

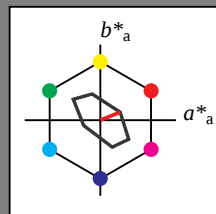
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 22/360 = 0.061$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue O

LCH*Ma: 76 28 22

olv*Ma: 1.0 0.0 0.0

triangle lightness t^* 

%Gamut

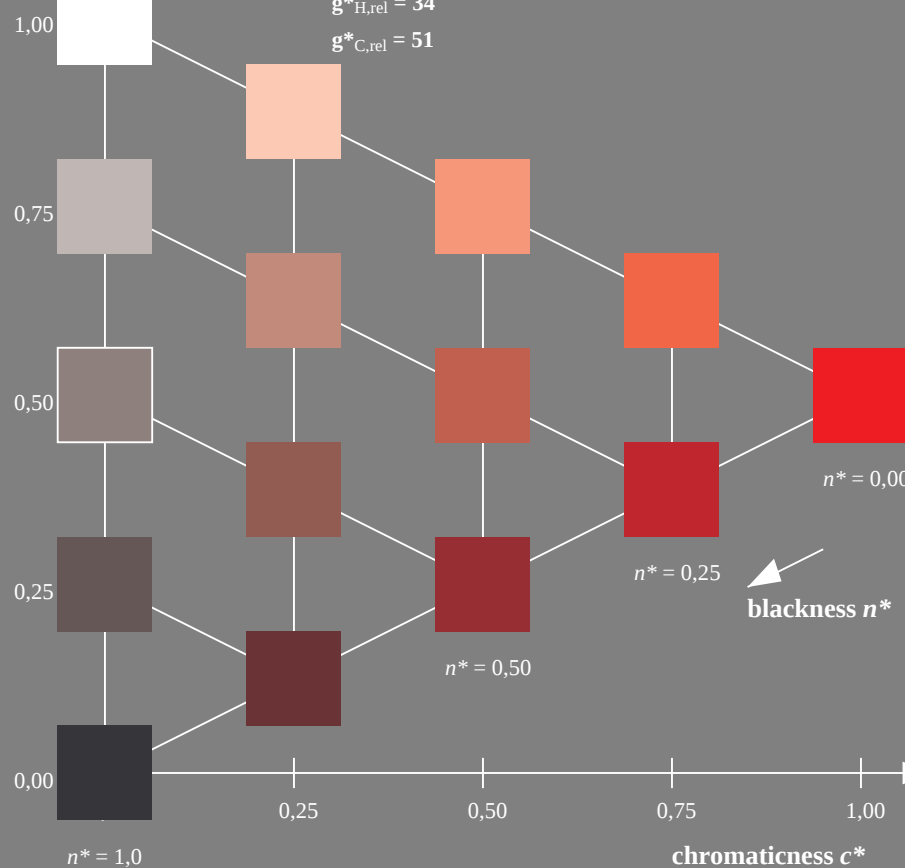
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIE LAB hue 22/360 = 0.061 (left)

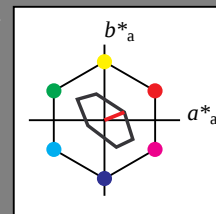
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 22/360 = 0.061$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue O

LCH*Ma: 76 28 22

olv*Ma: 1.0 0.0 0.0

CIE LAB lightness L^* 

%Gamut

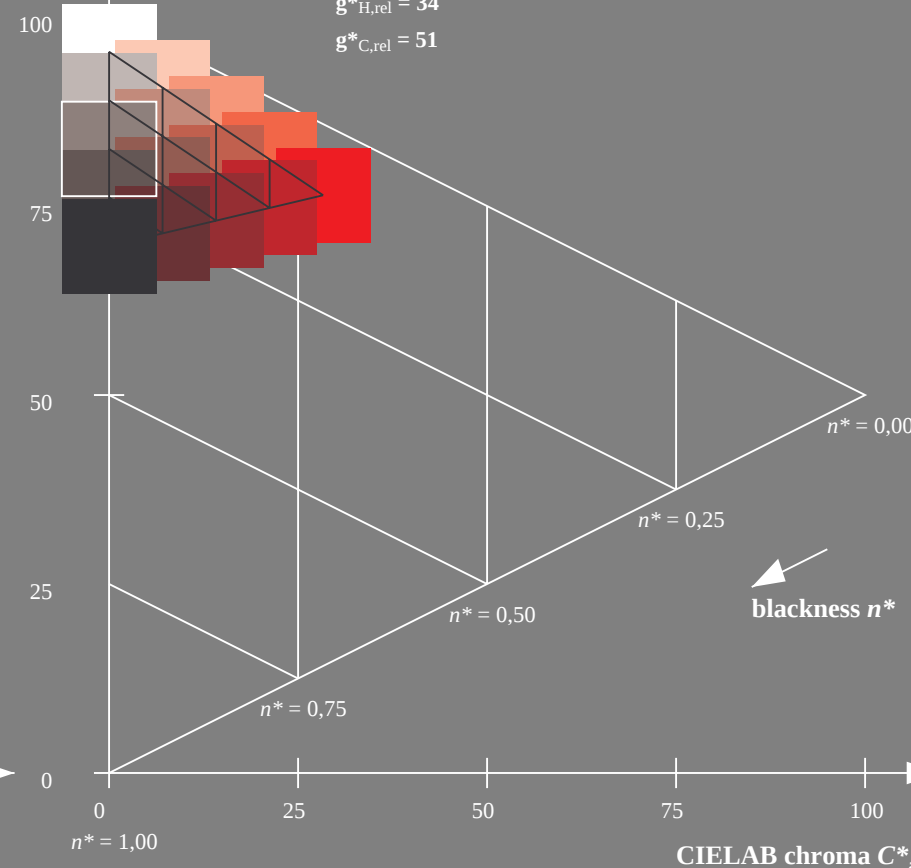
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



5 step scales for constant CIE LAB hue 22/360 = 0.061 (right)

BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

input: $cmY0^*$ set $cmYcolor$

output: Startup (S) data dependend

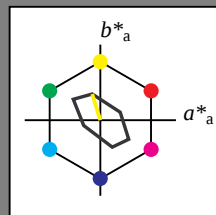
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 107/360 = 0.298$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue Y

