

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 22/360 = 0.061$

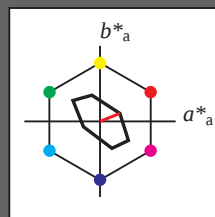
lab^*ich and lab^*nch

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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 22/360 = 0.061$

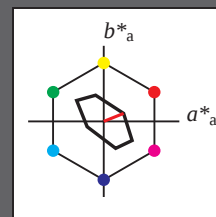
lab^*ich and lab^*nch

D65: hue O

LCH*Ma: 76 28 22

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 16$

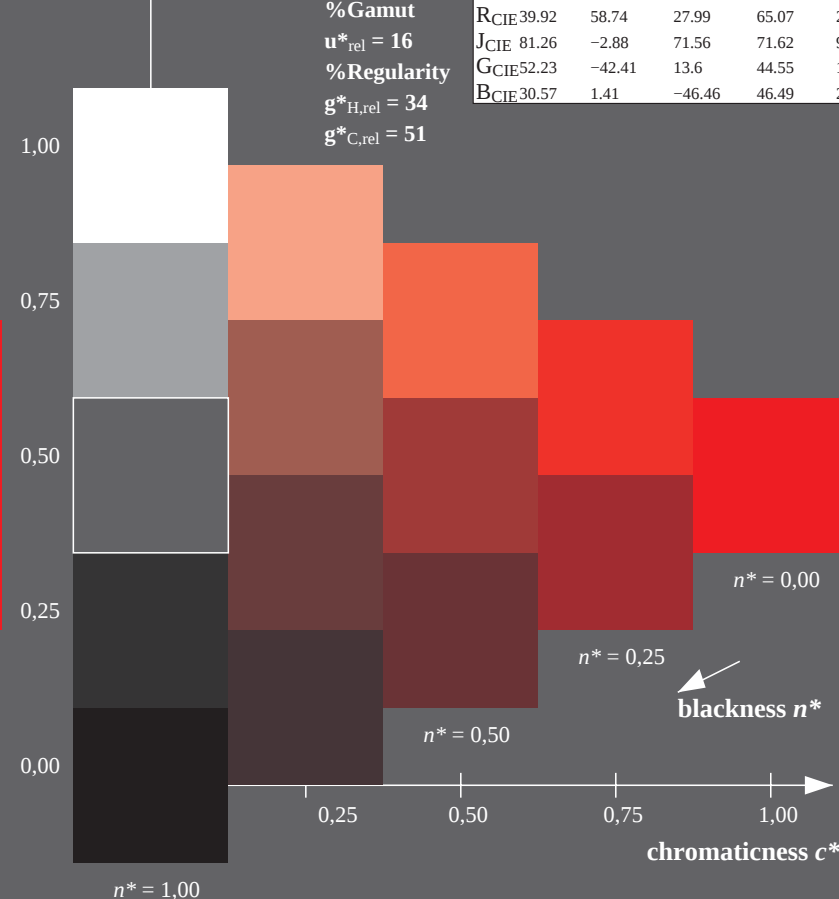
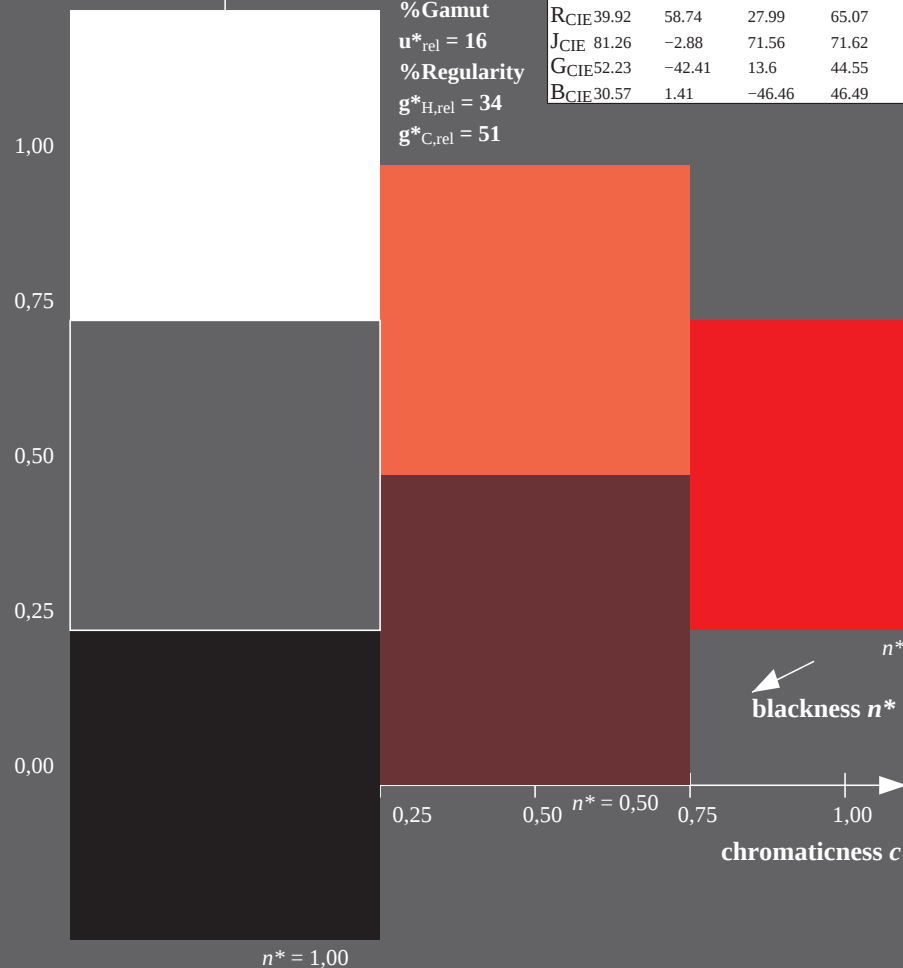
% Regularity

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

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

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIELAB hue 22/360 = 0.061 (left)

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

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70

D65: 3 and 5 step colour scales for 10 hues

input: $cmy0^* setcmykcolor$

output: $cmy0^* / 000n^* setcmykcolor$



Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 107/360 = 0.298$

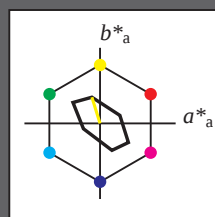
lab^*ich and lab^*nch

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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 107/360 = 0.298$

