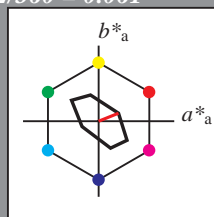


Input: Colorimetric Television Luminous System TLS70

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

D65: hue O
LCH*Ma: 76 28 22
olvi*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
Table with 6 columns: L*, a*, b*, C*_ab,a, h*_ab,a and 6 rows of color data.

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 1.0
cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.0 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 82.56 0.0 0.0
LAB*LABa 82.56 0.0 0.0
LAB*TCHa 50.0 0.0 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 69.7 0.0 0.0
LAB*LABa 69.7 0.0 0.0
LAB*TCHa 0.1 0.0 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

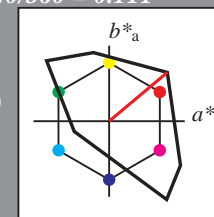
$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 40/360 = 0.111$
 lab^*tch and lab^*nch

D65: hue O
LCH*Ma: 51 100 40
olvi*Ma: 1.0 0.0 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 1.0
cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$

OE180-7, 3 step scales for constant CIELAB hue 22/360 = 0.061 (left)

3 step scales for constant CIELAB hue 40/360 = 0.111 (right)

BAM-test chart OE18; Colorimetric systems TLS70 & TLS00
D65: 2 coordinate data of 3 step colour scales for 10 hues

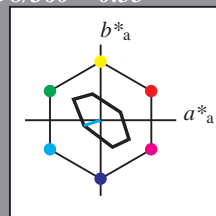
input: *cmly0* setcmlycolor*
output: *cmly0* / 000n* setcmlycolor*

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)
 olvi3* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)
 olvi4* 1.0 1.0 1.0 1.0
 cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
 LAB*LAB 95.41 0.0 0.0
 LAB*LABa 95.41 0.0 0.0
 LAB*TCHa 99.99 0.0 -

relative CIELAB lab*
 lab*lab 1.0 0.0 0.0
 lab*tch 1.0 0.0 -
 lab*nch 0.0 0.0 -

relative Natural Colour (NC)
 lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)
 olvi4* 1.0 1.0 1.0 0.5
 cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
 LAB*LAB 82.56 0.0 0.0
 LAB*LABa 82.56 0.0 0.0
 LAB*TCHa 50.0 0.0 -

relative CIELAB lab*
 lab*lab 0.5 0.0 0.0
 lab*tch 0.5 0.0 -
 lab*nch 0.5 0.0 -

relative Natural Colour (NC)
 lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.0 0.0 0.0 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)
 olvi4* 1.0 1.0 1.0 0.0
 cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
 LAB*LAB 69.7 0.0 0.0
 LAB*LABa 69.7 0.0 0.0
 LAB*TCHa 0.01 0.0 -

relative CIELAB lab*
 lab*lab 0.0 0.0 0.0
 lab*tch 0.0 0.0 -
 lab*nch 1.0 0.0 -

relative Natural Colour (NC)
 lab*lrj 0.0 0.0 0.0
 lab*tce 0.0 0.0 -
 lab*nce 1.0 0.0 -

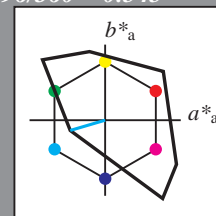
$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 196/360 = 0.545$
 lab^*tch and lab^*nch

D65: hue C
 LCH*Ma: 87 48 196
 olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	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

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)
 olvi3* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)
 olvi4* 1.0 1.0 1.0 1.0
 cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
 LAB*LAB 95.41 0.0 0.0
 LAB*LABa 95.41 0.0 0.0
 LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
 lab*lab 1.0 0.0 0.0
 lab*tch 1.0 0.0 -
 lab*nch 0.0 0.0 -

relative Natural Colour (NC)
 lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)
 olvi4* 1.0 1.0 1.0 0.5
 cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
 LAB*LAB 47.72 0.0 0.0
 LAB*LABa 47.72 0.0 0.0
 LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
 lab*lab 0.5 0.0 0.0
 lab*tch 0.5 0.0 -
 lab*nch 0.5 0.0 -

relative Natural Colour (NC)
 lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
 olvi3* 0.0 0.0 0.0 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)
 olvi4* 1.0 1.0 1.0 0.0
 cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
 LAB*LAB 0.03 0.0 0.0
 LAB*LABa 0.03 0.0 0.0
 LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
 lab*lab 0.0 0.0 0.0
 lab*tch 0.0 0.0 -
 lab*nch 1.0 0.0 -

relative Natural Colour (NC)
 lab*lrj 0.0 0.0 0.0
 lab*tce 0.0 0.0 -
 lab*nce 1.0 0.0 -