LCH*Ma: 94 36 107

olv*Ma: 1.0 1.0 0.0

triangle lightness t^* 

%Gamut

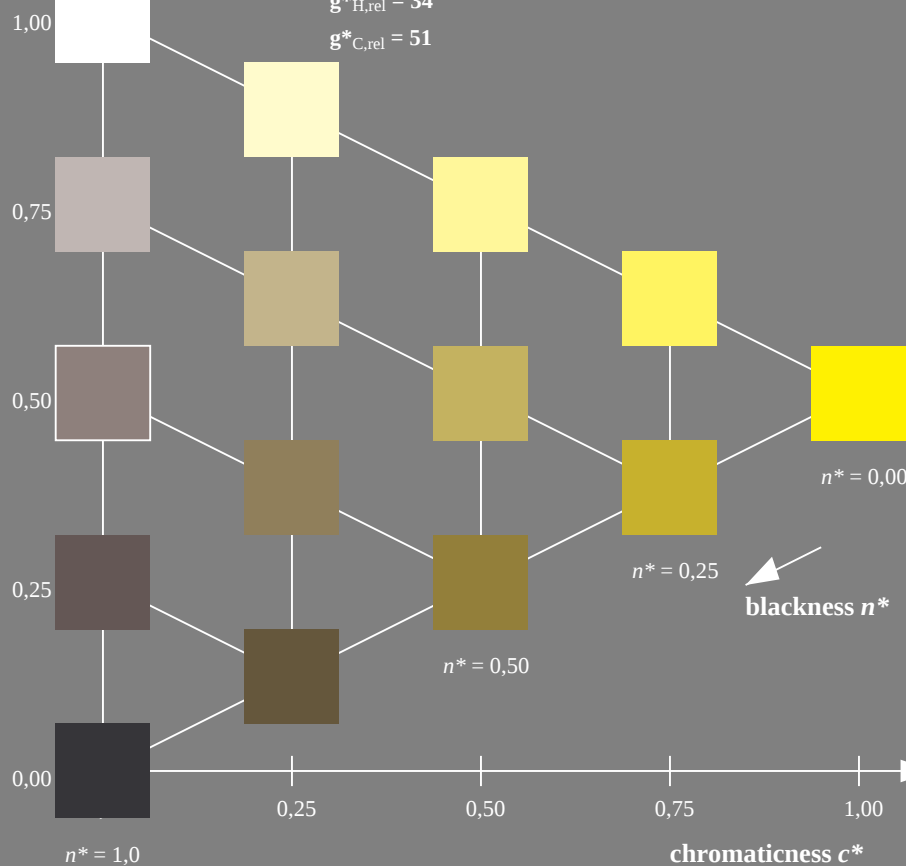
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIELAB hue 107/360 = 0.298 (left)



BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

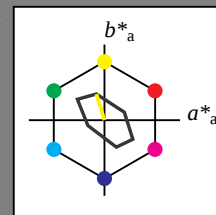
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 107/360 = 0.298$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue Y

LCH*Ma: 94 36 107

olv*Ma: 1.0 1.0 0.0

CIELAB lightness L^* 

%Gamut

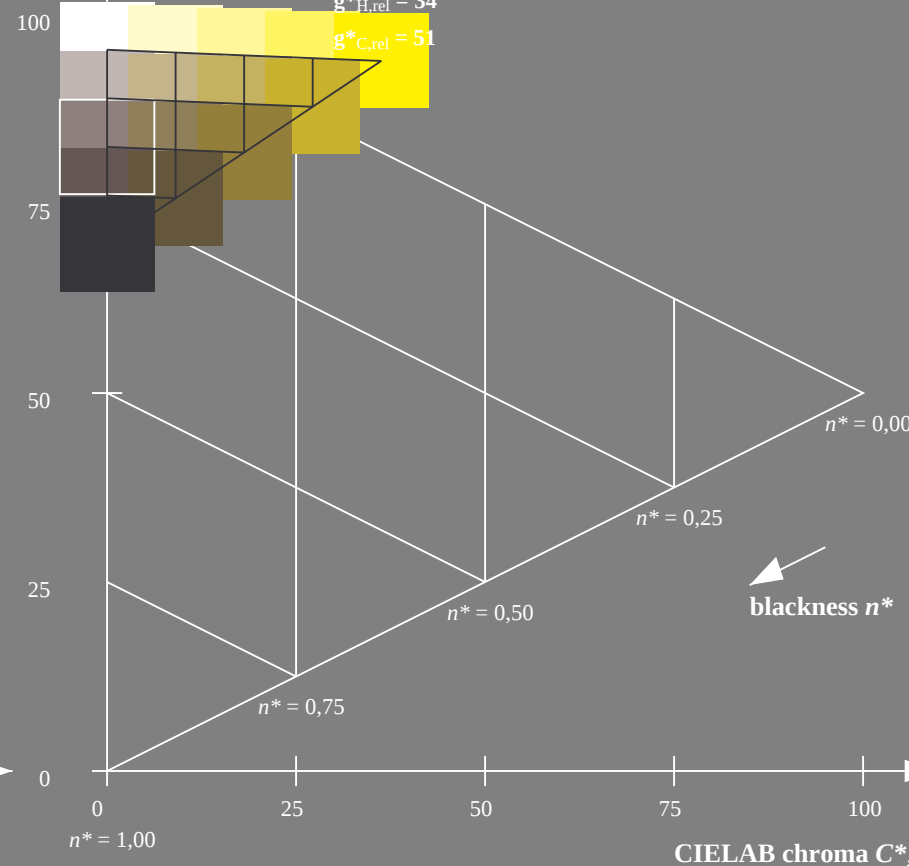
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



5 step scales for constant CIELAB hue 107/360 = 0.298 (right)

input: $cmY0^* setcmykcolor$

output: Startup (S) data dependend



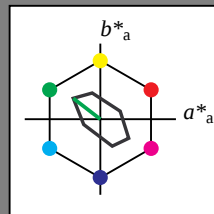
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 142/360 = 0.395$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue L

