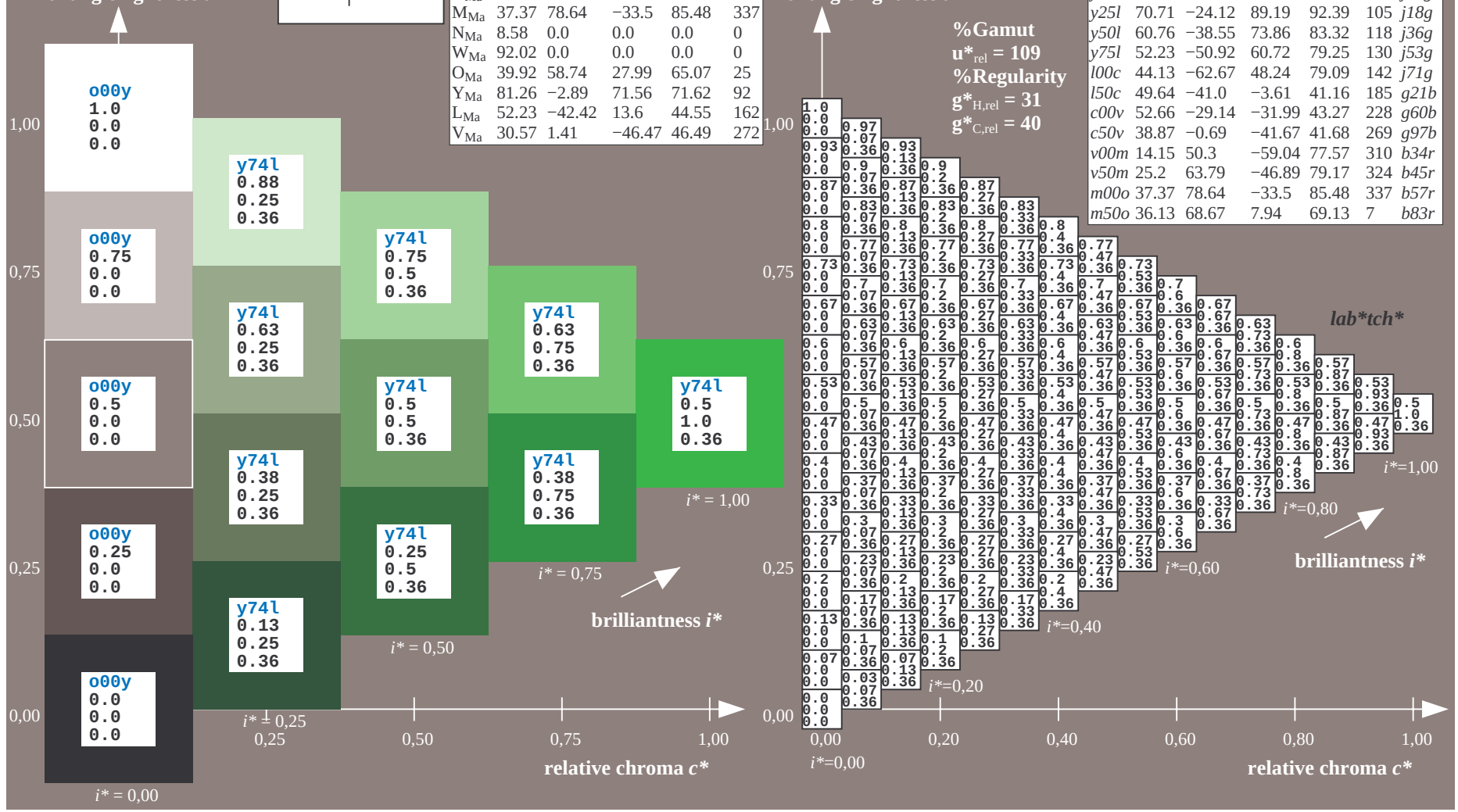
triangle lightness t^*

$u^*_d = y75l$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

data for any colour:

*lab*tch** and *lab*icu**

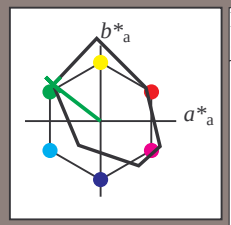
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 44 −63 48**

***LAB*LCH**$_{Ma}$: 44 79 142**

***lab*olv**$_{Ma}$: 0.0 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.28 1.0 0.0**

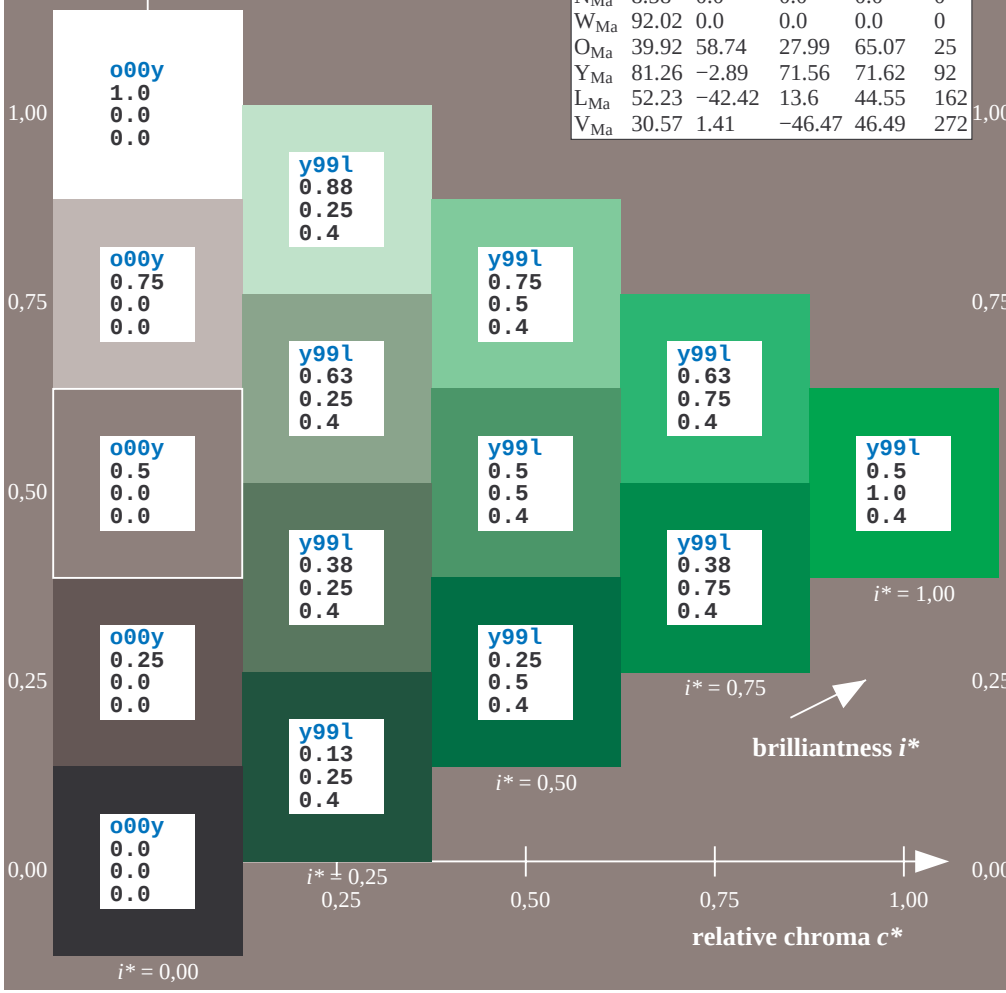
triangle lightness *t**

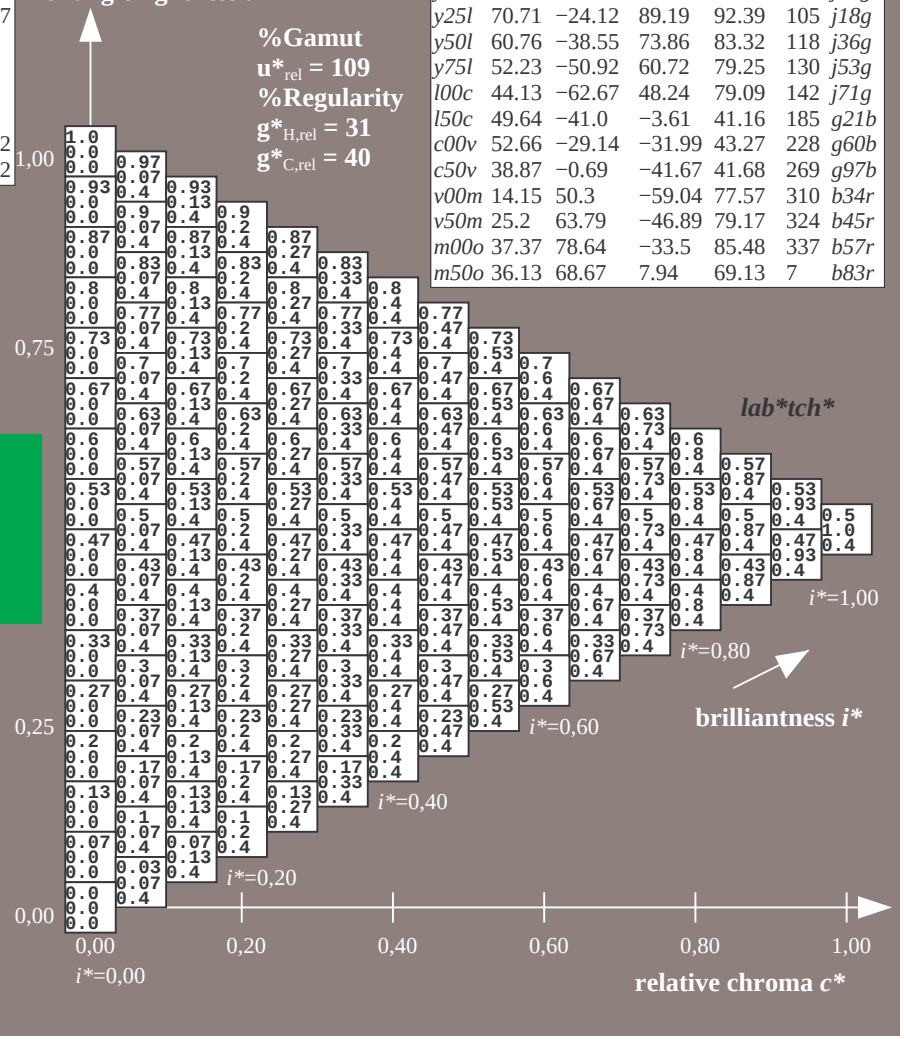
$u^*_d = l00c$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** **and** *lab*icu**

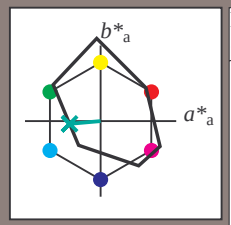
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 50 −41 −4**

***LAB*LCH*Ma*: 50 41 185**

***lab*olv*Ma*: 0.0 1.0 0.5**

***lab*rgb*Ma*: 0.0 1.0 0.42**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

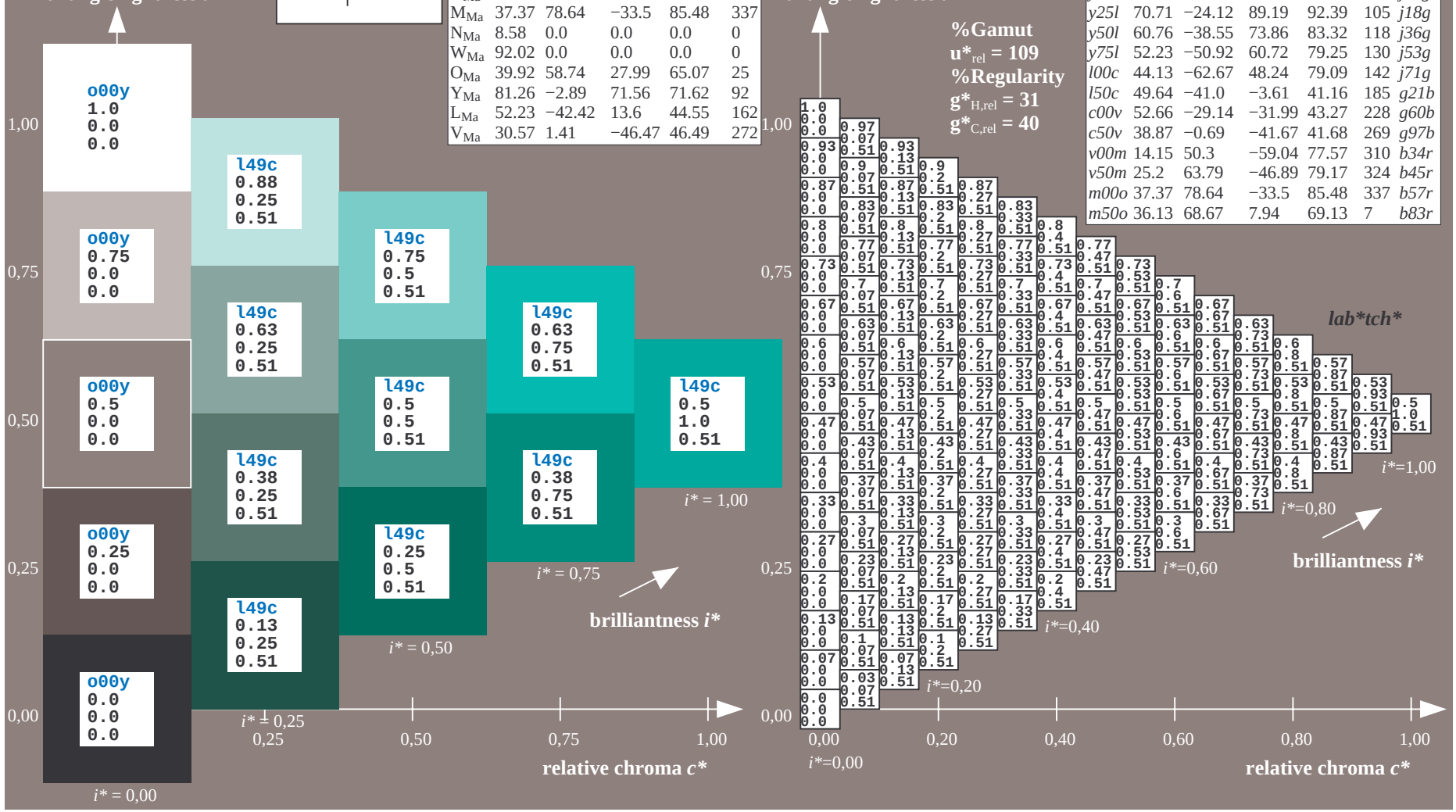
$g^*_{C,rel} = 40$

$u^*_d = l50c$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** **and** *lab*icu**

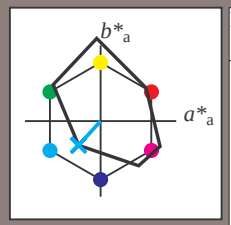
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 53 −29 −32**

***LAB*LCH*Ma*: 53 43 227**

***lab*olv*Ma*: 0.0 1.0 1.0**

***lab*rgb*Ma*: 0.0 0.8 1.0**

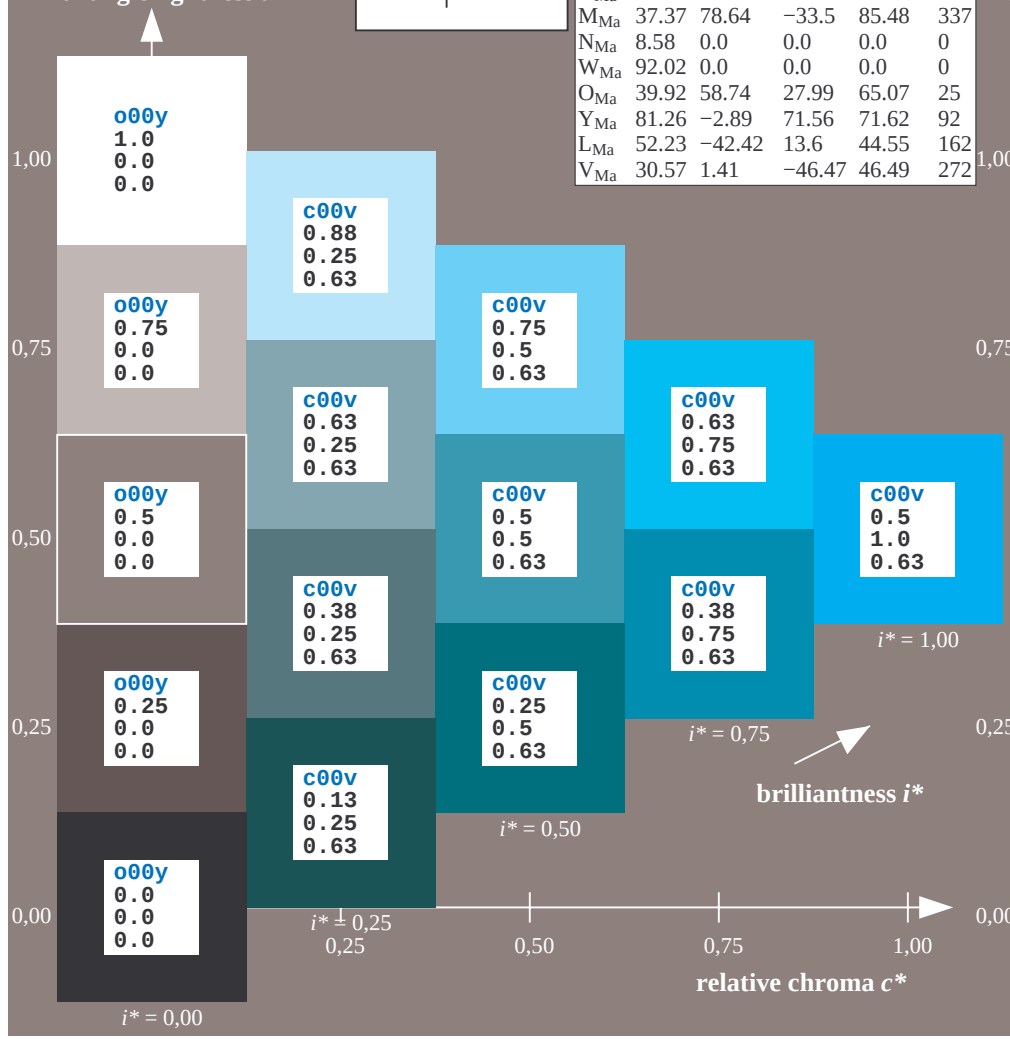
triangle lightness *t**

$u^*_d = c00v$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



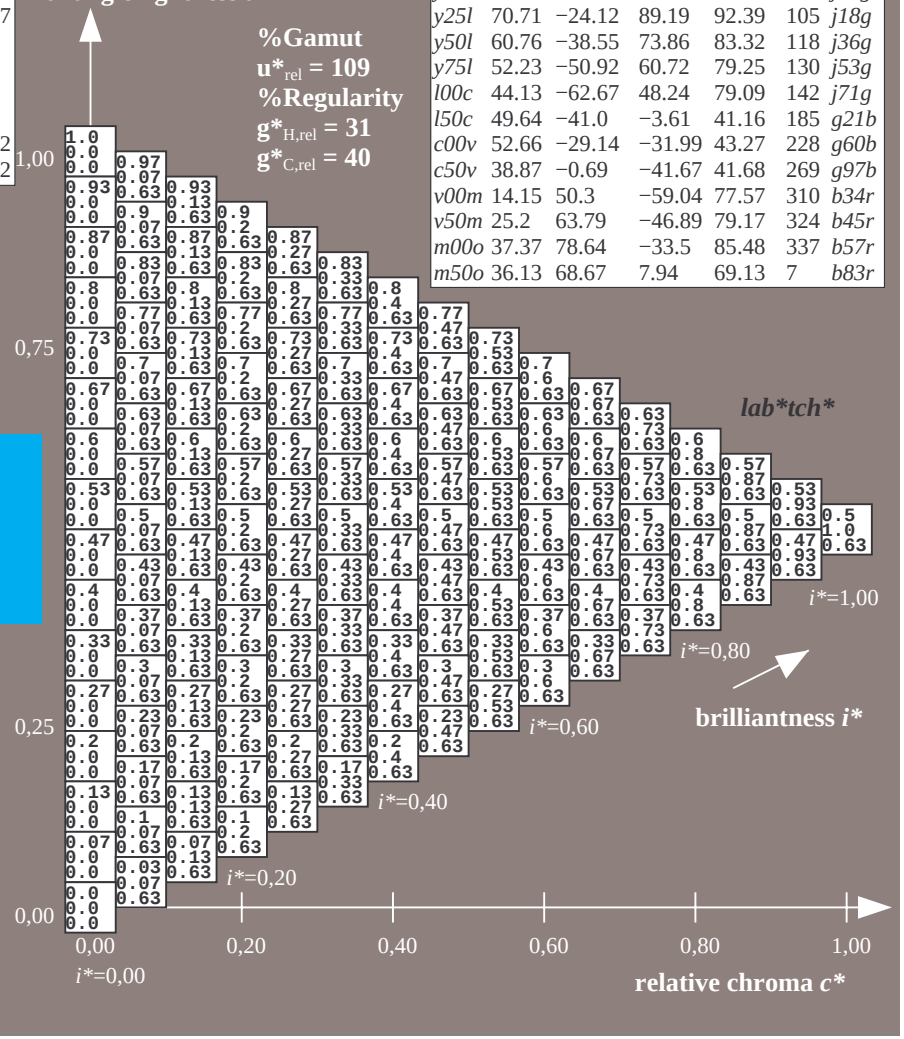
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** and *lab*icu**

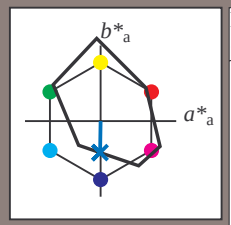
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 39 −1 −42**

***LAB*LCH*$_{Ma}$*: 39 42 269**

***lab*olv*$_{Ma}$*: 0.0 0.5 1.0**

***lab*rgb*$_{Ma}$*: 0.0 0.05 1.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

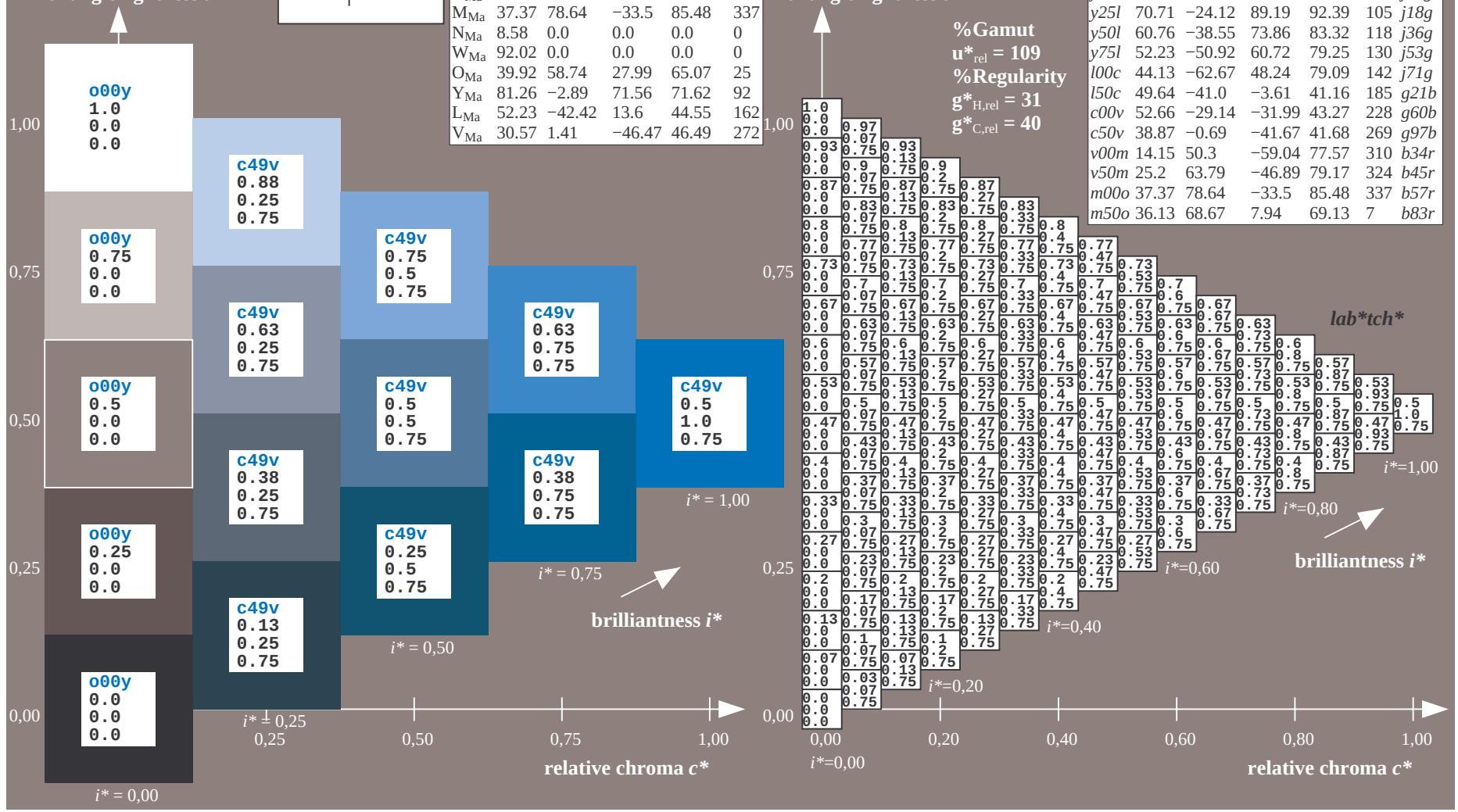
$g^*_{C,rel}$ = 40

$u^*_d = c50v$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

data for any colour:

*lab*tch** **and** *lab*icu**

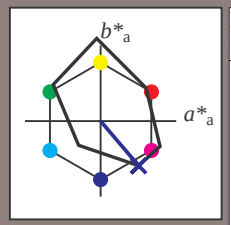
Hue texts:

$u^*_d = v00m$ $u^*_e = b34r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 14 50 −59**

***LAB*LCH*Ma*: 14 78 310**

***lab*olv*Ma*: 0.0 0.0 1.0**

***lab*rgb*Ma*: 0.68 0.0 1.0**

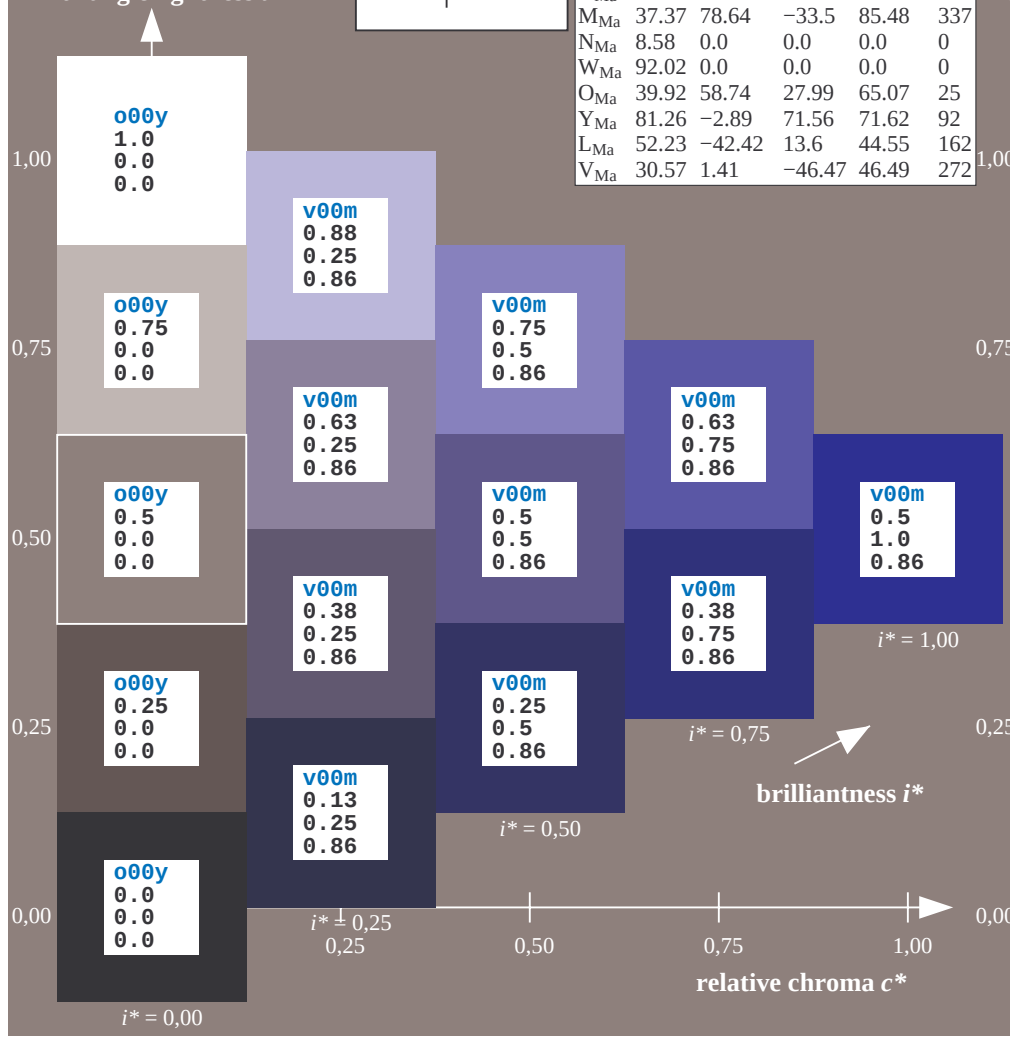
triangle lightness *t**

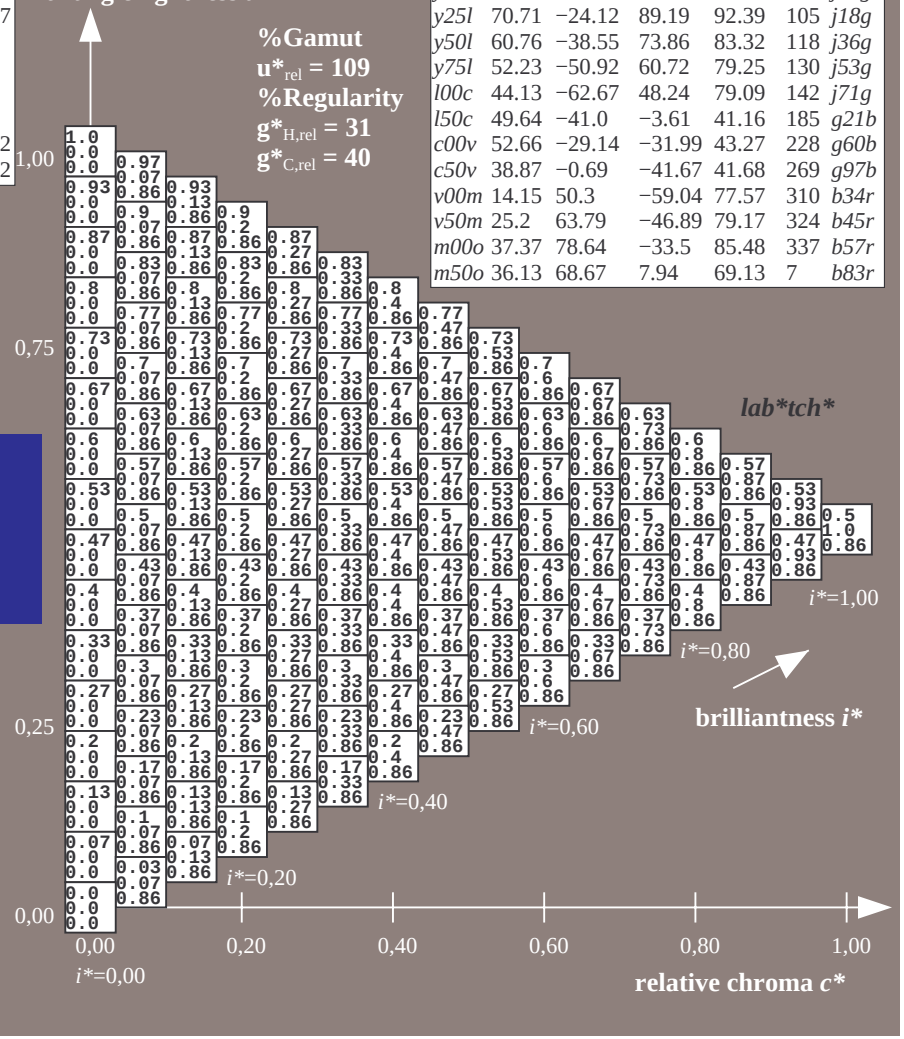
$u^*_d = v00m$

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

data for any colour:

*lab*tch** and *lab*icu**

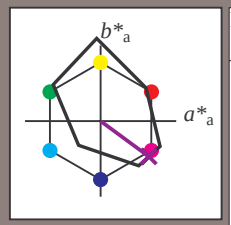
Hue texts:

u^*_d = *v50m* u^*_e = *b45r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 25 64 −47

*LAB*LCH**$_{Ma}$: 25 79 323

*lab*olv**$_{Ma}$: 0.5 0.0 1.0

*lab*rgb**$_{Ma}$: 0.91 0.0 1.0

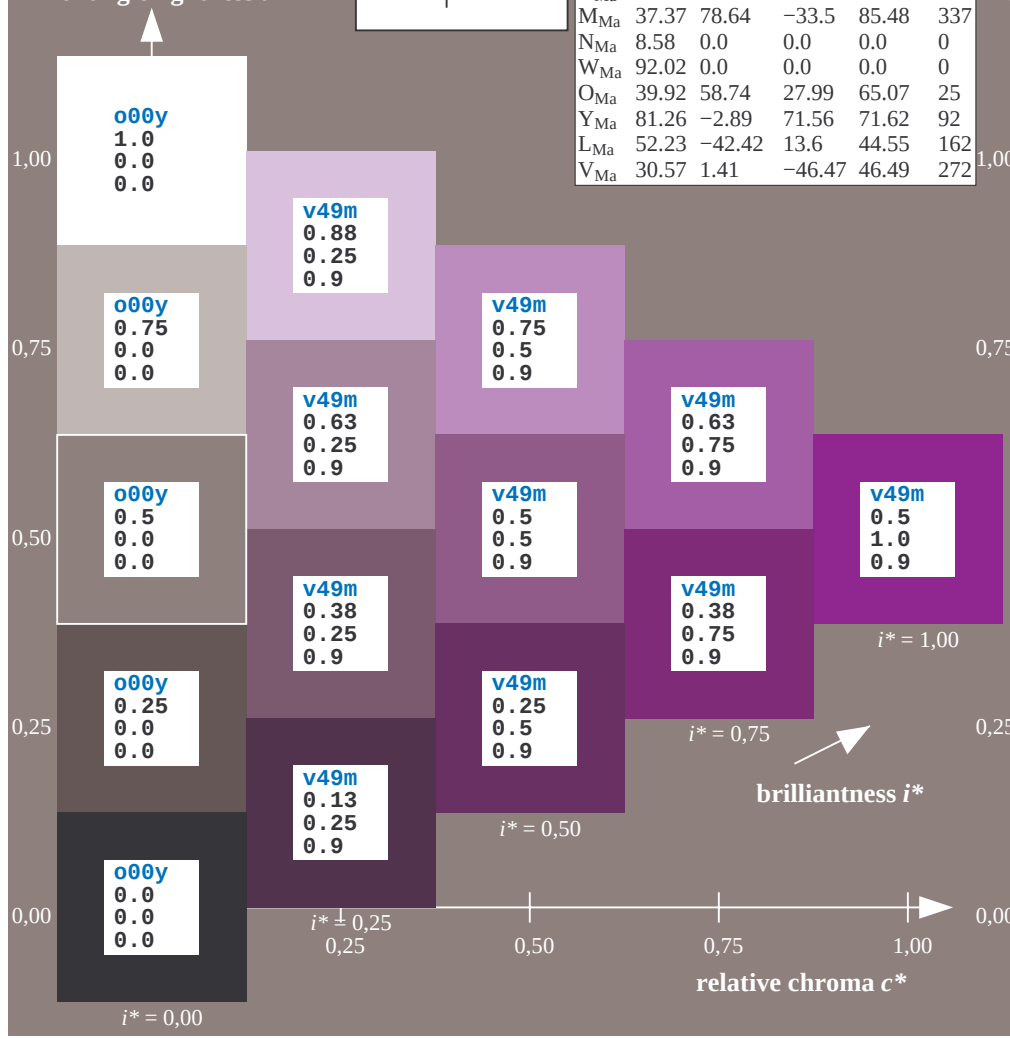
triangle lightness *t**

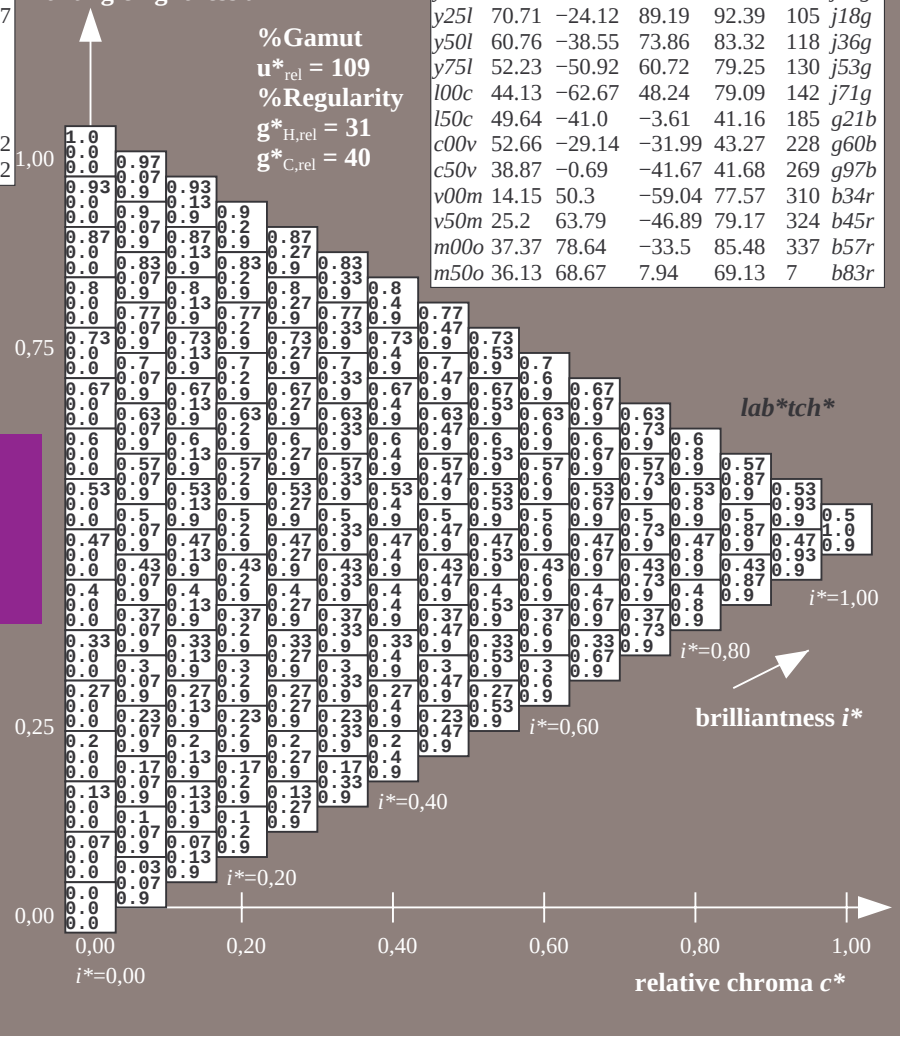
u^*_d = *v50m*

*lab*tch**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

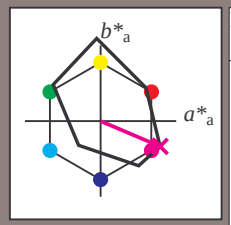




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

$u^*_d = m00o$
lab*tch*

data for any colour:
lab*tch* **and** ***lab*icu****
Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



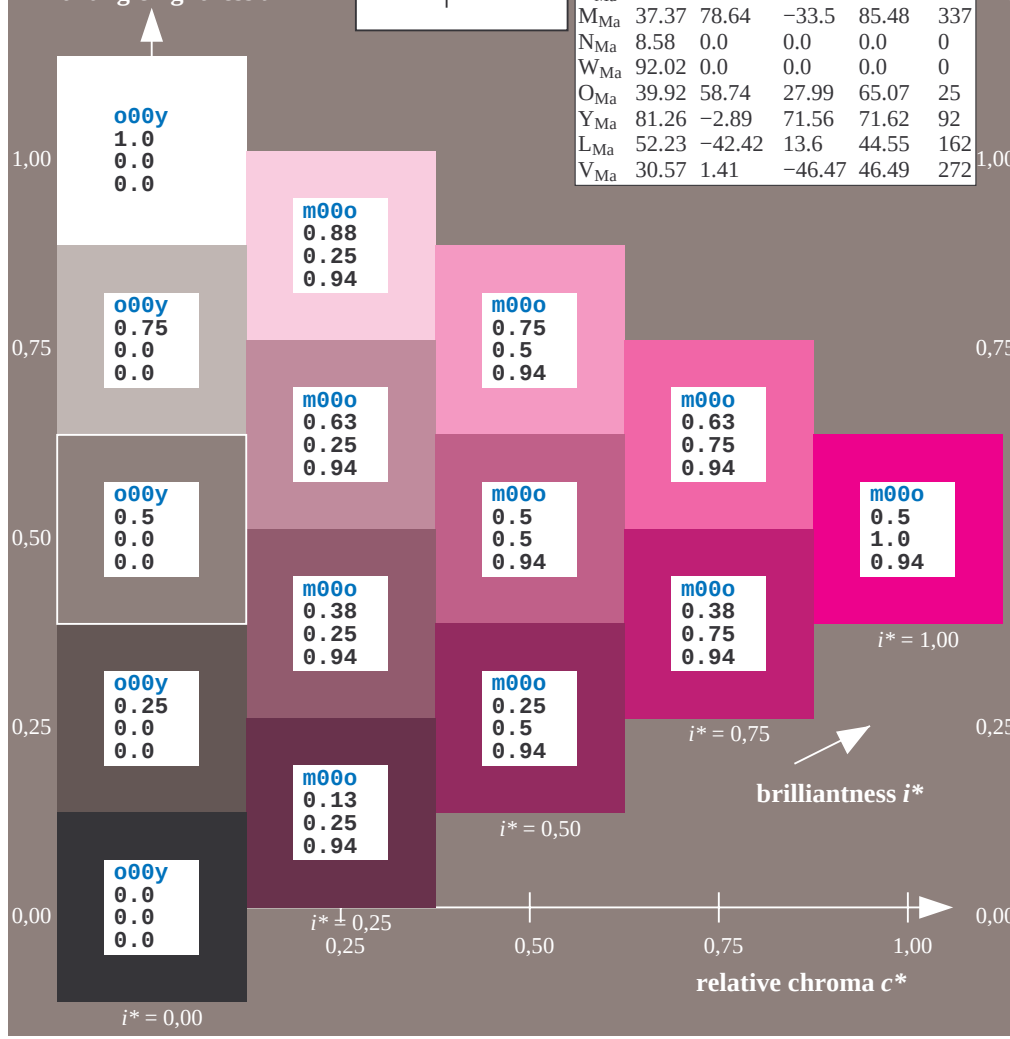
FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

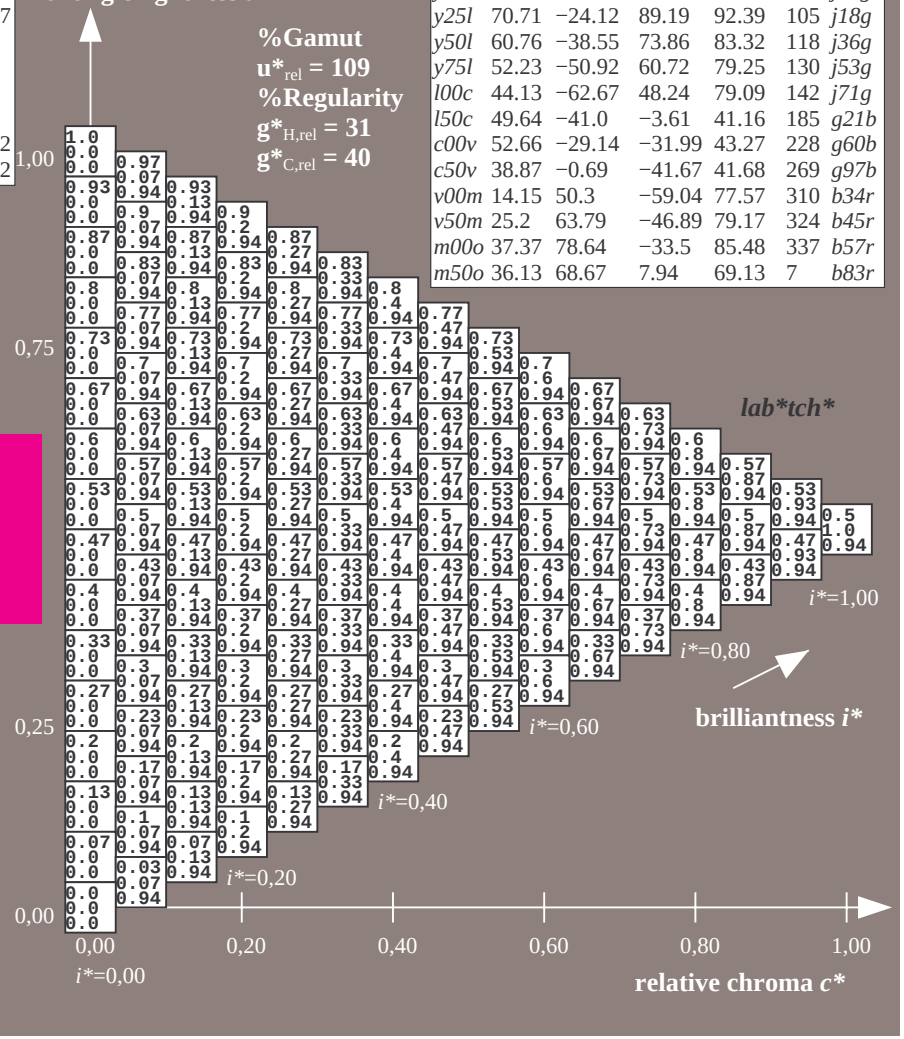
Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 37 79 −34**
***LAB*LCH**$_{Ma}$: 37 85 336**
***lab*olv**$_{Ma}$: 1.0 0.0 1.0**
***lab*rgb**$_{Ma}$: 1.0 0.0 0.85**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



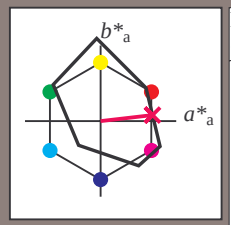
%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

$u^*_d = m50o$
lab^*tch^*

data for any colour:
lab*tch** and *lab*icu*
Hue texts:
$u^*_d = m50o$ $u^*_e = b83r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



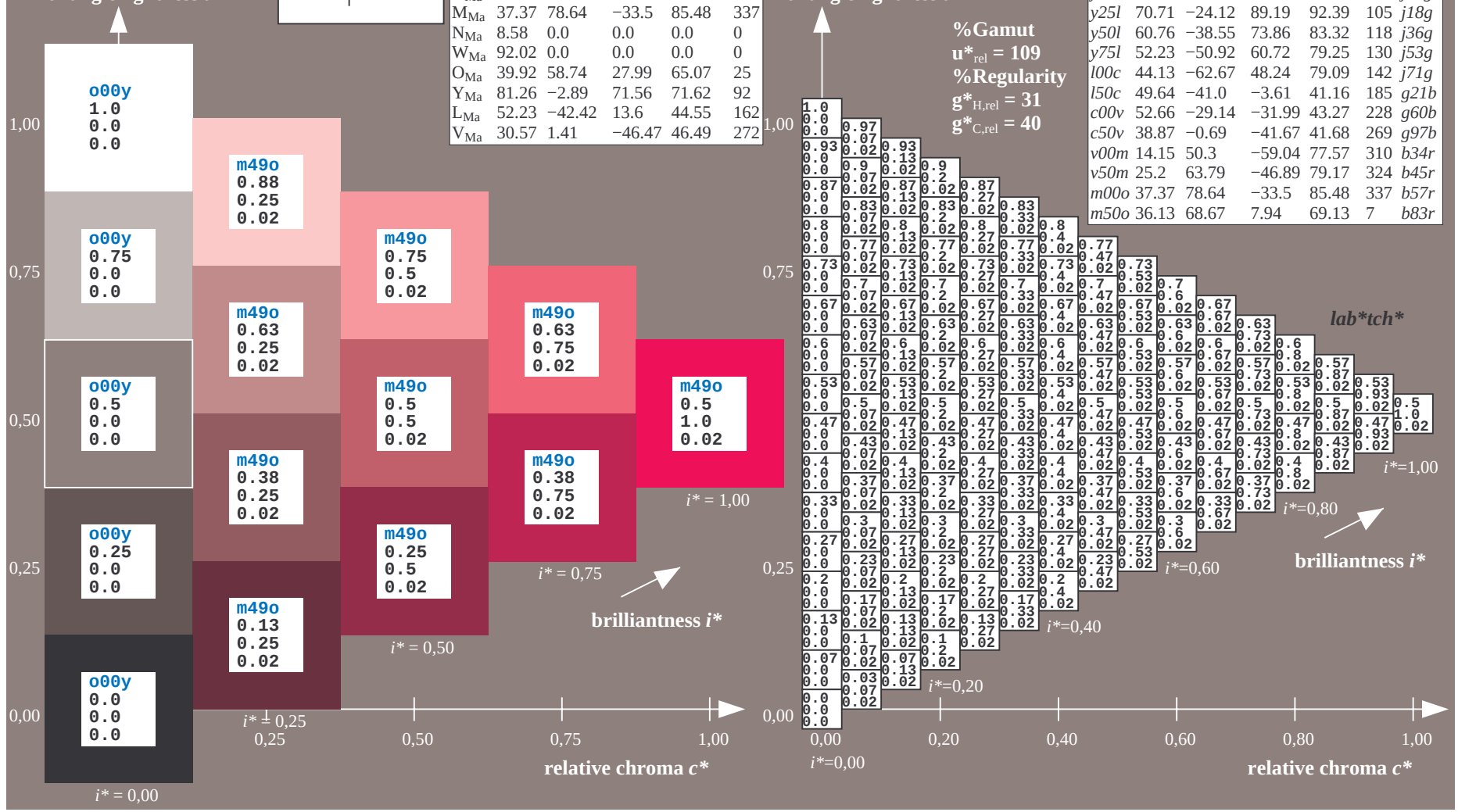
FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 36 69 8**
***LAB*LCH**$_{Ma}$: 36 69 6**
***lab*olv**$_{Ma}$: 1.0 0.0 0.5**
***lab*rgb**$_{Ma}$: 1.0 0.0 0.33**
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

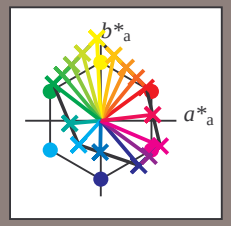


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	*lab*tch**			
01	0.0	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.5	0.06	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.5	0.13	0.13	0.13	0.19	0.25	0.31	0.38	0.44	0.5	1.0	0.94	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.0	0.0	0.0	0.0
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.0	0.0	0.0
	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.26	0.33	0.35	0.36	0.37	0.37	0.38	0.38	0.1	0.18	0.26	0.3	0.33	0.34	0.35	0.36	0.36	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
02	0.06	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.5	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.5	0.56	0.13	0.19	0.19	0.25	0.31	0.38	0.44	0.5	0.56	0.94	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.13	0.13	0.13	0.13
	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.0	0.0	0.0	0.0
	0.86	0.63	0.51	0.47	0.45	0.44	0.44	0.43	0.43	0.94	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.02	0.1	0.26	0.33	0.35	0.36	0.37	0.37	0.38	0.63	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
03	0.13	0.13	0.13	0.19	0.25	0.31	0.38	0.44	0.5	0.13	0.19	0.19	0.25	0.31	0.38	0.44	0.5	0.56	0.13	0.19	0.25	0.31	0.38	0.44	0.5	0.56	0.63	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.25	0.25	0.25	0.25
	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.0	0.0	0.0	0.0
	0.86	0.75	0.63	0.55	0.51	0.49	0.47	0.46	0.45	0.9	0.86	0.63	0.51	0.47	0.45	0.44	0.44	0.43	0.94	0.94	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.63	0.63	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
04	0.19	0.19	0.19	0.19	0.25	0.31	0.38	0.44	0.5	0.19	0.25	0.25	0.25	0.31	0.38	0.44	0.5	0.56	0.19	0.25	0.31	0.31	0.38	0.44	0.5	0.56	0.63	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.31	0.38	0.38	0.38	0.38
	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.0	0.0	0.0	0.0
	0.86	0.79	0.71	0.63	0.57	0.54	0.51	0.5	0.48	0.89	0.86	0.75	0.63	0.55	0.51	0.49	0.47	0.46	0.91	0.9	0.86	0.63	0.51	0.47	0.45	0.44	0.44	0.63	0.63	0.63	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
05	0.25	0.25	0.25	0.25	0.25	0.31	0.38	0.44	0.5	0.25	0.31	0.31	0.31	0.31	0.38	0.44	0.5	0.56	0.25	0.31	0.38	0.38	0.38	0.44	0.5	0.56	0.63	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.31	0.25	0.5	0.5	0.5	0.5
	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.0	0.0	0.0	0.0
	0.86	0.8	0.75	0.69	0.63	0.59	0.55	0.53	0.51	0.88	0.86	0.79	0.71	0.63	0.57	0.54	0.51	0.5	0.9	0.89	0.86	0.75	0.63	0.55	0.51	0.49	0.47	0.63	0.63	0.63	0.63	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
06	0.31	0.31	0.31	0.31	0.31	0.31	0.38	0.44	0.5	0.31	0.38	0.38	0.38	0.38	0.38	0.44	0.5	0.56	0.31	0.38	0.44	0.44	0.44	0.44	0.5	0.56	0.63	0.69	0.63	0.56	0.5	0.44	0.38	0.31	0.25	0.19	0.63	0.63	0.63	0.63
	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.0	0.0	0.0	0.0
	0.86	0.82	0.77	0.72	0.68	0.63	0.59	0.56	0.54	0.88	0.86	0.8	0.75	0.69	0.63	0.59	0.55	0.53	0.89	0.88	0.86	0.79	0.71	0.63	0.57	0.54	0.51	0.63	0.63	0.63	0.63	0.63	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
07	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.44	0.5	0.38	0.44	0.44	0.44	0.44	0.44	0.44	0.5	0.56	0.38	0.44	0.5	0.5	0.5	0.5	0.5	0.56	0.63	0.63	0.56	0.5	0.44	0.38	0.31	0.25	0.19	0.13	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.0	0.0	0.0	0.0
	0.86	0.82	0.79	0.75	0.71	0.67	0.63	0.6	0.57	0.87	0.86	0.82	0.77	0.72	0.68	0.63	0.59	0.56	0.89	0.88	0.86	0.8	0.75	0.69	0.63	0.59	0.55	0.63	0.63	0.63	0.63	0.63	0.63	0.0	0.1	0.1	0.0	0.0	0.0	0.0
08	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.5	0.44	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.56	0.44	0.5	0.56	0.56	0.56	0.56	0.56	0.56	0.63	0.56	0.5	0.44	0.38	0.31	0.25	0.19	0.13	0.06	0.88	0.88	0.88	0.88
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.0	0.0	0.0	0.0
	0.86	0.83	0.8	0.76	0.73	0.7	0.67	0.63	0.6	0.87	0.86	0.82	0.79	0.75	0.71	0.67	0.63	0.6	0.88	0.87	0.86	0.82	0.77	0.72	0.68	0.63	0.59	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.0	0.1	0.0	0.0	0.0	0.0
09	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.5	0.56	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.5	0.44	0.38	0.31	0.25	0.19	0.13	0.06	0.0	1.0	1.0	1.0	1.0
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
	0.86	0.83	0.8	0.78	0.75	0.72	0.69	0.66	0.63	0.87	0.86	0.83	0.8	0.76	0.73	0.7	0.67	0.63	0.88	0.87	0.86	0.82	0.79	0.75	0.71	0.67	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.0	0.0	0.0	0.0	0.0	0.0
10	0.19	0.19	0.19	0.19	0.25	0.31	0.38	0.44	0.5	0.25	0.25	0.25	0.25	0.25	0.31	0.38	0.44	0.5	0.31	0.31	0.31	0.31	0.31	0.31	0.38	0.44	0.5	1.0	0.94	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.0	0.0	0.0	0.0
	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.0	0.0	0.0
	0.1	0.15	0.21	0.26	0.29	0.31	0.33	0.34	0.34	0.1	0.14	0.18	0.22	0.26	0.29	0.3	0.32	0.33	0.1	0.13	0.16	0.19	0.23	0.26	0.28	0.3	0.31	0.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.0	0.0	0.0	0.0
11	0.19	0.25	0.25	0.25	0.31	0.38	0.44	0.5	0.56	0.25	0.31	0.31	0.31	0.31	0.38	0.44	0.5	0.56	0.31	0.38	0.38	0.38	0.38	0.38	0.44	0.5	0.56	0.94	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.07	0.07	0.07	0.07
	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.0	0.0	0.0	0.0
	0.05	0.1	0.18	0.26	0.3	0.33	0.34	0.35	0.36	0.06	0.1	0.15	0.21	0.26	0.29	0.31	0.33	0.34	0.07	0.1	0.14	0.18	0.22	0.26	0.29	0.3	0.32	0.86	0.0	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.0	0.0	0.0	0.0
12	0.19	0.25	0.31	0.31	0.38	0.44	0.5	0.56	0.63	0.25	0.31	0.38	0.38	0.38	0.44	0.5	0.56	0.63	0.31	0.38	0.44	0.44	0.44	0.44	0.5	0.56	0.63	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.13	0.13	0.13	0.13
	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.0	0.0	0.0	0.0
	0.99	0.02	0.1	0.26	0.33	0.35	0.36	0.37	0.37	0.02	0.05	0.1	0.18	0.26	0.3	0.33	0.34	0.35	0.03	0.06	0.1	0.15	0.21	0.26	0.29	0.31	0.33	0.86	0.86	0.0	0.26	0.26	0.26	0.26	0.26	0.26	0.0	0.0	0.0	0.0
13	0.19	0.25	0.31	0.38	0.44	0.5	0.56	0.63	0.69	0.25	0.31	0.38	0.44	0.44	0.5	0.56	0.63	0.69	0.31	0.38	0.44	0.5	0.5	0.5	0.56	0.63	0.69	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.31	0.2	0.2	0.2	0.2
	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.0	0.0	0.0	0.0
	0.94	0.94	0.94	0.0	0.4	0.4	0.4	0.4	0.4	0.98	0.99	0.02	0.1	0.26	0.33	0.35	0.36	0.37	0.0	0.02	0.05	0.1	0.18	0.26	0.3	0.33	0.34	0.86	0.86	0.86	0.0	0.26	0.26	0.26	0.26	0.26	0.0	0.0	0.0	0.0
14	0.25	0.31	0.38	0.44	0.44	0.5	0.56	0.63	0.69	0.25	0.31	0.38	0.44	0.5	0.56	0.63	0.69	0.75	0.31	0.38	0.44	0.5	0.56	0.56	0.63	0.69	0.75	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.31	0.25	0.27	0.27	0.27	0.27
	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.0	0.0	0.0	0.0
	0.92	0.91	0.9	0.86	0.63	0.51	0.47	0.45	0.44	0.94	0.94	0.94	0.94	0.0	0.4	0.4	0.4	0.4	0.97	0.98	0.99	0.02	0.1	0.26	0.33	0.35	0.36	0.86	0.86	0.86	0.86	0.0	0.26	0.26	0.26	0.26	0.0	0.0	0.0	0.0
15	0.31	0.38	0.44	0.5	0.5	0.5	0.56	0.63	0.69	0.31	0.38	0.44	0.5	0.56	0.56	0.63	0.69	0.75	0.31	0.38	0.44	0.5	0.56	0.63	0.69	0.75	0.81	0.69	0.63	0.56	0.5	0.44	0.38	0.31	0.25	0.19	0.33	0.33	0.33	0.33
	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.0	0.0	0.0	0.0
	0.91	0.9	0.89	0.86	0.75	0.63	0.55	0.51	0.49	0.92	0.92	0.91	0.9	0.86	0.63	0.51	0.47	0.45	0.94	0.94	0.94	0.94	0.94	0.0	0.4	0.4	0.4	0.86	0.86	0.86	0.86	0.86	0.0	0.26	0.26	0.26	0.0	0.0	0.0	0.0
16	0.38	0.44	0.5	0.56	0.56	0.56	0.56	0.63	0.69	0.38	0.44	0.5	0.56	0.63	0.63	0.63	0.69	0.75	0.38	0.44	0.5	0.56	0.63	0.69	0.69	0.75	0.81	0.63	0.56	0.5	0.44	0.38	0.31	0.25	0.19	0.13	0.4	0.4	0.4	0.4
	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.75	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.0	0.0	0.0	0.0
	0.9	0.89	0.88	0.86	0.79	0.71	0.63	0.57	0.54	0.91	0.91	0.9	0.89	0.86	0.75	0.63	0.55	0.51	0.92	0.92	0.92	0.91	0.9	0.86	0.63	0.51	0.47	0.86	0.86	0.86	0.86	0.86	0.86	0.0	0.26	0.26	0.0	0.0	0.0	0.0
17	0.44	0.5	0.56	0.63	0.63	0.63	0.63	0.63	0.69	0.44	0.5	0.56	0.63	0.69	0.69	0.69	0.69	0.75	0.44	0.5	0.56	0.63	0.69	0.75	0.75	0.75	0.81	0.56	0.5	0.44	0.38	0.31	0.25	0.19	0.13	0.06	0.47	0.47	0.47	0.47
	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.88	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.0	0.0	0.0	0.0
	0.89	0.89	0.88	0.86	0.8	0.75	0.69	0.63	0.59	0.9	0.9	0.89	0.88	0.86	0.79	0.71	0.63	0.57	0.91	0.91	0.91	0.9	0.89	0.86	0.75	0.63	0.55	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.26	0.26	0.0	0.0	0.0	0.0
18	0.5	0.56	0.63	0.69	0.69	0.69	0.69	0.69	0.69	0.5	0.56	0.63	0.69	0.75	0.75	0.75	0.75	0.75	0.5	0.56	0.63	0.69	0.75	0.81	0.81	0.81	0.81	0.5	0.44	0.38	0.31	0.25	0.19	0.13	0.06	0.0	0.53	0.53	0.53	0.53
	1.0	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	1.0	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	1.0	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
	0.89	0.88	0.87	0.86	0.82	0.77	0.72	0.68	0.63	0.9	0.89	0.89	0.88	0.86	0.8	0.75	0.69	0.63	0.91	0.9	0.9	0.89	0.88	0.86	0.79	0.71	0.63	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.0	0.0	0.0	0.0	0.0
19	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.44	0.5	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.94	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.6	0.6	0.6	0.6
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.0	0.0	0.0
	0.1	0.13	0.15	0.18	0.21	0.23	0.26	0.28	0.29	0.1	0.12	0.15	0.17	0.19	0.21	0.24	0.26	0.27	0.1	0.12	0.14	0.16	0.18	0.2	0.22	0.24	0.26	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
20	0.38	0.44	0.44	0.44	0.44	0.44	0.44	0.5	0.56	0.44	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.56	0.5	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.94	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.67	0.67	0.67	0.67
	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.0	0.0	0.0	0.0
	0.07	0.1	0.13	0.16	0.19	0.23	0.26	0.28	0.3	0.08	0.1	0.13	0.15	0.18	0.21	0.23	0.26	0.28	0.08	0.1	0.12	0.15	0.17	0.19	0.21	0.24	0.26	0.94	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
21	0.38	0.44	0.5	0.5	0.5	0.5	0.5	0.56	0.63	0.44	0.5	0.56	0.56	0.56	0.56	0.56	0.56	0.63	0.5	0.56	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.88	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.73	0.73	0.73	0.73
	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.0	0.0	0.0	0.0
	0.05	0.07	0.1	0.14	0.18	0.22	0.26	0.29	0.3	0.05	0.07	0.1	0.13	0.16	0.19	0.23	0.26	0.28	0.06	0.08	0.1	0.13	0.15	0.18	0.21	0.23	0.26	0.94	0.94	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
22	0.38	0.44	0.5	0.56	0.56	0.56	0.56	0.63	0.69	0.44	0.5	0.56	0.63	0.63	0.63	0.63	0.63	0.69	0.5	0.56	0.63	0.69	0.69	0.69	0.69	0.69	0.69	0.81	0.75	0.69	0.63	0.56	0.5	0.44	0.38	0.31	0.8	0.8	0.8	0.8
	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	1.0	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.38	0.25	0.13	0.0	0.