$n^* = 1.0$

relative Inform. Technology (IT)
 olvi3* 0.5 1.0 1.0 (1.0)
 cmyn3* 0.5 0.0 0.0 (0.0)
 olvi4* 0.5 1.0 1.0 1.0
 cmyn4* 0.5 0.0 0.0 0.0

standard and adapted CIELAB
 LAB*LAB 91.14 -23.07 -6.77
 LAB*LABa 91.14 -23.07 -6.77
 LAB*TCHa 75.0 24.06 196.37

relative CIELAB lab*
 lab*lab 0.955 -0.479 -0.14
 lab*tch 0.75 0.5 0.545
 lab*nch 0.0 0.5 0.545

relative Natural Colour (NC)
 lab*lrj 0.955 -0.44 -0.234
 lab*tce 0.75 0.5 0.578
 lab*nce 0.0 0.5 g31b

relative Inform. Technology (IT)
 olvi3* 0.0 0.5 0.5 (1.0)
 cmyn3* 1.0 0.5 0.5 (0.0)
 olvi4* 0.5 1.0 1.0 0.5
 cmyn4* 0.5 0.0 0.0 0.5

standard and adapted CIELAB
 LAB*LAB 43.45 -23.07 -6.77
 LAB*LABa 43.45 -23.07 -6.77
 LAB*TCHa 25.01 24.06 196.37

relative CIELAB lab*
 lab*lab 0.455 -0.479 -0.14
 lab*tch 0.25 0.5 0.545
 lab*nch 0.5 0.5 0.545

relative Natural Colour (NC)
 lab*lrj 0.455 -0.44 -0.234
 lab*tce 0.25 0.5 0.578
 lab*nce 0.5 0.5 g31b

relative Inform. Technology (IT)
 olvi3* 0.0 1.0 1.0 (1.0)
 cmyn3* 1.0 0.0 0.0 (0.0)
 olvi4* 0.0 1.0 1.0 1.0
 cmyn4* 1.0 0.0 0.0 0.0

standard and adapted CIELAB
 LAB*LAB 86.87 -46.15 -13.55
 LAB*LABa 86.87 -46.15 -13.55
 LAB*TCHa 50.0 48.11 196.37

relative CIELAB lab*
 lab*lab 0.911 -0.958 -0.281
 lab*tch 0.5 1.0 0.545
 lab*nch 0.0 1.0 0.545

relative Natural Colour (NC)
 lab*lrj 0.911 -0.881 -0.469
 lab*tce 0.5 1.0 0.578
 lab*nce 0.0 1.0 g31b

$n^* = 0.00$

$n^* = 0.00$

blackness n^*

chromaticness c^*

blackness n^*

chromaticness c^*

$n^* = 0.50$

$n^* = 0.50$

OE180-7, 3 step scales for constant CIELAB hue 198/360 = 0.55 (left)

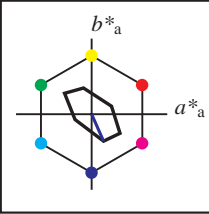
3 step scales for constant CIELAB hue 196/360 = 0.545 (right)

BAM-test chart OE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 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^*tch and lab^*nch

D65: hue V
LCH*Ma: 72 39 294
olv*Ma: 0.0 0.0 1.0
triangle lightness t^*



TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	76.43	26.27	10.57	28.32	22
YMa	93.93	-10.76	34.63	36.27	107
LMa	89.32	-35.8	27.64	45.24	142
CMa	90.93	-21.95	-7.07	23.07	198
VMa	72.1	15.76	-35.63	38.97	294
MMa	78.5	37.52	-25.23	45.22	326
NMa	69.7	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 1.0
cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.0 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olvi3* 0.5 0.5 1.0 (1.0)
cmyn3* 0.5 0.5 0.0 (0.0)
olvi4* 0.5 0.5 1.0 1.0
cmyn4* 0.5 0.5 0.0 0.0

standard and adapted CIELAB
LAB*LAB 83.75 7.88 -17.81
LAB*LABa 83.75 7.88 -17.81
LAB*TCHa 75.0 19.48 293.86

relative CIELAB lab*
lab*lab 0.547 0.202 -0.816
lab*tch 0.75 0.5 0.816
lab*nch 0.0 0.5 0.816

relative Natural Colour (NC)
lab*lrj 0.547 0.15 -0.476
lab*tce 0.75 0.5 0.799
lab*nce 0.0 0.5 b19r

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 82.56 0.0 0.0
LAB*LABa 82.56 0.0 0.0
LAB*TCHa 50.0 0.0 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.5 (1.0)
cmyn3* 1.0 1.0 0.5 (0.0)
olvi4* 0.5 0.5 1.0 0.5
cmyn4* 0.5 0.5 0.0 0.5

standard and adapted CIELAB
LAB*LAB 70.9 7.88 -17.81
LAB*LABa 70.9 7.88 -17.81
LAB*TCHa 25.01 19.48 293.86

relative CIELAB lab*
lab*lab 0.047 0.202 -0.456
lab*tch 0.25 0.5 0.816
lab*nch 0.5 0.5 0.816

relative Natural Colour (NC)
lab*lrj 0.047 0.15 -0.476
lab*tce 0.25 0.5 0.799
lab*nce 0.5 0.5 b19r