LCH*Ma: 89 45 142

olv*Ma: 0.0 1.0 0.0

triangle lightness t^* 

%Gamut

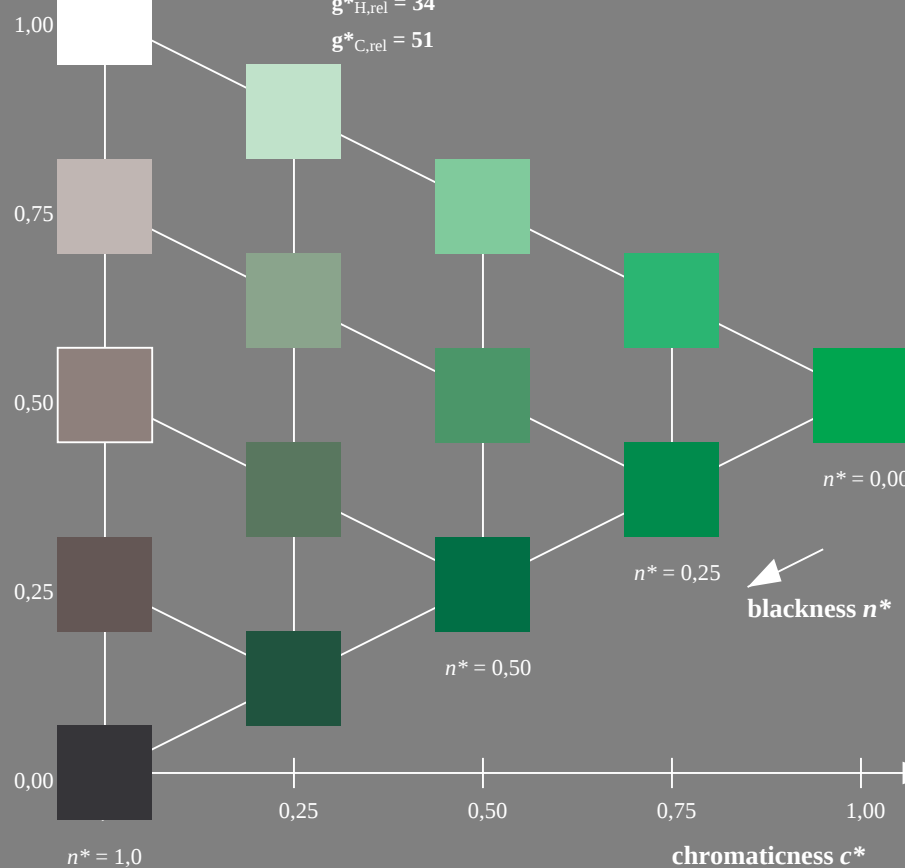
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIELAB hue 142/360 = 0.395 (left)

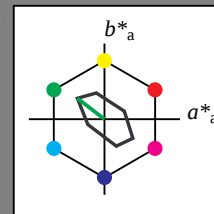
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 142/360 = 0.395$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue L

LCH*Ma: 89 45 142

olv*Ma: 0.0 1.0 0.0

CIELAB lightness L^* 

%Gamut

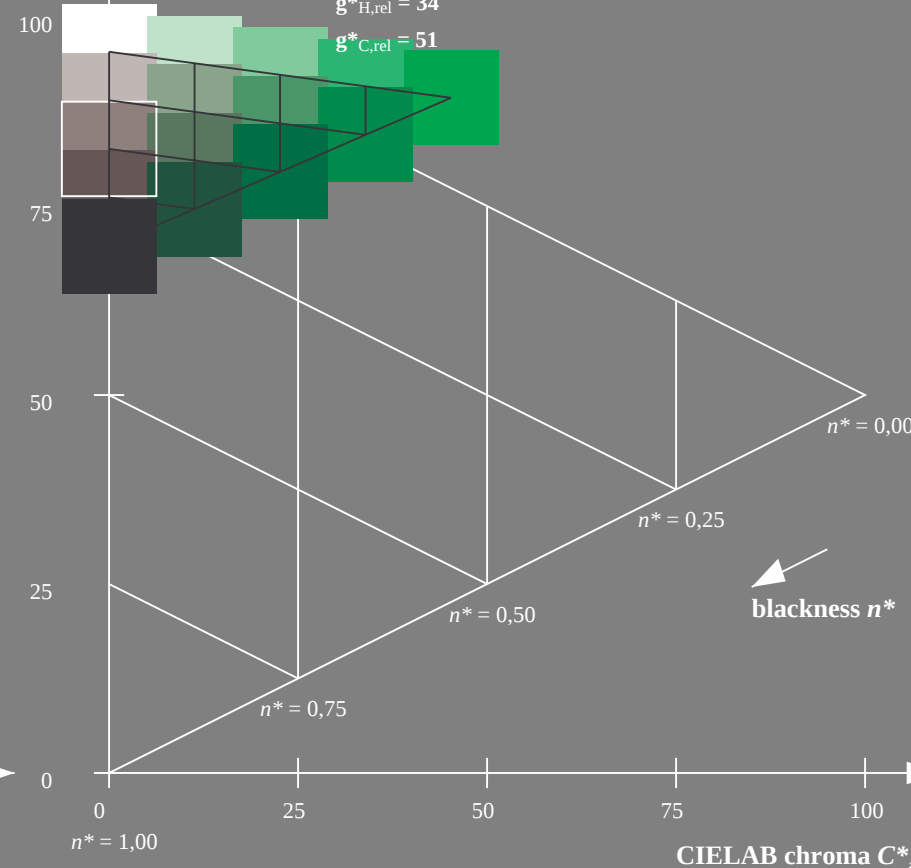
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



5 step scales for constant CIELAB hue 142/360 = 0.395 (right)

BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

input: $cmY0^*$ set $cmYcolor$

output: Startup (S) data depend

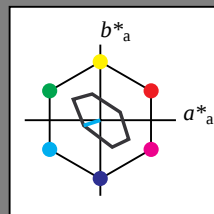
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 198/360 = 0.55$ lab^*tch and lab^*nch

