

Input: Colorimetric Printer Reflective System FRS06

for hue $h^* = lab \cdot h = 37/360 = 0.102$

LAB*LCH, LAB*NCH

D65: hue O

LCH*Ma: 33 78 37

olv*Ma: 1.0 0.0 0.0

CIELAB lightness L^*

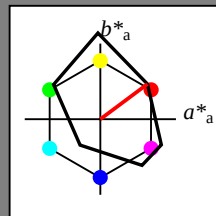
%Gamut

$u^*_{rel} = 115$

%Regularity

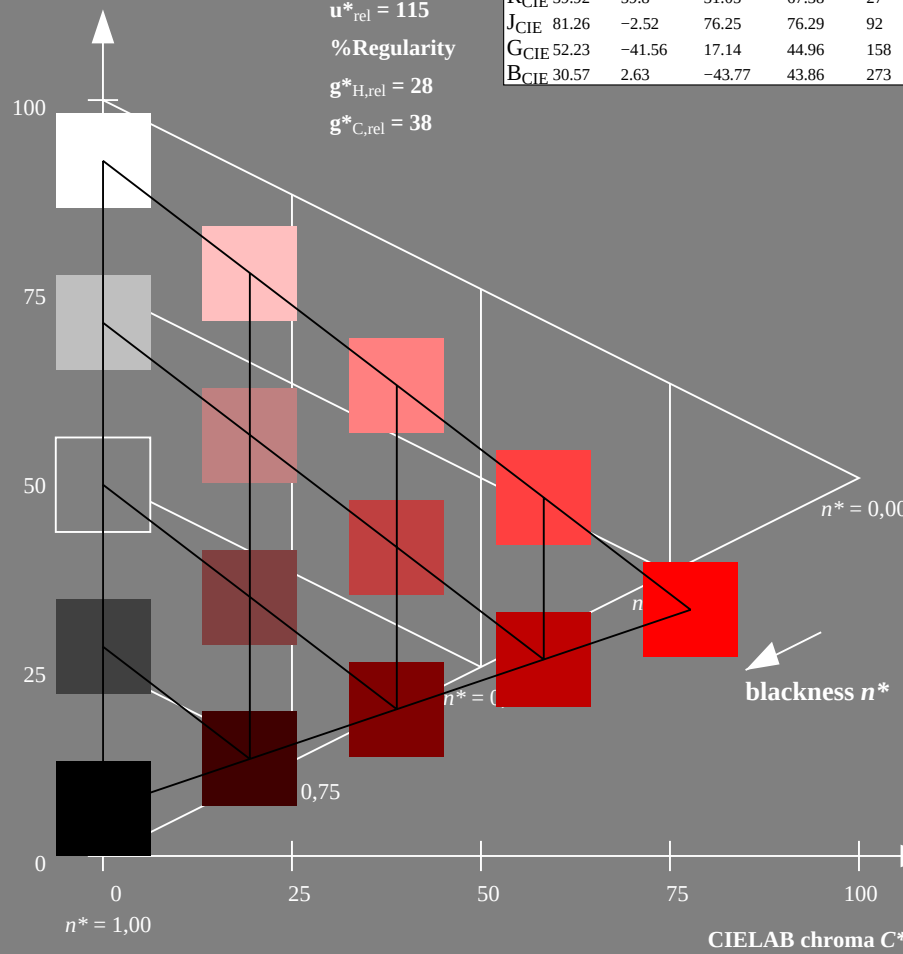
$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



FRS06; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
V _{Ma}	10.16	55.12	-61.03	82.24	312
M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273



VE230-7, 5 step scales for constant CIELAB hue 37/360 = 0.102 (left)

BAM-test chart VE23; Colorimetric systems FRS06 & FRS06

D65: Coordinate systems of 5 step colour scales for 10 hues

Output: Colorimetric Printer Reflective System FRS06

for hue $h^* = lab \cdot h = 37/360 = 0.102$

LAB*LCH, LAB*NCH

D65: hue O

LCH*Ma: 33 78 37

olv*Ma: 1.0 0.0 0.0

CIELAB lightness L^*

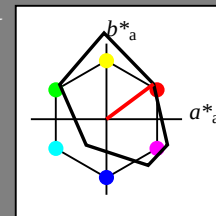
%Gamut

$u^*_{rel} = 115$

%Regularity

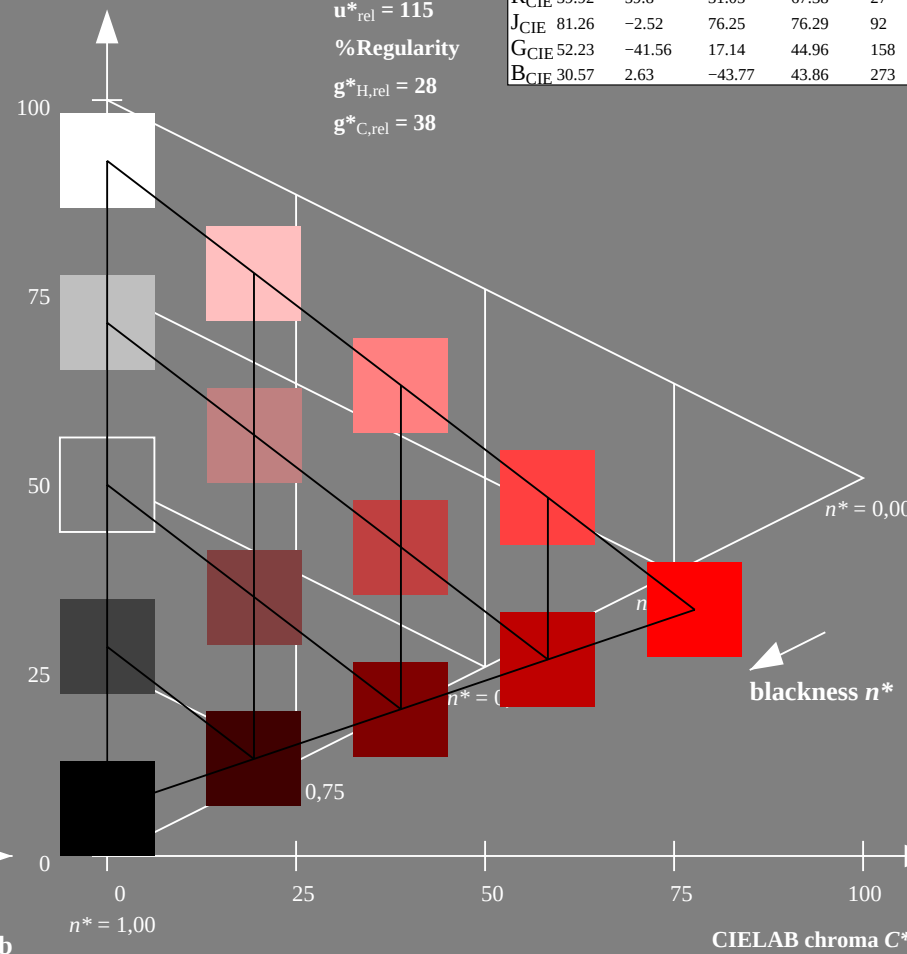
$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