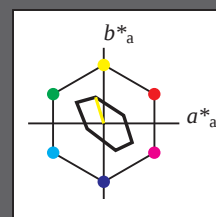
lab^*ich and lab^*nch

D65: hue Y

LCH*Ma: 94 36 107

olv*Ma: 1.0 1.0 0.0

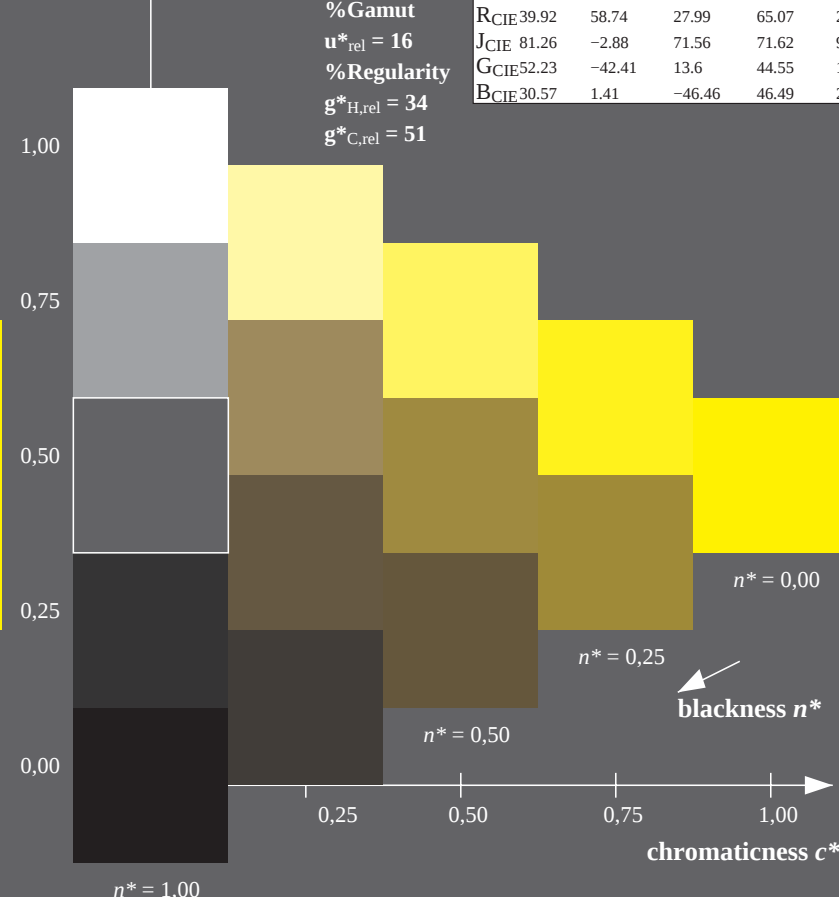
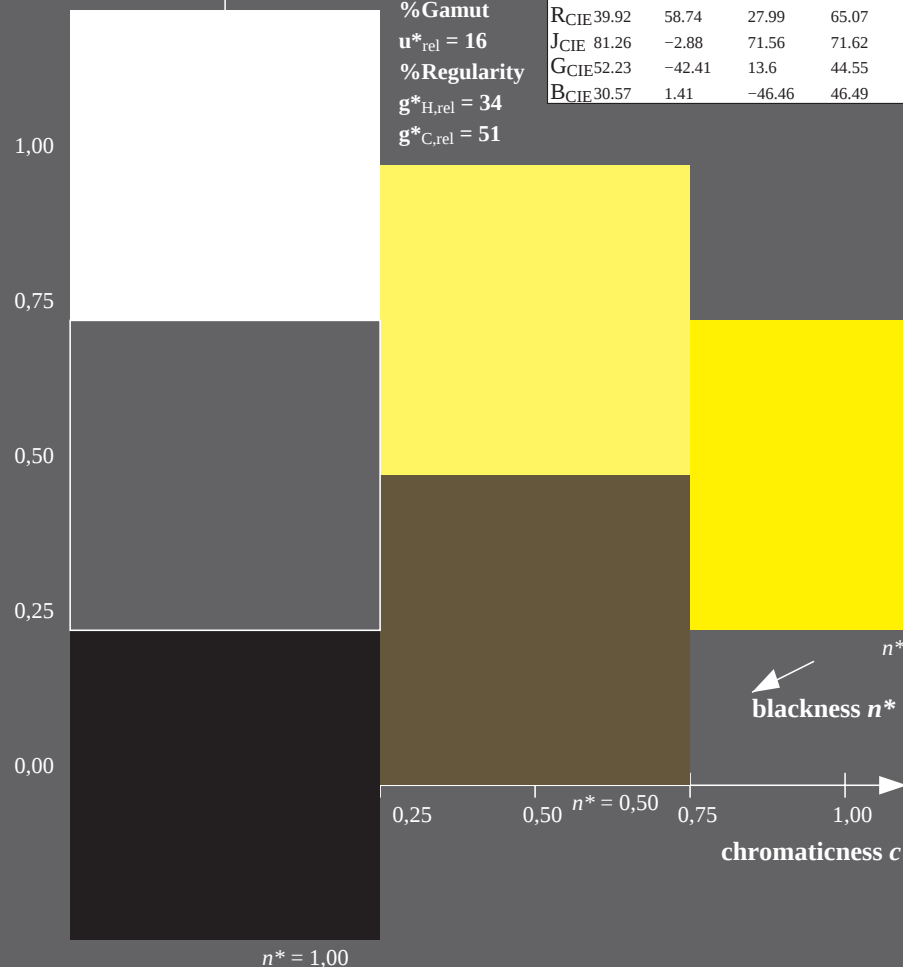
triangle lightness t^*



% 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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIELAB hue 107/360 = 0.298 (left)

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

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70
D65: 3 and 5 step colour scales for 10 hues

input: $cmY0^* setcmykcolor$
output: $cmY0^* / 000n^* setcmykcolor$



Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 142/360 = 0.395$

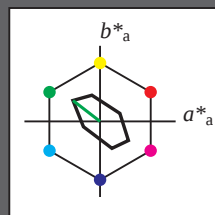
lab^*ich and lab^*nch

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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 142/360 = 0.395$

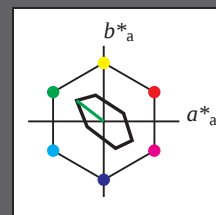
lab^*ich and lab^*nch

D65: hue L

LCH*Ma: 89 45 142

olv*Ma: 0.0 1.0 0.0

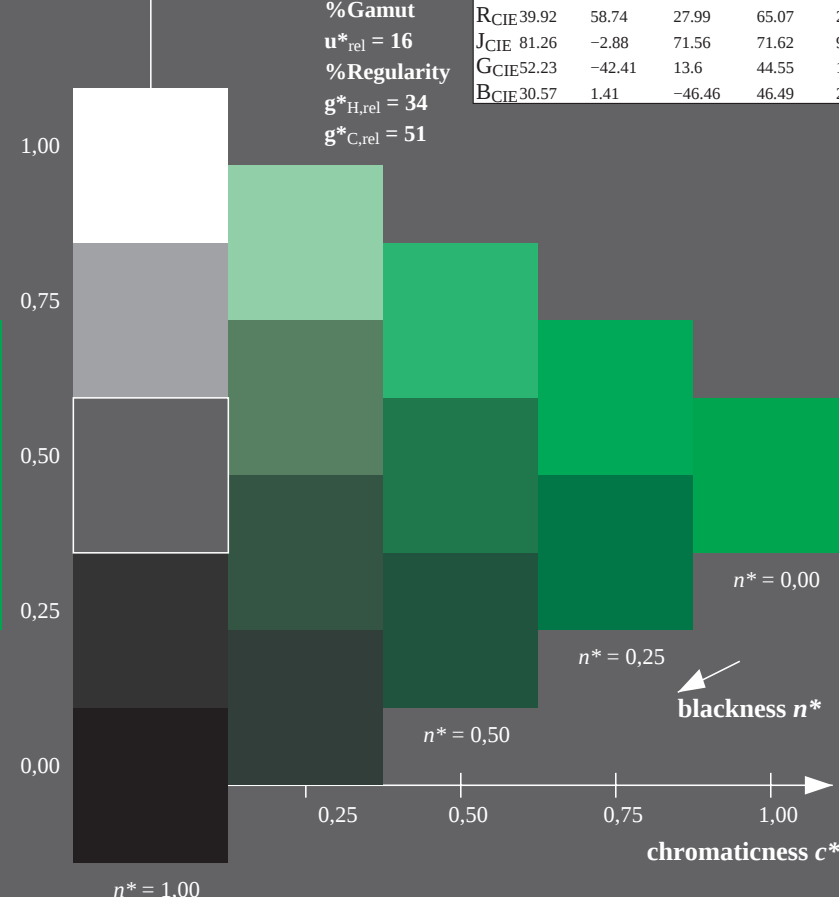
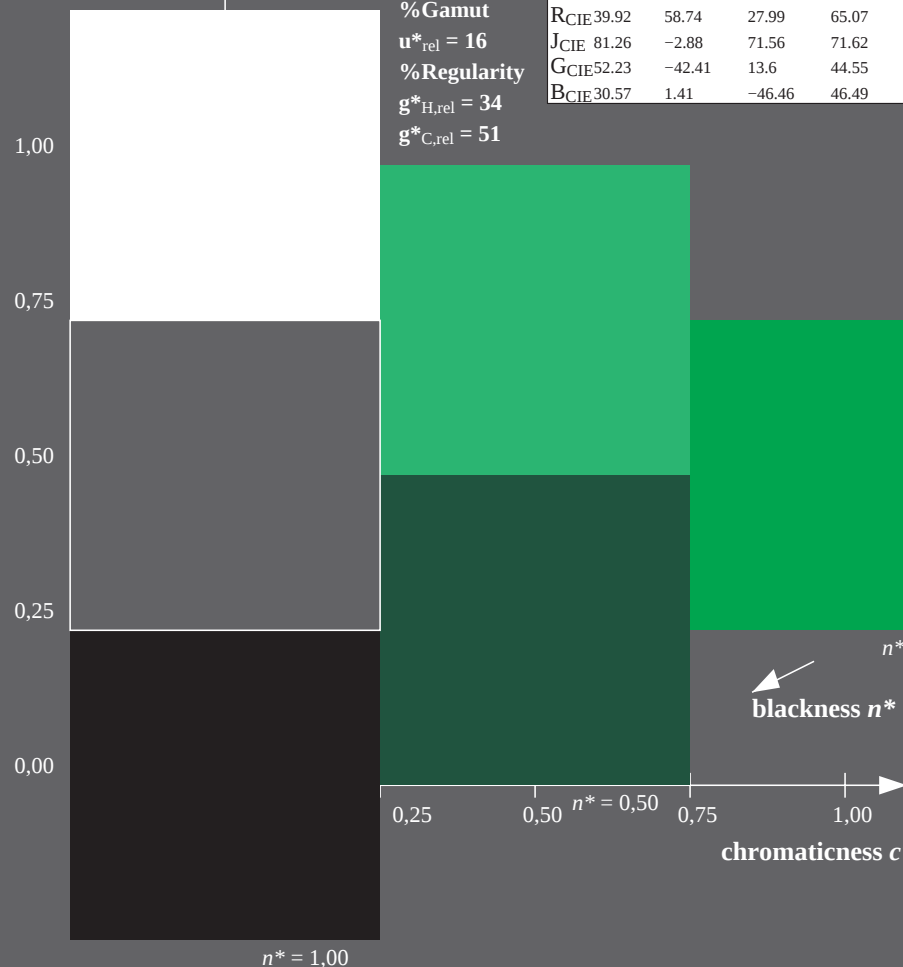
triangle lightness t^*



