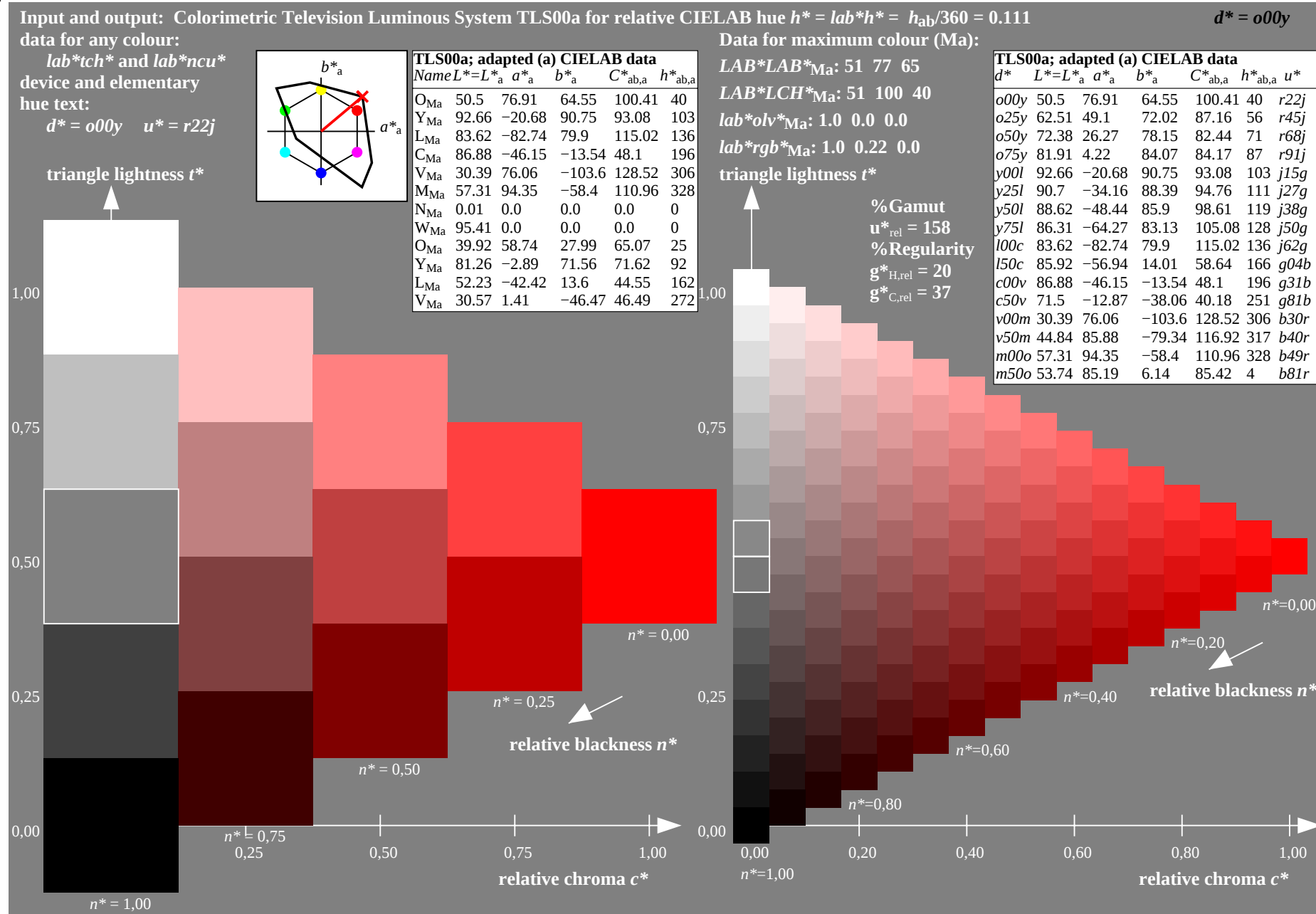




Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.155$

data for any colour:

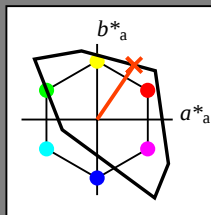
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = o25y$ $u^* = r45j$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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):

$LAB^*LAB^*_{Ma}$: 63 49 72

$LAB^*LCH^*_{Ma}$: 63 87 55

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

$lab^*rgb^*_{Ma}$: 1.0 0.45 0.0

triangle lightness t^*

% Gamut

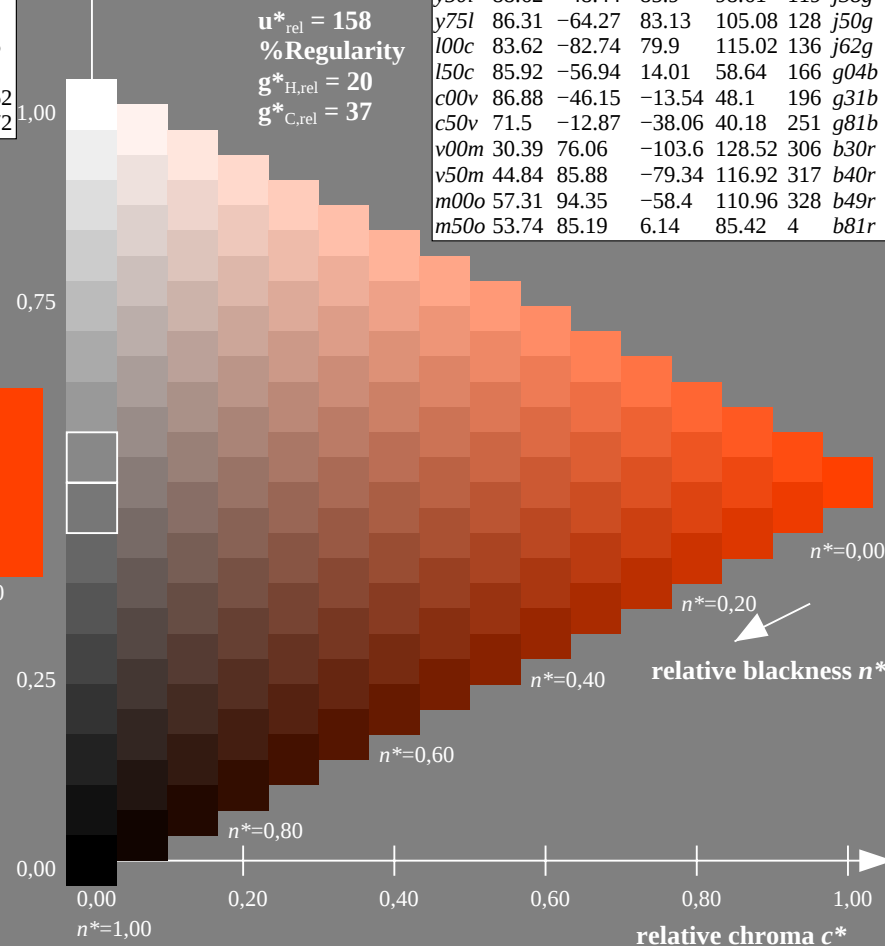
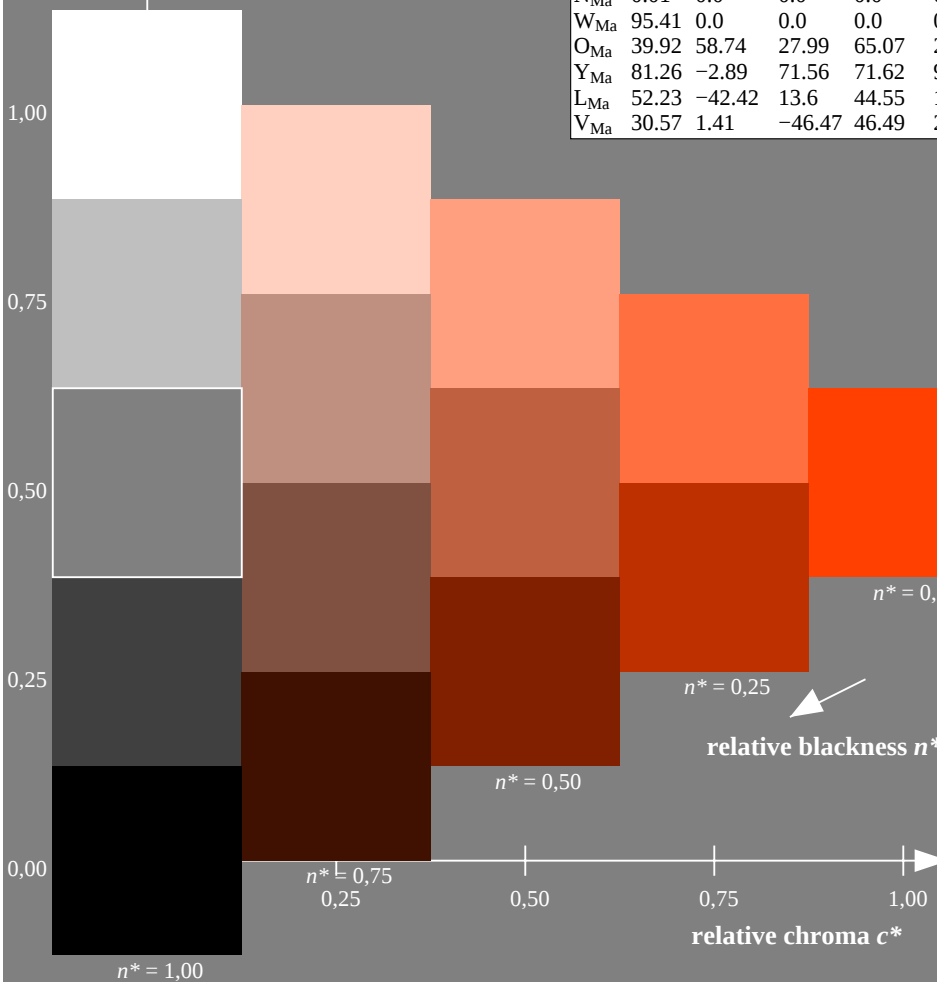
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data					
d^*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
o00y	50.5	76.91	64.55	100.41	40
o25y	62.51	49.1	72.02	87.16	56
o50y	72.38	26.27	78.15	82.44	71
o75y	81.91	4.22	84.07	84.17	87
y00l	92.66	-20.68	90.75	93.08	103
y25l	90.7	-34.16	88.39	94.76	111
y50l	88.62	-48.44	85.9	98.61	119
y75l	86.31	-64.27	83.13	105.08	128
l00c	83.62	-82.74	79.9	115.02	136
l50c	85.92	-56.94	14.01	58.64	166
c00v	86.88	-46.15	-13.54	48.1	196
c50v	71.5	-12.87	-38.06	40.18	251
v00m	30.39	76.06	-103.6	128.52	306
v50m	44.84	85.88	-79.34	116.92	317
m00o	57.31	94.35	-58.4	110.96	328
m50o	53.74	85.19	6.14	85.42	4



Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.198$

data for any colour:

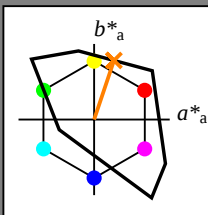
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = o50y$ $u^* = r68j$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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):