FRS06; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
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N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273



5 step scales for constant CIELAB hue 37/360 = 0.102 (right)

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Printer Reflective System FRS06

for hue $h^* = lab^*h = 92/360 = 0.254$

LAB*LCH, LAB*NCH

D65: hue Y

LCH*Ma: 83 114 92

olv*Ma: 1.0 1.0 0.0

CIELAB lightness L^*

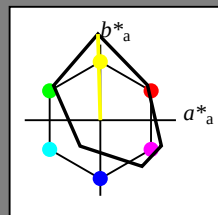
%Gamut

$u^*_{rel} = 115$

%Regularity

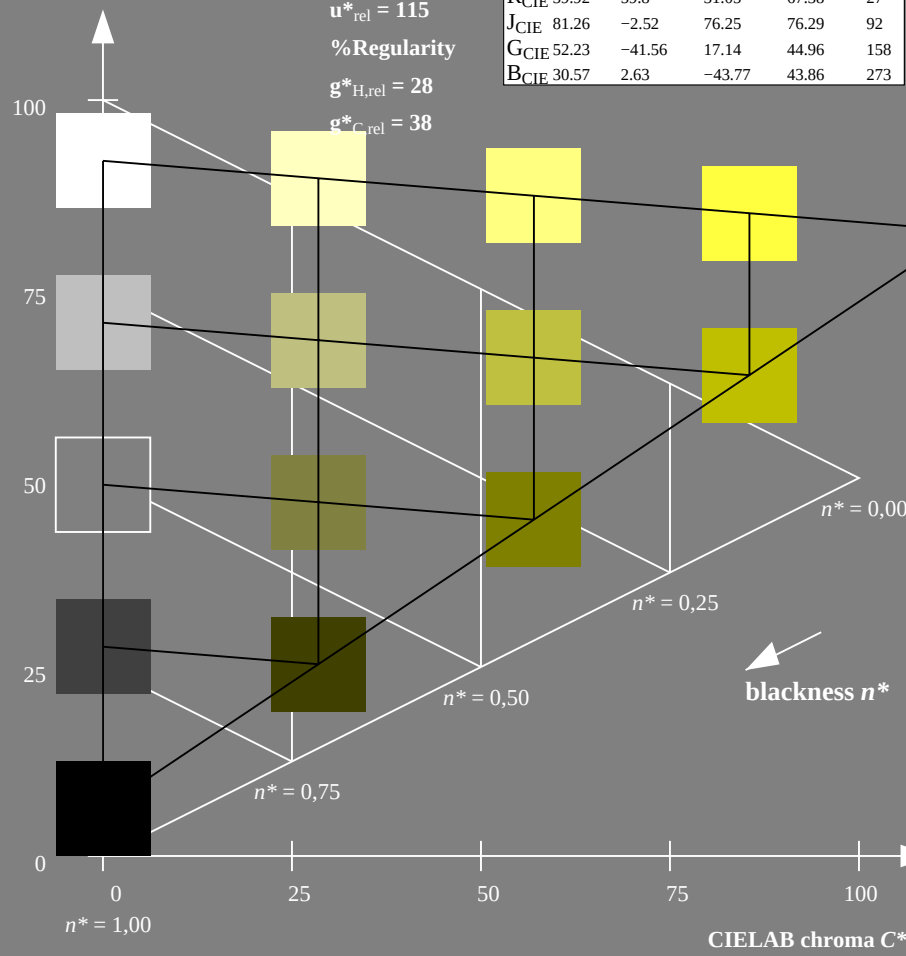
$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



FRS06; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
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W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273



VE230-7, 5 step scales for constant CIELAB hue 92/360 = 0.254 (left)

Output: Colorimetric Printer Reflective System FRS06

for hue $h^* = lab^*h = 92/360 = 0.254$

LAB*LCH, LAB*NCH

D65: hue Y

LCH*Ma: 83 114 92

olv*Ma: 1.0 1.0 0.0

CIELAB lightness L^*

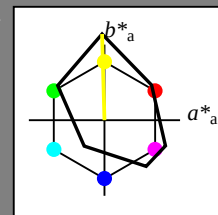
%Gamut

$u^*_{rel} = 115$

%Regularity

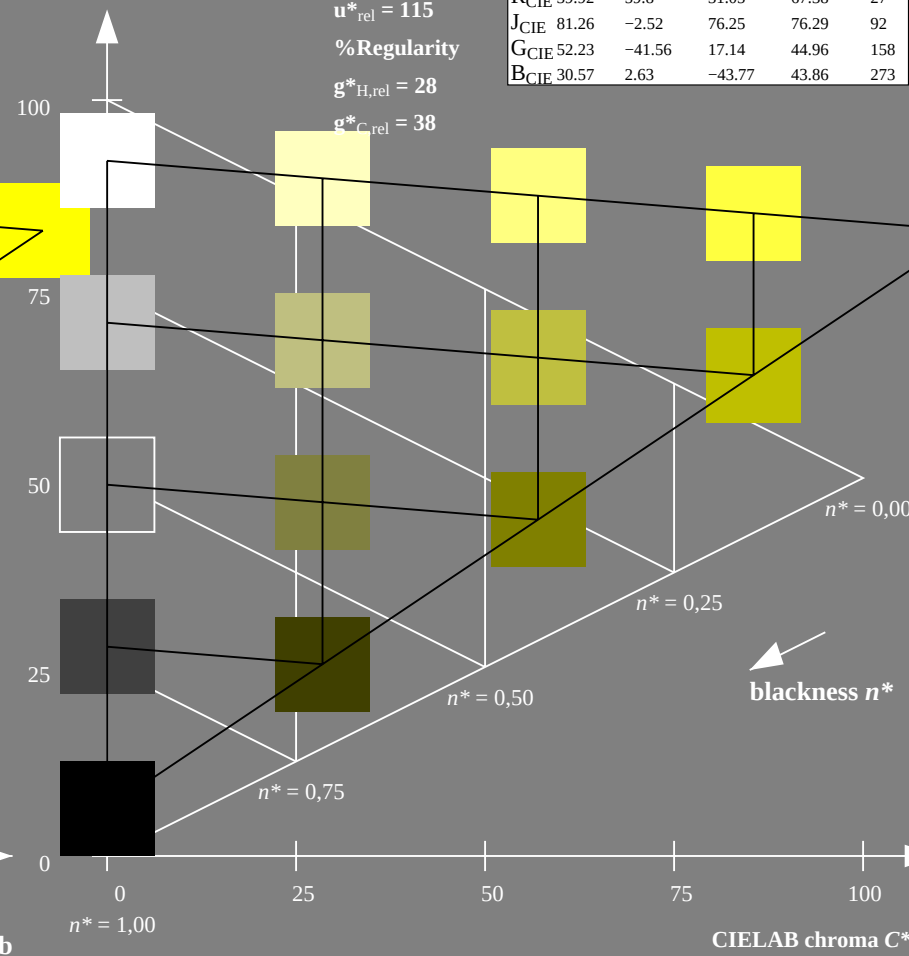
$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



