

Input: Colorimetric Television Luminous System TLS00

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

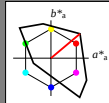
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 51 100 40

olv*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)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LABo 95.41 0.0 0.0
LAB*TCHo 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.5 0.5 (1.0)
lab*tch 1.0 0.0 -
lab*nch 1.0 0.0 -

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

standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABo 47.72 0.0 0.0
LAB*TCHo 50.0 0.01 -

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

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)

standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABo 0.03 0.0 0.0
LAB*TCHo 0.01 0.01 -

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

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

$n^* = 1.0$

TLS00; adapted (a) CIELAB data

$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
QMa 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
MMa57.3	94.35	-58.41	110.97	328
NMa 0.01	0.0	0.0	0.0	0
WMa95.41	0.0	0.0	0.0	0
RCIE39.92	58.74	27.99	65.07	25
JCIE 81.26	-2.88	71.56	71.62	92
GCIE 82.23	-42.41	13.6	44.55	162
BCIE30.57	1.41	-46.46	46.49	272

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)

standard and adapted CIELAB
LAB*LAB 72.95 38.45 32.27
LAB*LABo 72.95 38.45 32.27
LAB*TCHo 75.0 50.2 40.0

relative CIELAB lab*
lab*lab 0.765 0.383 0.321
lab*tch 0.75 0.5 0.111
lab*nch 0.0 0.5 0.111

relative Natural Colour (NC)
lab*lrj 0.765 0.471 0.167
lab*nce 0.75 0.5 0.054
lab*nce 0.0 0.5 0.231

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 0.0 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)

standard and adapted CIELAB
LAB*LAB 25.26 38.45 32.27
LAB*LABo 25.26 38.45 32.27
LAB*TCHo 25.01 50.2 40.0

relative CIELAB lab*
lab*lab 0.265 0.383 0.321
lab*tch 0.25 0.5 0.111
lab*nch 0.0 0.5 0.111

relative Natural Colour (NC)
lab*lrj 0.265 0.471 0.167
lab*nce 0.25 0.5 0.054
lab*nce 0.0 0.5 0.231

relative Inform. Technology (IT)
olv3* 1.0 0.0 0.0 (1.0)
cmyn3* 0.0 1.0 0.0 (0.0)
olv4* 1.0 0.0 1.0 (1.0)
cmyn4* 0.0 0.0 1.0 (0.0)

standard and adapted CIELAB
LAB*LAB 50.5 76.9 64.54
LAB*LABo 50.5 76.9 64.54
LAB*TCHo 50.0 100.4 40.0

relative CIELAB lab*
lab*lab 0.529 0.766 0.643
lab*tch 0.529 0.942 0.335
lab*nch 0.0 1.0 0.111

relative Natural Colour (NC)
lab*lrj 0.529 0.942 0.335
lab*nce 0.5 1.0 0.054
lab*nce 0.0 1.0 0.231

$n^* = 0.00$

blackness n^*

chromaticness c^*

Output: Colorimetric Television Luminous System TLS70

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

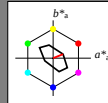
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 76 28 22

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 16$

% Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LABo 95.41 0.0 0.0
LAB*TCHo 99.99 0.01 -

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

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)

standard and adapted CIELAB
LAB*LAB 82.56 0.0 0.0
LAB*LABo 82.56 0.0 0.0
LAB*TCHo 82.56 0.0 0.0

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

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)

standard and adapted CIELAB
LAB*LAB 69.7 0.0 0.0
LAB*LABo 69.7 0.0 0.0
LAB*TCHo 0.01 0.0

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

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

$n^* = 1.0$

TLS70; adapted (a) CIELAB data

$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
QMa 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
MMa78.5	37.52	-25.23	45.22	326
NMa 69.7	0.0	0.0	0.0	0
WMa95.41	0.0	0.0	0.0	0
RCIE39.92	58.74	27.99	65.07	25
JCIE 81.26	-2.88	71.56	71.62	92
GCIE 82.23	-42.41	13.6	44.55	162
BCIE30.57	1.41	-46.46	46.49	272

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)

standard and adapted CIELAB
LAB*LAB 85.92 13.13 5.28
LAB*LABo 85.92 13.13 5.28
LAB*TCHo 75.0 14.16 21.92

relative CIELAB lab*
lab*lab 0.631 0.464 0.187
lab*tch 0.75 0.5 0.061
lab*nch 0.0 0.5 0.061

relative Natural Colour (NC)
lab*lrj 0.631 0.499 -0.024
lab*nce 0.75 0.5 0.992
lab*nce 0.0 0.5 0.999

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 0.0 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)

standard and adapted CIELAB
LAB*LAB 73.07 13.13 5.28
LAB*LABo 73.07 13.13 5.28
LAB*TCHo 25.01 14.16 21.92

relative CIELAB lab*
lab*lab 0.131 0.464 0.187
lab*tch 0.25 0.5 0.061
lab*nch 0.0 0.5 0.061

relative Natural Colour (NC)
lab*lrj 0.131 0.499 -0.024
lab*nce 0.25 0.5 0.992
lab*nce 0.0 0.5 0.999

$n^* = 0.00$

blackness n^*

chromaticness c^*

BAM-test chart NE13; Colorimetric systems TLS00 & TLS70

D65: 2 coordinate data of 3 step colour scales for 10 hues

input: olv* setrgcolor

output: no change compared to input