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

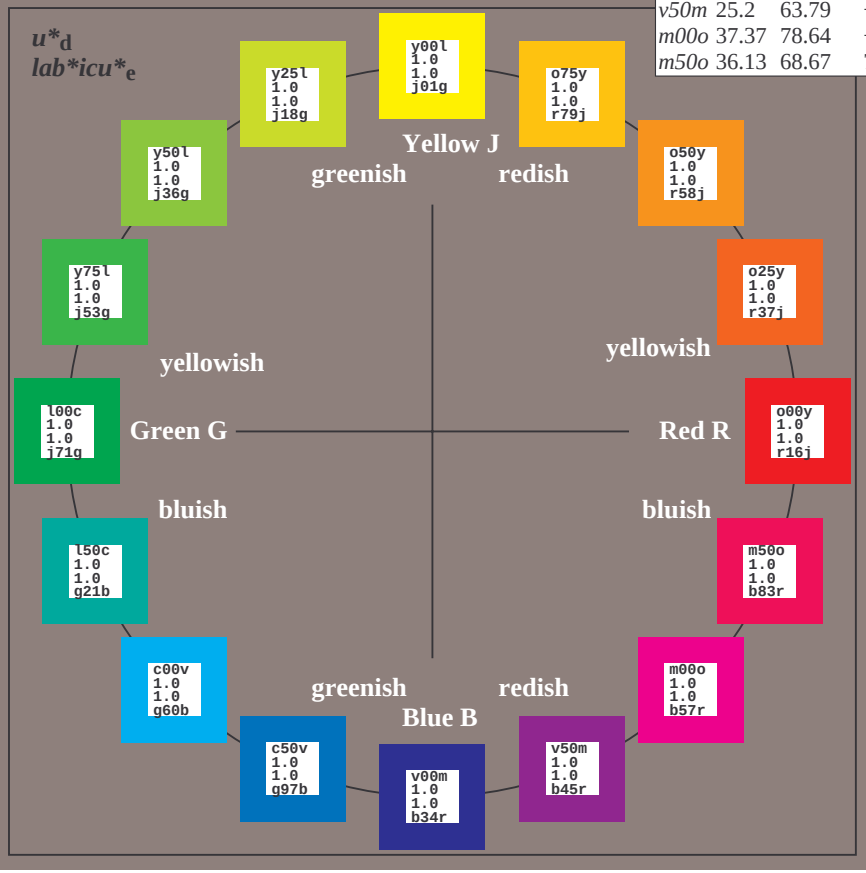
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

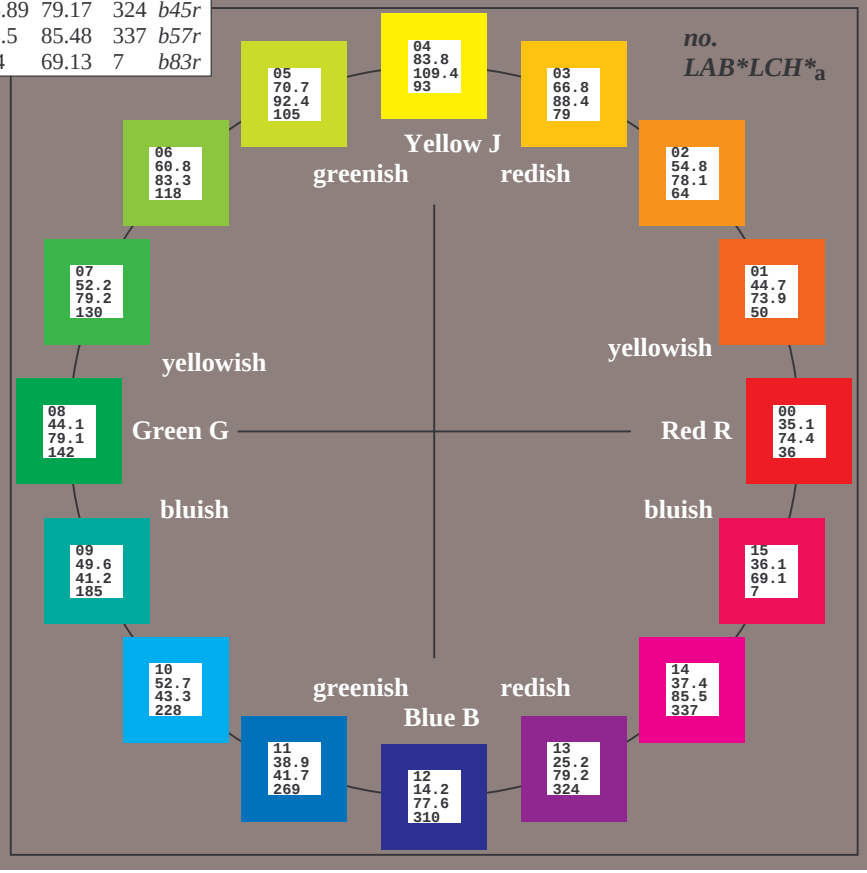


%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

Name	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** and *lab*icu**

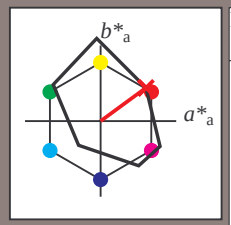
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 35 60 44**

***LAB*LCH*$_{Ma}$*: 35 74 36**

***lab*olv*$_{Ma}$*: 1.0 0.0 0.0**

***lab*rgb*$_{Ma}$*: 1.0 0.16 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

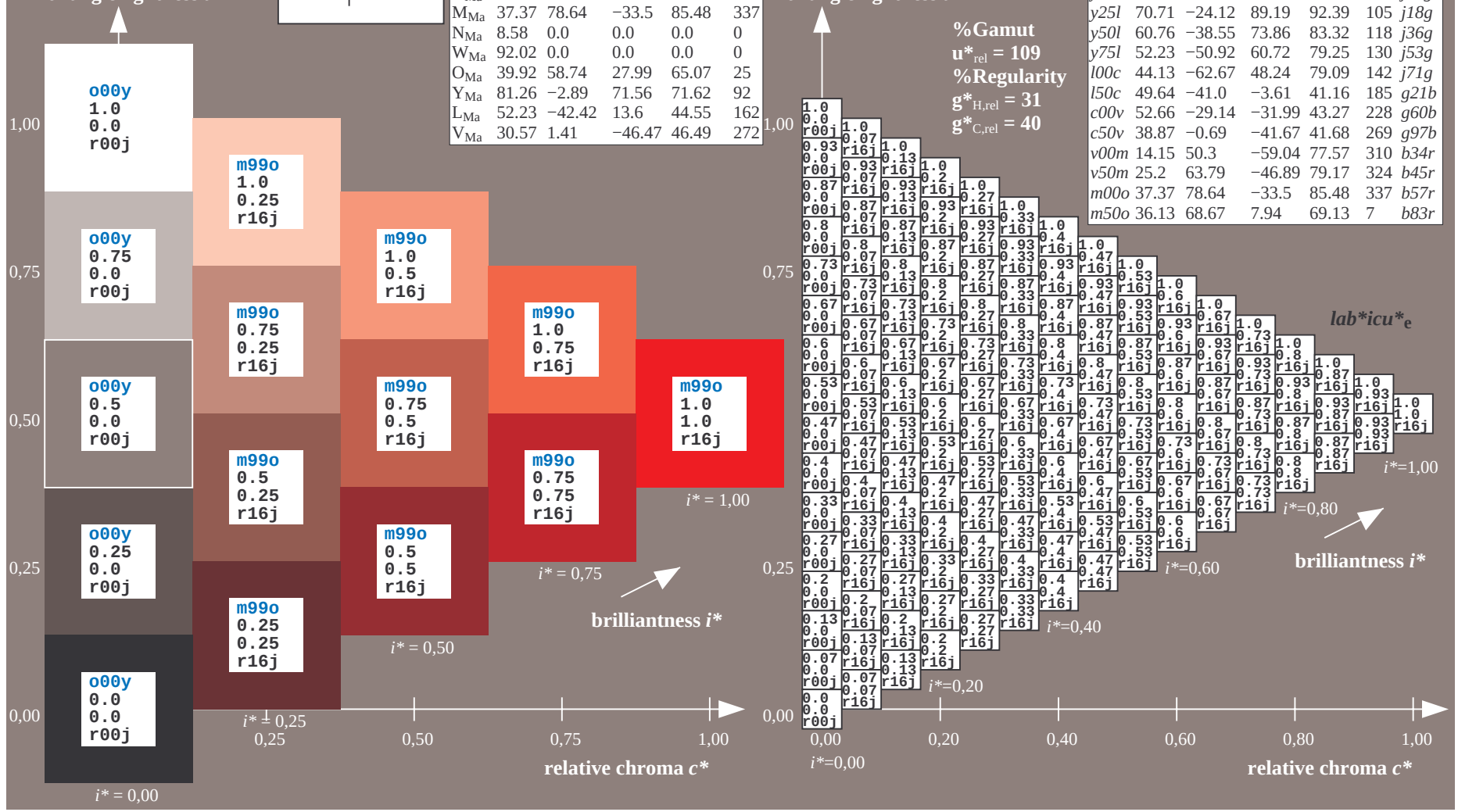
$g^*_{C,rel}$ = 40

u^*_d = *o00y*

*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** and *lab*icu**

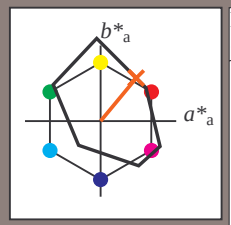
Hue texts:

u^*_d = *o25y* u^*_e = *r37j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 45 47 57

*LAB*LCH**$_{Ma}$: 45 74 50

*lab*olv**$_{Ma}$: 1.0 0.25 0.0

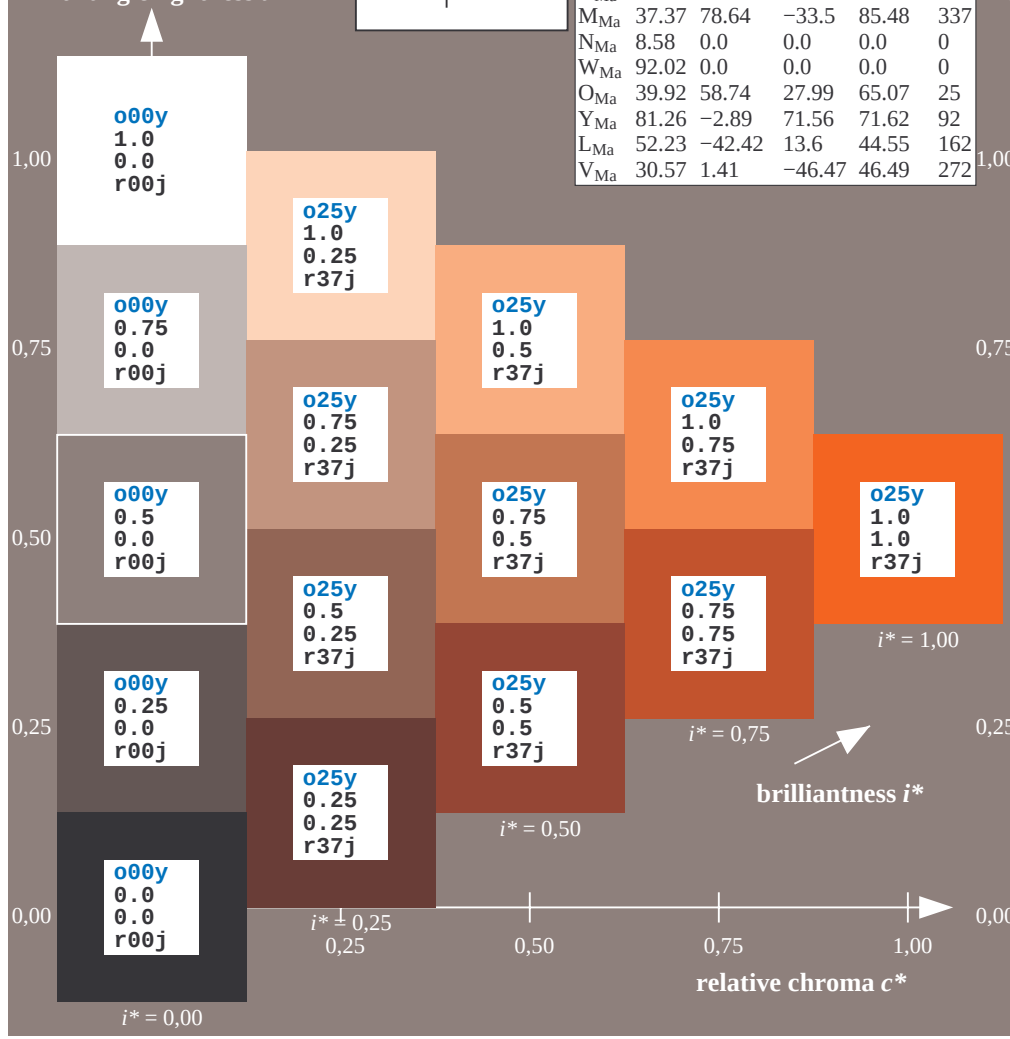
*lab*rgb**$_{Ma}$: 1.0 0.37 0.0

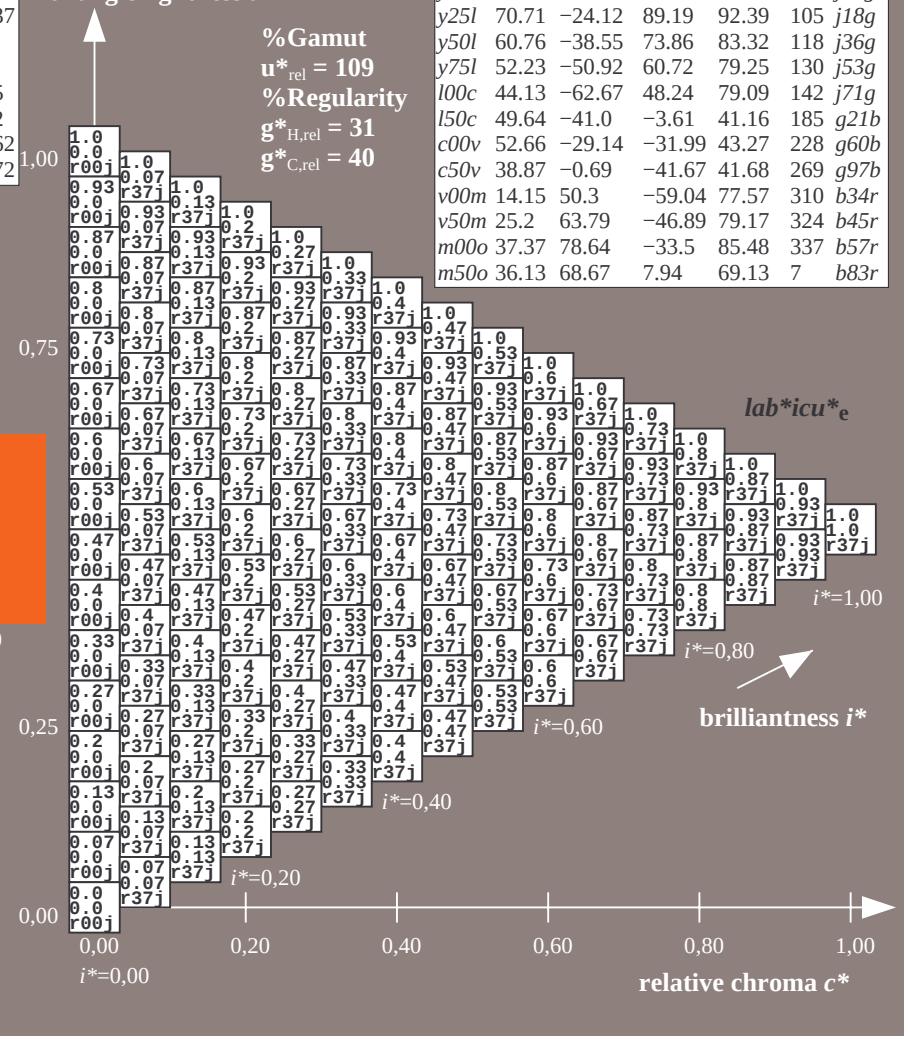
triangle lightness *t**

u^*_d = *o25y*
*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** and *lab*icu**

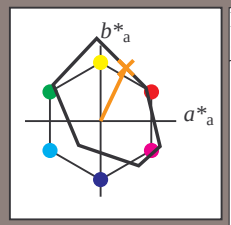
Hue texts:

u^*_d = *o50y* u^*_e = *r58j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 55 34 70**

***LAB*LCH**$_{Ma}$: 55 78 64**

***lab*olv**$_{Ma}$: 1.0 0.5 0.0**

***lab*rgb**$_{Ma}$: 1.0 0.58 0.0**

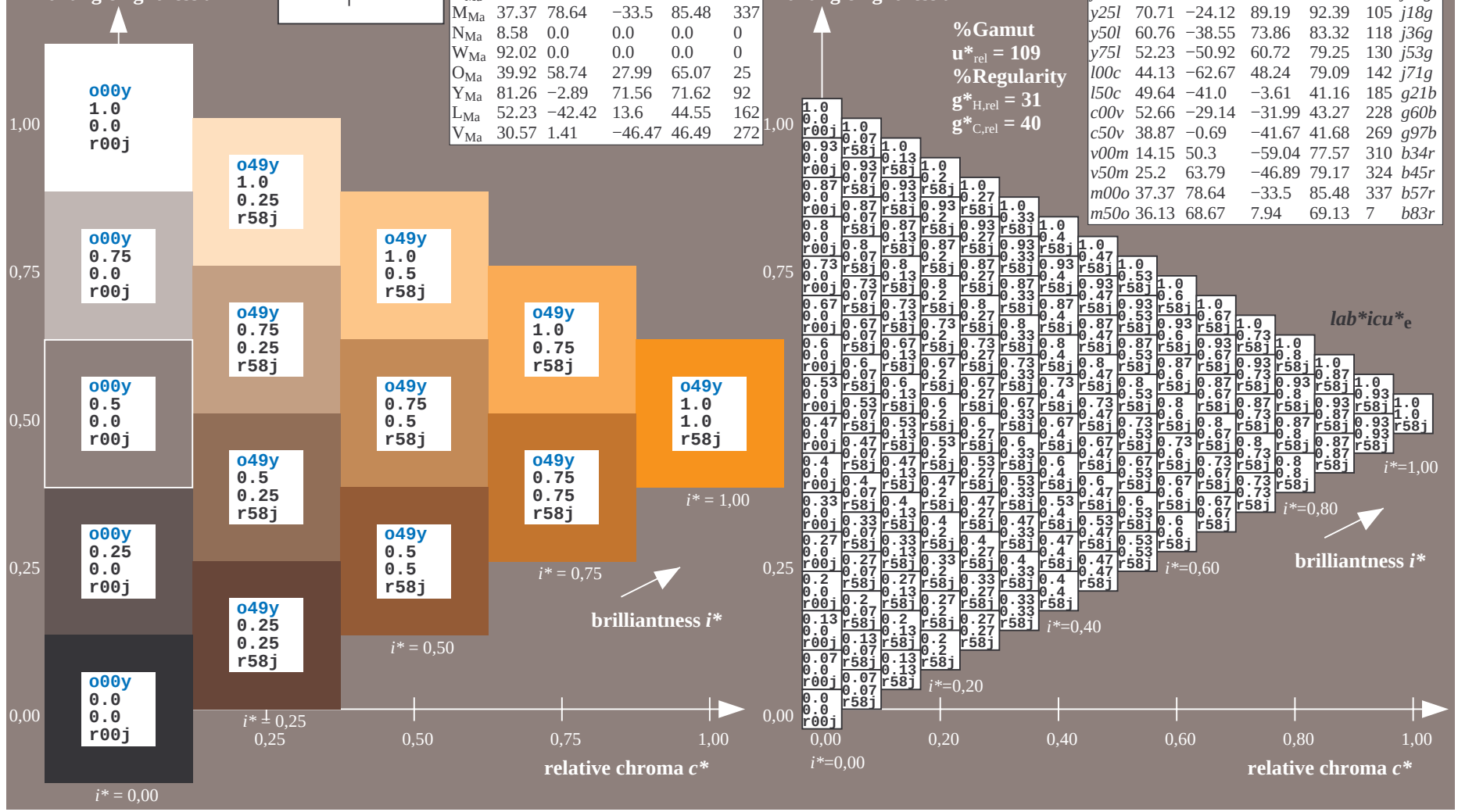
triangle lightness *t**

u^*_d = *o50y*

*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

data for any colour:

*lab*tch** and *lab*icu**

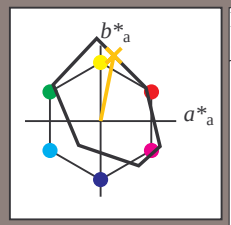
Hue texts:

u^*_d = *o75y* u^*_e = *r79j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 67 17 87

*LAB*LCH**$_{Ma}$: 67 88 78

*lab*olv**$_{Ma}$: 1.0 0.75 0.0

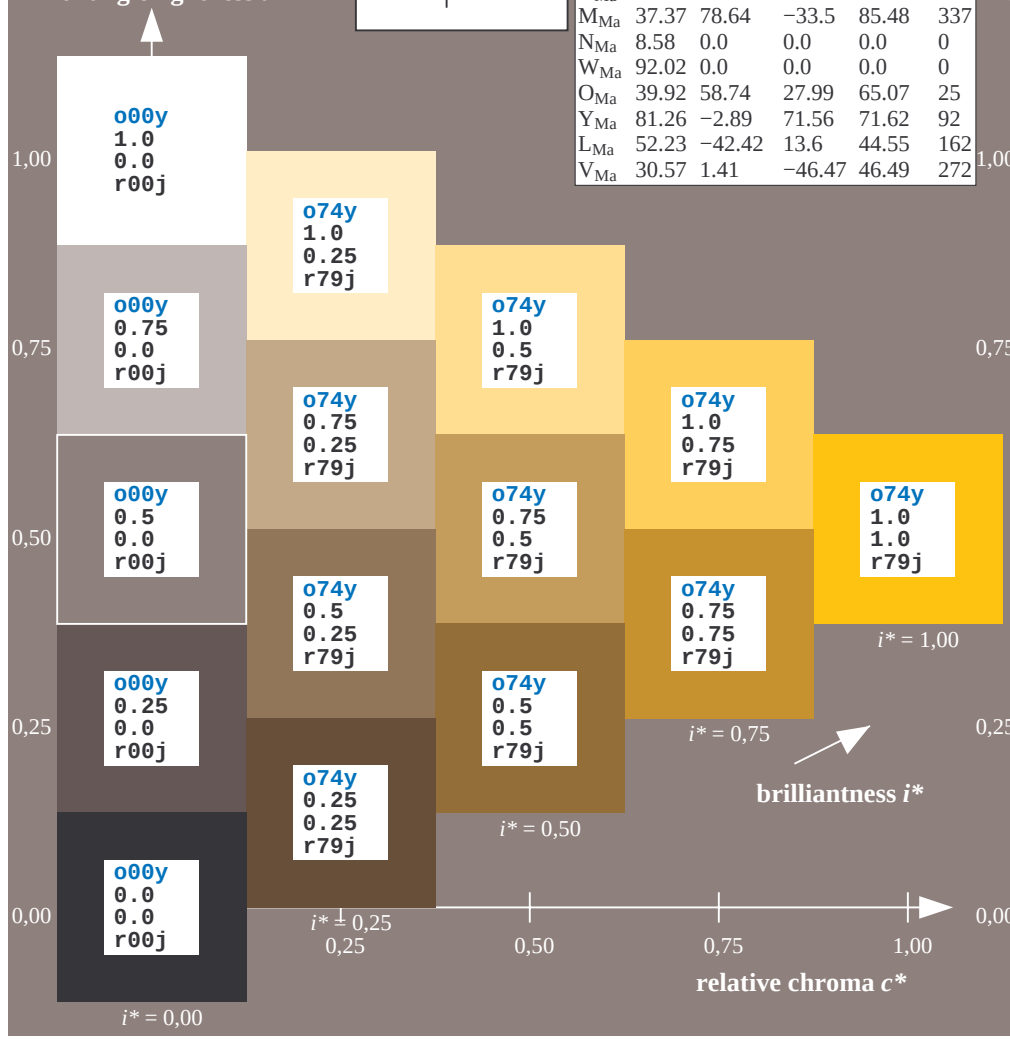
*lab*rgb**$_{Ma}$: 1.0 0.79 0.0

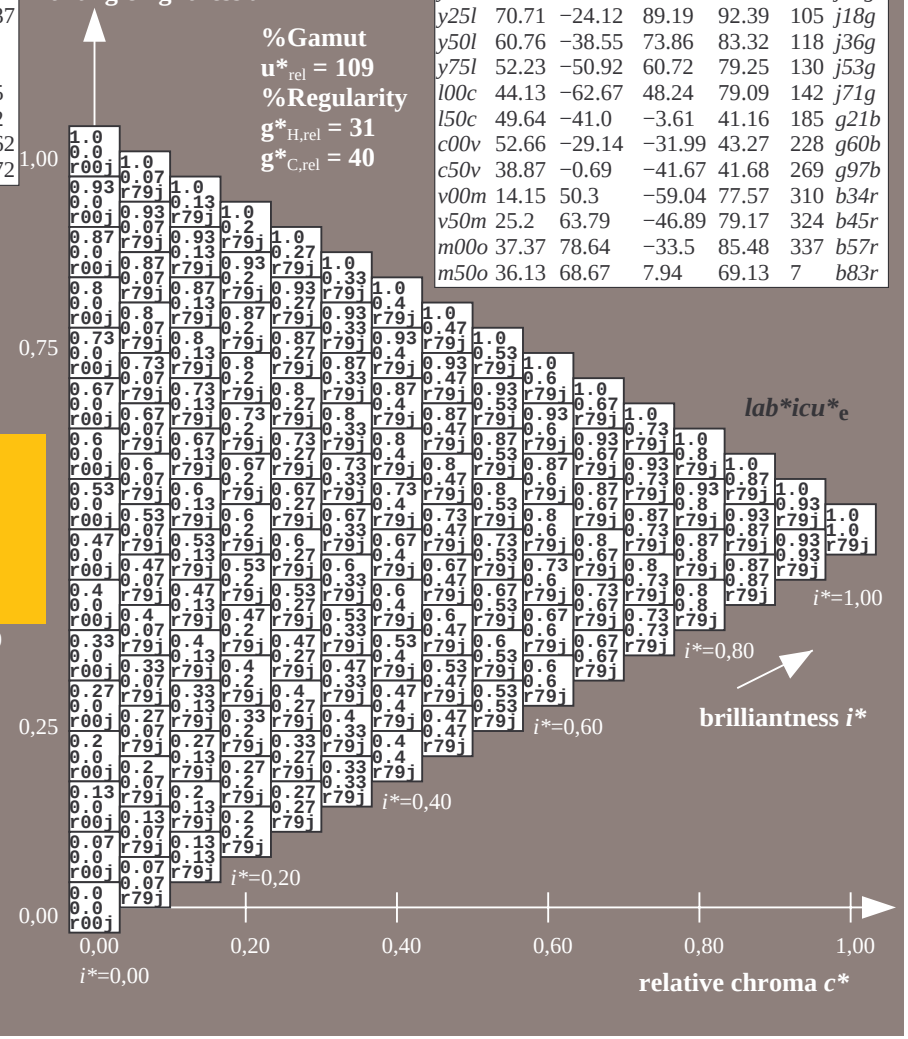
triangle lightness *t**

u^*_d = *o75y*
*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** and *lab*icu**

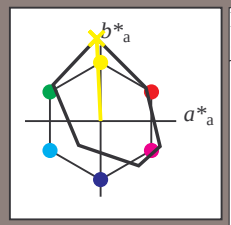
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

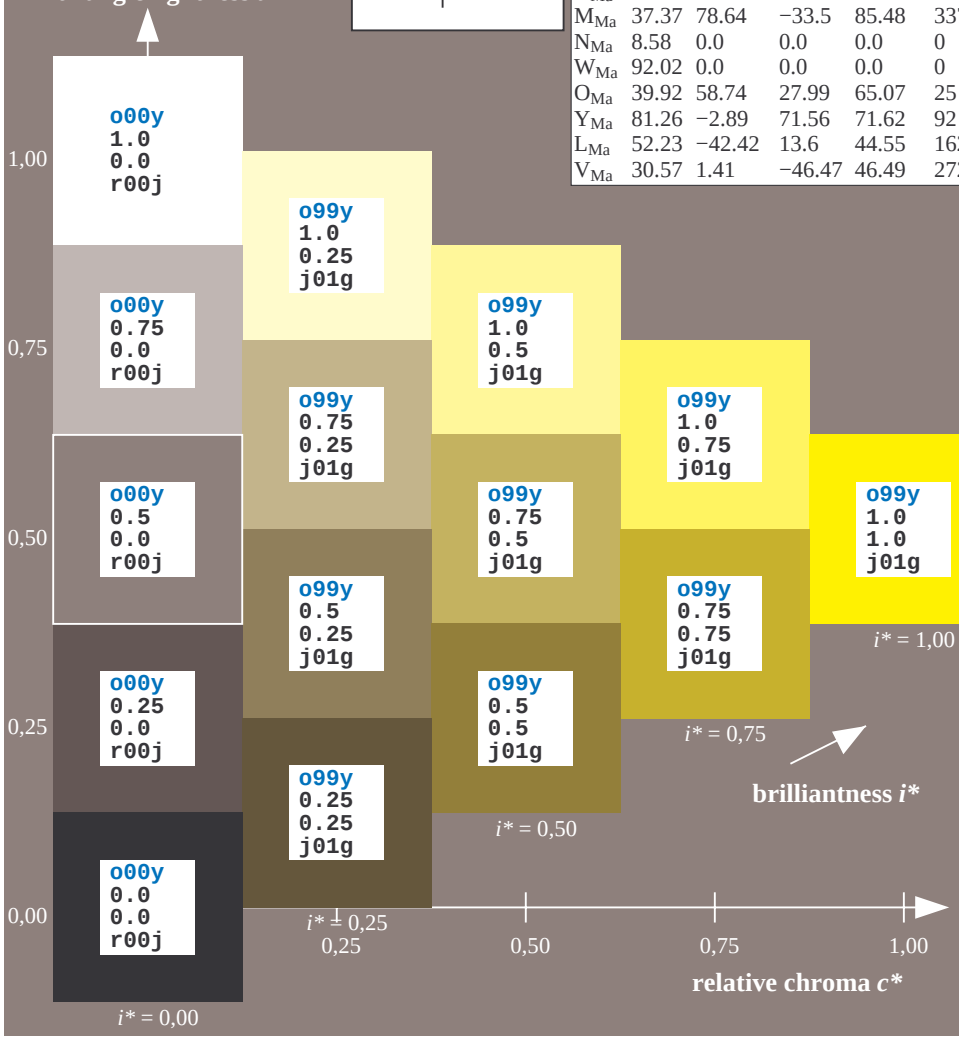
$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272



Data for maximum colour (Ma):

***LAB*LAB*Ma*: 84 −5 109**

***LAB*LCH*Ma*: 84 109 92**

***lab*olv*Ma*: 1.0 1.0 0.0**

***lab*rgb*Ma*: 0.99 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

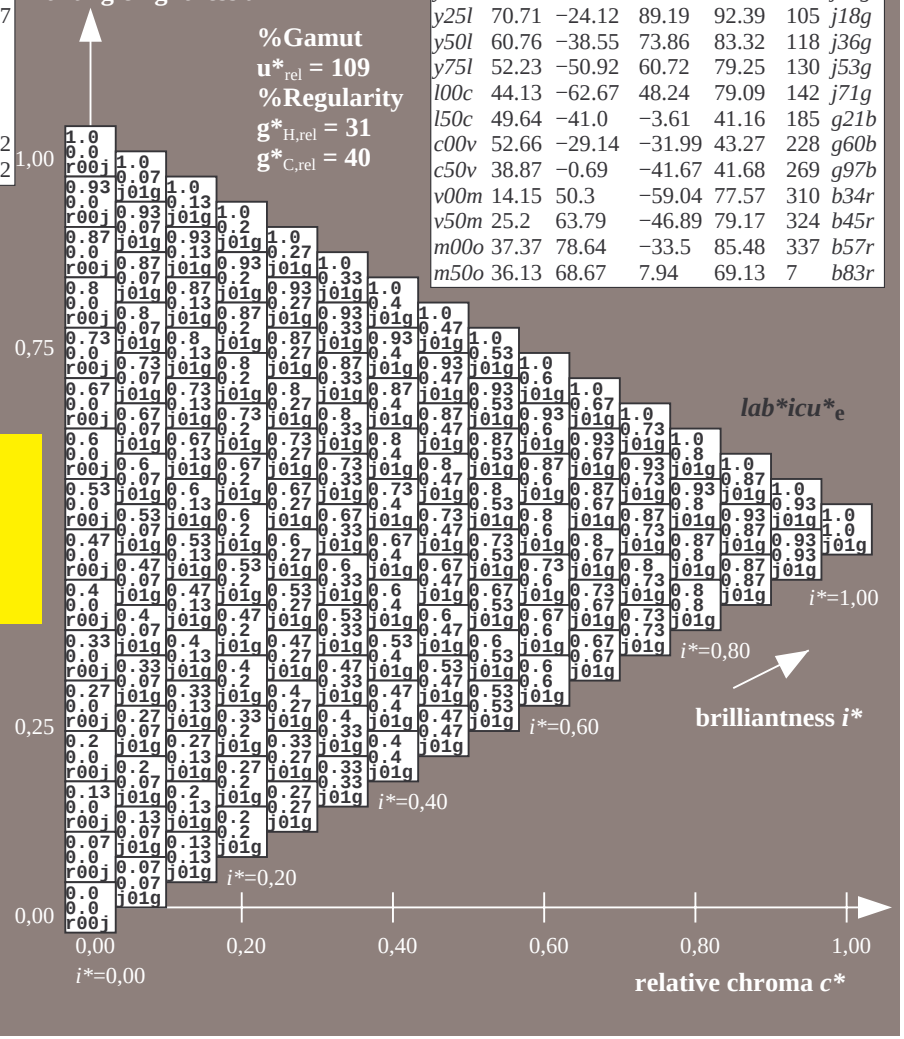
$g^*_{C,rel} = 40$

$u^*_d = y00l$

$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** and *lab*icu**

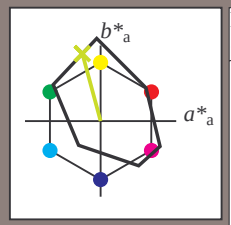
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 71 −24 89**

***LAB*LCH*$_{Ma}$*: 71 92 105**

***lab*olv*$_{Ma}$*: 0.75 1.0 0.0**

***lab*rgb*$_{Ma}$*: 0.82 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

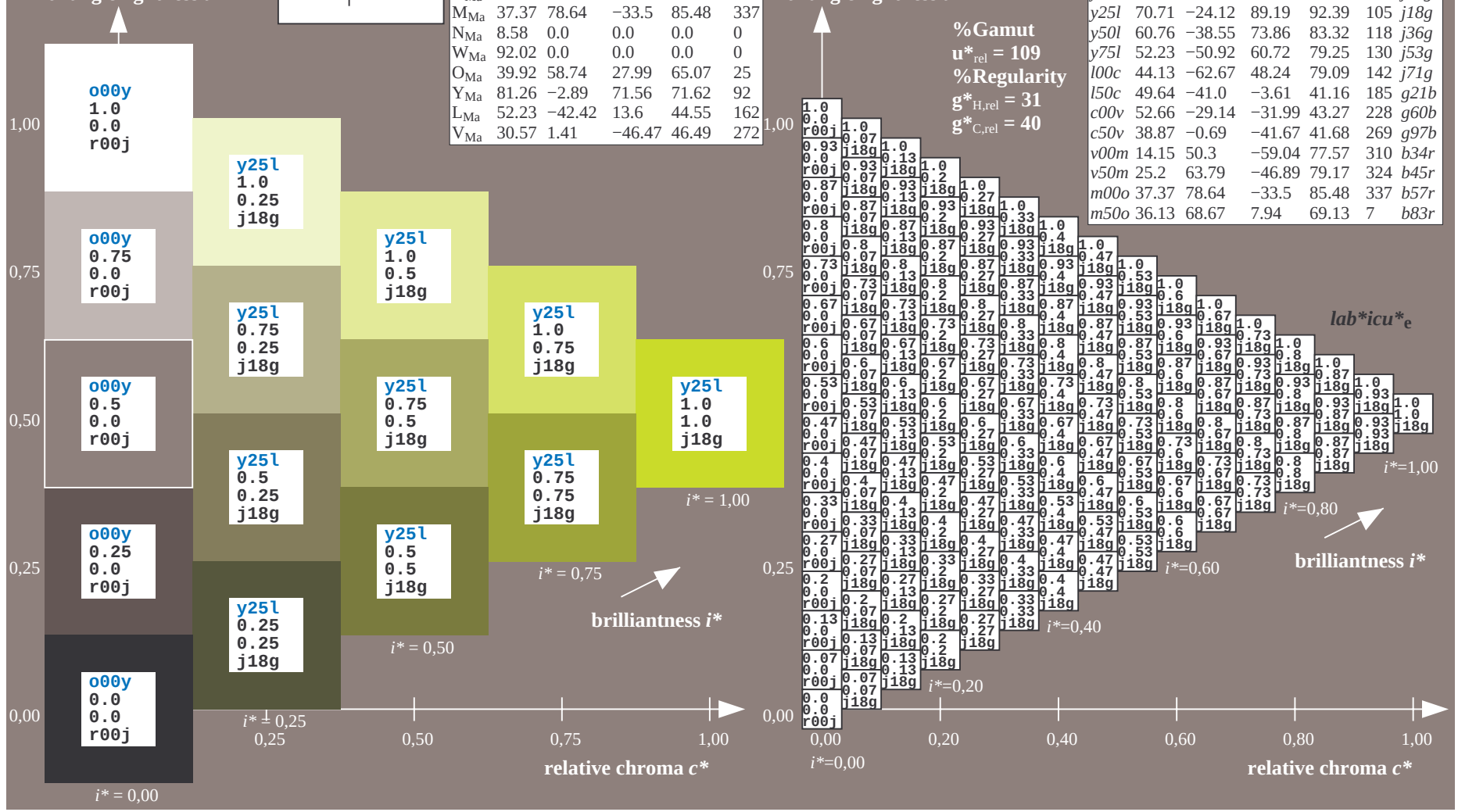
$g^*_{C,rel}$ = 40

$u^*_d = y25l$

$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** and *lab*icu**

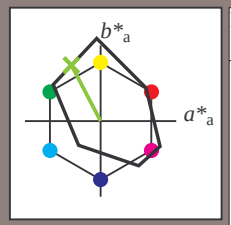
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 61 −39 74**

***LAB*LCH*$_{Ma}$*: 61 83 117**

***lab*olv*$_{Ma}$*: 0.5 1.0 0.0**

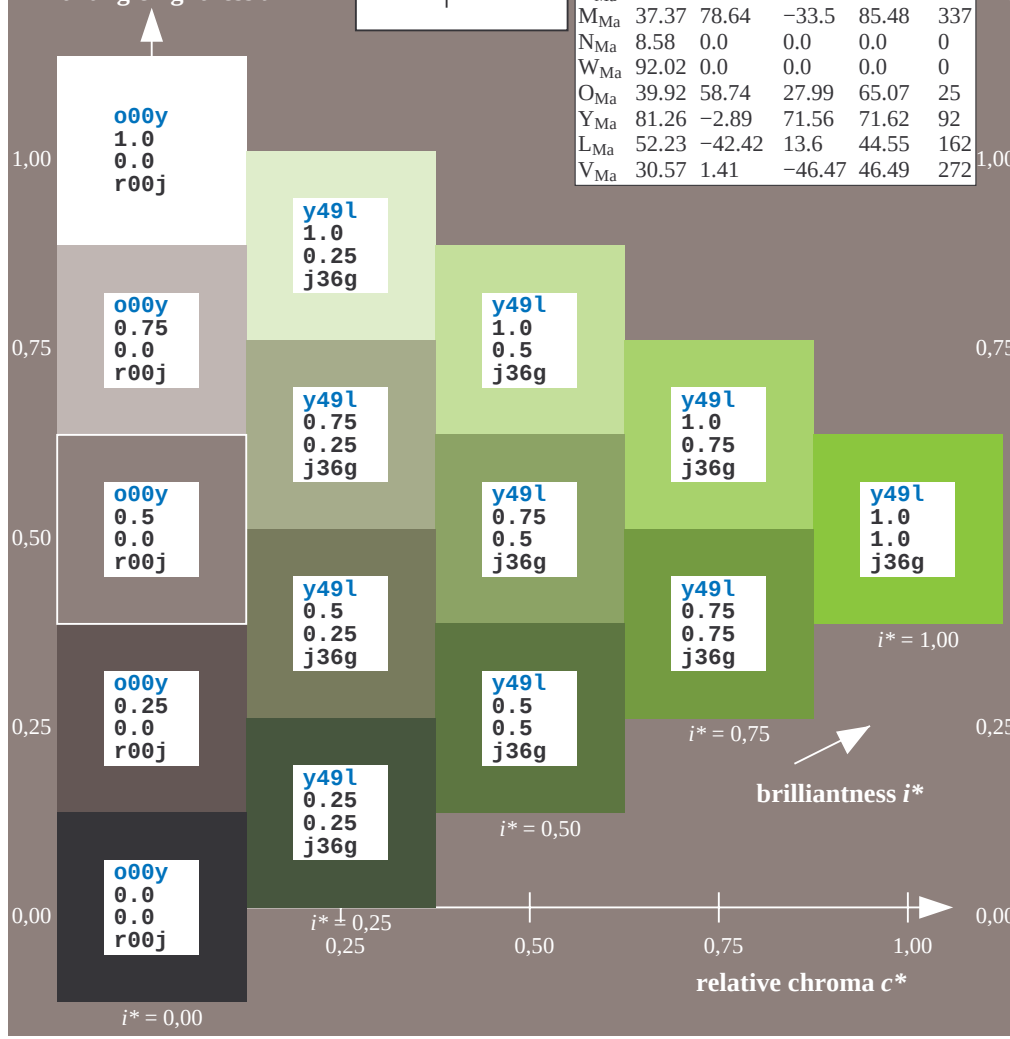
***lab*rgb*$_{Ma}$*: 0.64 1.0 0.0**

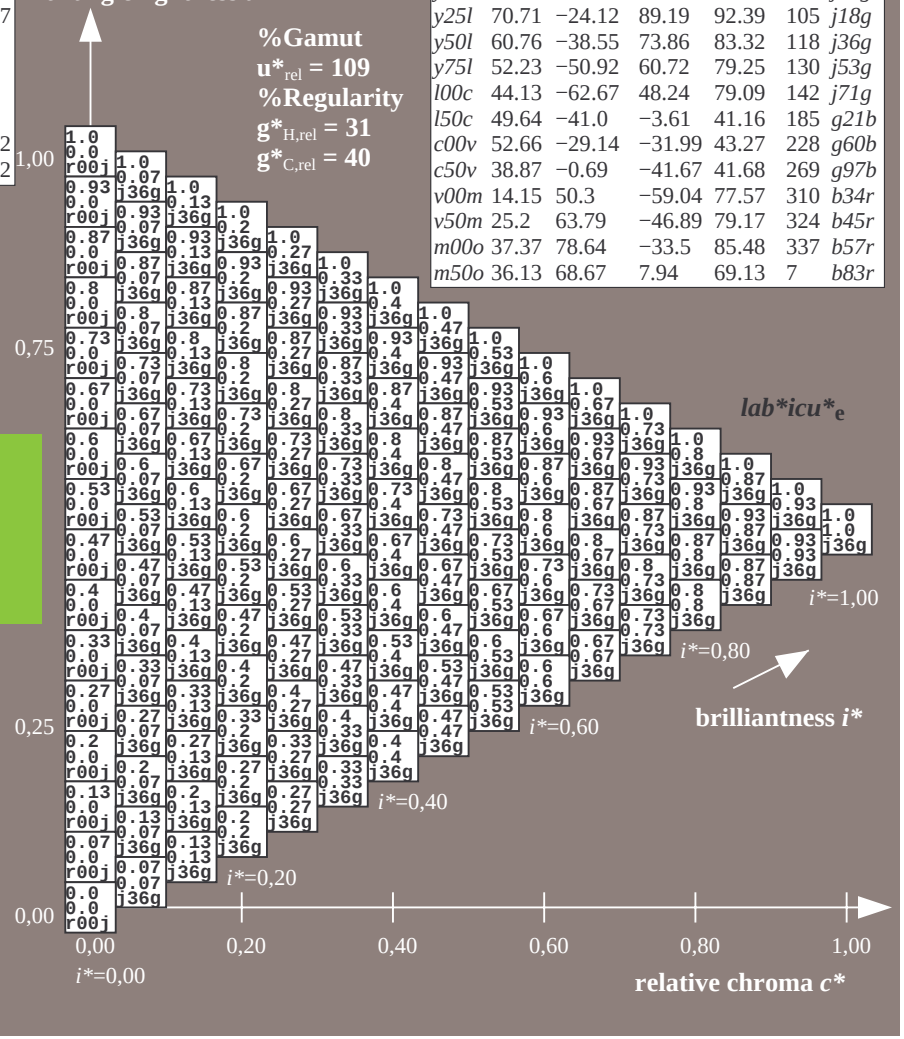
triangle lightness *t**

$u^*_d = y50l$
$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** and *lab*icu**

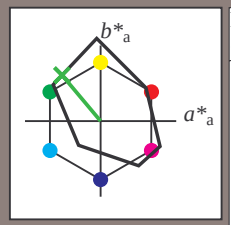
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 52 −51 61**

***LAB*LCH*$_{Ma}$*: 52 79 129**

***lab*olv*$_{Ma}$*: 0.25 1.0 0.0**

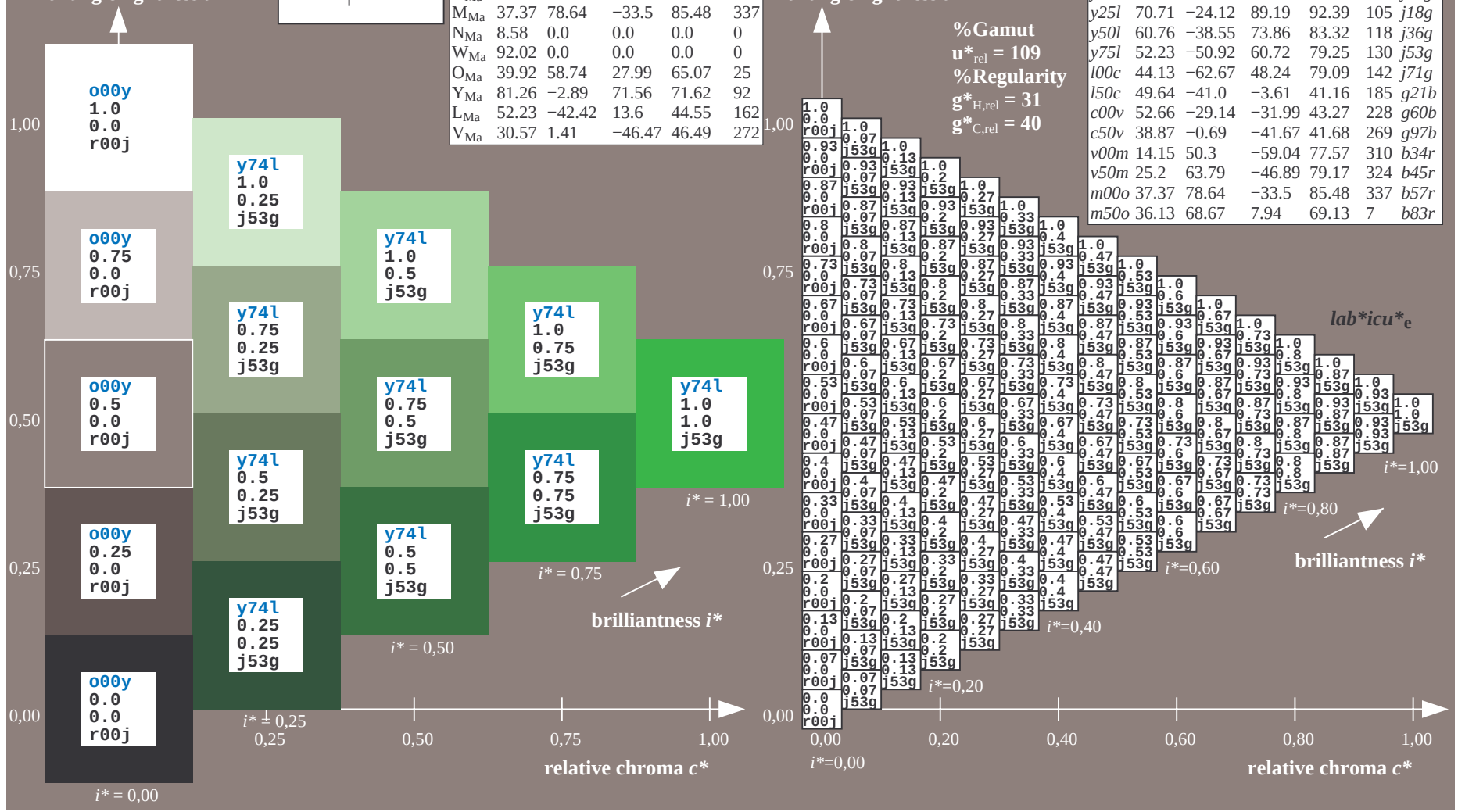
***lab*rgb*$_{Ma}$*: 0.46 1.0 0.0**

triangle lightness *t**

$u^*_d = y75l$
$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

data for any colour:

*lab*tch** and *lab*icu**

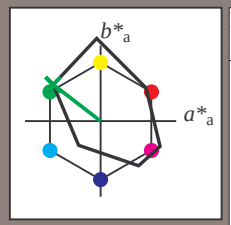
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 44 −63 48**

***LAB*LCH*Ma*: 44 79 142**

***lab*olv*Ma*: 0.0 1.0 0.0**

***lab*rgb*Ma*: 0.28 1.0 0.0**

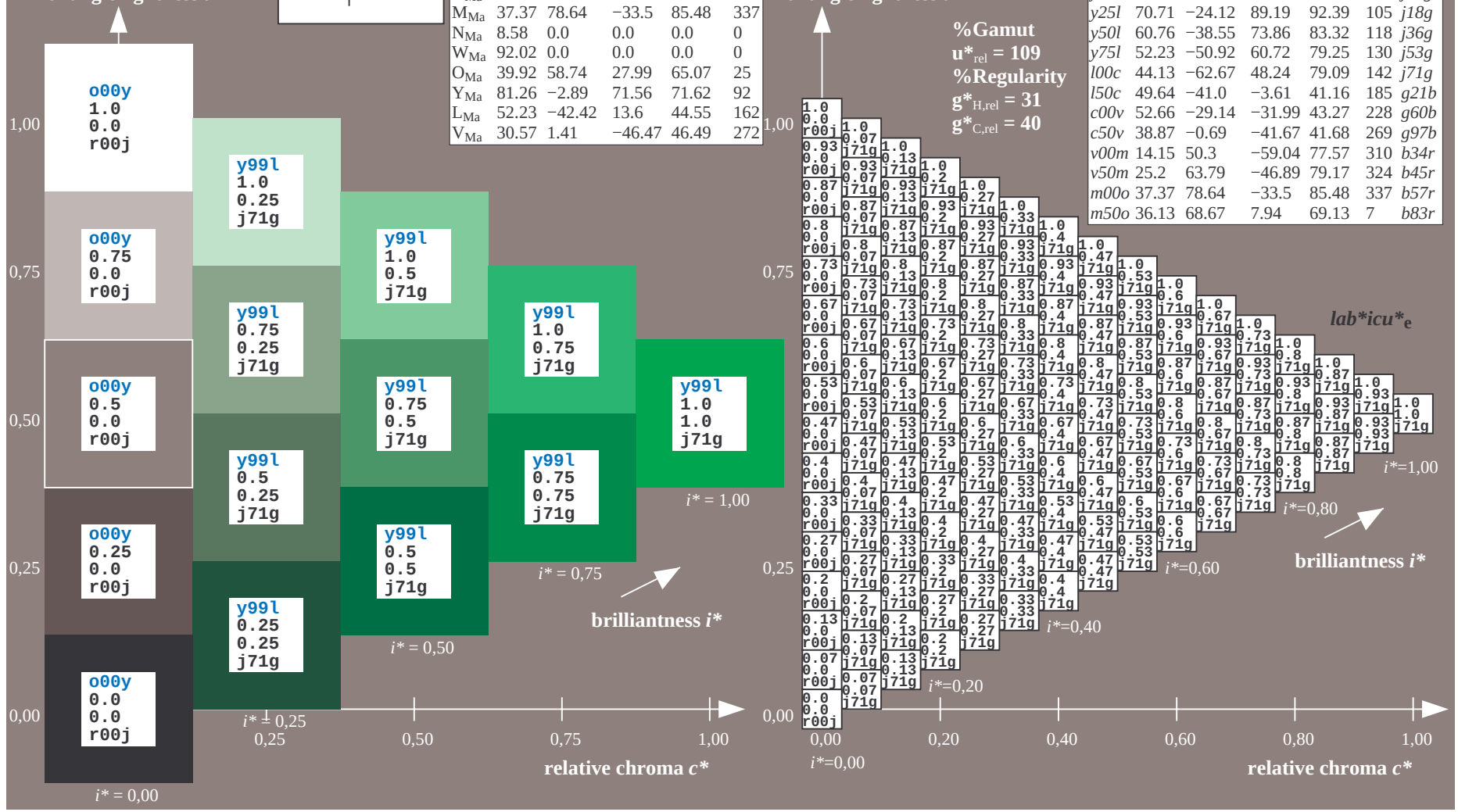
triangle lightness *t**

$u^*_d = l00c$

$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** and *lab*icu**

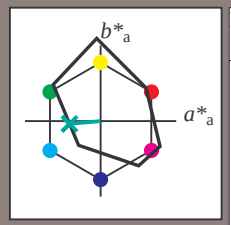
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 50 −41 −4**

***LAB*LCH*$_{Ma}$*: 50 41 185**

***lab*olv*$_{Ma}$*: 0.0 1.0 0.5**

***lab*rgb*$_{Ma}$*: 0.0 1.0 0.42**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

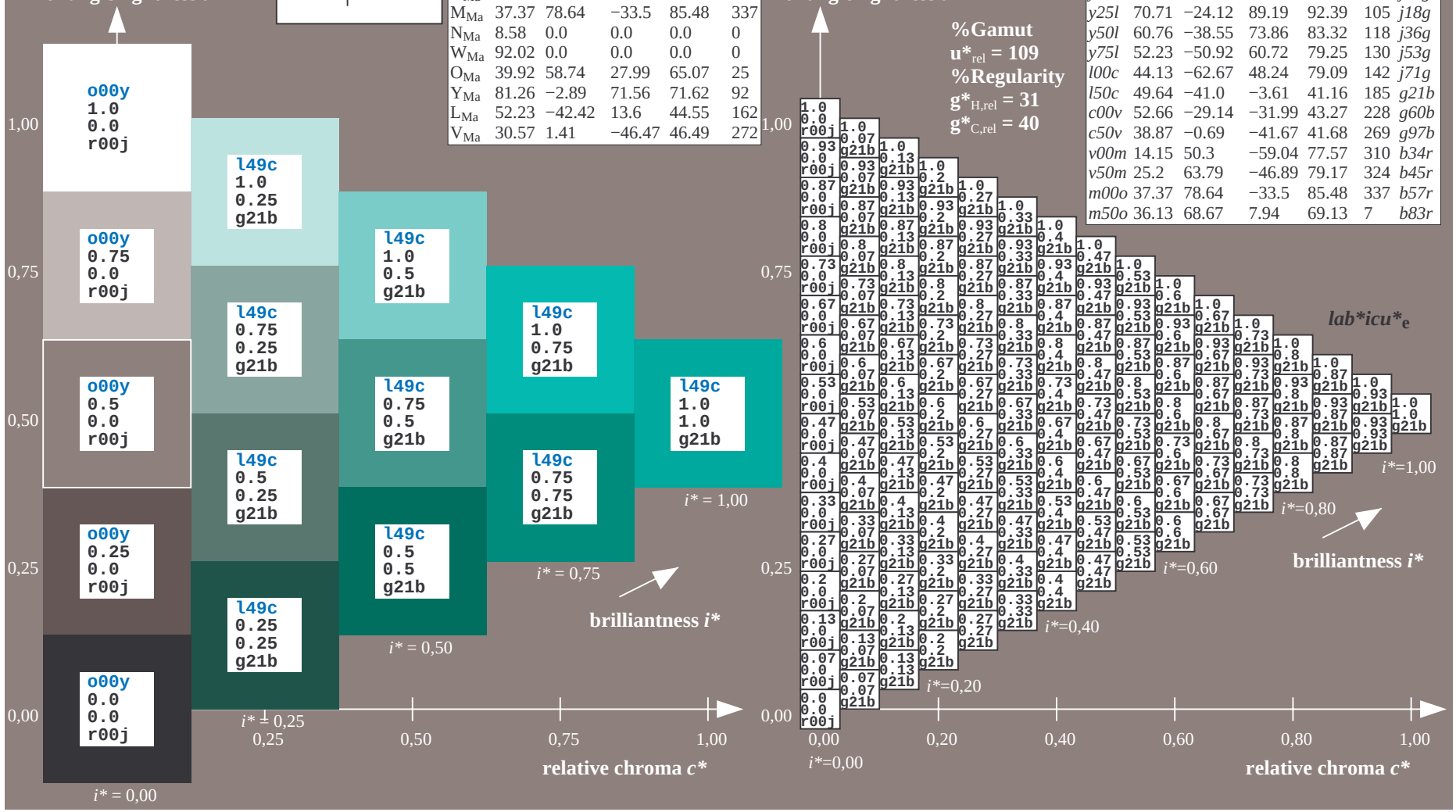
$g^*_{C,rel}$ = 40

$u^*_d = l50c$

$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** and *lab*icu**

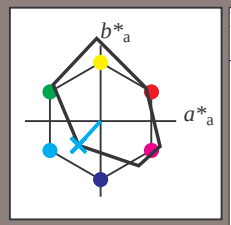
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 53 −29 −32**