FRS06; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
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N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273



5 step scales for constant CIELAB hue 92/360 = 0.254 (right)

BAM-test chart VE23; Colorimetric systems FRS06 & FRS06
D65: Coordinate systems of 5 step colour scales for 10 hues

input: olv* setrgbcolor
output: no change compared to input

A 3D coordinate system with three axes: a vertical axis labeled 'I', a horizontal axis pointing to the right labeled 'L', and a diagonal axis pointing towards the bottom-left labeled 'V'.

Input: Colorimetric Printer Reflective System FRS06

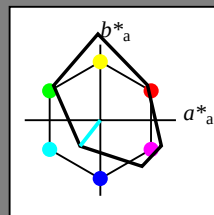
for hue $h^* = lab^*h = 232/360 = 0.644$

LAB*LCH, LAB*NCH

D65: hue C

LCH*Ma: 48 43 232

olv*Ma: 0.0 1.0 1.0



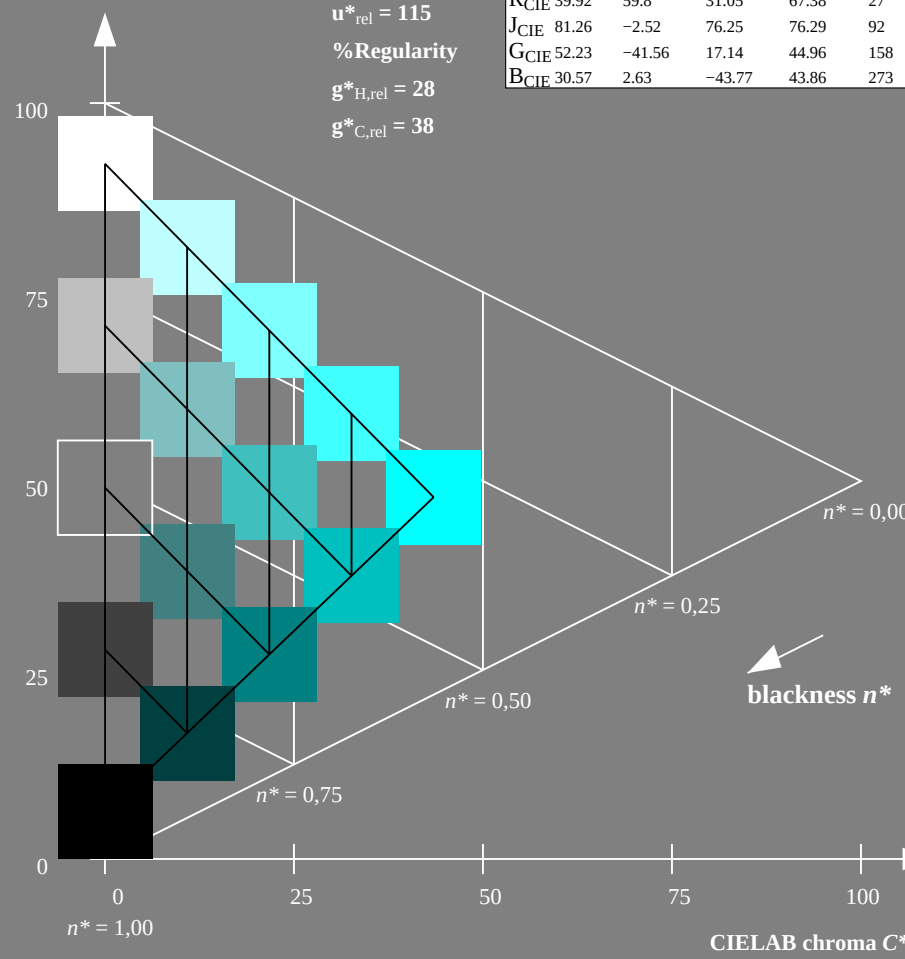
FRS06; adapted (a)		CIELAB data			
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
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M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

%Gamut

$$\mathbf{u}_{\text{rel}}^* = 115$$

%Regularity

$$g^*_{H,rel} = 28$$
$$g^*_{C,rel} = 38$$


VE230-7, 5 step scales for constant CIELAB hue 232/360 = 0.644 (left)

BAM-test chart VE23: Colorimetric systems FRS06 & FRS06

D65: Coordinate systems of 5 step colour scales for 10 hues

Output: Colorimetric Printer Reflective System FRS06

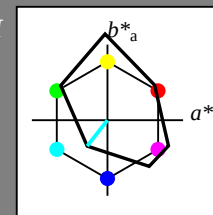
for hue $h^* = lab^*h = 232/360 = 0.644$