D65: hue C

LCH*Ma: 91 23 198

olv*Ma: 0.0 1.0 1.0

triangle lightness t^* 

%Gamut

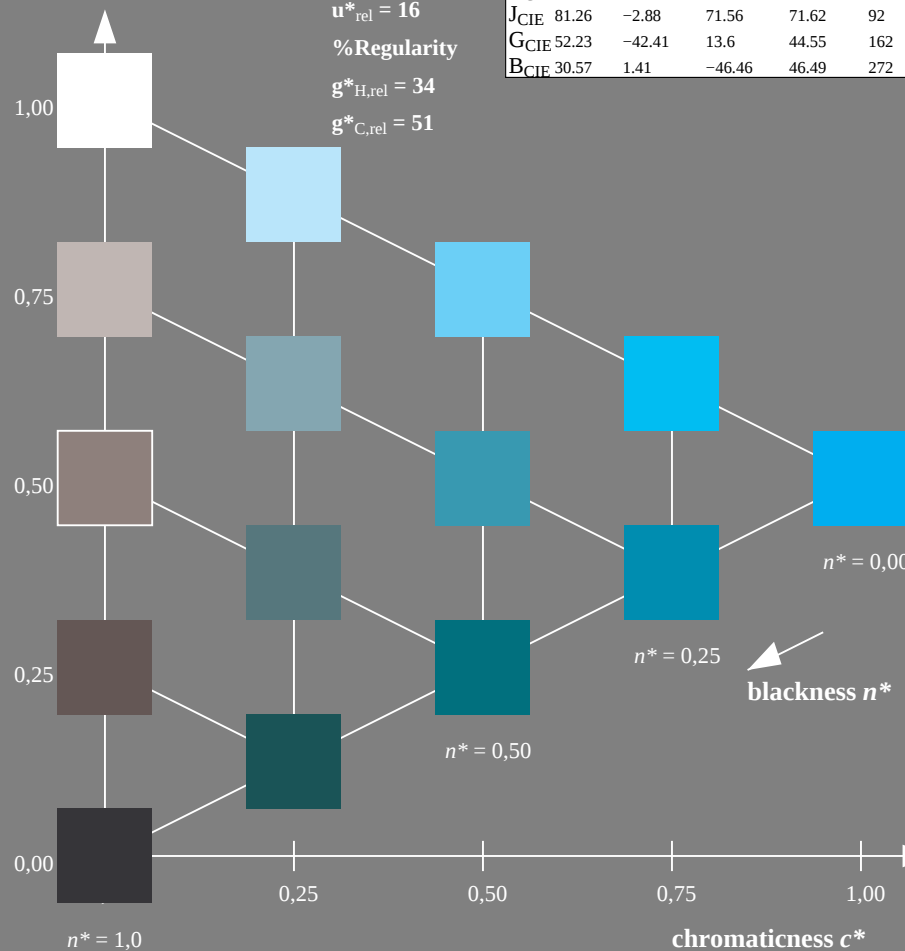
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIELAB hue 198/360 = 0.55 (left)



BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

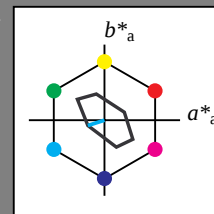
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 198/360 = 0.55$ LAB^*LCH , LAB^*NCH

D65: hue C

LCH*Ma: 91 23 198

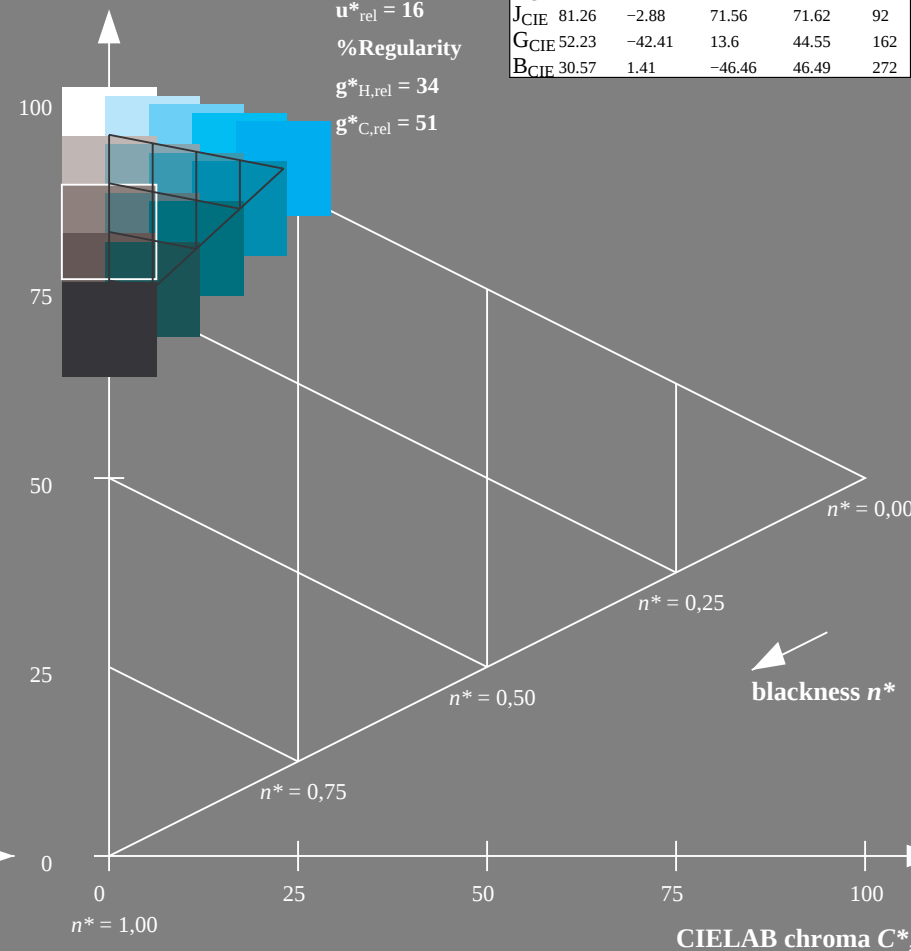
olv*Ma: 0.0 1.0 1.0

CIELAB lightness L^* 

%Gamut

 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$ 

5 step scales for constant CIELAB hue 198/360 = 0.55 (right)

input: $cmy0^*$ setcmykcolor

output: Startup (S) data dependend



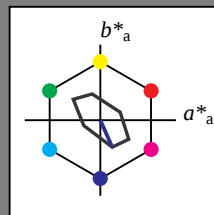
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 294/360 = 0.816$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue V