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 69.7 0.0 0.0
LAB*LABa 69.7 0.0 0.0
LAB*TCHa 0.01 0.0 -

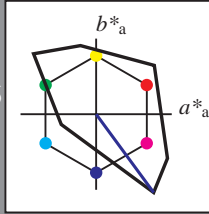
relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00
for hue $h^* = lab^*h = 306/360 = 0.851$
 lab^*tch and lab^*nch

D65: hue V
LCH*Ma: 30 129 306
olv*Ma: 0.0 0.0 1.0
triangle lightness t^*



relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 1.0
cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

%Gamut
 $u^*_{rel} = 158$
%Regularity
 $g^*_{H,rel} = 20$
 $g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

relative Inform. Technology (IT)
olvi3* 0.5 0.5 1.0 (1.0)
cmyn3* 0.5 0.5 0.0 (0.0)
olvi4* 0.5 0.5 1.0 1.0
cmyn4* 0.5 0.5 0.0 0.0

standard and adapted CIELAB
LAB*LAB 62.9 38.02 -51.78
LAB*LABa 62.9 38.02 -51.78
LAB*TCHa 75.0 64.25 306.29

relative CIELAB lab*
lab*lab 0.659 0.296 -0.402
lab*tch 0.75 0.5 0.851
lab*nch 0.0 0.5 0.851

relative Natural Colour (NC)
lab*lrj 0.659 0.23 -0.443
lab*tce 0.75 0.5 0.826
lab*nce 0.0 0.5 b30r

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 0.5 0.5 1.0 1.0
cmyn4* 0.5 0.5 0.0 0.5

standard and adapted CIELAB
LAB*LAB 62.9 38.02 -51.78
LAB*LABa 62.9 38.02 -51.78
LAB*TCHa 75.0 64.25 306.29

relative CIELAB lab*
lab*lab 0.659 0.296 -0.402
lab*tch 0.75 0.5 0.851
lab*nch 0.0 0.5 0.851

relative Natural Colour (NC)
lab*lrj 0.659 0.23 -0.443
lab*tce 0.75 0.5 0.826
lab*nce 0.0 0.5 b30r

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.5 (1.0)
cmyn3* 1.0 1.0 0.5 (0.0)
olvi4* 0.5 0.5 1.0 0.5
cmyn4* 0.5 0.5 0.0 0.5

standard and adapted CIELAB
LAB*LAB 15.21 38.02 -51.78
LAB*LABa 15.21 38.02 -51.78
LAB*TCHa 25.01 64.25 306.29

relative CIELAB lab*
lab*lab 0.159 0.296 -0.402
lab*tch 0.25 0.5 0.851
lab*nch 0.5 0.5 0.851

relative Natural Colour (NC)
lab*lrj 0.159 0.23 -0.443
lab*tce 0.25 0.5 0.826
lab*nce 0.5 0.5 b30r

relative Inform. Technology (IT)
olvi3* 0.0 0.0 1.0 (1.0)
cmyn3* 1.0 1.0 0.0 (0.0)
olvi4* 0.0 0.0 1.0 1.0
cmyn4* 1.0 1.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 30.39 76.04 -103.57
LAB*LABa 30.39 76.04 -103.57
LAB*TCHa 50.0 128.5 306.29

relative CIELAB lab*
lab*lab 0.318 0.592 -0.805
lab*tch 0.5 1.0 0.851
lab*nch 0.0 1.0 0.851

relative Natural Colour (NC)
lab*lrj 0.318 0.459 -0.887
lab*tce 0.5 1.0 0.826
lab*nce 0.0 1.0 b30r

$n^* = 0.00$

$n^* = 0.00$

chromaticness c^*

chromaticness c^*

$n^* = 1.0$

OE180-7, 3 step scales for constant CIELAB hue 294/360 = 0.816 (left)

3 step scales for constant CIELAB hue 306/360 = 0.851 (right)

BAM-test chart OE18; Colorimetric systems TLS70 & TLS00
D65: 2 coordinate data of 3 step colour scales for 10 hues

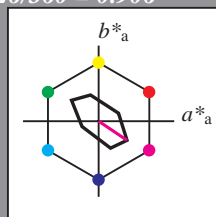
input: $cmY0^* \text{ setcmYkcolor}$
output: $cmY0^* / 000n^* \text{ setcmYkcolor}$