LAB*LCH, LAB*NCH

D65: hue C

LCH*Ma: 48 43 232

olv*Ma: 0.0 1.0 1.0



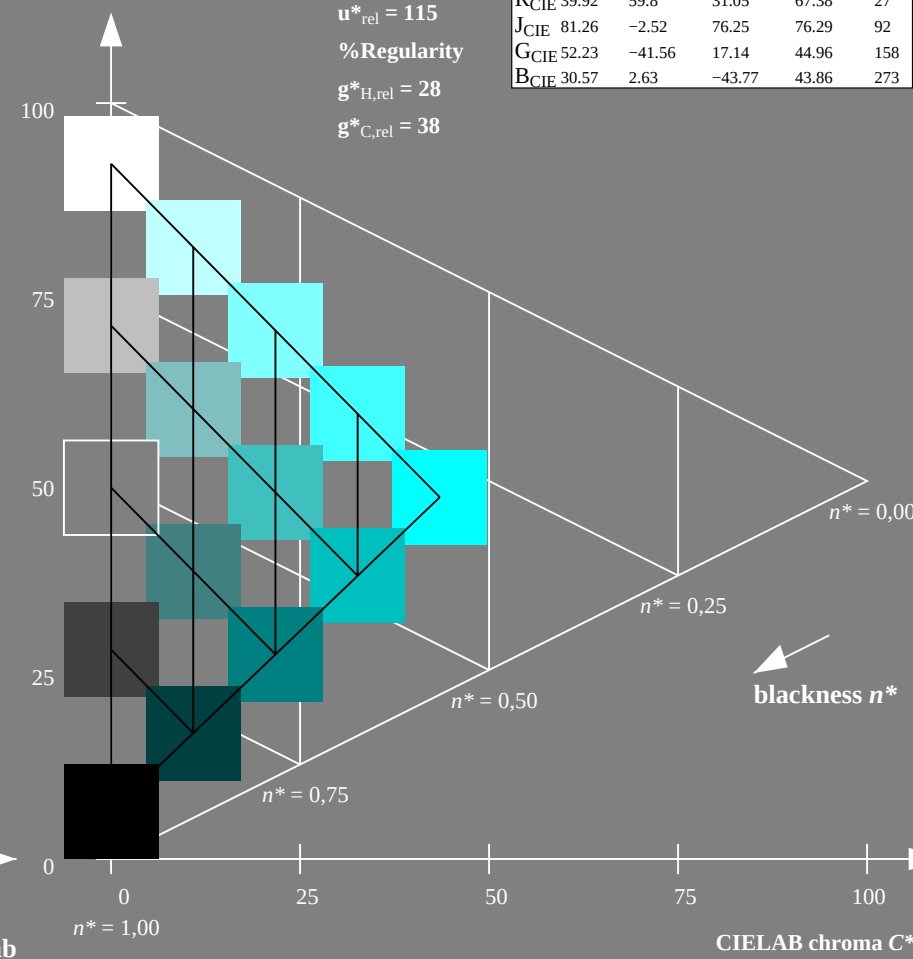
FRS06; adapted (a) CIELAB data					
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
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N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

% Gamut

$$u_{rel}^* = 115$$

%Regularity

$$g^*_{H,rel} = 28$$
$$g^*_{C,rel} = 38$$


5 step scales for constant CIELAB hue 232/360 = 0.644 (right)

```
input: oly* setrgbcolor
```

output: *no change compared to input*

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Input: Colorimetric Printer Reflective System FRS06

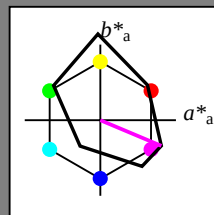
for hue $h^* = lab \cdot h = 337/360 = 0.937$

LAB*LCH, LAB*NCH

D65: hue M

LCH*Ma: 35 88 337

olv*Ma: 1.0 0.0 1.0



FRS06; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
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M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

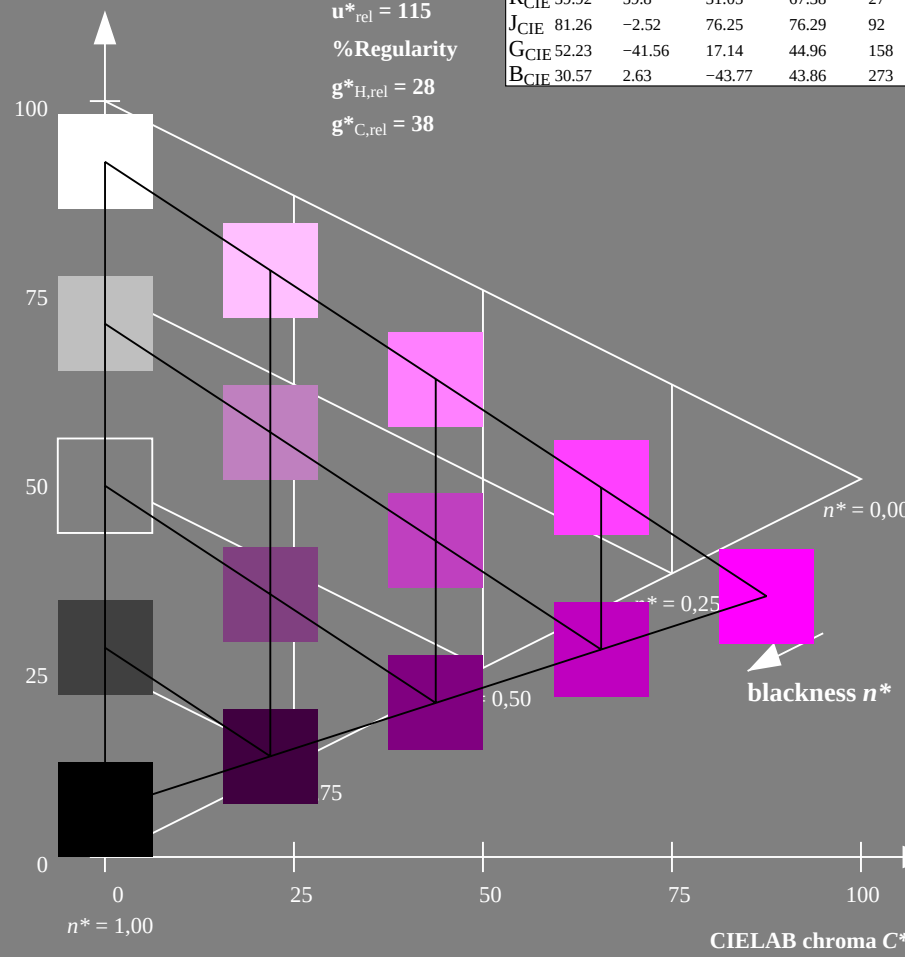
%Gamut

$u^*_{rel} = 115$

%Regularity

$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



VE230-7, 5 step scales for constant CIELAB hue 337/360 = 0.937 (left)

Output: Colorimetric Printer Reflective System FRS06

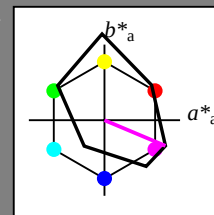
for hue $h^* = lab \cdot h = 337/360 = 0.937$

LAB*LCH, LAB*NCH

D65: hue M

LCH*Ma: 35 88 337

olv*Ma: 1.0 0.0 1.0



FRS06; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
V _{Ma}	10.16	55.12	-61.03	82.24	312
M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