LCH*Ma: 72 39 294

olv*Ma: 0.0 0.0 1.0

triangle lightness t^* 

%Gamut

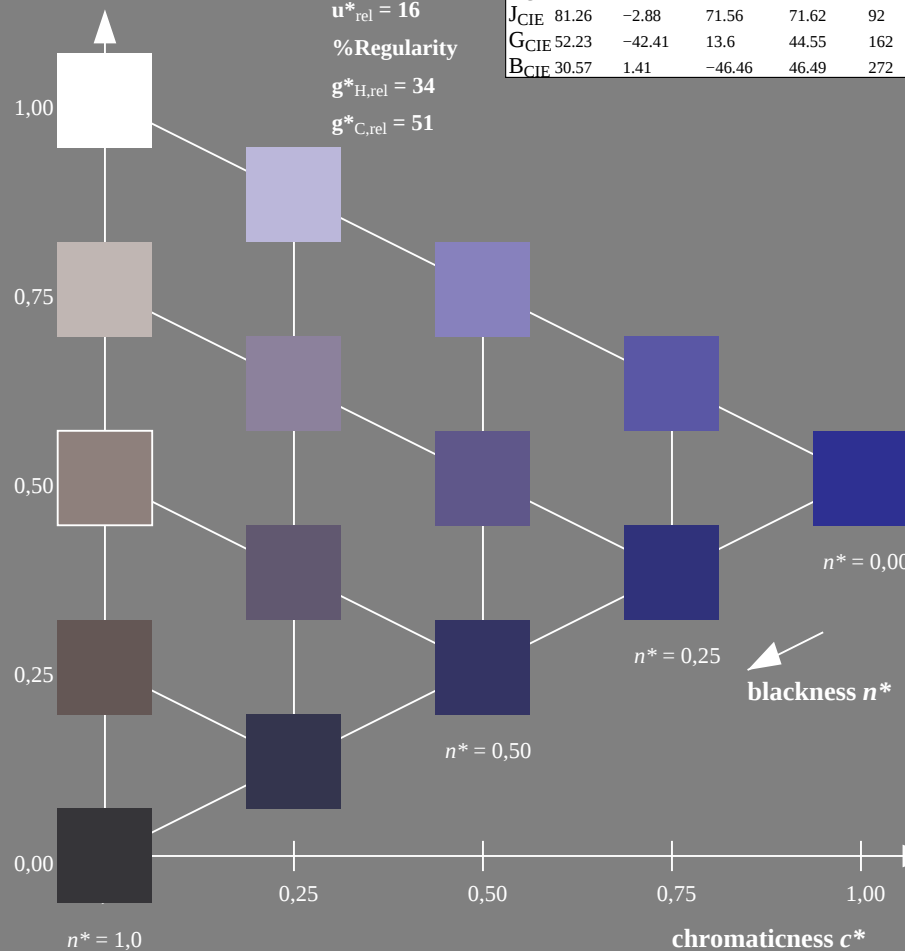
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIELAB hue 294/360 = 0.816 (left)



BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

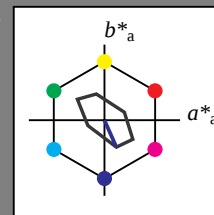
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 294/360 = 0.816$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue V

LCH*Ma: 72 39 294

olv*Ma: 0.0 0.0 1.0

CIELAB lightness L^* 

%Gamut

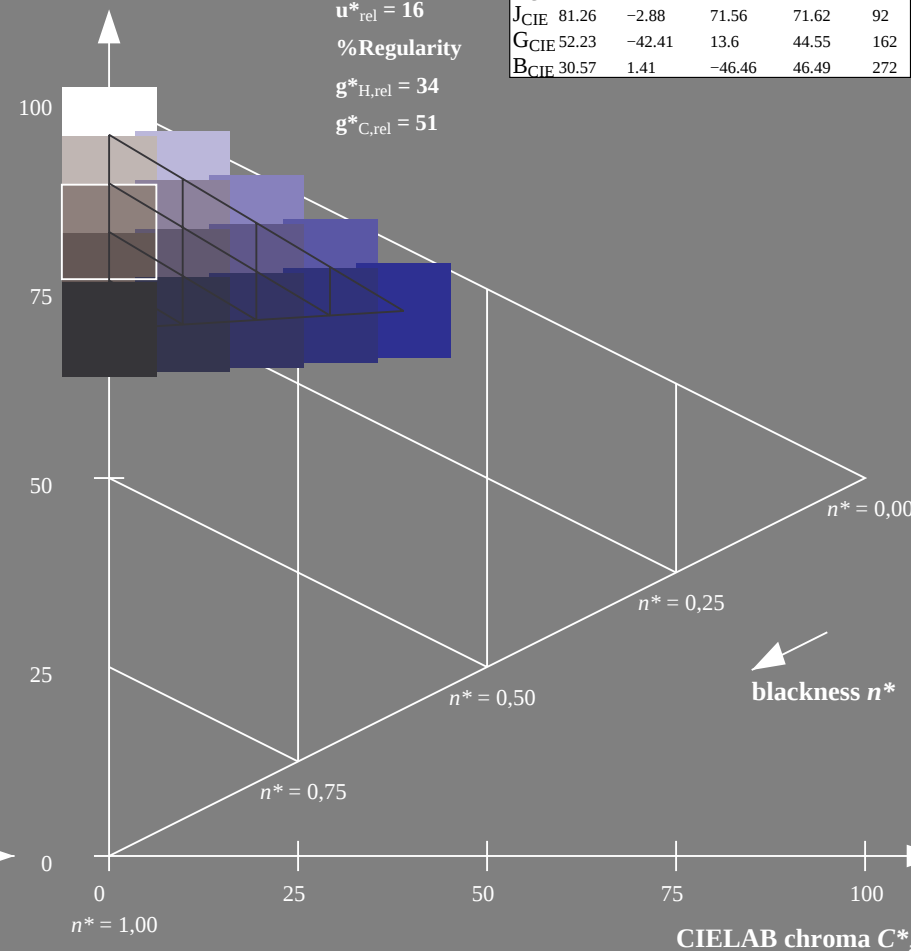
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



5 step scales for constant CIELAB hue 294/360 = 0.816 (right)

input: $cmY0^*$ set $cmYcolor$

output: Startup (S) data dependend



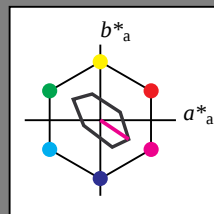
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 326/360 = 0.906$ lab^*tch and lab^*nch