$LAB^*LAB^*_{Ma}$: 72 26 78

$LAB^*LCH^*_{Ma}$: 72 82 71

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

$lab^*rgb^*_{Ma}$: 1.0 0.69 0.0

triangle lightness t^*

% Gamut

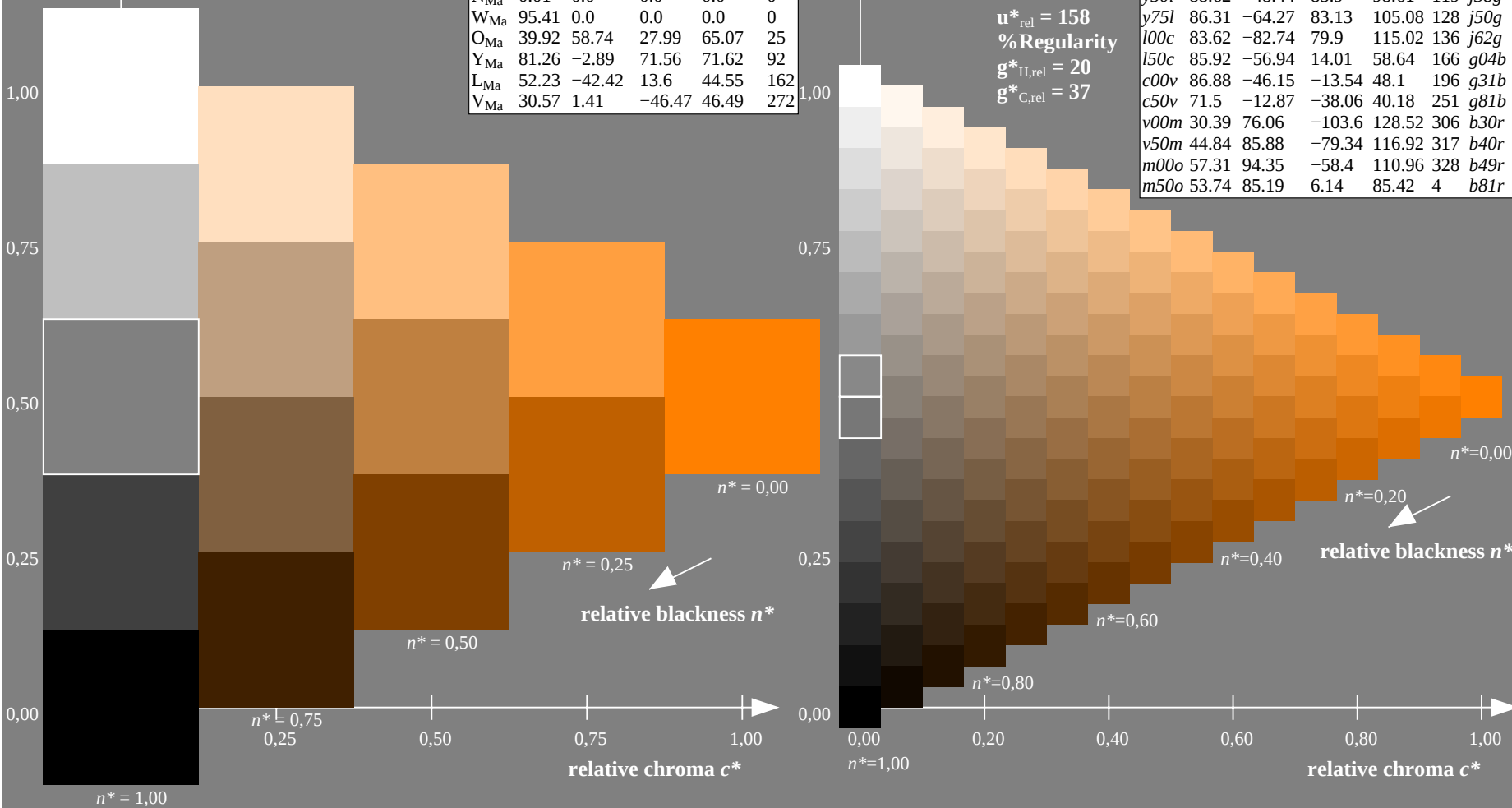
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data					
d^*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
o00y	50.5	76.91	64.55	100.41	40
o25y	62.51	49.1	72.02	87.16	56
o50y	72.38	26.27	78.15	82.44	71
o75y	81.91	4.22	84.07	84.17	87
y00l	92.66	-20.68	90.75	93.08	103
y25l	90.7	-34.16	88.39	94.76	111
y50l	88.62	-48.44	85.9	98.61	119
y75l	86.31	-64.27	83.13	105.08	128
l00c	83.62	-82.74	79.9	115.02	136
l50c	85.92	-56.94	14.01	58.64	166
c00v	86.88	-46.15	-13.54	48.1	196
c50v	71.5	-12.87	-38.06	40.18	251
v00m	30.39	76.06	-103.6	128.52	306
v50m	44.84	85.88	-79.34	116.92	317
m00o	57.31	94.35	-58.4	110.96	328
m50o	53.74	85.19	6.14	85.42	4

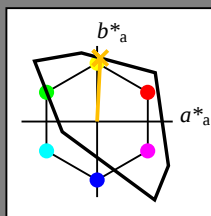


Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.242$ data for any colour: Data for maximum colour (Ma):

**lab*tch* and lab*ncu*
device and elementary
hue text:**

$$d^* = 0.75y \quad u^* = 0.91j$$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
$Name$	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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: 82 4 84

LAB*LCH*_{Ma}: 82 84 87

lab*olv*_Ma: 1.0 0.75 0.0

lab*rqb*_Ma: 1.0 0.92 0.0

triangle lightness t^*

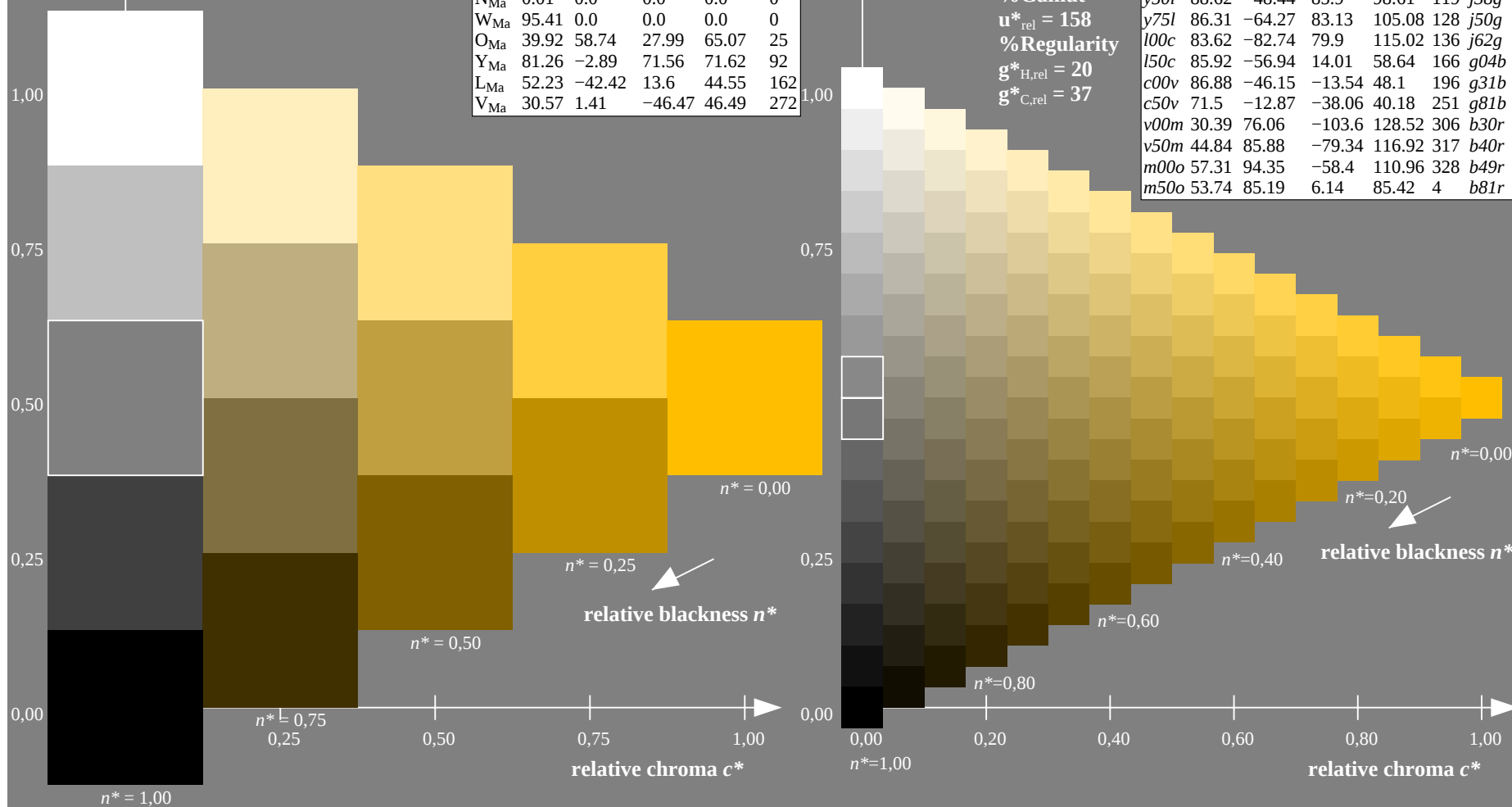
%Gamut

$$\mathbf{u}_{\text{rel}}^* = 158$$

%Regularity

$$g^*_{H,rel} = 20$$
$$g^*_{C,rel} = 37$$

TLS00a; adapted (a) CIELAB data							
d^*	$L^*=L_a^*$	a_a^*	b_a^*	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*	
<i>o00y</i>	50.5	76.91	64.55	100.41	40	<i>r22j</i>	<i>15g</i>
<i>o25y</i>	62.51	49.1	72.02	87.16	56	<i>r45j</i>	
<i>o50y</i>	72.38	26.27	78.15	82.44	71	<i>r68j</i>	<i>19j</i>
<i>o75y</i>	81.91	4.22	84.07	84.17	87	<i>r91j</i>	
<i>y00l</i>	92.66	-20.68	90.75	93.08	103	<i>j15g</i>	
<i>y25l</i>	90.7	-34.16	88.39	94.76	111	<i>j27g</i>	
<i>y50l</i>	88.62	-48.44	85.9	98.61	119	<i>j38g</i>	
<i>y75l</i>	86.31	-64.27	83.13	105.08	128	<i>j50g</i>	
<i>l00c</i>	83.62	-82.74	79.9	115.02	136	<i>j62g</i>	<i>20g</i>
<i>l50c</i>	85.92	-56.94	14.01	58.64	166	<i>g04l</i>	
<i>c00v</i>	86.88	-46.15	-13.54	48.1	196	<i>g31l</i>	
<i>c50v</i>	71.5	-12.87	-38.06	40.18	251	<i>g81l</i>	
<i>v00m</i>	30.39	76.06	-103.6	128.52	306	<i>b30m</i>	
<i>v50m</i>	44.84	85.88	-79.34	116.92	317	<i>b40m</i>	
<i>m00o</i>	57.41	94.35	-58.4	110.96	328	<i>b49m</i>	
<i>m50o</i>	53.74	85.19	6.14	85.42	4	<i>b81l</i>	



TUB-test chart IE54; Colorimetric systems, Page 4/16
Hue plane and data table for 16 hues *o00y* to *m75o*

input: *rgb* ($\rightarrow$ *olv**) *setrgbcolor*
output: no change compared to input

Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.286$

data for any colour:

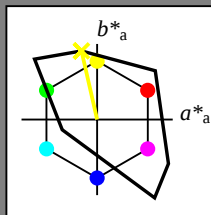
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = y00l$ $u^* = j15g$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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):