% 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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIELAB hue 142/360 = 0.395 (left)

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

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70
D65: 3 and 5 step colour scales for 10 hues

input: $cmY0^* setcmykcolor$
output: $cmY0^* / 000n^* setcmykcolor$

Input: Colorimetric Television Luminous System TLS70

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

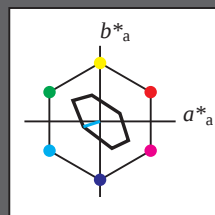
lab^*ich and lab^*nch

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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

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

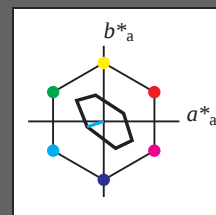
lab^*ich and lab^*nch

D65: hue C

LCH*Ma: 91 23 198

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 16$

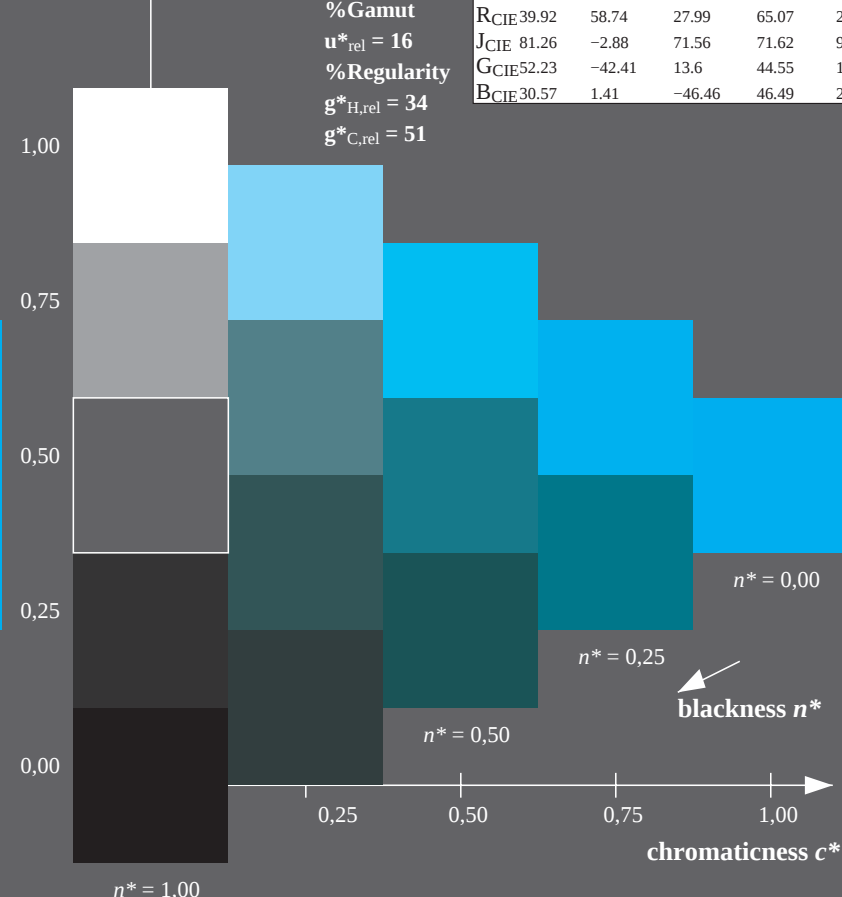
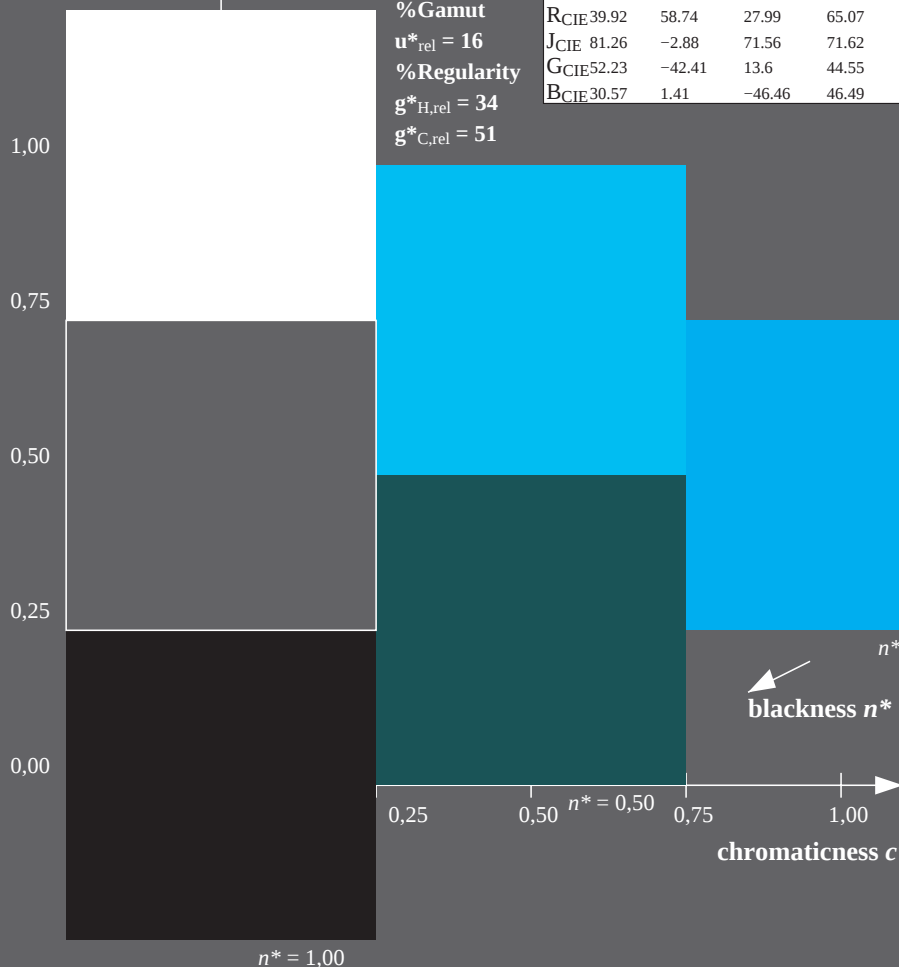
% Regularity