D65: hue M

LCH*Ma: 79 45 326

olv*Ma: 1.0 0.0 1.0

triangle lightness t^* 

%Gamut

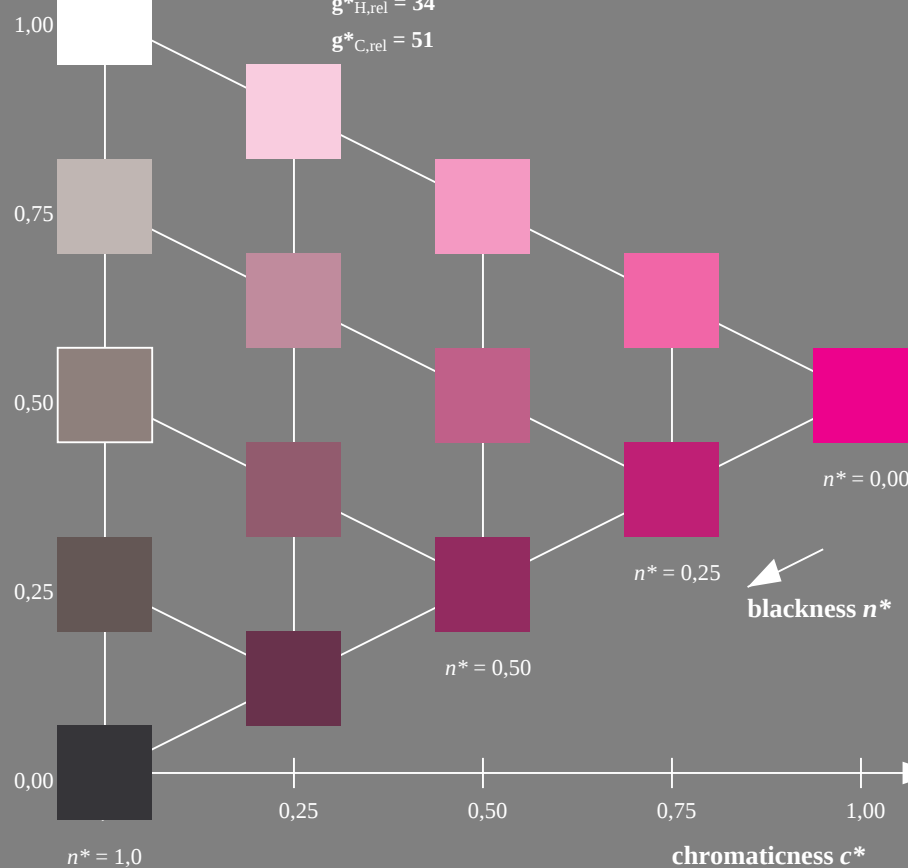
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIELAB hue 326/360 = 0.906 (left)

BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

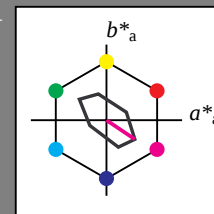
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 326/360 = 0.906$ LAB^*LCH , LAB^*NCH

D65: hue M

LCH*Ma: 79 45 326

olv*Ma: 1.0 0.0 1.0

CIELAB lightness L^* 

%Gamut

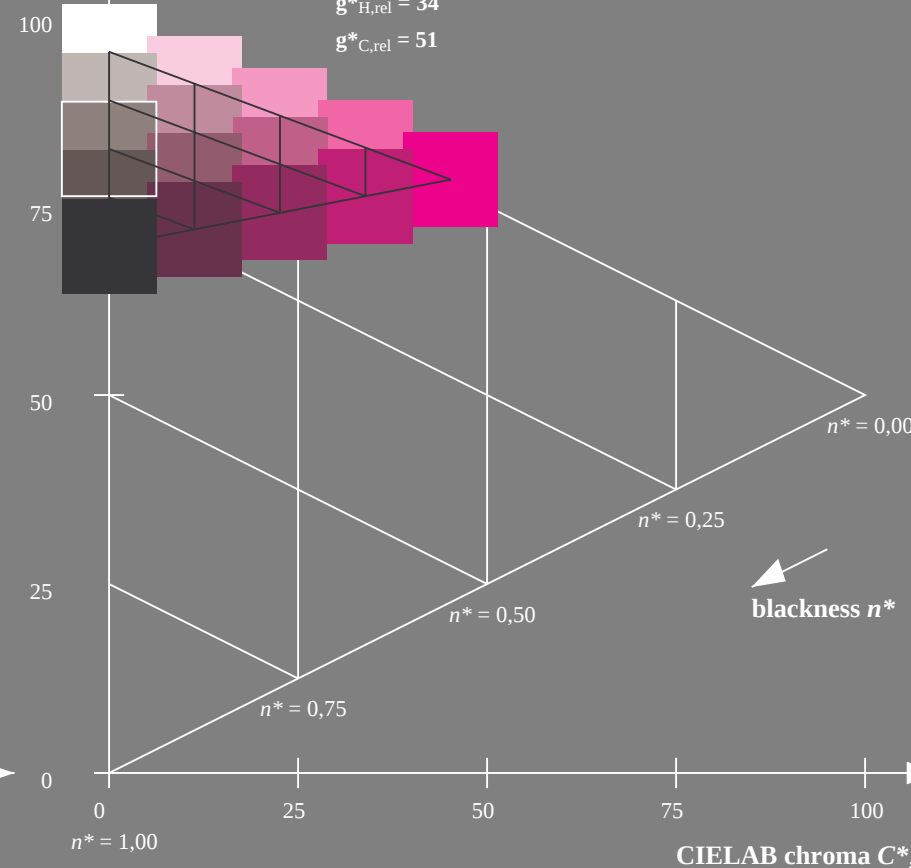
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_{CIE}	39.92	58.74	27.99	65.07	25
J_{CIE}	81.26	-2.88	71.56	71.62	92
G_{CIE}	52.23	-42.41	13.6	44.55	162
B_{CIE}	30.57	1.41	-46.46	46.49	272



5 step scales for constant CIELAB hue 326/360 = 0.906 (right)

input: $cmY0^*$ set $cmYkcolor$

output: Startup (S) data dependend

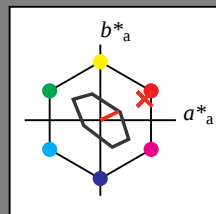
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 25/360 = 0.071$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue R