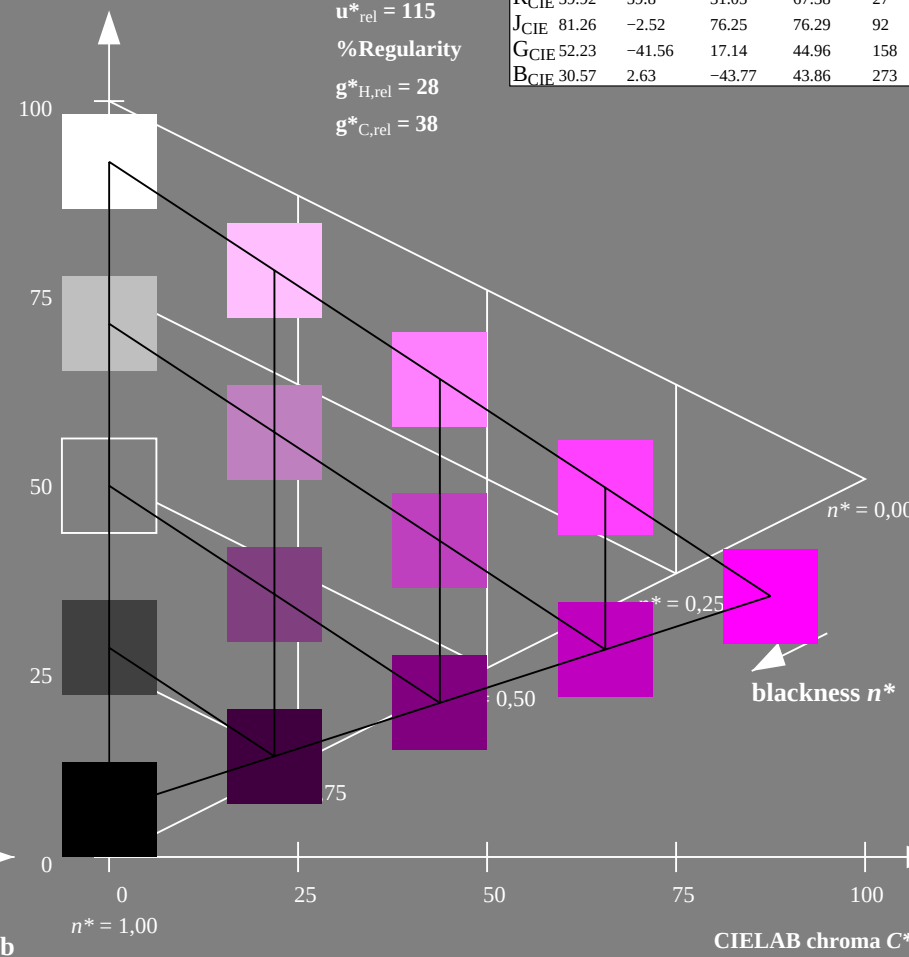
%Gamut

$u^*_{rel} = 115$

%Regularity

$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



5 step scales for constant CIELAB hue 337/360 = 0.937 (right)

BAM-test chart VE23; Colorimetric systems FRS06 & FRS06
D65: Coordinate systems of 5 step colour scales for 10 hues

input: olv* setrgbcolor
output: no change compared to input

Input: Colorimetric Printer Reflective System FRS06

for hue $h^* = lab \cdot h = 27/360 = 0.076$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 33 73 27

olv*Ma: 1.0 0.0 0.16

CIELAB lightness L^*

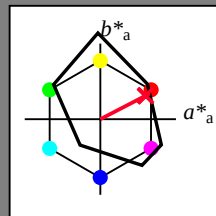
% Gamut

$u^*_{rel} = 115$

% Regularity

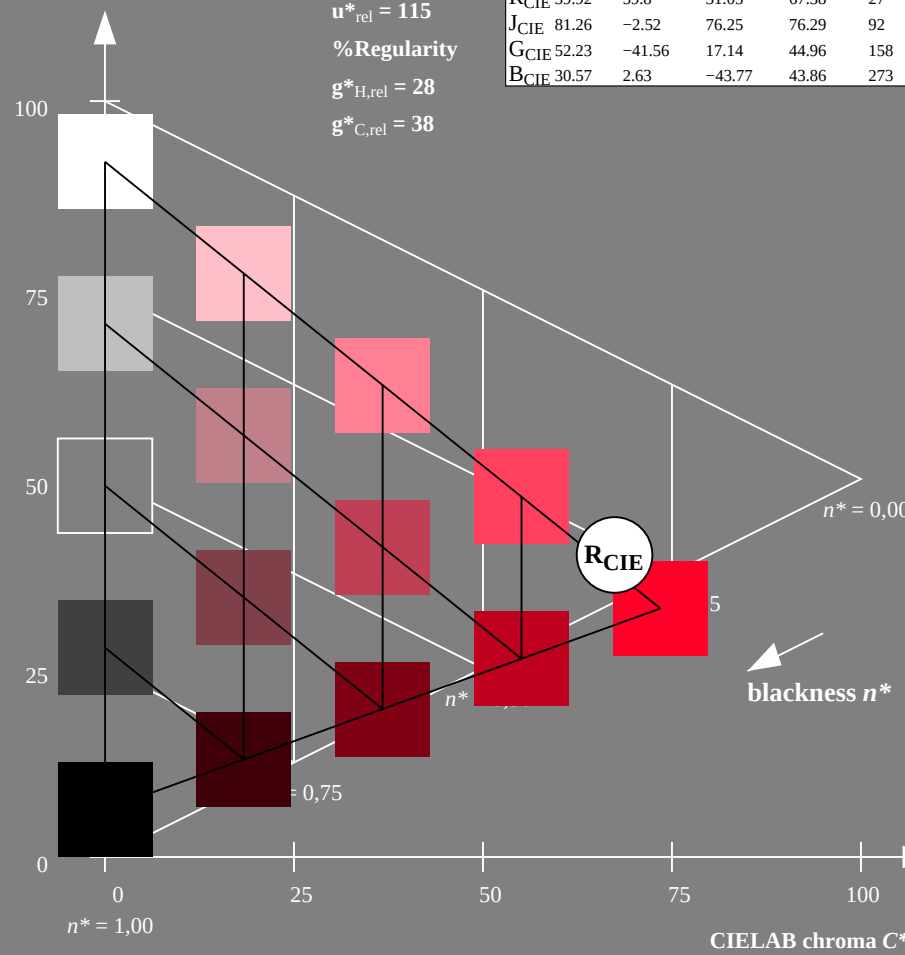
$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



FRS06; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
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M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273



VE230-7, 5 step scales for constant CIELAB hue 27/360 = 0.076 (left)

