

Input: Colorimetric Television Luminous System TLS00

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

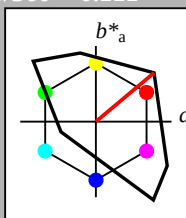
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 51 100 40

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



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*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 75.00 0.01

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 50.00 0.01

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (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 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 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*LABa 0.03 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

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

%Regularity

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

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

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*LABa 72.95 38.45 32.27
LAB*LABb 75.00 50.2 40.0

relative CIELAB lab*
lab*lab 0.765 0.383 0.321
lab*tch 0.765 0.383 0.321
lab*nch 0.0 0.5 0.5 (1.0)
relative Natural Colour (NC)
lab*trj 0.765 0.383 0.321
lab*tce 0.765 0.383 0.321
lab*nce 0.0 0.5 0.5 (1.0)

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.25 (1.0)
cmyn3* 0.25 0.75 0.75 (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 49.11 38.46 32.28
LAB*LABa 49.11 38.46 32.28
LAB*LABb 50.00 50.21 40.0

relative CIELAB lab*
lab*lab 0.515 0.383 0.321
lab*tch 0.515 0.383 0.321
lab*nch 0.0 0.5 0.5 (1.0)
relative Natural Colour (NC)
lab*trj 0.515 0.383 0.321
lab*tce 0.515 0.383 0.321
lab*nce 0.0 0.5 0.5 (1.0)

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 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*LABa 25.26 38.45 32.27
LAB*LABb 25.01 50.2 40.0

relative CIELAB lab*
lab*lab 0.392 0.574 0.482
lab*tch 0.392 0.574 0.482
lab*nch 0.0 0.5 0.5 (1.0)
relative Natural Colour (NC)
lab*trj 0.392 0.574 0.482
lab*tce 0.392 0.574 0.482
lab*nce 0.0 0.5 0.5 (1.0)

relative Inform. Technology (IT)
olv3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.25 0.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 13.13 38.45 32.27
LAB*LABa 13.13 38.45 32.27
LAB*LABb 12.51 50.2 40.0

relative CIELAB lab*
lab*lab 0.265 0.383 0.321
lab*tch 0.265 0.383 0.321
lab*nch 0.0 0.25 0.25 (1.0)
relative Natural Colour (NC)
lab*trj 0.265 0.383 0.321
lab*tce 0.265 0.383 0.321
lab*nce 0.0 0.25 0.25 (1.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

Output: Colorimetric Television Luminous System TLS70

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

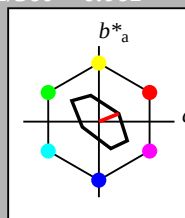
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 76 28 22

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



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*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 75.00 0.01

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 50.00 0.01

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (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 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

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

%Regularity

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

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

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*LABa 85.92 13.13 5.28
LAB*LABb 88.58 14.16 21.92

relative CIELAB lab*
lab*lab 0.631 0.464 0.187
lab*tch 0.631 0.464 0.187
lab*nch 0.0 0.5 0.5 (1.0)
relative Natural Colour (NC)
lab*trj 0.631 0.464 0.187
lab*tce 0.631 0.464 0.187
lab*nce 0.0 0.5 0.5 (1.0)

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.25 (1.0)
cmyn3* 0.25 0.75 0.75 (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 49.11 13.14 5.29
LAB*LABa 49.11 13.14 5.29
LAB*LABb 50.00 14.16 21.92

relative CIELAB lab*
lab*lab 0.515 0.383 0.321
lab*tch 0.515 0.383 0.321
lab*nch 0.0 0.5 0.5 (1.0)
relative Natural Colour (NC)
lab*trj 0.515 0.383 0.321
lab*tce 0.515 0.383 0.321
lab*nce 0.0 0.5 0.5 (1.0)