***LAB*LCH**$_{Ma}$: 53 43 227**

***lab*olv**$_{Ma}$: 0.0 1.0 1.0**

***lab*rgb**$_{Ma}$: 0.0 0.8 1.0**

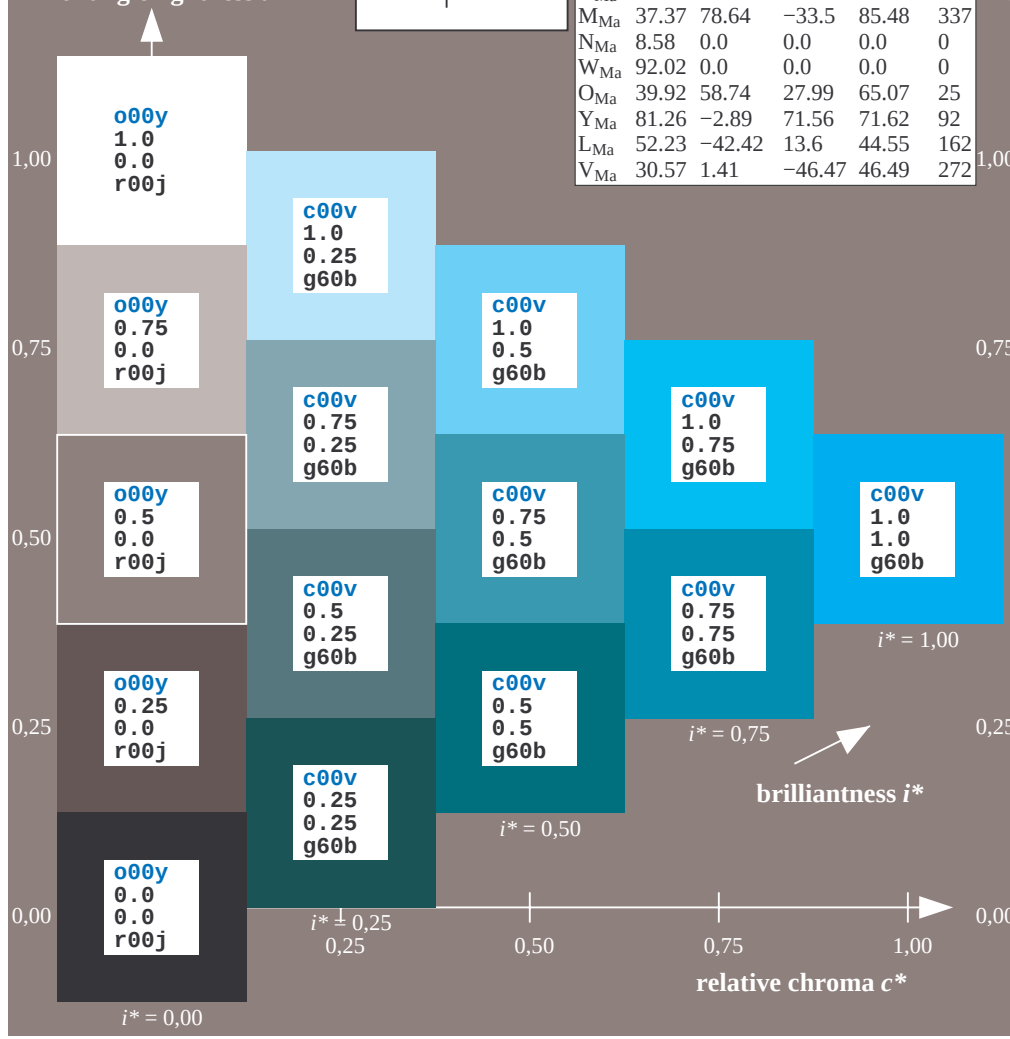
triangle lightness *t**

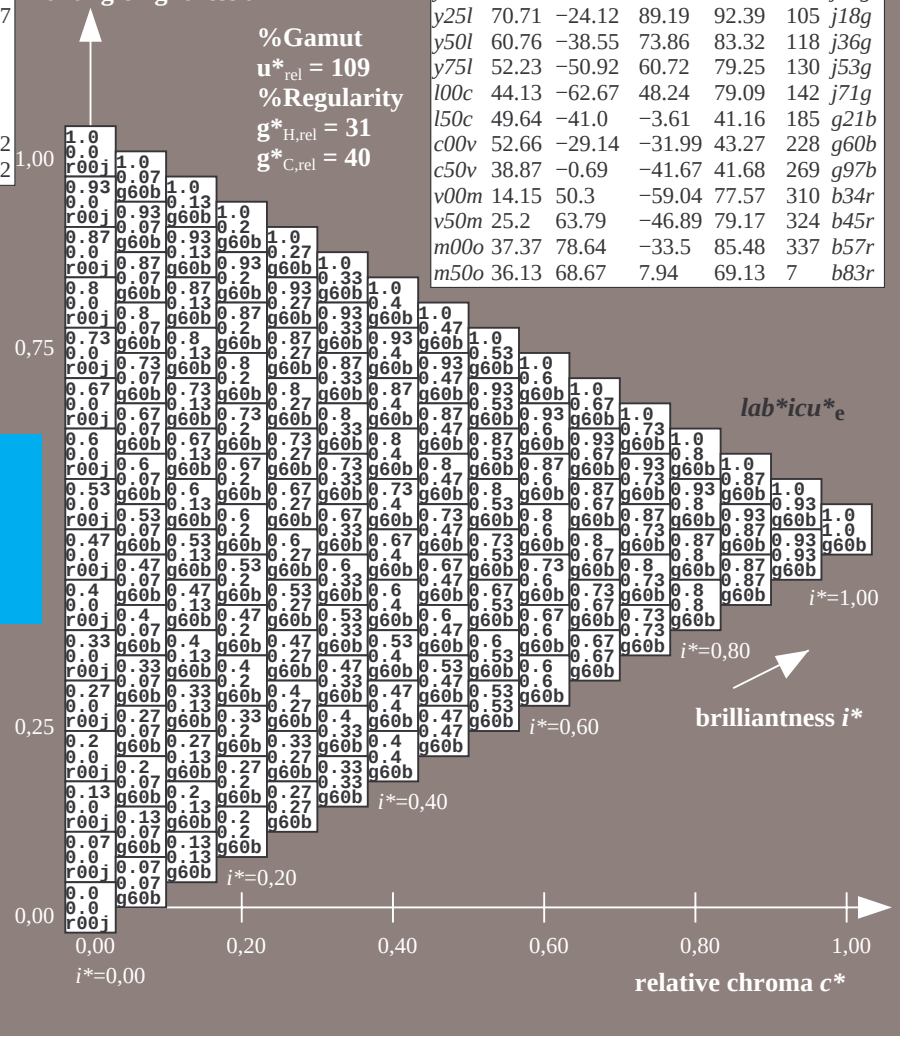
$u^*_d = c00v$

*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** and *lab*icu**

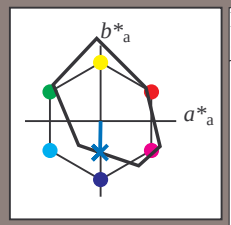
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 39 −1 −42**

***LAB*LCH*$_{Ma}$*: 39 42 269**

***lab*olv*$_{Ma}$*: 0.0 0.5 1.0**

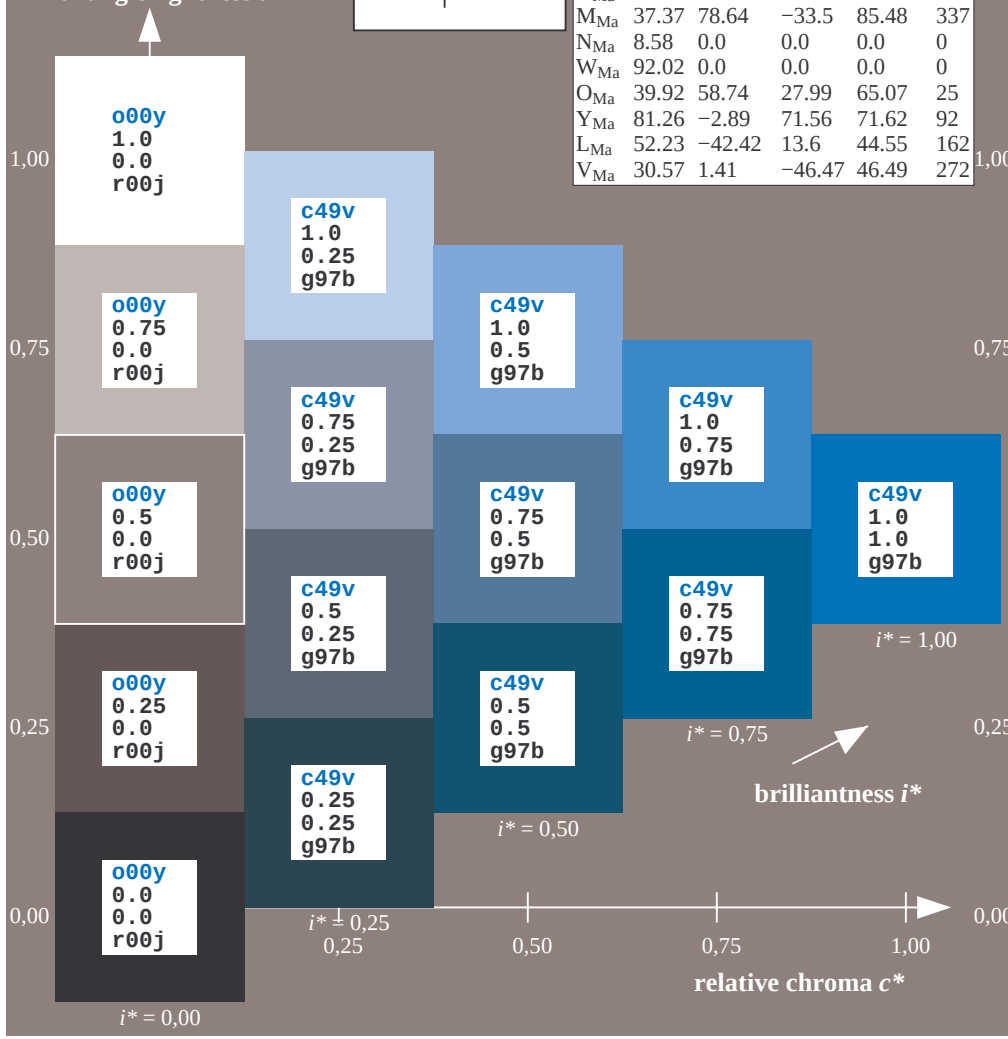
***lab*rgb*$_{Ma}$*: 0.0 0.05 1.0**

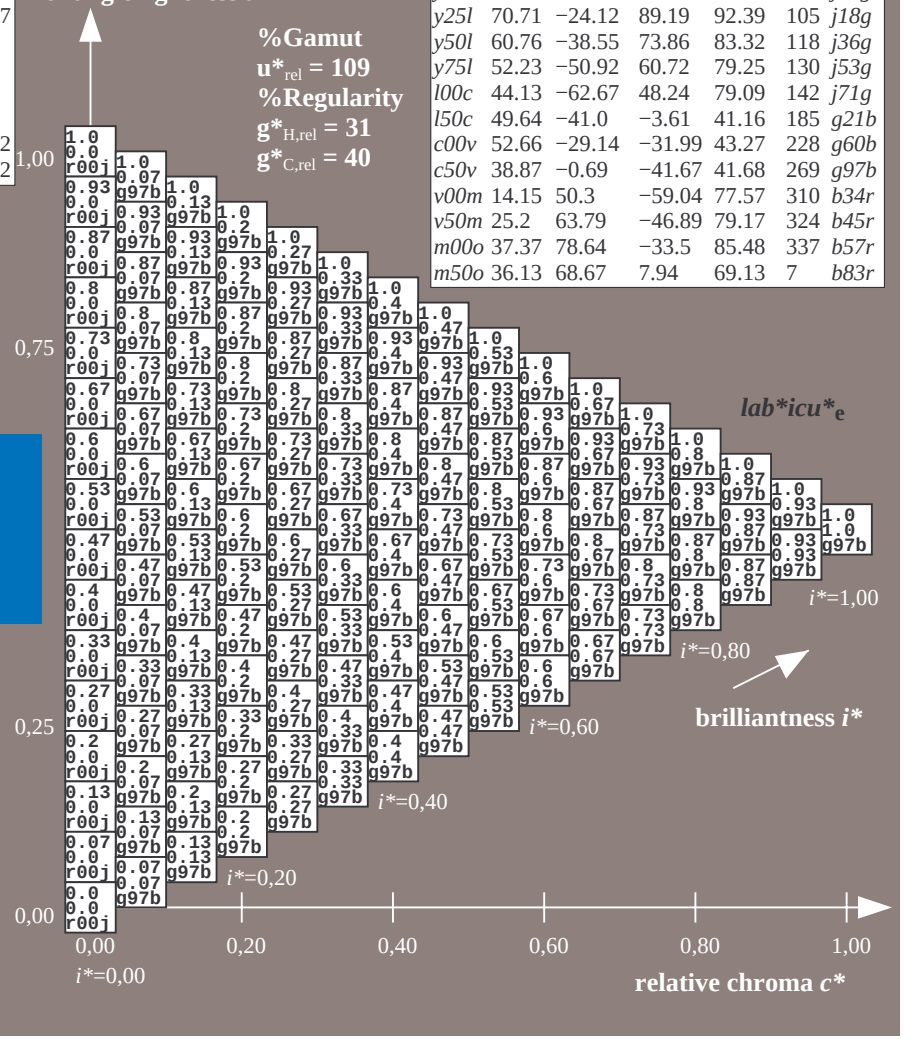
triangle lightness *t**

$u^*_d = c50v$
$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

data for any colour:

*lab*tch** and *lab*icu**

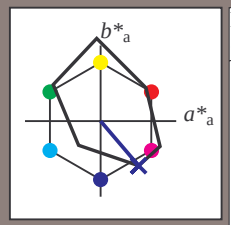
Hue texts:

u^*_d = *v00m* u^*_e = *b34r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 14 50 −59**

***LAB*LCH*$_{Ma}$*: 14 78 310**

***lab*olv*$_{Ma}$*: 0.0 0.0 1.0**

***lab*rgb*$_{Ma}$*: 0.68 0.0 1.0**

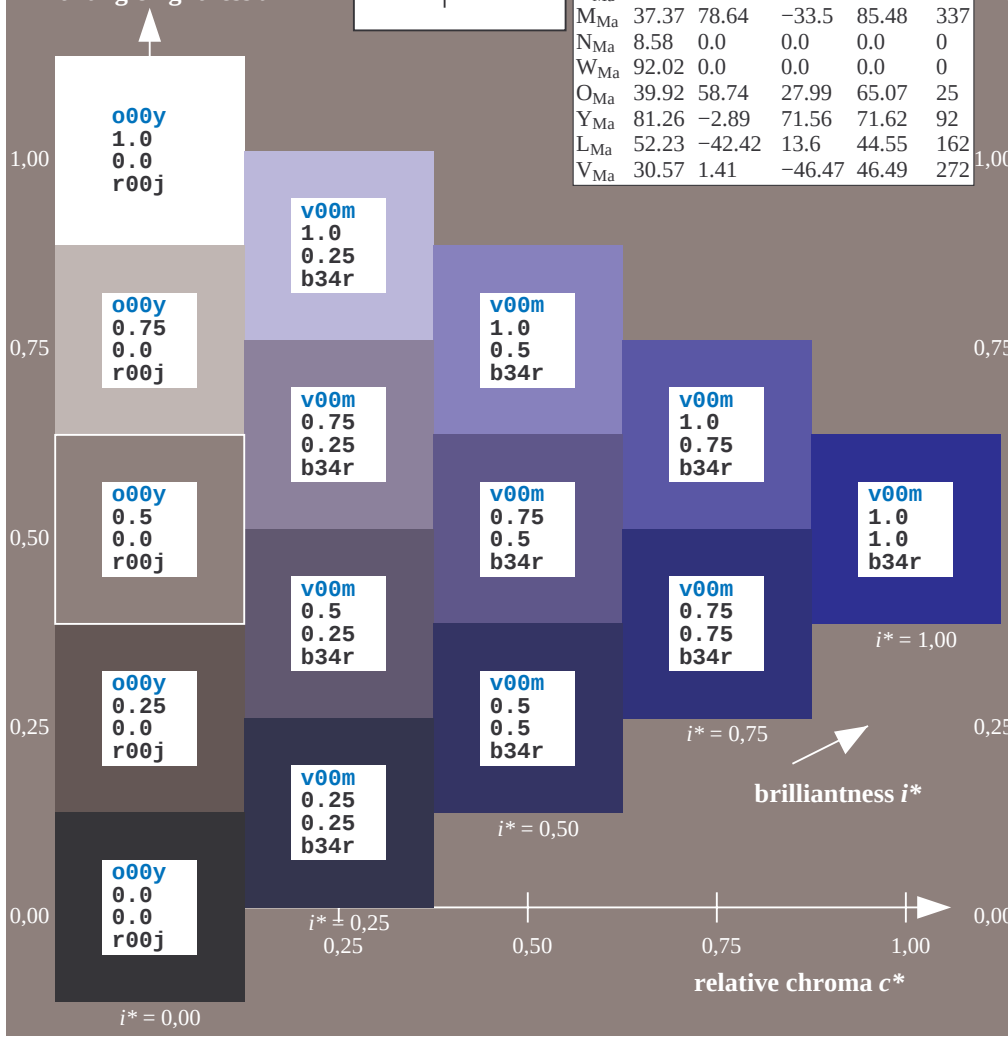
triangle lightness *t**

u^*_d = *v00m*

*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



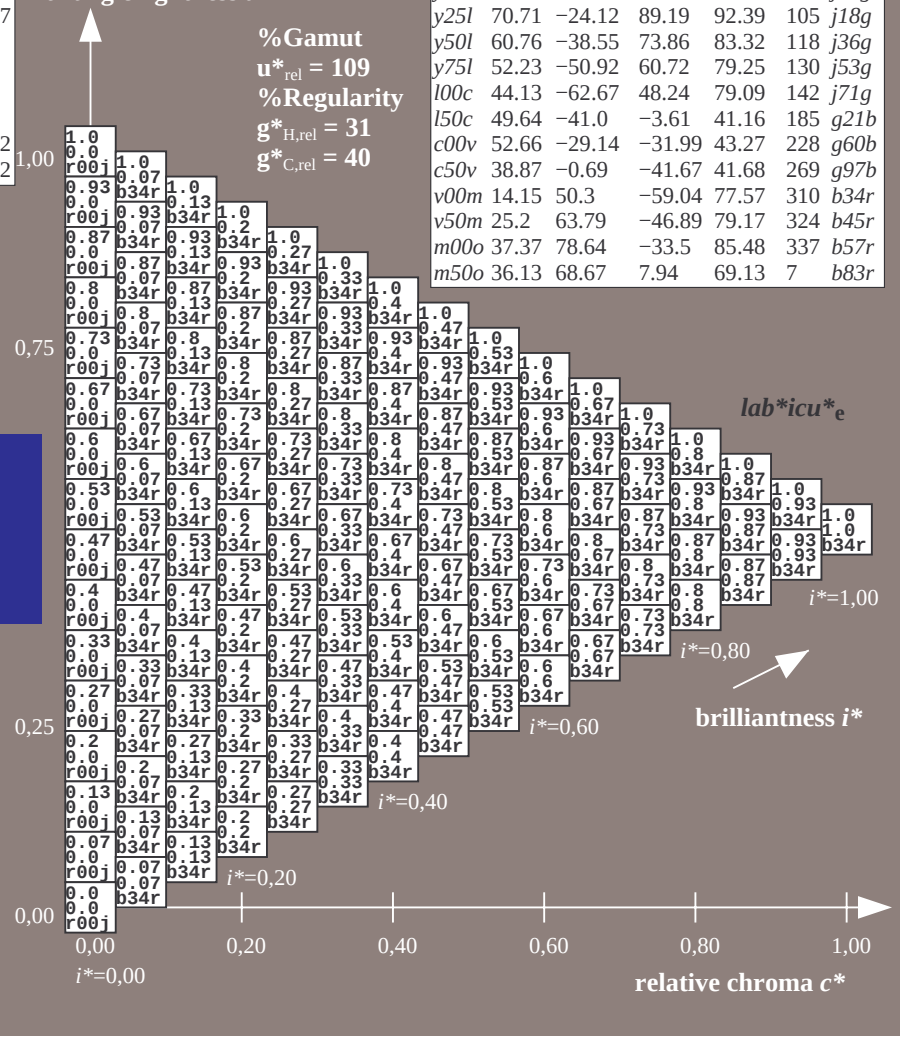
%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

data for any colour:

*lab*tch** and *lab*icu**

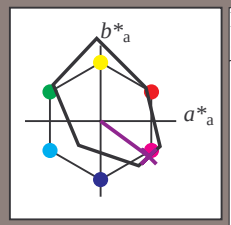
Hue texts:

$u^*_d = v50m$ $u^*_e = b45r$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 25 64 −47**

***LAB*LCH*$_{Ma}$*: 25 79 323**

***lab*olv*$_{Ma}$*: 0.5 0.0 1.0**

***lab*rgb*$_{Ma}$*: 0.91 0.0 1.0**

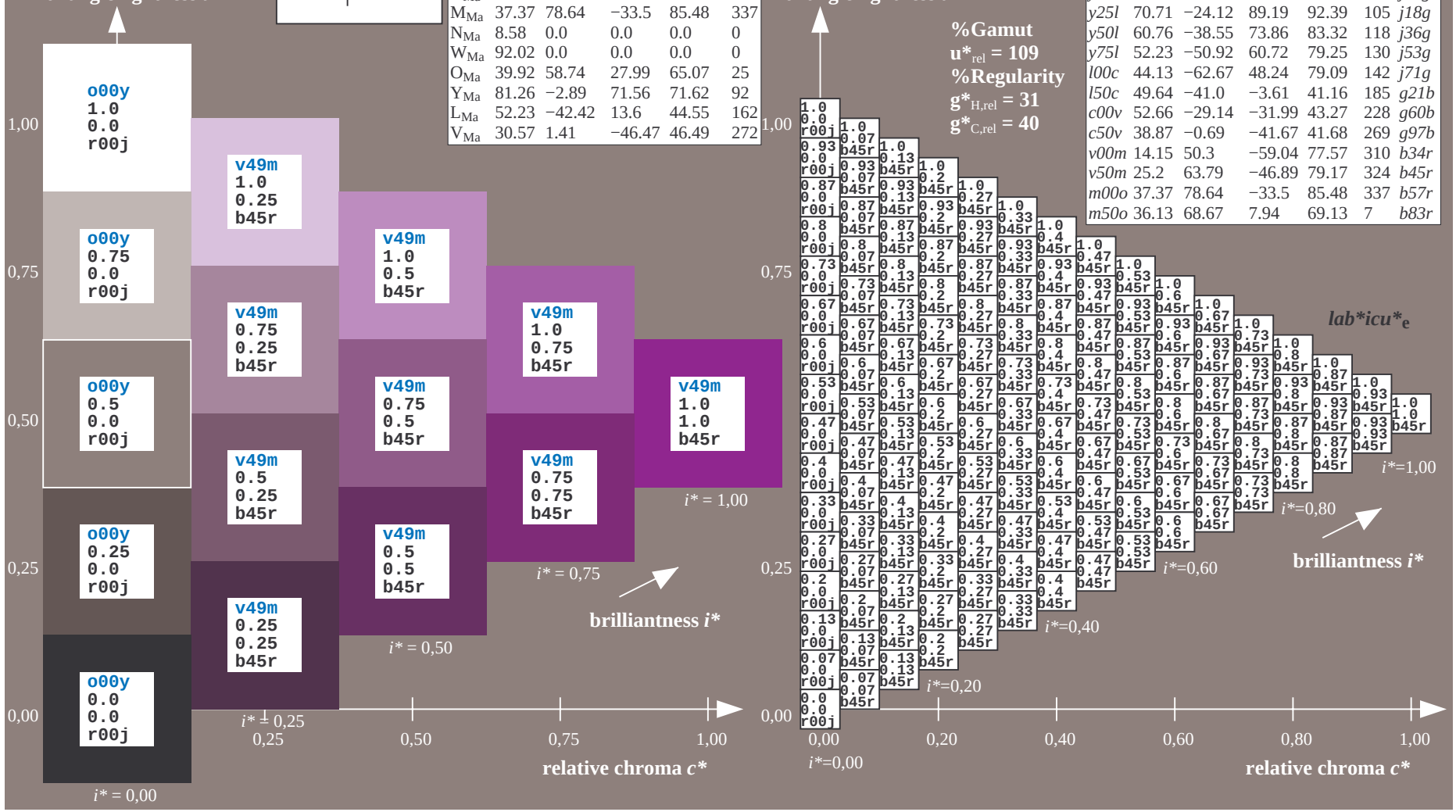
triangle lightness *t**

$u^*_d = v50m$
$lab^*icu^*_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

data for any colour:

*lab*tch** and *lab*icu**

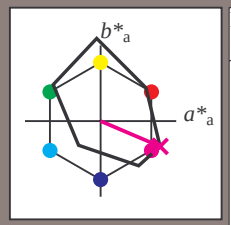
Hue texts:

u^*_d = *m00o* u^*_e = *b57r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*$_{Ma}$*: 37 79 −34**

***LAB*LCH*$_{Ma}$*: 37 85 336**

***lab*olv*$_{Ma}$*: 1.0 0.0 1.0**

***lab*rgb*$_{Ma}$*: 1.0 0.0 0.85**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

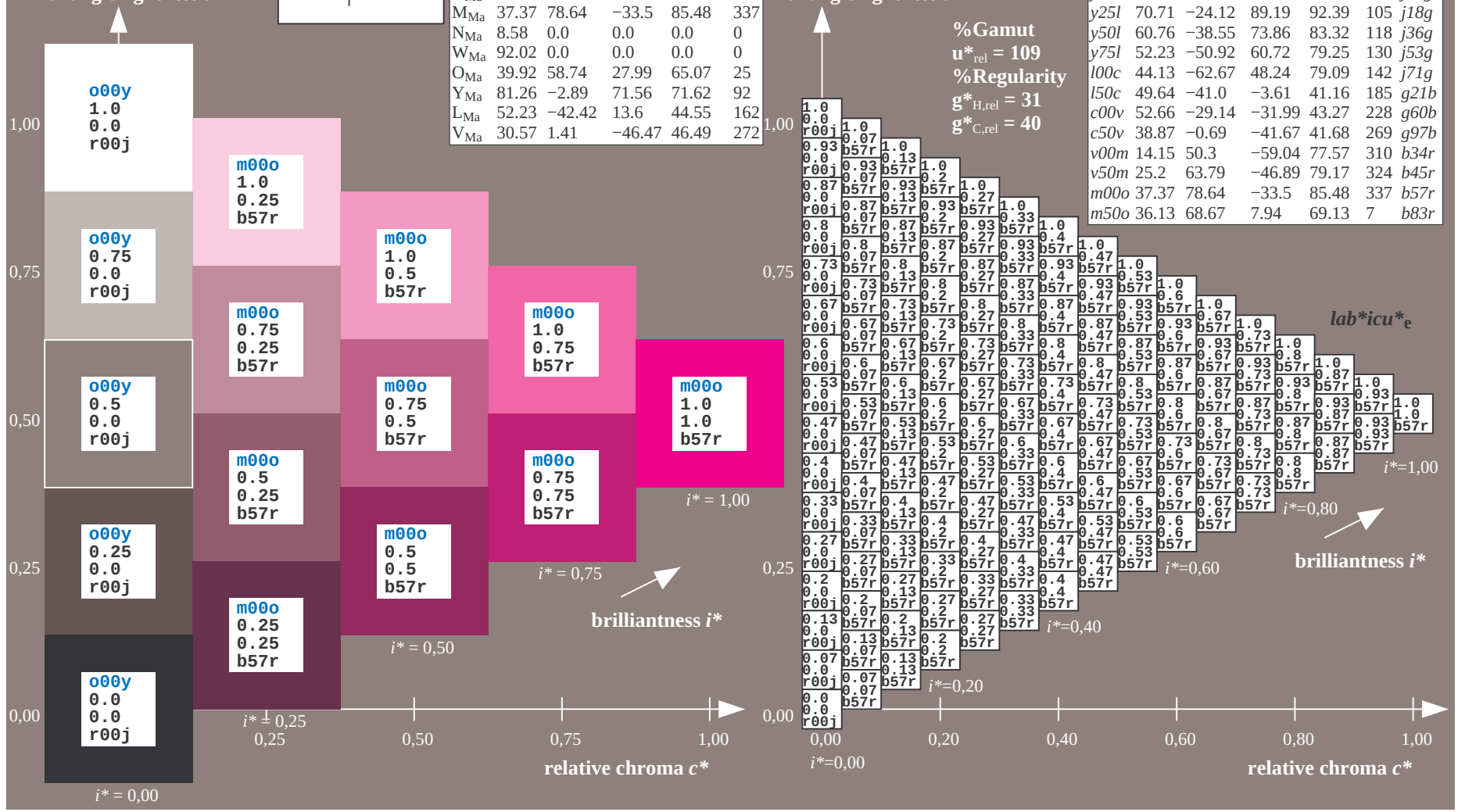
$g^*_{C,rel}$ = 40

u^*_d = *m00o*

*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

data for any colour:

*lab*tch** and *lab*icu**

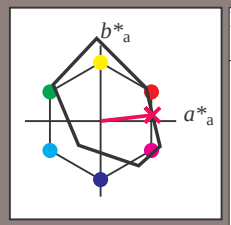
Hue texts:

u^*_d = *m50o* u^*_e = *b83r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_{Ma}	35.06	60.0	44.0	74.4	36
Y_{Ma}	83.77	−5.17	109.32	109.44	93
L_{Ma}	44.13	−62.67	48.24	79.09	142
C_{Ma}	52.66	−29.14	−31.99	43.27	228
V_{Ma}	14.15	50.3	−59.04	77.57	310
M_{Ma}	37.37	78.64	−33.5	85.48	337
N_{Ma}	8.58	0.0	0.0	0.0	0
W_{Ma}	92.02	0.0	0.0	0.0	0
O_{Ma}	39.92	58.74	27.99	65.07	25
Y_{Ma}	81.26	−2.89	71.56	71.62	92
L_{Ma}	52.23	−42.42	13.6	44.55	162
V_{Ma}	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 36 69 8

*LAB*LCH**$_{Ma}$: 36 69 6

*lab*olv**$_{Ma}$: 1.0 0.0 0.5

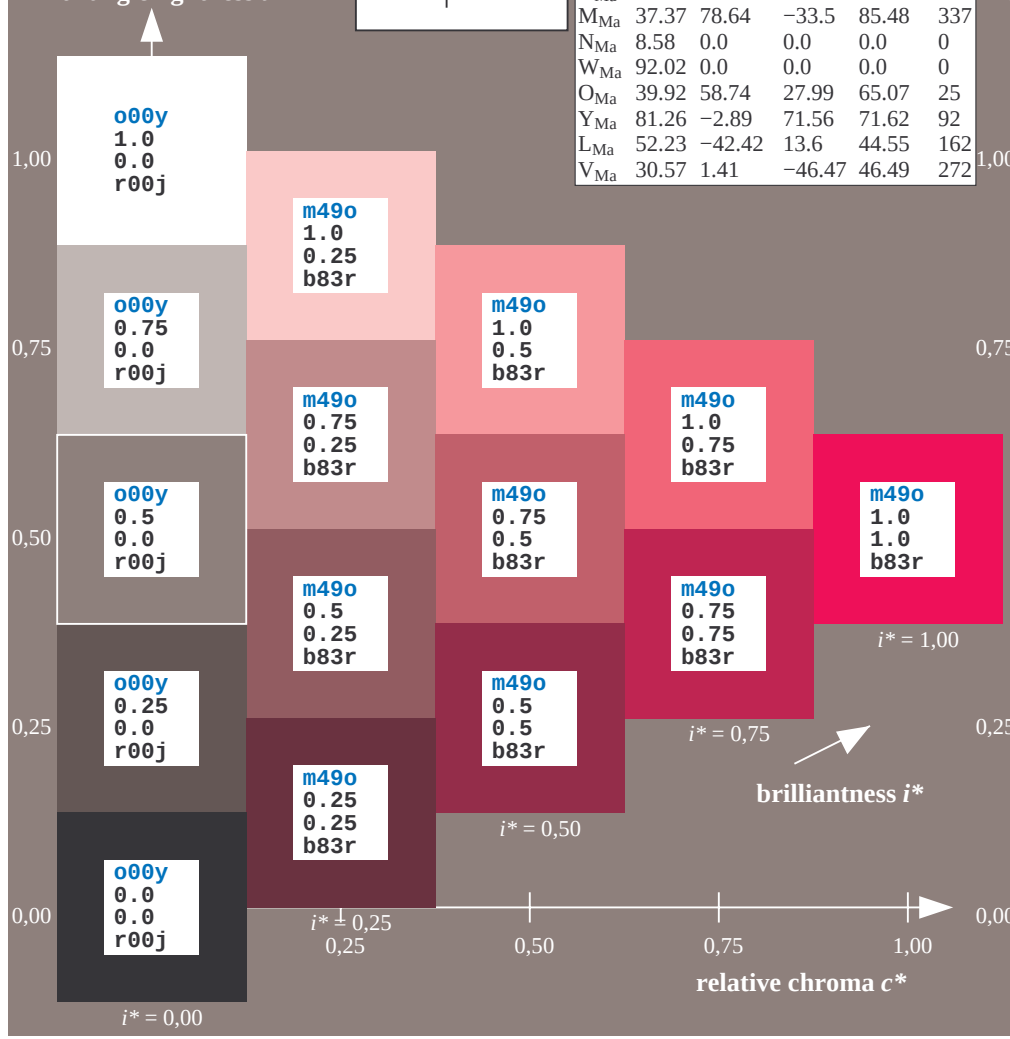
*lab*rgb**$_{Ma}$: 1.0 0.0 0.33

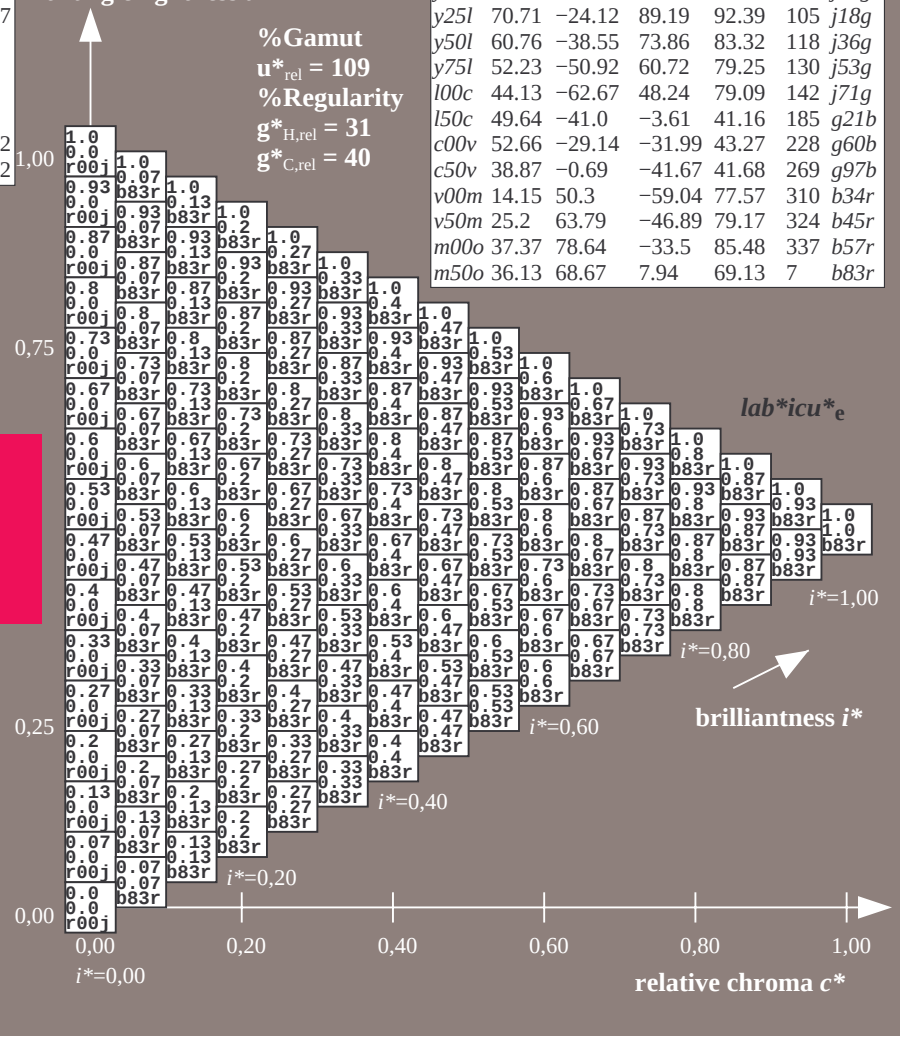
triangle lightness *t**

u^*_d = *m50o*
*lab*icu**$_e$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



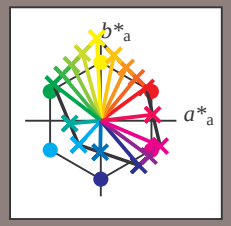


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	*lab*icu*e*			
01	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.0	0.0	0.0
	r00j	j71g	j71g	j71g	j71g	j71g	j71g	j71g	j71g	r16j	j01g	j36g	j47g	j53g	j57g	j59g	j61g	j62g	r16j	r58j	j01g	j24g	j36g	j43g	j47g	j51g	j53g	r00j	r16j	r16j	r16j	r16j	r16j	r16j	r16j	r16j	r00j	r00j	r00j	r00j
02	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.13	0.13	0.13	0.13
	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.0	0.0	0.0	0.0
	b34r	g60b	g21b	g08b	g01b	j95g	j91g	j88g	j86g	b57r	r00j	j71g	j71g	j71g	j71g	j71g	j71g	j71g	b83r	r16j	j01g	j36g	j47g	j53g	j57g	j59g	j61g	g60b	r00j	r16j	r16j	r16j	r16j	r16j	r16j	r16j	r00j	r00j	r00j	r00j
03	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.25	0.25	0.25	0.25
	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.0	0.0	0.0	0.0
	b34r	g97b	g60b	g33b	g21b	g13b	g08b	g04b	g01b	b45r	b34r	g60b	g21b	g08b	g01b	j95g	j91g	j88g	b57r	b57r	r00j	j71g	j71g	j71g	j71g	j71g	j71g	g60b	g60b	r00j	r16j	r16j	r16j	r16j	r16j	r16j	r00j	r00j	r00j	r00j
04	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.38	0.38	0.38	0.38
	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.0	0.0	0.0	0.0
	b34r	b10r	g85b	g60b	g40b	g28b	g21b	g15b	g11b	b41r	b34r	g97b	g60b	g33b	g21b	g13b	g08b	g04b	b49r	b45r	b34r	g60b	g21b	g08b	g01b	j95g	j91g	g60b	g60b	g60b	r00j	r16j	r16j	r16j	r16j	r16j	r00j	r00j	r00j	r00j
05	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.0	0.0	0.0	0.0
	b34r	b16r	g97b	g78b	g60b	g44b	g33b	g26b	g21b	b39r	b34r	b10r	g85b	g60b	g40b	g28b	g21b	g15b	b45r	b41r	b34r	g97b	g60b	g33b	g21b	g13b	g08b	g60b	g60b	g60b	g60b	r00j	r16j	r16j	r16j	r16j	r00j	r00j	r00j	r00j
06	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.63	0.63	0.63	0.63
	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.0	0.0	0.0	0.0
	b34r	b19r	b05r	g90b	g75b	g60b	g46b	g37b	g30b	b38r	b34r	b16r	g97b	g78b	g60b	g44b	g33b	g26b	b43r	b39r	b34r	b10r	g85b	g60b	g40b	g28b	g21b	g60b	g60b	g60b	g60b	g60b	r00j	r16j	r16j	r16j	r00j	r00j	r00j	r00j
07	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.0	0.0	0.0	0.0
	b34r	b22r	b10r	g97b	g85b	g72b	g60b	g48b	g40b	b38r	b34r	b19r	b05r	g90b	g75b	g60b	g46b	g37b	b41r	b38r	b34r	b16r	g97b	g78b	g60b	g44b	g33b	g60b	g60b	g60b	g60b	g60b	g60b	r00j	r16j	r16j	r00j	r00j	r00j	r00j
08	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.13	0.88	0.88	0.88	0.88
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.0	0.0	0.0	0.0
	b34r	b23r	b13r	b03r	g92b	g81b	g70b	g60b	g50b	b37r	b34r	b22r	b10r	g97b	g85b	g72b	g60b	g48b	b40r	b38r	b34r	b19r	b05r	g90b	g75b	g60b	g46b	g60b	g60b	g60b	g60b	g60b	g60b	g60b	r00j	r16j	r00j	r00j	r00j	r00j
09	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	1.0	1.0	1.0	1.0
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
	b34r	b25r	b16r	b07r	g97b	g88b	g78b	g69b	g60b	b37r	b34r	b23r	b13r	b03r	g92b	g81b	g70b	g60b	b39r	b37r	b34r	b22r	b10r	g97b	g85b	g72b	g60b	g60b	g60b	g60b	g60b	g60b	g60b	g60b	g60b	r00j	r00j	r00j	r00j	r00j
10	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.0	0.0	0.0
	r16j	r44j	r72j	j01g	j18g	j29g	j36g	j41g	j45g	r16j	r37j	r58j	r79j	j01g	j15g	j24g	j31g	j36g	r16j	r33j	r49j	r66j	r83j	j01g	j12g	j21g	j27g	r00j	j01g	j01g	j01g	j01g	j01g	j01g	j01g	j01g	r00j	r00j	r00j	r00j
11	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.07	0.07	0.07	0.07
	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.88	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.0	0.0	0.0	0.0
	b92r	r16j	r58j	j01g	j24g	j36g	j43g	j47g	j51g	b96r	r16j	r44j	r72j	j01g	j18g	j29g	j36g	j41g	b99r	r16j	r37j	r58j	r79j	j01g	j15g	j24g	j31g	b34r	r00j	j01g	j01g	j01g	j01g	j01g	j01g	j01g	r00j	r00j	r00j	r00j
12	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.13	0.13	0.13	0.13
	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.75	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.0	0.0	0.0	0.0
	b74r	b83r	r16j	j01g	j36g	j47g	j53g	j57g	j59g	b83r	b92r	r16j	r58j	j01g	j24g	j36g	j43g	j47g	b88r	b96r	r16j	r44j	r72j	j01g	j18g	j29g	j36g	b34r	b34r	r00j	j01g	j01g	j01g	j01g	j01g	j01g	r00j	r00j	r00j	r00j
13	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.2	0.2	0.2	0.2
	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.0	0.0	0.0	0.0
	b57r	b57r	b57r	r00j	j71g	j71g	j71g	j71g	j71g	b70r	b74r	b83r	r16j	j01g	j36g	j47g	j53g	j57g	b78r	b83r	b92r	r16j	r58j	j01g	j24g	j36g	j43g	b34r	b34r	b34r	r00j	j01g	j01g	j01g	j01g	j01g	r00j	r00j	r00j	r00j
14	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.27	0.27	0.27	0.27
	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.0	0.0	0.0	0.0
	b51r	b49r	b45r	b34r	g60b	g21b	g08b	g01b	j95g	b57r	b57r	b57r	b57r	r00j	j71g	j71g	j71g	j71g	b68r	b70r	b74r	b83r	r16j	j01g	j36g	j47g	j53g	b34r	b34r	b34r	b34r	r00j	j01g	j01g	j01g	j01g	r00j	r00j	r00j	r00j
15	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.33	0.33	0.33	0.33
	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.63	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.5	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.0	0.0	0.0	0.0
	b48r	b45r	b41r	b34r	g97b	g60b	g33b	g21b	g13b	b53r	b51r	b49r	b45r	b34r	g60b	g21b	g08b	g01b	b57r	b57r	b57r	b57r	b57r	r00j	j71g	j71g	j71g	b34r	b34r	b34r	b34r	b34r	r00j	j01g	j01g	j01g	r00j	r00j	r00j	r00j
16	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.4	0.4	0.4	0.4
	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.75	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.0	0.0	0.0	0.0
	b45r	b43r	b39r	b34r	b10r	g85b	g60b	g40b	g28b	b49r	b48r	b45r	b41r	b34r	g97b	g60b	g33b	g21b	b53r	b53r	b51r	b49r	b45r	b34r	g60b	g21b	g08b	b34r	b34r	b34r	b34r	b34r	b34r	r00j	j01g	j01g	r00j	r00j	r00j	r00j
17	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.13	0.47	0.47	0.47	0.47
	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.88	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.0	0.0	0.0	0.0
	b44r	b41r	b38r	b34r	b16r	g97b	g78b	g60b	g44b	b47r	b45r	b43r	b39r	b34r	b10r	g85b	g60b	g40b	b51r	b49r	b48r	b45r	b41r	b34r	g97b	g60b	g33b	b34r	b34r	b34r	b34r	b34r	b34r	r00j	j01g	j01g	r00j	r00j	r00j	r00j
18	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.53	0.53	0.53	0.53
	1.0	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	1.0	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	1.0	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
	b42r	b40r	b38r	b34r	b19r	b05r	g90b	g75b	g60b	b45r	b44r	b41r	b38r	b34r	b16r	g97b	g78b	g60b	b48r	b47r	b45r	b43r	b39r	b34r	b10r	g85b	g60b	b34r	b34r	b34r	b34r	b34r	b34r	b34r	b34r	r00j	r00j	r00j	r00j	r00j
19	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.6
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.0	0.0	0.0
	r16j	r30j	r44j	r58j	r72j	r86j	j01g	j11g	j18g	r16j	r28j	r40j	r52j	r64j	r76j	r88j	j01g	j09g	r16j	r26j	r37j	r47j	r58j	r68j	r79j	r89j	j01g	r00j	j71g	j71g	j71g	j71g	j71g	j71g	j71g	j71g	r00j	r00j	r00j	r00j
20	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.67	0.67	0.67	0.67
	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	0.0	0.0	0.0	0.0
	r01j	r16j	r33j	r49j	r66j	r83j	j01g	j12g	j21g	r03j	r16j	r30j	r44j	r58j	r72j	r86j	j01g	j11g	r05j	r16j	r28j	r40j	r52j	r64j	r76j	r88j	j01g	b57r	r00j	j71g	j71g	j71g	j71g	j71g	j71g	j71g	r00j	r00j	r00j	r00j
21	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.73	0.73	0.73	0.73
	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	0.75	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.75	1.0	0.88	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.0	0.0	0.0	0.0
	b92r	b99r	r16j	r37j	r58j	r79j	j01g	j15g	j24g	b94r	r01j	r16j	r33j	r49j	r66j	r83j	j01g	j12g	b96r	r03j	r16j	r30j	r44j	r58j	r72j	r86j	j01g	b57r	b57r	r00j	j71g	j71g	j71g	j71g	j71g	j71g	r00j	r00j	r00j	r00j
22	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.8	0.8	0.8	0.8
	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	0.63	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.63	1.0	0.88	0.75	0.63	0.63	0.63	0.63	0.63	0.63	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.63	0.0	0.0	0.0	0.0
	b83r	b88r	b96r	r16j	r44j	r72j	j01g	j18g	j29g	b87r	b92r	b99r	r16j	r37j	r58j	r79j	j01g	j15g	b90r	b94r	r01j	r16j	r33j	r49j	r66j	r83j	j01g	b57r	b57r	b57r	r00j	j71g	j71g	j71g	j71g	j71g	r00j	r00j	r00j	r00j
23	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.87	0.87	0.87	0.87
	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.38	0.5	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.5	1.0	0.88	0.75	0.63	0.5	0.5	0.5	0.5	0.5	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.5	0.0	0.0	0.0	0.0
	b74r	b78r	b83r	b92r	r16j	r58j	j01g	j24g	j36g	b79r	b83r	b88r	b96r	r16j	r44j	r72j	j01g	j18g	b83r	b87r	b92r	b99r	r16j	r37j	r58j	r79j	j01g	b57r	b57r	b57r	b57r	r00j	j71g	j71g	j71g	j71g	r00j	r00j	r00j	r00j
24	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.93	0.93	0.93	0.93
	0.75	0.63	0.5	0.38	0.25	0.13	0.13	0.25	0.38	0.88	0.75	0.63	0.5	0.38	0.25	0.25	0.25	0.38	1.0	0.88	0.75	0.63	0.5	0.38	0.38	0.38	0.38	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.25	0.38	0.0	0.0	0.0	0.0
	b66r	b68r	b70r	b74r	b83r	r16j	j01g	j36g	j47g	b72r	b74r	b78r	b83r	b92r	r16j	r58j	j01g	j24g	b77r	b79r	b83r	b88r	b96r	r16j	r44j	r72j	j01g	b57r	b57r	b57r	b57r	b57r	r00j	j71g	j71g	j71g	r00j	r00j	r00j	r00j
25	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

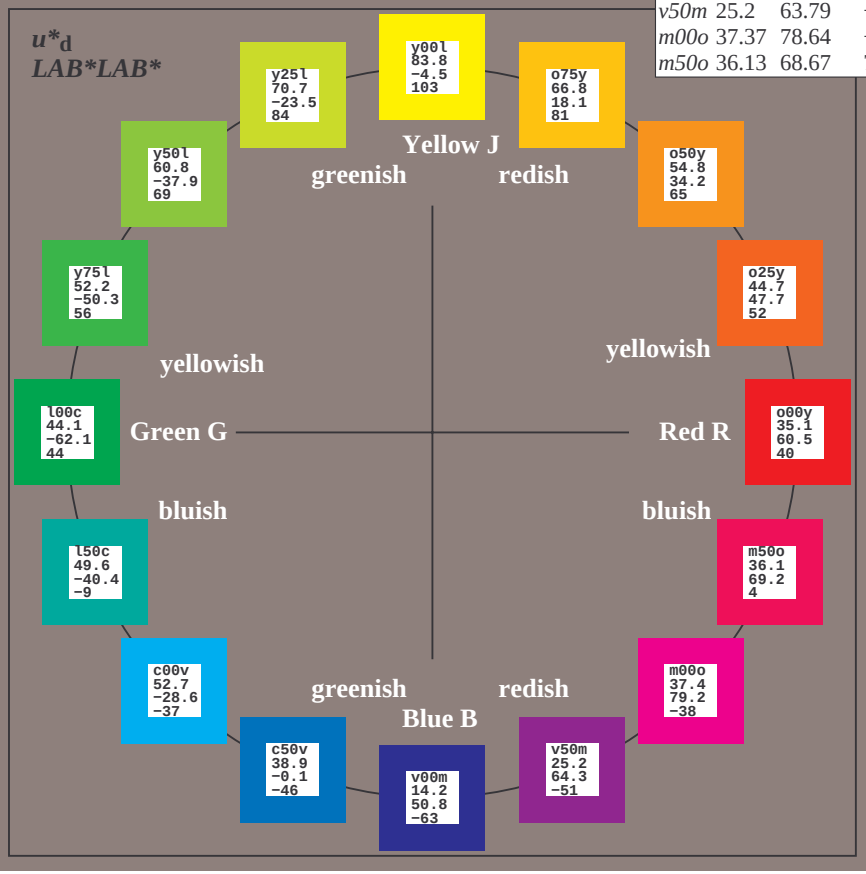
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

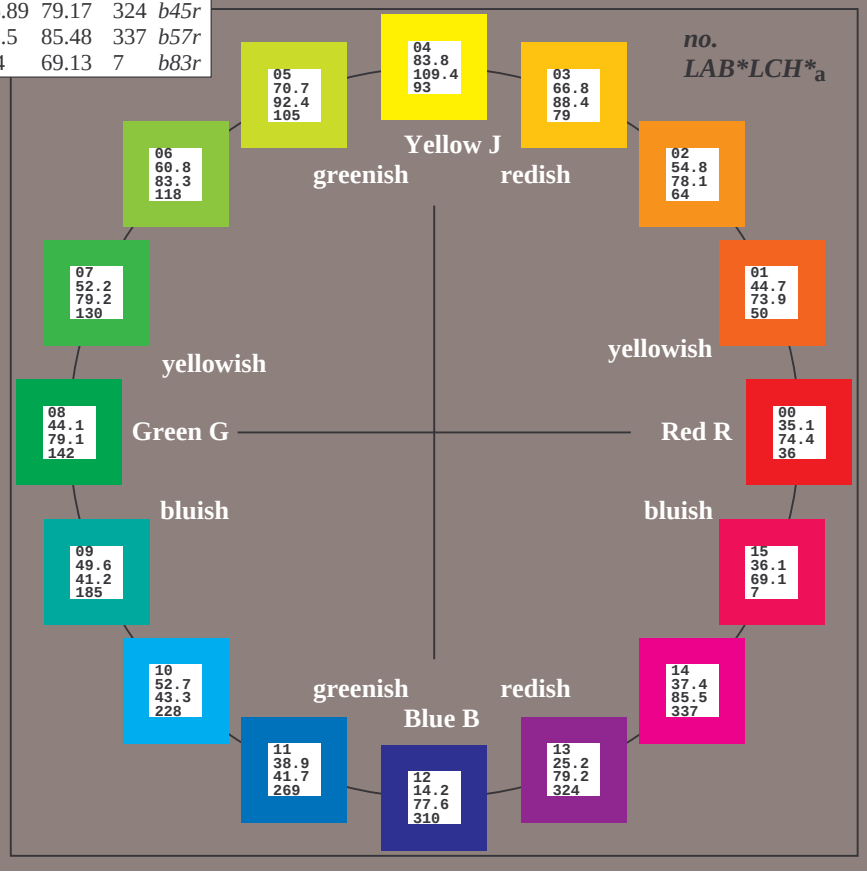


%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92; CIELAB data

Name	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** and *lab*icu**

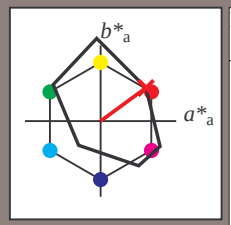
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data					
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB* $_{Ma}$: 35 60 44

LAB*LCH* $_{Ma}$: 35 74 36

lab*olv* $_{Ma}$: 1.0 0.0 0.0

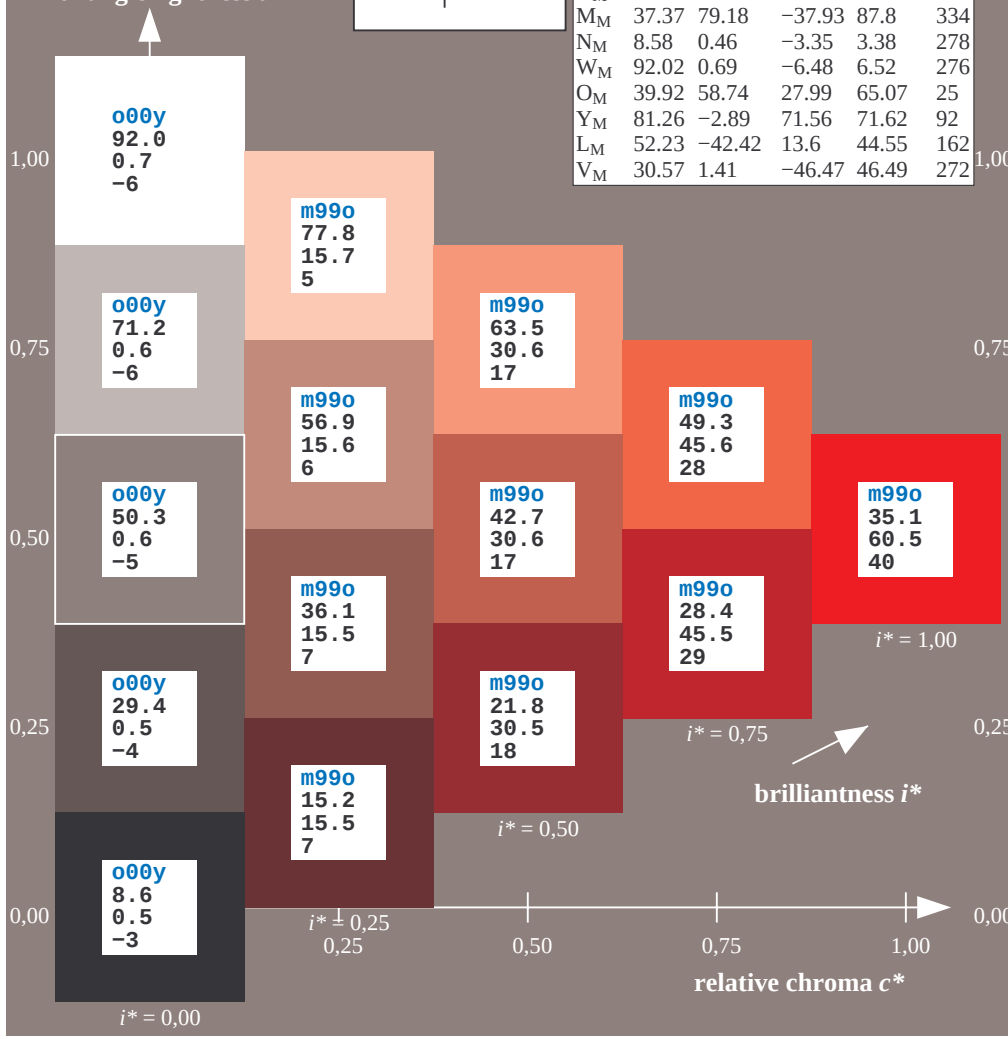
lab*rgb* $_{Ma}$: 1.0 0.16 0.0

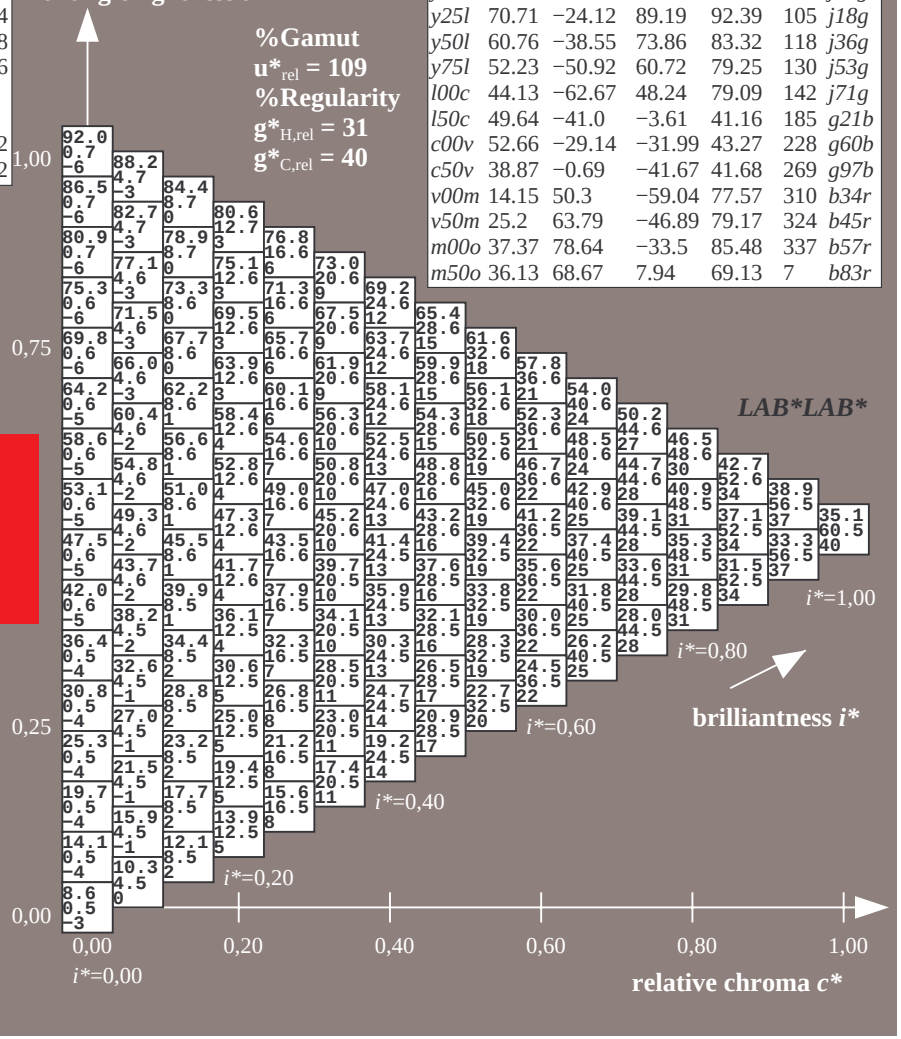
triangle lightness *t**

u^*_d = *o00y*

LAB*LAB*

FRS09_92a; adapted (a) CIELAB data						
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** and *lab*icu**

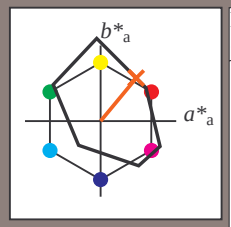
Hue texts:

u^*_d = *o25y* u^*_e = *r37j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 45 47 57

*LAB*LCH**$_{Ma}$: 45 74 50

*lab*olv**$_{Ma}$: 1.0 0.25 0.0

*lab*rgb**$_{Ma}$: 1.0 0.37 0.0

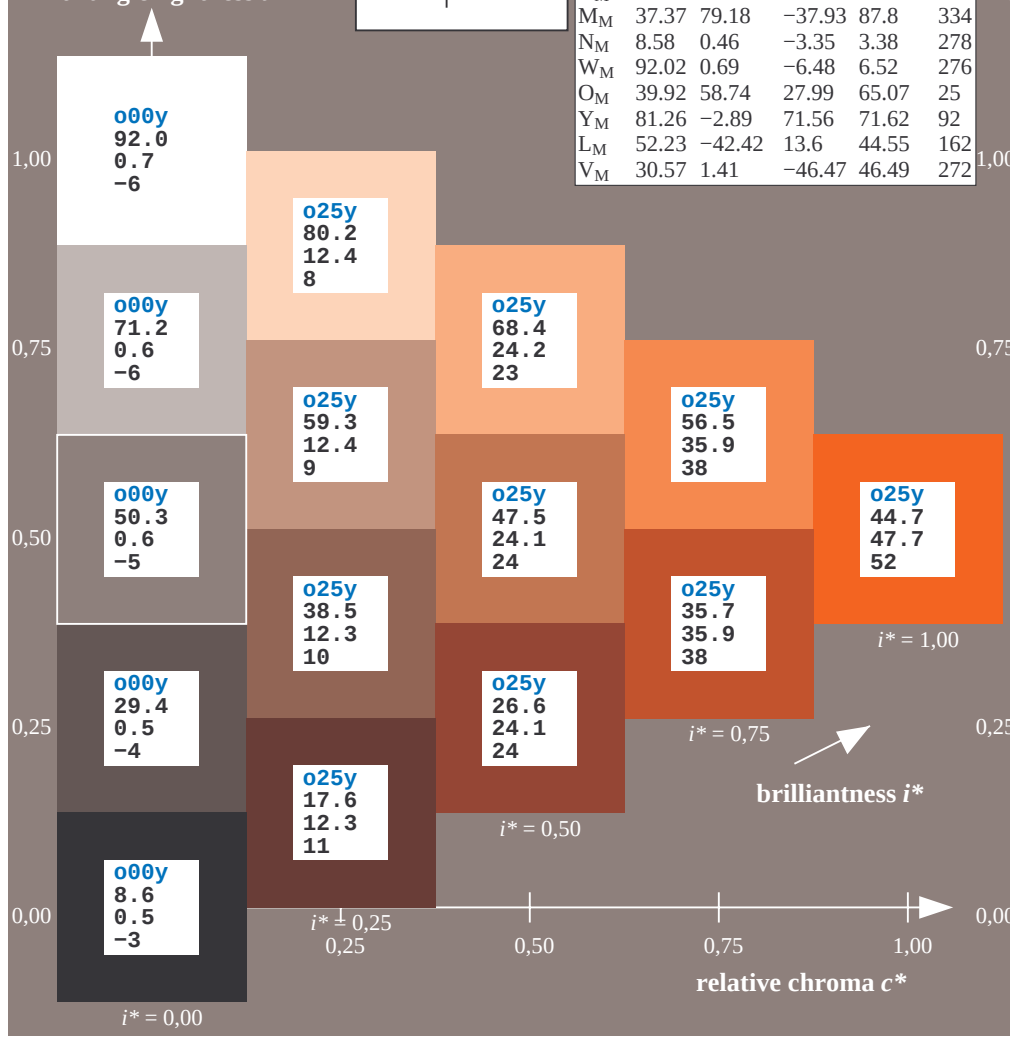
triangle lightness *t**

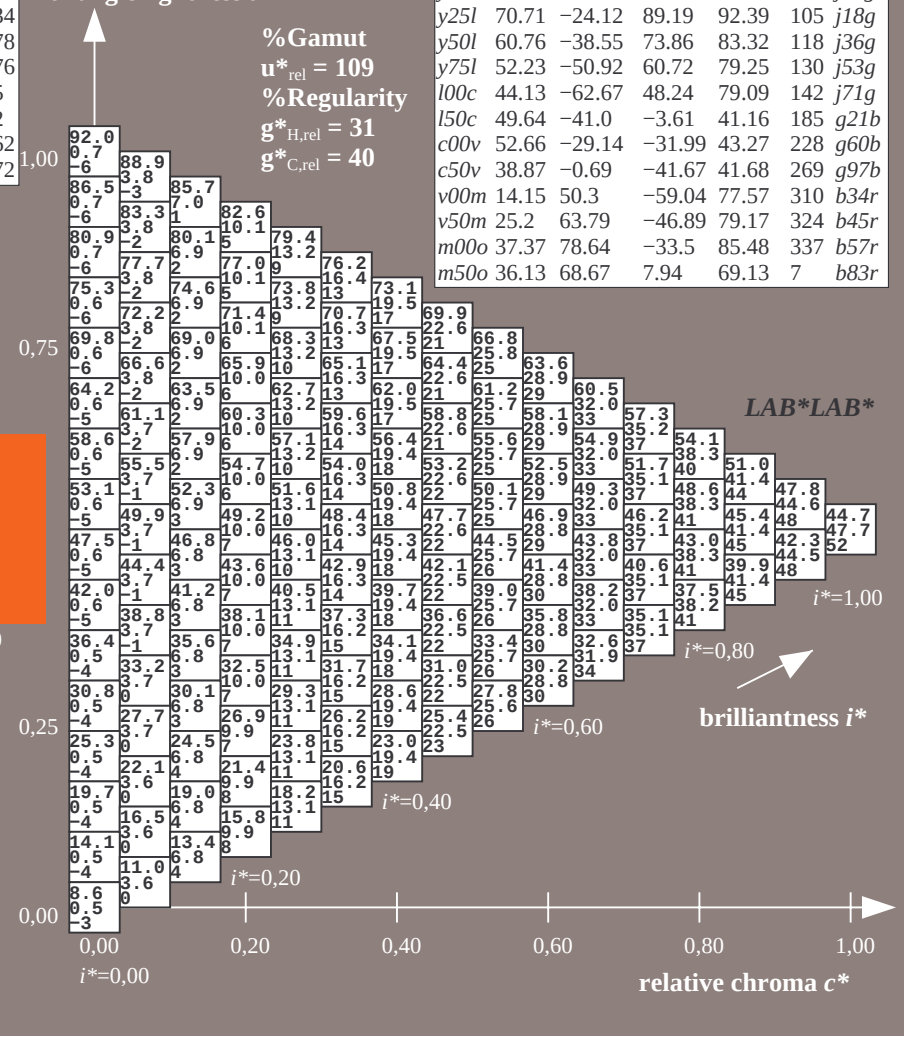
u^*_d = *o25y*

*LAB*LAB**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** and *lab*icu**

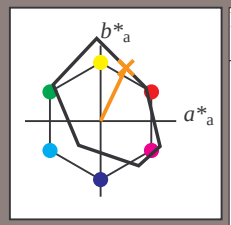
Hue texts:

u^*_d = *o50y* u^*_e = *r58j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 55 34 70