Output: Colorimetric Printer Reflective System FRS06

for hue $h^* = lab \cdot h = 27/360 = 0.076$

LAB*LCH, LAB*NCH

D65: hue R

LCH*Ma: 33 73 27

olv*Ma: 1.0 0.0 0.16

CIELAB lightness L^*

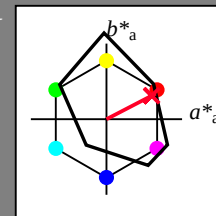
% Gamut

$u^*_{rel} = 115$

% Regularity

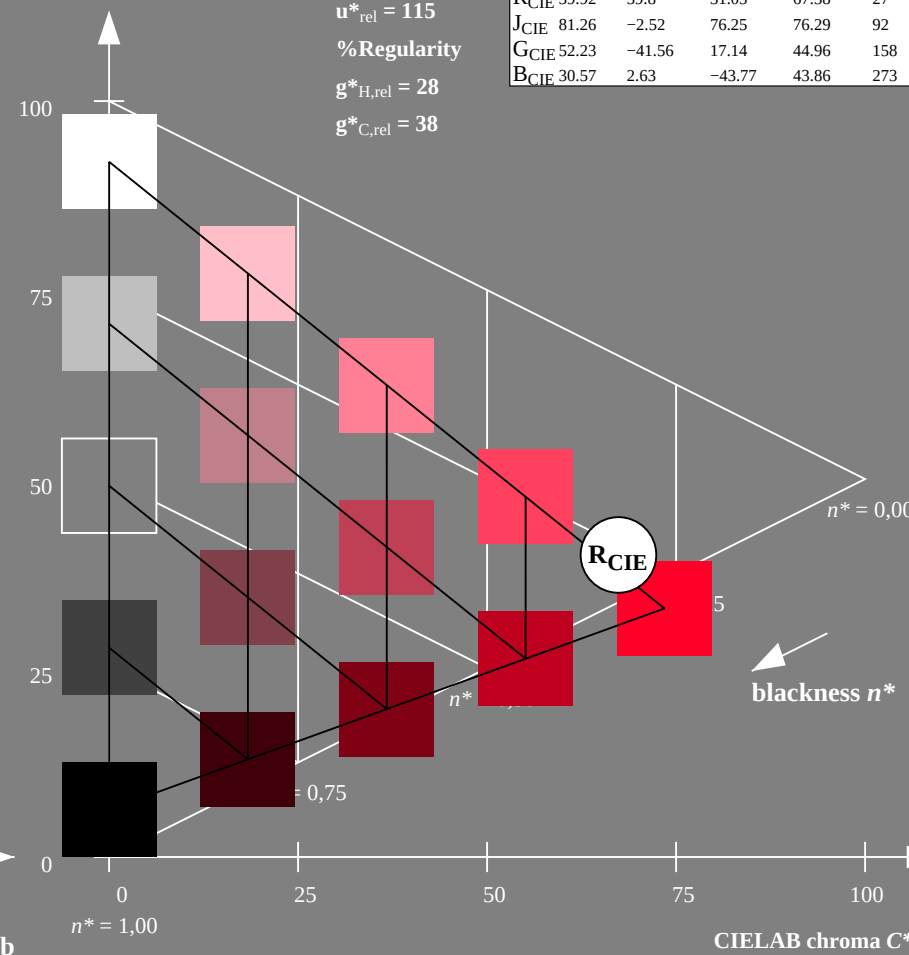
$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$



FRS06; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
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W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273



5 step scales for constant CIELAB hue 27/360 = 0.076 (right)

BAM-test chart VE23; Colorimetric systems FRS06 & FRS06
D65: Coordinate systems of 5 step colour scales for 10 hues

input: olv* setrgbcolor
output: no change compared to input

Input: Colorimetric Printer Reflective System FRS06

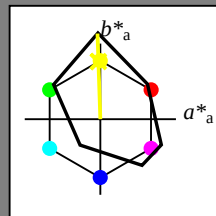
for hue $h^* = lab^*h = 92/360 = 0.255$

LAB*LCH, LAB*NCH

D65: hue J

LCH*Ma: 82 113 92

olv*Ma: 0.99 1.0 0.0



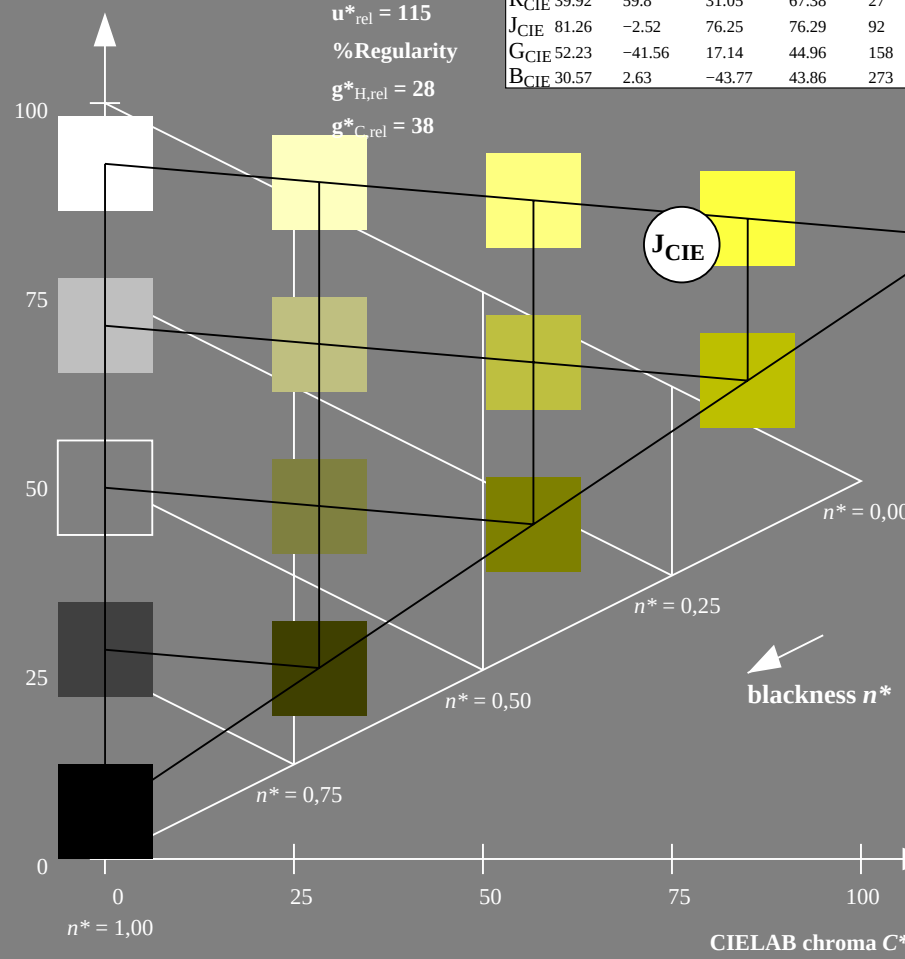
FRS06; adapted (a) CIELAB data					
	L^*_{a}	a^*_{a}	b^*_{a}	$C^*_{\text{ab,a}}$	$h^*_{\text{ab,a}}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
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M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