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

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

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIE LAB hue 198/360 = 0.55 (left)

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

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70

D65: 3 and 5 step colour scales for 10 hues

input: $cmy0^* setcmykcolor$

output: $cmy0^* / 000n^* setcmykcolor$

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 294/360 = 0.816$

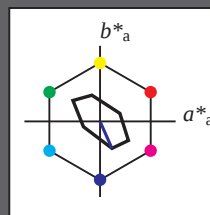
lab^*ich and lab^*nch

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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 294/360 = 0.816$

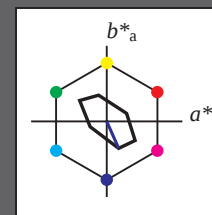
lab^*ich and lab^*nch

D65: hue V

LCH*Ma: 72 39 294

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 16$

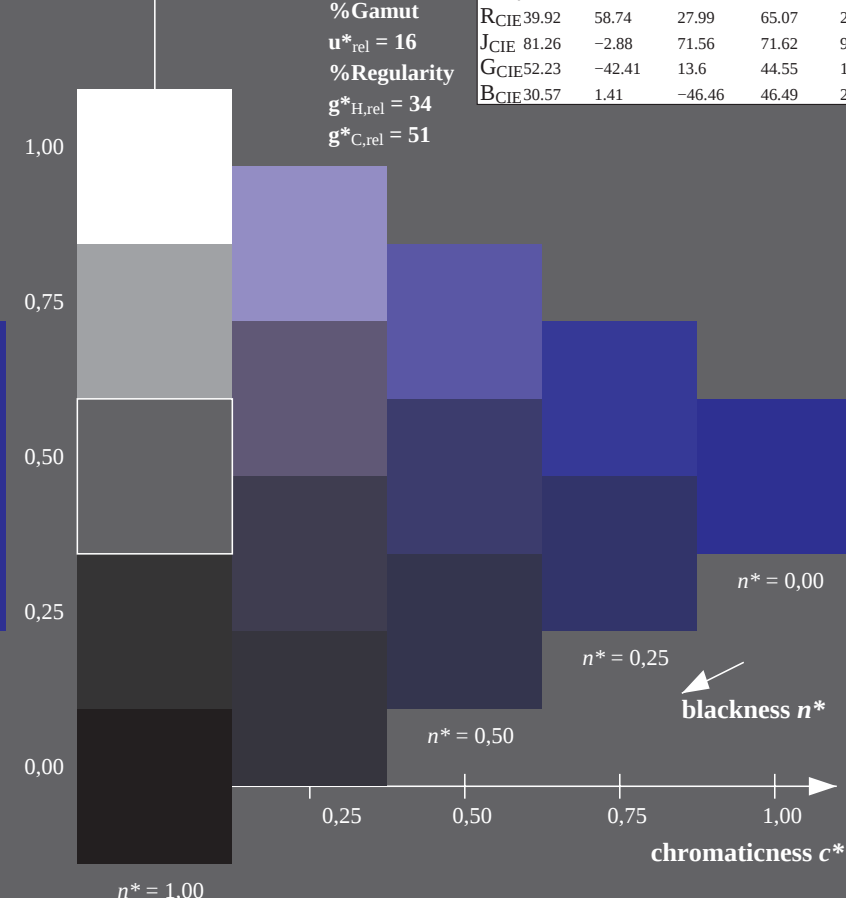
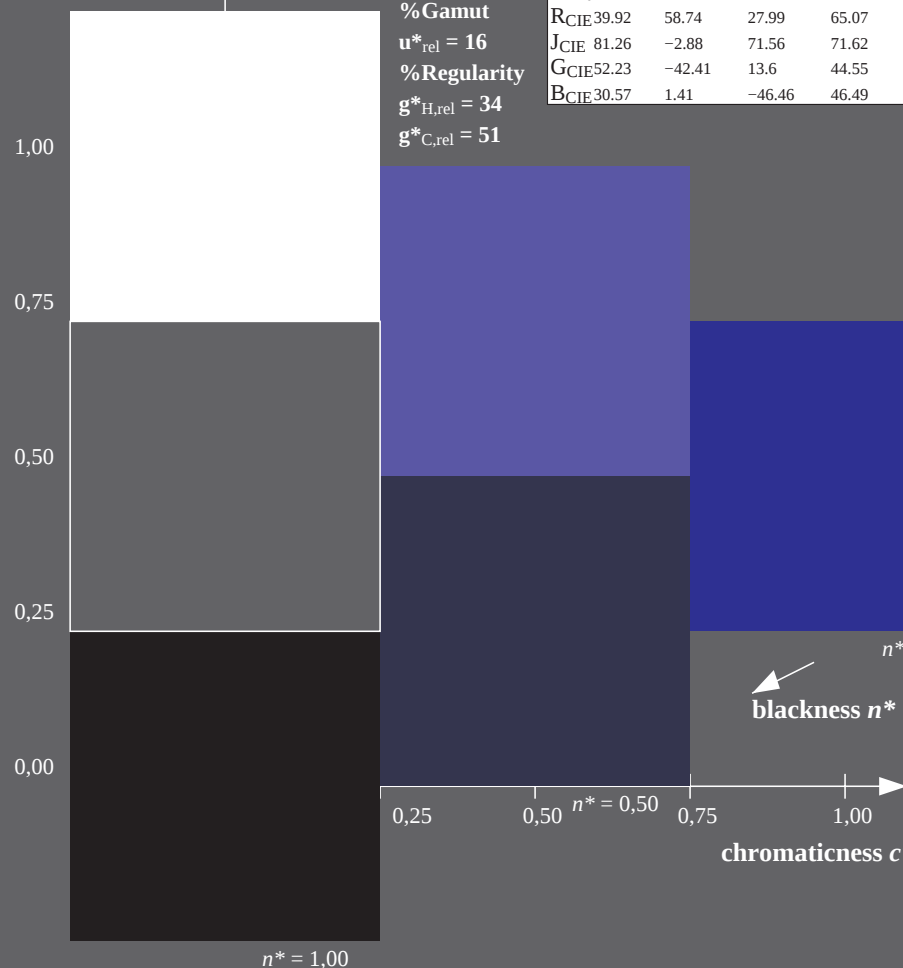
% Regularity

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

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

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIELAB hue 294/360 = 0.816 (left)

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

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70

D65: 3 and 5 step colour scales for 10 hues

input: $cmY0^* setcmykcolor$

output: $cmY0^* / 000n^* setcmykcolor$

See for similar files: <http://www.ps.bam.de/OE89/>
 Technical information: <http://www.ps.bam.de> Version 2.1, io=0,0, CIELAB