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^*



TLS70; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	76.43	26.27	10.57	28.32	22
YMa	93.93	-10.76	34.63	36.27	107
LMa	89.32	-35.8	27.64	45.24	142
CMa	90.93	-21.95	-7.07	23.07	198
VMa	72.1	15.76	-35.63	38.97	294
MMa	78.5	37.52	-25.23	45.22	326
NMa	69.7	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 95.41 \ 0.0 \ 0.0$
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$
 $LAB^*TCHa = 99.99 \ 0.0 \ -$

relative CIELAB lab*
 $lab^*lab = 1.0 \ 0.0 \ 0.0$
 $lab^*tch = 1.0 \ 0.0 \ -$
 $lab^*nch = 0.0 \ 0.0 \ -$

relative Natural Colour (NC)
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$
 $lab^*tce = 1.0 \ 0.0 \ -$
 $lab^*nce = 0.0 \ 0.0 \ -$

relative Inform. Technology (IT)
 $olvi3^* = 1.0 \ 0.5 \ 1.0 \ (1.0)$
 $cmyn3^* = 0.0 \ 0.5 \ 0.0 \ (0.0)$
 $olvi4^* = 1.0 \ 0.5 \ 1.0 \ 1.0$
 $cmyn4^* = 0.0 \ 0.5 \ 0.0 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 86.95 \ 18.76 \ -12.61$
 $LAB^*LABa = 86.95 \ 18.76 \ -12.61$
 $LAB^*TCHa = 75.0 \ 22.61 \ 326.07$

relative CIELAB lab*
 $lab^*lab = 0.671 \ 0.415 \ -0.278$
 $lab^*tch = 0.75 \ 0.5 \ 0.906$
 $lab^*nch = 0.0 \ 0.5 \ 0.906$

relative Natural Colour (NC)
 $lab^*lrj = 0.671 \ 0.341 \ -0.365$
 $lab^*tce = 0.75 \ 0.5 \ 0.869$
 $lab^*nce = 0.0 \ 0.5 \ b47r$

relative Inform. Technology (IT)
 $olvi3^* = 0.5 \ 0.0 \ 0.5 \ (1.0)$
 $cmyn3^* = 0.5 \ 1.0 \ 0.5 \ (0.0)$
 $olvi4^* = 1.0 \ 0.5 \ 1.0 \ 0.5$
 $cmyn4^* = 0.0 \ 0.5 \ 0.0 \ 0.5$

standard and adapted CIELAB
 $LAB^*LAB = 74.1 \ 18.76 \ -12.61$
 $LAB^*LABa = 74.1 \ 18.76 \ -12.61$
 $LAB^*TCHa = 25.01 \ 22.61 \ 326.07$

relative CIELAB lab*
 $lab^*lab = 0.171 \ 0.415 \ -0.278$
 $lab^*tch = 0.25 \ 0.5 \ 0.906$
 $lab^*nch = 0.5 \ 0.5 \ 0.906$

relative Natural Colour (NC)
 $lab^*lrj = 0.171 \ 0.341 \ -0.365$
 $lab^*tce = 0.25 \ 0.5 \ 0.869$
 $lab^*nce = 0.5 \ 0.5 \ b47r$

$n^* = 0.50$

relative Inform. Technology (IT)
 $olvi3^* = 1.0 \ 0.0 \ 1.0 \ (1.0)$
 $cmyn3^* = 0.0 \ 1.0 \ 0.0 \ (0.0)$
 $olvi4^* = 1.0 \ 0.0 \ 1.0 \ 1.0$
 $cmyn4^* = 0.0 \ 1.0 \ 0.0 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 78.5 \ 37.51 \ -25.22$
 $LAB^*LABa = 78.5 \ 37.51 \ -25.22$
 $LAB^*TCHa = 50.0 \ 45.21 \ 326.07$

relative CIELAB lab*
 $lab^*lab = 0.342 \ 0.83 \ -0.557$
 $lab^*tch = 0.5 \ 1.0 \ 0.906$
 $lab^*nch = 0.0 \ 1.0 \ 0.906$

relative Natural Colour (NC)
 $lab^*lrj = 0.342 \ 0.682 \ -0.73$
 $lab^*tce = 0.5 \ 1.0 \ 0.869$
 $lab^*nce = 0.0 \ 1.0 \ b47r$

$n^* = 0.00$

blackness n^*

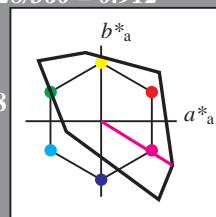
chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 328/360 = 0.912$
 lab^*tch and lab^*nch

D65: hue M
 LCH*Ma: 57 111 328
 olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 95.41 \ 0.0 \ 0.0$
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$
 $LAB^*TCHa = 99.99 \ 0.01 \ -$

relative CIELAB lab*
 $lab^*lab = 1.0 \ 0.0 \ 0.0$
 $lab^*tch = 1.0 \ 0.0 \ -$
 $lab^*nch = 0.0 \ 0.0 \ -$

relative Natural Colour (NC)
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$
 $lab^*tce = 1.0 \ 0.0 \ -$
 $lab^*nce = 0.0 \ 0.0 \ -$

relative Inform. Technology (IT)
 $olvi3^* = 1.0 \ 0.5 \ 1.0 \ (1.0)$
 $cmyn3^* = 0.0 \ 0.5 \ 0.0 \ (0.0)$
 $olvi4^* = 1.0 \ 0.5 \ 1.0 \ 1.0$
 $cmyn4^* = 0.0 \ 0.5 \ 0.0 \ 0.0$