$LAB^*LAB^*_{Ma}$: 93 -21 91

$LAB^*LCH^*_{Ma}$: 93 93 102

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

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

triangle lightness t^*

% Gamut

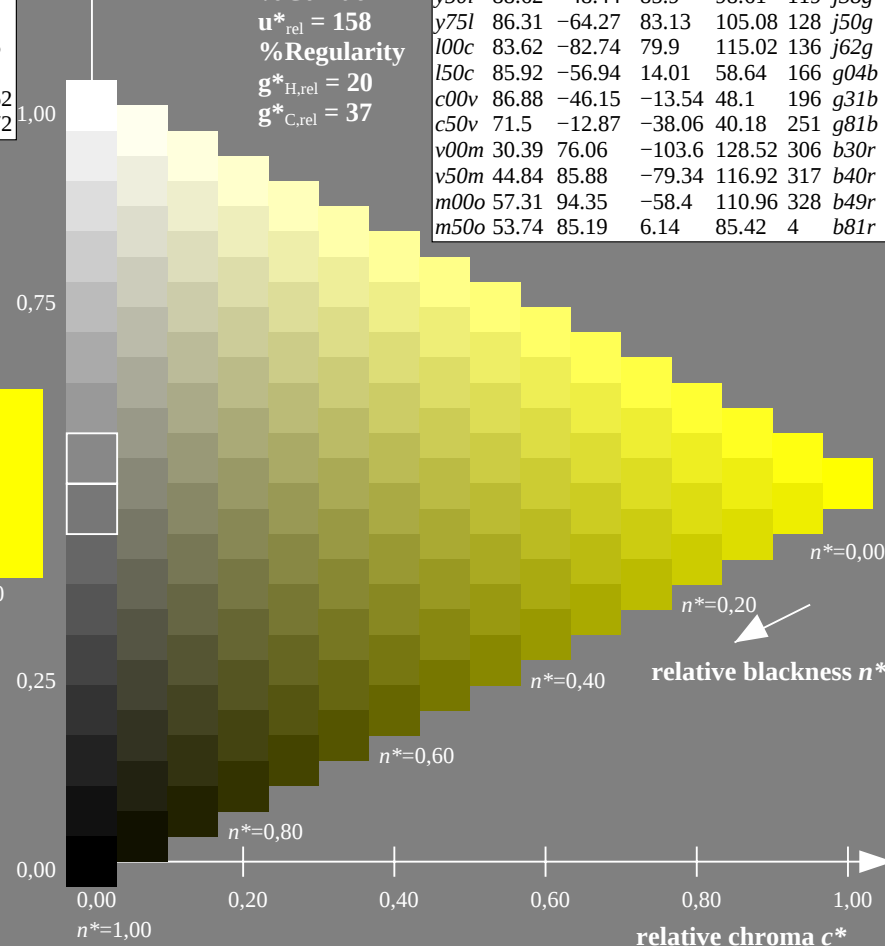
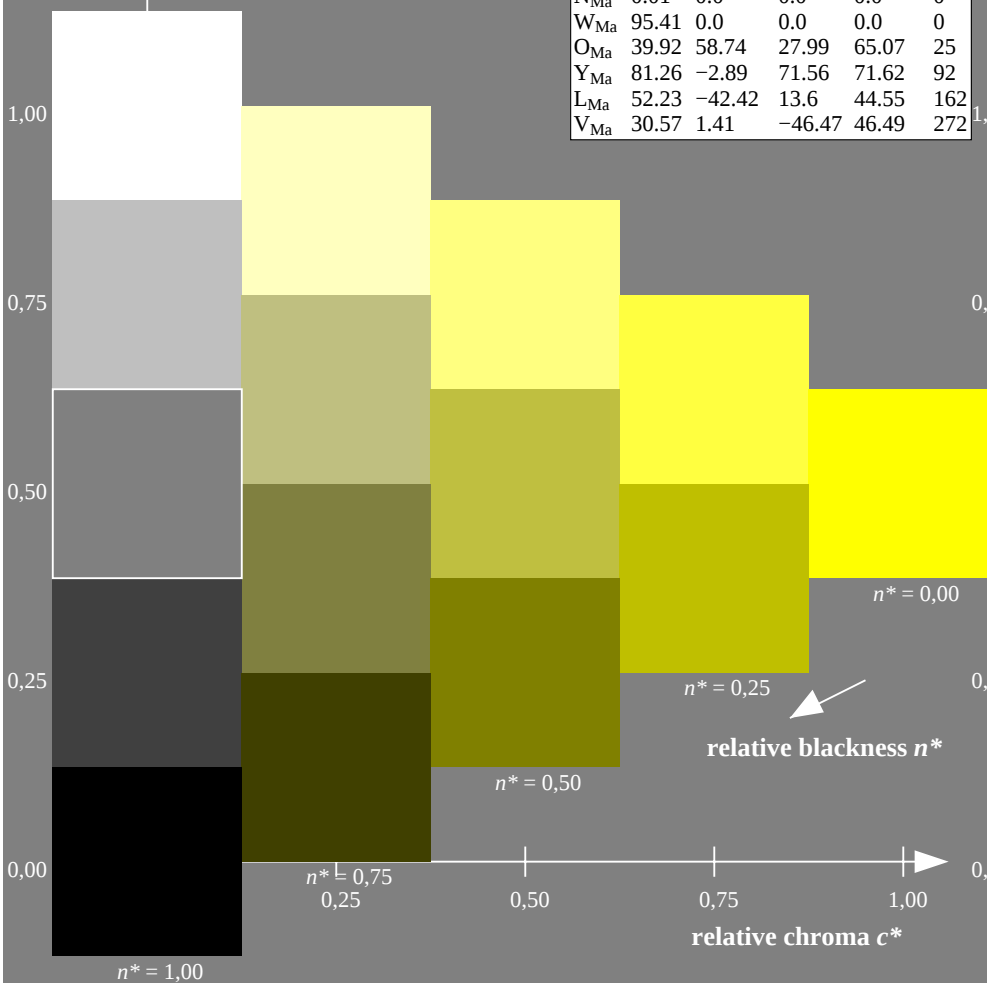
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data					
d^*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
o00y	50.5	76.91	64.55	100.41	40
o25y	62.51	49.1	72.02	87.16	56
o50y	72.38	26.27	78.15	82.44	71
o75y	81.91	4.22	84.07	84.17	87
y00l	92.66	-20.68	90.75	93.08	103
y25l	90.7	-34.16	88.39	94.76	111
y50l	88.62	-48.44	85.9	98.61	119
y75l	86.31	-64.27	83.13	105.08	128
l00c	83.62	-82.74	79.9	115.02	136
l50c	85.92	-56.94	14.01	58.64	166
c00v	86.88	-46.15	-13.54	48.1	196
c50v	71.5	-12.87	-38.06	40.18	251
v00m	30.39	76.06	-103.6	128.52	306
v50m	44.84	85.88	-79.34	116.92	317
m00o	57.31	94.35	-58.4	110.96	328
m50o	53.74	85.19	6.14	85.42	4

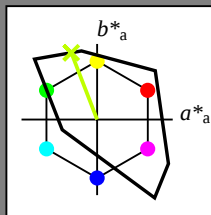


Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.309$ data for any colour: Data for maximum colour (Ma):

*lab*tch** and *lab*ncu**
device and elementary
hue text:

$$d^* = y25l \quad u^* = j27g$$

triangle lightness t^*



<i>Name</i>	L^*_{*a}	a^*_{*a}	b^*_{*a}	$C^*_{*ab,a}$	$h^*_{*ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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: 91 -34 88

LAB*LCH*Ma: 91 95 111

lab*olv*_Ma: 0.75 1.0 0.0

lab*rqb*_Ma: 0.73 1.0 0.0

triangle lightness t^*

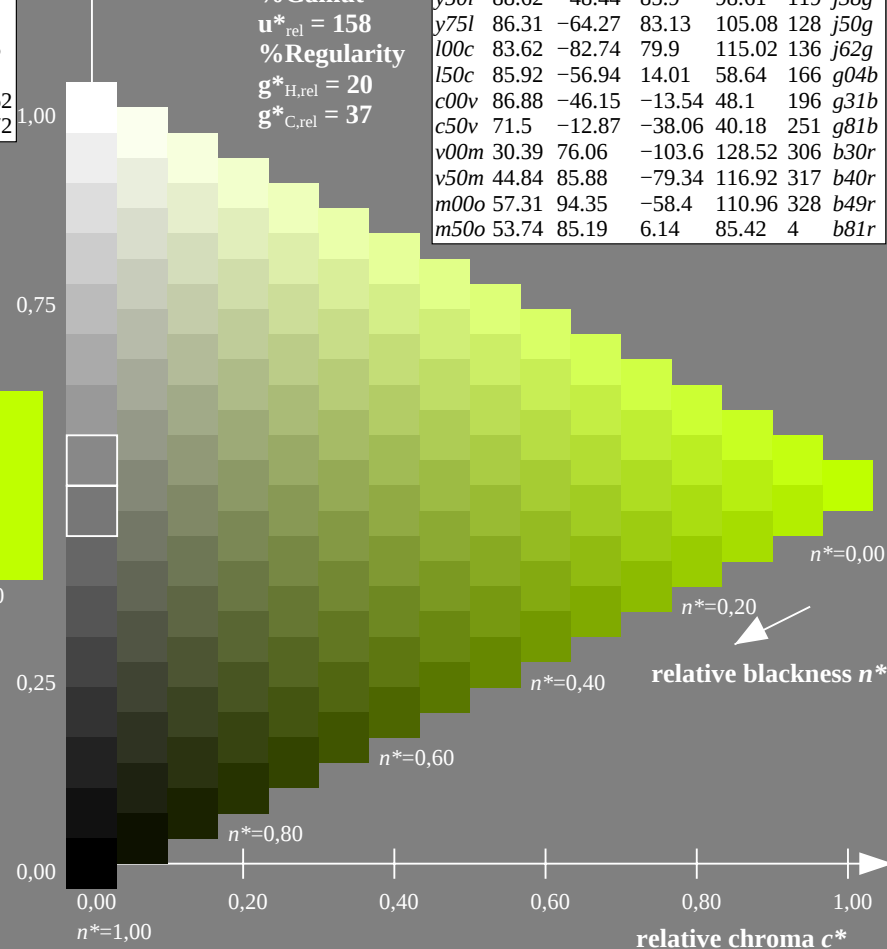
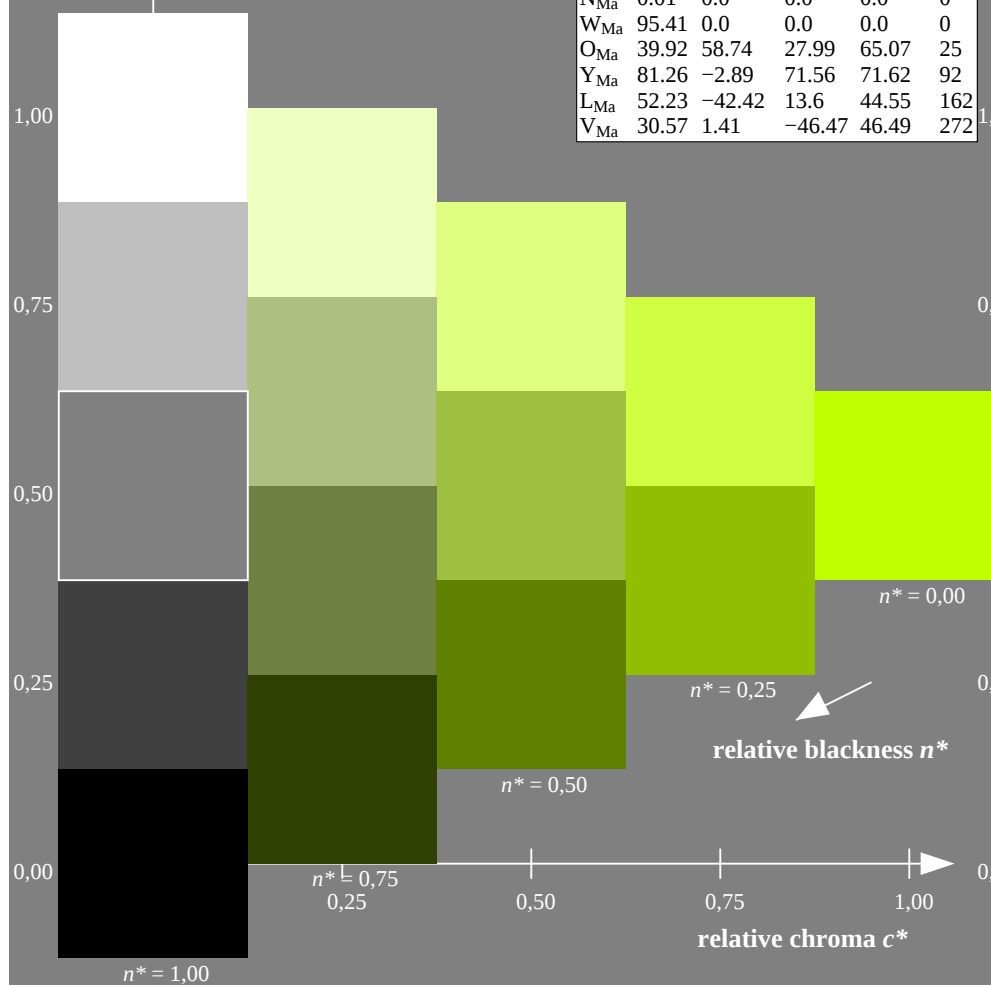
% Gamut

$$\mathbf{u}_{\text{rel}}^* = 158$$

%Regularity

$$g_{\text{H,rel}}^* = 20$$
$$g^*_{C,rel} = 37$$

TLS00a; adapted (a) CIELAB data							
d^*	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$	u^*	
<i>o00y</i>	50.5	76.91	64.55	100.41	40	<i>r22i</i>	
<i>o25y</i>	62.51	49.1	72.02	87.16	56	<i>r45j</i>	
<i>o50y</i>	72.38	26.27	78.15	82.44	71	<i>r68j</i>	
<i>o75y</i>	81.91	4.22	84.07	84.17	87	<i>r91j</i>	
<i>y00l</i>	92.66	-20.68	90.75	93.08	103	<i>j15g</i>	
<i>y25l</i>	90.7	-34.16	88.39	94.76	111	<i>j27g</i>	
<i>y50l</i>	88.62	-48.44	85.9	98.61	119	<i>j38g</i>	
<i>y75l</i>	86.31	-64.27	83.13	105.08	128	<i>j50g</i>	
<i>l00c</i>	83.62	-82.74	79.9	115.02	136	<i>j62g</i>	
<i>l50c</i>	85.92	-56.94	14.01	58.64	166	<i>g04b</i>	
<i>c00v</i>	86.88	-46.15	-13.54	48.1	196	<i>g31b</i>	
<i>c50v</i>	71.5	-12.87	-38.06	40.18	251	<i>g81b</i>	
<i>v00m</i>	30.39	76.06	-103.6	128.52	306	<i>b30r</i>	
<i>v50m</i>	44.84	85.88	-79.34	116.92	317	<i>b40r</i>	
<i>m00o</i>	57.31	94.35	-58.4	110.96	328	<i>b49r</i>	
<i>m50o</i>	53.74	85.19	6.14	85.42	4	<i>b81r</i>	