Input: Colorimetric Television Luminous System TLS70

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

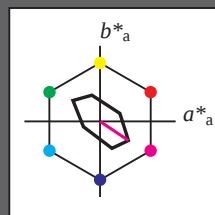
*lab*tch* and *lab*nch*

D65: hue M

LCH*Ma: 79 45 326

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



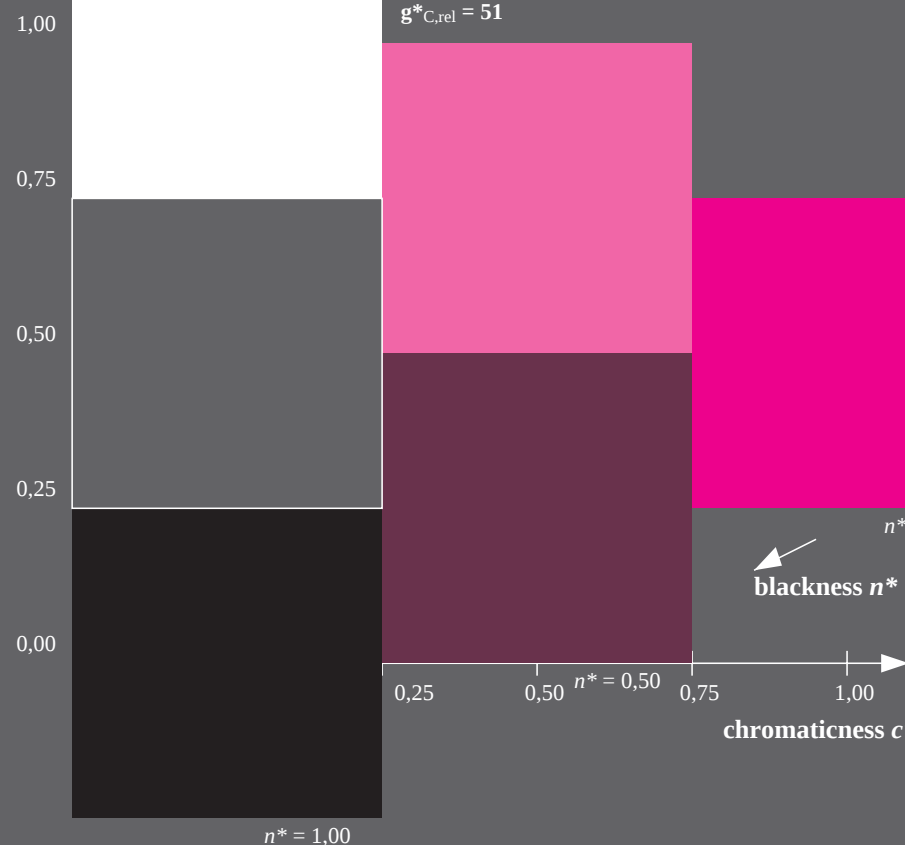
%Gamut

$$\mathbf{u}_{\text{rel}}^* = \mathbf{16}$$

%Regularity

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

TSL70; adapted (a)		CIELAB data			
	L^*_{Ma}	a^*_{Ma}	b^*_{Ma}	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIELAB hue 326/360 = 0.906 (left)

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70

D65: 3 and 5 step colour scales for 10 hues

Output: Colorimetric Television Luminous System TLS70

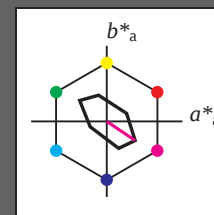
for hue $h^* = lab^*h = 326/360 = 0.906$

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

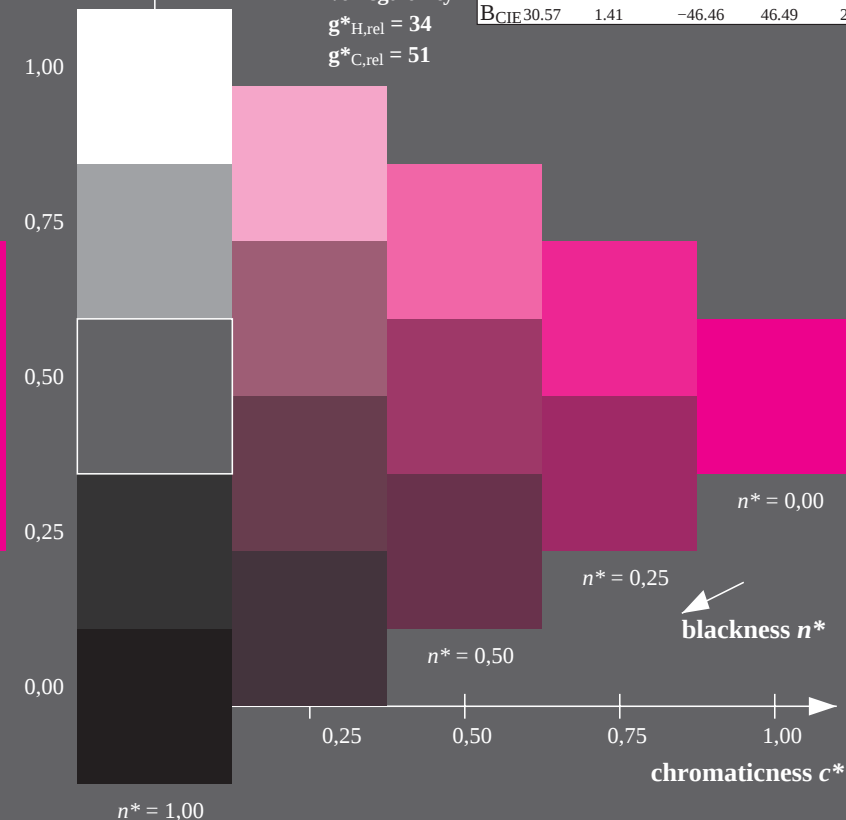
$$\mathbf{u}_{\text{rel}}^* = 16$$

%Regularity

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

g. C, ref. 1

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				
aa		ab				
ac		ad				
ae		af				
ag		ah				
ai		aj				
ak		al				
am		an				
ao		ap				
aq		ar				
as		at				
au		av				
aw		ax				
ay		az				
ba		bb				
bc		bd				
be		bf				
bg		bh				
bi		bj				
bk		bl				
bm		bn				
bo		bp				
bq		br				
bs		bt				
bu		bv				
bw		bx				
by		bz				
ca		cb				
cc		cd				
ce		cf				
cg		ch				
ci		cj				
ck		cl				
cm		cn				
co		cp				
cq		cr				
cs		ct				
cu		cv				
cw		cx				
cy		cz				
da		db				
dc		dd				
de		df				
dg		dh				
di		dj				
dk		dl				
dm		dn				
do		dp				
dq		dr				
ds		dt				
du		dv				
dw		dx				
dy		dz				
ea		eb				
ec		ed				
ee		ef				
eg		eh				
ei		ej				
ek		el				
em		en				
eo		ep				
eq		er				
es		et				
eu		ev				
ew		ex				
ey		ez				
fa		fb				
fc		fd				
fe		ff				
fg		fh				
fi		fj				
fk		fl				
fm		fn				
fo		fp				
fq		fr				
fs		ft				
fu		fv				
fw		fx				
fy		fz				
ga		gb				
gc		gd				
ge		gf				
gg		gh				
gi		gj				
gk		gl				
gm		gn				
go		gp				
gq		gr				
gs		gt				
gu		gv				
gw		gx				
gy		gz				
ha		hb				
hc		hd				
he		hf				
hg		hh				
hi		hj				
hk		hl				
hm		hn				
ho		hp				
hq		hr				
hs		ht				
hu		hv				
hw		hx				
hy		hz				
ia		ib				
ic		id				
ie		if				
ig		ih				
ii		ij				
ik		il				
im		in				
io		ip				
iq		ir				
is		it				
iu		iv				
iw		ix				
iy		iz				
ja		jb				
jc		jd				
je		jf				
jg		jh				
ji		jj				
jk		jl				
jm		jn				
jo		jp				
jq		jr				
js		jt				
ju		jv				
jw		jx				
jy		jz				
ka		kb				
kc		kd				
ke		kf				
kg		kh				
ki		kj				
kk		kl				
km		kn				
ko		kp				