standard and adapted CIELAB
 $LAB^*LAB = 76.35 \ 47.17 \ -29.19$
 $LAB^*LABa = 76.35 \ 47.17 \ -29.19$
 $LAB^*TCHa = 75.0 \ 55.47 \ 328.23$

relative CIELAB lab*
 $lab^*lab = 0.8 \ 0.425 \ -0.262$
 $lab^*tch = 0.75 \ 0.5 \ 0.912$
 $lab^*nch = 0.0 \ 0.5 \ 0.912$

relative Natural Colour (NC)
 $lab^*lrj = 0.8 \ 0.352 \ -0.354$
 $lab^*tce = 0.75 \ 0.5 \ 0.874$
 $lab^*nce = 0.0 \ 0.5 \ b49r$

relative Inform. Technology (IT)
 $olvi3^* = 0.5 \ 0.0 \ 0.5 \ (1.0)$
 $cmyn3^* = 0.5 \ 1.0 \ 0.5 \ (0.0)$
 $olvi4^* = 1.0 \ 0.5 \ 1.0 \ 0.5$
 $cmyn4^* = 0.0 \ 0.5 \ 0.0 \ 0.5$

standard and adapted CIELAB
 $LAB^*LAB = 28.66 \ 47.17 \ -29.19$
 $LAB^*LABa = 28.66 \ 47.17 \ -29.19$
 $LAB^*TCHa = 25.01 \ 55.47 \ 328.23$

relative CIELAB lab*
 $lab^*lab = 0.3 \ 0.425 \ -0.262$
 $lab^*tch = 0.25 \ 0.5 \ 0.912$
 $lab^*nch = 0.5 \ 0.5 \ 0.912$

relative Natural Colour (NC)
 $lab^*lrj = 0.3 \ 0.352 \ -0.354$
 $lab^*tce = 0.25 \ 0.5 \ 0.874$
 $lab^*nce = 0.5 \ 0.5 \ b49r$

$n^* = 0.50$

blackness n^*

chromaticness c^*

relative Inform. Technology (IT)
 $olvi3^* = 0.0 \ 0.0 \ 0.0 \ (1.0)$
 $cmyn3^* = 1.0 \ 1.0 \ 0.0 \ (0.0)$
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.0$
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 1.0$

standard and adapted CIELAB
 $LAB^*LAB = 0.03 \ 0.0 \ 0.0$
 $LAB^*LABa = 0.03 \ 0.0 \ 0.0$
 $LAB^*TCHa = 0.01 \ 0.01 \ -$

relative CIELAB lab*
 $lab^*lab = 0.0 \ 0.0 \ 0.0$
 $lab^*tch = 0.0 \ 0.0 \ -$
 $lab^*nch = 1.0 \ 0.0 \ -$

relative Natural Colour (NC)
 $lab^*lrj = 0.0 \ 0.0 \ 0.0$
 $lab^*tce = 0.0 \ 0.0 \ -$
 $lab^*nce = 1.0 \ 0.0 \ -$

$n^* = 1.0$

BAM-test chart OE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

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

See for similar files: <http://www.ps.bam.de/OE18/>
 Technical information: <http://www.ps.bam.de>
 Version 2.1, io=0.0, CIELAB

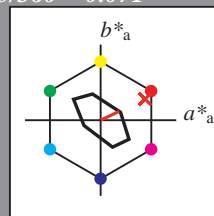
BAM registration: 20060101-OE18/10L/L18E05FP.PS/.PDF BAM material: code=rh4ta
 application for evaluation and measurement of printer or monitor systems
 /OE18 Form 6/10, Serie: 1/1, Page: 6 Page count: 6

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^*



TLS70; adapted (a) CIELAB data

	L^*	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
 $u^*_{rel} = 16$
%Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

relative Inform. Technology (IT)
olv_{i3}* 1.0 1.0 1.0 (1.0)
cmyn₃* 0.0 0.0 0.0 (0.0)
olv_{i4}* 1.0 1.0 1.0 1.0
cmyn₄* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.0 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv_{i3}* 0.5 0.5 0.5 (1.0)
cmyn₃* 0.5 0.5 0.5 (0.0)
olv_{i4}* 1.0 1.0 1.0 0.5
cmyn₄* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 82.56 0.0 0.0
LAB*LABa 82.56 0.0 0.0
LAB*TCHa 50.0 0.0 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olv_{i3}* 0.0 0.0 0.0 (1.0)
cmyn₃* 1.0 1.0 1.0 (0.0)
olv_{i4}* 1.0 1.0 1.0 0.0
cmyn₄* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 69.7 0.0 0.0
LAB*LABa 69.7 0.0 0.0
LAB*TCHa 0.01 0.0 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