LCH*Ma: 77 27 25

olv*Ma: 1.0 0.05 0.0

triangle lightness t^* 

%Gamut

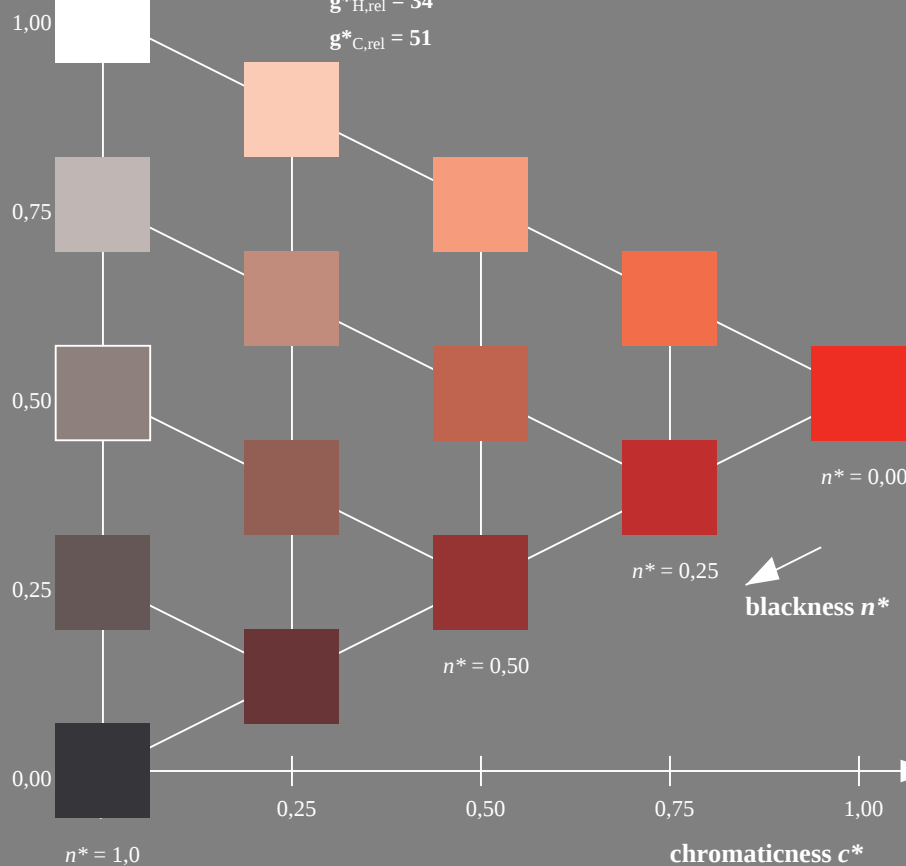
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _m	76.43	26.27	10.57	28.32	22
Y _m	93.93	-10.76	34.63	36.27	107
L _m	89.32	-35.8	27.64	45.24	142
C _m	90.93	-21.95	-7.07	23.07	198
V _m	72.1	15.76	-35.63	38.97	294
M _m	78.5	37.52	-25.23	45.22	326
N _m	69.7	0.0	0.0	0.0	0
W _m	95.41	0.0	0.0	0.0	0
R _m	39.92	58.74	27.99	65.07	25
J _m	81.26	-2.88	71.56	71.62	92
G _m	52.23	-42.41	13.6	44.55	162
B _m	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)

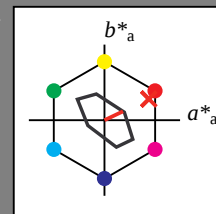
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 25/360 = 0.071$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue R

LCH*Ma: 77 27 25

olv*Ma: 1.0 0.05 0.0

CIELAB lightness L^* 

%Gamut

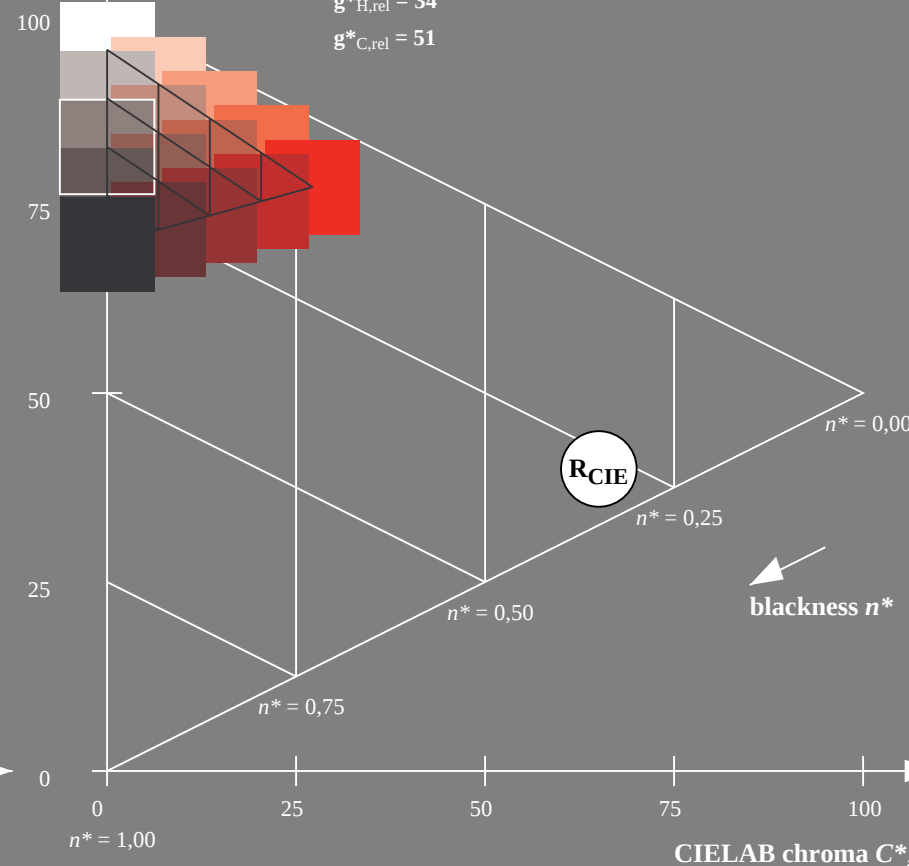
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _m	76.43	26.27	10.57	28.32	22
Y _m	93.93	-10.76	34.63	36.27	107
L _m	89.32	-35.8	27.64	45.24	142
C _m	90.93	-21.95	-7.07	23.07	198
V _m	72.1	15.76	-35.63	38.97	294
M _m	78.5	37.52	-25.23	45.22	326
N _m	69.7	0.0	0.0	0.0	0
W _m	95.41	0.0	0.0	0.0	0
R _m	39.92	58.74	27.99	65.07	25
J _m	81.26	-2.88	71.56	71.62	92
G _m	52.23	-42.41	13.6	44.55	162
B _m	30.57	1.41	-46.46	46.49	272



5 step scales for constant CIELAB hue 25/360 = 0.071 (right)

BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

input: *cmY0* setcmykcolor*output: *Startup (S) data dependend*

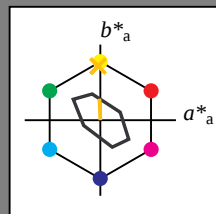
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 92/360 = 0.256$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 89 28 92

olv*Ma: 1.0 0.74 0.0

triangle lightness t^* 

%Gamut

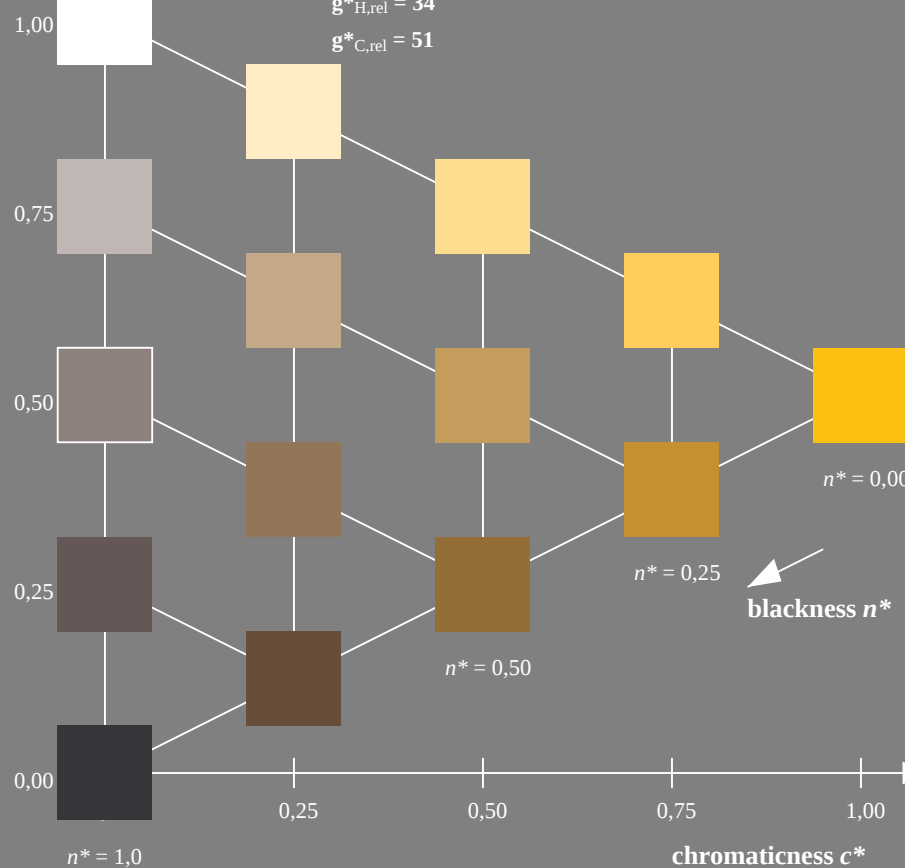
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_m	39.92	58.74	27.99	65.07	25
J_m	81.26	-2.88	71.56	71.62	92
G_m	52.23	-42.41	13.6	44.55	162
B_m	30.57	1.41	-46.46	46.49	272



OE290-7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

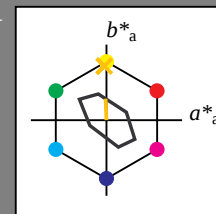
Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 92/360 = 0.256$ $LAB \cdot LCH$, $LAB \cdot NCH$

D65: hue J

LCH*Ma: 89 28 92

olv*Ma: 1.0 0.74 0.0

CIELAB lightness L^* 

%Gamut

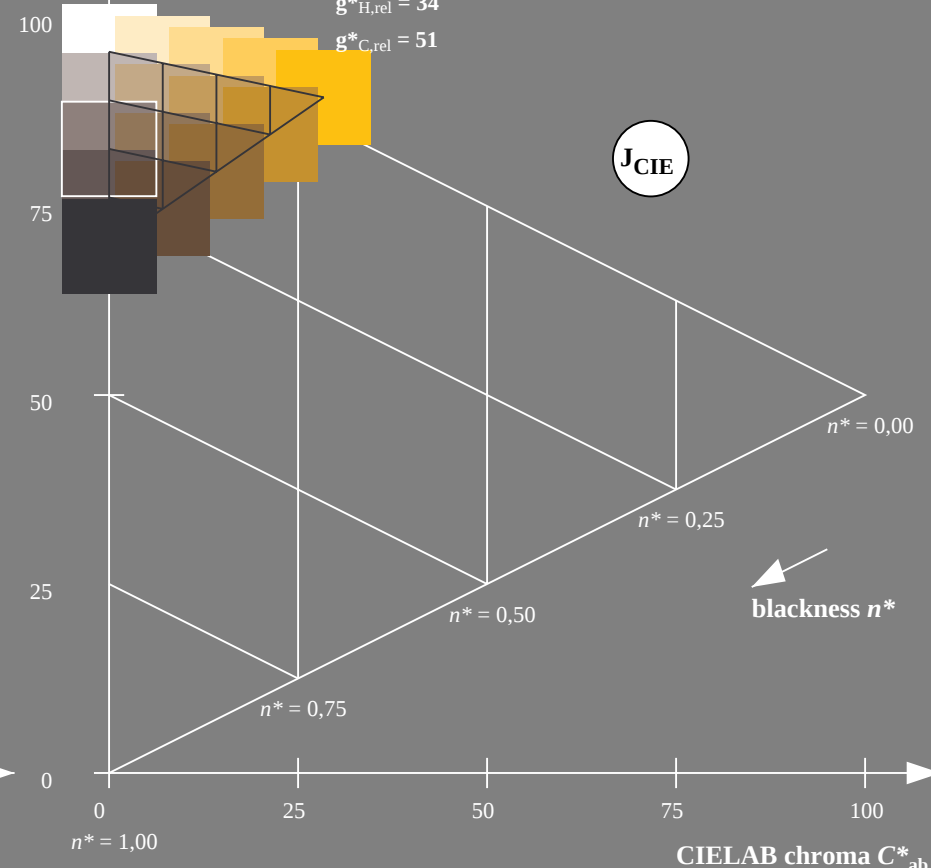
 $u^*_{rel} = 16$

%Regularity

 $g^*_{H,rel} = 34$ $g^*_{C,rel} = 51$

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O_m	76.43	26.27	10.57	28.32	22
Y_m	93.93	-10.76	34.63	36.27	107
L_m	89.32	-35.8	27.64	45.24	142
C_m	90.93	-21.95	-7.07	23.07	198
V_m	72.1	15.76	-35.63	38.97	294
M_m	78.5	37.52	-25.23	45.22	326
N_m	69.7	0.0	0.0	0.0	0
W_m	95.41	0.0	0.0	0.0	0
R_m	39.92	58.74	27.99	65.07	25
J_m	81.26	-2.88	71.56	71.62	92
G_m	52.23	-42.41	13.6	44.55	162
B_m	30.57	1.41	-46.46	46.49	272



5 step scales for constant CIELAB hue 92/360 = 0.256 (right)

BAM-test chart OE29; Colorimetric systems ORS18 & ORS18

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

input: $cmy0^*$ setcmykcolor

output: Startup (S) data dependend