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 13.13 13.14 5.29
LAB*LABa 13.13 13.14 5.29
LAB*LABb 12.51 14.16 21.92

relative CIELAB lab*
lab*lab 0.392 0.574 0.482
lab*tch 0.392 0.574 0.482
lab*nch 0.0 0.25 0.25 (1.0)
relative Natural Colour (NC)
lab*trj 0.392 0.574 0.482
lab*tce 0.392 0.574 0.482
lab*nce 0.0 0.25 0.25 (1.0)

relative Inform. Technology (IT)
olv3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.25 0.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 7.13 13.14 5.29
LAB*LABa 7.13 13.14 5.29
LAB*LABb 7.08 14.16 21.92

relative CIELAB lab*
lab*lab 0.265 0.383 0.321
lab*tch 0.265 0.383 0.321
lab*nch 0.0 0.25 0.25 (1.0)
relative Natural Colour (NC)
lab*trj 0.265 0.383 0.321
lab*tce 0.265 0.383 0.321
lab*nce 0.0 0.25 0.25 (1.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

NE53-7, 5 step scales for constant CIELAB hue 40/360 = 0.111 (left)

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

BAM-test chart NE53; Colorimetric systems TLS00 & TLS70

D65: 2 coordinate data of 5 step colour scales for 10 hues

input: $olv^* setrgbcolor$

output: $lab^* setrgbcolor / w^* setgray$

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 103/360 = 0.286$

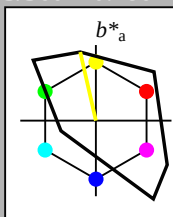
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 93 93 103

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 158$

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*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.75
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 75.00 0.01

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (0.0)
lab*nch 0.0 0.0 0.0 0.25
relative Natural Colour (NC)
lab*tr 0.75 0.75 0.75 (0.0)
lab*tce 0.75 0.75 0.75 (0.0)
lab*nce 0.0 0.0 0.0 0.25

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 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*LABb 50.00 0.01

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (0.0)
lab*nch 0.0 0.0 0.0 0.5
relative Natural Colour (NC)
lab*tr 0.75 0.75 0.75 (0.0)
lab*tce 0.75 0.75 0.75 (0.0)
lab*nce 0.0 0.0 0.0 0.5

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.0 0.0 0.0 0.5
relative Natural Colour (NC)
lab*tr 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.0 0.0 0.0 0.5

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.75
standard and adapted CIELAB
LAB*LAB 9.34 0.0 0.0
LAB*LABa 9.34 0.0 0.0
LAB*LABb 10.34 0.01

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.0 0.0 0.75
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.0 0.0 0.75

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.75
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.0 0.0 0.75
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.0 0.0 0.75

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.75
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.0 0.0 0.75
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.0 0.0 0.75

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (1.0)
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*LABa 0.03 0.0 0.0
LAB*LABb 0.00 0.01

relative CIELAB lab*
lab*lab 0.243 -0.055 0.244
lab*tch 0.125 0.25 0.286
lab*nch 0.125 0.25 0.286
relative Natural Colour (NC)
lab*tr 0.125 0.25 0.286
lab*tce 0.125 0.25 0.286
lab*nce 0.75 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 1.0
cmyn4* 0.0 0.0 0.0 0.0
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.0 0.0 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 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 1.0
cmyn4* 0.0 0.0 0.0 0.0
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.0 0.0 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 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 0.0 0.0 0.0

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

% Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 1.0 0.5 (1.0)
cmyn3* 0.0 0.0 0.5 (0.0)
olv4* 1.0 1.0 0.5 1.0
cmyn4* 0.0 0.0 0.5 0.5
standard and adapted CIELAB
LAB*LAB 94.03 -10.34 45.37
LAB*LABa 94.03 -10.34 45.37
LAB*LABb 97.50 46.53 102.85

relative CIELAB lab*
lab*lab 0.985 -0.11 0.487
lab*tch 0.75 0.5 0.286
lab*nch 0.0 0.5 0.286
relative Natural Colour (NC)
lab*tr 0.985 -0.11 0.486
lab*tce 0.75 0.5 0.286
lab*nce 0.0 0.5 0.158