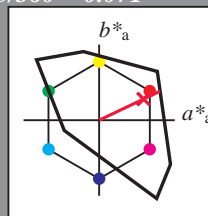
$n^* = 1.0$

Output: Colorimetric Television Luminous System TLS00

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

D65: hue R
LCH*Ma: 52 89 25
olv*Ma: 1.0 0.0 0.21

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	50.5	76.92	64.55	100.42	40
Y _{Ma}	92.66	-20.69	90.75	93.08	103
L _{Ma}	83.63	-82.75	79.9	115.04	136
C _{Ma}	86.88	-46.16	-13.55	48.12	196
V _{Ma}	30.39	76.06	-103.59	128.52	306
M _{Ma}	57.3	94.35	-58.41	110.97	328
N _{Ma}	0.01	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
 $u^*_{rel} = 158$
%Regularity
 $g^*_{H,rel} = 20$
 $g^*_{C,rel} = 37$

relative Inform. Technology (IT)
olv_{i3}* 1.0 1.0 1.0 (1.0)
cmyn₃* 0.0 0.0 0.0 (0.0)
olv_{i4}* 1.0 1.0 1.0 1.0
cmyn₄* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 0.0 0.0 -

relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*tce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv_{i3}* 0.5 0.5 0.5 (1.0)
cmyn₃* 0.5 0.5 0.5 (0.0)
olv_{i4}* 1.0 1.0 1.0 0.5
cmyn₄* 0.0 0.0 0.0 0.5

standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.5 0.0 -

relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 -
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olv_{i3}* 0.0 0.0 0.0 (1.0)
cmyn₃* 1.0 1.0 1.0 (0.0)
olv_{i4}* 1.0 1.0 1.0 0.0
cmyn₄* 0.0 0.0 0.0 1.0

standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -

relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$

relative Inform. Technology (IT)
olv_{i3}* 1.0 0.523 0.5 (1.0)
cmyn₃* 0.0 0.477 0.5 (0.0)
olv_{i4}* 1.0 0.523 0.5 1.0
cmyn₄* 0.0 0.477 0.5 0.0

standard and adapted CIELAB
LAB*LAB 86.33 12.27 5.85
LAB*LABa 86.33 12.27 5.85
LAB*TCHa 75.0 13.59 25.48

relative CIELAB lab*
lab*lab 0.647 0.451 0.215
lab*tch 0.75 0.5 0.071
lab*nch 0.0 0.5 0.071

relative Natural Colour (NC)
lab*lrj 0.647 0.5 0.0
lab*tce 0.75 0.5 0.0
lab*nce 0.0 0.5 r00j

relative Inform. Technology (IT)
olv_{i3}* 0.5 0.023 0.0 (1.0)
cmyn₃* 0.5 0.977 1.0 (0.0)
olv_{i4}* 1.0 0.523 0.5 0.5
cmyn₄* 0.0 0.477 0.5 0.5

standard and adapted CIELAB
LAB*LAB 73.47 12.27 5.84
LAB*LABa 73.47 12.27 5.84
LAB*TCHa 25.01 13.59 25.46

relative CIELAB lab*
lab*lab 0.147 0.451 0.215
lab*tch 0.25 0.5 0.071
lab*nch 0.5 0.5 0.071

relative Natural Colour (NC)
lab*lrj 0.147 0.5 0.0
lab*tce 0.25 0.5 1.0
lab*nce 0.5 0.5 b99r

$n^* = 0.50$

relative Inform. Technology (IT)
olv_{i3}* 1.0 0.047 0.0 (1.0)
cmyn₃* 0.0 0.953 1.0 (0.0)
olv_{i4}* 1.0 0.047 0.0 1.0
cmyn₄* 0.0 0.953 1.0 0.0

standard and adapted CIELAB
LAB*LAB 77.25 24.54 11.69
LAB*LABa 77.25 24.54 11.69
LAB*TCHa 50.0 27.18 25.47

relative CIELAB lab*
lab*lab 0.294 0.903 0.43
lab*tch 0.5 1.0 0.071
lab*nch 0.0 1.0 0.071

relative Natural Colour (NC)
lab*lrj 0.294 1.0 0.0
lab*tce 0.5 1.0 1.0
lab*nce 0.0 1.0 b99r

$n^* = 0.00$

blackness n^*

chromaticness c^*

relative Inform. Technology (IT)
olv_{i3}* 1.0 0.5 0.606 (1.0)
cmyn₃* 0.0 0.5 0.394 (0.0)
olv_{i4}* 1.0 0.5 0.606 1.0
cmyn₄* 0.0 0.5 0.394 0.0

standard and adapted CIELAB
LAB*LAB 73.67 40.3 19.2
LAB*LABa 73.67 40.3 19.2
LAB*TCHa 75.0 44.64 25.47

relative CIELAB lab*
lab*lab 0.772 0.451 0.215
lab*tch 0.75 0.5 0.071
lab*nch 0.0 0.5 0.071