%Gamut

$$u_{rel}^* = 115$$

%Regularity

$$g^*_{H,rel} = 28$$
$$g^*_{C,rel} = 38$$


VE230-7, 5 step scales for constant CIELAB hue 92/360 = 0.255 (left)

BAM-test chart VE23; Colorimetric systems FRS06 & FRS06

D65: Coordinate systems of 5 step colour scales for 10 hues

Output: Colorimetric Printer Reflective System FRS06

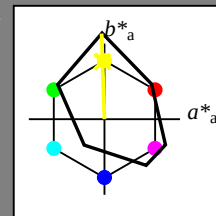
for hue $h^* = lab^*h = 92/360 = 0.255$

*LAB*LCH, LAB*NCH*

D65: hue J

LCH*Ma: 82 113 92

olv*Ma: 0.99 1.0 0.0



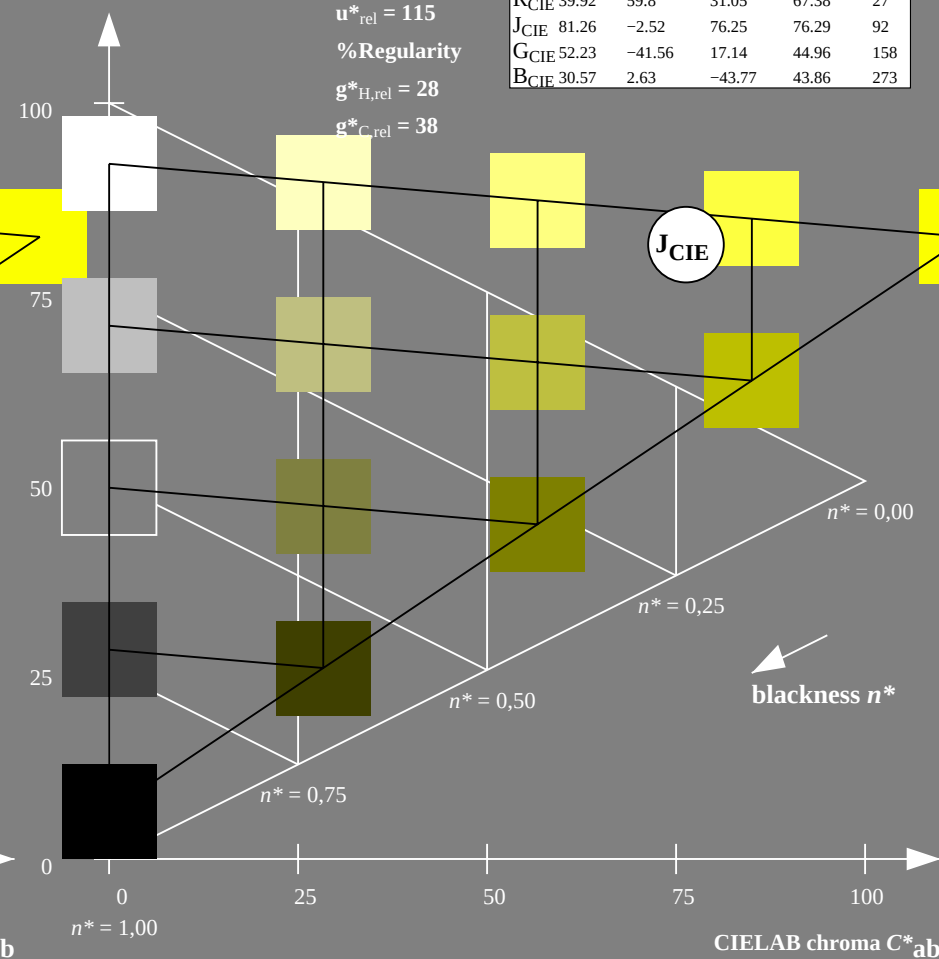
FRS06; adapted (a)		CIELAB data			
	L^*_{*a}	a^*_{*a}	b^*_{*a}	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
V _{Ma}	10.16	55.12	-61.03	82.24	312
M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

%Gamut

$$\mathbf{u}_{rel}^* = 115$$

%Regularity

$$g^*_{H,rel} = 28$$
$$g^*_{C_{rel}} = 38$$


5 step scales for constant CIELAB hue 92/360 = 0.255 (right)

input: *olv** *setrgbcolor*

output: *no change compared to input*

Input: Colorimetric Printer Reflective System FRS06

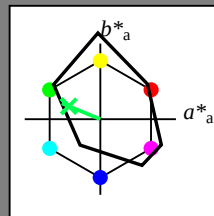
for hue $h^* = lab^*h = 158/360 = 0.438$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 42 55 158