TUB registration: 20090901-IE54/IE54L0NA.PS/.TXT
+ application for output of visual display systems

TUB material: code=rha4ta

TUB-test chart IE54; Colorimetric systems, Page 6/16
Hue plane and data table for 16 hues *o00y* to *m75o*

input: *rgb (->olv*) setrgbcolor*
output: no change compared to input

Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.332$

data for any colour:

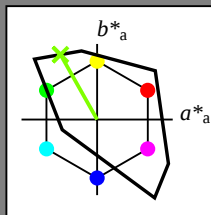
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = y50l$ $u^* = j38g$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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):

$LAB^*LAB^*_{Ma}$: 89 -48 86

$LAB^*LCH^*_{Ma}$: 89 99 119

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

$lab^*rgb^*_{Ma}$: 0.61 1.0 0.0

triangle lightness t^*

% Gamut

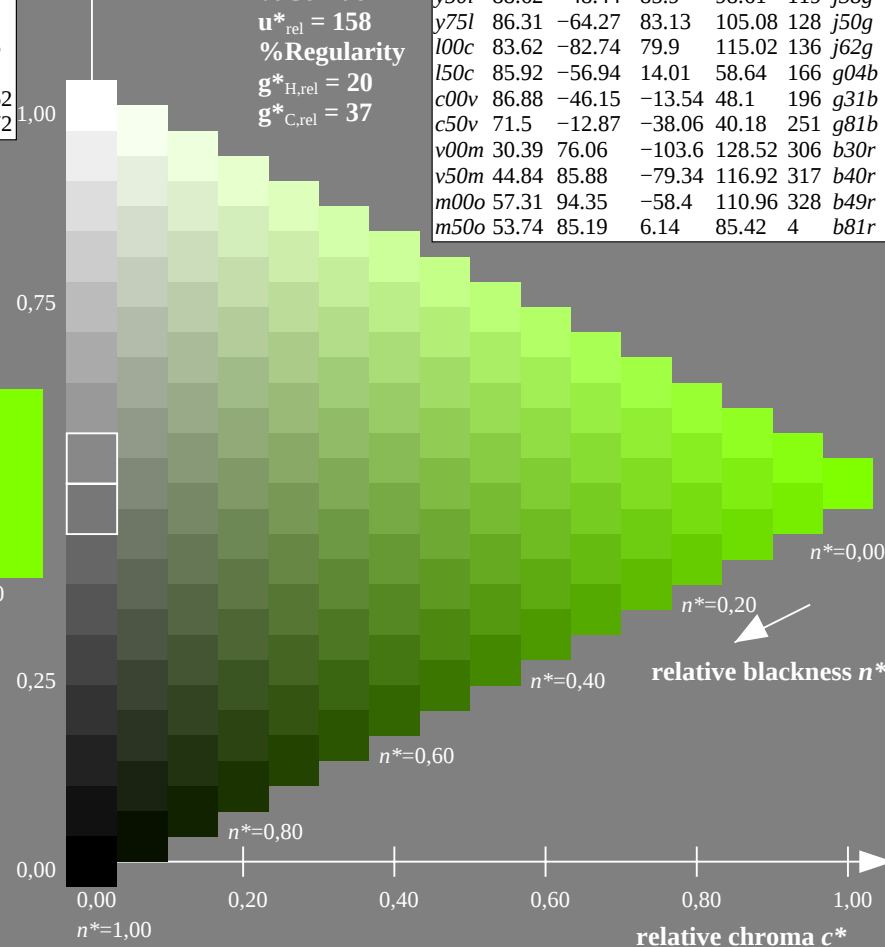
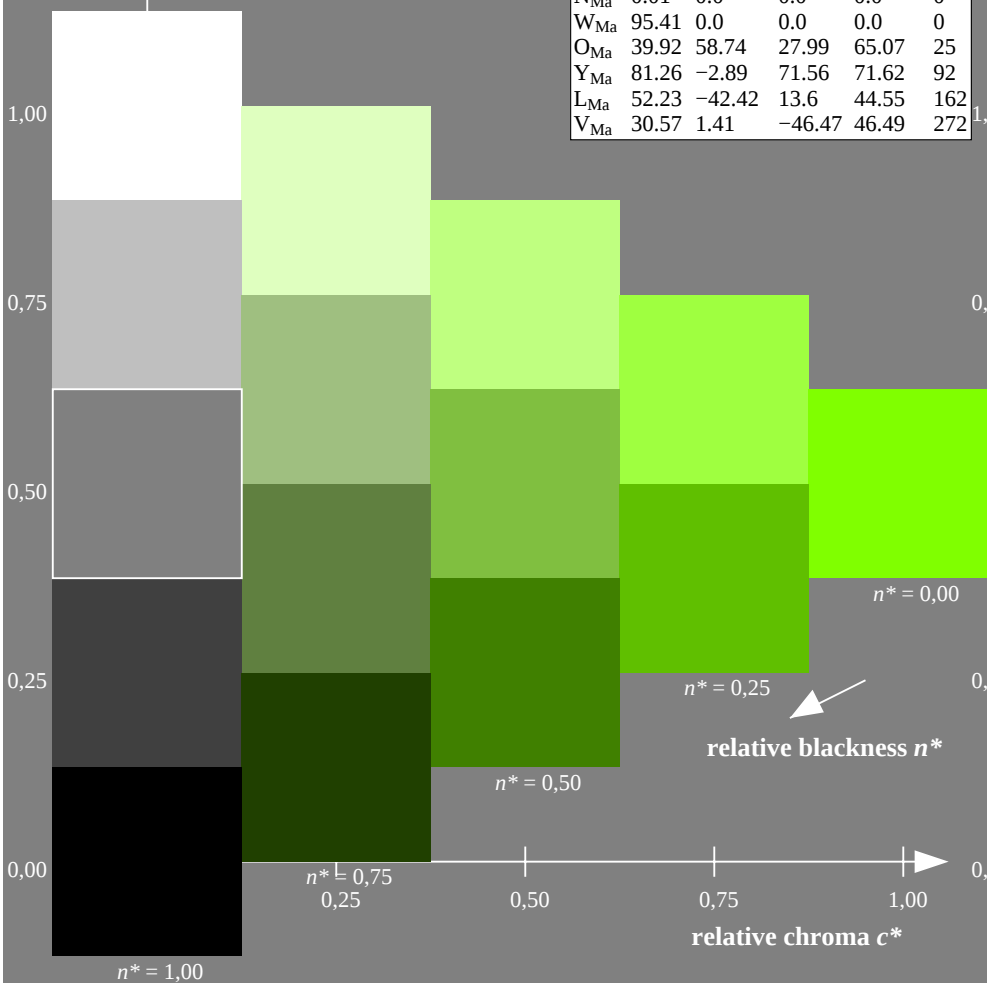
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data					
d*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
o00y	50.5	76.91	64.55	100.41	40
o25y	62.51	49.1	72.02	87.16	56
o50y	72.38	26.27	78.15	82.44	71
o75y	81.91	4.22	84.07	84.17	87
y00l	92.66	-20.68	90.75	93.08	103
y25l	90.7	-34.16	88.39	94.76	111
y50l	88.62	-48.44	85.9	98.61	119
y75l	86.31	-64.27	83.13	105.08	128
l00c	83.62	-82.74	79.9	115.02	136
l50c	85.92	-56.94	14.01	58.64	166
c00v	86.88	-46.15	-13.54	48.1	196
c50v	71.5	-12.87	-38.06	40.18	251
v00m	30.39	76.06	-103.6	128.52	306
v50m	44.84	85.88	-79.34	116.92	317
m00o	57.31	94.35	-58.4	110.96	328
m50o	53.74	85.19	6.14	85.42	4



IE540-7N

Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.378$

data for any colour:

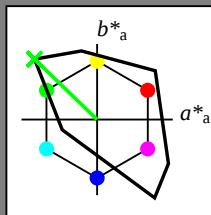
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = 100c$ $u^* = j62g$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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 -83 80

$LAB^*LCH^*_{Ma}$: 84 115 136

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

$lab^*rgb^*_{Ma}$: 0.38 1.0 0.0

triangle lightness t^*

% Gamut

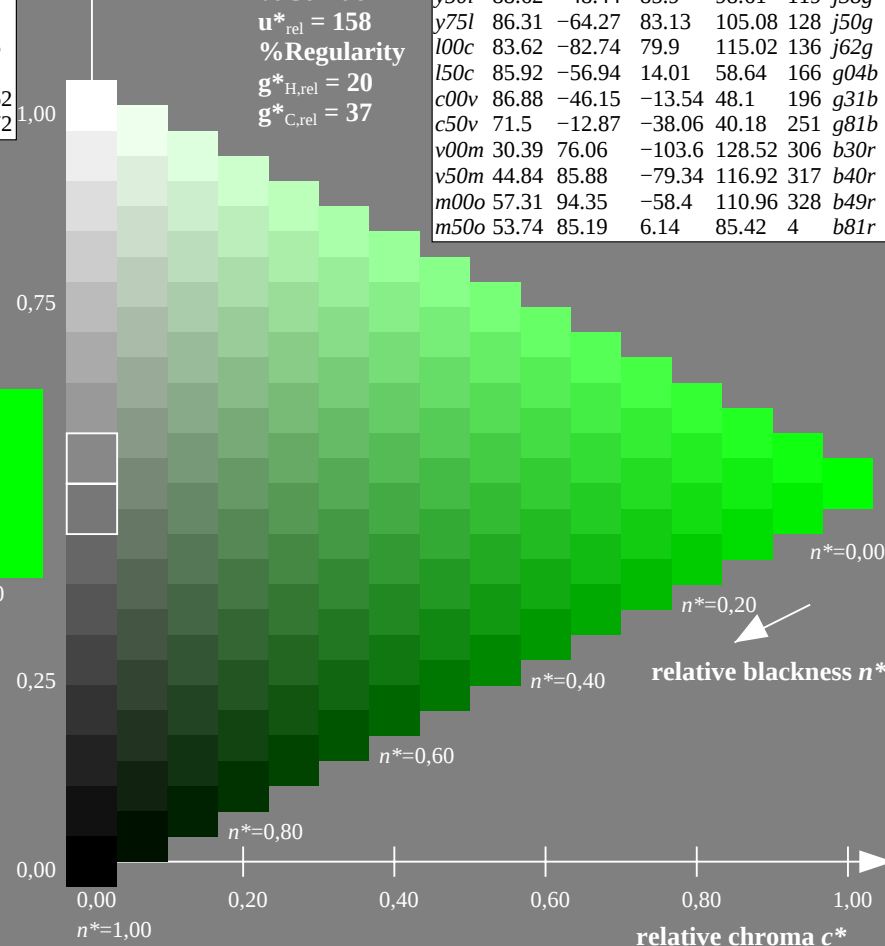
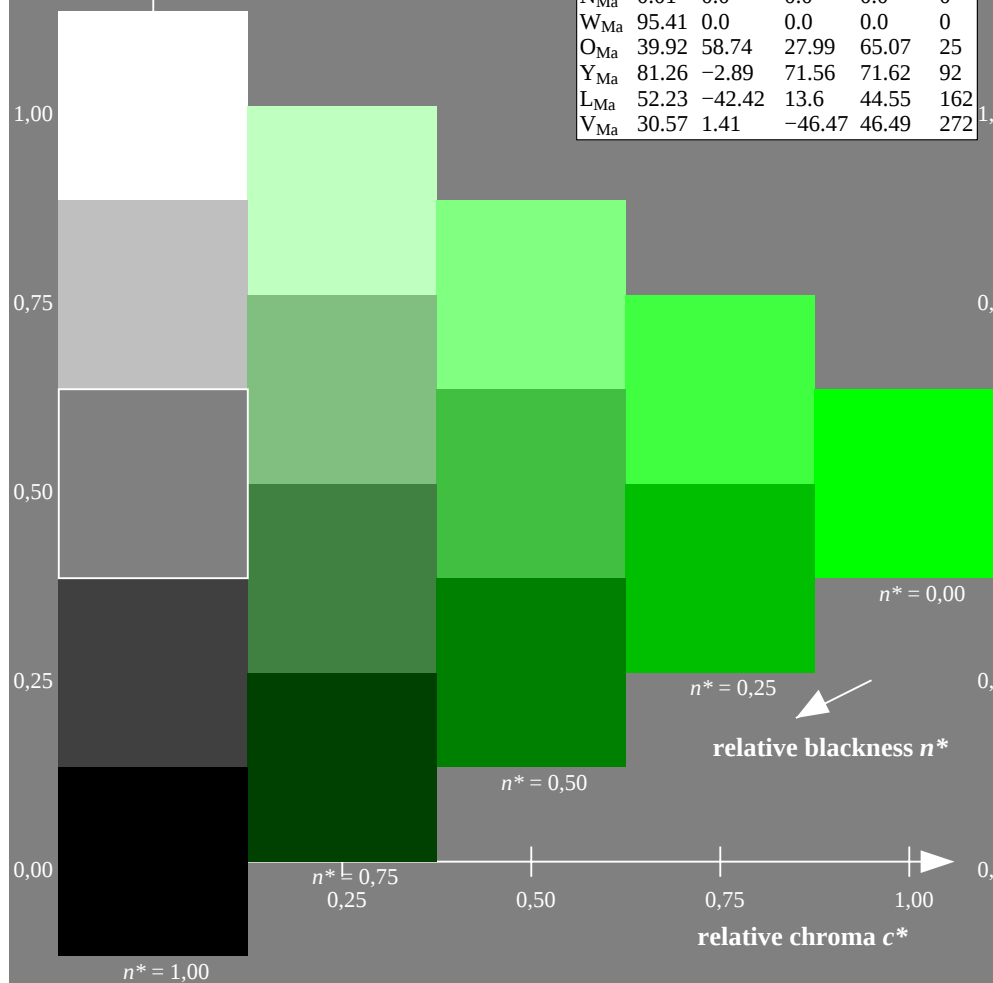
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data							
d^*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*	
o00y	50.5	76.91	64.55	100.41	40	r22j	
o25y	62.51	49.1	72.02	87.16	56	r45j	
o50y	72.38	26.27	78.15	82.44	71	r68j	
o75y	81.91	4.22	84.07	84.17	87	r91j	
y00l	92.66	-20.68	90.75	93.08	103	j15g	
y25l	90.7	-34.16	88.39	94.76	111	j27g	
y50l	88.62	-48.44	85.9	98.61	119	j38g	
y75l	86.31	-64.27	83.13	105.08	128	j50g	
l00c	83.62	-82.74	79.9	115.02	136	j62g	
l50c	85.92	-56.94	14.01	58.64	166	g04b	
c00v	86.88	-46.15	-13.54	48.1	196	g31b	
c50v	71.5	-12.87	-38.06	40.18	251	g81b	
v00m	30.39	76.06	-103.6	128.52	306	b30r	
v50m	44.84	85.88	-79.34	116.92	317	b40r	
m00o	57.31	94.35	-58.4	110.96	328	b49r	
m50o	53.74	85.19	6.14	85.42	4	b81r	



Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.462$

data for any colour:

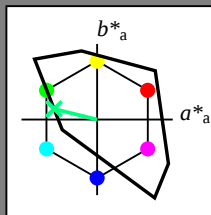
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = l50c$ $u^* = g04b$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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):

$LAB^*LAB^*_{Ma}$: 86 -57 14

$LAB^*LCH^*_{Ma}$: 86 59 166

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

$lab^*rgb^*_{Ma}$: 0.0 1.0 0.07

triangle lightness t^*

% Gamut

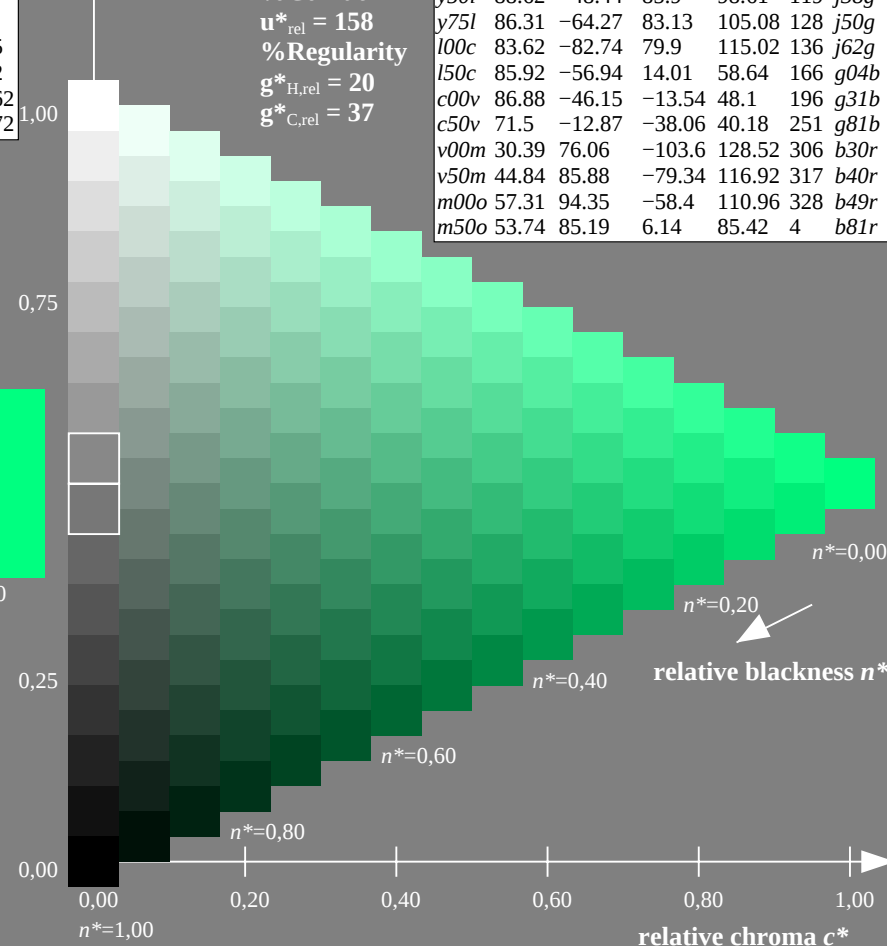
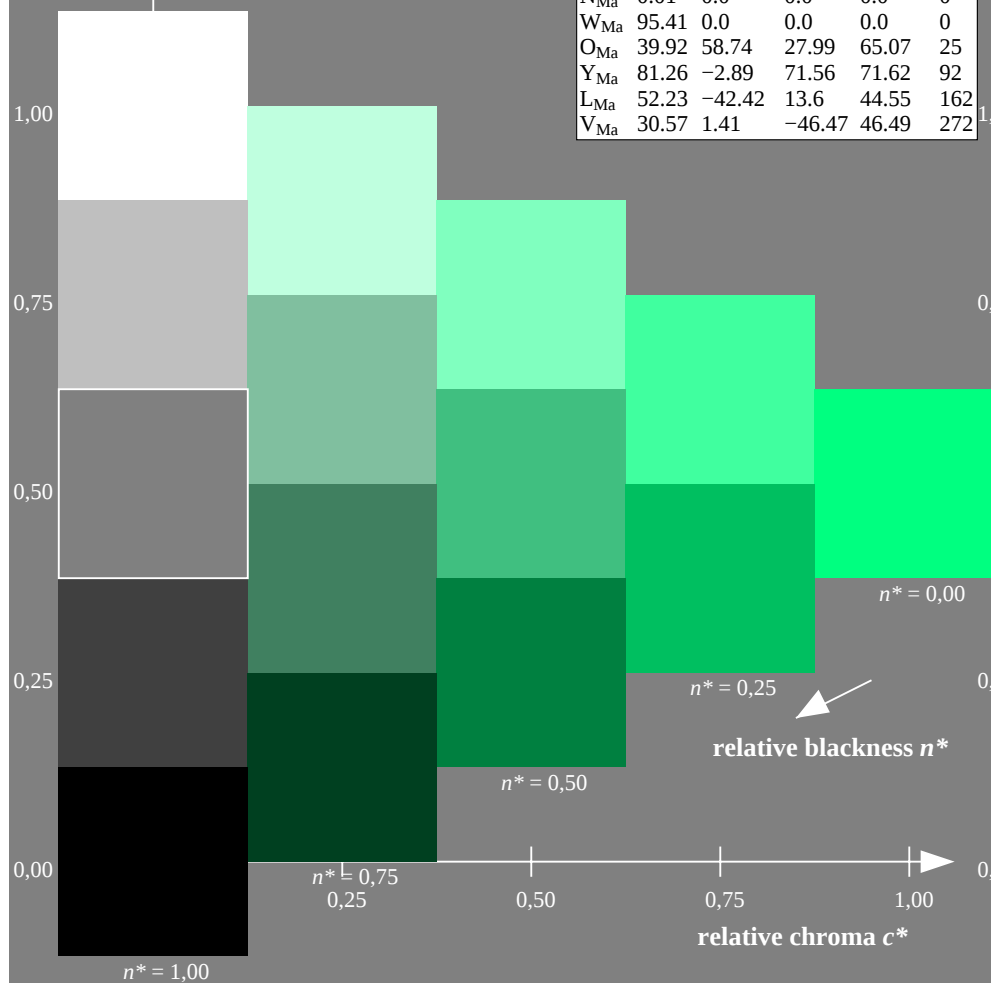
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

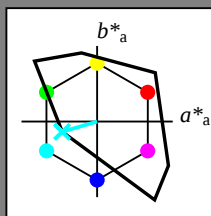
$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data							
d^*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$	u^*	
o00y	50.5	76.91	64.55	100.41	40	r22j	
o25y	62.51	49.1	72.02	87.16	56	r45j	
o50y	72.38	26.27	78.15	82.44	71	r68j	
o75y	81.91	4.22	84.07	84.17	87	r91j	
y00l	92.66	-20.68	90.75	93.08	103	j15g	
y25l	90.7	-34.16	88.39	94.76	111	j27g	
y50l	88.62	-48.44	85.9	98.61	119	j38g	
y75l	86.31	-64.27	83.13	105.08	128	j50g	
l00c	83.62	-82.74	79.9	115.02	136	j62g	
l50c	85.92	-56.94	14.01	58.64	166	g04b	
c00v	86.88	-46.15	-13.54	48.1	196	g31b	
c50v	71.5	-12.87	-38.06	40.18	251	g81b	
v00m	30.39	76.06	-103.6	128.52	306	b30r	
v50m	44.84	85.88	-79.34	116.92	317	b40r	
m00o	57.31	94.35	-58.4	110.96	328	b49r	
m50o	53.74	85.19	6.14	85.42	4	b81r	



Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.545$ data for any colour: Data for maximum colour (Ma):

**lab*tch* and lab*ncu*
device and elementary
hue text:**

$$d^* = c00v \quad u^* = g31b$$
triangle lightness t^* 

<i>Name</i>	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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}: 87 -46 -14