relative Natural Colour (NC)
lab*lrj 0.772 0.5 0.0
lab*tce 0.75 0.5 1.0
lab*nce 0.0 0.5 b99r

relative Inform. Technology (IT)
olv_{i3}* 0.5 0.0 0.106 (1.0)
cmyn₃* 0.5 1.0 0.894 (0.0)
olv_{i4}* 1.0 0.5 0.606 0.5
cmyn₄* 0.0 0.5 0.394 0.5

standard and adapted CIELAB
LAB*LAB 25.98 40.3 19.21
LAB*LABa 25.98 40.3 19.21
LAB*TCHa 25.01 44.65 25.49

relative CIELAB lab*
lab*lab 0.272 0.451 0.215
lab*tch 0.25 0.5 0.071
lab*nch 0.5 0.5 0.071

relative Natural Colour (NC)
lab*lrj 0.272 0.5 0.0
lab*tce 0.25 0.5 0.0
lab*nce 0.5 0.5 r00j

$n^* = 0.50$

blackness n^*

chromaticness c^*

OE180-7, 3 step scales for constant CIELAB hue 25/360 = 0.071 (left)

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

See for similar files: <http://www.ps.bam.de/OE18/>
Technical information: <http://www.ps.bam.de>
Version 2.1, io=0.0, CIELAB

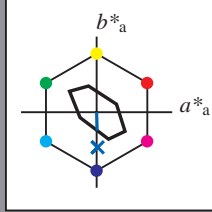
BAM registration: 20060101-OE18/10L/L18E06FP.PS/.PDF
application for evaluation and measurement of printer or monitor systems

BAM material: code=rh4ta

Input: Colorimetric Television Luminous System TLS70

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

D65: hue B
 LCH*Ma: 80 24 272
 olv*Ma: 0.0 0.4 1.0
 triangle lightness t^*



TLS70; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	76.43	26.27	10.57	28.32	22
YMa	93.93	-10.76	34.63	36.27	107
LMa	89.32	-35.8	27.64	45.24	142
CMa	90.93	-21.95	-7.07	23.07	198
VMa	72.1	15.76	-35.63	38.97	294
MMa	78.5	37.52	-25.23	45.22	326
NMa	69.7	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut
 $u^*_{rel} = 16$
 %Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

relative Inform. Technology (IT)
 $olvi3^*$ 1.0 1.0 1.0 (1.0)
 $cmyn3^*$ 0.0 0.0 0.0 (0.0)
 $olvi4^*$ 1.0 1.0 1.0 (1.0)
 $cmyn4^*$ 0.0 0.0 0.0 (0.0)

standard and adapted CIELAB
 LAB^*LAB 95.41 0.0 0.0
 LAB^*LABa 95.41 0.0 0.0
 LAB^*TCHa 99.99 0.0 -

relative CIELAB lab*
 lab^*lab 1.0 0.0 0.0
 lab^*tch 1.0 0.0 -
 lab^*nch 0.0 0.0 -

relative Natural Colour (NC)
 lab^*lrj 1.0 0.0 0.0
 lab^*tce 1.0 0.0 -
 lab^*nce 0.0 0.0 -

relative Inform. Technology (IT)
 $olvi3^*$ 0.5 0.5 0.5 (1.0)
 $cmyn3^*$ 0.5 0.5 0.5 (0.0)
 $olvi4^*$ 1.0 1.0 1.0 (0.5)
 $cmyn4^*$ 0.0 0.0 0.0 (0.5)

standard and adapted CIELAB
 LAB^*LAB 82.56 0.0 0.0
 LAB^*LABa 82.56 0.0 0.0
 LAB^*TCHa 50.0 0.0 -

relative CIELAB lab*
 lab^*lab 0.5 0.0 0.0
 lab^*tch 0.5 0.0 -
 lab^*nch 0.5 0.0 -

relative Natural Colour (NC)
 lab^*lrj 0.5 0.0 0.0
 lab^*tce 0.5 0.0 -
 lab^*nce 0.5 0.0 -

relative Inform. Technology (IT)
 $olvi3^*$ 0.0 0.0 0.0 (1.0)
 $cmyn3^*$ 1.0 1.0 1.0 (0.0)
 $olvi4^*$ 1.0 1.0 1.0 (0.0)
 $cmyn4^*$ 0.0 0.0 0.0 (1.0)

standard and adapted CIELAB
 LAB^*LAB 69.7 0.0 0.0
 LAB^*LABa 69.7 0.0 0.0
 LAB^*TCHa 0.0 0.0 -

relative CIELAB lab*
 lab^*lab 0.0 0.0 0.0
 lab^*tch 0.0 0.0 -
 lab^*nch 1.0 0.0 -

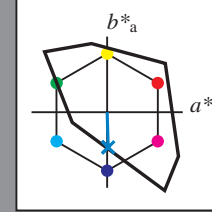
relative Natural Colour (NC)
 lab^*lrj 0.0 0.0 0.0
 lab^*tce 0.0 0.0 -
 lab^*nce 1.0 0.0 -