*LAB*LCH**$_{Ma}$: 55 78 64

*lab*olv**$_{Ma}$: 1.0 0.5 0.0

*lab*rgb**$_{Ma}$: 1.0 0.58 0.0

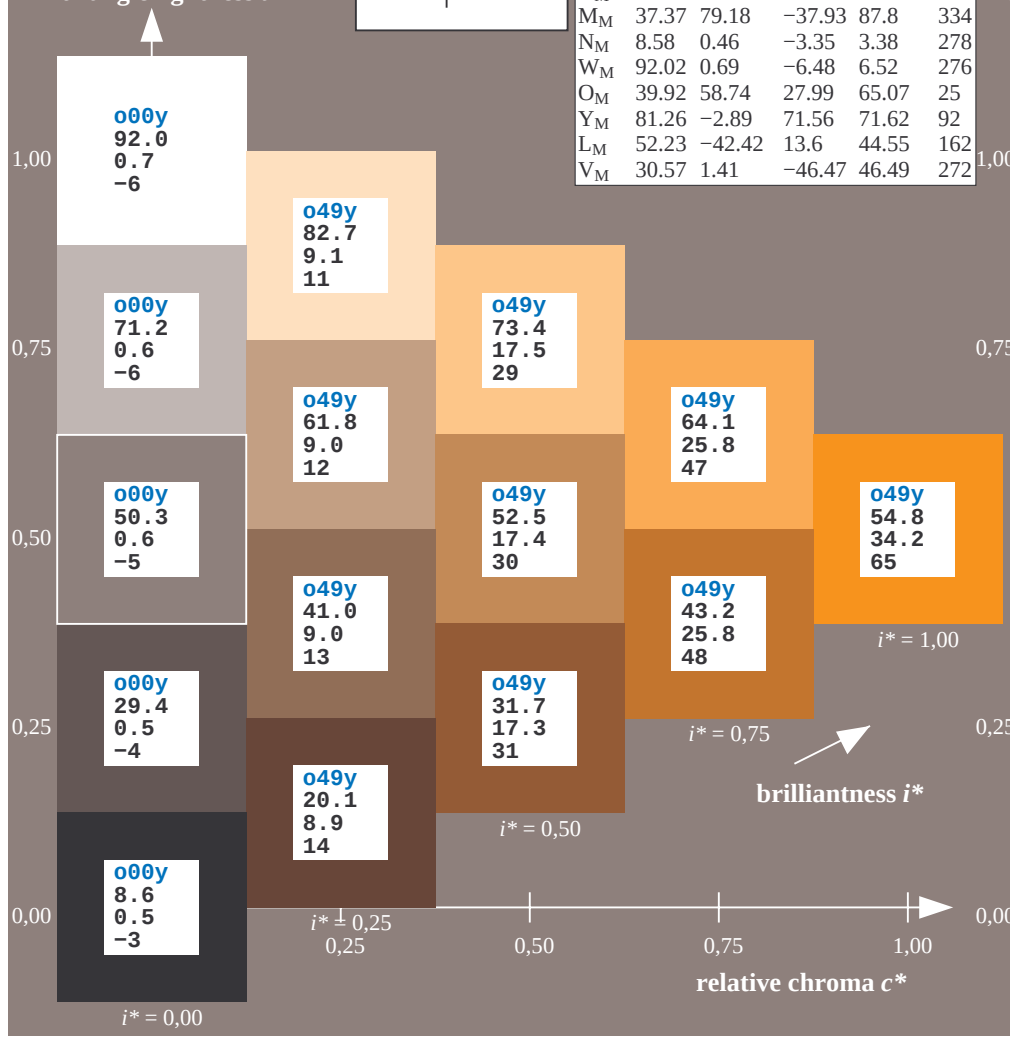
triangle lightness *t**

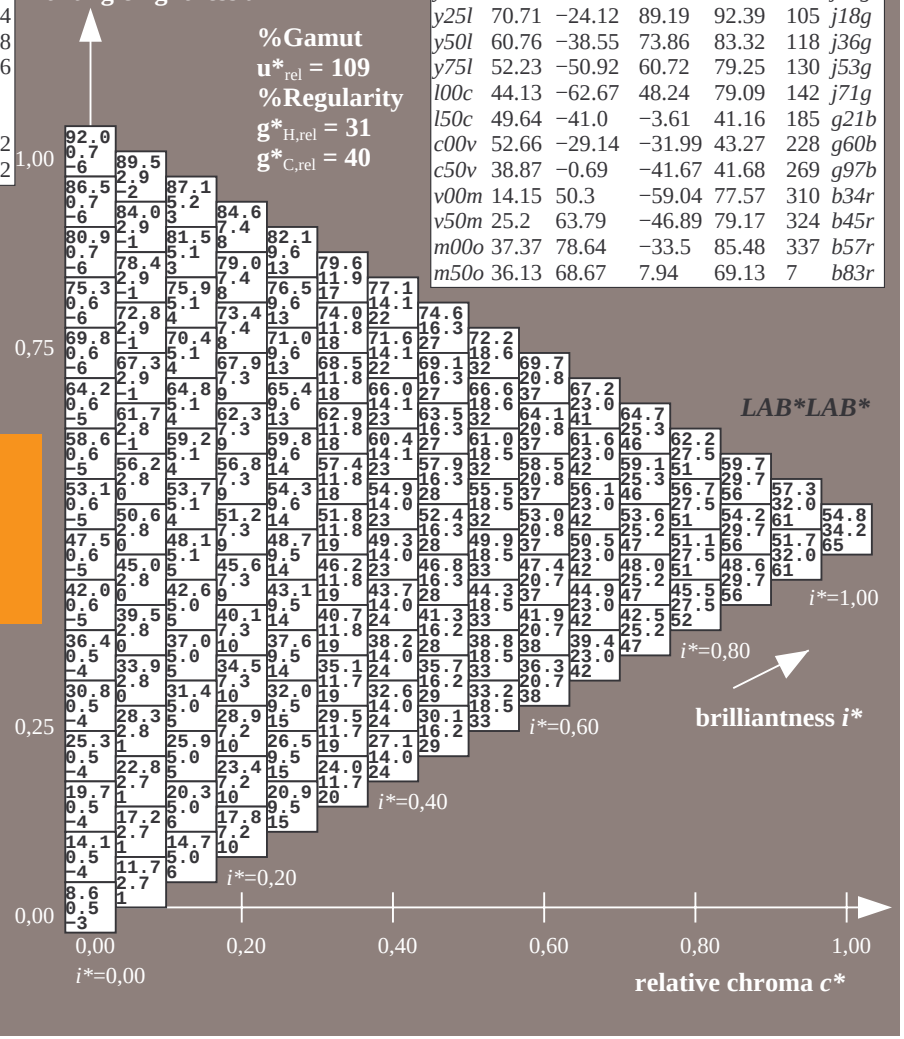
u^*_d = *o50y*

*LAB*LAB**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

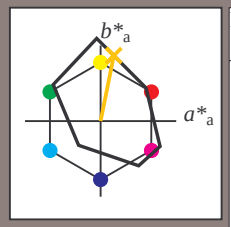




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

$u^*_d = o75y$
LAB*LAB*

data for any colour:
lab*tch* and lab*icu*
Hue texts:
$u^*_d = o75y$ $u^*_e = r79j$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



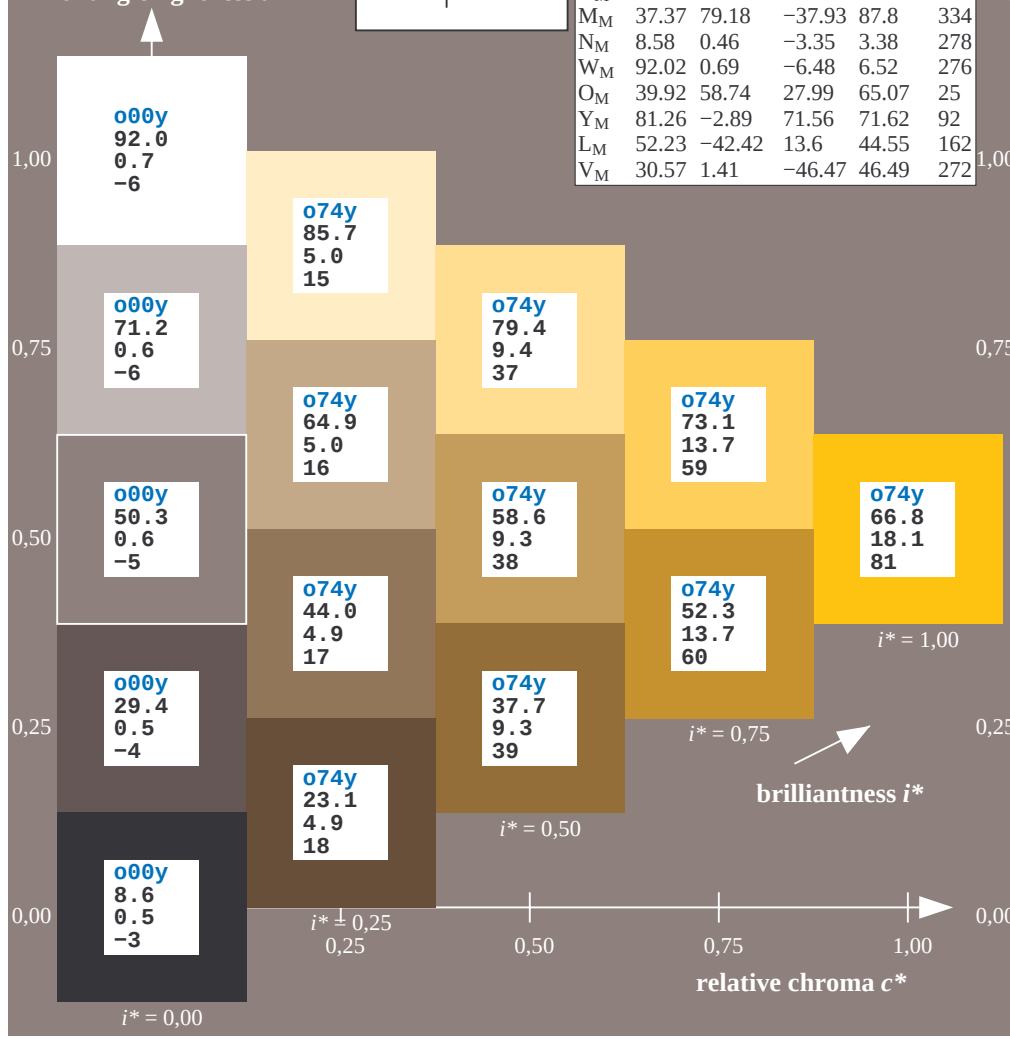
FRS09_92; CIELAB data

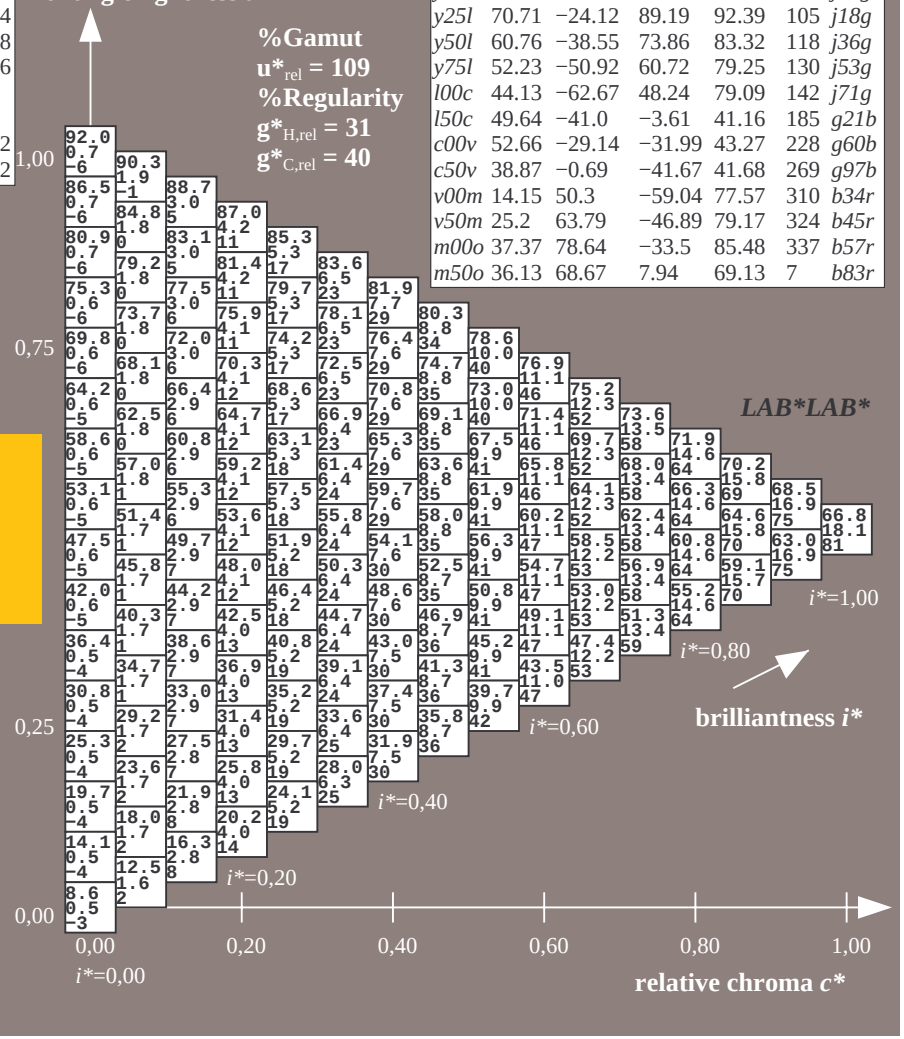
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB*$_{Ma}$*: 67 17 87**
***LAB*LCH*$_{Ma}$*: 67 88 78**
***lab*olv*$_{Ma}$*: 1.0 0.75 0.0**
***lab*rgb*$_{Ma}$*: 1.0 0.79 0.0**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** and *lab*icu**

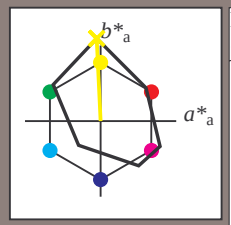
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data					
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 84 −5 109**

***LAB*LCH**$_{Ma}$: 84 109 92**

***lab*olv**$_{Ma}$: 1.0 1.0 0.0**

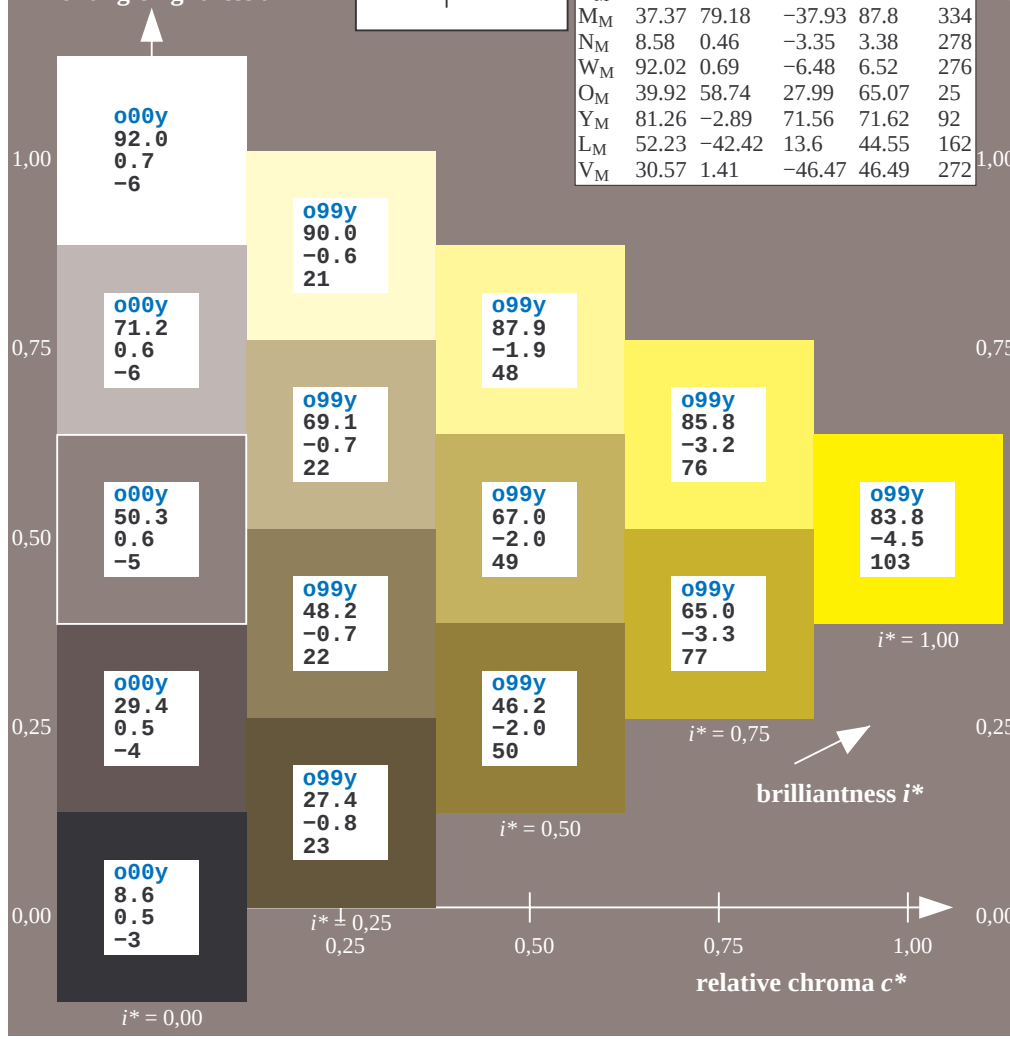
***lab*rgb**$_{Ma}$: 0.99 1.0 0.0**

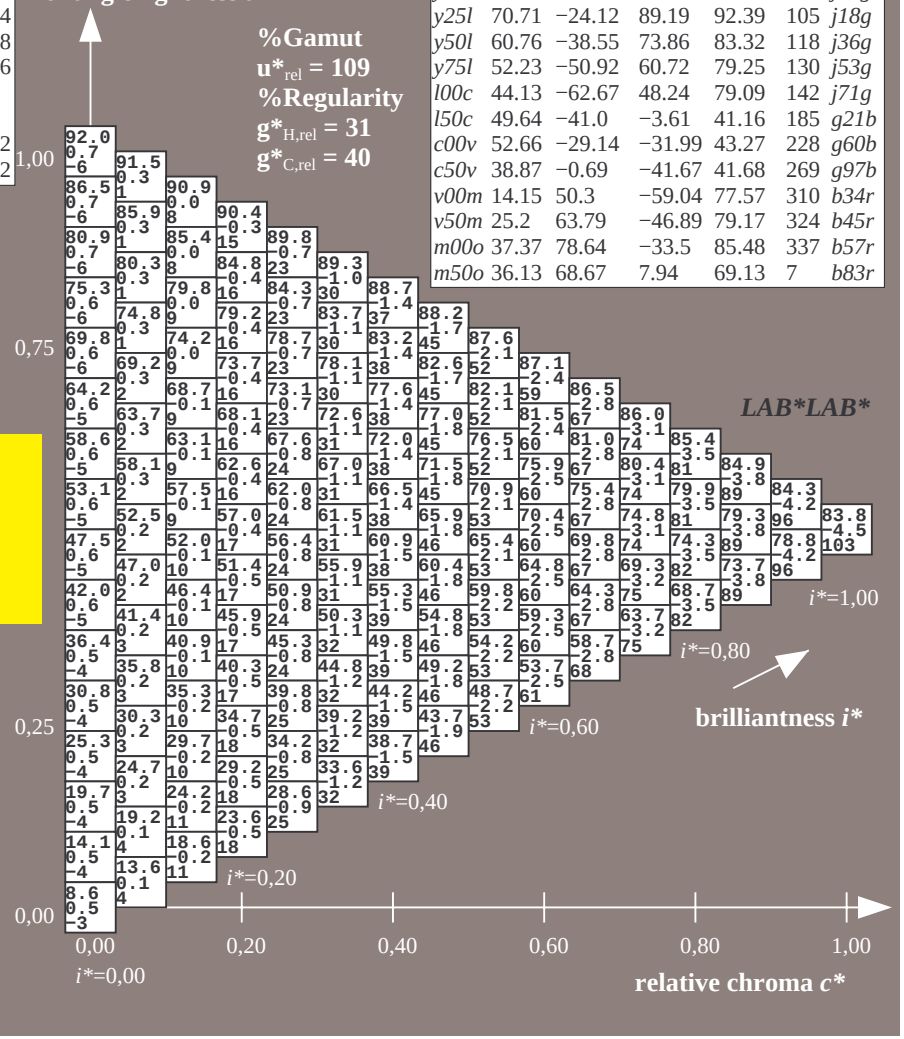
triangle lightness *t**

$u^*_d = y00l$

*LAB*LAB**

FRS09_92a; adapted (a) CIELAB data						
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** and *lab*icu**

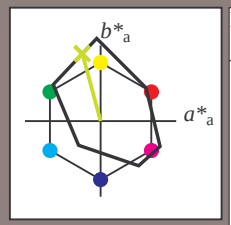
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 71 −24 89**

***LAB*LCH*Ma*: 71 92 105**

***lab*olv*Ma*: 0.75 1.0 0.0**

***lab*rgb*Ma*: 0.82 1.0 0.0**

triangle lightness *t**

%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

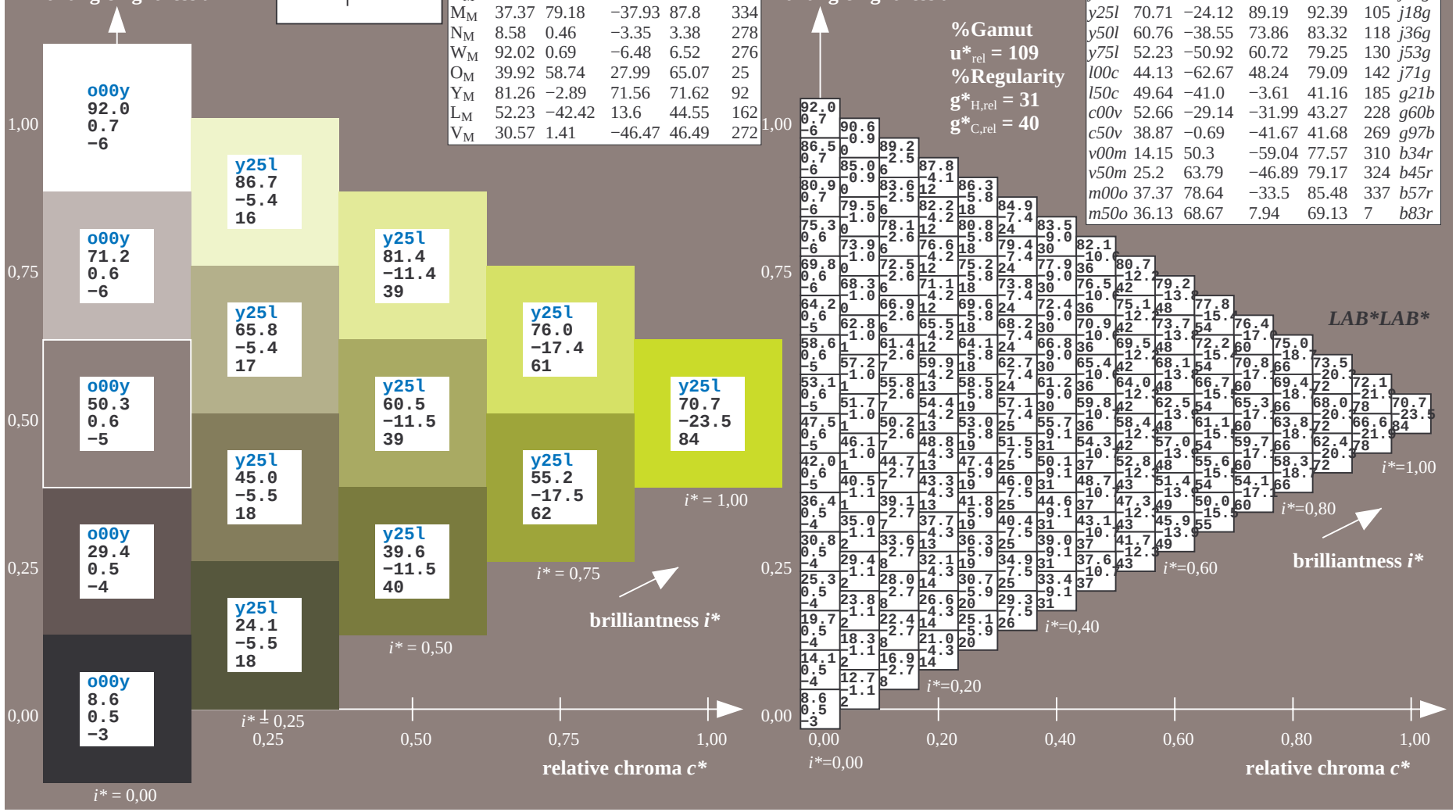
$g^*_{C,rel} = 40$

u*d = y25l

LAB*LAB*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** and *lab*icu**

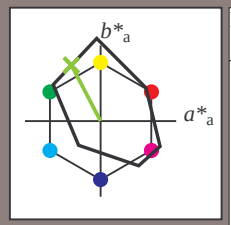
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data					
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 61 −39 74**

***LAB*LCH**$_{Ma}$: 61 83 117**

***lab*olv**$_{Ma}$: 0.5 1.0 0.0**

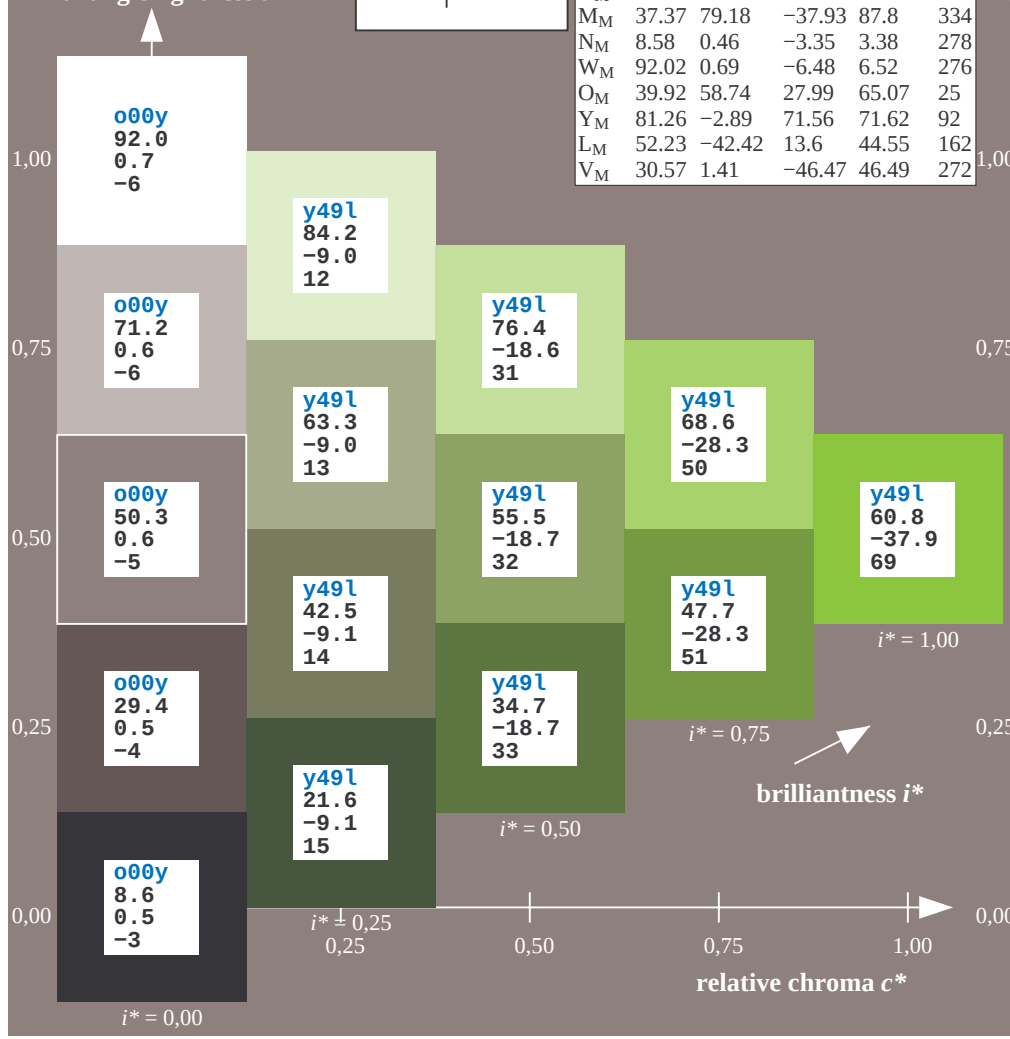
***lab*rgb**$_{Ma}$: 0.64 1.0 0.0**

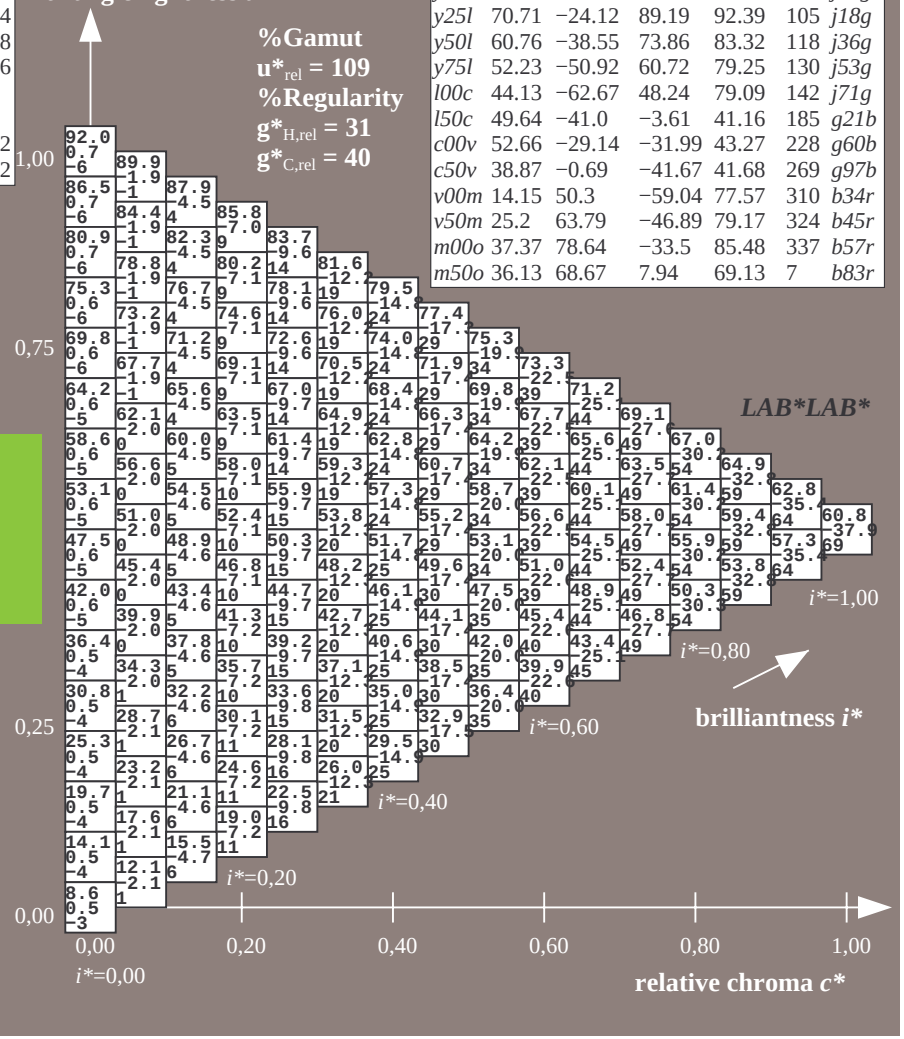
triangle lightness *t**

$u^*_d = y50l$

LAB*LAB*

FRS09_92a; adapted (a) CIELAB data						
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** and *lab*icu**

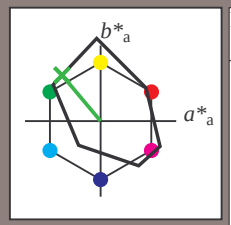
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 52 −51 61**

***LAB*LCH**$_{Ma}$: 52 79 129**

***lab*olv**$_{Ma}$: 0.25 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.46 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

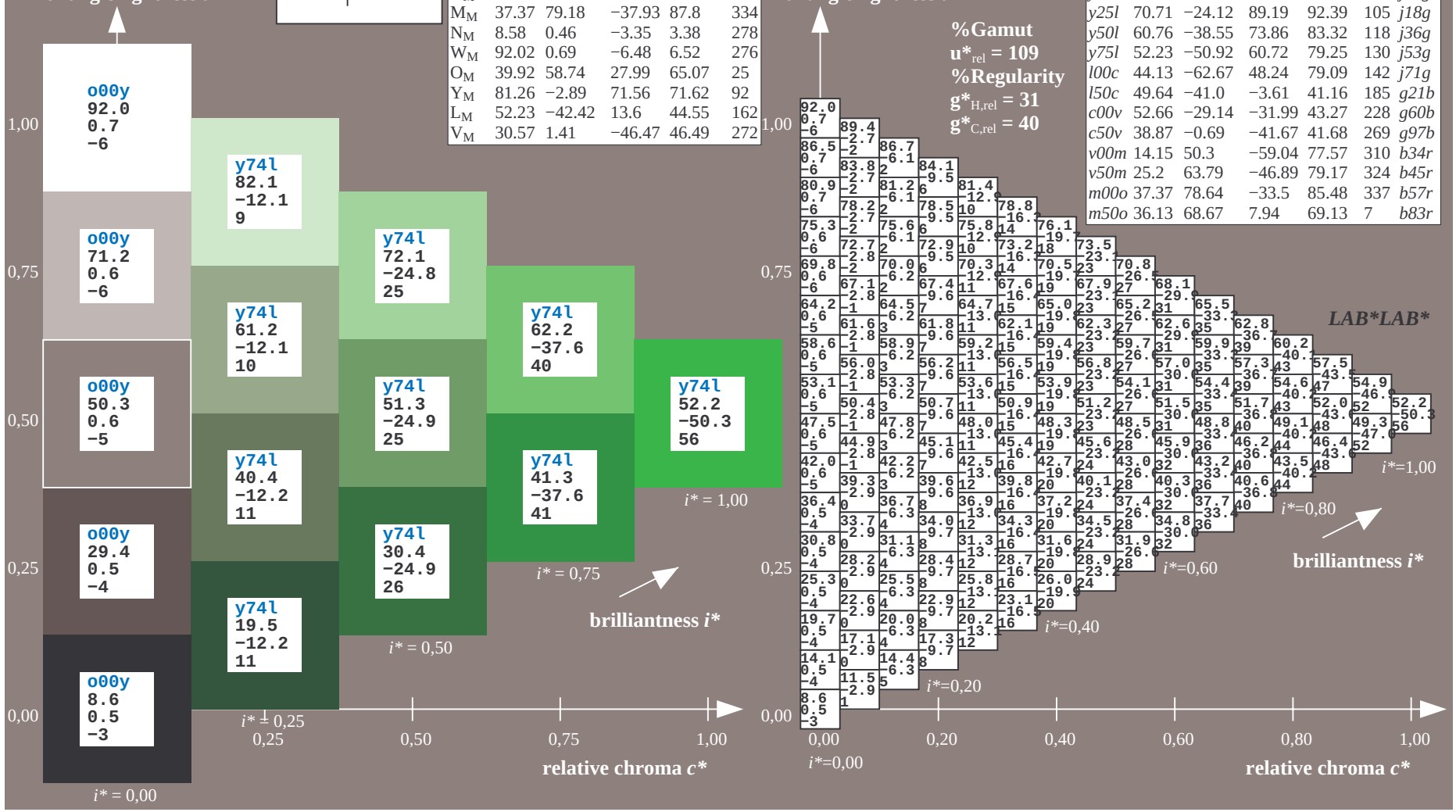
$g^*_{C,rel}$ = 40

$u^*_d = y75l$

LAB*LAB*

FRS09_92a; adapted (a) CIELAB data

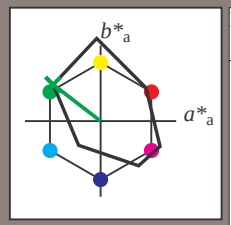
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

$u^*_d = l00c$
LAB^*LAB^*

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = l00c$ $u^*_e = j71g$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



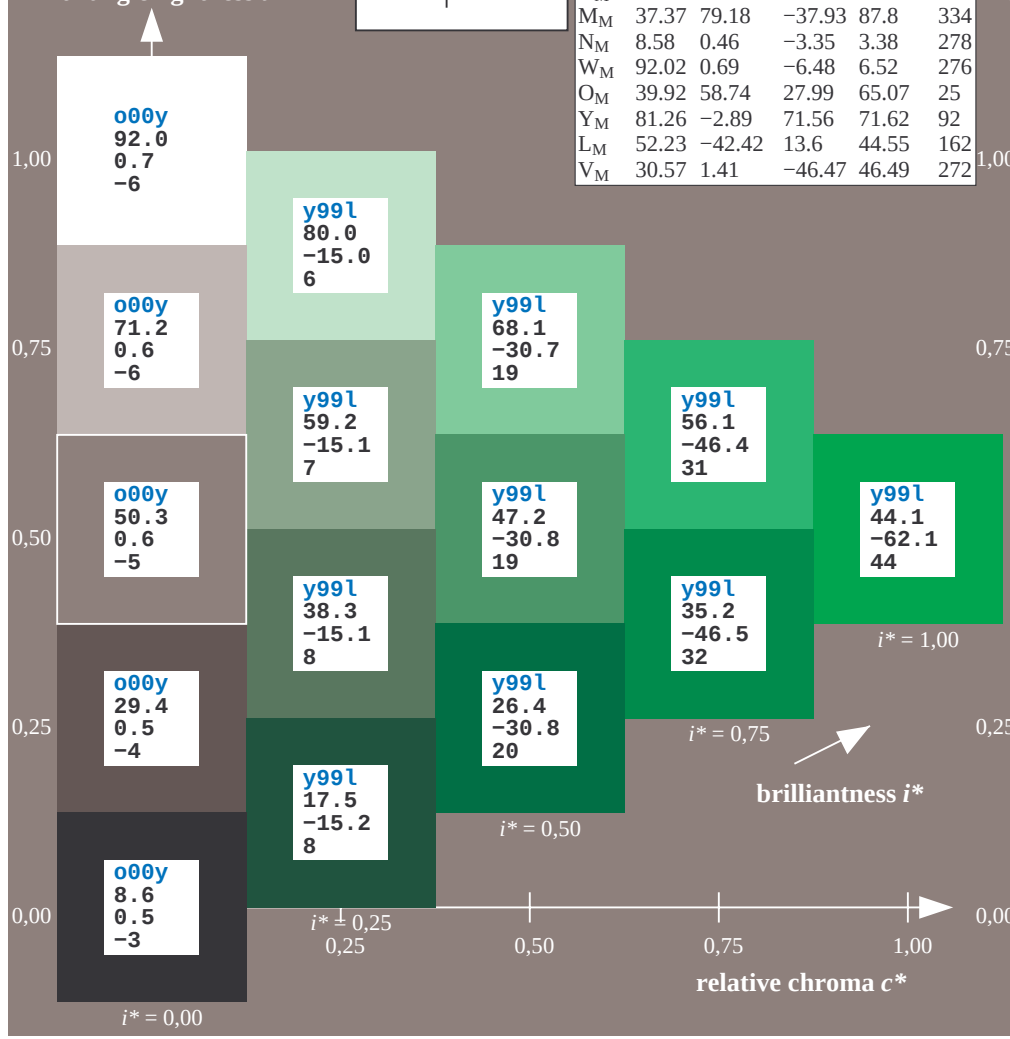
FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

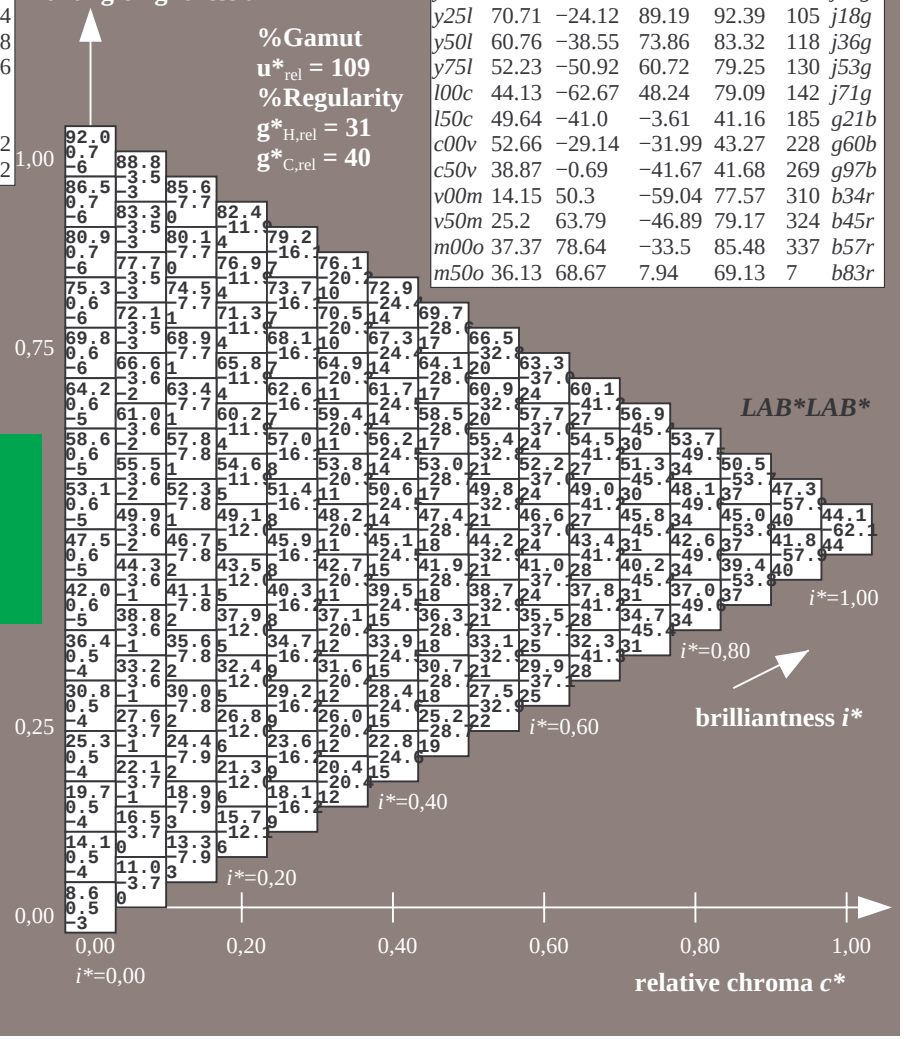
Data for maximum colour (Ma):
$LAB^*LAB^*_{Ma}$: 44 −63 48
$LAB^*LCH^*_{Ma}$: 44 79 142
$lab^*olv^*_{Ma}$: 0.0 1.0 0.0
$lab^*rgb^*_{Ma}$: 0.28 1.0 0.0
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** and *lab*icu**

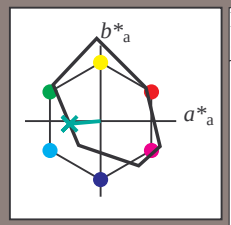
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 50 −41 −4

*LAB*LCH**$_{Ma}$: 50 41 185

*lab*olv**$_{Ma}$: 0.0 1.0 0.5

*lab*rgb**$_{Ma}$: 0.0 1.0 0.42

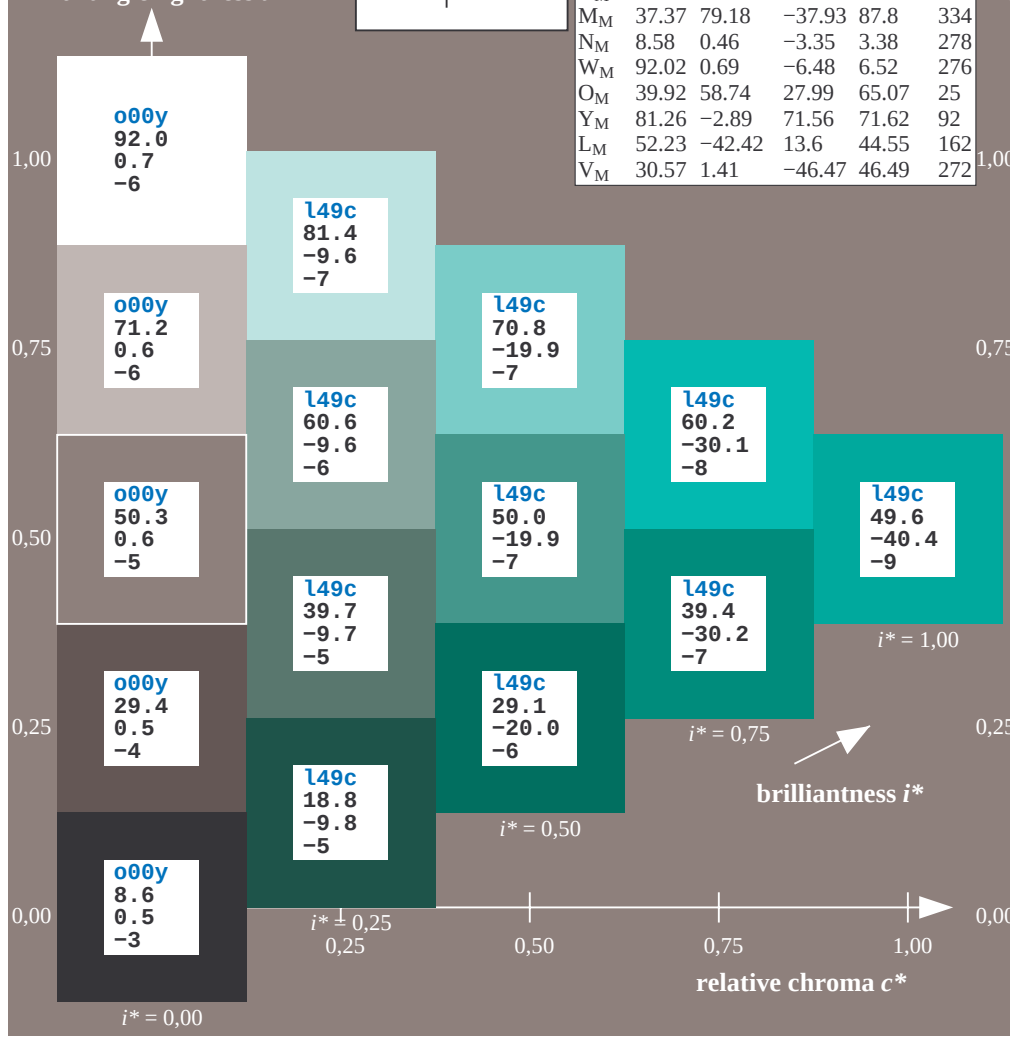
triangle lightness *t**

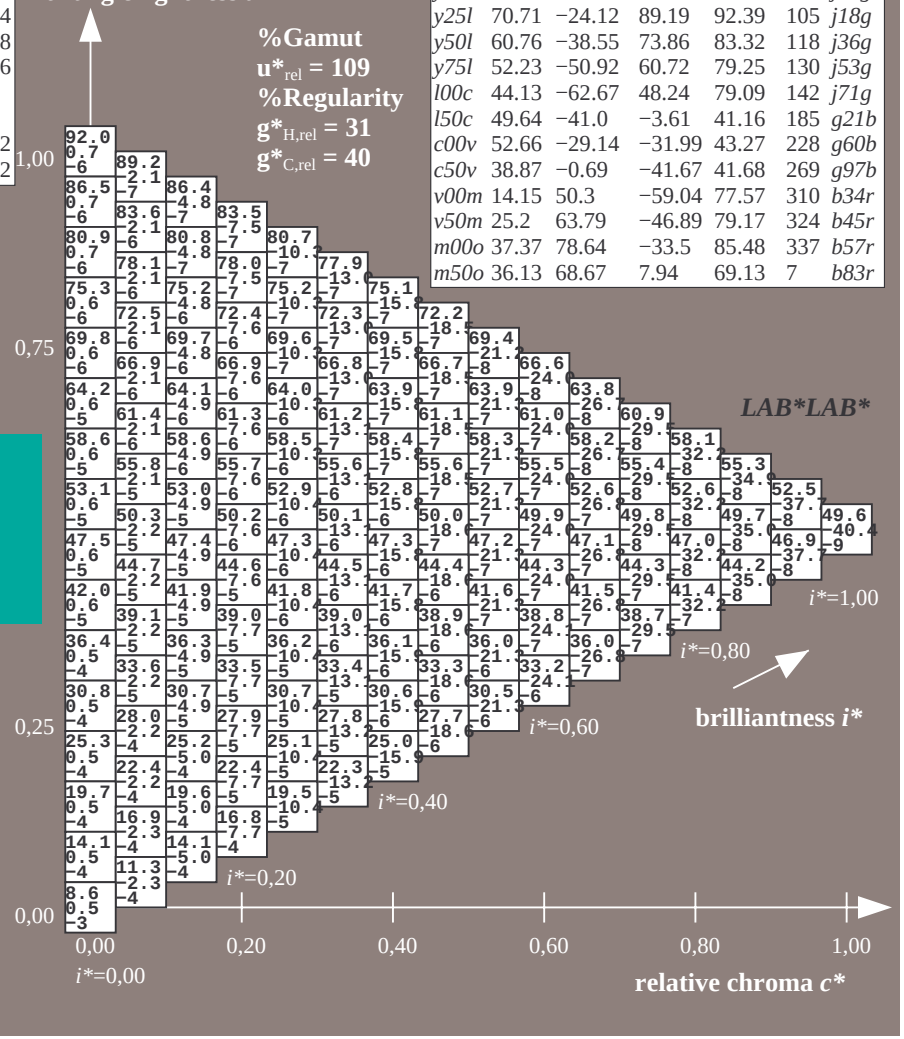
$u^*_d = l50c$

*LAB*LAB**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** and *lab*icu**

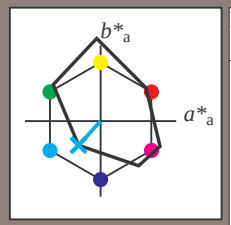
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 53 −29 −32**

***LAB*LCH*Ma*: 53 43 227**

***lab*olv*Ma*: 0.0 1.0 1.0**

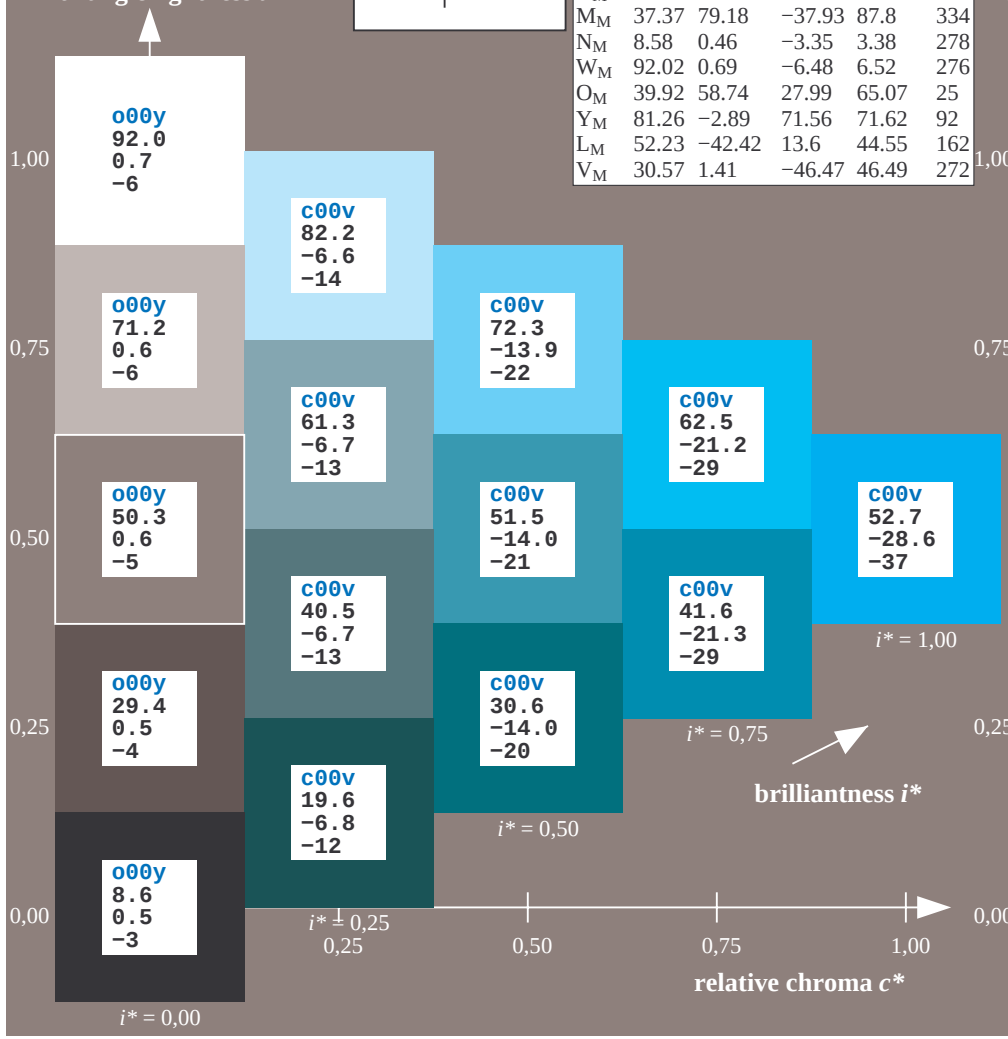
***lab*rgb*Ma*: 0.0 0.8 1.0**

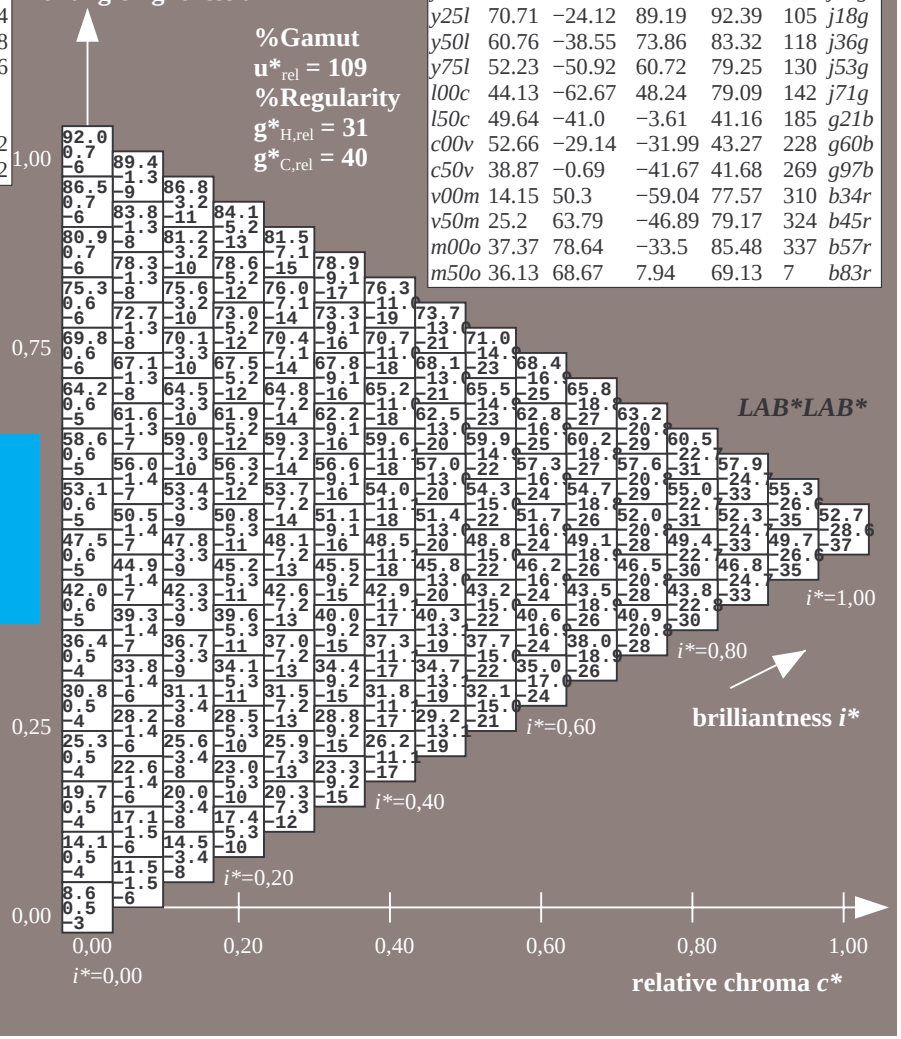
$u^*_d = c00v$

*LAB*LAB**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

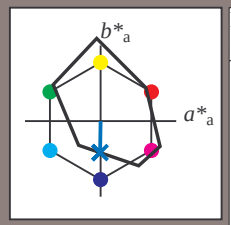




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

$u^*_d = c50v$
LAB^*LAB^*

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = c50v$ $u^*_e = g97b$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