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

input: *cmy0** *setcmykcolor*

```
output: cmy0* / 000n* setcmykcolor
```

See for similar files: <http://www.ps.bam.de/OE89/>
 Technical information: <http://www.ps.bam.de> Version 2.1, io=0,0, CIELAB

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 25/360 = 0.071$

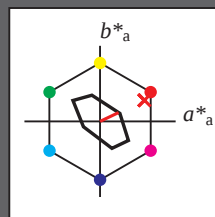
*lab*tch* and *lab*nch*

D65: hue R

LCH*Ma: 77 27 25

olv*Ma: 1.0 0.05 0.0

triangle lightness t^*



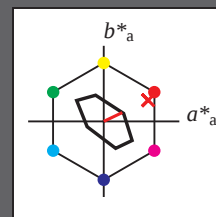
%Gamut

$$\mathbf{u}_{\text{rel}}^* = 16$$

%Regularity

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

TSL70; adapted (a)		CIELAB data			
	L^*_{*a}	a^*_{*a}	b^*_{*a}	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



% Gamut

$$\mathbf{u}_{\text{rel}}^* = 16$$

%Regularity

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

0.5

	TSL70; adapted (a)		CIELAB data		
	L^*_{Ma}	a^*_{Ma}	b^*_{Ma}	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22.1
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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	277

Output: Colorimetric Television Luminous System TLS70

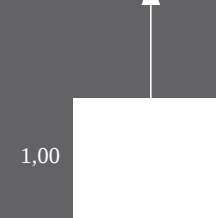
for hue $h^* = lab^*h = 25/360 = 0.071$

*lab*tch* and *lab*nch*

D65: hue R

LCH*Ma: 77 27 25

olv*Ma: 1.0 0.05 0.0

triangle lightness t^* 

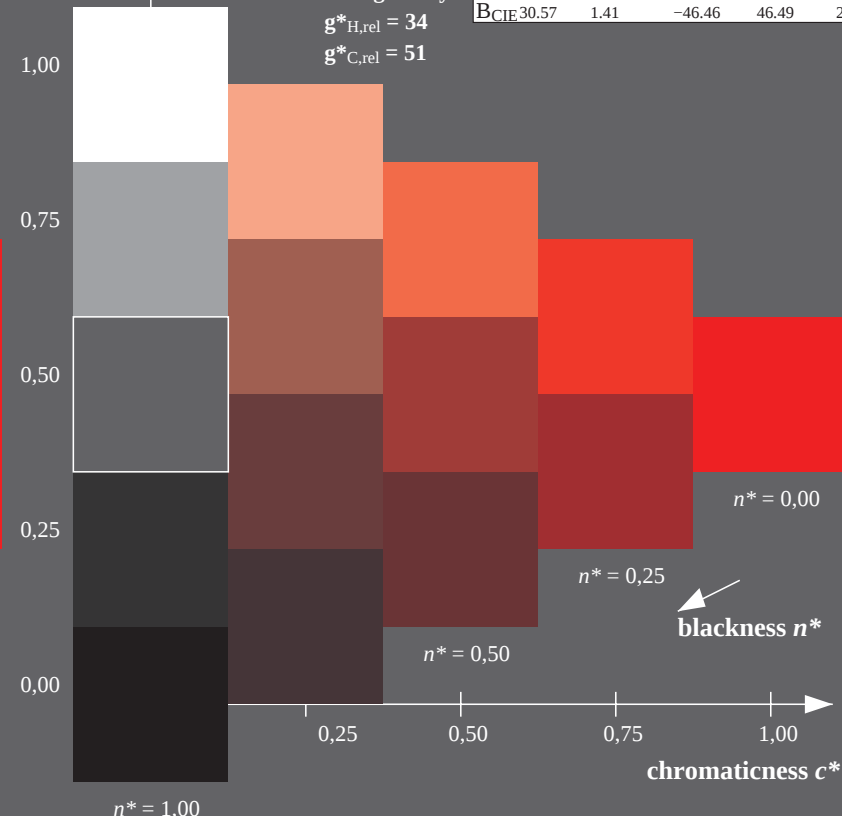
% Gamut

$$\mathbf{u}_{\text{rel}}^* = 16$$

%Regularity

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

0.5



OE890-7, 3 step scales for constant CIELAB hue 25/360 = 0.071 (left)

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

BAM-test chart OE89: Colorimetric systems TLS70 & TLS70

input: *cmy0** *setcmykcolor*

D65: 3 and 5 step colour scales for 10 hues

```
output: cmy0* / 000n* setcmykcolor
```

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 92/360 = 0.256$

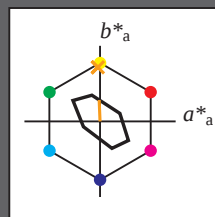
lab^*ich and lab^*nch

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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 92/360 = 0.256$

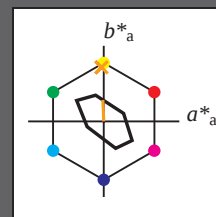
lab^*ich and lab^*nch

D65: hue J

LCH*Ma: 89 28 92

olv*Ma: 1.0 0.74 0.0

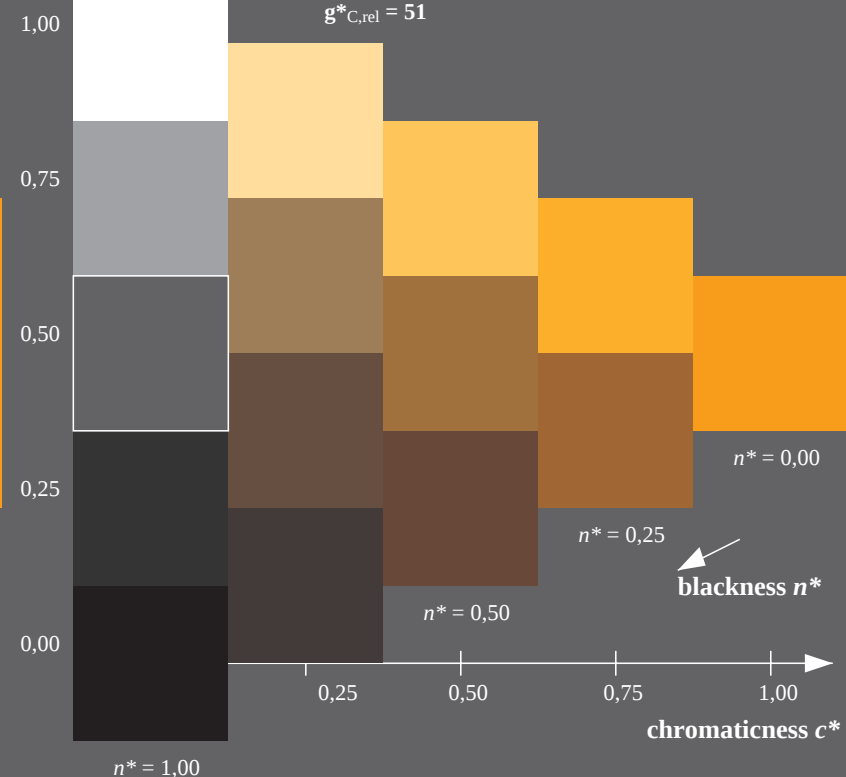
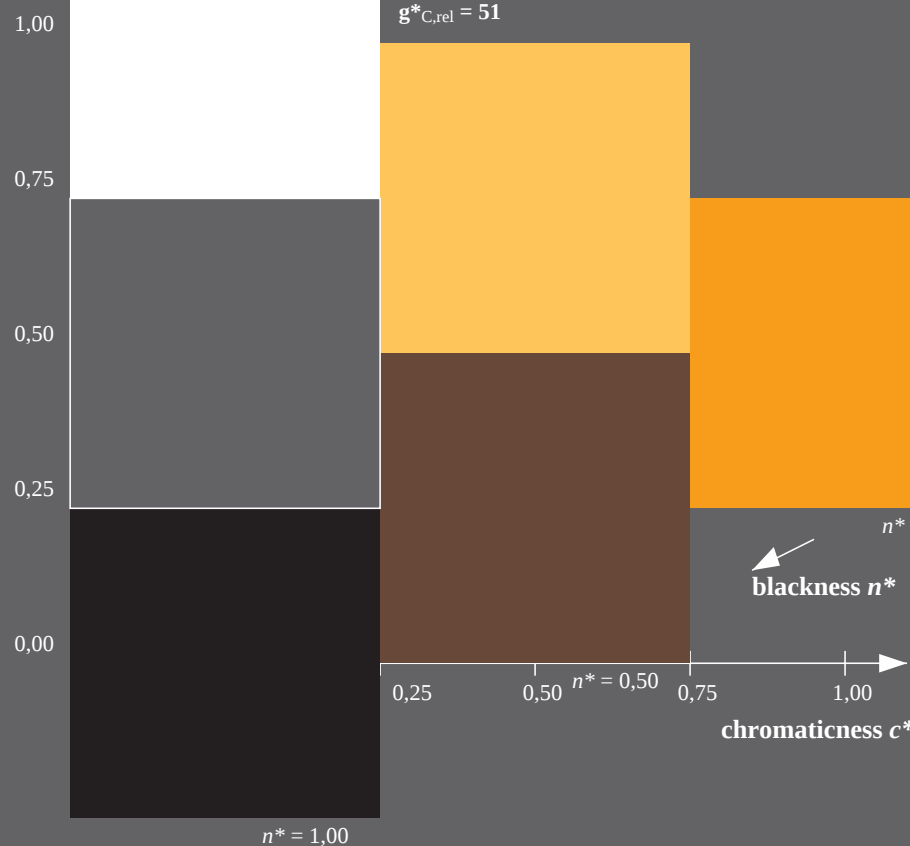
triangle lightness t^*