$n^* = 1,0$

Output: Colorimetric Television Luminous System TLS00

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

D65: hue B
 LCH*Ma: 65 49 272
 olv*Ma: 0.0 0.61 1.0
 triangle lightness t^*



TLS00; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut
 $u^*_{rel} = 158$
 %Regularity
 $g^*_{H,rel} = 20$
 $g^*_{C,rel} = 37$

relative Inform. Technology (IT)
 $olvi3^*$ 1.0 1.0 1.0 (1.0)
 $cmyn3^*$ 0.0 0.0 0.0 (0.0)
 $olvi4^*$ 1.0 1.0 1.0 (1.0)
 $cmyn4^*$ 0.0 0.0 0.0 (0.0)

standard and adapted CIELAB
 LAB^*LAB 95.41 0.0 0.0
 LAB^*LABa 95.41 0.0 0.0
 LAB^*TCHa 99.99 0.01 -

relative CIELAB lab*
 lab^*lab 1.0 0.0 0.0
 lab^*tch 1.0 0.0 -
 lab^*nch 0.0 0.0 -

relative Natural Colour (NC)
 lab^*lrj 1.0 0.0 0.0
 lab^*tce 1.0 0.0 -
 lab^*nce 0.0 0.0 -

relative Inform. Technology (IT)
 $olvi3^*$ 0.5 0.5 0.5 (1.0)
 $cmyn3^*$ 0.5 0.5 0.5 (0.0)
 $olvi4^*$ 1.0 1.0 1.0 (0.5)
 $cmyn4^*$ 0.0 0.0 0.0 (0.5)

standard and adapted CIELAB
 LAB^*LAB 47.72 0.0 0.0
 LAB^*LABa 47.72 0.0 0.0
 LAB^*TCHa 50.0 0.01 -

relative CIELAB lab*
 lab^*lab 0.5 0.0 0.0
 lab^*tch 0.5 0.0 -
 lab^*nch 0.5 0.0 -

relative Natural Colour (NC)
 lab^*lrj 0.5 0.0 0.0
 lab^*tce 0.5 0.0 -
 lab^*nce 0.5 0.0 -

relative Inform. Technology (IT)
 $olvi3^*$ 0.5 0.805 1.0 (1.0)
 $cmyn3^*$ 0.5 0.195 0.0 (0.0)
 $olvi4^*$ 0.5 0.805 1.0 (1.0)
 $cmyn4^*$ 0.5 0.195 0.0 (0.0)

standard and adapted CIELAB
 LAB^*LAB 80.13 0.73 -24.31
 LAB^*LABa 80.13 0.73 -24.31
 LAB^*TCHa 75.0 24.33 271.72

relative CIELAB lab*
 lab^*lab 0.84 0.015 -0.499
 lab^*tch 0.75 0.5 0.755
 lab^*nch 0.0 0.5 0.755

relative Natural Colour (NC)
 lab^*lrj 0.84 0.0 -0.499
 lab^*tce 0.75 0.5 0.75
 lab^*nce 0.0 0.5 0.99b

relative Inform. Technology (IT)
 $olvi3^*$ 0.0 0.61 1.0 (1.0)
 $cmyn3^*$ 1.0 0.39 0.0 (0.0)
 $olvi4^*$ 0.0 0.61 1.0 (1.0)
 $cmyn4^*$ 1.0 0.39 0.0 (0.0)

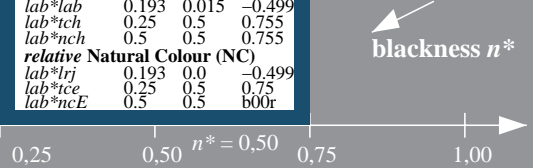
standard and adapted CIELAB
 LAB^*LAB 64.86 1.47 -48.64
 LAB^*LABa 64.86 1.47 -48.64
 LAB^*TCHa 50.0 48.67 271.74

relative CIELAB lab*
 lab^*lab 0.68 0.03 -0.998
 lab^*tch 0.5 1.0 0.755
 lab^*nch 0.0 1.0 0.755

relative Natural Colour (NC)
 lab^*lrj 0.68 0.0 -0.999
 lab^*tce 0.5 1.0 0.75
 lab^*nce 0.0 1.0 0.99b

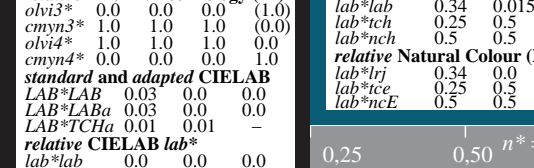
$n^* = 0,00$

$n^* = 0,00$



$n^* = 1,0$

$n^* = 0,00$



$n^* = 1,0$

OE18-7, 3 step scales for constant CIELAB hue 272/360 = 0.755 (left)

3 step scales for constant CIELAB hue 272/360 = 0.755 (right)



BAM-test chart OE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

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