olv*Ma: 0.0 1.0 0.31



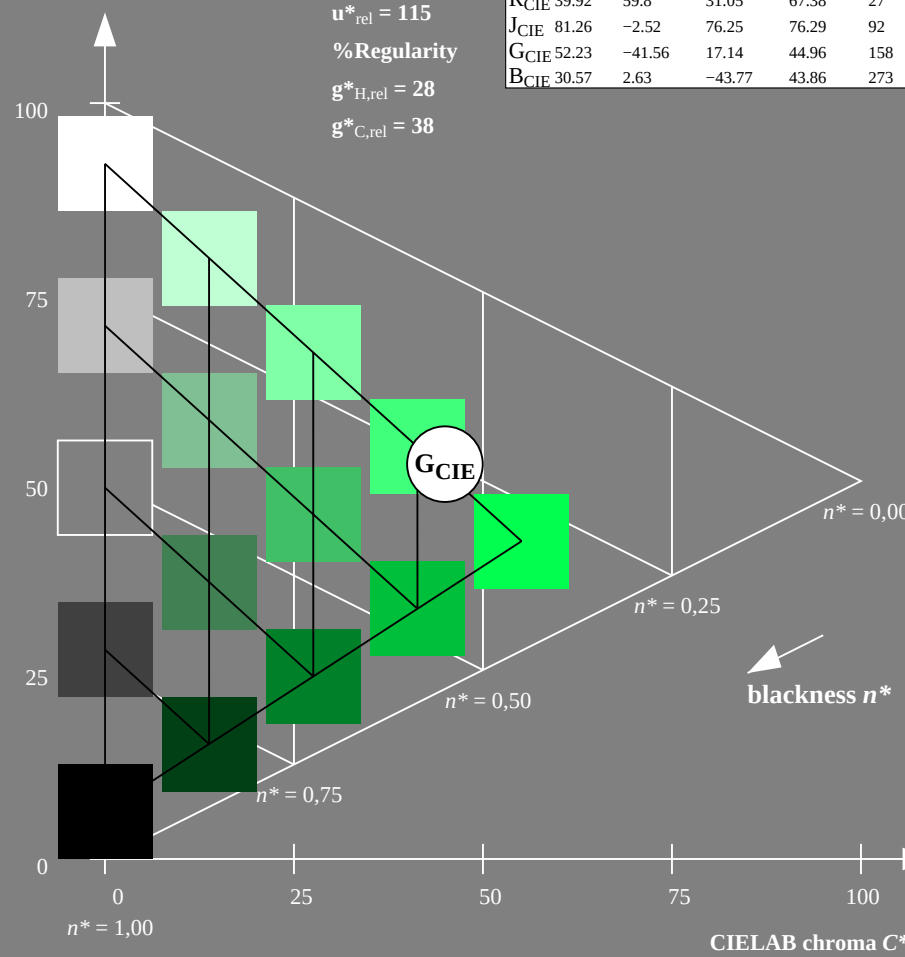
FRS06; adapted (a)		CIELAB data			
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
V _{Ma}	10.16	55.12	-61.03	82.24	312
M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

% Gamut

$$\mathbf{u}_{\text{rel}}^* = 115$$

%Regularity

$$g^*_{H,rel} = 28$$
$$g^*_{C,rel} = 38$$
VE230-7, 5 step scales for constant CIELAB hue $158/360 = 0.438$ (left)

BAM-test chart VE23; Colorimetric systems FRS06 & FRS06

D65: Coordinate systems of 5 step colour scales for 10 hues

Output: Colorimetric Printer Reflective System FRS06

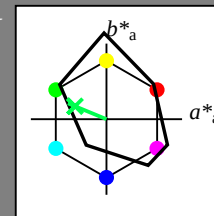
for hue $h^* = lab^*h = 158/360 = 0.438$

LAB*LCH, LAB*NCH

D65: hue G

LCH*Ma: 42 55 158

olv*Ma: 0.0 1.0 0.31



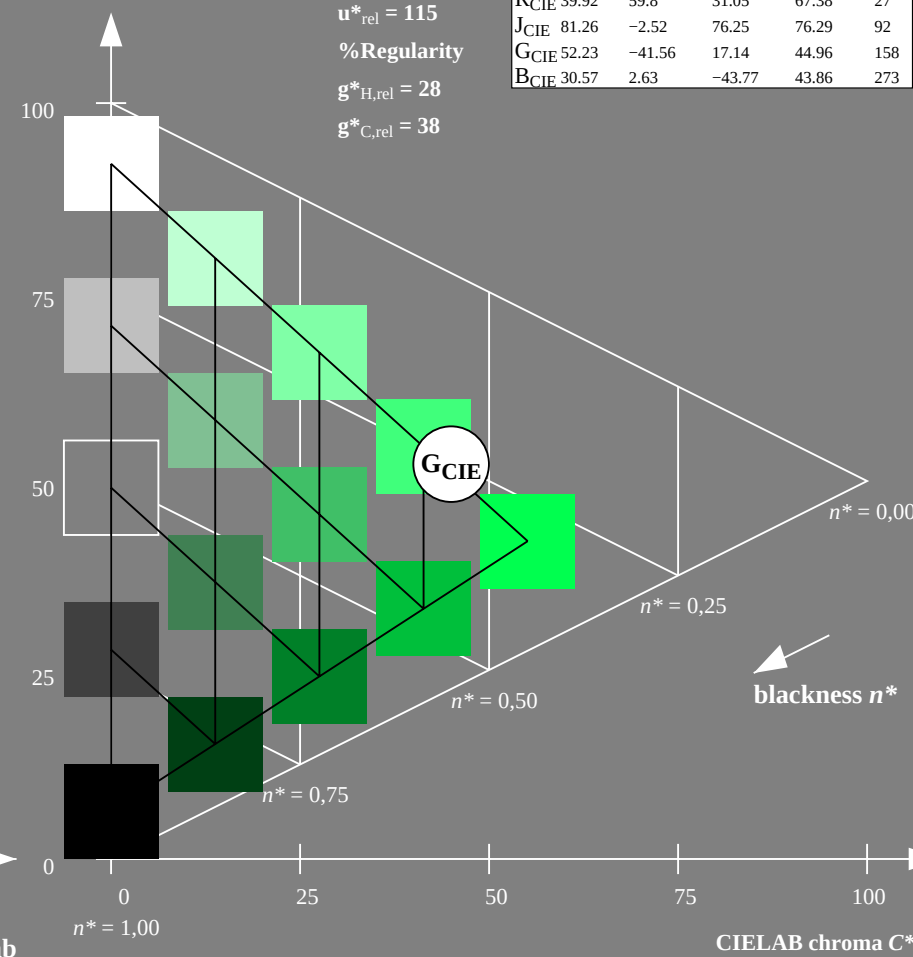
	FRS06; adapted (a)		CIELAB data		
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	32.57	62.32	46.49	77.75	37
Y _{Ma}	82.73	-3.16	113.99	114.03	92
L _{Ma}	39.43	-61.79	45.84	76.95	143
C _{Ma}	47.86	-26.79	-34.24	43.49	232
V _{Ma}	10.16	55.12	-61.03	82.24	312
M _{Ma}	34.5	80.68	-33.92	87.52	337
N _{Ma}	6.25	0.0	0.0	0.0	0
W _{Ma}	91.97	0.0	0.0	0.0	0
R _{CIE}	39.92	59.8	31.05	67.38	27
J _{CIE}	81.26	-2.52	76.25	76.29	92
G _{CIE}	52.23	-41.56	17.14	44.96	158
B _{CIE}	30.57	2.63	-43.77	43.86	273

CIELAB lightness L^*

%Gamut

$$\mathbf{u}_{rel}^* = 115$$

%Regularity

$$g^*_{H,rel} = 28$$
$$g^*_{C,rel} = 38$$


5 step scales for constant CIELAB hue 158/360 = 0.438 (right)

input: *olv** *setrgbcolor*

output: *no change compared to input*

output: *no change compared to input*