% 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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIELAB hue 92/360 = 0.256 (left)

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

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70
D65: 3 and 5 step colour scales for 10 hues

input: $cmy0^* setcmykcolor$
output: $cmy0^* / 000n^* setcmykcolor$

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 162/360 = 0.451$

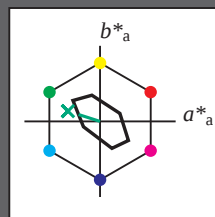
lab^*ich and lab^*nch

D65: hue G

LCH*Ma: 90 30 162

olv*Ma: 0.0 1.0 0.53

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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 162/360 = 0.451$

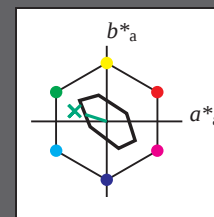
lab^*ich and lab^*nch

D65: hue G

LCH*Ma: 90 30 162

olv*Ma: 0.0 1.0 0.53

triangle lightness t^*



%Gamut

$u^*_{rel} = 16$

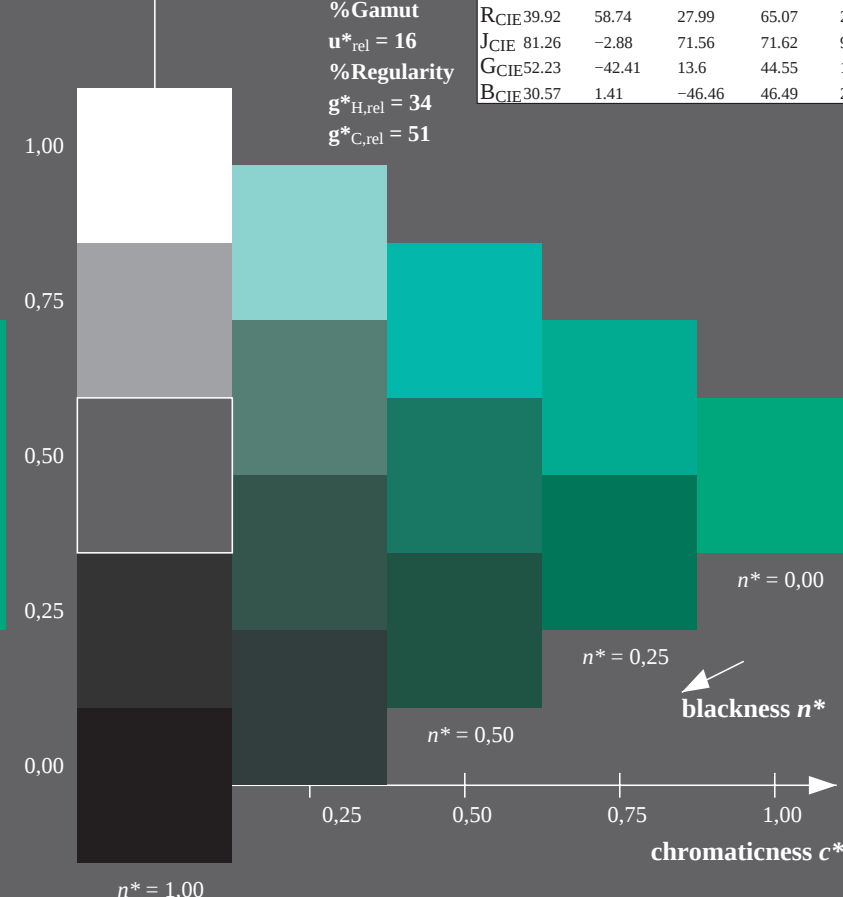
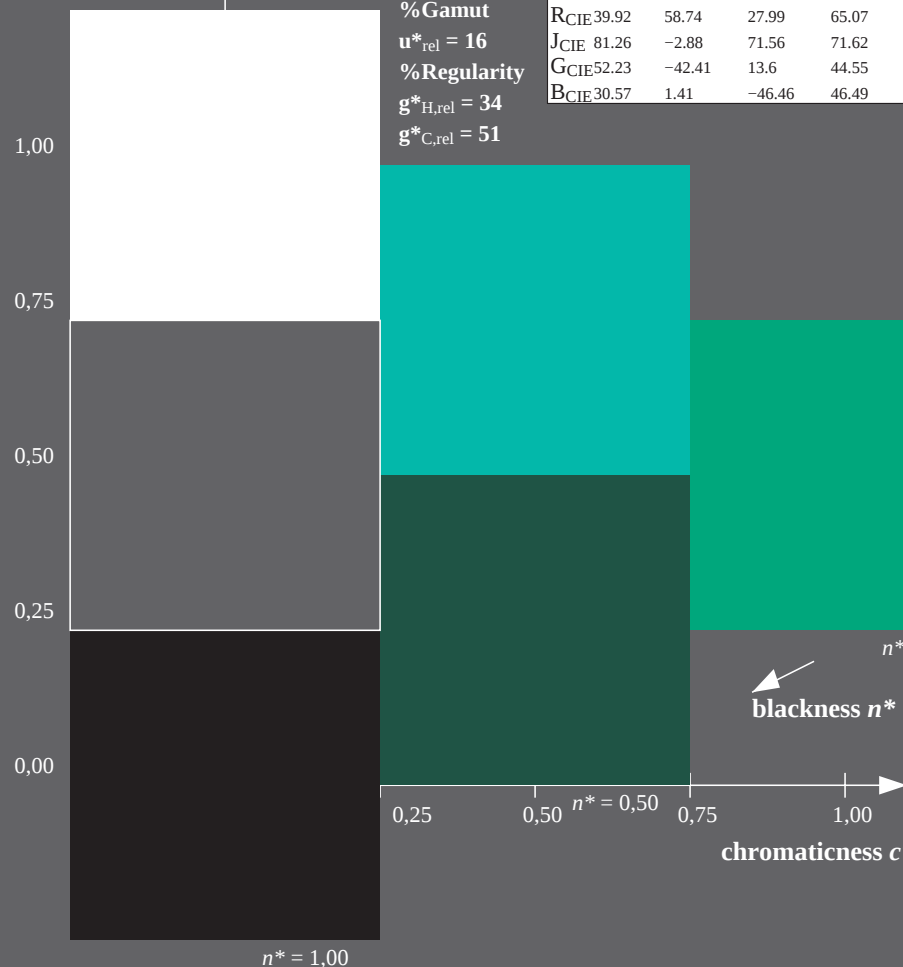
%Regularity