LAB*LCH*Ma: 87 48 196

lab*olv*Ma: 0.0 1.0 1.0

lab*rqb*_Ma: 0.0 1.0 0.62

triangle lightness t^*

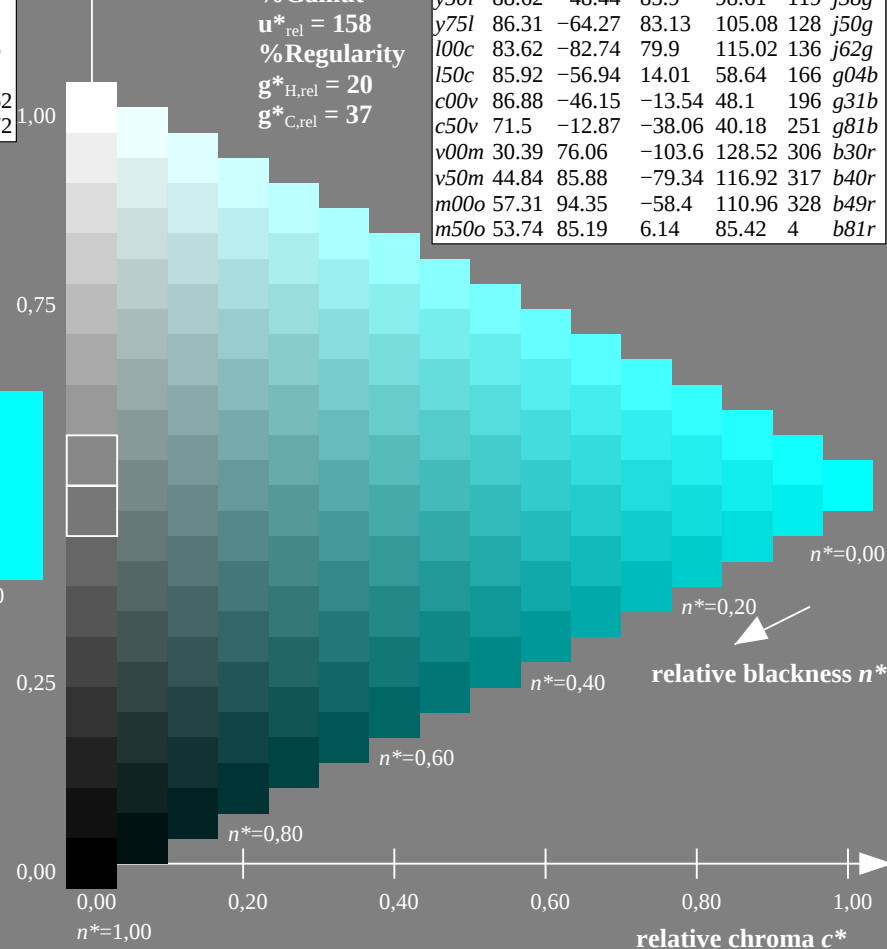
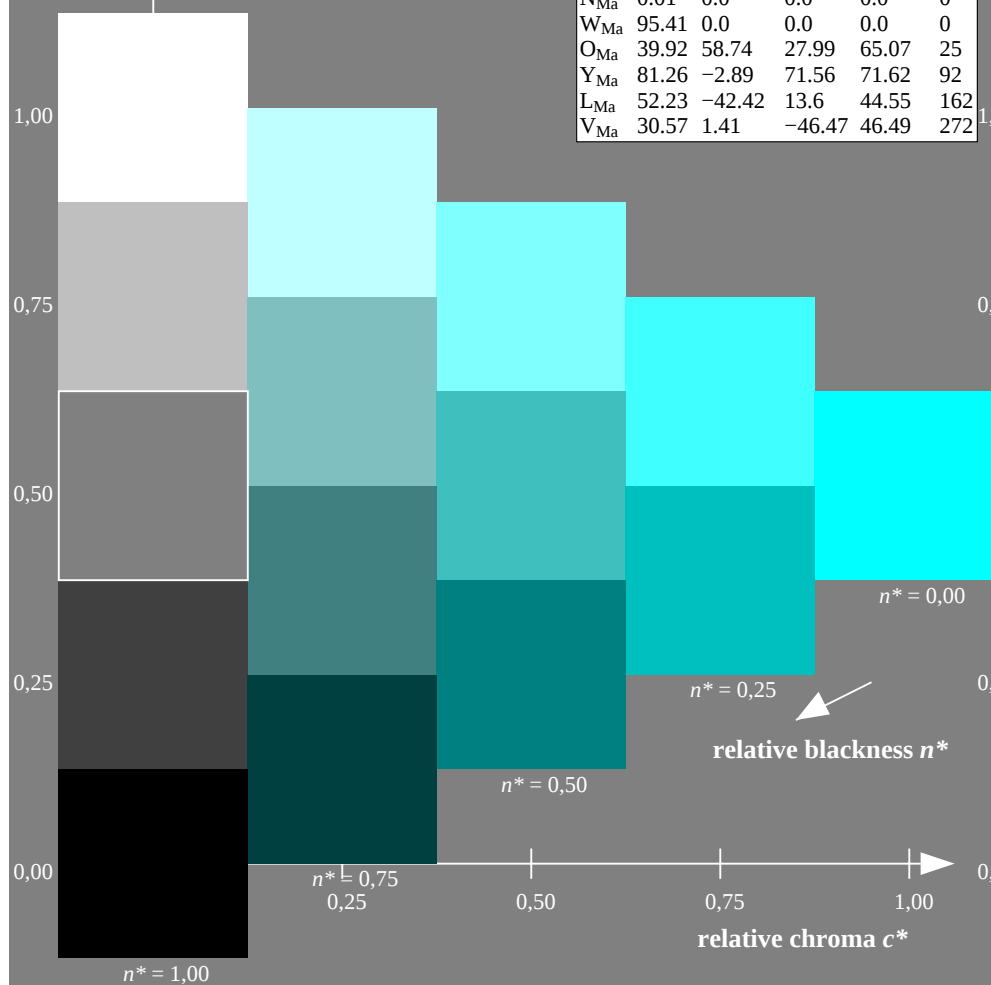
% Gamut

$$\mathbf{u}_{\text{rel}}^* = 158$$

%Regularity

$$g^*_{H,rel} = 20$$
$$g^*_{C,rel} = 37$$

TLS00a; adapted (a) CIELAB data							
d^*	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$	u^*	
<i>o00y</i>	50.5	76.91	64.55	100.41	40	<i>r22i</i>	
<i>o25y</i>	62.51	49.1	72.02	87.16	56	<i>r45j</i>	
<i>o50y</i>	72.38	26.27	78.15	82.44	71	<i>r68j</i>	
<i>o75y</i>	81.91	4.22	84.07	84.17	87	<i>r91j</i>	
<i>y00l</i>	92.66	-20.68	90.75	93.08	103	<i>j15g</i>	
<i>y25l</i>	90.7	-34.16	88.39	94.76	111	<i>j27g</i>	
<i>y50l</i>	88.62	-48.44	85.9	98.61	119	<i>j38g</i>	
<i>y75l</i>	86.31	-64.27	83.13	105.08	128	<i>j50g</i>	
<i>l00c</i>	83.62	-82.74	79.9	115.02	136	<i>j62g</i>	
<i>l50c</i>	85.92	-56.94	14.01	58.64	166	<i>g04b</i>	
<i>c00v</i>	86.88	-46.15	-13.54	48.1	196	<i>g31b</i>	
<i>c50v</i>	71.5	-12.87	-38.06	40.18	251	<i>g81b</i>	
<i>v00m</i>	30.39	76.06	-103.6	128.52	306	<i>b30r</i>	
<i>v50m</i>	44.84	85.88	-79.34	116.92	317	<i>b40r</i>	
<i>m00o</i>	57.31	94.35	-58.4	110.96	328	<i>b49r</i>	
<i>m50o</i>	53.74	85.19	6.14	85.42	4	<i>b81r</i>	



TUB registration: 20090901-IE54/IE54L0NA.PS/.TXT
+ application for output of visual display systems

TUB material: code=rha4ta

TUB-test chart IE54; Colorimetric systems, Page 11/16
Hue plane and data table for 16 hues *o00y* to *m75o*

input: *rgb* ($\rightarrow$ *olv**) *setrgbcolor*
output: no change compared to input

Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.698$

data for any colour:

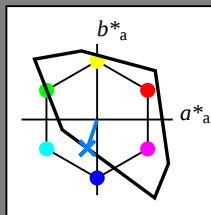
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = c50v$ $u^* = g81b$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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 -13 -38

$LAB^*LCH^*_{Ma}$: 71 40 251

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

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

triangle lightness t^*

% Gamut

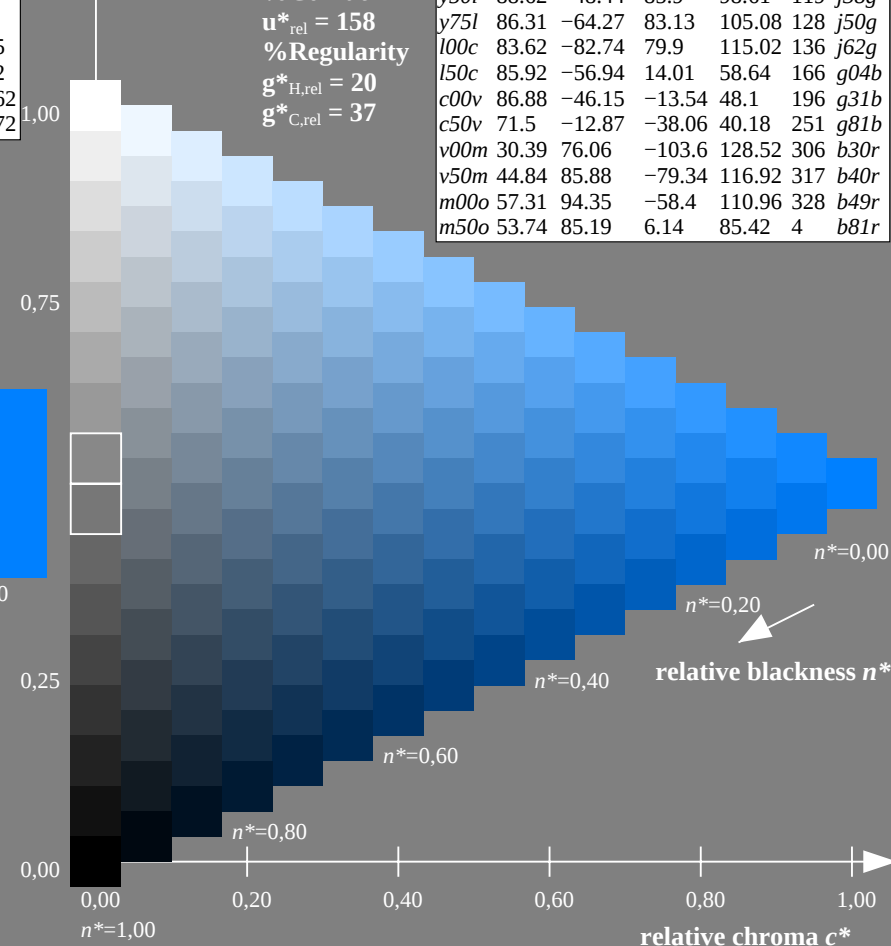
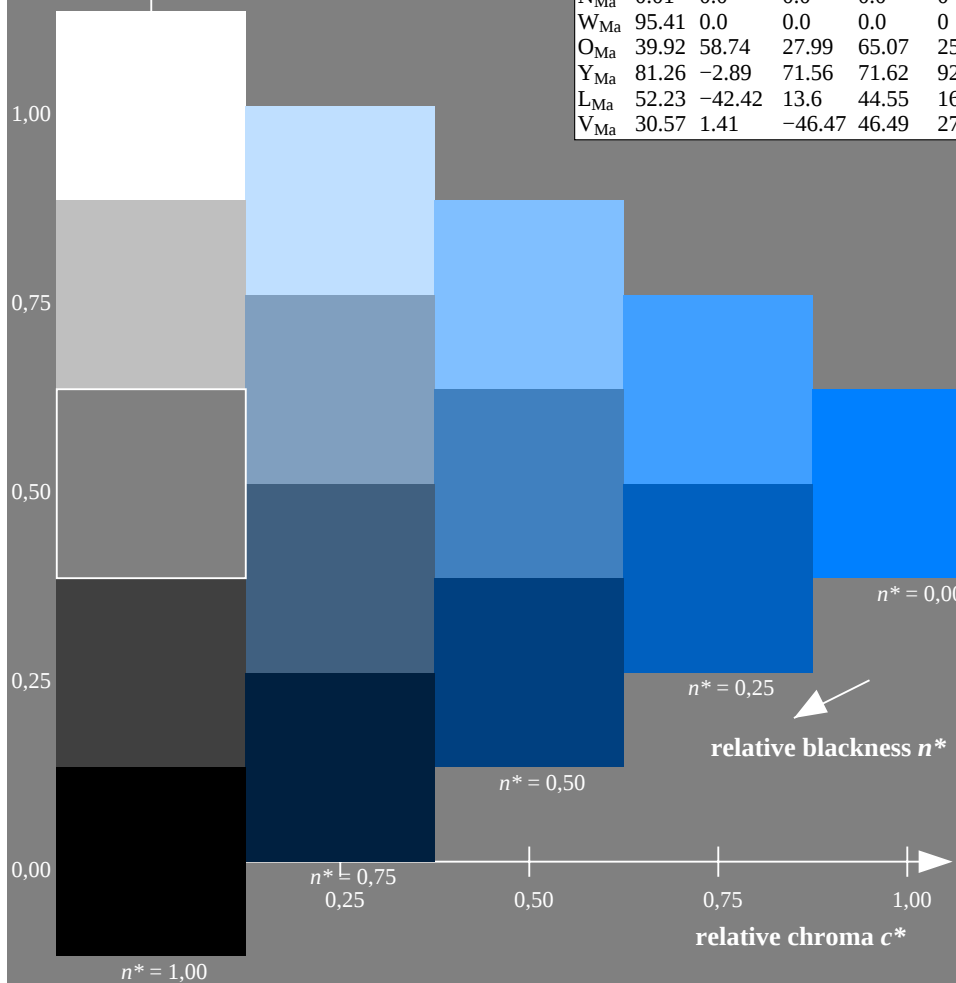
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data					
d*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$ u^*
o00y	50.5	76.91	64.55	100.41	40 r22j
o25y	62.51	49.1	72.02	87.16	56 r45j
o50y	72.38	26.27	78.15	82.44	71 r68j
o75y	81.91	4.22	84.07	84.17	87 r91j
y00l	92.66	-20.68	90.75	93.08	103 j15g
y25l	90.7	-34.16	88.39	94.76	111 j27g
y50l	88.62	-48.44	85.9	98.61	119 j38g
y75l	86.31	-64.27	83.13	105.08	128 j50g
l00c	83.62	-82.74	79.9	115.02	136 j62g
l50c	85.92	-56.94	14.01	58.64	166 g04b
c00v	86.88	-46.15	-13.54	48.1	196 g31b
c50v	71.5	-12.87	-38.06	40.18	251 g81b
v00m	30.39	76.06	-103.6	128.52	306 b30r
v50m	44.84	85.88	-79.34	116.92	317 b40r
m00o	57.31	94.35	-58.4	110.96	328 b49r
m50o	53.74	85.19	6.14	85.42	4 b81r



Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.851$

data for any colour:

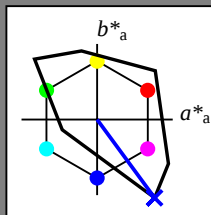
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = v00m$ $u^* = b30r$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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):

$LAB^*LAB^*_{Ma}$: 30 76 -104

$LAB^*LCH^*_{Ma}$: 30 129 306

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

$lab^*rgb^*_{Ma}$: 0.61 0.0 1.0

triangle lightness t^*

% Gamut

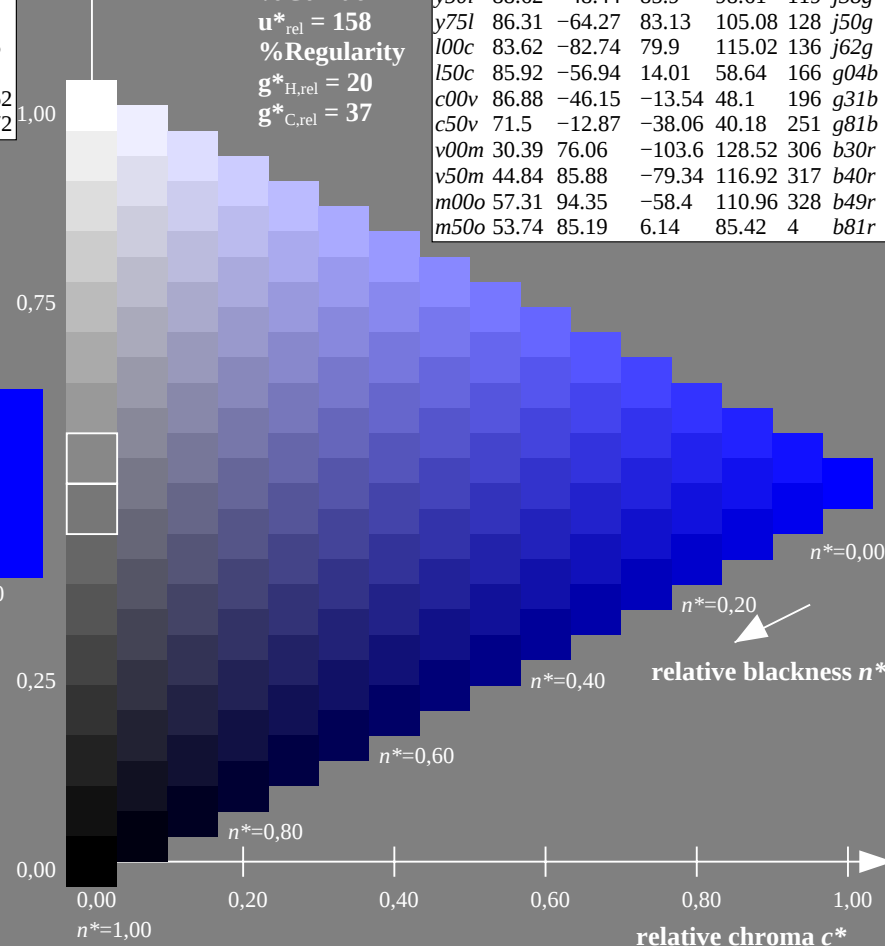
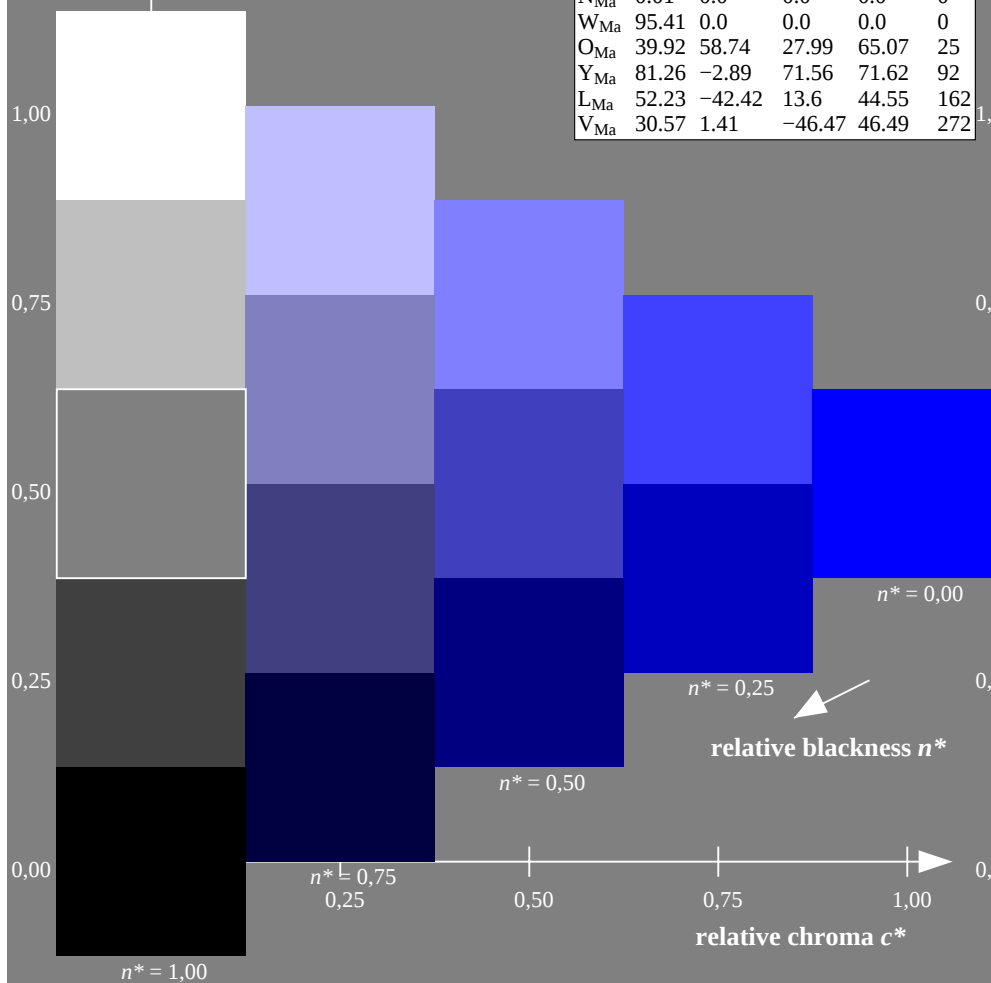
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data					
d*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$ u^*
o00y	50.5	76.91	64.55	100.41	40 r22j
o25y	62.51	49.1	72.02	87.16	56 r45j
o50y	72.38	26.27	78.15	82.44	71 r68j
o75y	81.91	4.22	84.07	84.17	87 r91j
y00l	92.66	-20.68	90.75	93.08	103 j15g
y25l	90.7	-34.16	88.39	94.76	111 j27g
y50l	88.62	-48.44	85.9	98.61	119 j38g
y75l	86.31	-64.27	83.13	105.08	128 j50g
l00c	83.62	-82.74	79.9	115.02	136 j62g
l50c	85.92	-56.94	14.01	58.64	166 g04b
c00v	86.88	-46.15	-13.54	48.1	196 g31b
c50v	71.5	-12.87	-38.06	40.18	251 g81b
v00m	30.39	76.06	-103.6	128.52	306 b30r
v50m	44.84	85.88	-79.34	116.92	317 b40r
m00o	57.31	94.35	-58.4	110.96	328 b49r
m50o	53.74	85.19	6.14	85.42	4 b81r

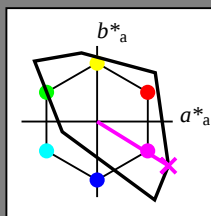


Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.912$ data for any colour: Data for maximum colour (Ma):

labtb** and lab**ncu**
device and elementary
hue text:**

$$d^* = m00o \quad u^* = b49r$$

triangle lightness t^*



<i>Name</i>	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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: 57 94 -58

LAB*LCH*_{Ma}: 57 111 328

lab*olv*_Ma: 1.0 0.0 1.0

lab*rqb*_Ma: 0.99 0.0 1.0

triangle lightness t^*

%Gamut

$$\mathbf{u}_{\text{rel}}^* = 158$$

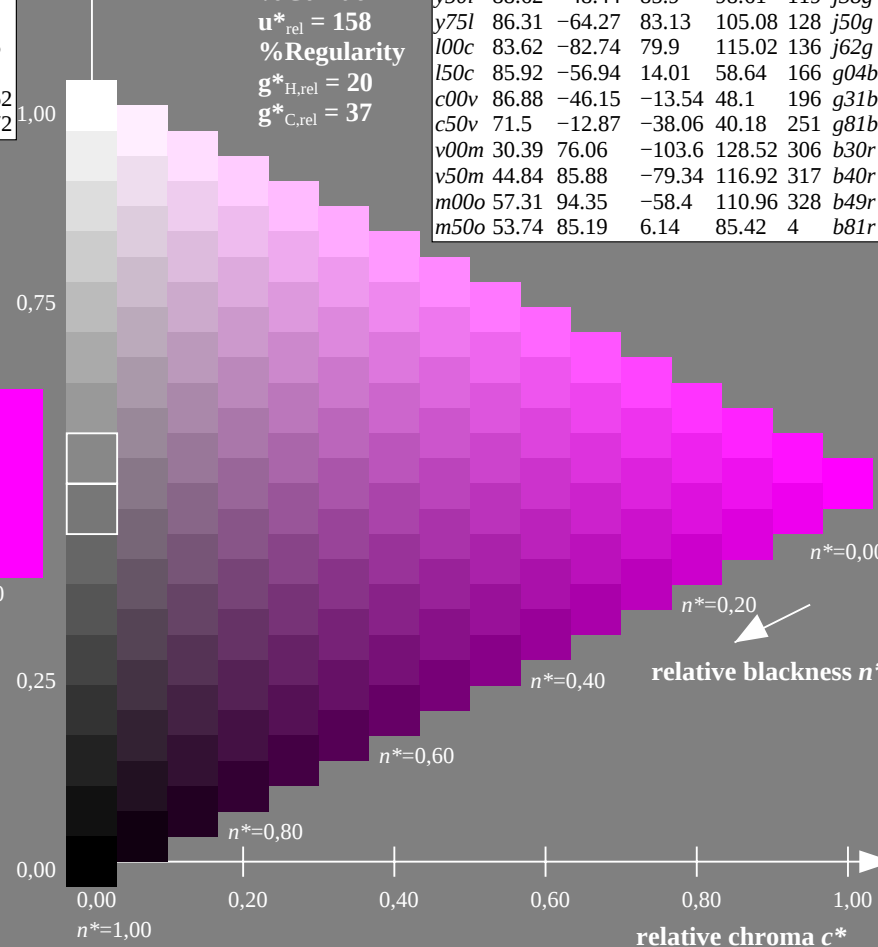
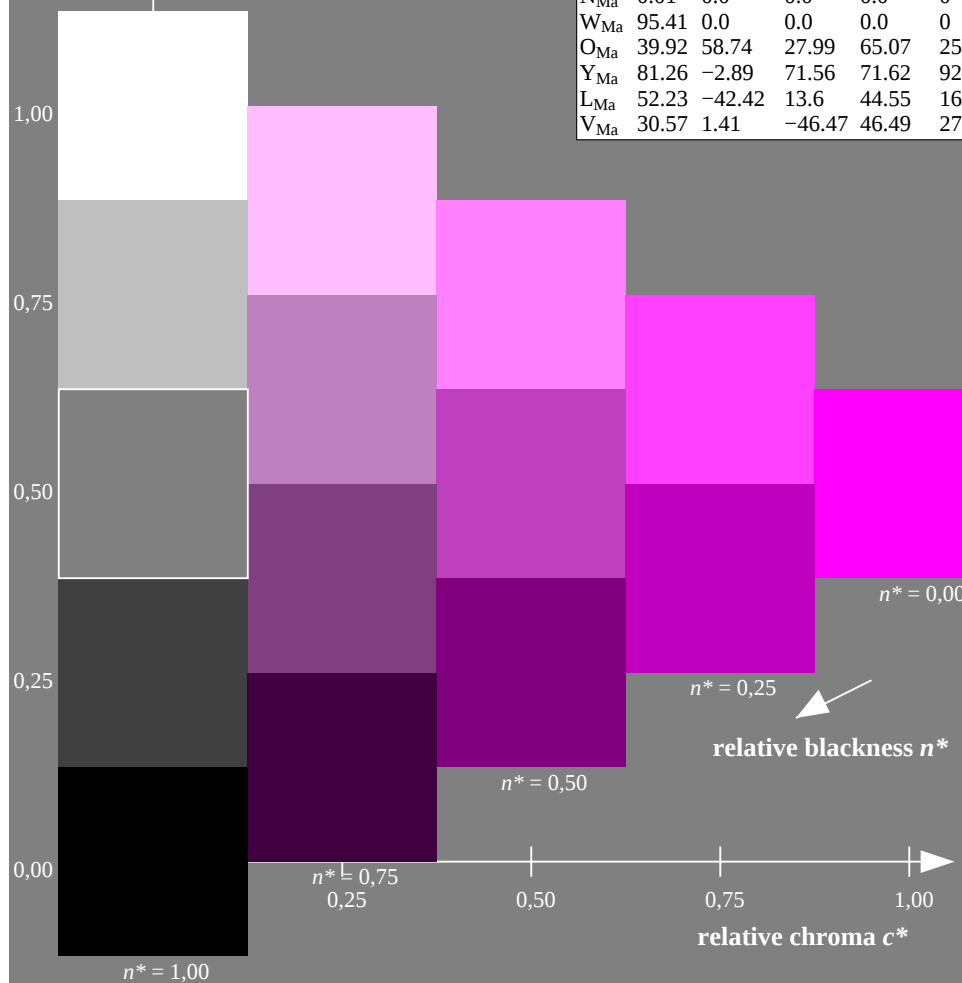
% Regularity