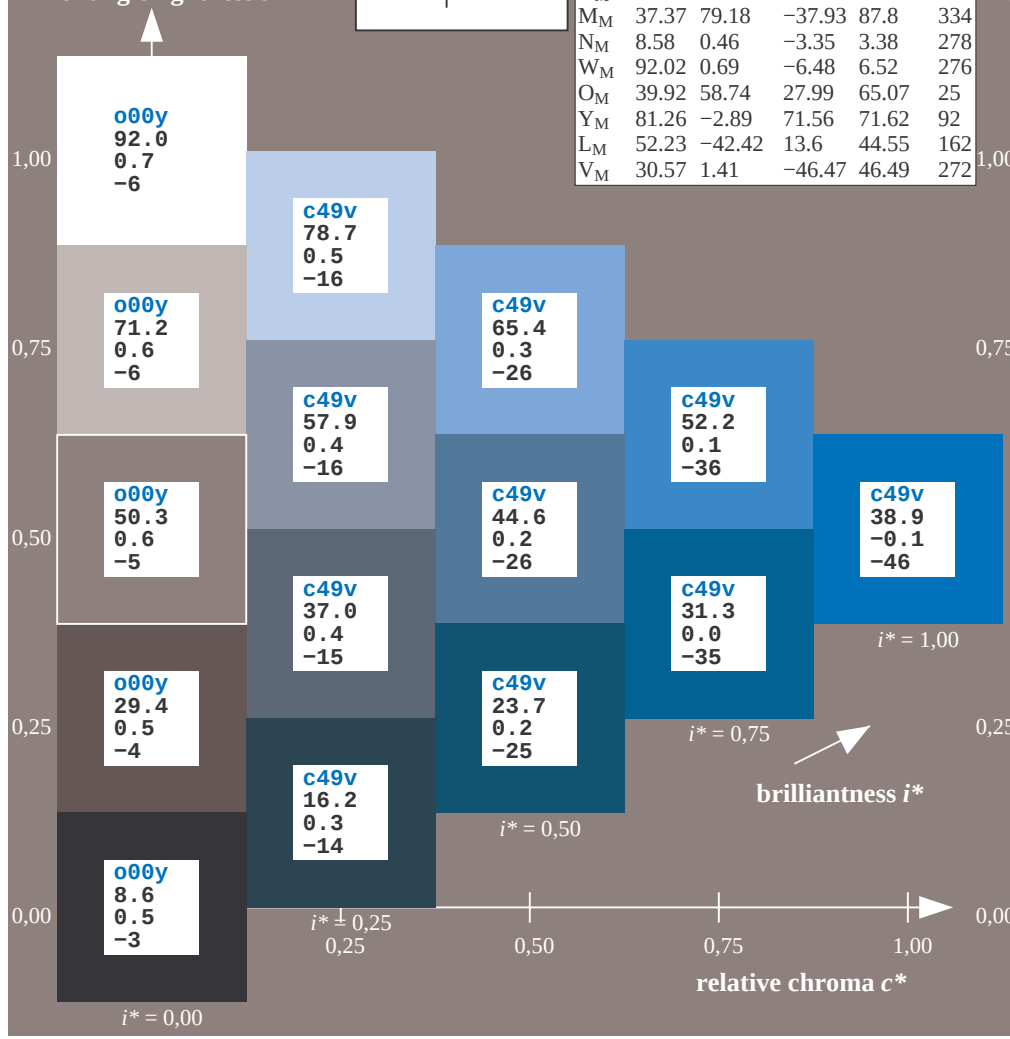
FRS09_92; CIELAB data

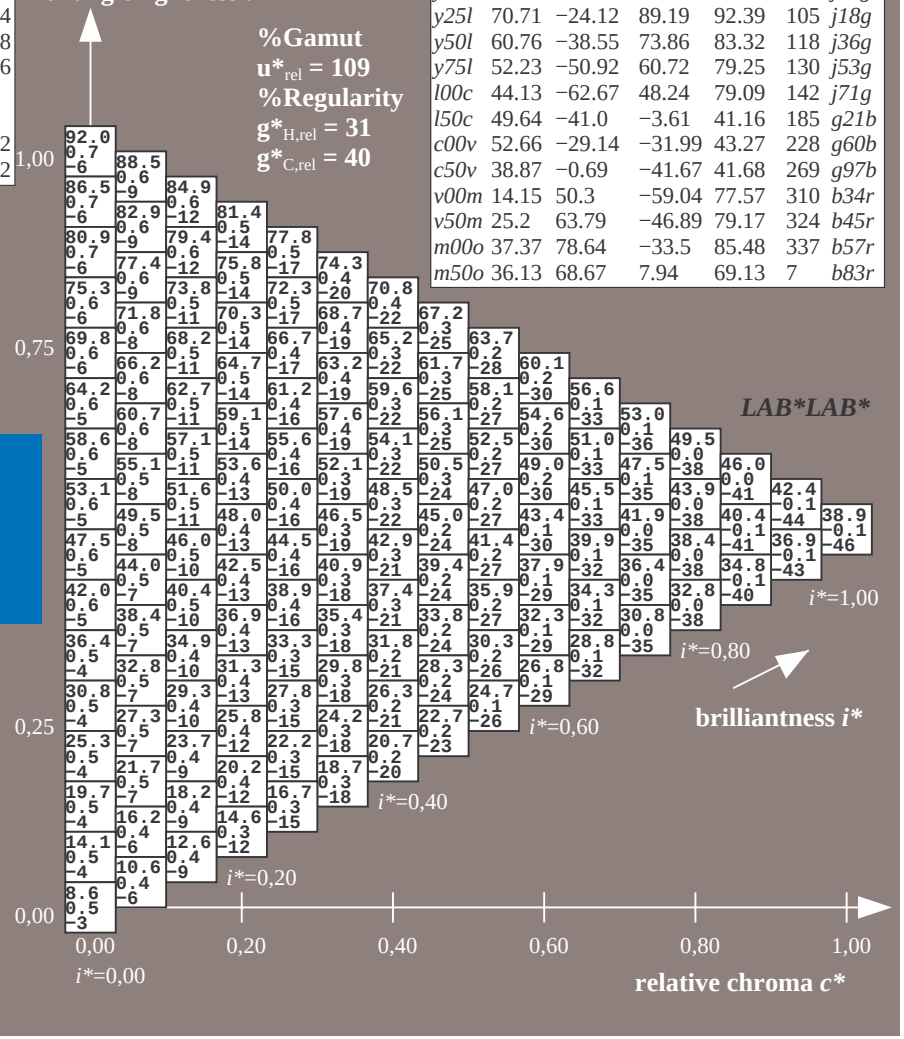
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
$LAB^*LAB^*_{Ma}$: 39 −1 −42
$LAB^*LCH^*_{Ma}$: 39 42 269
$lab^*olv^*_{Ma}$: 0.0 0.5 1.0
$lab^*rgb^*_{Ma}$: 0.0 0.05 1.0
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

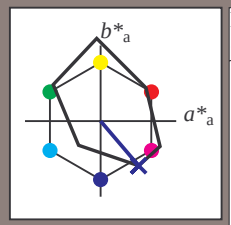




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

$u^*_d = v00m$
LAB^*LAB^*

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = v00m$ $u^*_e = b34r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



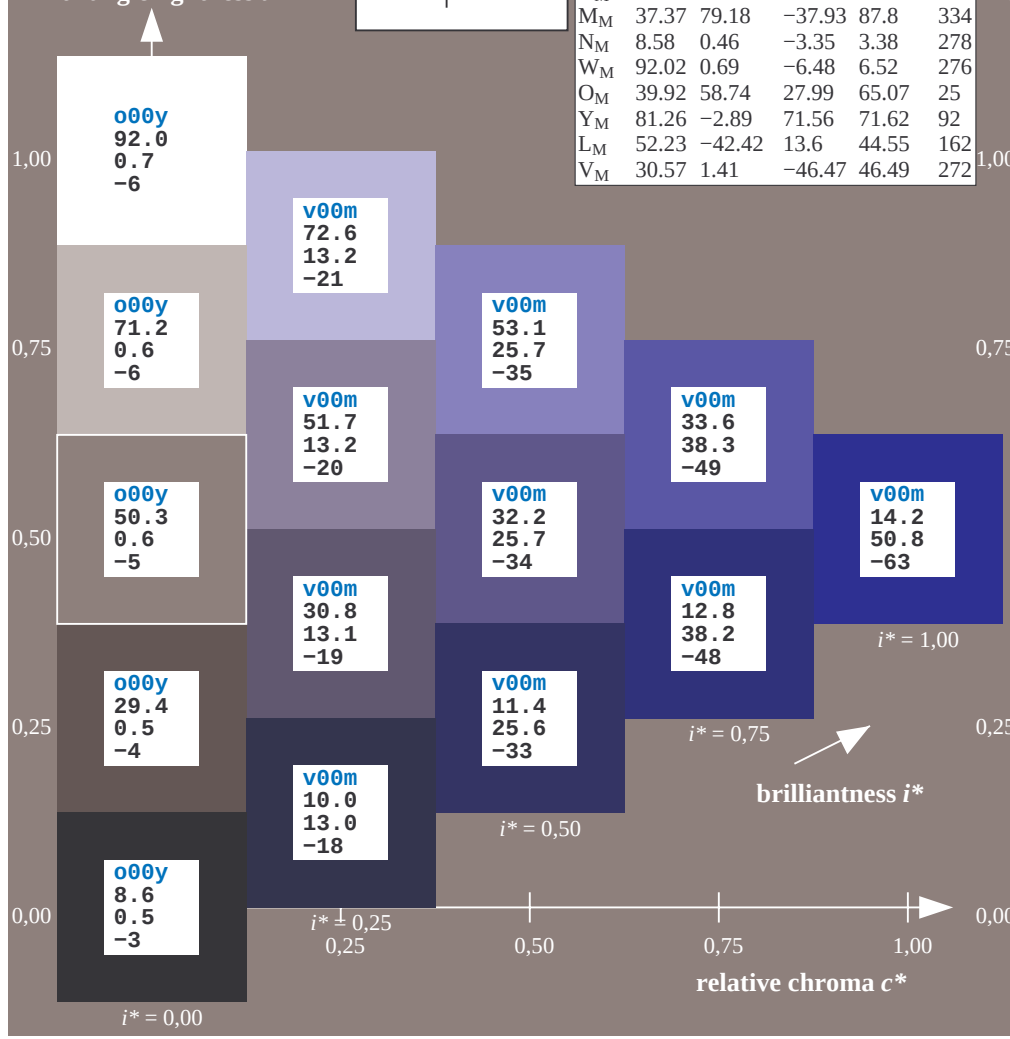
FRS09_92; CIELAB data

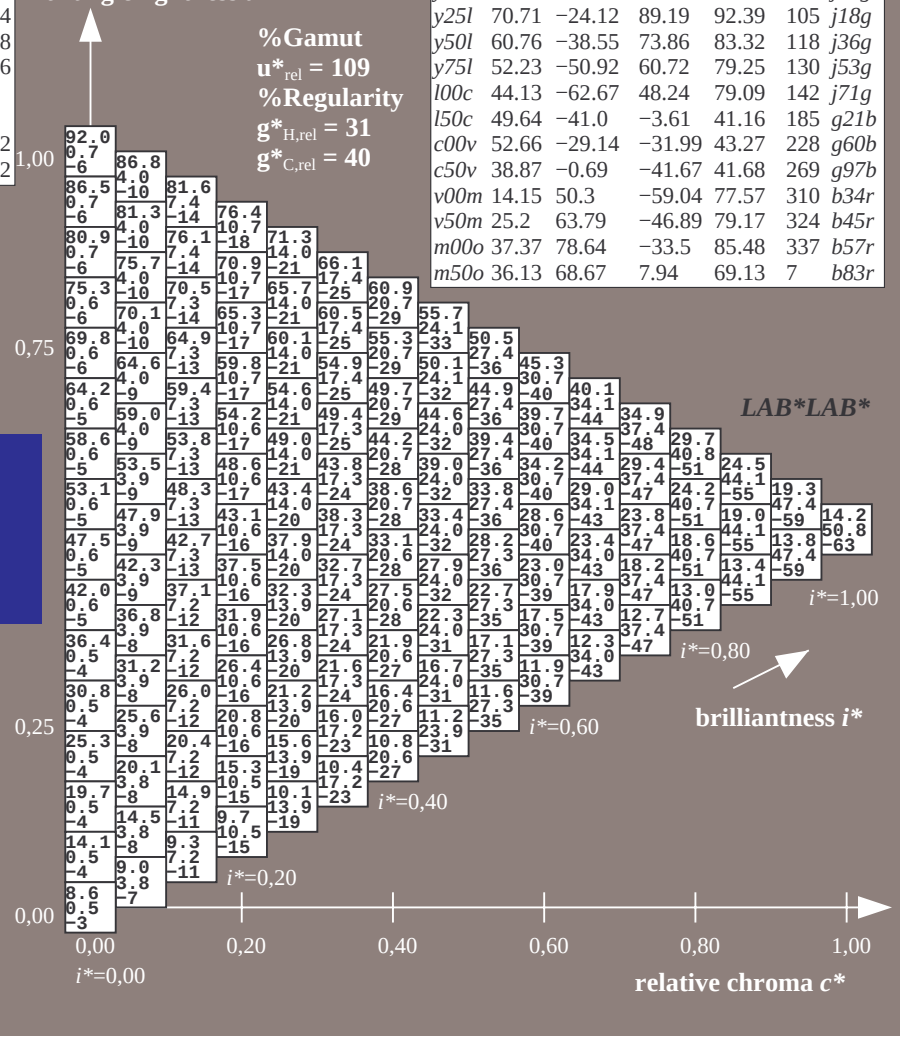
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
$LAB^*LAB^*_{Ma}$: 14 50 −59
$LAB^*LCH^*_{Ma}$: 14 78 310
$lab^*olv^*_{Ma}$: 0.0 0.0 1.0
$lab^*rgb^*_{Ma}$: 0.68 0.0 1.0
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

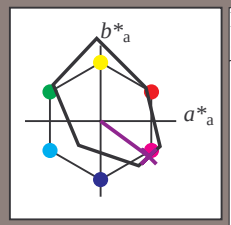
$u^*_d = v50m$
LAB*LAB*

data for any colour:
*lab*tch** and *lab*icu**

Hue texts:
$u^*_d = v50m$ $u^*_e = b45r$

contrast reduction factor:
$c_R = 1.0$

triangle lightness *t**



FRS09_92; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$: 25 64 −47

LAB*LCH*$_{Ma}$: 25 79 323

lab*olv*$_{Ma}$: 0.5 0.0 1.0

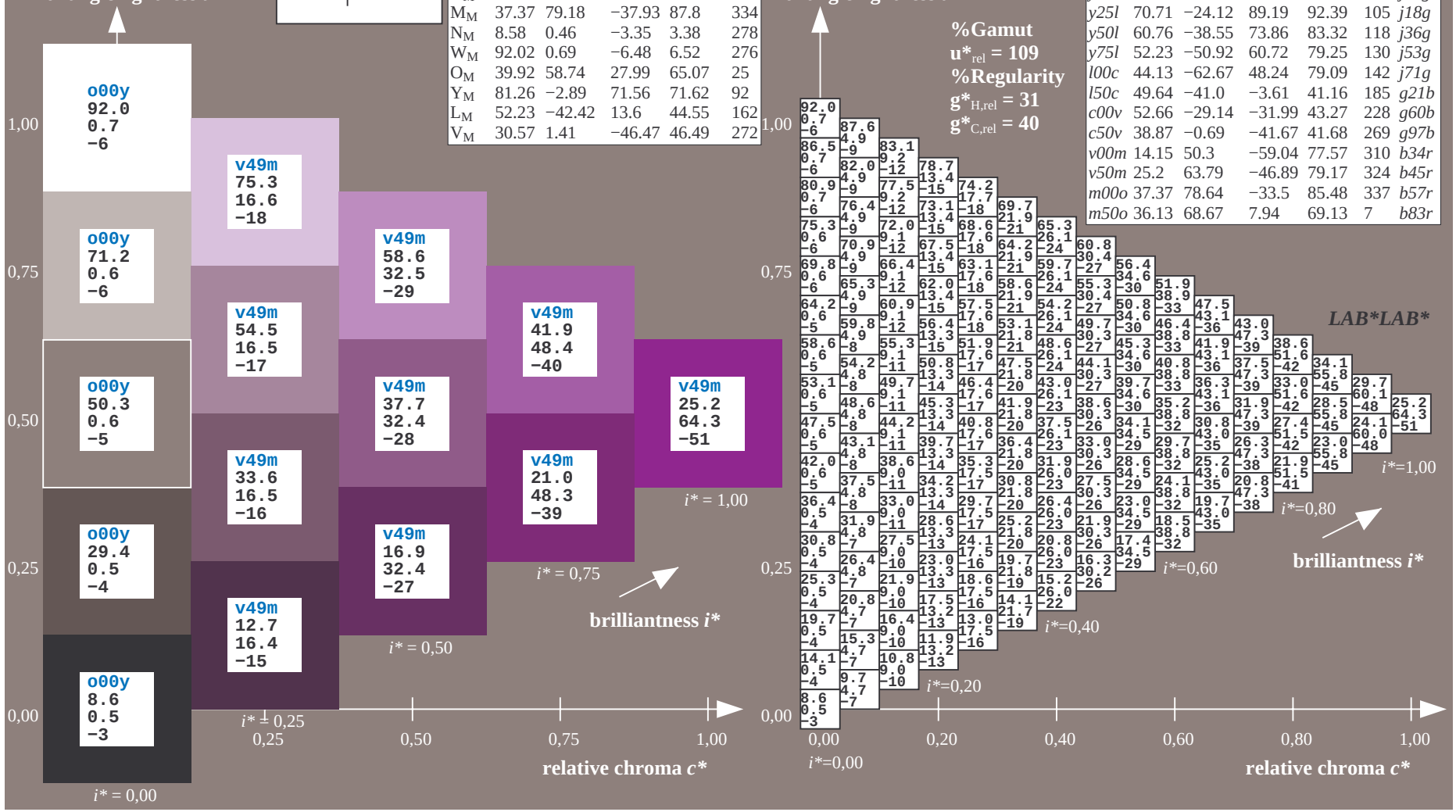
lab*rgb*$_{Ma}$: 0.91 0.0 1.0

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

triangle lightness *t**

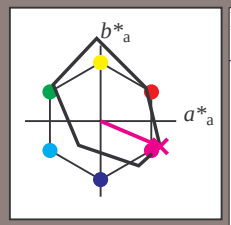
%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

$u^*_d = m00o$
LAB^*LAB^*

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



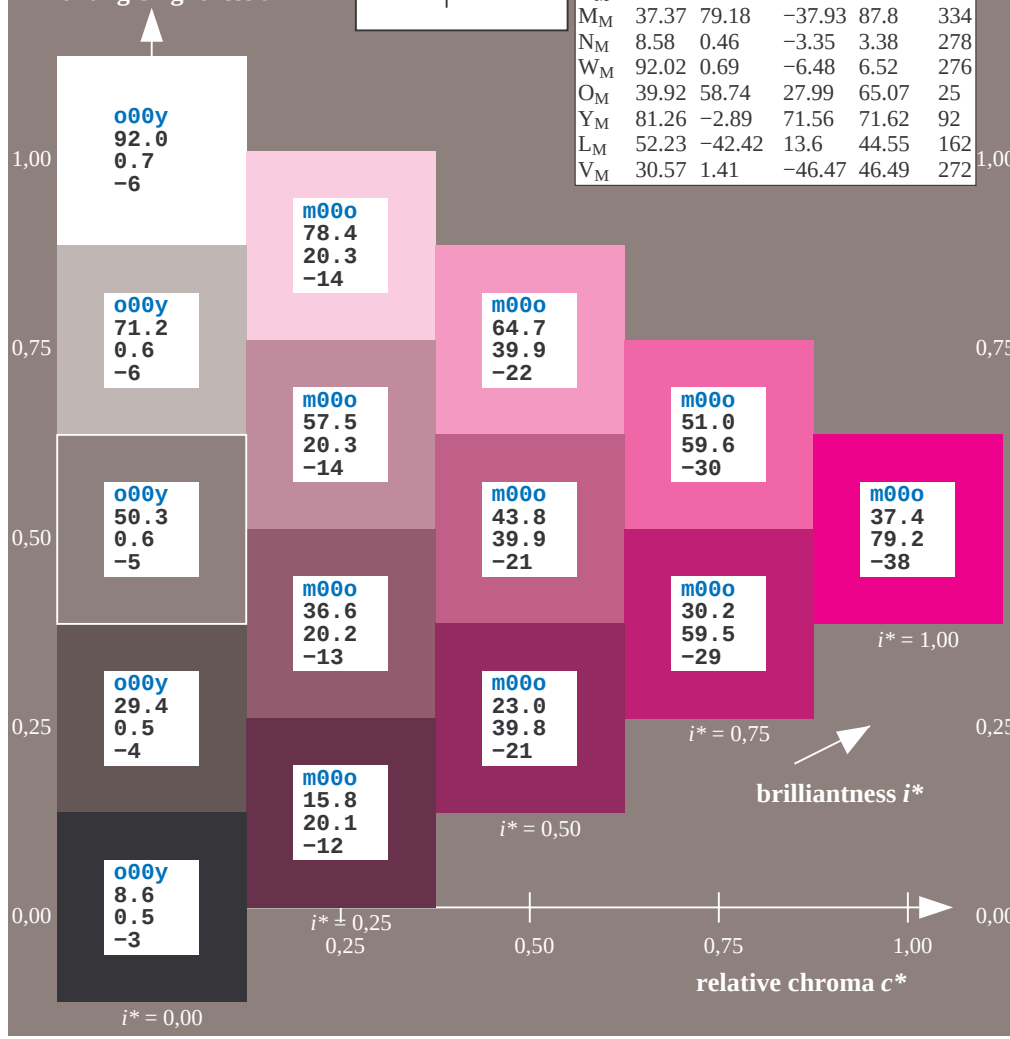
FRS09_92; CIELAB data

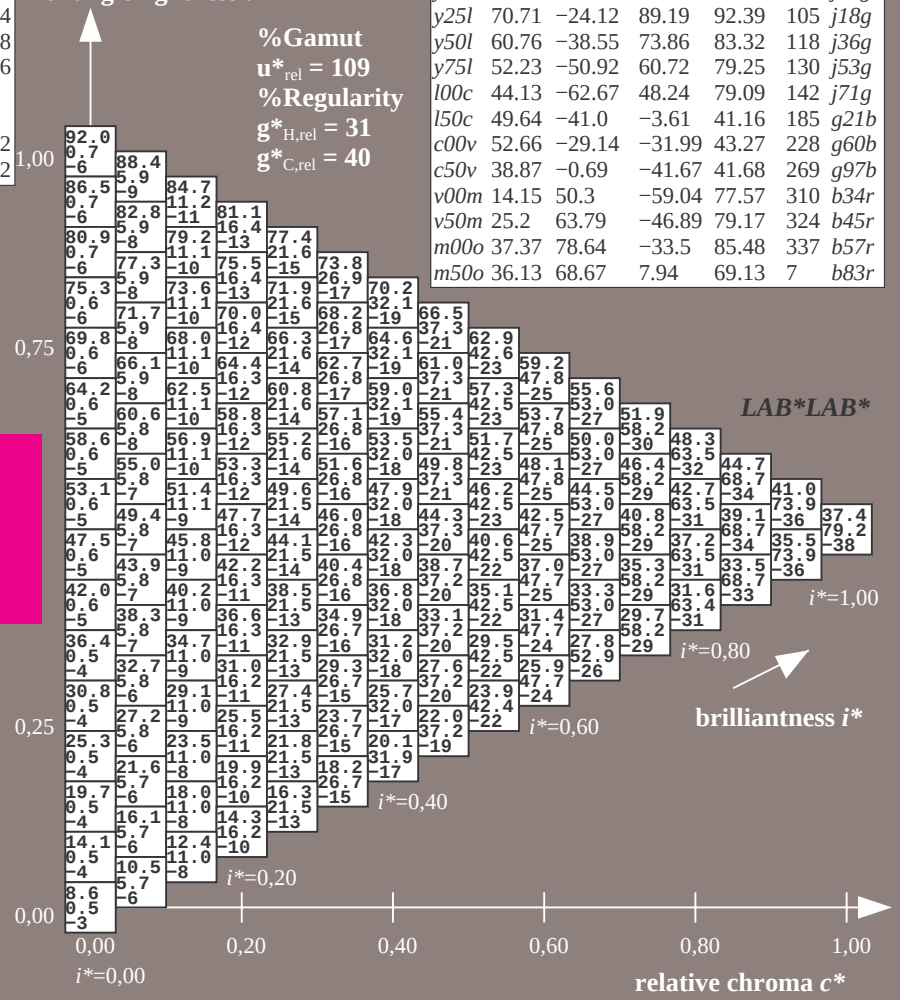
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
$LAB^*LAB^*_{Ma}$: 37 79 −34
$LAB^*LCH^*_{Ma}$: 37 85 336
$lab^*olv^*_{Ma}$: 1.0 0.0 1.0
$lab^*rgb^*_{Ma}$: 1.0 0.0 0.85

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

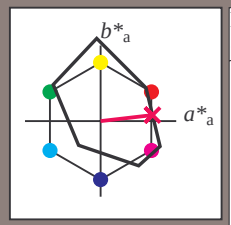




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

$u^*_d = m50o$
LAB^*LAB^*

data for any colour:
*lab*tch** and *lab*icu**
Hue texts:
$u^*_d = m50o$ $u^*_e = b83r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



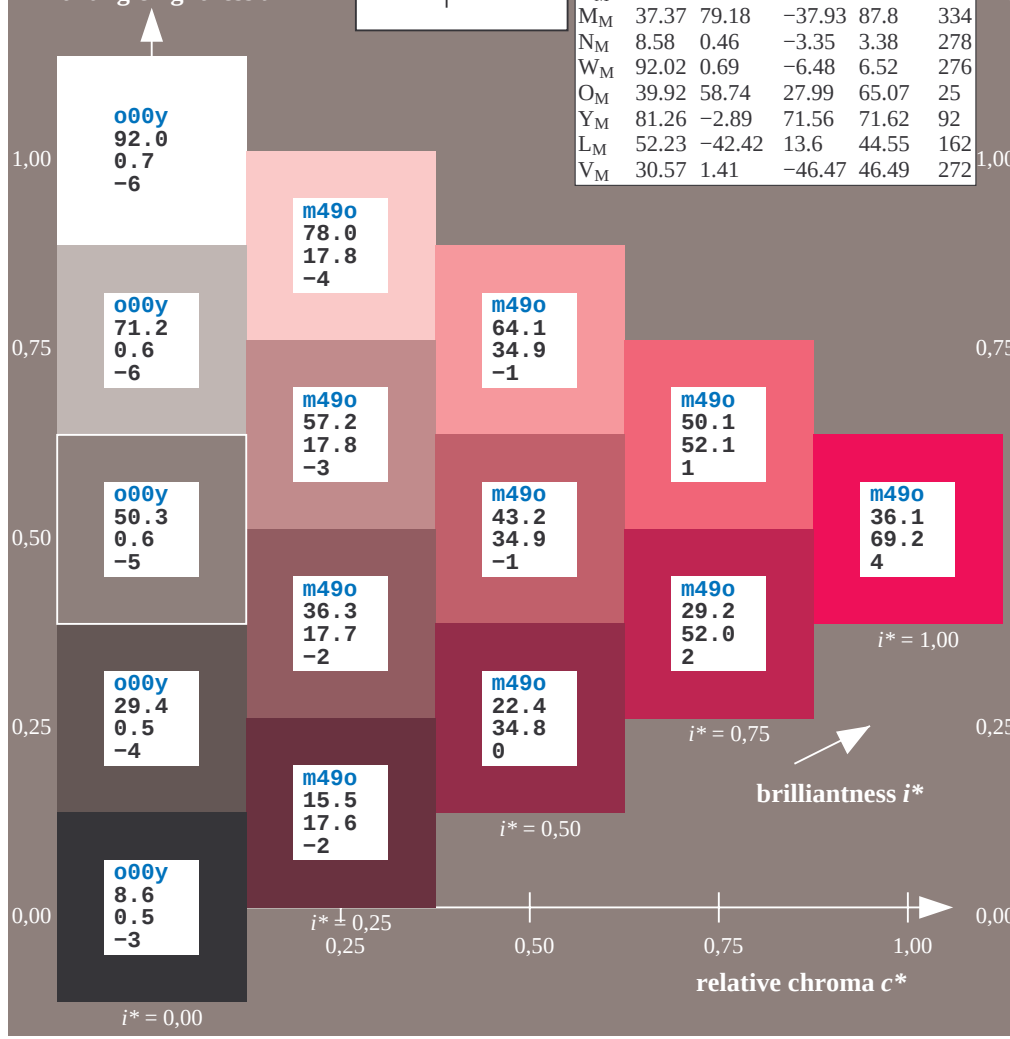
FRS09_92; CIELAB data

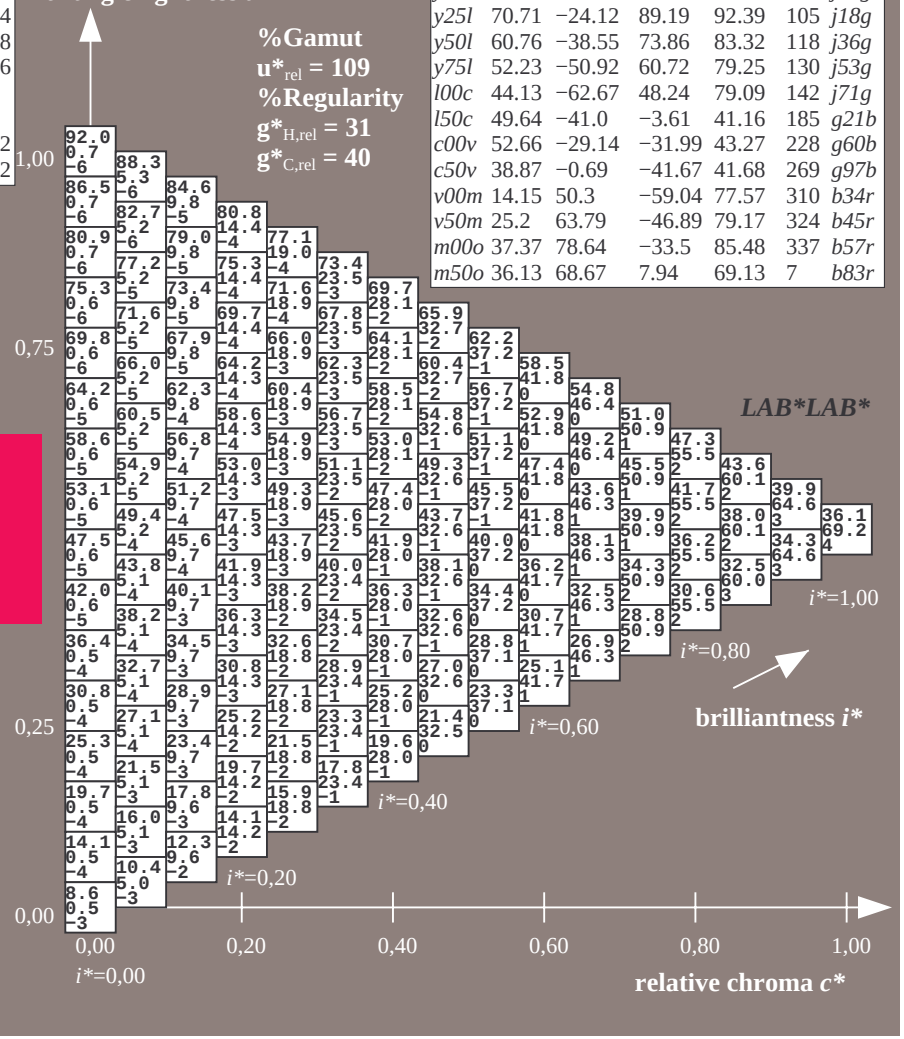
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB*$_{Ma}$*: 36 69 8**
***LAB*LCH*$_{Ma}$*: 36 69 6**
***lab*olv*$_{Ma}$*: 1.0 0.0 0.5**
***lab*rgb*$_{Ma}$*: 1.0 0.0 0.33**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



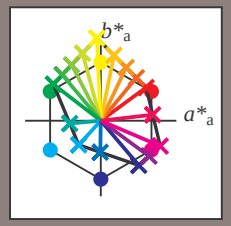


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	LAB*	LAB*	LAB*	LAB*
01	8.6	13.0	17.5	21.9	26.4	30.8	35.2	39.7	44.1	11.9	18.0	21.6	26.0	30.4	34.8	39.3	43.7	48.2	15.2	20.1	27.4	30.5	34.7	39.0	43.4	47.8	52.2	92.0	84.9	77.8	70.7	63.5	56.4	49.3	42.2	35.1	8.6	8.6	8.6	8.6
	0.5	-7.4	-15.2	-23.0	-30.8	-38.6	-46.5	-54.3	-62.1	8.0	-0.2	-9.1	-17.1	-24.9	-32.8	-40.6	-48.4	-56.2	15.5	8.9	-0.8	-10.5	-18.7	-26.7	-34.6	-42.5	-50.3	0.7	8.2	15.7	23.1	30.6	38.1	45.6	53.1	60.5	0.5	0.5	0.5	0.5
	-3	3	8	14	20	26	32	38	44	2	10	15	20	26	32	38	44	50	7	14	23	27	33	38	44	50	56	-6	-1	5	11	17	22	28	34	40	-3	-3	-3	-3
02	9.3	14.1	18.8	23.5	28.2	32.7	37.3	41.8	46.3	12.2	19.0	23.5	27.9	32.3	36.8	41.2	45.7	50.1	15.5	22.3	28.4	32.1	36.4	40.8	45.3	49.7	54.2	87.1	81.6	74.5	67.4	60.2	53.1	46.0	38.9	31.7	19.0	19.0	19.0	19.0
	6.8	-3.2	-9.8	-16.6	-23.7	-31.0	-38.4	-45.9	-53.4	10.3	0.5	-7.3	-15.2	-23.0	-30.8	-38.6	-46.4	-54.3	17.6	8.0	-0.1	-9.1	-17.1	-24.9	-32.7	-40.6	-48.4	-3.0	0.7	8.1	15.6	23.1	30.6	38.1	45.5	53.0	0.5	0.5	0.5	0.5
	-11	-8	-5	-1	3	8	12	17	23	-8	-4	2	8	14	20	26	31	37	-2	2	10	14	20	26	32	38	43	-10	-6	0	5	11	17	23	29	34	-4	-4	-4	-4
03	10.0	16.2	19.6	24.4	29.1	33.8	38.5	43.1	47.8	12.7	19.7	24.5	29.3	34.0	38.6	43.2	47.7	52.3	15.8	22.6	29.4	33.9	38.3	42.8	47.2	51.7	56.1	82.2	76.7	71.2	64.0	56.9	49.8	42.7	35.6	28.4	29.4	29.4	29.4	29.4
	13.0	0.3	-6.8	-13.4	-20.0	-26.7	-33.6	-40.7	-47.8	16.4	6.8	-3.1	-9.7	-16.6	-23.7	-30.9	-38.3	-45.8	20.1	10.3	0.5	-7.3	-15.1	-22.9	-30.8	-38.6	-46.4	-6.6	-3.0	0.6	8.1	15.6	23.1	30.6	38.0	45.5	0.5	0.5	0.5	0.5
	-18	-14	-12	-9	-6	-3	1	5	9	-15	-11	-8	-5	-2	3	7	12	17	-12	-8	-4	2	8	13	19	25	31	-14	-10	-6	0	6	12	17	23	29	-4	-4	-4	-4
04	10.7	17.9	21.7	25.1	29.8	34.6	39.4	44.1	48.8	13.4	20.4	26.6	30.0	34.8	39.5	44.3	48.9	53.6	16.3	23.2	30.1	34.9	39.7	44.4	49.0	53.6	58.2	77.3	71.7	66.2	60.7	53.6	46.5	39.4	32.3	25.1	39.9	39.9	39.9	39.9
	19.3	4.4	-3.3	-10.4	-17.1	-23.6	-30.2	-36.9	-43.8	22.7	13.1	0.3	-6.8	-13.4	-20.0	-26.7	-33.6	-40.7	26.2	16.4	6.8	-3.1	-9.7	-16.5	-23.6	-30.9	-38.3	-10.3	-6.7	-3.0	0.6	8.1	15.6	23.0	30.5	38.0	0.5	0.5	0.5	0.5
	-26	-21	-18	-16	-13	-10	-7	-4	0	-23	-19	-14	-12	-9	-6	-3	1	5	-20	-16	-12	-8	-5	-2	2	7	12	-18	-14	-10	-5	0	6	12	18	24	-5	-5	-5	-5
05	11.4	19.4	23.7	27.1	30.6	35.3	40.1	44.9	49.6	14.1	21.1	28.4	32.1	35.5	40.3	45.1	49.8	54.5	16.9	23.8	30.8	37.0	40.5	45.2	50.0	54.7	59.4	72.3	66.8	61.3	55.8	50.3	43.2	36.1	28.9	21.8	50.3	50.3	50.3	50.3
	25.6	9.1	0.2	-6.8	-14.0	-20.8	-27.3	-33.8	-40.4	29.0	19.4	4.4	-3.3	-10.4	-17.1	-23.6	-30.2	-36.9	32.4	22.7	13.1	0.4	-6.7	-13.4	-19.9	-26.7	-33.6	-13.9	-10.3	-6.7	-3.1	0.6	8.1	15.5	23.0	30.5	0.6	0.6	0.6	0.6
	-33	-28	-25	-23	-20	-17	-14	-11	-9	-30	-26	-21	-19	-16	-13	-11	-8	-4	-27	-23	-19	-15	-13	-10	-7	-3	0	-22	-18	-13	-9	-5	1	7	12	18	-5	-5	-5	-5
06	12.1	20.7	25.6	29.3	32.6	36.1	40.8	45.6	50.4	14.8	21.8	29.8	34.2	37.5	41.0	45.8	50.6	55.3	17.6	24.5	31.5	38.8	42.5	46.0	50.7	55.5	60.2	67.4	61.9	56.4	50.9	45.4	39.9	32.8	25.6	18.5	60.7	60.7	60.7	60.7
	31.9	14.1	4.0	-3.5	-10.3	-17.7	-24.4	-31.0	-37.5	35.3	25.6	9.1	0.2	-6.8	-14.0	-20.7	-27.2	-33.8	38.6	29.0	19.4	4.4	-3.2	-10.4	-17.0	-23.5	-30.1	-17.6	-14.0	-10.3	-6.7	-3.1	0.5	8.0	15.5	23.0	0.6	0.6	0.6	0.6
	-40	-35	-31	-29	-27	-24	-21	-18	-16	-37	-33	-28	-25	-23	-21	-17	-15	-12	-35	-30	-26	-22	-19	-17	-14	-11	-8	-26	-21	-17	-13	-9	-5	1	7	13	-5	-5	-5	-5
07	12.8	21.8	27.3	31.3	34.7	38.0	41.6	46.3	51.1	15.5	22.5	31.1	36.0	39.7	43.0	46.6	51.3	56.0	18.2	25.2	32.2	40.3	44.6	48.0	51.5	56.2	61.0	62.5	57.0	51.5	46.0	40.5	34.9	29.4	22.3	15.2	71.2	71.2	71.2	71.2
	38.2	19.5	8.3	0.0	-7.1	-13.9	-21.3	-28.1	-34.6	41.5	31.9	14.2	4.1	-3.5	-10.3	-17.6	-24.4	-30.9	44.9	35.3	25.7	9.1	0.2	-6.8	-14.0	-20.7	-27.2	-21.2	-17.6	-14.0	-10.4	-6.7	-3.1	0.5	8.0	15.5	0.6	0.6	0.6	0.6
	-48	-42	-38	-35	-33	-31	-29	-25	-22	-45	-41	-35	-32	-29	-27	-25	-21	-19	-42	-38	-34	-28	-26	-23	-21	-18	-15	-29	-25	-21	-17	-13	-8	-4	2	7	-6	-6	-6	-6
08	13.5	22.9	28.8	33.2	36.8	40.2	43.5	47.1	51.8	16.2	23.2	32.3	37.7	41.7	45.2	48.5	52.1	56.8	18.9	25.9	32.9	41.5	46.5	50.1	53.4	57.0	61.7	57.6	52.1	46.6	41.0	35.5	30.0	24.5	19.0	11.9	81.6	81.6	81.6	81.6
	44.5	25.1	12.8	3.8	-3.7	-10.6	-17.4	-24.9	-31.7	47.8	38.2	19.5	8.3	0.0	-7.0	-13.9	-21.3	-28.1	51.2	41.6	32.0	14.2	4.1	-3.5	-10.3	-17.6	-24.4	-24.9	-21.3	-17.6	-14.0	-10.4	-6.8	-3.1	0.5	8.0	0.7	0.7	0.7	0.7
	-55	-49	-45	-42	-40	-37	-35	-33	-29	-52	-48	-42	-39	-36	-34	-31	-29	-26	-49	-45	-41	-35	-32	-30	-28	-25	-22	-33	-29	-25	-21	-16	-12	-8	-4	2	-6	-6	-6	-6
09	14.2	23.9	30.2	35.0	38.9	42.3	45.6	49.0	52.7	16.9	23.9	33.3	39.2	43.6	47.3	50.6	53.9	57.6	19.6	26.6	33.6	42.7	48.1	52.2	55.6	58.9	62.5	52.7	47.1	41.6	36.1	30.6	25.1	19.6	14.1	8.6	92.0	92.0	92.0	92.0
	50.8	30.8	17.7	7.9	-0.1	-7.3	-14.1	-21.0	-28.6	54.1	44.5	25.1	12.9	3.8	-3.7	-10.5	-17.4	-24.9	57.5	47.9	38.3	19.6	8.3	0.1	-7.0	-13.8	-21.2	-28.6	-24.9	-21.3	-17.7	-14.0	-10.4	-6.8	-3.2	0.5	0.7	0.7	0.7	0.7
	-63	-56	-52	-49	-46	-44	-42	-39	-37	-60	-56	-49	-45	-42	-40	-38	-36	-33	-57	-53	-49	-43	-39	-36	-34	-32	-29	-37	-33	-29	-24	-20	-16	-12	-8	-3	-6	-6	-6	-6
10	18.5	23.3	28.8	36.8	39.6	43.5	47.7	52.0	56.4	21.8	26.6	31.7	37.7	46.2	48.8	52.5	56.5	60.8	25.1	29.9	34.8	40.3	46.8	55.6	58.1	61.6	65.5	92.0	91.0	90.0	88.9	87.9	86.9	85.8	84.8	83.8	8.6	8.6	8.6	8.6
	23.0	16.5	9.3	-1.4	-11.5	-20.1	-28.3	-36.4	-44.3	30.5	24.1	17.3	9.3	-2.0	-12.4	-21.4	-29.8	-37.9	38.0	31.6	25.0	17.8	9.1	-2.6	-13.3	-22.5	-31.1	10.7	0.0	-0.6	-1.3	-1.9	-2.6	-3.2	-3.9	-4.5	0.5	0.5	0.5	0.5
	13	19	26	37	40	45	51	56	62	18	24	31	39	50	53	58	63	69	24	30	36	43	52	63	66	71	76	-6	7	21	35	48	62	76	89	103	-3	-3	-3	-3
11	18.8	25.6	30.6	37.8	41.0	45.1	49.4	53.8	58.2	22.1	28.9	33.8	39.2	47.2	50.1	54.0	58.1	62.5	25.4	32.3	37.1	42.1	48.1	56.6	59.3	62.9	67.0	82.1	81.6	80.6	79.5	78.5	77.5	76.4	75.4	74.4	14.1	14.1	14.1	14.1
	25.2	15.5	8.9	-0.8	-10.4	-18.7	-26.7	-34.6	-42.5	32.7	23.0	16.6	9.3	-1.4	-11.5	-20.1	-28.3	-36.3	40.3	30.5	24.1	17.4	9.3	-2.0	-12.4	-21.3	-29.8	7.0	0.7	0.0	-0.6	-1.3	-1.9	-2.6	-3.2	-3.9	0.5	0.5	0.5	0.5
	4	7	13	23	27	32	38	44	49	9	12	19	26	36	40	45	50	56	14	18	24	31	38	50	53	57	63	-13	-6	8	21	35	49	62	76	90	-4	-4	-4	-4
12	19.0	25.9	32.8	38.8	42.5	46.8	51.3	55.7	60.1	22.4	29.2	36.1	41.0	48.2	51.4	55.5	59.9	64.2	25.7	32.5	39.4	44.2	49.6	57.6	60.5	64.4	68.6	72.6	71.9	71.2	70.1	69.1	68.1	67.0	66.0	65.0	19.7	19.7	19.7	19.7
	27.3	17.7	8.0	-0.1	-9.1	-17.0	-24.9	-32.7	-40.5	34.8	25.2	15.5	9.0	-0.7	-10.4	-18.7	-26.7	-34.6	42.4	32.8	23.0	16.6	9.3	-1.3	-11.5	-20.1	-28.3	13.2	6.9	0.6	0.0	-0.7	-1.3	-2.0	-2.6	-3.3	0.5	0.5	0.5	0.5
	-5	-2	1	9	14	20	25	31	37	0	3	7	13	22	26	32	38	43	5	8	12	18	25	36	39	44	50	-21	-13	-6	8	22	35	49	63	77	-4	-4	-4	-4
13	19.4	26.2	33.0	39.9	44.3	48.8	53.2	57.6	62.1	22.6	29.5	36.3	43.2	49.3	52.9	57.3	61.7	66.1	25.9	32.8	39.6	46.5	51.4	58.7	61.8	66.0	70.3	62.8	62.1	61.4	60.7	59.7	58.7	57.6	56.6	55.6	25.3	25.3	25.3	25.3
	30.0	20.2	10.4	0.5	-7.3	-15.1	-22.9	-30.7	-38.6	37.1	27.4	17.7	8.1	-0.1	-9.1	-17.0	-24.9	-32.7	44.5	34.9	25.3	15.6	9.0	-0.7	-10.4	-18.7	-26.7	19.5	13.2	6.9	0.6	0.0	-0.7	-1.3	-2.0	-2.6	0.5	0.5	0.5	0.5
	-16	-12	-8	-5	1	7	13	19	25	-9	-6	-2	1	9	13	19	25	31	-3	0	3	6	13	22	26	31	37	-28	-20	-13	-5	8	22	36	50	63	-4	-4	-4	-4
14	19.8	26.7	33.6	40.6	45.4	50.1	54.8	59.5	64.0	23.0	29.8	36.6	43.5	50.3	54.7	59.2	63.6	68.1	26.2	33.1	39.9	46.8	53.6	59.7	63.3	67.7	72.1	53.1	52.4	51.7	51.0	50.3	49.3	48.2	47.2	46.2	30.8	30.8	30.8	30.8
	36.0	26.2	16.5	6.8	-3.1	-9.7	-16.5	-23.6	-30.9	39.8	30.0	20.2	10.4	0.6	-7.2	-15.1	-22.9	-30.7	46.8	37.1	27.4	17.7	8.1	0.0	-9.0	-17.0	-24.8	25.7	19.4	13.2	6.9	0.6	-0.1	-0.7	-1.4	-2.0	0.5	0.5	0.5	0.5
	-24	-20	-16	-12	-9	-6	-2	2	6	-21	-17	-13	-9	-5	1	7	13	19	-13	-10	-6	-3	0	8	13	19	25	-35	-27	-20	-12	-5	9	22	36	50	-4	-4	-4	-4
15	20.4	27.3	34.3	41.3	47.4	50.9	55.6	60.4	65.1	23.4	30.2	37.1	44.0	51.0	55.8	60.6	65.3	69.9	26.6	33.4	40.2	47.1	53.9	60.7	65.2	69.6	74.1	43.4	42.7	42.0	41.3	40.6	39.9	38.8	37.8	36.8	36.4	36.4	36.4	36.4
	42.1	32.4	22.7	13.1	0.4	-6.7	-13.3	-19.9	-26.6	45.8	36.0	26.2	16.5	6.9	-3.1	-9.6	-16.5	-23.6	49.7	39.8	30.0	20.2	10.4	0.6	-7.2	-15.0	-22.9	32.0	25.7	19.4	13.1	6.8	0.5	-0.1	-0.8	-1.4	0.5	0.5	0.5	0.5
	-32	-27	-23	-19	-15	-13	-10	-7	-4	-28	-24	-20	-16	-12	-9	-6	-3	1	-25	-21	-17	-13	-9	-5	1	6	12	-42	-34	-27	-19	-12	-5	9	23	37	-4	-4	-4	-4
16	21.0	28.0	35.0	42.0	49.2	52.9	56.4	61.1	65.9	23.9	30.8	37.7	44.7	51.7	57.9	61.3	66.1	70.8	27.0	33.8	40.7	47.5	54.5	61.4	66.2	71.0	75.7	33.6	32.9	32.2	31.5	30.8	30.1	29.4	28.4	27.4	42.0	42.0	42.0	42.0
	48.3	38.7	29.0	19.4	4.5	-3.2	-10.3	-17.0	-23.5	51.9	42.1	32.4	22.8	13.2	0.4	-6.7	-13.3	-19.9	55.6	45.8	36.0	26.3	16.5	6.9	-3.0	-9.6	-16.4	38.3	32.0	25.7	19.4	13.1	6.8	0.5	-0.1	-0.8	0.6	0.6	0.6	0.6
	-39	-35	-31	-27	-22	-19	-17	-14	-11	-36	-32	-28	-24	-20	-16	-13	-10	-7	-33	-29	-25	-21	-17	-13	-10	-7	-3	-49	-41	-34	-26	-19	-12	-4	10	23	-5	-5	-5	-5
17	21.7	28.7	35.7	42.7	50.7	55.0	58.4	61.9	66.6	24.6	31.5	38.4	45.4	52.4	59.6	63.4	66.8	71.6	27.5	34.4	41.3	48.2	55.1	62.1	68.3	71.7	76.5	23.9	23.2	22.5	21.8	21.1	20.4	19.7	19.0	18.0	47.5	47.5	47.5	47.5
	54.6	44.9	35.3	25.7	9.1	0.2	-6.7	-14.0	-20.7	58.1	48.4	38.7	29.0	19.4	4.5	-3.2	-10.3	-17.0	61.7	51.9	42.2	32.5	22.8	13.2	0.5	-6.7	-13.3	44.5	38.2	31.9	25.6	19.4	13.1	6.8	0.5	-0.2	0.6	0.6	0.6	0.6
	-46	-42	-38	-34	-29	-26	-24	-21	-18	-43	-39	-35	-31	-27	-22	-20	-18	-14	-40	-36	-32	-28	-24	-20	-16	-14	-11	-56	-48	-41	-33	-26	-19	-11	-4	10	-5	-5	-5	-5
18	22.4	29.4	36.3	43.4	52.0	56.9	60.5	63.9	67.4	25.2	32.1	39.1	46.1	53.1	61.1	65.4	68.8	72.3	28.1	35.0	41.9	48.8	55.8	62.8	70.1	73.8	77.3	14.2	13.5	12.8	12.1	11.4	10.7	10.0	9.3	8.6	53.1	53.1	53.1	53.1
	60.8	51.2	41.6	32.0	14.2	4.1	-3.4	-10.3	-17.6	64.3	54.6	45.0	35.3	25.7	9.2	0.3	-6.7	-13.9	67.8	58.1	48.4	38.7	29.1	19.5	4.5	-3.2	-10.5	50.8	44.5	38.2	31.9	25.6	19.3	13.0	6.8	0.5	0.6	0.6	0.6	0.6
	-54	-50	-46	-42	-36	-33	-30	-28	-26	-51	-47	-43	-39	-35	-29	-26	-24	-22	-48	-44	-40	-36	-32	-28	-23	-20	-18	-63	-55	-48	-40	-33	-26	-18	-11	-3	-5	-5	-5	-5
19	28.4	33.3	38.1	43.2	49.0	55.9	65.0	67.4	70.7	31.7	36.6	41.4	46.4	51.8	57.9	65.2	74.4	76.7	35.1	39.9	44.7	49.6	54.8	60.4	66.8	74.4	83.8	92.0	86.0	80.0	74.1	68.1	62.1	56.1	50.1	44.1	58.6	58.6	58.6	58.6
	45.5	39.1	32.6	25.8	18.1	8.8	-3.3	-14.0	-23.5	53.0	46.6	40.2	33.5	26.3	18.1	8.4	-3.9	-14.8	60.5	54.1	47.7	41.1	34.2	26.7	18.1	8.0	-4.5	0.7	-7.2	-15.0	-22.9	-30.7	-38.6	-46.4	-54.3	-62.1	0.6	0.6	0.6	0.6
	29	35	41	48	56	65	77	79	84	34	41	47	53	60	68	78	90	92	40	46	52	59	65	73	81	91	103	-6	0	6	12	19	25	31	37	44	-5	-5	-5	-5
20	28.7	35.6	40.4	45.3	50.7	57.2	66.0	68.5	72.0	32.0	38.9	43.7	48.5	53.7	59.4	66.4	75.4	77.8	35.3	42.2	47.0	51.8	56.8	62.2	68.3	75.6	84.8	85.2	81.6	75.6	69.6	63.6	57.6	51.7	45.7	39.7	64.2	64.2	64.2	64.2
	47.8	38.0	31.6	25.1	17.8	9.1	-2.6	-13.2	-22.4	55.3	45.5	39.1	32.7	25.8	18.1	8.8	-3.2	-14.0	62.9	53.1	46.6	40.2	33.5	26.3	18.2	8.5	-3.9	10.5	0.7	-7.2	-15.0	-22.9	-30.7	-38.6	-46.4	-54.3	0.6	0.6	0.6	0.6
	19	23	29	36	43	51	63	66	70	25	29	35	41	48	55	64	76	79	30	34	40	46	53	60	68	77	89	-10	-6	0	6	13	19	25	31	38	-5	-5	-5	-5
21	29.0	35.8	42.7	47.5	52.5	58.6	67.0	69.7	73.4	32.3	39.2	46.0	50.8	55.7	61.1	67.6	76.4	78.9	35.6	42.5	49.3	54.1	59.0	64.1	69.9	76.8	85.8	78.4	74.8	71.2	65.2	59.2	53.2	47.2	41.2	35.2	69.8	69.8	69.8	69.8
	49.9	40.3	30.6	24.1	17.4	9.3	-2.0	-12.4	-21.3	57.5	47.8	38.1	31.6	25.1	17.9	9.2	-2.6	-13.2	65.0	55.4	45.6	39.1	32.7	25.8	18.1	8.9	-3.2	20.3	10.5	0.6	-7.2	-15.1	-22.9	-30.8	-38.6	-46.5	0.6	0.6	0.6	0.6
	11	14	17	24	30	38	49	52	57	16	19	23	29	35	42	51	62	65	21	24	28	34	41	47	55	64	76	-14	-10	-6	1	7	13	19	26	32	-6	-6	-6	-6
22	29.2	36.1	43.0	49.8	54.6	60.1	68.1	70.9	74.8	32.6	39.4	46.3	53.1	57.9	63.0	69.0	77.5	80.1	35.9	42.7	49.6	56.4	61.2	66.1	71.5	78.1	86.9	71.5	67.9	64.3	60.7	54.7	48.8	42.8	36.8	30.8	75.3	75.3	75.3	75.3
	52.0	42.4	32.8	23.1	16.6	9.3	-1.3	-11.4	-20.1	59.6	50.0	40.3	30.6	24.2	17.4	9.4	-1.9	-12.3	67.1	57.5	47.9	38.1	31.7	25.1	17.9	9.2	-2.6	30.1	20.3	10.4	0.6	-7.2	-15.1	-22.9	-30.8	-38.6	0.6	0.6	0.6	0.6
	2	5	8	12	18	25	35	39	44	7	10	13	17	23	30	38	49	52	12	15	19	22	29	35	42	51	62	-18	-14	-10	-5	1	7	13	20	26	-6	-6	-6	-6
23	29.5	36.4	43.2	50.1	56.9	61.8	69.1	72.3	76.4	32.8	39.7	46.5	53.4	60.2	65.1	70.5	78.5	81.4	36.1	43.0	49.8	56.7	63.5	68.4	73.4	79.4	87.9	64.7	61.1	57.5	53.9	50.3	44.3	38.3	32.3	26.4	80.9	80.9	80.9	80.9
	54.2	44.5	34.9	25.3	15.6	9.0	-0.7	-10.3	-18.6	61.7	52.1	42.4	32.8	23.1	16.7	9.4	-1.3	-11.4	69.2	59.6	50.0	40.4	30.6	24.2	17.5	9.4	-1.9	39.9	30.1	20.3	10.4	0.6	-7.3	-15.1	-23.0	-30.8	0.7	0.7	0.7	0.7
	-7	-4	-1	2	6	12	22	26	31	-2	1	5	8	11	18	25	35	39	4	7	10	13	17	23	29	37	48	-22	-18	-14	-9	-5	1	8	14	20	-6	-6	-6	-6
24	29.8	36.7	43.5	50.3	57.2	64.0	70.1	73.8	78.1	33.1	39.9	46.8	53.6	60.5	67.4	72.3	79.5	82.7	36.4	43.3	50.1	57.0	63.8	70.7	75.5	80.9	88.9	57.9	54.3	50.7	47.1	43.5	39.9	33.9	27.9	21.9	86.5	86.5	86.5	86.5
	56.6	46.9	37.1	27.4	17.8	8.1	0.0	-9.0	-16.9	63.9	54.2	44.6	34.9	25.3	15.6	9.0	-0.6	-10.3	71.4	61.7	52.1	42.5	32.9	23.1	16.7	9.4	-1.3	49.7	39.9	30.1	20.2	10.4	0.5	-7.3	-15.2	-23.0	0.7	0.7	0.7	0.7
	-17	-14	-10	-6	-3	0	8	13	18	-11	-8	-4	-1	2	5	12	21	25	-5	-2	1	4	7	11	17	24	35	-26	-22	-17	-13	-9	-5	2	8	14	-6	-6	-6	-6
25	30.2	37.0	43.8	50.7	57.5	64.3	71.2	75.6	80.0	33.4	40.2	47.1	53.9	60.8	67.6	74.5	80.6	84.2	36.7	43.5	50.4	57.2	64.1	70.9	77.8

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

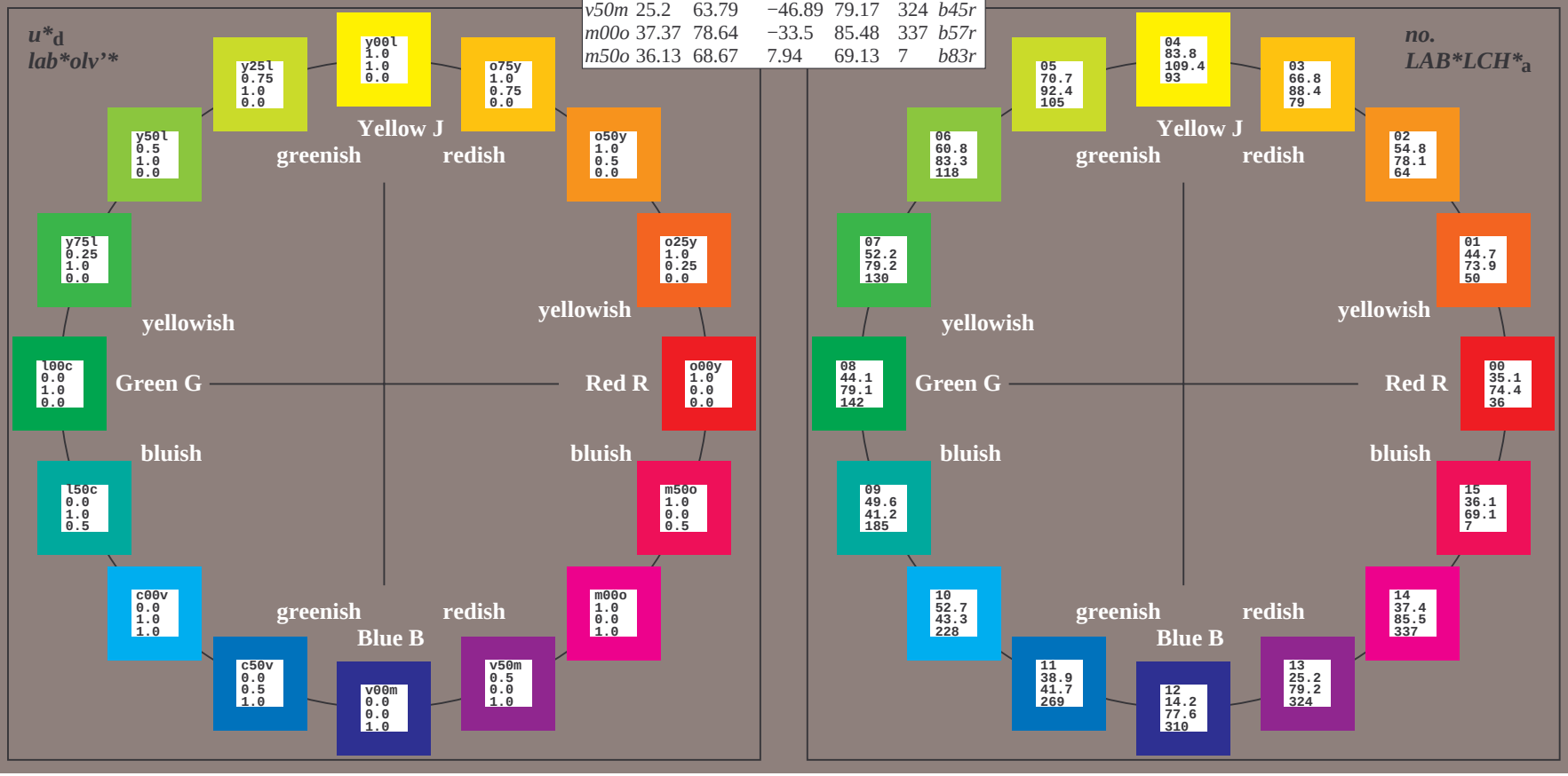
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; CIELAB data

Name	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

data for any colour:

*lab*tch** **and** *lab*icu**

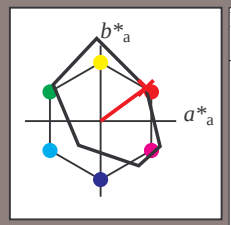
Hue texts:

u^*_d = *o00y* u^*_e = *r16j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 35 60 44

*LAB*LCH**$_{Ma}$: 35 74 36

*lab*olv**$_{Ma}$: 1.0 0.0 0.0

*lab*rgb**$_{Ma}$: 1.0 0.16 0.0

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

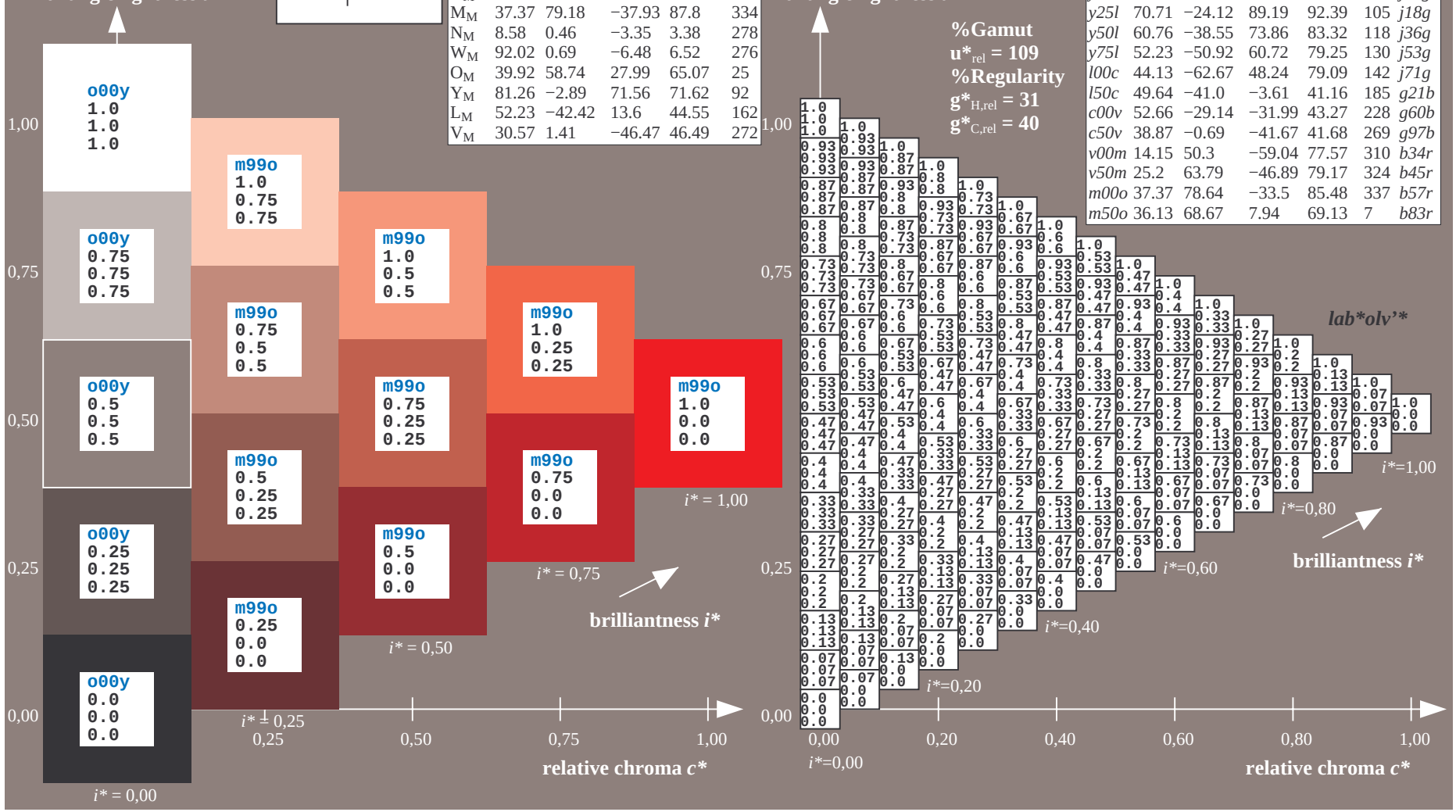
$g^*_{C,rel}$ = 40

u^*_d = *o00y*

*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

data for any colour:

*lab*tch** and *lab*icu**

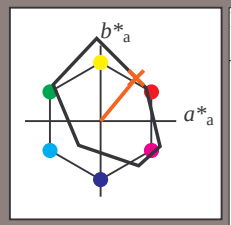
Hue texts:

u^*_d = *o25y* u^*_e = *r37j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 45 47 57**

***LAB*LCH*Ma*: 45 74 50**

***lab*olv*Ma*: 1.0 0.25 0.0**

***lab*rgb*Ma*: 1.0 0.37 0.0**

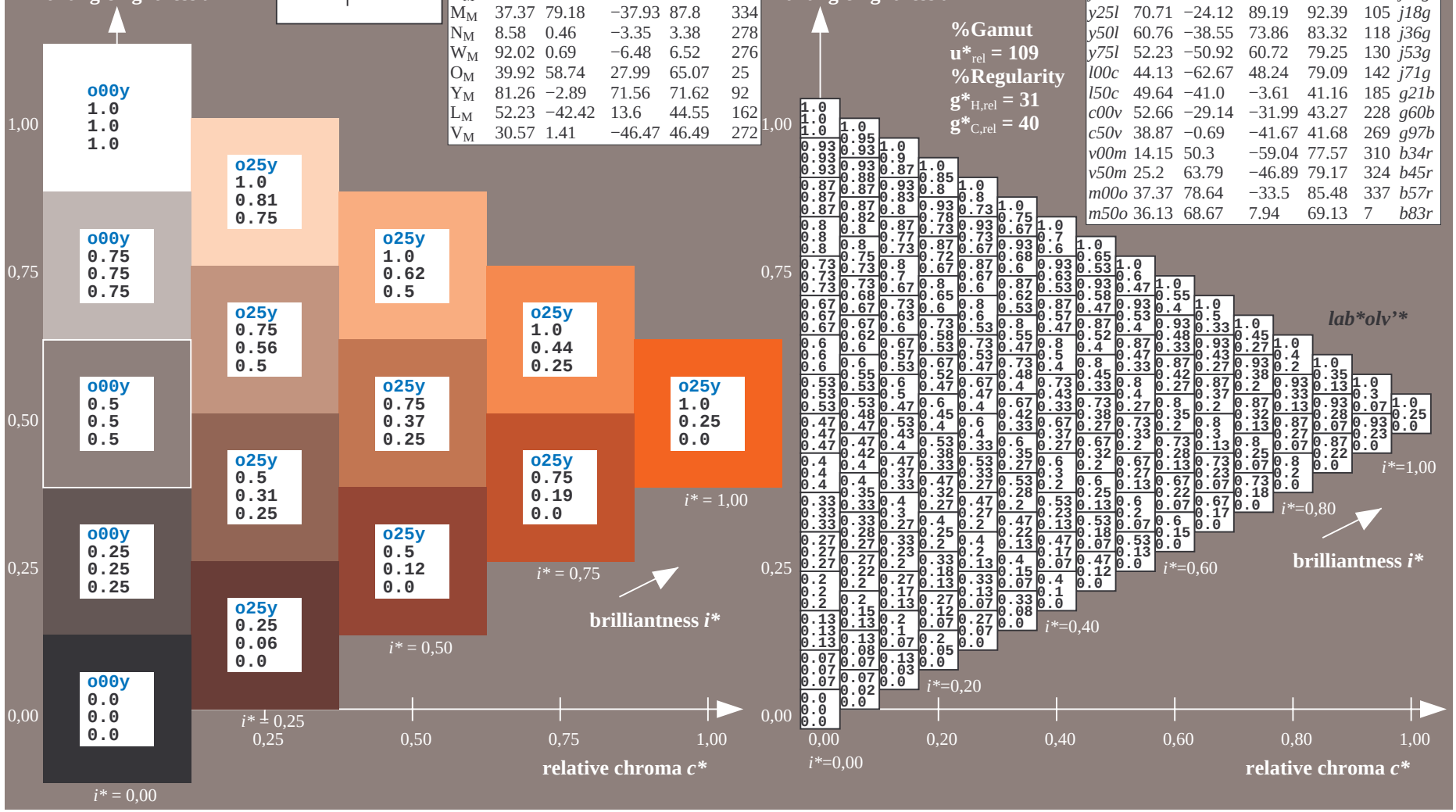
triangle lightness *t**

u^*_d = *o25y*

lab*olv'*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

*lab*tch** and *lab*icu**

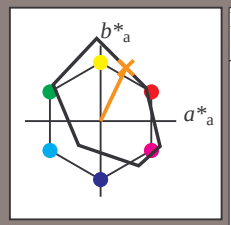
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 55 34 70**

***LAB*LCH**$_{Ma}$: 55 78 64**

***lab*olv**$_{Ma}$: 1.0 0.5 0.0**

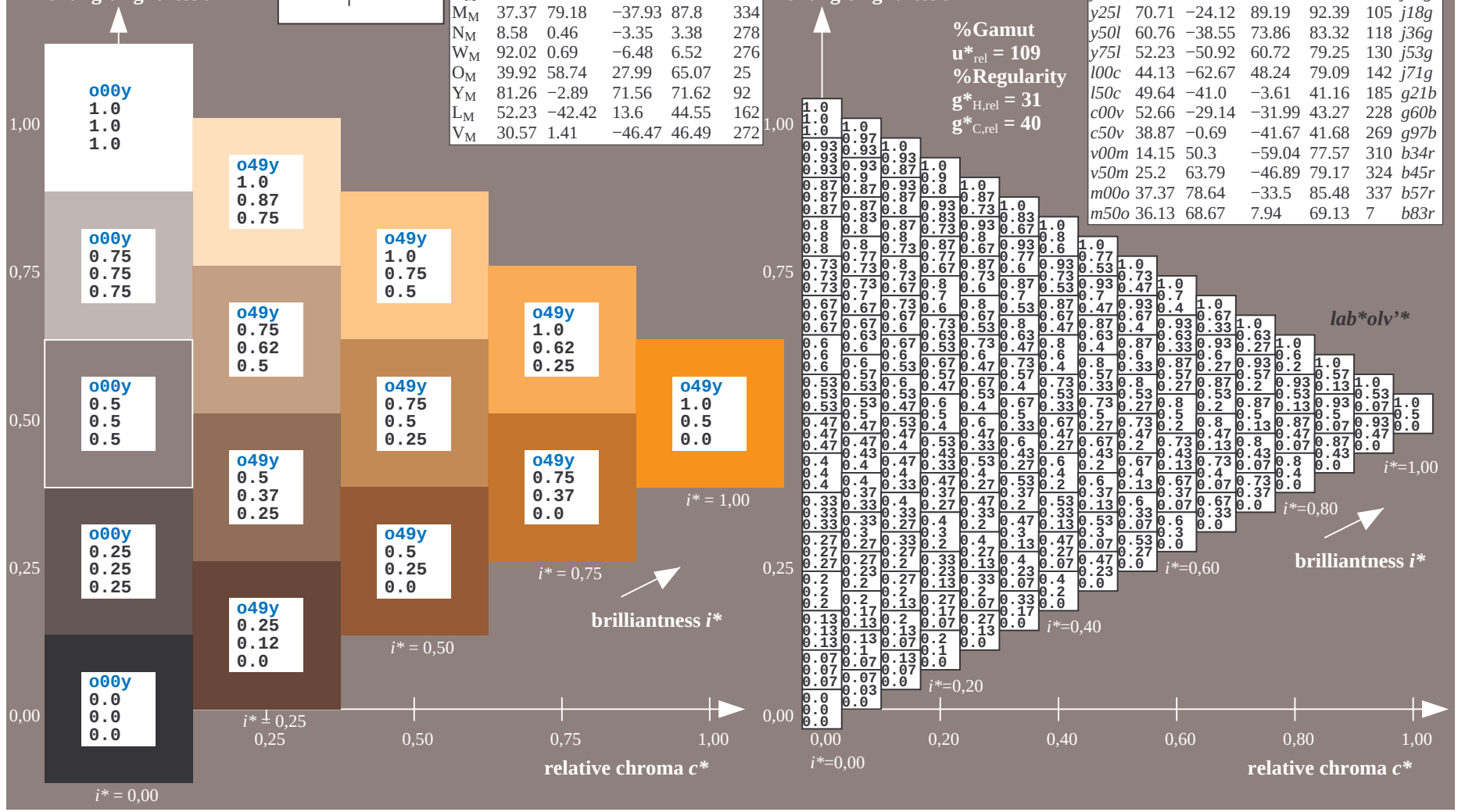
***lab*rgb**$_{Ma}$: 1.0 0.58 0.0**

triangle lightness *t**

$u^*_d = o50y$
*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

data for any colour:

*lab*tch** and *lab*icu**

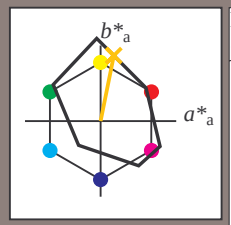
Hue texts:

u^*_d = *o75y* u^*_e = *r79j*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 67 17 87**

***LAB*LCH*Ma*: 67 88 78**

***lab*olv*Ma*: 1.0 0.75 0.0**

***lab*rgb*Ma*: 1.0 0.79 0.0**

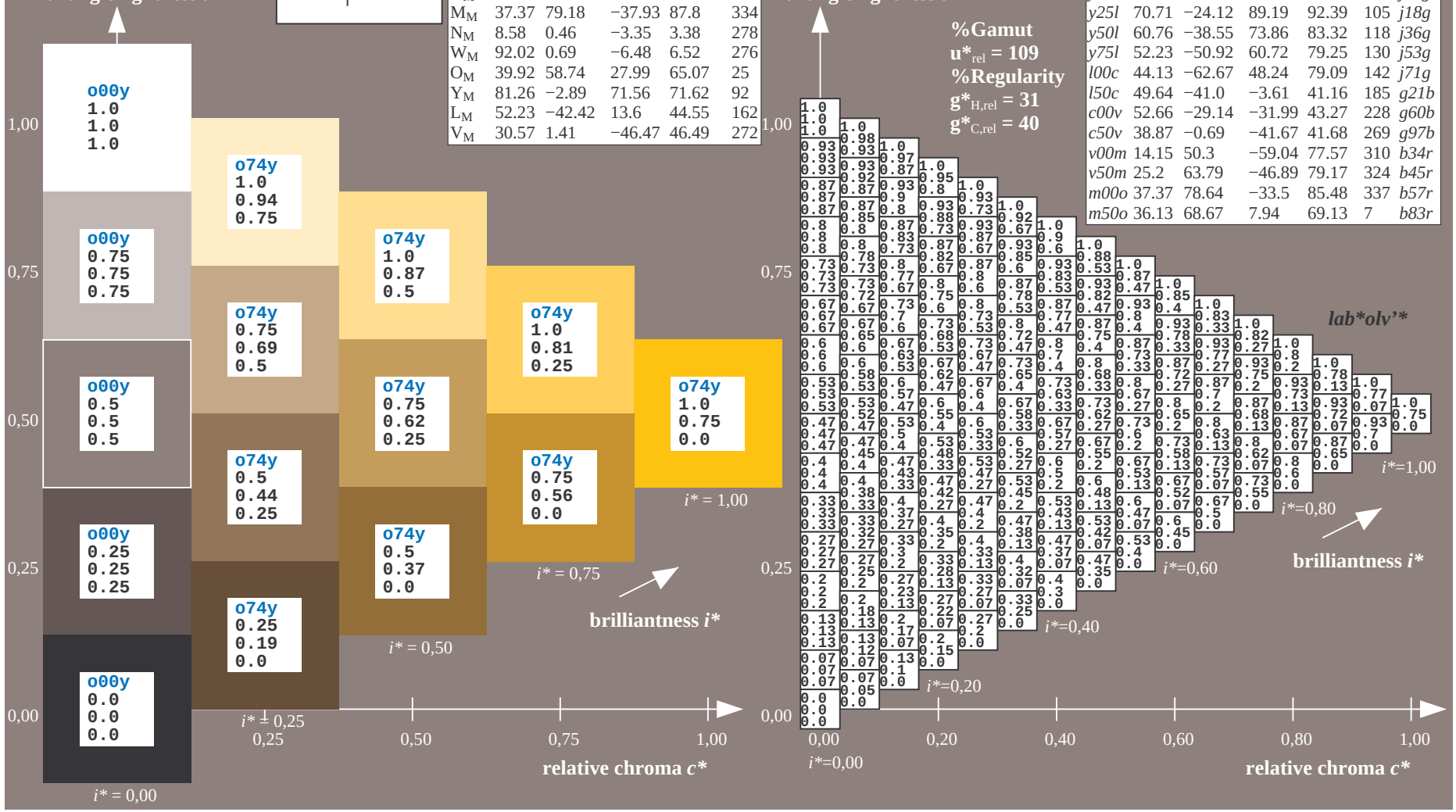
triangle lightness *t**

u^*_d = *o75y*

lab*olv'*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

data for any colour:

*lab*tch** **and** *lab*icu**

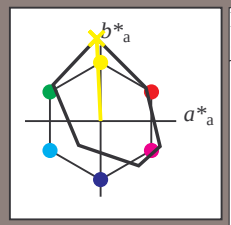
Hue texts:

$u^*_d = y00l$ $u^*_e = j01g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 84 −5 109**

***LAB*LCH*Ma*: 84 109 92**

***lab*olv*Ma*: 1.0 1.0 0.0**

***lab*rgb*Ma*: 0.99 1.0 0.0**

triangle lightness *t**

$u^*_d = y00l$

*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

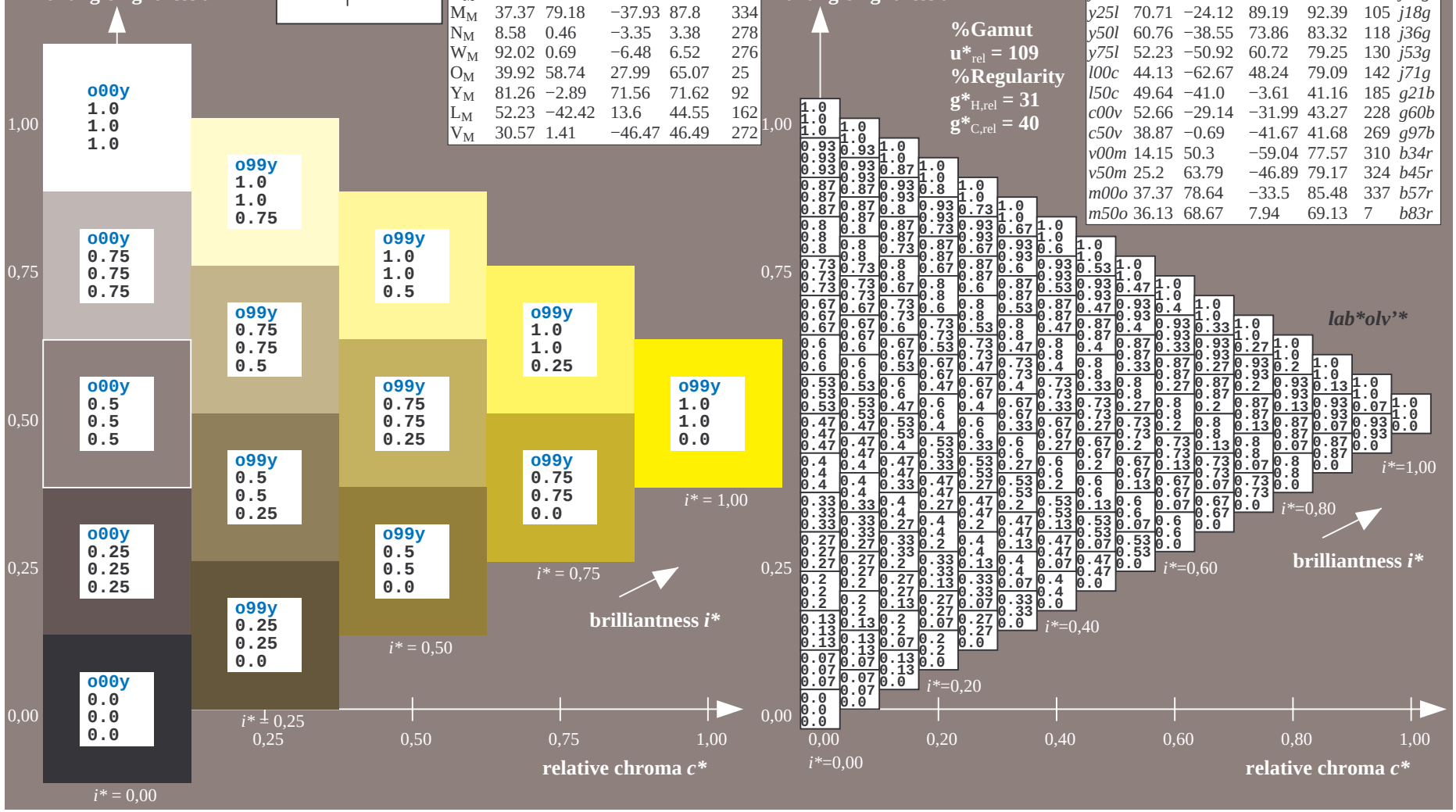
%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** **and** *lab*icu**

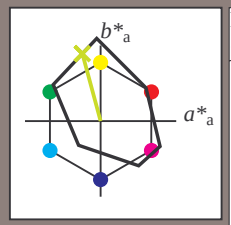
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 71 −24 89**

***LAB*LCH*Ma*: 71 92 105**

***lab*olv*Ma*: 0.75 1.0 0.0**

***lab*rgb*Ma*: 0.82 1.0 0.0**

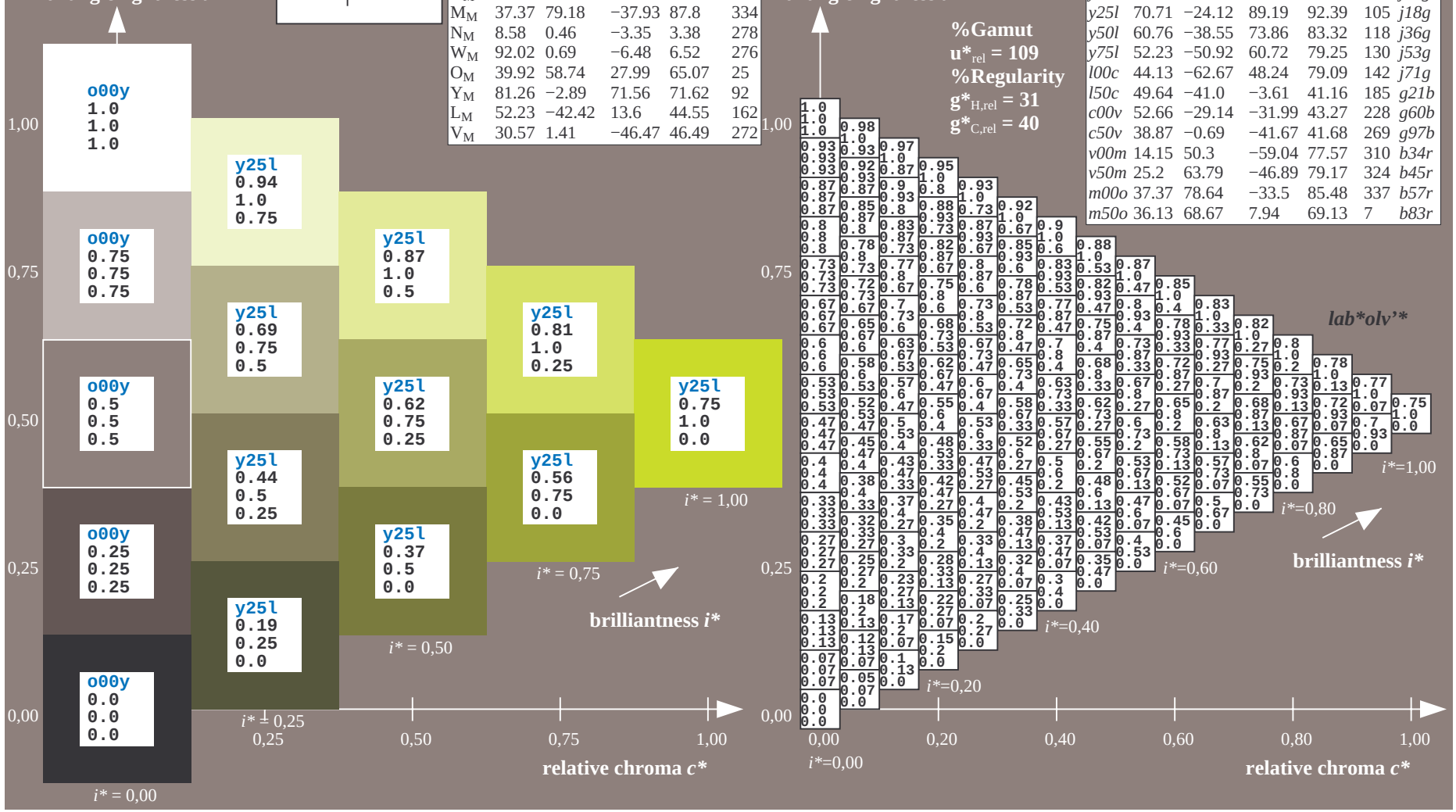
triangle lightness *t**

$u^*_d = y25l$

*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

*lab*tch** and *lab*icu**

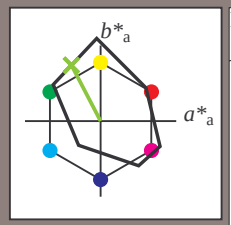
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

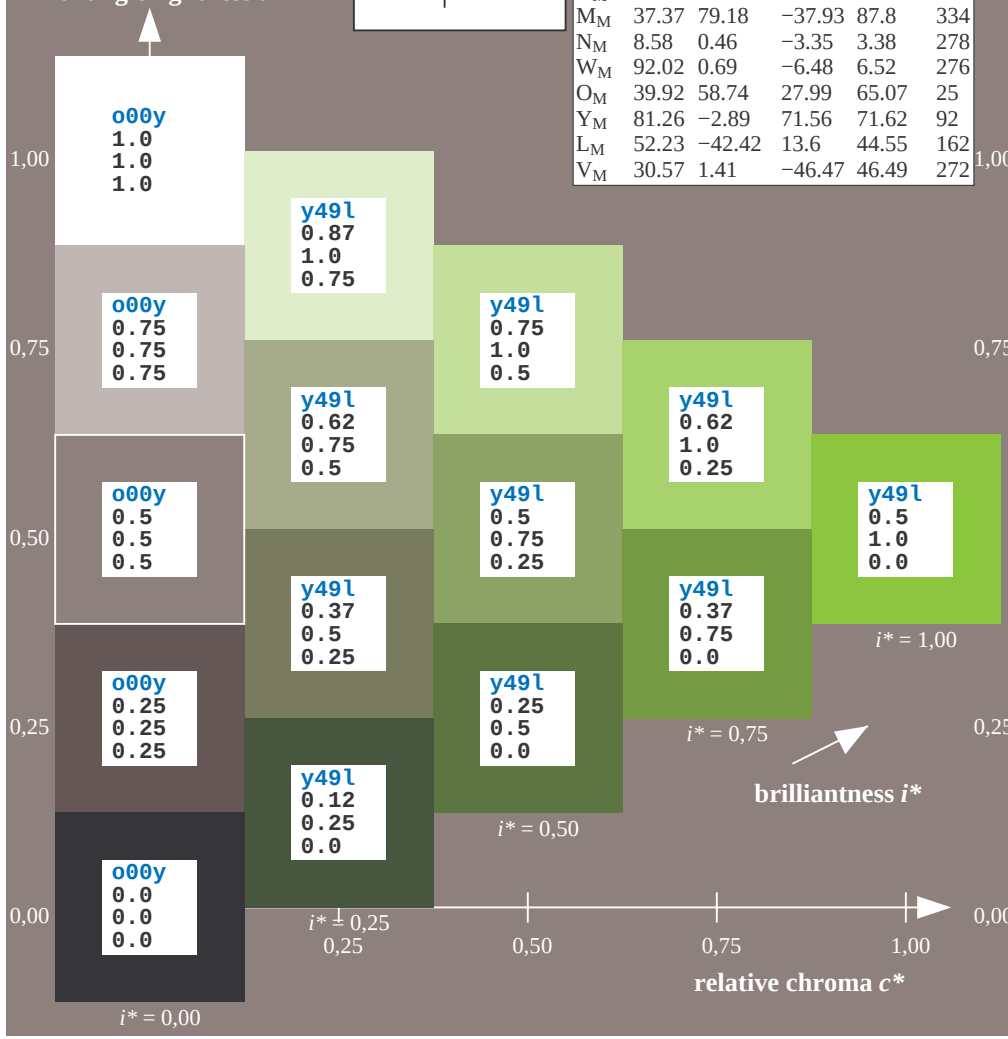
***LAB*LAB**$_{Ma}$: 61 −39 74**

***LAB*LCH**$_{Ma}$: 61 83 117**

***lab*olv**$_{Ma}$: 0.5 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.64 1.0 0.0**

triangle lightness *t**



%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

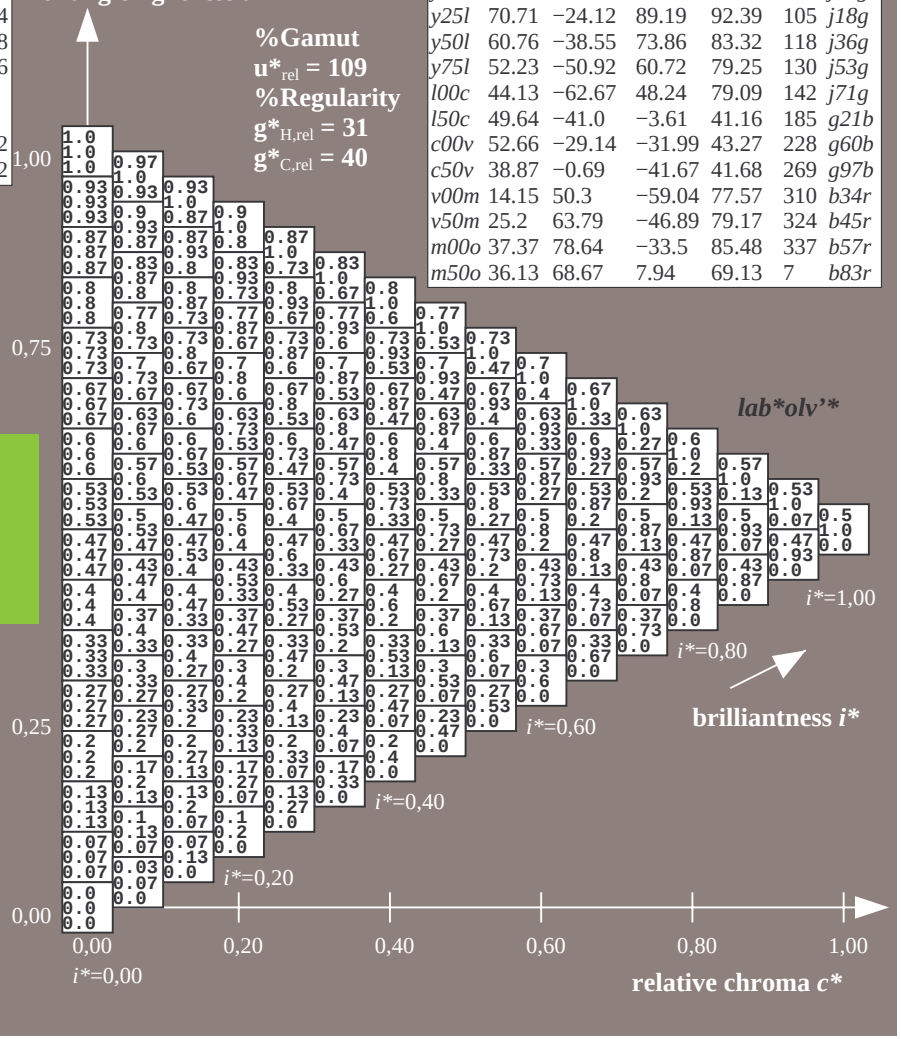
$g^*_{C,rel} = 40$

$u^*_d = y50l$

lab*olv'*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** and *lab*icu**

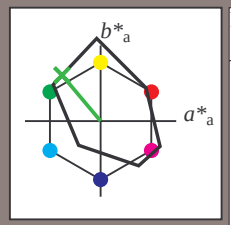
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 52 −51 61**

***LAB*LCH**$_{Ma}$: 52 79 129**

***lab*olv**$_{Ma}$: 0.25 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.46 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

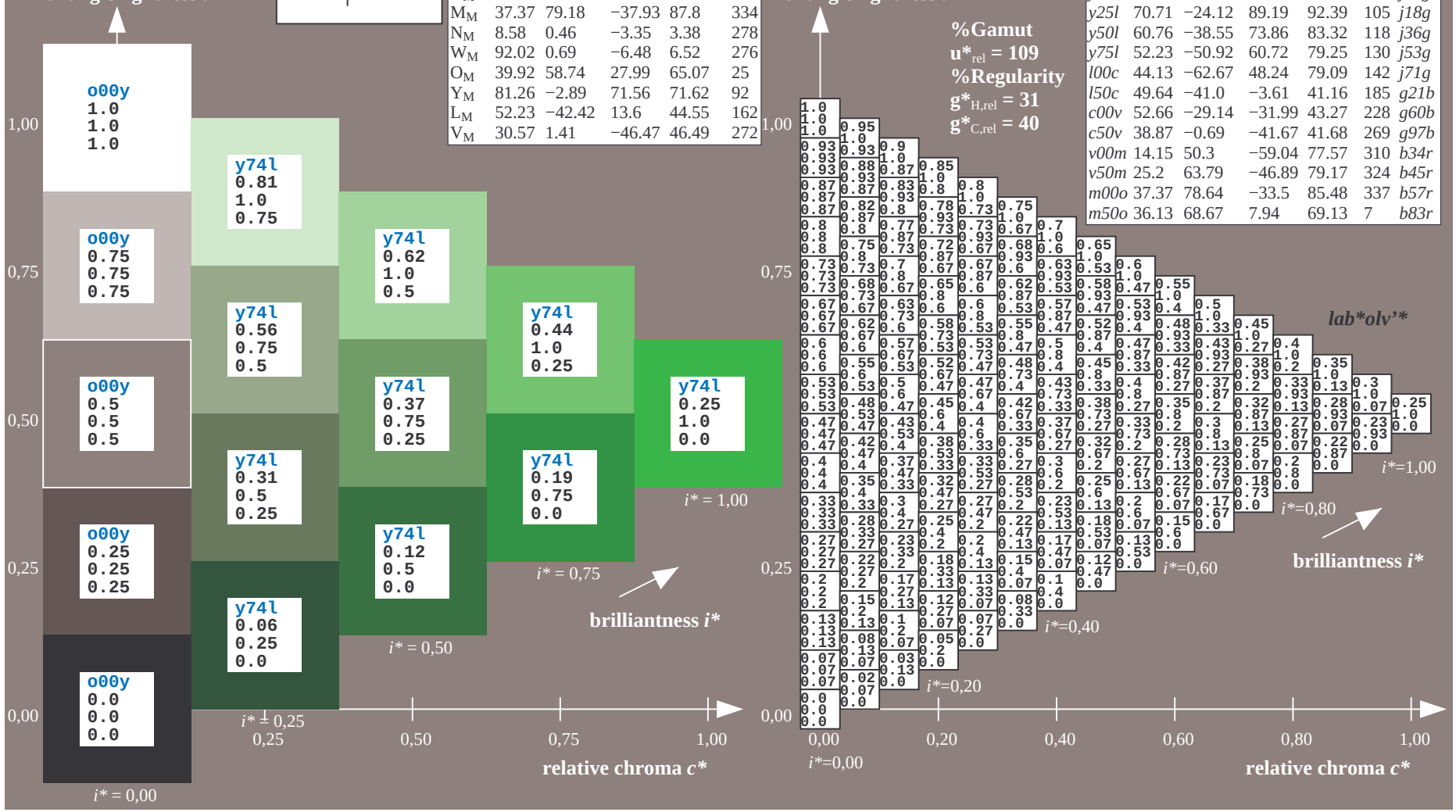
$g^*_{C,rel}$ = 40

$u^*_d = y75l$

lab*olv'*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

data for any colour:

*lab*tch** and *lab*icu**

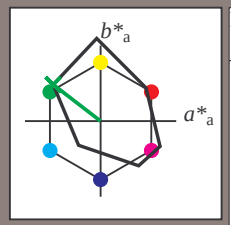
Hue texts:

$u^*_d = l00c$ $u^*_e = j71g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 44 −63 48**

***LAB*LCH*Ma*: 44 79 142**

***lab*olv*Ma*: 0.0 1.0 0.0**

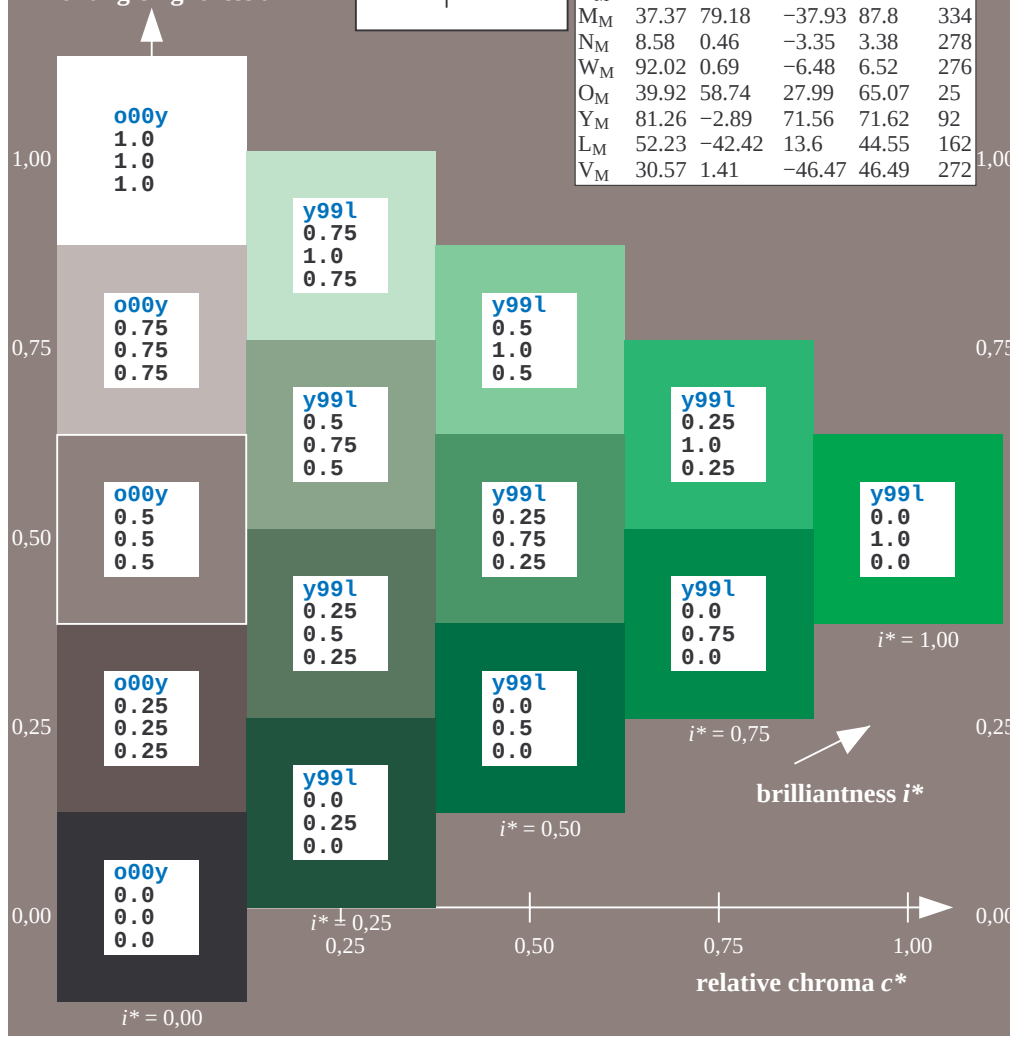
***lab*rgb*Ma*: 0.28 1.0 0.0**

$u^*_d = l00c$

*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



triangle lightness *t**

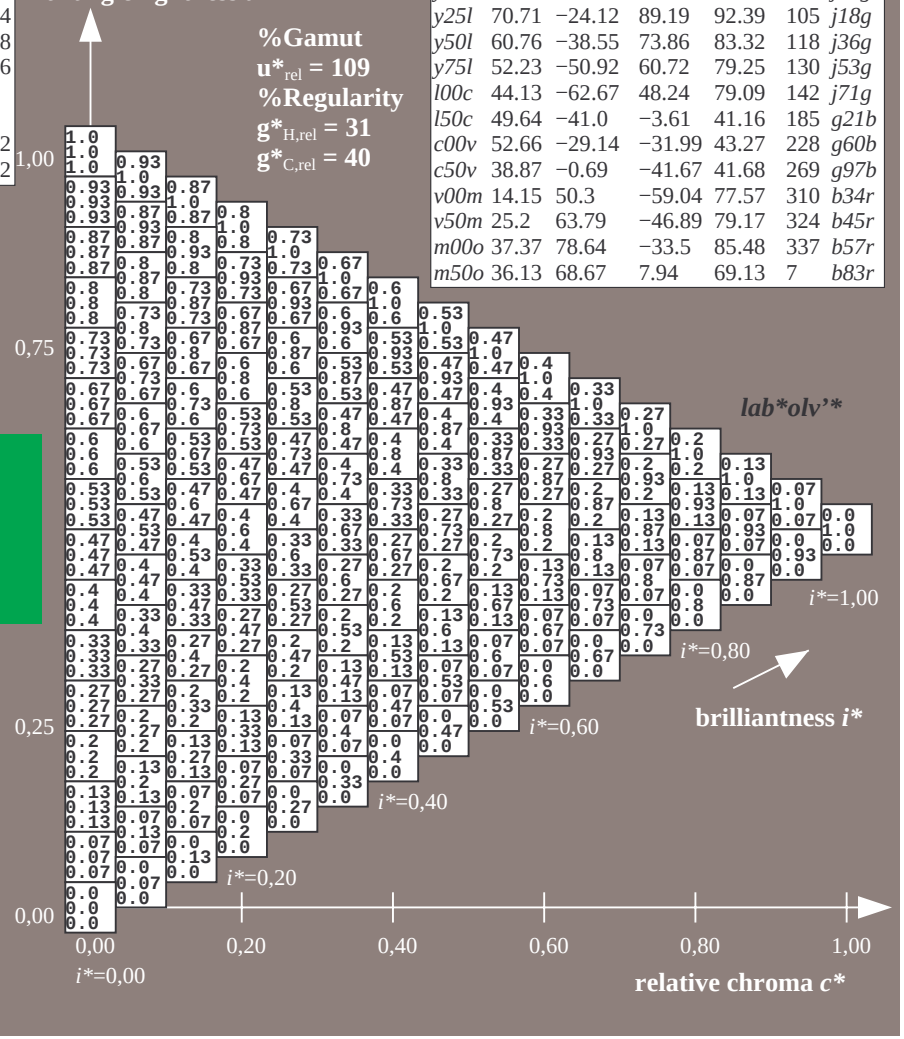
%Gamut

$u^*_{rel} = 109$

%Regularity

$g^*_{H,rel} = 31$

$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

data for any colour:

*lab*tch** **and** *lab*icu**

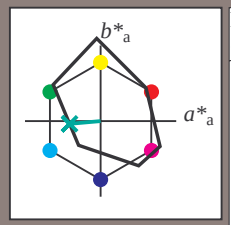
Hue texts:

$u^*_d = l50c$ $u^*_e = g21b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 50 −41 −4

*LAB*LCH**$_{Ma}$: 50 41 185

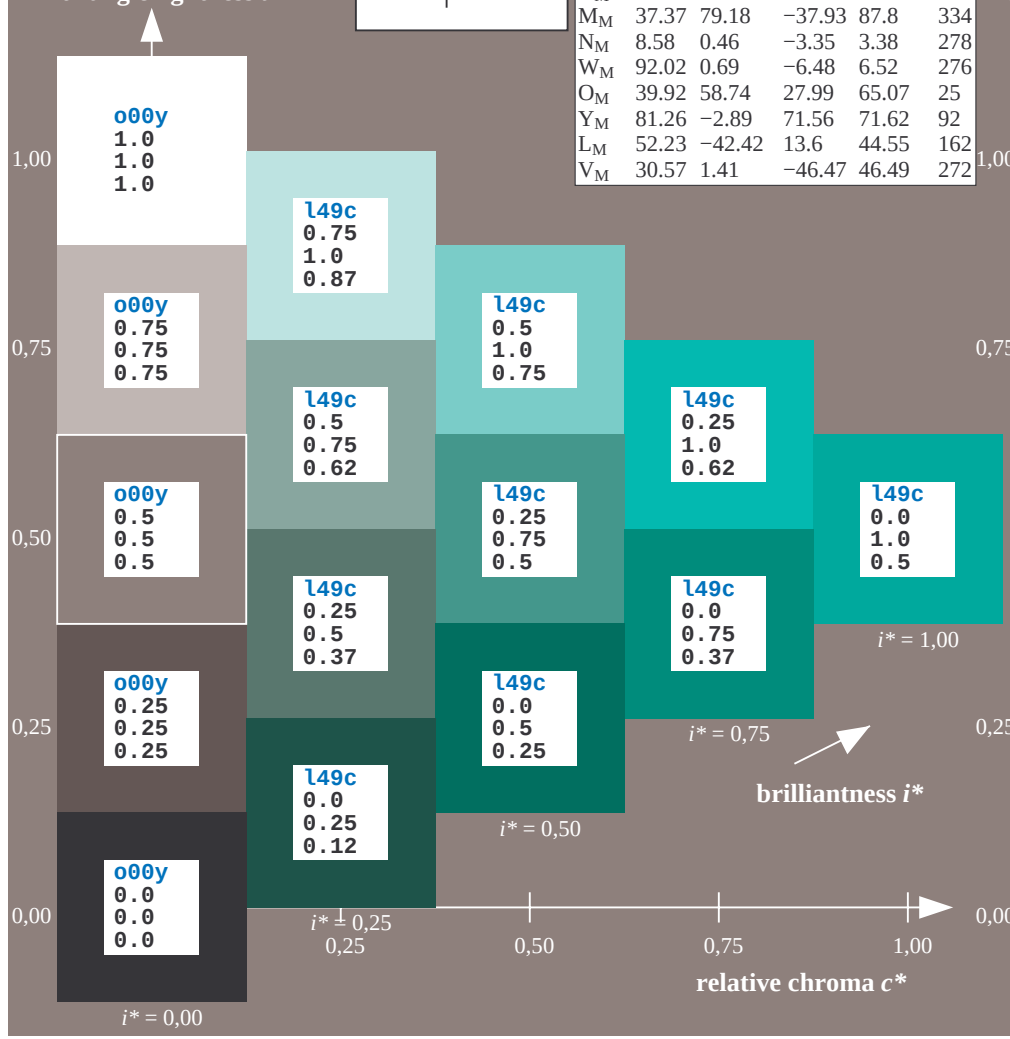
*lab*olv**$_{Ma}$: 0.0 1.0 0.5

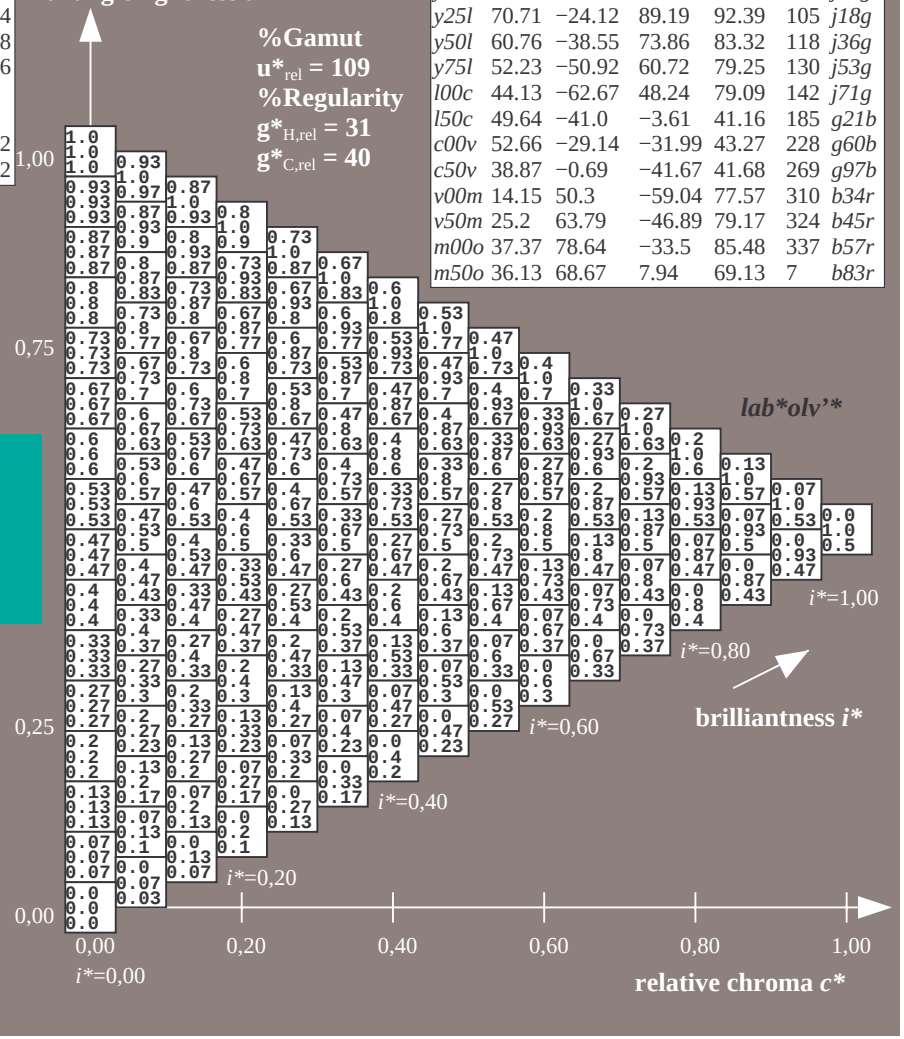
*lab*rgb**$_{Ma}$: 0.0 1.0 0.42

$u^*_d = l50c$
*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** **and** *lab*icu**

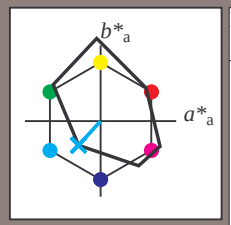
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 53 −29 −32

*LAB*LCH**$_{Ma}$: 53 43 227

*lab*olv**$_{Ma}$: 0.0 1.0 1.0

*lab*rgb**$_{Ma}$: 0.0 0.8 1.0

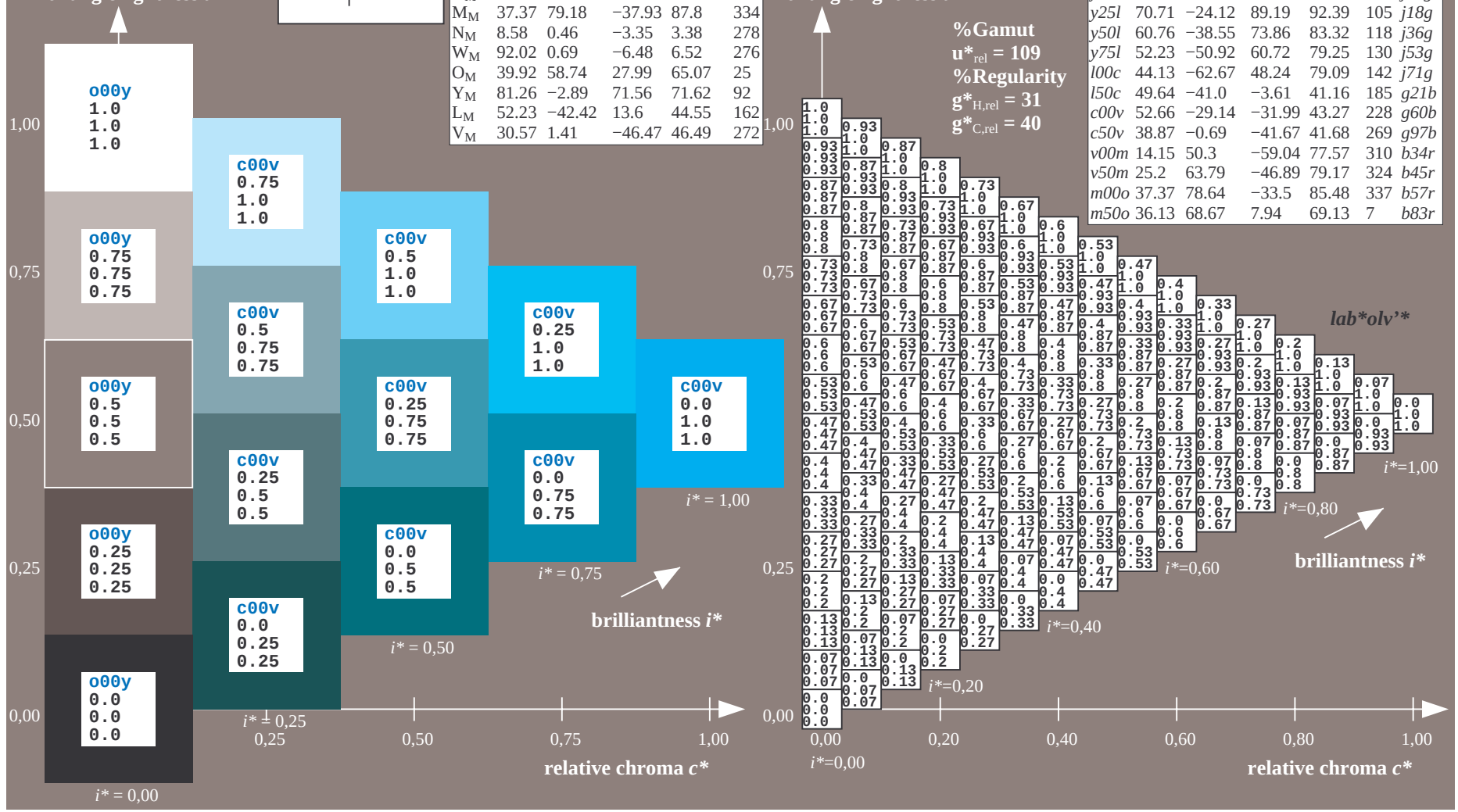
triangle lightness *t**

$u^*_d = c00v$

*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** **and** *lab*icu**

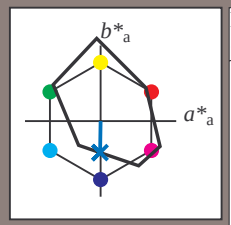
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 39 −1 −42

$LAB^*LCH^*_{Ma}$: 39 42 269

$lab^*olv^*_{Ma}$: 0.0 0.5 1.0

$lab^*rgb^*_{Ma}$: 0.0 0.05 1.0

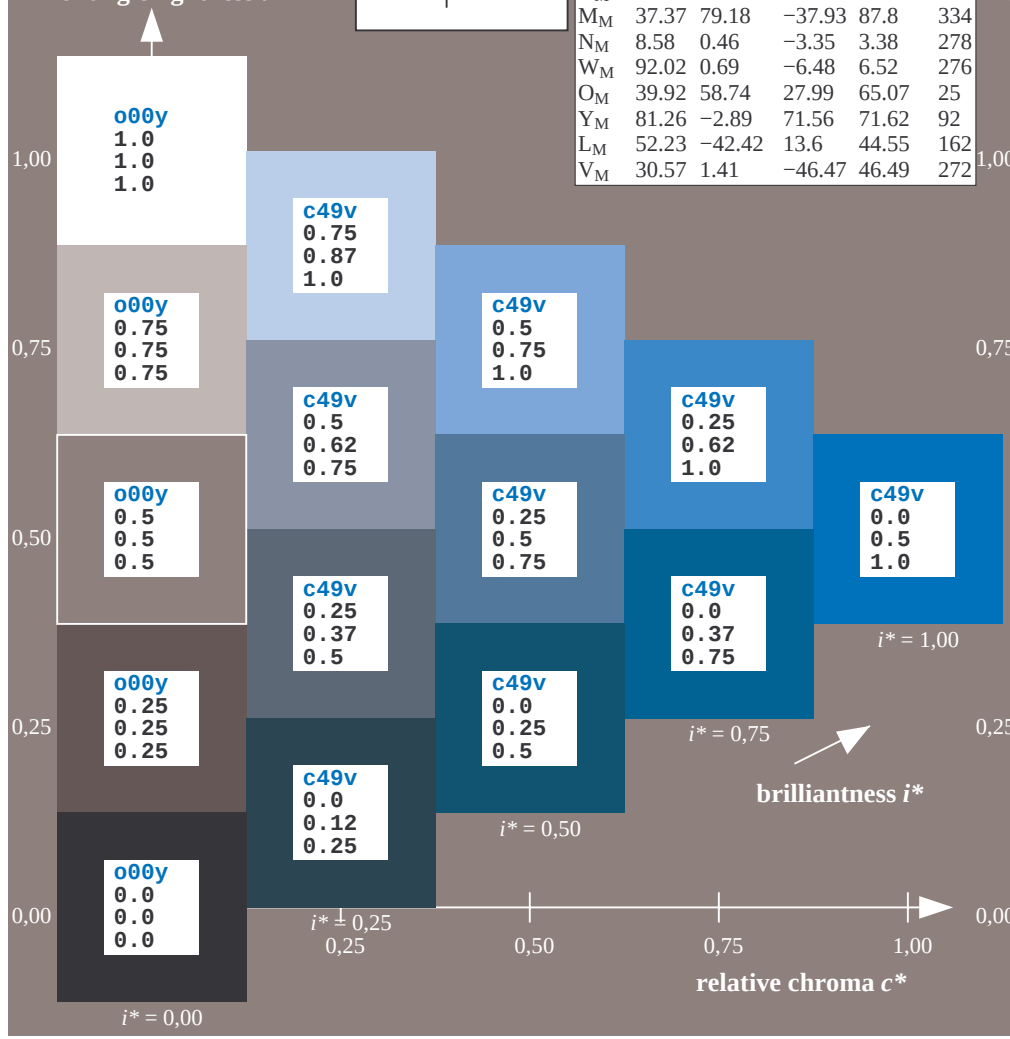
triangle lightness t^*

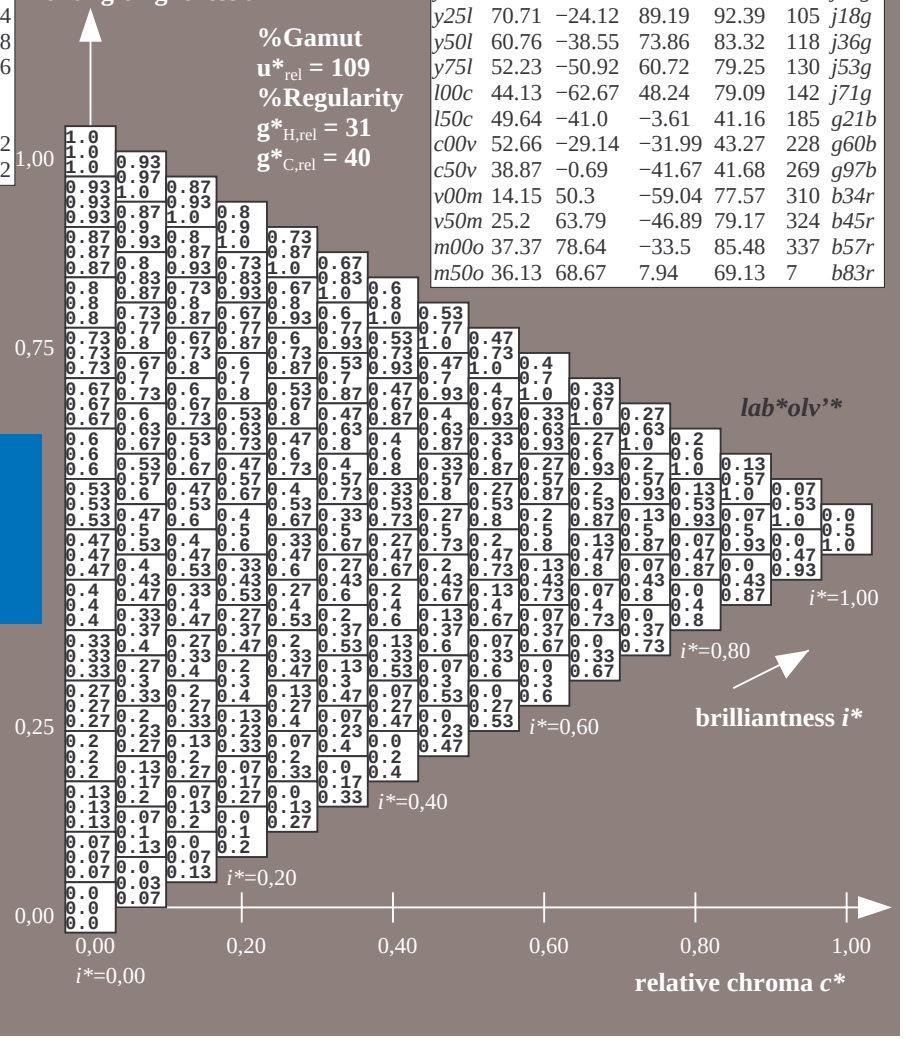
$u^*_d = c50v$

$lab^*olv'^*$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*





Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

data for any colour:

*lab*tch** and *lab*icu**

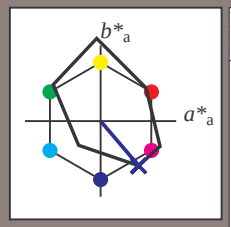
Hue texts:

u^*_d = *v00m* u^*_e = *b34r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 14 50 −59

*LAB*LCH**$_{Ma}$: 14 78 310

*lab*olv**$_{Ma}$: 0.0 0.0 1.0

*lab*rgb**$_{Ma}$: 0.68 0.0 1.0

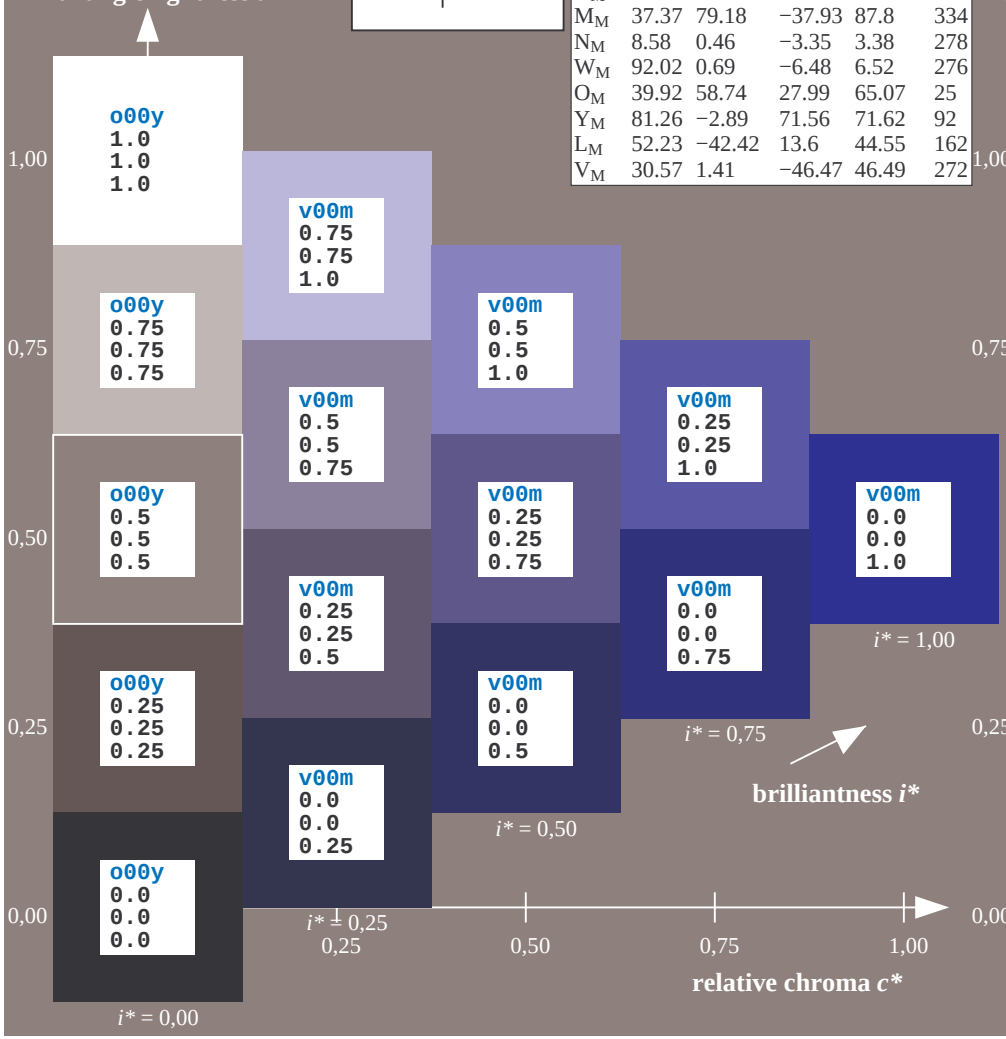
triangle lightness *t**

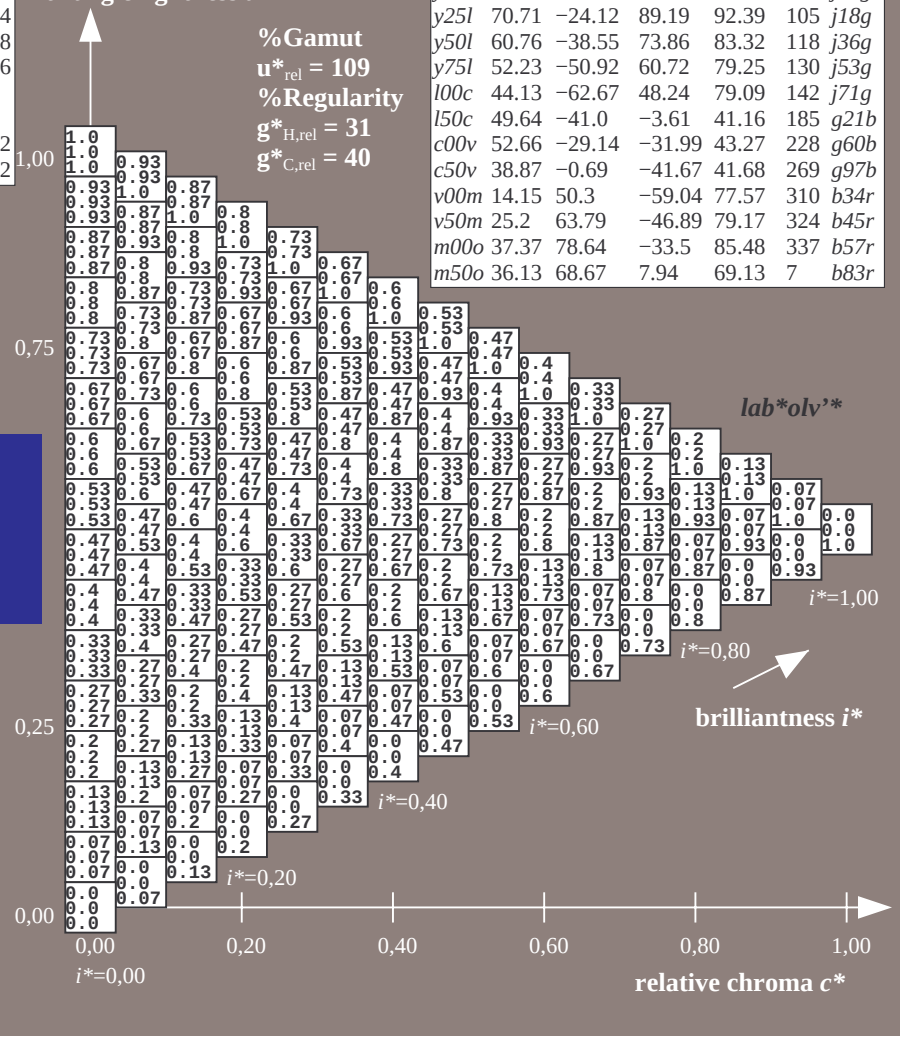
u^*_d = *v00m*

*lab*olv'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

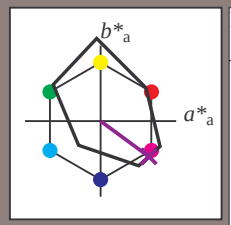




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

$u^*_d = v50m$
$lab^*olv'^*$

data for any colour:
lab^*tch^* and *lab^*icu^**
Hue texts:
$u^*_d = v50m$ $u^*_e = b45r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