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

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

TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIELAB hue 162/360 = 0.451 (left)

5 step scales for constant CIELAB hue 162/360 = 0.451 (right)

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70

D65: 3 and 5 step colour scales for 10 hues

input: $cmy0^* setcmykcolor$

output: $cmy0^* / 000n^* setcmykcolor$

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 272/360 = 0.755$

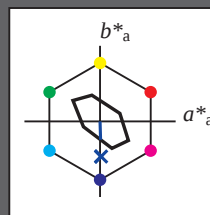
lab^*ich and lab^*nch

D65: hue B

LCH*Ma: 80 24 272

olv*Ma: 0.0 0.4 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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 272/360 = 0.755$

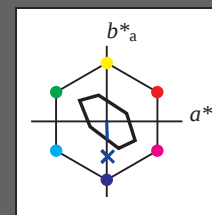
lab^*ich and lab^*nch

D65: hue B

LCH*Ma: 80 24 272

olv*Ma: 0.0 0.4 1.0

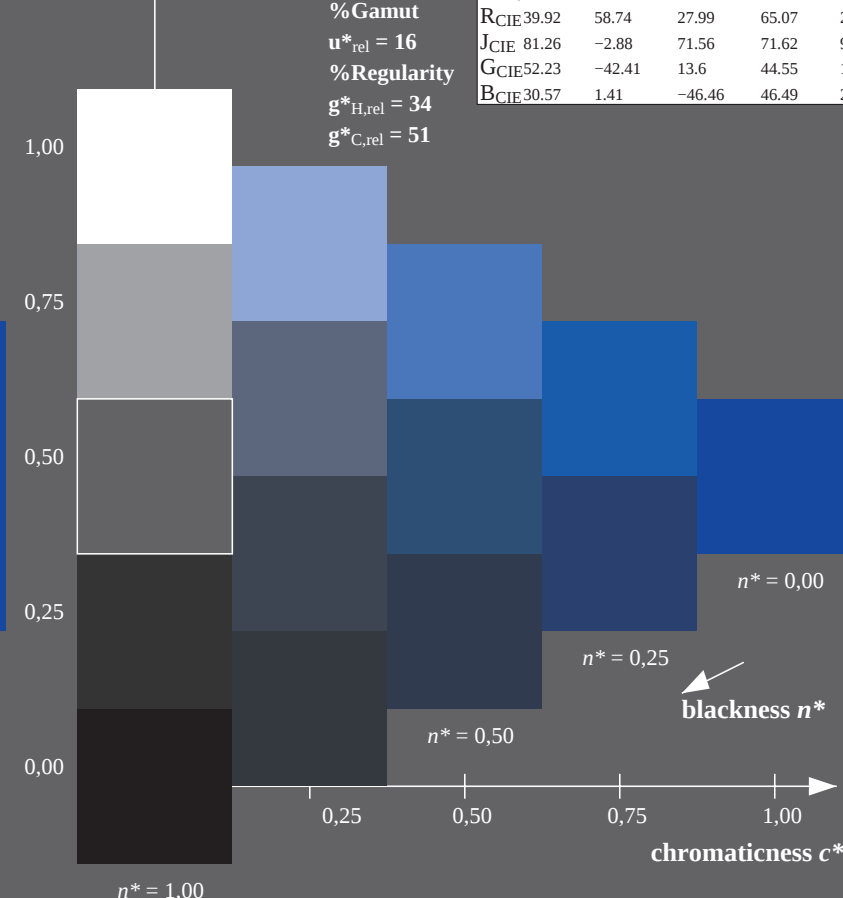
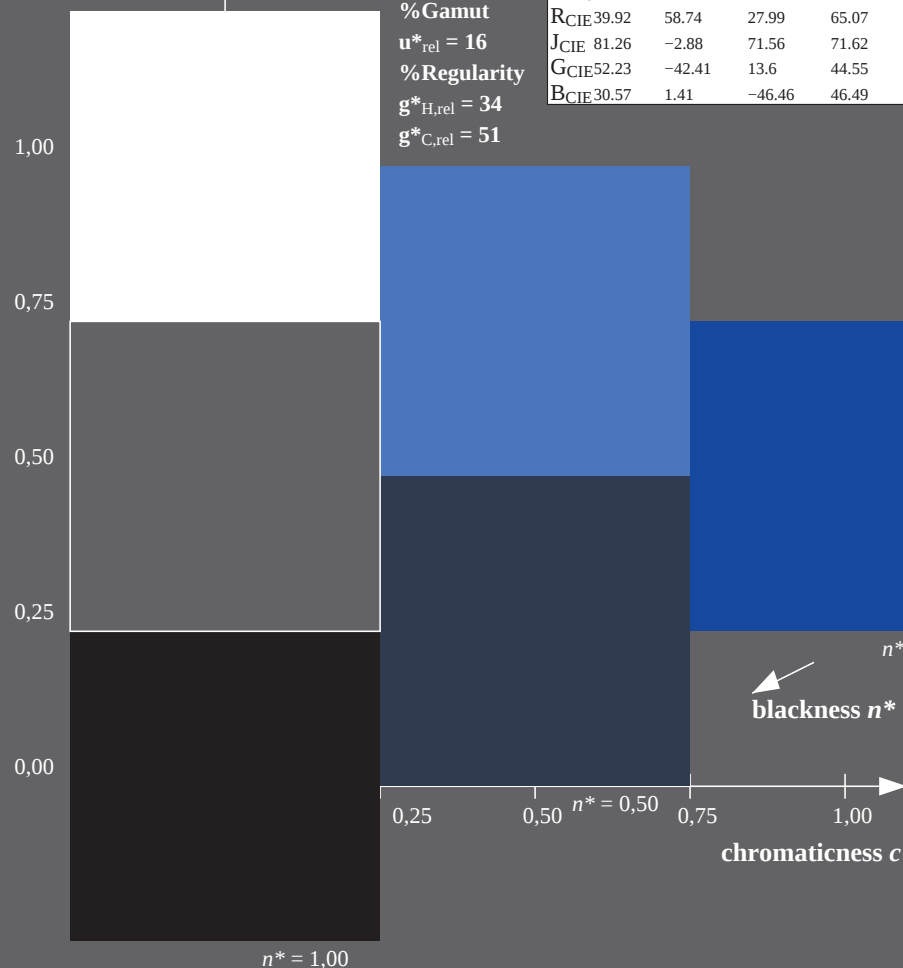
triangle lightness t^*



%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 _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}	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



OE890-7, 3 step scales for constant CIE hue 272/360 = 0.755 (left)

5 step scales for constant CIE hue 272/360 = 0.755 (right)

BAM-test chart OE89; Colorimetric systems TLS70 & TLS70
D65: 3 and 5 step colour scales for 10 hues

input: $cmY0^* setcmykcolor$
output: $cmY0^* / 000n^* setcmykcolor$