$$g^*_{H,rel} = 20$$

$$g^* = 27$$

8 C, rel 57

TLS00a; adapted (a) CIELAB data							
d^*	$L^*=L_a^*$	a_a^*	b_a^*	$C_{ab,a}^*$	$h_{ab,a}^*$	u^*	
<i>o00y</i>	50.5	76.91	64.55	100.41	40	<i>r22i</i>	
<i>o25y</i>	62.51	49.1	72.02	87.16	56	<i>r45j</i>	
<i>o50y</i>	72.38	26.27	78.15	82.44	71	<i>r68j</i>	
<i>o75y</i>	81.91	4.22	84.07	84.17	87	<i>r91j</i>	
<i>y00l</i>	92.66	-20.68	90.75	93.08	103	<i>j15g</i>	
<i>y25l</i>	90.7	-34.16	88.39	94.76	111	<i>j27g</i>	
<i>y50l</i>	88.62	-48.44	85.9	98.61	119	<i>j38g</i>	
<i>y75l</i>	86.31	-64.27	83.13	105.08	128	<i>j50g</i>	
<i>l00c</i>	83.62	-82.74	79.9	115.02	136	<i>j62g</i>	
<i>l50c</i>	85.92	-56.94	14.01	58.64	166	<i>g04b</i>	
<i>c00v</i>	86.88	-46.15	-13.54	48.1	196	<i>g31b</i>	
<i>c50v</i>	71.5	-12.87	-38.06	40.18	251	<i>g81b</i>	
<i>v00m</i>	30.39	76.06	-103.6	128.52	306	<i>b30r</i>	
<i>v50m</i>	44.84	85.88	-79.34	116.92	317	<i>b40r</i>	
<i>m00o</i>	57.31	94.35	-58.4	110.96	328	<i>b49r</i>	
<i>m50o</i>	53.74	85.19	6.14	85.42	4	<i>b81r</i>	



TUB registration: 20090901-IE54/IE54L0NA.PS/.TXT
+ application for output of visual display systems

TUB material: code=rha4ta

TUB-test chart IE54; Colorimetric systems, Page 15/16
Hue plane and data table for 16 hues *o00y* to *m75o*

input: *rgb (->olv*) setrgbcolor*
output: no change compared to input

Input and output: Colorimetric Television Luminous System TLS00a for relative CIELAB hue $h^* = lab^*h^* = h_{ab}/360 = 0.011$

data for any colour:

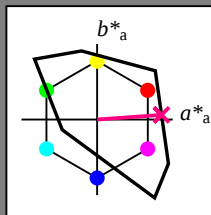
lab^*tch^* and lab^*ncu^*

device and elementary

hue text:

$d^* = m50o$ $u^* = b81r$

triangle lightness t^*



TLS00a; adapted (a) CIELAB data					
Name	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.91	64.55	100.41	40
Y _{Ma}	92.66	-20.68	90.75	93.08	103
L _{Ma}	83.62	-82.74	79.9	115.02	136
C _{Ma}	86.88	-46.15	-13.54	48.1	196
V _{Ma}	30.39	76.06	-103.6	128.52	306
M _{Ma}	57.31	94.35	-58.4	110.96	328
N _{Ma}	0.01	0.0	0.0	0.0	0
W _{Ma}	95.41	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):

$LAB^*LAB^*_{Ma}$: 54 85 6

$LAB^*LCH^*_{Ma}$: 54 85 4

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

$lab^*rgb^*_{Ma}$: 1.0 0.0 0.38

triangle lightness t^*

% Gamut

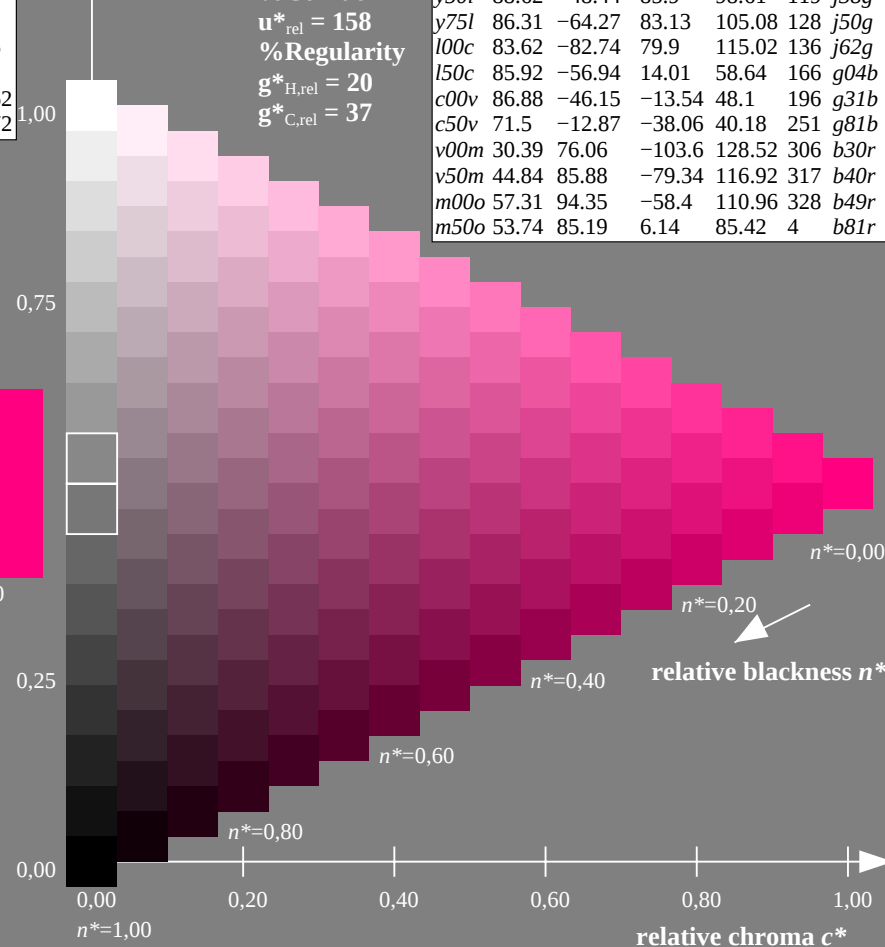
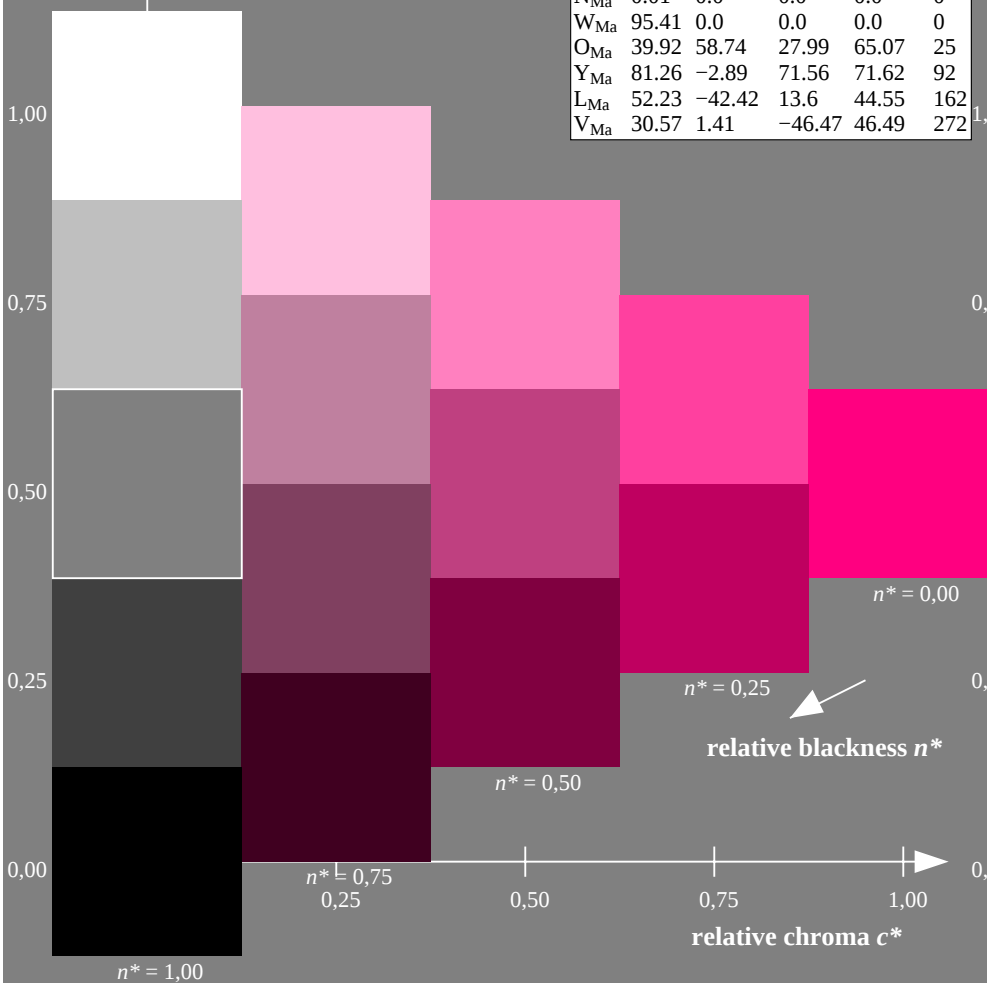
$u^*_{rel} = 158$

% Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00a; adapted (a) CIELAB data					
d^*	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
o00y	50.5	76.91	64.55	100.41	40
o25y	62.51	49.1	72.02	87.16	56
o50y	72.38	26.27	78.15	82.44	71
o75y	81.91	4.22	84.07	84.17	87
y00l	92.66	-20.68	90.75	93.08	103
y25l	90.7	-34.16	88.39	94.76	111
y50l	88.62	-48.44	85.9	98.61	119
y75l	86.31	-64.27	83.13	105.08	128
l00c	83.62	-82.74	79.9	115.02	136
l50c	85.92	-56.94	14.01	58.64	166
c00v	86.88	-46.15	-13.54	48.1	196
c50v	71.5	-12.87	-38.06	40.18	251
v00m	30.39	76.06	-103.6	128.52	306
v50m	44.84	85.88	-79.34	116.92	317
m00o	57.31	94.35	-58.4	110.96	328
m50o	53.74	85.19	6.14	85.42	4



IE540-7N