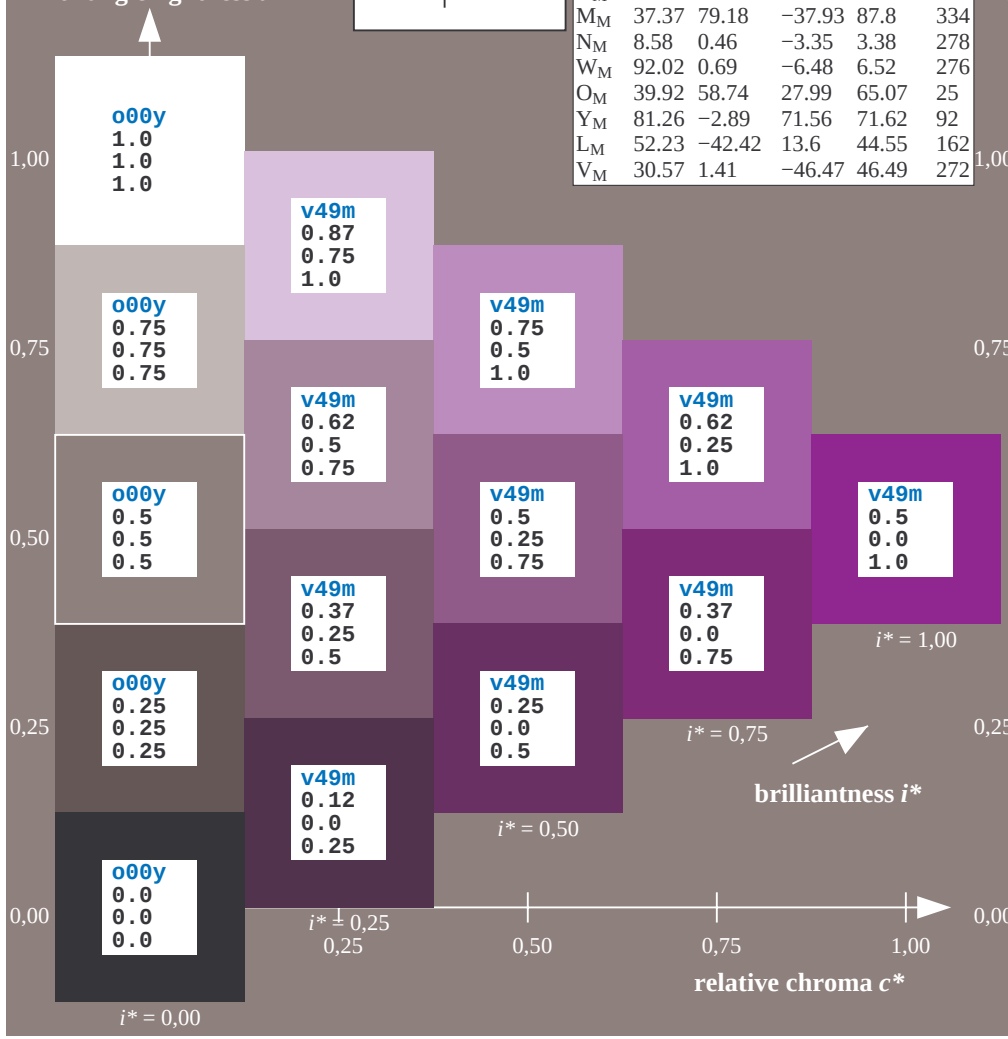
FRS09_92a; CIELAB data

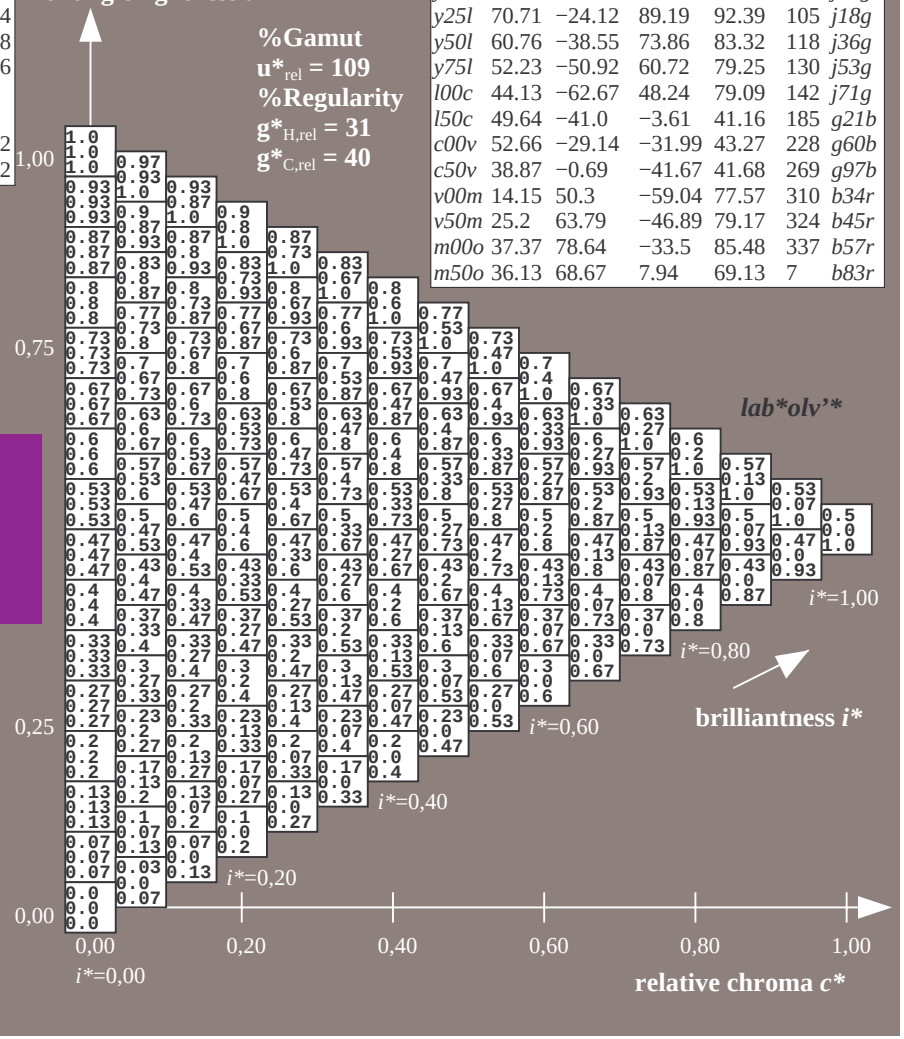
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***$LAB^*LAB^*_{Ma}$*: 25 64 −47**
***$LAB^*LCH^*_{Ma}$*: 25 79 323**
***$lab^*olv^*_{Ma}$*: 0.5 0.0 1.0**
***$lab^*rgb^*_{Ma}$*: 0.91 0.0 1.0**
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

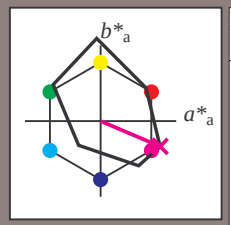




Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

$u^*_d = m00o$
$lab^*olv'^*$

data for any colour:
lab^*tch^* and *lab^*icu^**
Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness t^*



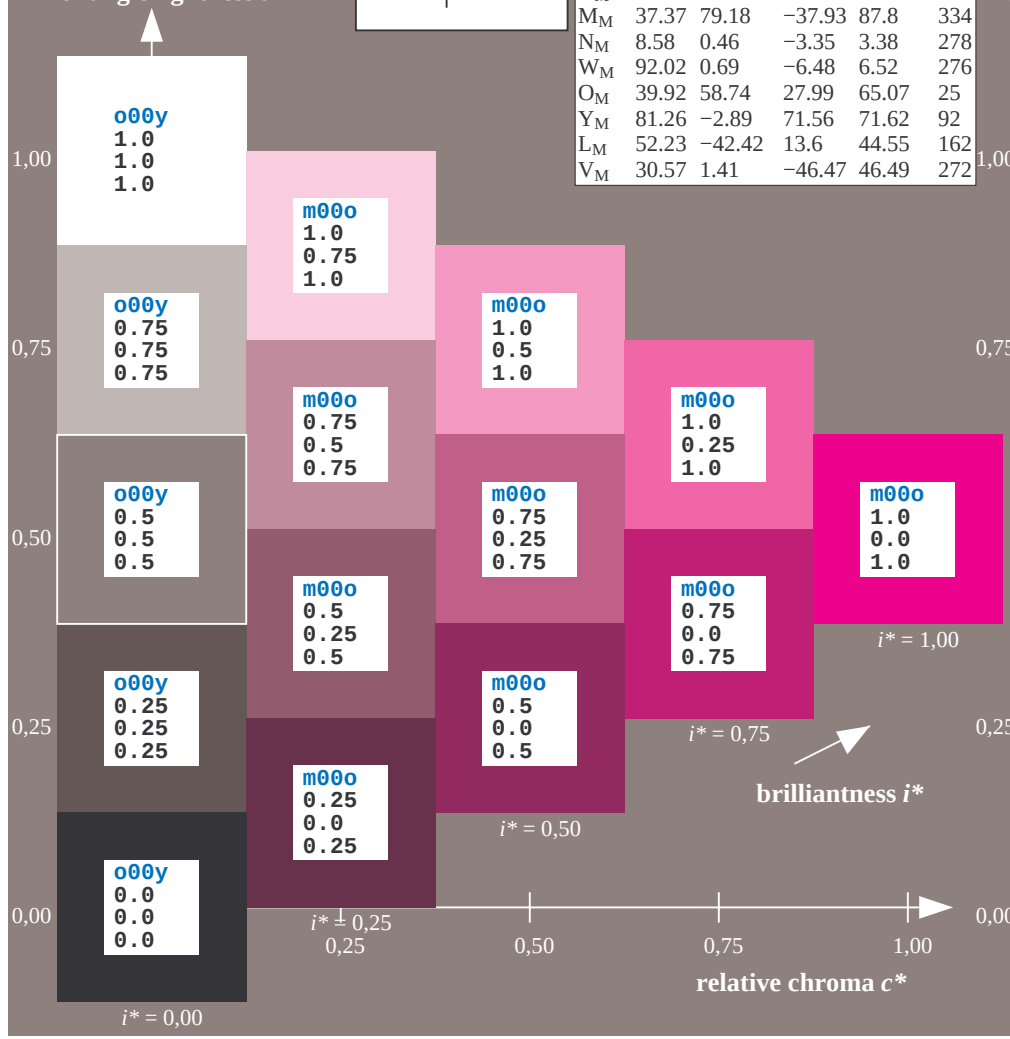
FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

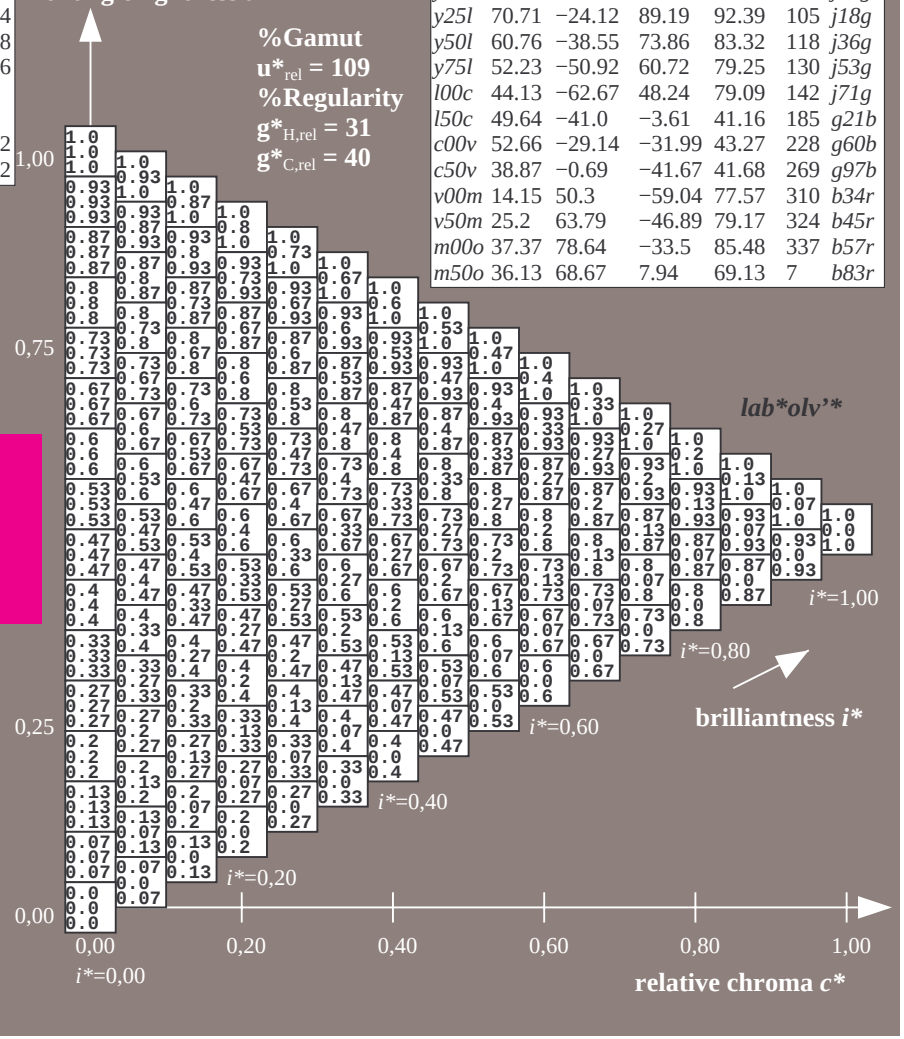
Data for maximum colour (Ma):
***$LAB^*LAB^*_{Ma}$*: 37 79 −34**
***$LAB^*LCH^*_{Ma}$*: 37 85 336**
***$lab^*olv^*_{Ma}$*: 1.0 0.0 1.0**
***$lab^*rgb^*_{Ma}$*: 1.0 0.0 0.85**
triangle lightness t^*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

data for any colour:

*lab*tch** and *lab*icu**

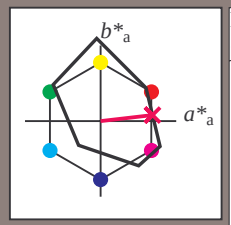
Hue texts:

u^*_d = *m50o* u^*_e = *b83r*

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 36 69 8**

***LAB*LCH**$_{Ma}$: 36 69 6**

***lab*olv**$_{Ma}$: 1.0 0.0 0.5**

***lab*rgb**$_{Ma}$: 1.0 0.0 0.33**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

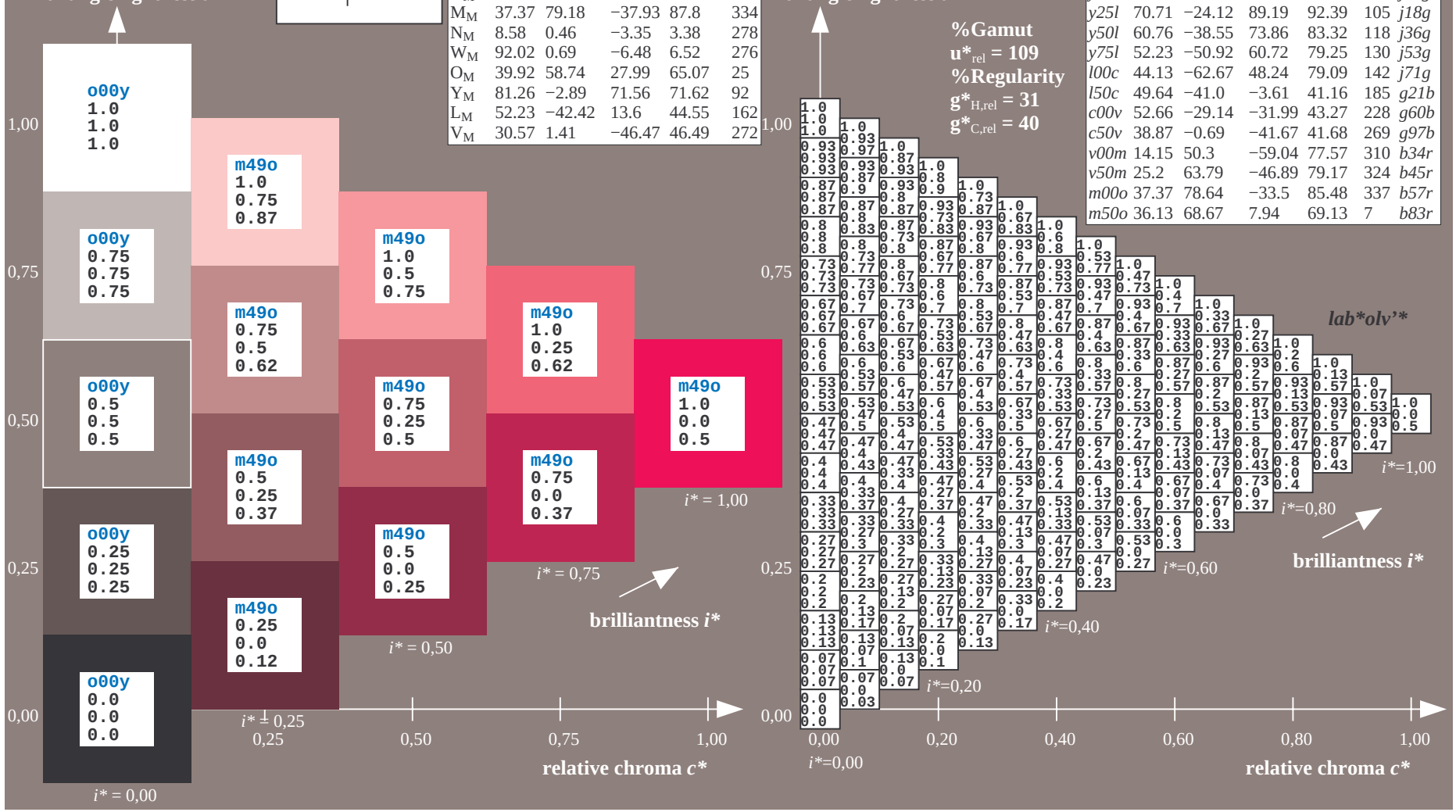
$g^*_{C,rel}$ = 40

u^*_d = *m50o*

lab*olv'*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

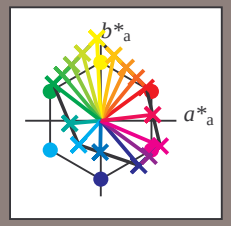


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	*lab*olv'**			
01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.13	0.13	0.13	0.13
	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
	0.13	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.25	0.25	0.25	0.25
	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.25	0.25	0.25	0.25
	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.25	0.25	0.25	0.25
04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.38	0.38	0.38	0.38
	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.38	0.38	0.38	0.38
	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.38	0.38	0.38	0.38
05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	1.0	0.87	0.75	0.62	0.5	0.38	0.25	0.13	0.0	0.5	0.5	0.5	0.5
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.5	0.5	0.5	0.5
06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.63	0.63	0.63	0.63
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	1.0	0.87	0.75	0.62	0.5	0.38	0.25	0.13	0.0	0.63	0.63	0.63	0.63
	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.63	0.63	0.63	0.63
07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.75	0.75	0.75	0.75
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	1.0	0.87	0.75	0.62	0.5	0.37	0.25	0.13	0.0	0.75	0.75	0.75	0.75
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.75	0.75	0.75	0.75
08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.88	0.88	0.88	0.88
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	1.0	0.87	0.75	0.62	0.5	0.37	0.25	0.13	0.0	0.88	0.88	0.88	0.88
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.88	0.88	0.88	0.88
09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	1.0	0.87	0.75	0.62	0.5	0.37	0.25	0.12	0.0	1.0	1.0	1.0	1.0
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	1.0	1.0	1.0	1.0
10	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.12	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.63	0.75	0.88	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.0	0.0	0.0	0.0
11	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.88	0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.07	0.07	0.07	0.07
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.07	0.07	0.07	0.07
	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.07	0.07	0.07	0.07
12	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.37	0.37	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.13	0.13	0.13	0.13
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.63	0.75	0.88	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.13	0.13	0.13	0.13
	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.13	0.13	0.13	0.13
13	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.62	0.2	0.2	0.2	0.2
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.2	0.2	0.2	0.2
	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.2	0.2	0.2	0.2
14	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.62	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.27	0.27	0.27	0.27
	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.27	0.27	0.27	0.27
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.27	0.27	0.27	0.27
15	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.33	0.33	0.33	0.33
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.33	0.33	0.33	0.33
	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.33	0.33	0.33	0.33
16	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.4	0.4	0.4	0.4
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.88	1.0	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.4	0.4	0.4	0.4
	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.4	0.4	0.4	0.4
17	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.47	0.47	0.47	0.47
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.87	1.0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.47	0.47	0.47	0.47
	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.47	0.47	0.47	0.47
18	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38	0.38	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.62	0.62	0.62	0.62	0.62	0.63	0.63	0.63	0.63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.53	0.53	0.53	0.53
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.0	0.13	0.25	0.38	0.5	0.63	0.75	0.87	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.53	0.53	0.53	0.53
	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.53	0.53	0.53	0.53
19	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.6	0.6	0.6	0.6
	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.12	0.25	0.37	0.5	0.62	0.75	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.6
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.6	0.6	0.6	0.6
20	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.67	0.67	0.67	0.67
	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.67	0.67	0.67	0.67
	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.67	0.67	0.67	0.67
21	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.73	0.73	0.73	0.73
	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.37	0.5	0.62	0.75	0.87	1.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.73	0.73	0.73	0.73
	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.0	0.88	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.73	0.73	0.73	0.73
22	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.87	0.75	0.63	0.5	0.38	0.25	0.13	0.0	0.8	0.8	0.8	0.8
	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.88	1.0	0.0	0.13	0.25	0.38	0.5	0.62	0.75	0.87	1.0	0.63	0.63	0.63	0.63	0.63

Input and output:
Colorimetric Printer Reflective System FRS09_92a
data for any colour:
u^*_d and number *no.* = 00 .. 15
device hue text:
u^*_d = 16 hues *o00y, o25y, ..., m50o*
contrast reduction factor:
c_R = 1.0

FRS09_92a; adapted (a) CIELAB data

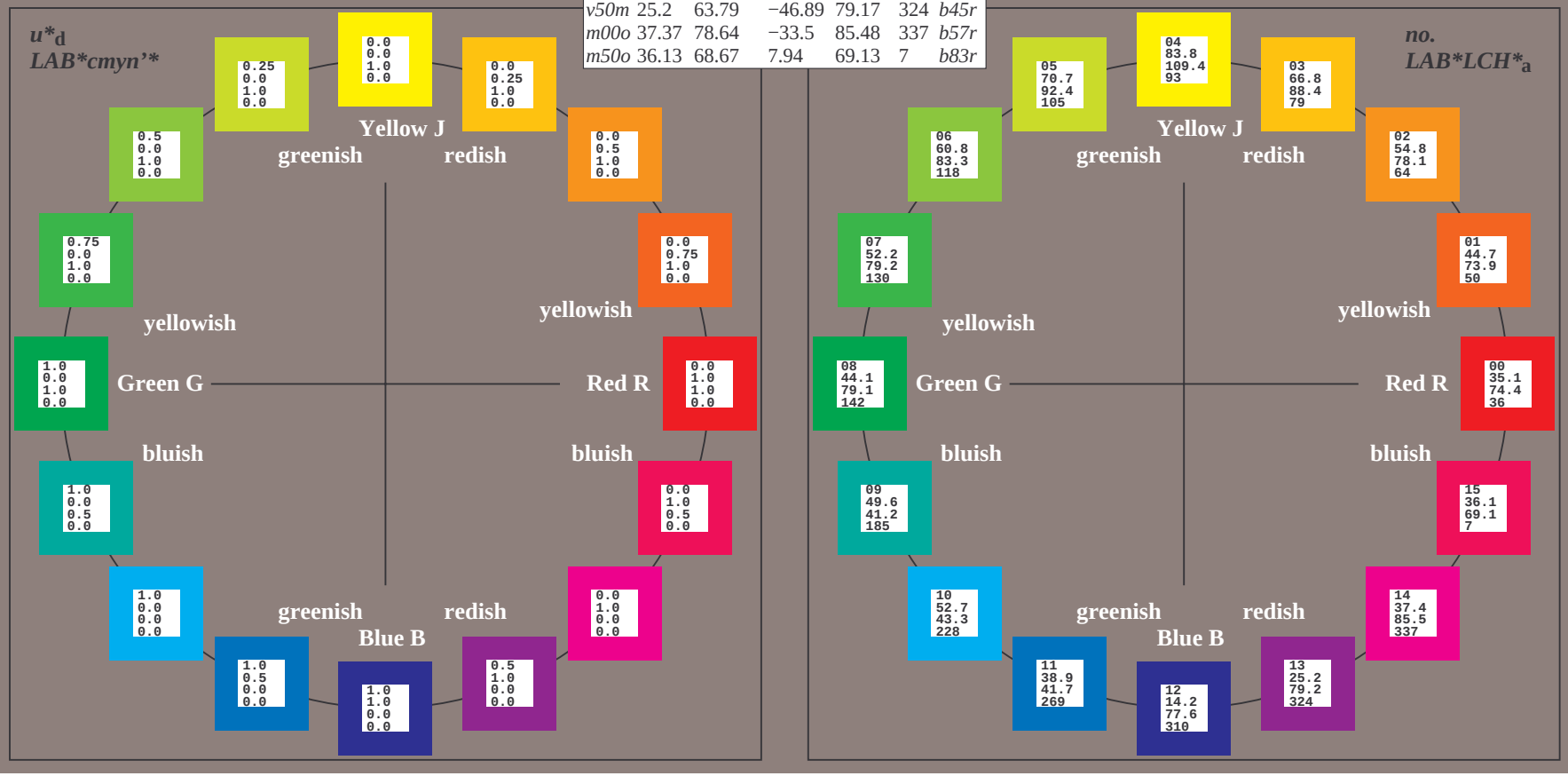
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; CIELAB data

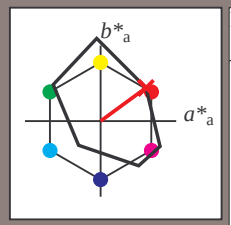
Name	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_{CIE}	39.92	58.74	27.99	65.07	25
Y_{CIE}	81.26	−2.89	71.56	71.62	92
L_{CIE}	52.23	−42.42	13.6	44.55	162
V_{CIE}	30.57	1.41	−46.47	46.49	272



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.101$

$u^*_d = o00y$
$LAB^*cmyn'^*$

data for any colour:
lab*tch** and *lab*icu*
Hue texts:
$u^*_d = o00y$ $u^*_e = r16j$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



FRS09_92a; CIELAB data

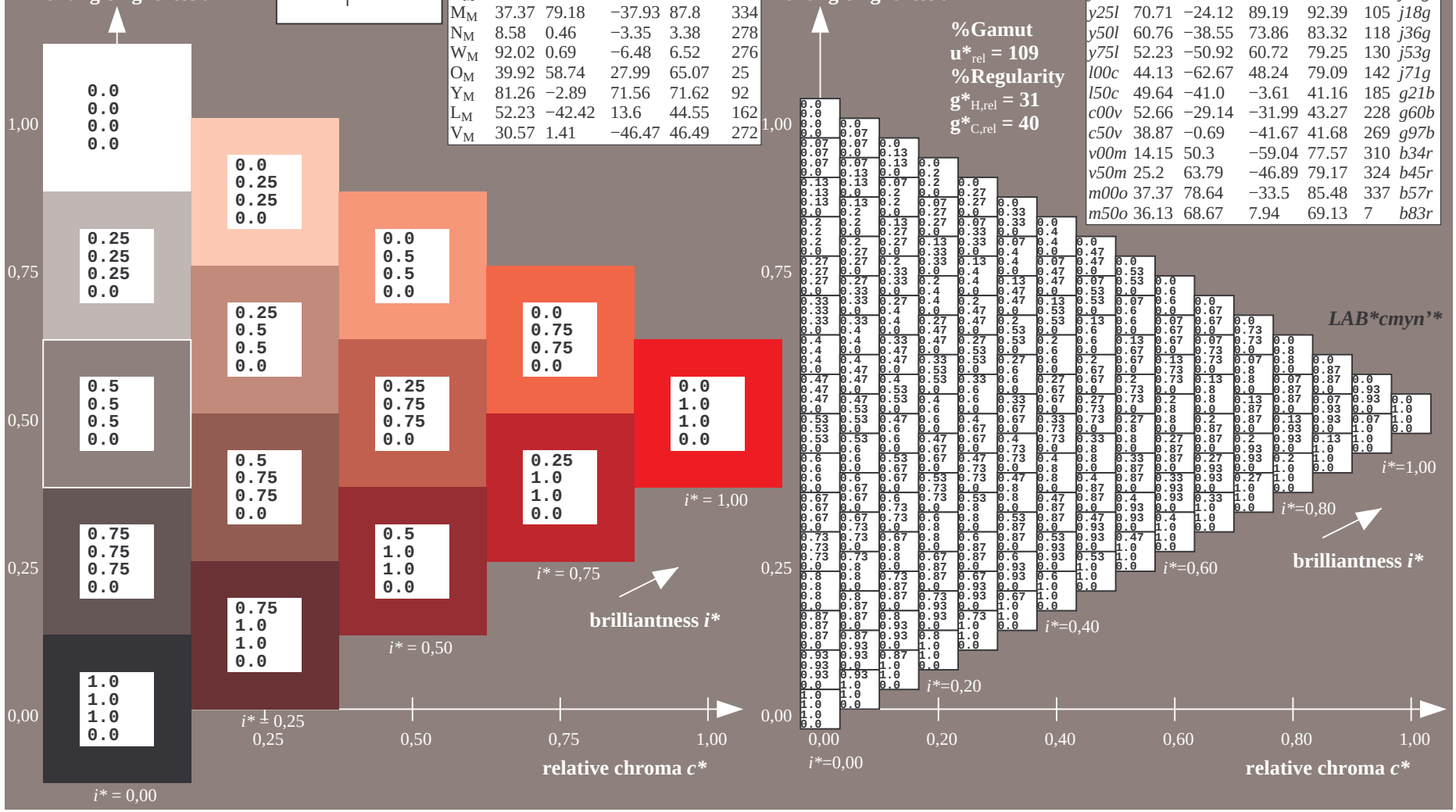
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 35 60 44**
***LAB*LCH**$_{Ma}$: 35 74 36**
***lab*olv**$_{Ma}$: 1.0 0.0 0.0**
***lab*rgb**$_{Ma}$: 1.0 0.16 0.0**
triangle lightness *t**

%Gamut
u^*_{rel} = 109
%Regularity
$g^*_{H,rel}$ = 31
$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

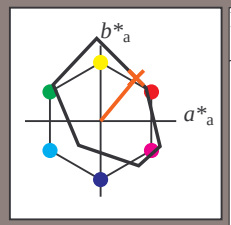
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.14$

$u^*_d = o25y$
LAB*cmyn'*

data for any colour:
lab*tch* **and** ***lab*icu****
Hue texts:
$u^*_d = o25y$ $u^*_e = r37j$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



FRS09_92a; CIELAB data

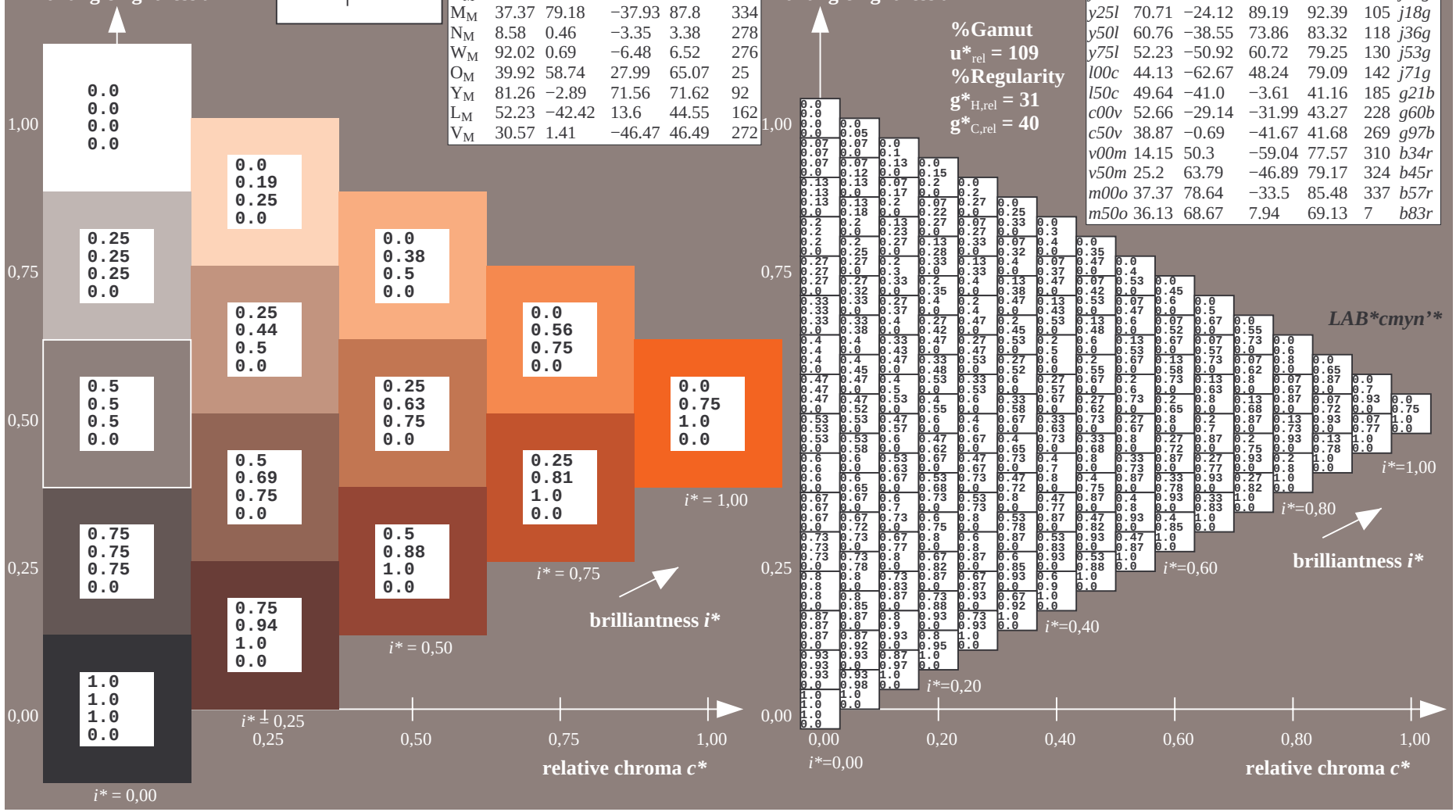
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
LAB*LAB*$_{Ma}$**: 45 47 57**
LAB*LCH*$_{Ma}$**: 45 74 50**
lab*olv*$_{Ma}$**: 1.0 0.25 0.0**
lab*rgb*$_{Ma}$**: 1.0 0.37 0.0**
triangle lightness *t**

%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.179$

data for any colour:

lab*tch* **and** ***lab*icu****

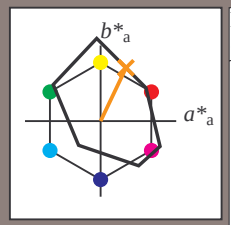
Hue texts:

$u^*_d = o50y$ $u^*_e = r58j$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$**: 55 34 70**

LAB*LCH*$_{Ma}$**: 55 78 64**

lab*olv*$_{Ma}$**: 1.0 0.5 0.0**

lab*rgb*$_{Ma}$**: 1.0 0.58 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

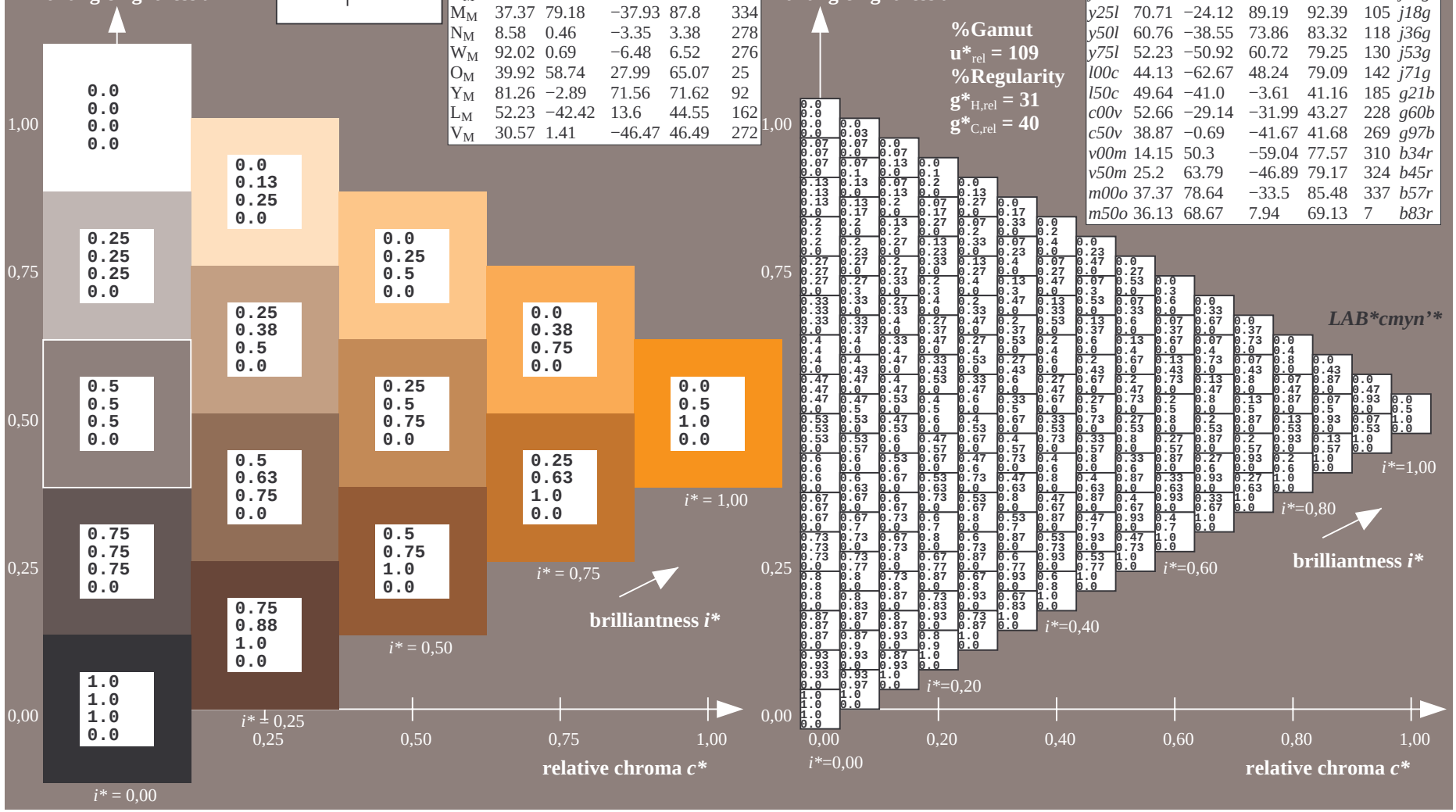
$g^*_{C,rel}$ = 40

u*d = o50y

LAB*cmyn'*

FRS09_92a; adapted (a) CIELAB data

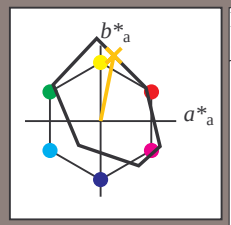
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.218$

$u^*_d = o75y$
$LAB^*cmyn'^*$

data for any colour:
lab*tch** and *lab*icu*
Hue texts:
$u^*_d = o75y$ $u^*_e = r79j$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



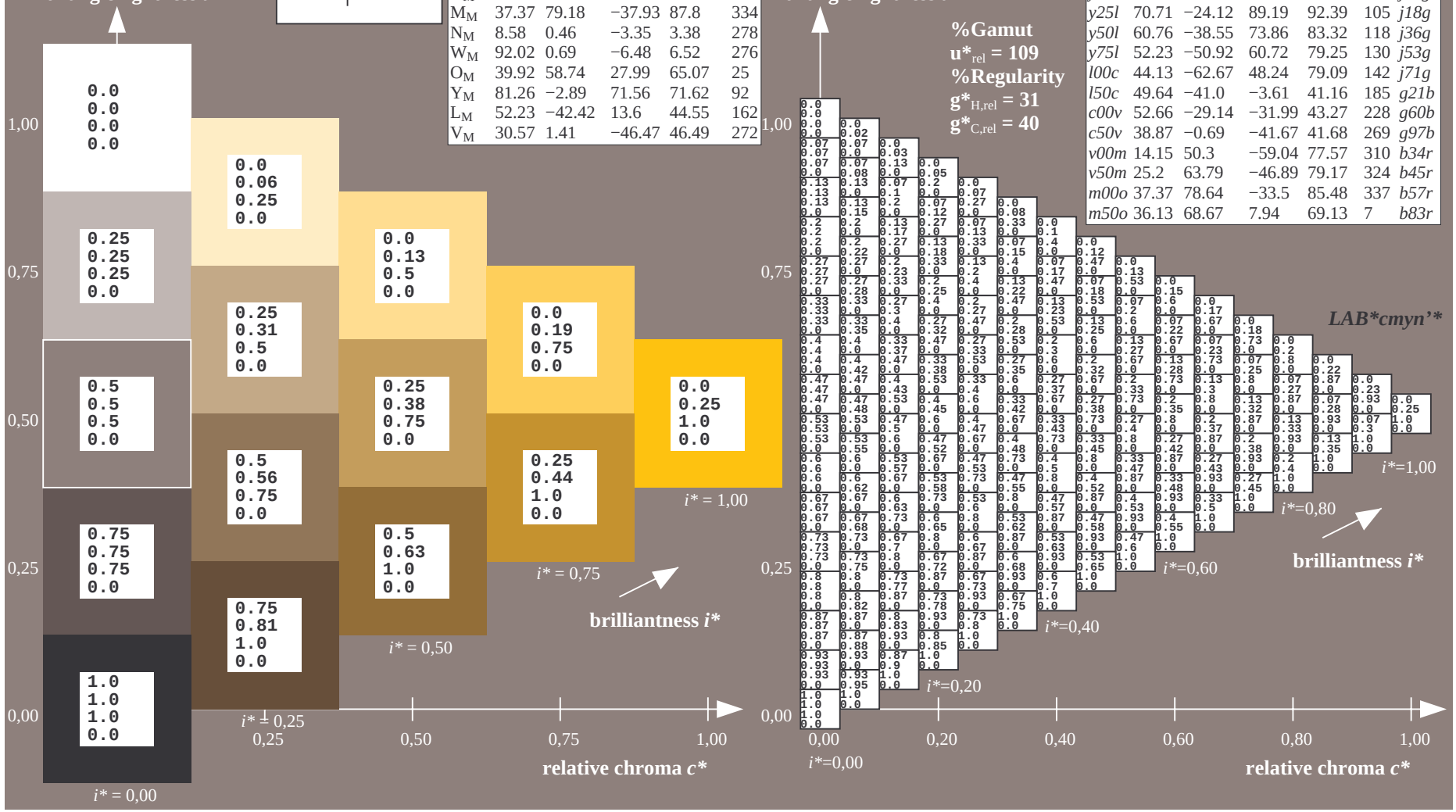
FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 67 17 87**
***LAB*LCH**$_{Ma}$: 67 88 78**
***lab*olv**$_{Ma}$: 1.0 0.75 0.0**
***lab*rgb**$_{Ma}$: 1.0 0.79 0.0**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

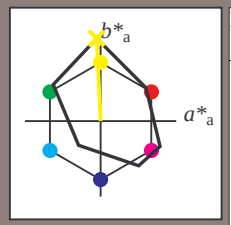
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.258$

$u^*_d = y00l$
LAB*cmyn'*

data for any colour:
lab*tch **and** ***lab*icu****
Hue texts:
$u^*_d = y00l$ $u^*_e = j01g$
contrast reduction factor:
$c_R = 1.0$
triangle lightness ***t****



FRS09_92a; CIELAB data

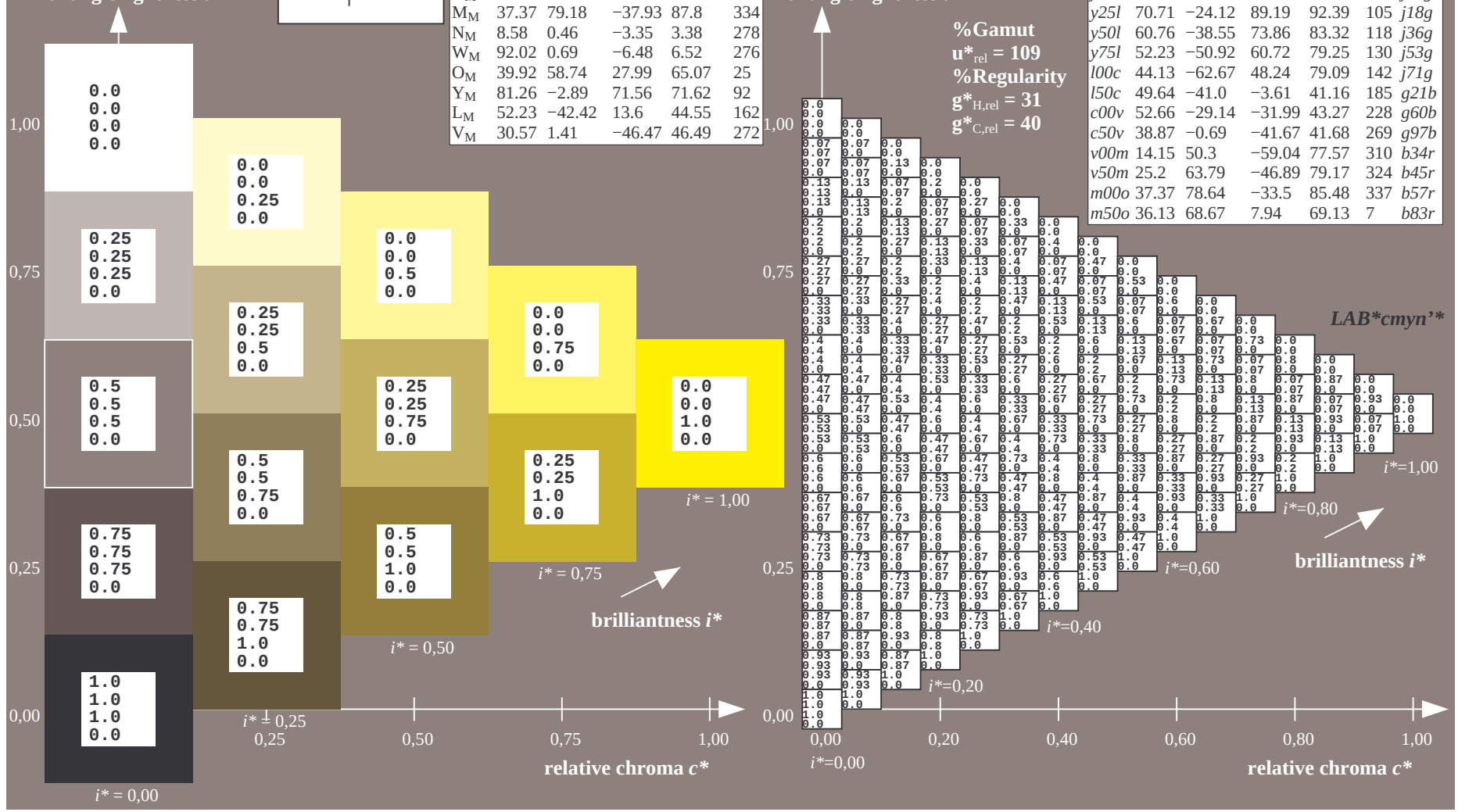
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB*Ma*: 84 −5 109**
***LAB*LCH*Ma*: 84 109 92**
***lab*olv*Ma*: 1.0 1.0 0.0**
***lab*rgb*Ma*: 0.99 1.0 0.0**
triangle lightness ***t****

%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.292$

data for any colour:

*lab*tch** **and** *lab*icu**

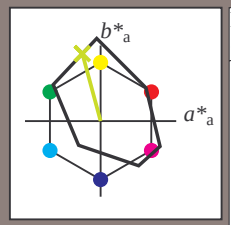
Hue texts:

$u^*_d = y25l$ $u^*_e = j18g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB**$_{Ma}$: 71 −24 89**

***LAB*LCH**$_{Ma}$: 71 92 105**

***lab*olv**$_{Ma}$: 0.75 1.0 0.0**

***lab*rgb**$_{Ma}$: 0.82 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

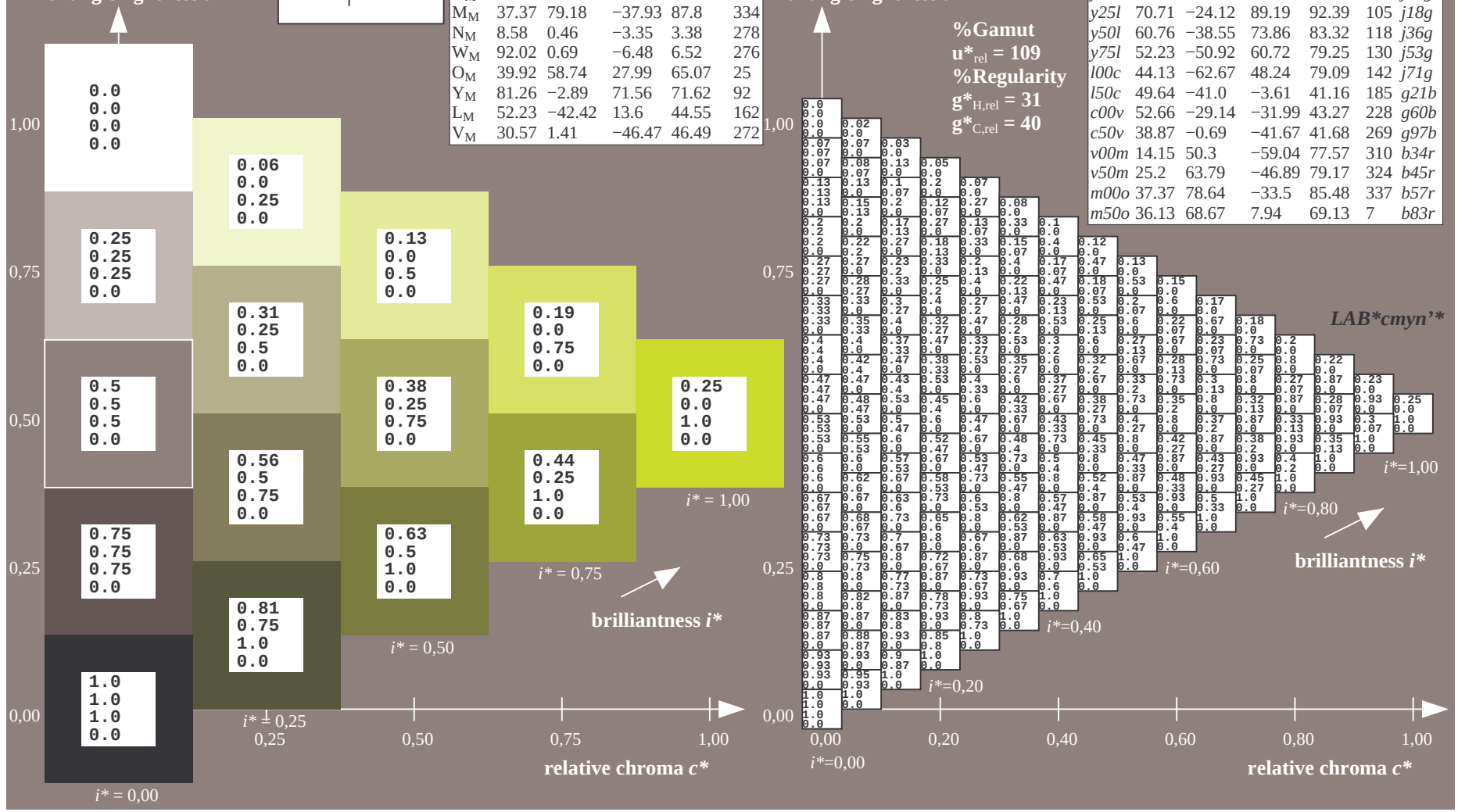
$g^*_{C,rel}$ = 40

$u^*_d = y25l$

LAB*cmyn'*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.327$

data for any colour:

lab*tch* and lab*icu*

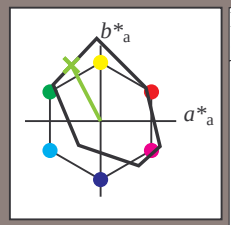
Hue texts:

$u^*_d = y50l$ $u^*_e = j36g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 61 −39 74**

***LAB*LCH*Ma*: 61 83 117**

***lab*olv*Ma*: 0.5 1.0 0.0**

***lab*rgb*Ma*: 0.64 1.0 0.0**

triangle lightness *t**

%Gamut

u^*_{rel} = 109

%Regularity

$g^*_{H,rel}$ = 31

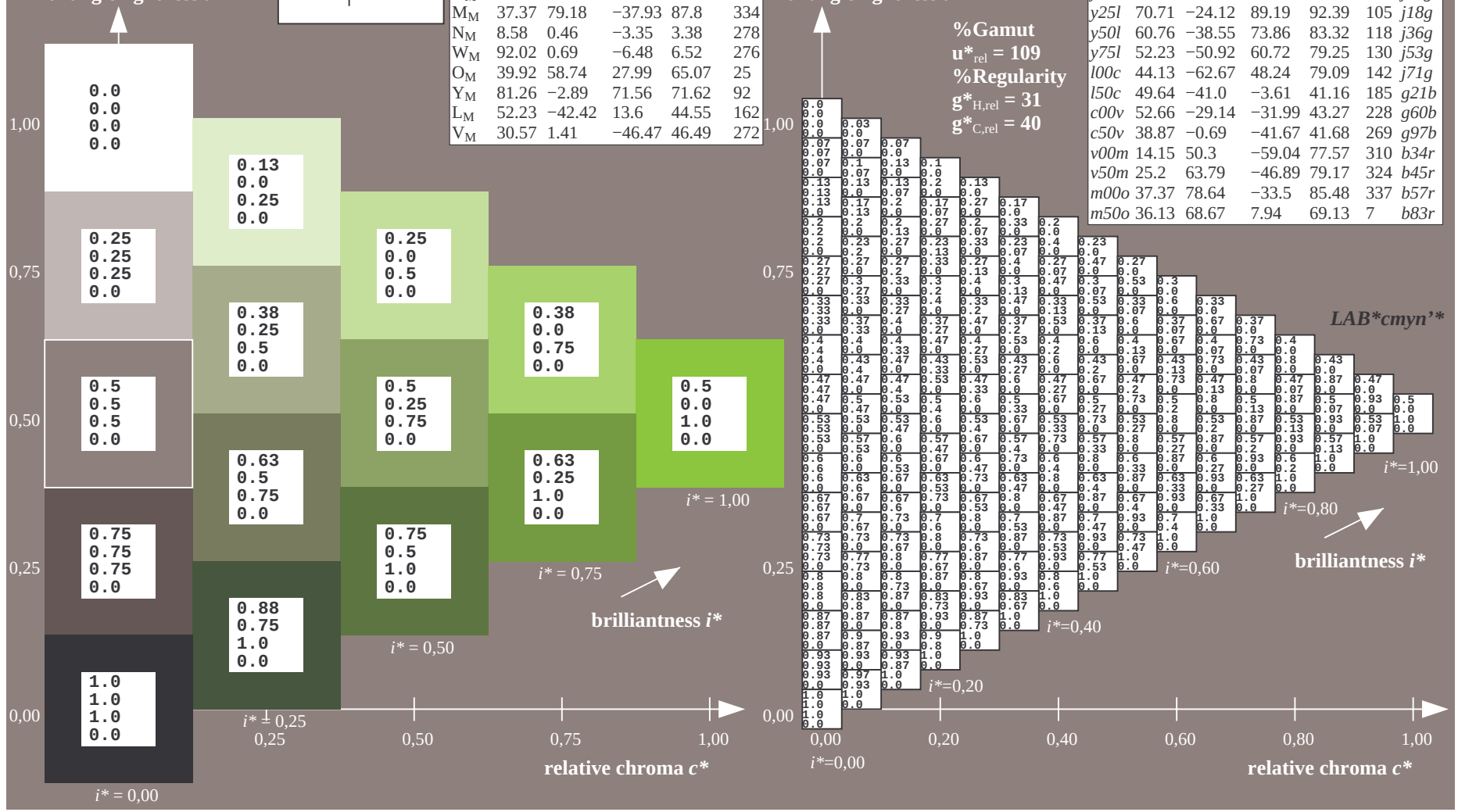
$g^*_{C,rel}$ = 40

$u^*_d = y50l$

LAB*cmyn'*

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.361$

data for any colour:

*lab*tch** **and** *lab*icu**

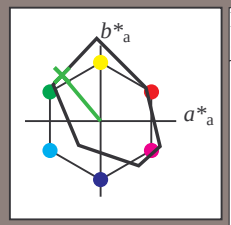
Hue texts:

$u^*_d = y75l$ $u^*_e = j53g$

contrast reduction factor:

$c_R = 1.0$

triangle lightness t^*



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

$LAB^*LAB^*_{Ma}$: 52 −51 61

$LAB^*LCH^*_{Ma}$: 52 79 129

$lab^*olv^*_{Ma}$: 0.25 1.0 0.0

$lab^*rgb^*_{Ma}$: 0.46 1.0 0.0

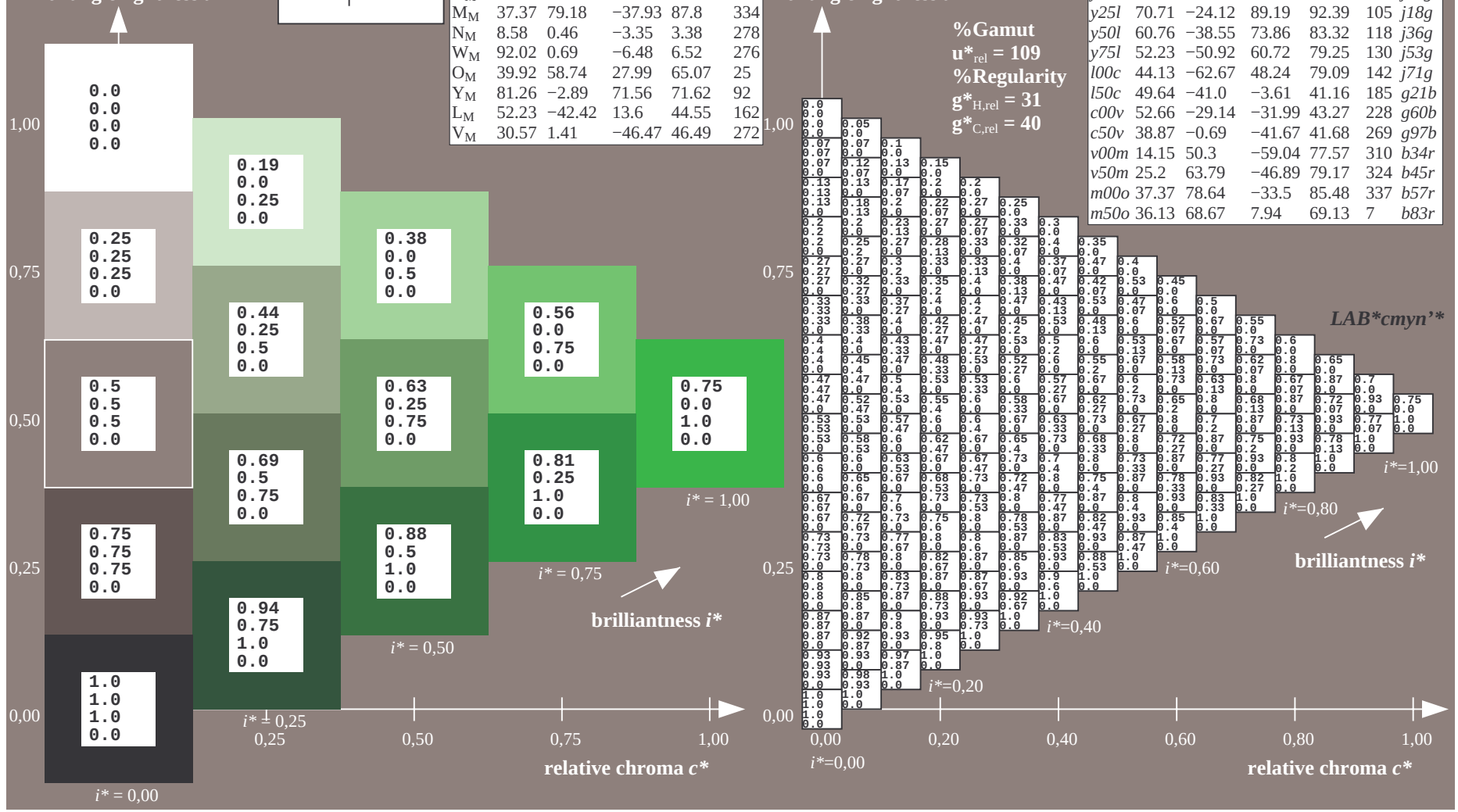
triangle lightness t^*

$u^*_d = y75l$

$LAB^*cmyn'^*$

FRS09_92a; adapted (a) CIELAB data

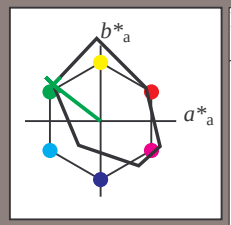
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.396$

$u^*_d = l00c$
LAB*cmyn'*

data for any colour:
lab*tch* and lab*icu*
Hue texts:
$u^*_d = l00c$ $u^*_e = j71g$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



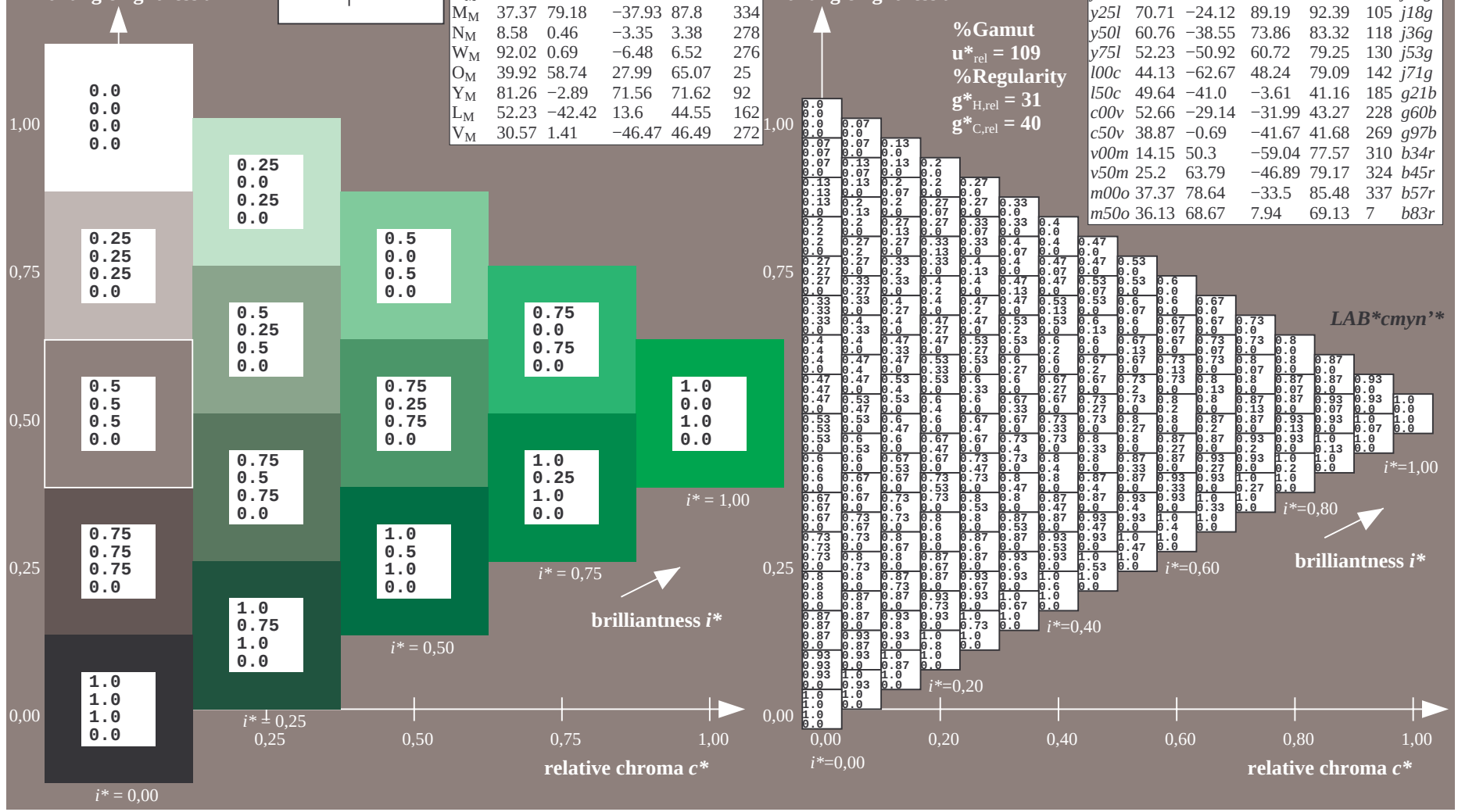
FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB*$_{Ma}$*: 44 −63 48**
***LAB*LCH*$_{Ma}$*: 44 79 142**
***lab*olv*$_{Ma}$*: 0.0 1.0 0.0**
***lab*rgb*$_{Ma}$*: 0.28 1.0 0.0**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

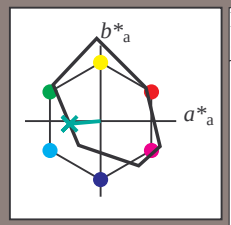
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.514$

$u^*_d = l50c$
LAB*cmyn'*

data for any colour:
lab*tch* **and** ***lab*icu****
Hue texts:
$u^*_d = l50c$ $u^*_e = g21b$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



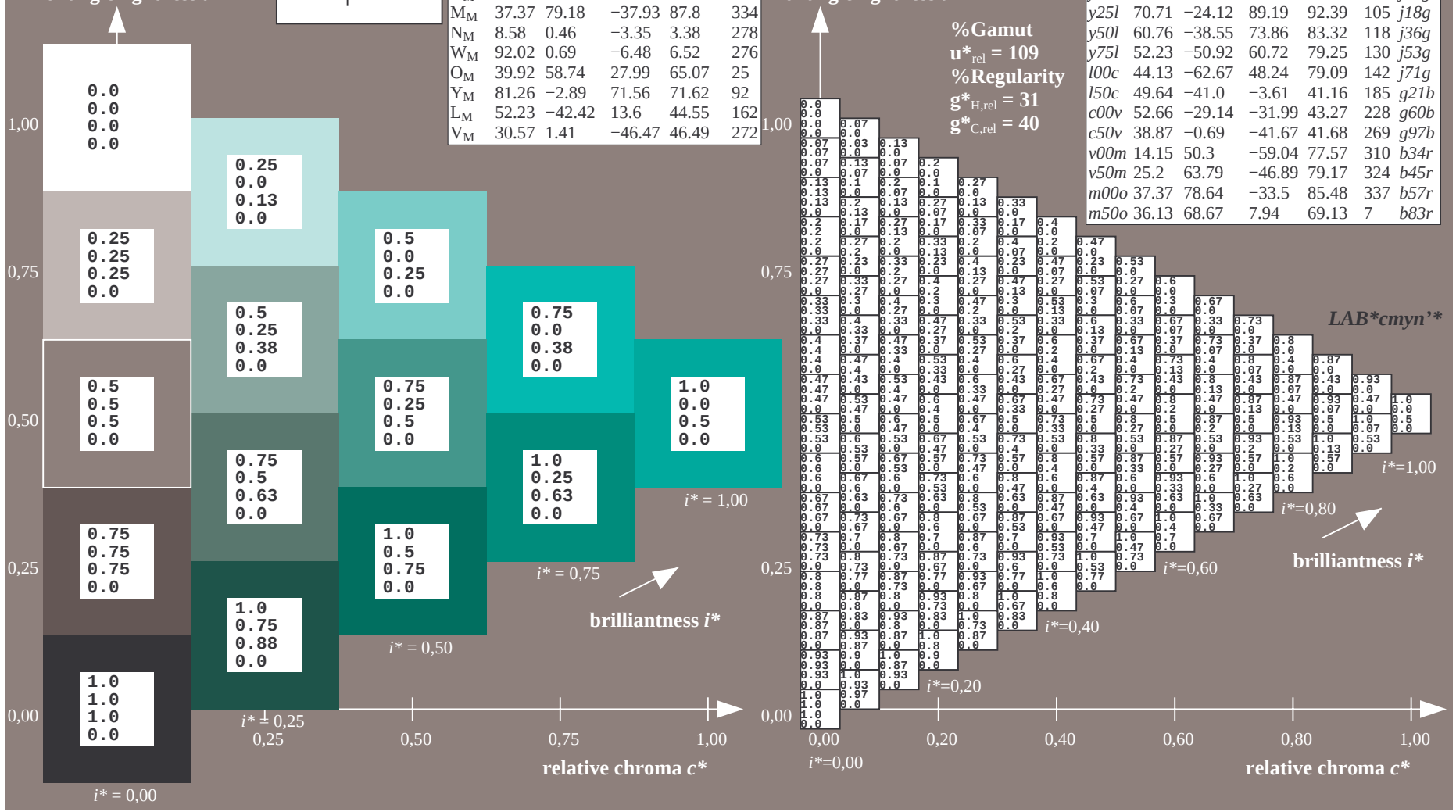
FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
LAB*LAB*$_{Ma}$**: 50 −41 −4**
LAB*LCH*$_{Ma}$**: 50 41 185**
lab*olv*$_{Ma}$**: 0.0 1.0 0.5**
lab*rgb*$_{Ma}$**: 0.0 1.0 0.42**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.632$

data for any colour:

*lab*tch** **and** *lab*icu**

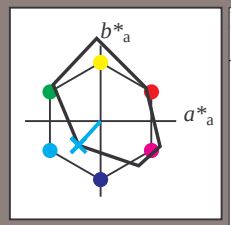
Hue texts:

$u^*_d = c00v$ $u^*_e = g60b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

***LAB*LAB*Ma*: 53 −29 −32**

***LAB*LCH*Ma*: 53 43 227**

***lab*olv*Ma*: 0.0 1.0 1.0**

***lab*rgb*Ma*: 0.0 0.8 1.0**

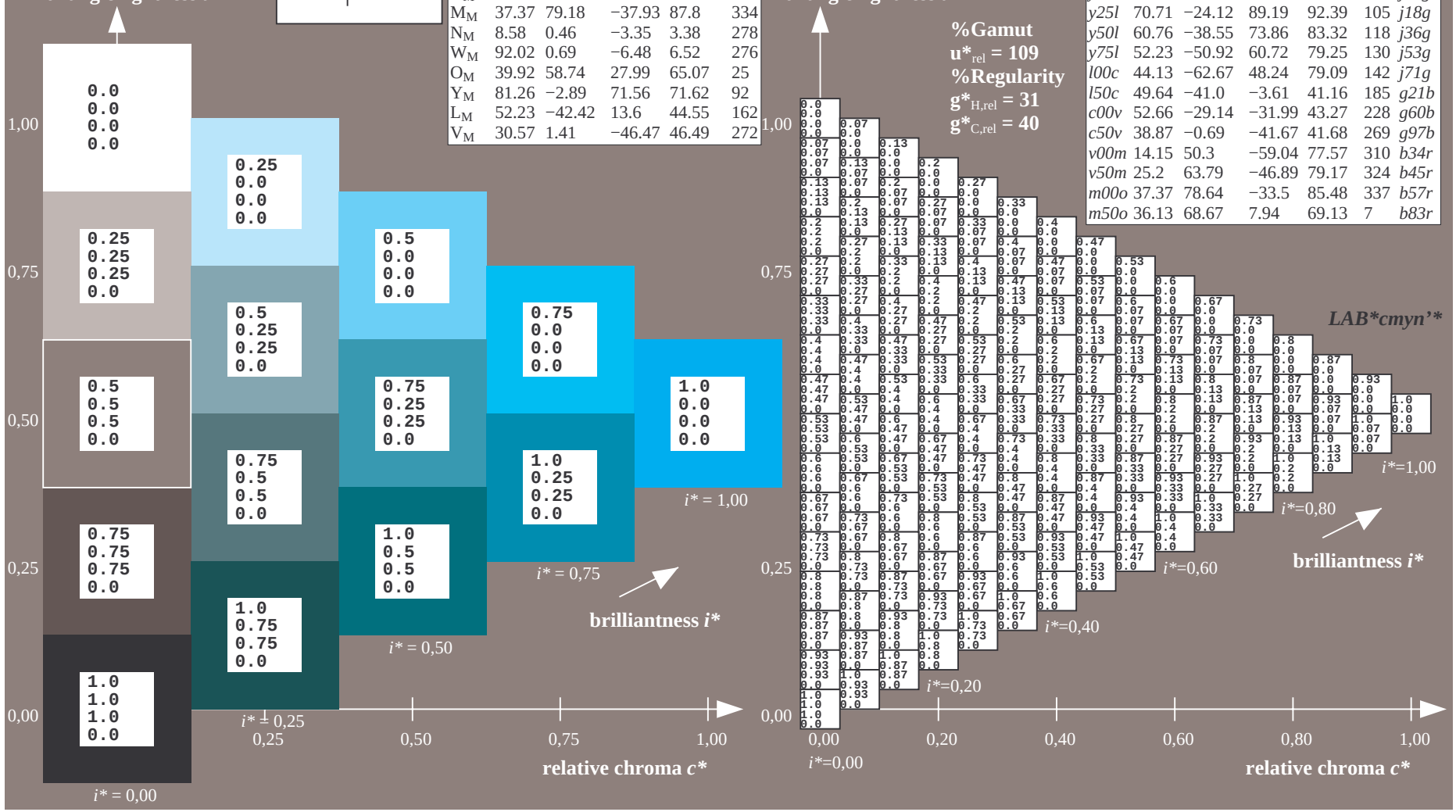
triangle lightness *t**

$u^*_d = c00v$

*LAB*cmyn'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.747$

data for any colour:

*lab*tch** **and** *lab*icu**

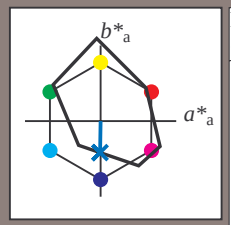
Hue texts:

$u^*_d = c50v$ $u^*_e = g97b$

contrast reduction factor:

$c_R = 1.0$

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

*LAB*LAB**$_{Ma}$: 39 −1 −42

*LAB*LCH**$_{Ma}$: 39 42 269

*lab*olv**$_{Ma}$: 0.0 0.5 1.0

*lab*rgb**$_{Ma}$: 0.0 0.05 1.0

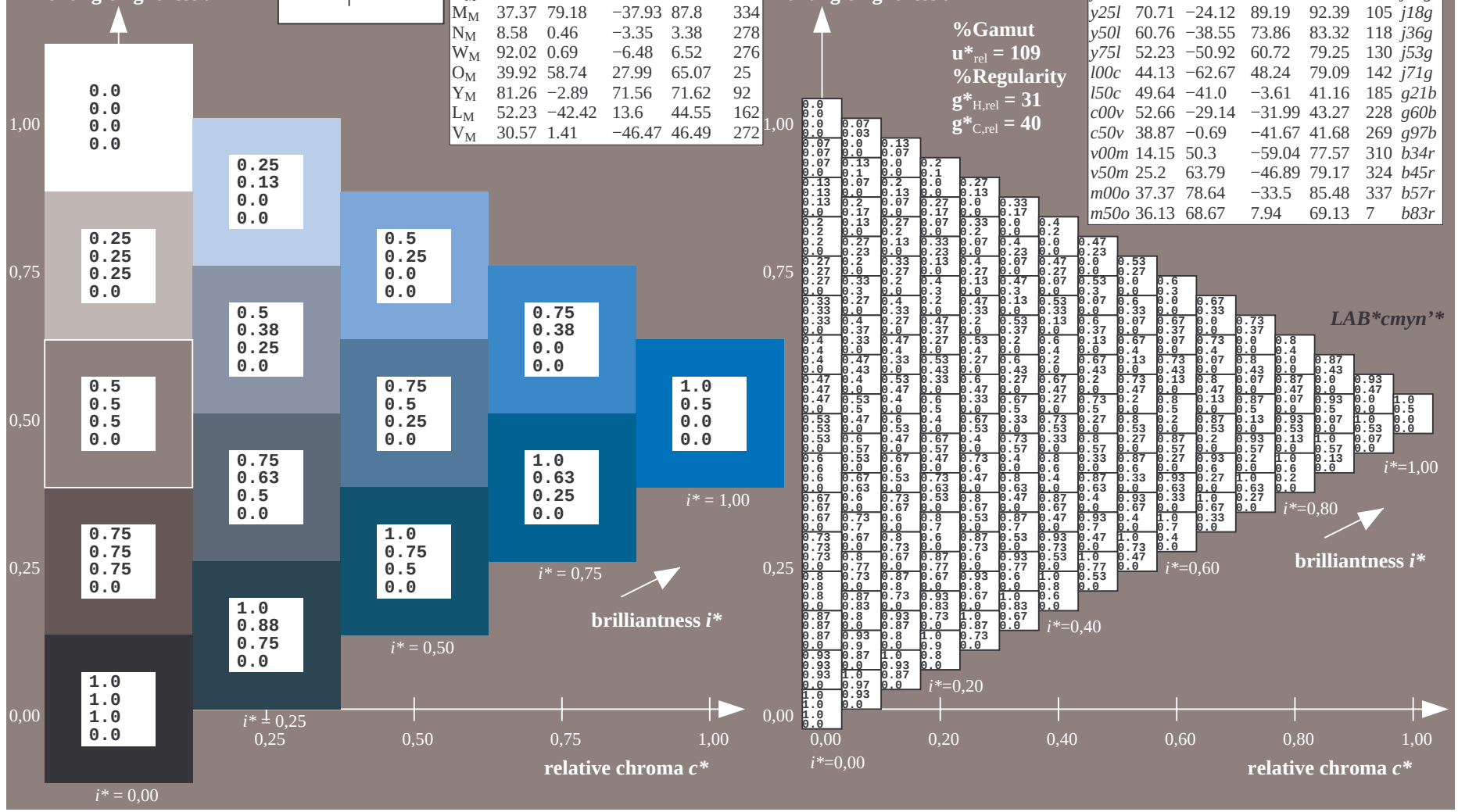
triangle lightness *t**

$u^*_d = c50v$

*LAB*cmyn'**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.862$

u^*_d = *v00m* **$LAB^*cmyn'^*$**

data for any colour:

lab*tch* **and** ***lab*icu****

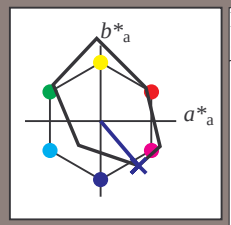
Hue texts:

u^*_d = *v00m* u^*_e = *b34r*

contrast reduction factor:

c_R = 1.0

triangle lightness *t**



FRS09_92a; CIELAB data

u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):

LAB*LAB*$_{Ma}$: 14 50 −59

LAB*LCH*$_{Ma}$: 14 78 310

lab*olv*$_{Ma}$: 0.0 0.0 1.0

lab*rgb*$_{Ma}$: 0.68 0.0 1.0

triangle lightness *t**

%Gamut

u^*_{rel} = 109

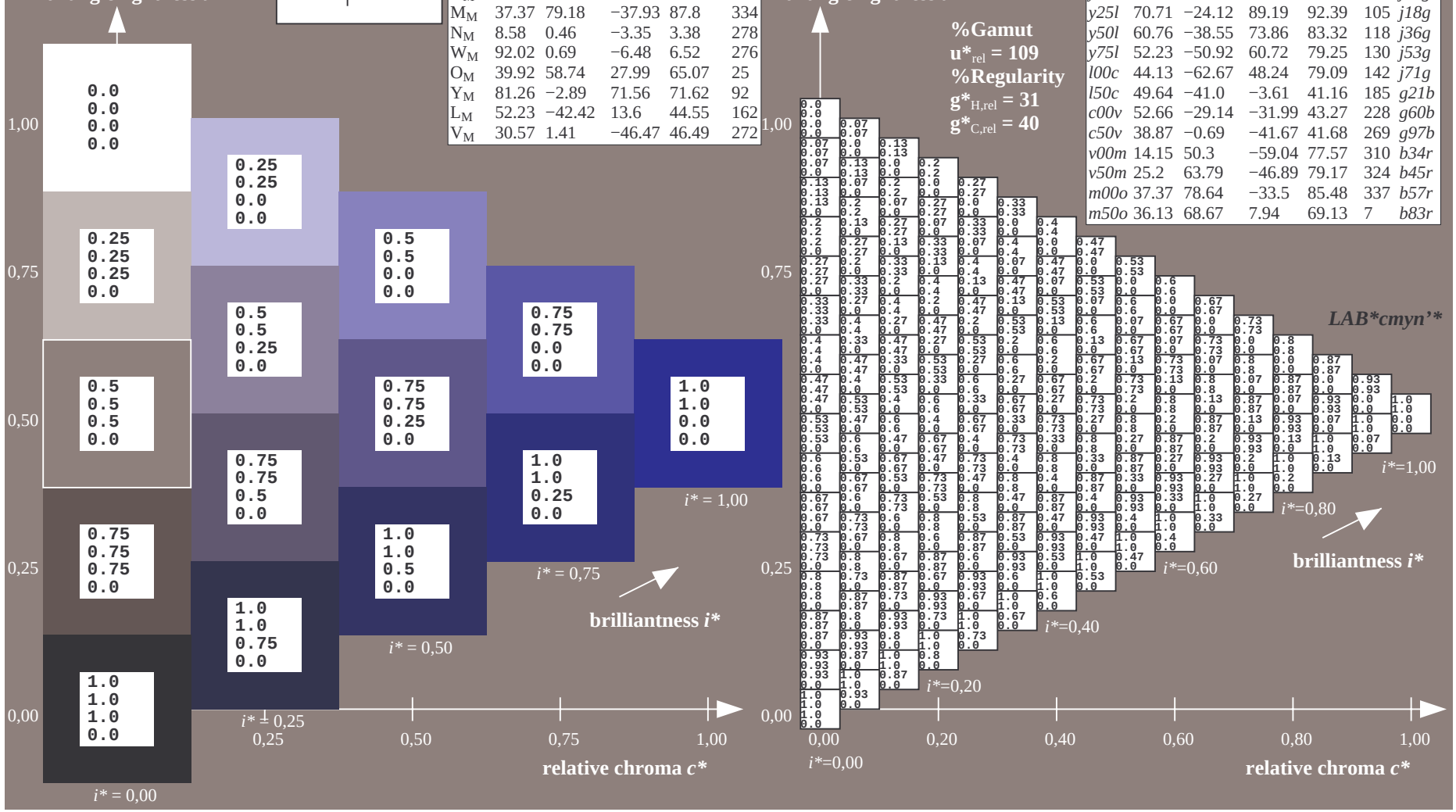
%Regularity

$g^*_{H,rel}$ = 31

$g^*_{C,rel}$ = 40

FRS09_92a; adapted (a) CIELAB data

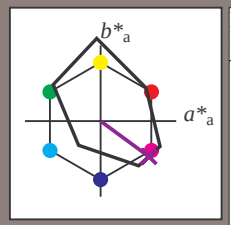
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.899$

$u^*_d = v50m$
LAB*cmyn'*

data for any colour:
lab*tch* **and** ***lab*icu****
Hue texts:
$u^*_d = v50m$ $u^*_e = b45r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



FRS09_92a; CIELAB data

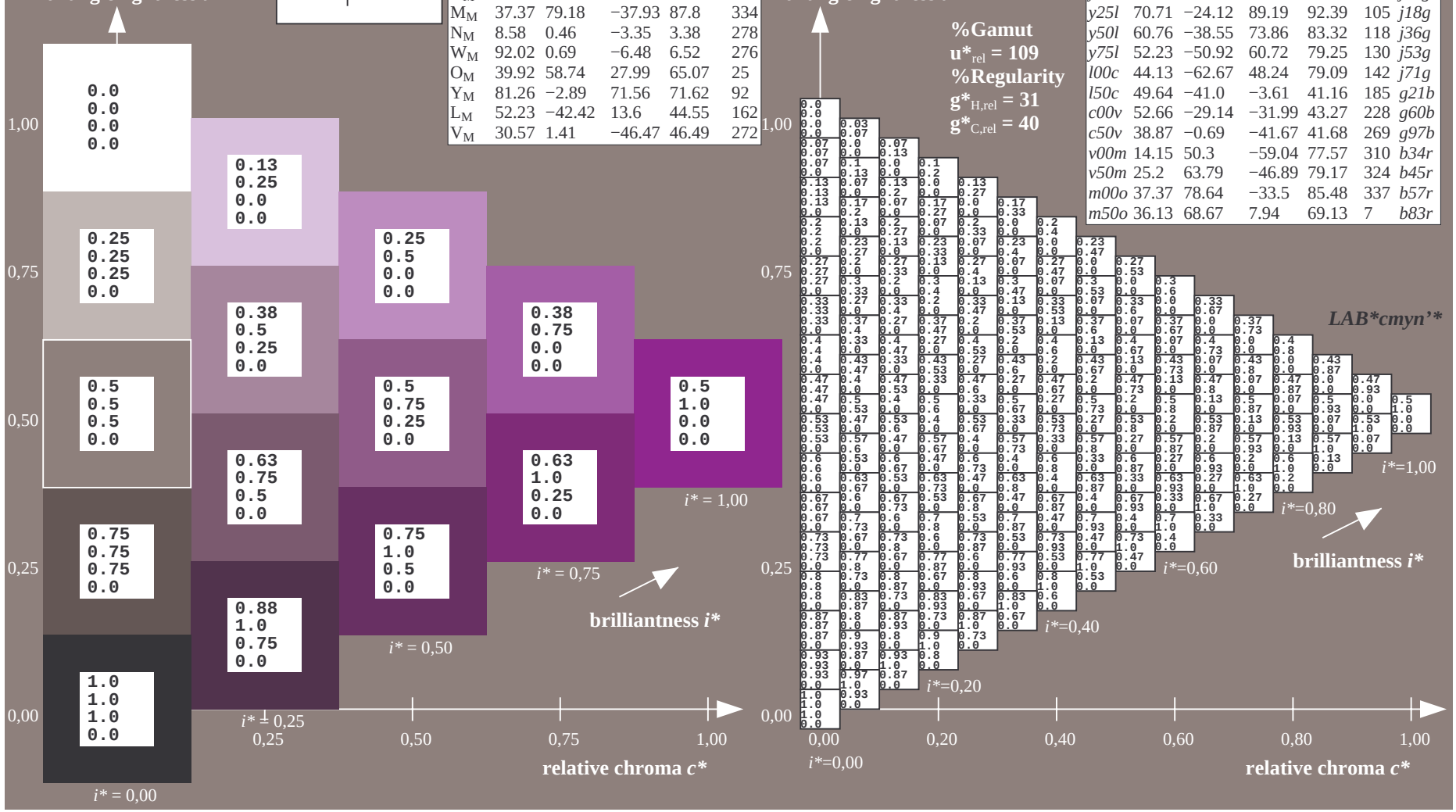
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 25 64 −47**
***LAB*LCH**$_{Ma}$: 25 79 323**
***lab*olv**$_{Ma}$: 0.5 0.0 1.0**
***lab*rgb**$_{Ma}$: 0.91 0.0 1.0**
triangle lightness *t**

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*

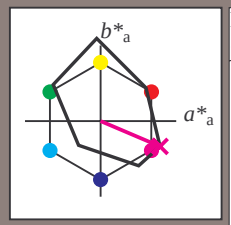
%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.936$

$u^*_d = m00o$
$LAB^*cmyn'^*$

data for any colour:
lab*tch** and *lab*icu*
Hue texts:
$u^*_d = m00o$ $u^*_e = b57r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



FRS09_92a; CIELAB data

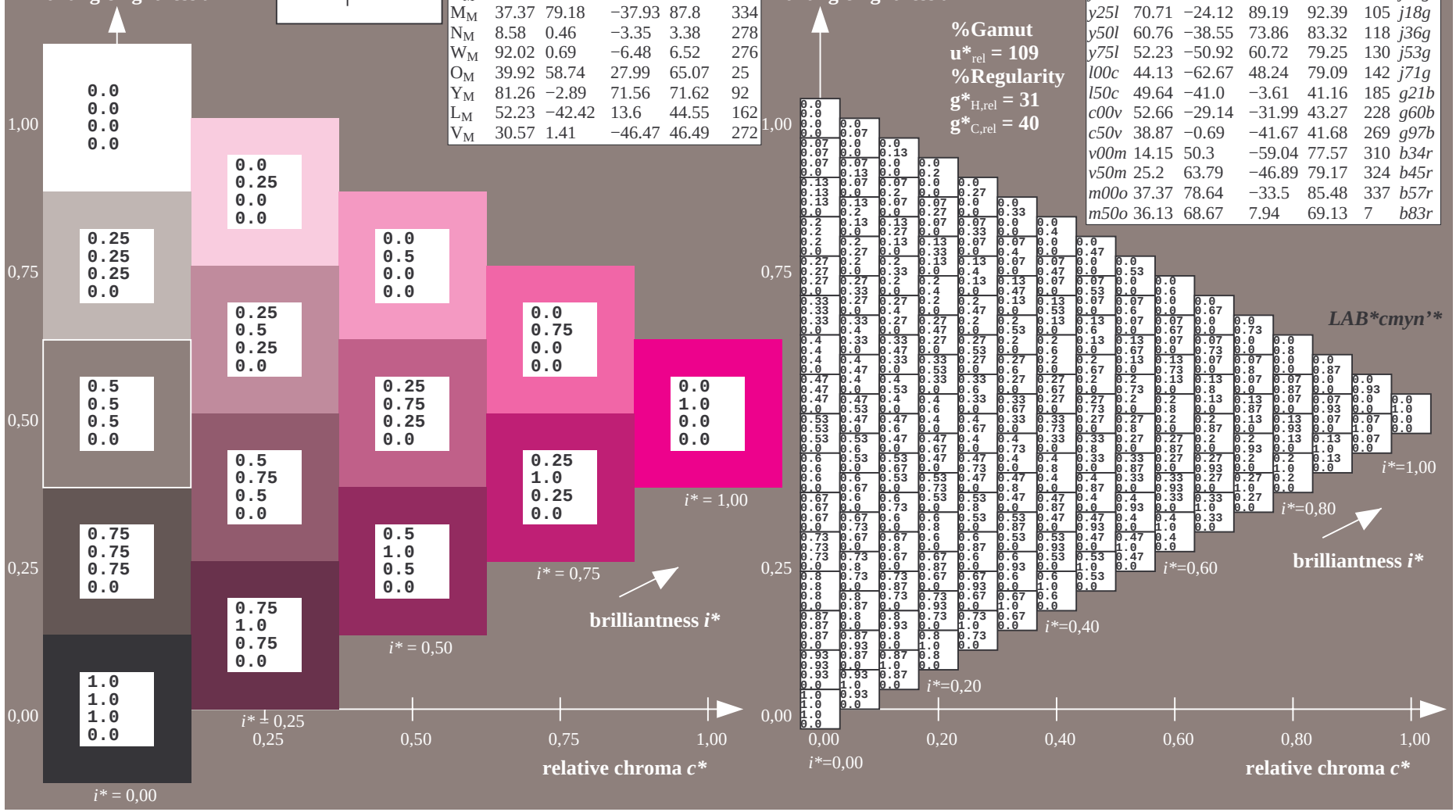
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
***LAB*LAB**$_{Ma}$: 37 79 −34**
***LAB*LCH**$_{Ma}$: 37 85 336**
***lab*olv**$_{Ma}$: 1.0 0.0 1.0**
***lab*rgb**$_{Ma}$: 1.0 0.0 0.85**
triangle lightness *t**

%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

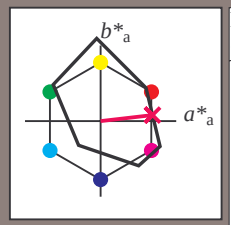
u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



Input and output: Colorimetric Printer Reflective System FRS09_92a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.018$

$u^*_d = m50o$
LAB*cmyn'*

data for any colour:
lab*tch* **and** ***lab*icu****
Hue texts:
$u^*_d = m50o$ $u^*_e = b83r$
contrast reduction factor:
$c_R = 1.0$
triangle lightness *t**



FRS09_92a; CIELAB data

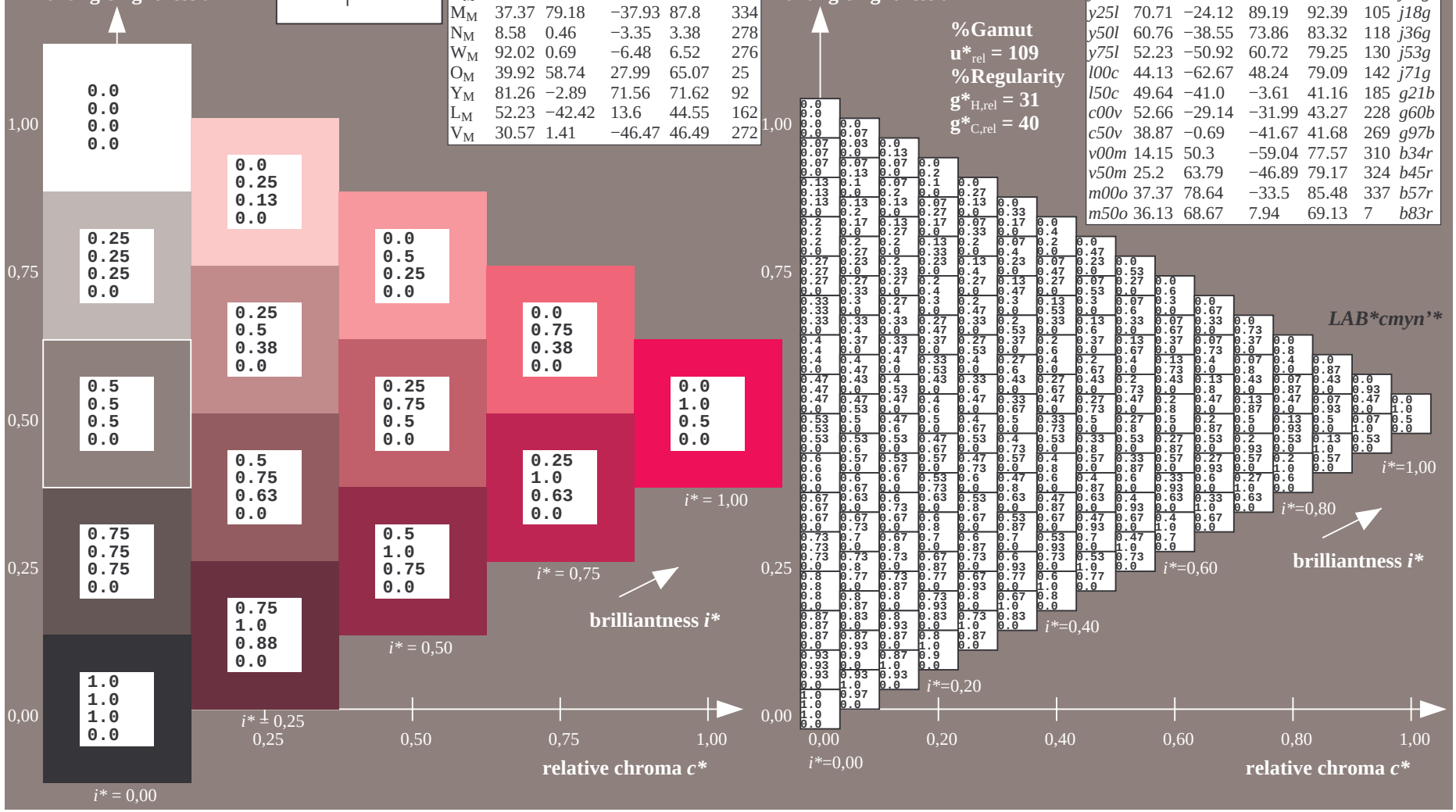
u^*_d	$L^*=L^*$	a^*	b^*	C^*_{ab}	h^*_{ab}
O_M	35.06	60.53	39.66	72.37	33
Y_M	83.77	−4.5	103.15	103.25	92
L_M	44.13	−62.11	43.56	75.86	145
C_M	52.66	−28.56	−36.99	46.73	232
V_M	14.15	50.78	−62.6	80.61	309
M_M	37.37	79.18	−37.93	87.8	334
N_M	8.58	0.46	−3.35	3.38	278
W_M	92.02	0.69	−6.48	6.52	276
O_M	39.92	58.74	27.99	65.07	25
Y_M	81.26	−2.89	71.56	71.62	92
L_M	52.23	−42.42	13.6	44.55	162
V_M	30.57	1.41	−46.47	46.49	272

Data for maximum colour (Ma):
LAB*LAB*$_{Ma}$**: 36 69 8**
LAB*LCH*$_{Ma}$**: 36 69 6**
lab*olv*$_{Ma}$**: 1.0 0.0 0.5**
lab*rgb*$_{Ma}$**: 1.0 0.0 0.33**
triangle lightness *t**

%Gamut
$u^*_{rel} = 109$
%Regularity
$g^*_{H,rel} = 31$
$g^*_{C,rel} = 40$

FRS09_92a; adapted (a) CIELAB data

u^*_d	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*_e
o00y	35.06	60.0	44.0	74.4	36	*r16j*
o25y	44.68	47.13	56.9	73.88	50	*r37j*
o50y	54.77	33.62	70.44	78.05	64	*r58j*
o75y	66.84	17.48	86.62	88.37	79	*r79j*
y00l	83.77	−5.17	109.32	109.44	93	*j01g*
y25l	70.71	−24.12	89.19	92.39	105	*j18g*
y50l	60.76	−38.55	73.86	83.32	118	*j36g*
y75l	52.23	−50.92	60.72	79.25	130	*j53g*
l00c	44.13	−62.67	48.24	79.09	142	*j71g*
l50c	49.64	−41.0	−3.61	41.16	185	*g21b*
c00v	52.66	−29.14	−31.99	43.27	228	*g60b*
c50v	38.87	−0.69	−41.67	41.68	269	*g97b*
v00m	14.15	50.3	−59.04	77.57	310	*b34r*
v50m	25.2	63.79	−46.89	79.17	324	*b45r*
m00o	37.37	78.64	−33.5	85.48	337	*b57r*
m50o	36.13	68.67	7.94	69.13	7	*b83r*



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	a	b	c	d	e	f	g	h	i	j	k	LAB*cmyn'*
01	1.0 1.0 1.0 0.0	1.0 0.88 1.0 0.0	1.0 0.75 1.0 0.0	1.0 0.63 1.0 0.0	1.0 0.5 1.0 0.0	1.0 0.38 1.0 0.0	1.0 0.25 1.0 0.0	1.0 0.13 1.0 0.0	1.0 0.0 1.0 0.0	0.88 1.0 1.0 0.0	0.88 0.88 1.0 0.0	0.88 0.75 1.0 0.0	0.88 0.63 1.0 0.0	0.88 0.5 1.0 0.0	0.88 0.38 1.0 0.0	0.88 0.25 1.0 0.0	0.88 0.13 1.0 0.0	0.88 0.0 1.0 0.0	0.75 1.0 1.0 0.0	0.75 0.88 1.0 0.0	0.75 0.75 1.0 0.0	0.75 0.63 1.0 0.0	0.75 0.5 1.0 0.0	0.75 0.38 1.0 0.0	0.75 0.25 1.0 0.0	0.75 0.13 1.0 0.0	0.75 0.0 1.0 0.0	0.0 0.0 0.0 0.0	0.0 0.13 0.0 0.0	0.0 0.25 0.0 0.0	0.0 0.38 0.0 0.0	0.0 0.5 0.0 0.0	0.0 0.63 0.0 0.0	0.0 0.75 0.0 0.0	0.0 0.88 0.0 0.0	0.0 1.0 0.0 0.0	1.0 1.0 1.0 0.0	1.0 1.0 1.0 0.0	1.0 1.0 1.0 0.0	1.0 1.0 1.0 0.0
02	1.0 1.0 0.88 0.0	1.0 0.88 0.88 0.0	1.0 0.75 0.88 0.0	1.0 0.63 0.88 0.0	1.0 0.5 0.88 0.0	1.0 0.38 0.88 0.0	1.0 0.25 0.88 0.0	1.0 0.13 0.88 0.0	1.0 0.0 0.88 0.0	0.88 1.0 0.88 0.0	0.88 0.88 0.88 0.0	0.88 0.75 0.88 0.0	0.88 0.63 0.88 0.0	0.88 0.5 0.88 0.0	0.88 0.38 0.88 0.0	0.88 0.25 0.88 0.0	0.88 0.13 0.88 0.0	0.88 0.0 0.88 0.0	0.75 1.0 0.88 0.0	0.75 0.88 0.88 0.0	0.75 0.75 0.88 0.0	0.75 0.63 0.88 0.0	0.75 0.5 0.88 0.0	0.75 0.38 0.88 0.0	0.75 0.25 0.88 0.0	0.75 0.13 0.88 0.0	0.75 0.0 0.88 0.0	0.13 0.0 0.0 0.0	0.13 0.13 0.0 0.0	0.13 0.25 0.0 0.0	0.13 0.38 0.0 0.0	0.13 0.5 0.0 0.0	0.13 0.63 0.0 0.0	0.13 0.75 0.0 0.0	0.13 0.88 0.0 0.0	0.13 1.0 0.0 0.0	0.88 0.88 0.88 0.0	0.88 0.88 0.88 0.0	0.88 0.88 0.88 0.0	0.88 0.88 0.88 0.0
03	1.0 1.0 0.75 0.0	1.0 0.88 0.75 0.0	1.0 0.75 0.75 0.0	1.0 0.63 0.75 0.0	1.0 0.5 0.75 0.0	1.0 0.38 0.75 0.0	1.0 0.25 0.75 0.0	1.0 0.13 0.75 0.0	1.0 0.0 0.75 0.0	0.88 1.0 0.75 0.0	0.88 0.88 0.75 0.0	0.88 0.75 0.75 0.0	0.88 0.63 0.75 0.0	0.88 0.5 0.75 0.0	0.88 0.38 0.75 0.0	0.88 0.25 0.75 0.0	0.88 0.13 0.75 0.0	0.88 0.0 0.75 0.0	0.75 1.0 0.75 0.0	0.75 0.88 0.75 0.0	0.75 0.75 0.75 0.0	0.75 0.63 0.75 0.0	0.75 0.5 0.75 0.0	0.75 0.38 0.75 0.0	0.75 0.25 0.75 0.0	0.75 0.13 0.75 0.0	0.75 0.0 0.75 0.0	0.25 0.0 0.0 0.0	0.25 0.13 0.0 0.0	0.25 0.25 0.0 0.0	0.25 0.38 0.0 0.0	0.25 0.5 0.0 0.0	0.25 0.63 0.0 0.0	0.25 0.75 0.0 0.0	0.25 0.88 0.0 0.0	0.25 1.0 0.0 0.0	0.75 0.75 0.75 0.0	0.75 0.75 0.75 0.0	0.75 0.75 0.75 0.0	0.75 0.75 0.75 0.0
04	1.0 1.0 0.63 0.0	1.0 0.88 0.63 0.0	1.0 0.75 0.63 0.0	1.0 0.63 0.63 0.0	1.0 0.5 0.63 0.0	1.0 0.38 0.63 0.0	1.0 0.25 0.63 0.0	1.0 0.13 0.63 0.0	1.0 0.0 0.63 0.0	0.88 1.0 0.63 0.0	0.88 0.88 0.63 0.0	0.88 0.75 0.63 0.0	0.88 0.63 0.63 0.0	0.88 0.5 0.63 0.0	0.88 0.38 0.63 0.0	0.88 0.25 0.63 0.0	0.88 0.13 0.63 0.0	0.88 0.0 0.63 0.0	0.75 1.0 0.63 0.0	0.75 0.88 0.63 0.0	0.75 0.75 0.63 0.0	0.75 0.63 0.63 0.0	0.75 0.5 0.63 0.0	0.75 0.38 0.63 0.0	0.75 0.25 0.63 0.0	0.75 0.13 0.63 0.0	0.75 0.0 0.63 0.0	0.38 0.0 0.0 0.0	0.38 0.13 0.0 0.0	0.38 0.25 0.0 0.0	0.38 0.38 0.0 0.0	0.38 0.5 0.0 0.0	0.38 0.63 0.0 0.0	0.38 0.75 0.0 0.0	0.38 0.88 0.0 0.0	0.38 1.0 0.0 0.0	0.63 0.63 0.63 0.0	0.63 0.63 0.63 0.0	0.63 0.63 0.63 0.0	0.63 0.63 0.63 0.0
05	1.0 1.0 0.5 0.0	1.0 0.88 0.5 0.0	1.0 0.75 0.5 0.0	1.0 0.63 0.5 0.0	1.0 0.5 0.5 0.0	1.0 0.38 0.5 0.0	1.0 0.25 0.5 0.0	1.0 0.13 0.5 0.0	1.0 0.0 0.5 0.0	0.88 1.0 0.5 0.0	0.88 0.88 0.5 0.0	0.88 0.75 0.5 0.0	0.88 0.63 0.5 0.0	0.88 0.5 0.5 0.0	0.88 0.38 0.5 0.0	0.88 0.25 0.5 0.0	0.88 0.13 0.5 0.0	0.88 0.0 0.5 0.0	0.75 1.0 0.5 0.0	0.75 0.88 0.5 0.0	0.75 0.75 0.5 0.0	0.75 0.63 0.5 0.0	0.75 0.5 0.5 0.0	0.75 0.38 0.5 0.0	0.75 0.25 0.5 0.0	0.75 0.13 0.5 0.0	0.75 0.0 0.5 0.0	0.5 0.0 0.0 0.0	0.5 0.13 0.0 0.0	0.5 0.25 0.0 0.0	0.5 0.38 0.0 0.0	0.5 0.5 0.0 0.0	0.5 0.63 0.0 0.0	0.5 0.75 0.0 0.0	0.5 0.88 0.0 0.0	0.5 1.0 0.0 0.0	0.5 0.5 0.5 0.0	0.5 0.5 0.5 0.0	0.5 0.5 0.5 0.0	0.5 0.5 0.5 0.0
06	1.0 1.0 0.38 0.0	1.0 0.88 0.38 0.0	1.0 0.75 0.38 0.0	1.0 0.63 0.38 0.0	1.0 0.5 0.38 0.0	1.0 0.38 0.38 0.0	1.0 0.25 0.38 0.0	1.0 0.13 0.38 0.0	1.0 0.0 0.38 0.0	0.88 1.0 0.38 0.0	0.88 0.88 0.38 0.0	0.88 0.75 0.38 0.0	0.88 0.63 0.38 0.0	0.88 0.5 0.38 0.0	0.88 0.38 0.38 0.0	0.88 0.25 0.38 0.0	0.88 0.13 0.38 0.0	0.88 0.0 0.38 0.0	0.75 1.0 0.38 0.0	0.75 0.88 0.38 0.0	0.75 0.75 0.38 0.0	0.75 0.63 0.38 0.0	0.75 0.5 0.38 0.0	0.75 0.38 0.38 0.0	0.75 0.25 0.38 0.0	0.75 0.13 0.38 0.0	0.75 0.0 0.38 0.0	0.63 0.0 0.0 0.0	0.63 0.13 0.0 0.0	0.63 0.25 0.0 0.0	0.63 0.38 0.0 0.0	0.63 0.5 0.0 0.0	0.63 0.63 0.0 0.0	0.63 0.75 0.0 0.0	0.63 0.88 0.0 0.0	0.63 1.0 0.0 0.0	0.38 0.38 0.38 0.0	0.38 0.38 0.38 0.0	0.38 0.38 0.38 0.0	0.38 0.38 0.38 0.0
07	1.0 1.0 0.25 0.0	1.0 0.88 0.25 0.0	1.0 0.75 0.25 0.0	1.0 0.63 0.25 0.0	1.0 0.5 0.25 0.0	1.0 0.38 0.25 0.0	1.0 0.25 0.25 0.0	1.0 0.13 0.25 0.0	1.0 0.0 0.25 0.0	0.88 1.0 0.25 0.0	0.88 0.88 0.25 0.0	0.88 0.75 0.25 0.0	0.88 0.63 0.25 0.0	0.88 0.5 0.25 0.0	0.88 0.38 0.25 0.0	0.88 0.25 0.25 0.0	0.88 0.13 0.25 0.0	0.88 0.0 0.25 0.0	0.75 1.0 0.25 0.0	0.75 0.88 0.25 0.0	0.75 0.75 0.25 0.0	0.75 0.63 0.25 0.0	0.75 0.5 0.25 0.0	0.75 0.38 0.25 0.0	0.75 0.25 0.25 0.0	0.75 0.13 0.25 0.0	0.75 0.0 0.25 0.0	0.75 0.0 0.0 0.0	0.75 0.13 0.0 0.0	0.75 0.25 0.0 0.0	0.75 0.38 0.0 0.0	0.75 0.5 0.0 0.0	0.75 0.63 0.0 0.0	0.75 0.75 0.0 0.0	0.75 0.88 0.0 0.0	0.75 1.0 0.0 0.0	0.25 0.25 0.25 0.0	0.25 0.25 0.25 0.0	0.25 0.25 0.25 0.0	0.25 0.25 0.25 0.0
08	1.0 1.0 0.13 0.0	1.0 0.88 0.13 0.0	1.0 0.75 0.13 0.0	1.0 0.63 0.13 0.0	1.0 0.5 0.13 0.0	1.0 0.38 0.13 0.0	1.0 0.25 0.13 0.0	1.0 0.13 0.13 0.0	1.0 0.0 0.13 0.0	0.88 1.0 0.13 0.0	0.88 0.88 0.13 0.0	0.88 0.75 0.13 0.0	0.88 0.63 0.13 0.0	0.88 0.5 0.13 0.0	0.88 0.38 0.13 0.0	0.88 0.25 0.13 0.0	0.88 0.13 0.13 0.0	0.88 0.0 0.13 0.0	0.75 1.0 0.13 0.0	0.75 0.88 0.13 0.0	0.75 0.75 0.13 0.0	0.75 0.63 0.13 0.0	0.75 0.5 0.13 0.0	0.75 0.38 0.13 0.0	0.75 0.25 0.13 0.0	0.75 0.13 0.13 0.0	0.75 0.0 0.13 0.0	0.88 0.0 0.0 0.0	0.88 0.13 0.0 0.0	0.88 0.25 0.0 0.0	0.88 0.38 0.0 0.0	0.88 0.5 0.0 0.0	0.88 0.63 0.0 0.0	0.88 0.75 0.0 0.0	0.88 0.88 0.0 0.0	0.88 1.0 0.0 0.0	0.13 0.13 0.13 0.0	0.13 0.13 0.13 0.0	0.13 0.13 0.13 0.0	0.13 0.13 0.13 0.0
09	1.0 1.0 0.0 0.0	1.0 0.88 0.0 0.0	1.0 0.75 0.0 0.0	1.0 0.63 0.0 0.0	1.0 0.5 0.0 0.0	1.0 0.38 0.0 0.0	1.0 0.25 0.0 0.0	1.0 0.13 0.0 0.0	1.0 0.0 0.0 0.0	0.88 1.0 0.0 0.0	0.88 0.88 0.0 0.0	0.88 0.75 0.0 0.0	0.88 0.63 0.0 0.0	0.88 0.5 0.0 0.0	0.88 0.38 0.0 0.0	0.88 0.25 0.0 0.0	0.88 0.13 0.0 0.0	0.88 0.0 0.0 0.0	0.75 1.0 0.0 0.0	0.75 0.88 0.0 0.0	0.75 0.75 0.0 0.0	0.75 0.63 0.0 0.0	0.75 0.5 0.0 0.0	0.75 0.38 0.0 0.0	0.75 0.25 0.0 0.0	0.75 0.13 0.0 0.0	0.75 0.0 0.0 0.0	1.0 0.0 0.0 0.0	1.0 0.13 0.0 0.0	1.0 0.25 0.0 0.0	1.0 0.38 0.0 0.0	1.0 0.5 0.0 0.0	1.0 0.63 0.0 0.0	1.0 0.75 0.0 0.0	1.0 0.88 0.0 0.0	1.0 1.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0
10	0.63 1.0 0.0 0.0	0.63 0.88 0.0 0.0	0.63 0.75 0.0 0.0	0.63 0.63 0.0 0.0	0.63 0.5 0.0 0.0	0.63 0.38 0.0 0.0	0.63 0.25 0.0 0.0	0.63 0.13 0.0 0.0	0.63 0.0 0.0 0.0	0.5 1.0 0.0 0.0	0.5 0.88 0.0 0.0	0.5 0.75 0.0 0.0	0.5 0.63 0.0 0.0	0.5 0.5 0.0 0.0	0.5 0.38 0.0 0.0	0.5 0.25 0.0 0.0	0.5 0.13 0.0 0.0	0.5 0.0 0.0 0.0	0.38 1.0 0.0 0.0	0.38 0.88 0.0 0.0	0.38 0.75 0.0 0.0	0.38 0.63 0.0 0.0	0.38 0.5 0.0 0.0	0.38 0.38 0.0 0.0	0.38 0.25 0.0 0.0	0.38 0.13 0.0 0.0	0.38 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.13 0.0 0.0	0.0 0.25 0.0 0.0	0.0 0.38 0.0 0.0	0.0 0.5 0.0 0.0	0.0 0.63 0.0 0.0	0.0 0.75 0.0 0.0	0.0 0.88 0.0 0.0	0.0 1.0 0.0 0.0	1.0 1.0 1.0 0.0	1.0 1.0 1.0 0.0	1.0 1.0 1.0 0.0	1.0 1.0 1.0 0.0
11	0.63 1.0 0.88 0.0	0.63 0.88 0.88 0.0	0.63 0.75 0.88 0.0	0.63 0.63 0.88 0.0	0.63 0.5 0.88 0.0	0.63 0.38 0.88 0.0	0.63 0.25 0.88 0.0	0.63 0.13 0.88 0.0	0.63 0.0 0.88 0.0	0.5 1.0 0.88 0.0	0.5 0.88 0.88 0.0	0.5 0.75 0.88 0.0	0.5 0.63 0.88 0.0	0.5 0.5 0.88 0.0	0.5 0.38 0.88 0.0	0.5 0.25 0.88 0.0	0.5 0.13 0.88 0.0	0.5 0.0 0.88 0.0	0.38 1.0 0.88 0.0	0.38 0.88 0.88 0.0	0.38 0.75 0.88 0.0	0.38 0.63 0.88 0.0	0.38 0.5 0.88 0.0	0.38 0.38 0.88 0.0	0.38 0.25 0.88 0.0	0.38 0.13 0.88 0.0	0.38 0.0 0.88 0.0	0.13 0.0 0.0 0.0	0.13 0.13 0.0 0.0	0.13 0.25 0.0 0.0	0.13 0.38 0.0 0.0	0.13 0.5 0.0 0.0	0.13 0.63 0.0 0.0	0.13 0.75 0.0 0.0	0.13 0.88 0.0 0.0	0.13 1.0 0.0 0.0	0.93 0.93 0.93 0.0	0.93 0.93 0.93 0.0	0.93 0.93 0.93 0.0	0.93 0.93 0.93 0.0
12	0.63 1.0 0.75 0.0	0.63 0.88 0.75 0.0	0.63 0.75 0.75 0.0	0.63 0.63 0.75 0.0	0.63 0.5 0.75 0.0	0.63 0.38 0.75 0.0	0.63 0.25 0.75 0.0	0.63 0.13 0.75 0.0	0.63 0.0 0.75 0.0	0.5 1.0 0.75 0.0	0.5 0.88 0.75 0.0	0.5 0.75 0.75 0.0	0.5 0.63 0.75 0.0	0.5 0.5 0.75 0.0	0.5 0.38 0.75 0.0	0.5 0.25 0.75 0.0	0.5 0.13 0.75 0.0	0.5 0.0 0.75 0.0	0.38 1.0 0.75 0.0	0.38 0.88 0.75 0.0	0.38 0.75 0.75 0.0	0.38 0.63 0.75 0.0	0.38 0.5 0.75 0.0	0.38 0.38 0.75 0.0	0.38 0.25 0.75 0.0	0.38 0.13 0.75 0.0	0.38 0.0 0.75 0.0	0.25 0.0 0.0 0.0	0.25 0.13 0.0 0.0	0.25 0.25 0.0 0.0	0.25 0.38 0.0 0.0	0.25 0.5 0.0 0.0	0.25 0.63 0.0 0.0	0.25 0.75 0.0 0.0	0.25 0.88 0.0 0.0	0.25 1.0 0.0 0.0	0.87 0.87 0.87 0.0	0.87 0.87 0.87 0.0	0.87 0.87 0.87 0.0	0.87 0.87 0.87 0.0
13	0.63 1.0 0.63 0.0	0.63 0.88 0.63 0.0	0.63 0.75 0.63 0.0	0.63 0.63 0.63 0.0	0.63 0.5 0.63 0.0	0.63 0.38 0.63 0.0	0.63 0.25 0.63 0.0	0.63 0.13 0.63 0.0	0.63 0.0 0.63 0.0	0.5 1.0 0.63 0.0	0.5 0.88 0.63 0.0	0.5 0.75 0.63 0.0	0.5 0.63 0.63 0.0	0.5 0.5 0.63 0.0	0.5 0.38 0.63 0.0	0.5 0.25 0.63 0.0	0.5 0.13 0.63 0.0	0.5 0.0 0.63 0.0	0.38 1.0 0.63 0.0	0.38 0.88 0.63 0.0	0.38 0.75 0.63 0.0	0.38 0.63 0.63 0.0	0.38 0.5 0.63 0.0	0.38 0.38 0.63 0.0	0.38 0.25 0.63 0.0	0.38 0.13 0.63 0.0	0.38 0.0 0.63 0.0	0.8 0.0 0.0 0.0	0.8 0.13 0.0 0.0	0.8 0.25 0.0 0.0	0.8 0.38 0.0 0.0	0.8 0.5 0.0 0.0	0.8 0.63 0.0 0.0	0.8 0.75 0.0 0.0	0.8 0.88 0.0 0.0	0.8 1.0 0.0 0.0	0.8 0.8 0.8 0.0	0.8 0.8 0.8 0.0	0.8 0.8 0.8 0.0	0.8 0.8 0.8 0.0
14	0.63 1.0 0.0 0.0	0.63 0.88 0.0 0.0	0.63 0.75 0.0 0.0	0.63 0.63 0.0 0.0	0.63 0.5 0.0 0.0	0.63 0.38 0.0 0.0	0.63 0.25 0.0 0.0	0.63 0.13 0.0 0.0	0.63 0.0 0.0 0.0	0.5 1.0 0.0 0.0	0.5 0.88 0.0 0.0	0.5 0.75 0.0 0.0	0.5 0.63 0.0 0.0	0.5 0.5 0.0 0.0	0.5 0.38 0.0 0.0	0.5 0.25 0.0 0.0	0.5 0.13 0.0 0.0	0.5 0.0 0.0 0.0	0.38 1.0 0.0 0.0	0.38 0.88 0.0 0.0	0.38 0.75 0.0 0.0	0.38 0.63 0.0 0.0	0.38 0.5 0.0 0.0	0.38 0.38 0.0 0.0	0.38 0.25 0.0 0.0	0.38 0.13 0.0 0.0	0.38 0.0 0.0 0.0	0.5 0.0 0.0 0.0	0.5 0.13 0.0 0.0	0.5 0.25 0.0 0.0	0.5 0.38 0.0 0.0	0.5 0.5 0.0 0.0	0.5 0.63 0.0 0.0	0.5 0.75 0.0 0.0	0.5 0.88 0.0 0.0	0.5 1.0 0.0 0.0	0.73 0.73 0.73 0.0	0.73 0.73 0.73 0.0	0.73 0.73 0.73 0.0	0.73 0.73 0.73 0.0
15	0.63 1.0 0.38 0.0	0.63 0.88 0.38 0.0	0.63 0.75 0.38 0.0	0.63 0.63 0.38 0.0	0.63 0.5 0.38 0.0	0.63 0.38 0.38 0.0	0.63 0.25 0.38 0.0	0.63 0.13 0.38 0.0	0.63 0.0 0.38 0.0	0.5 1.0 0.38 0.0	0.5 0.88 0.38 0.0	0.5 0.75 0.38 0.0	0.5 0.63 0.38 0.0	0.5 0.5 0.38 0.0	0.5 0.38 0.38 0.0	0.5 0.25 0.38 0.0	0.5 0.13 0.38 0.0	0.5 0.0 0.38 0.0	0.38 1.0 0.38 0.0	0.38 0.88 0.38 0.0	0.38 0.75 0.38 0.0	0.38 0.63 0.38 0.0	0.38 0.5 0.38 0.0	0.38 0.38 0.38 0.0	0.38 0.25 0.38 0.0	0.38 0.13 0.38 0.0	0.38 0.0 0.38 0.0	0.63 0.0 0.0 0.0	0.63 0.13 0.0 0.0	0.63 0.25 0.0 0.0	0.63 0.38 0.0 0.0	0.63 0.5 0.0 0.0	0.63 0.63 0.0 0.0	0.63 0.75 0.0 0.0	0.63 0.88 0.0 0.0	0.63 1.0 0.0 0.0	0.67 0.67 0.67 0.0	0.67 0.67 0.67 0.0	0.67 0.67 0.67 0.0	0.67 0.67 0.67 0.0
16	0.63 1.0 0.25 0.0	0.63 0.88 0.25 0.0	0.63 0.75 0.25 0.0	0.63 0.63 0.25 0.0	0.63 0.5 0.25 0.0	0.63 0.38 0.25 0.0	0.63 0.25 0.25 0.0	0.63 0.13 0.25 0.0	0.63 0.0 0.25 0.0	0.5 1.0 0.25 0.0	0.5 0.88 0.25 0.0	0.5 0.75 0.25 0.0	0.5 0.63 0.25 0.0	0.5 0.5 0.25 0.0	0.5 0.38 0.25 0.0	0.5 0.25 0.25 0.0	0.5 0.13 0.25 0.0	0.5 0.0 0.25 0.0	0.38 1.0 0.25 0.0	0.38 0.88 0.25 0.0	0.38 0.75 0.25 0.0	0.38 0.63 0.25 0.0	0.38 0.5 0.25 0.0	0.38 0.38 0.25 0.0	0.38 0.25 0.25 0.0	0.38 0.13 0.25 0.0	0.38 0.0 0.25 0.0	0.75 0.0 0.0 0.0	0.75 0.13 0.0 0.0	0.75 0.25 0.0 0.0	0.75 0.38 0.0 0.0	0.75 0.5 0.0 0.0	0.75 0.63 0.0 0.0	0.75 0.75 0.0 0.0	0.75 0.88 0.0 0.0	0.75 1.0 0.0 0.0	0.6 0.6 0.6 0.0	0.6 0.6 0.6 0.0	0.6 0.6 0.6 0.0	0.6 0.6 0.6 0.0
17	0.63 1.0 0.13 0.0	0.63 0.88 0.13 0.0	0.63 0.75 0.13 0.0	0.63 0.63 0.13 0.0	0.63 0.5 0.13 0.0	0.63 0.38 0.13 0.0	0.63 0.25 0.13 0.0	0.63 0.13 0.13 0.0	0.63 0.0 0.13 0.0	0.5 1.0 0.13 0.0	0.5 0.88 0.13 0.0	0.5 0.75 0.13 0.0	0.5 0.63 0.13 0.0	0.5 0.5 0.13 0.0	0.5 0.38 0.13 0