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.25 (1.0)
cmyn3* 0.25 0.25 0.75 (0.0)
olv4* 1.0 1.0 0.5 0.75
cmyn4* 0.0 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 70.19 -10.34 45.38
LAB*LABa 70.19 -10.34 45.38
LAB*LABb 75.00 46.54 102.85

relative CIELAB lab*
lab*lab 0.728 -0.166 0.731
lab*tch 0.625 0.75 0.286
lab*nch 0.0 0.75 0.286
relative Natural Colour (NC)
lab*tr 0.728 -0.166 0.729
lab*tce 0.625 0.75 0.286
lab*nce 0.0 0.75 0.158

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 0.5 0.5
cmyn4* 0.0 0.0 0.5 0.5
standard and adapted CIELAB
LAB*LAB 46.34 -10.34 45.37
LAB*LABa 46.34 -10.34 45.37
LAB*LABb 50.00 46.54 102.85

relative CIELAB lab*
lab*lab 0.493 -0.166 0.731
lab*tch 0.375 0.75 0.286
lab*nch 0.0 0.75 0.286
relative Natural Colour (NC)
lab*tr 0.493 -0.166 0.729
lab*tce 0.375 0.75 0.286
lab*nce 0.0 0.75 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

Output: Colorimetric Television Luminous System TLS70

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

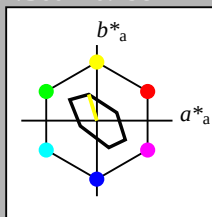
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 94 36 107

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 16$

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*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.75
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 88.98 0.0 0.0
LAB*LABa 88.98 0.0 0.0
LAB*LABb 92.50 0.01

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (0.0)
lab*nch 0.0 0.75 0.75
relative Natural Colour (NC)
lab*tr 0.75 0.75 0.75 (0.0)
lab*tce 0.75 0.75 0.75 (0.0)
lab*nce 0.0 0.75 0.25

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 46.34 -10.34 45.37
LAB*LABa 46.34 -10.34 45.37
LAB*LABb 50.00 46.54 102.85

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.0 0.5 0.5
relative Natural Colour (NC)
lab*tr 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.0 0.5 0.25

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.158

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 0.25 0.25
cmyn4* 0.0 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 23.87 -10.34 45.37
LAB*LABa 23.87 -10.34 45.37
LAB*LABb 25.00 46.53 102.85

relative CIELAB lab*
lab*lab 0.25

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 136/360 = 0.378$

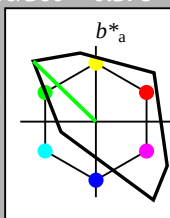
lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 84 115 136

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 158$

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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 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 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 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*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 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*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

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
RC _{IE}	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

% Regularity

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

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

Output: Colorimetric Television Luminous System TLS70

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

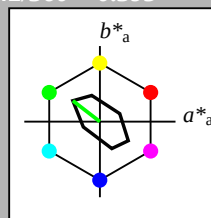
lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 89 45 142

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 16$

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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 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 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
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*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

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
RC _{IE}	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

% Regularity

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

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 89.51 -41.36 39.94
LAB*LABa 89.51 -41.36 39.94
LAB*LABb 89.51 -41.36 39.94
LAB*LABc 89.51 -41.36 39.94

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

NE53-7, 5 step scales for constant CIELAB hue 136/360 = 0.378 (left)

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

BAM-test chart NE53; Colorimetric systems TLS00 & TLS70

D65: 2 coordinate data of 5 step colour scales for 10 hues

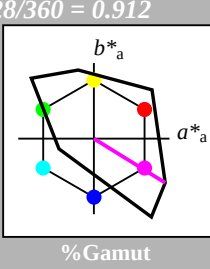
input: $olv^* \text{ setrgbcolor}$

output: $olv^* \text{ setrgbcolor} / w^* \text{ setgray}$

Input: 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	$C^*_{ab,a}$	$h^*_{ab,a}$
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
RC _{IE}	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

%Regularity

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

$g^*_{C,rel} = 27.73$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmv3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 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*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmv3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 71.57 0.0 0.0
LAB*LABc 71.57 0.0 0.0

relative CIELAB lab*
lab*lab 0.9 0.212 -0.131
lab*tch 0.875 0.25 0.912
lab*nch 0.0 0.25 0.912
relative Natural Colour (NC)
lab*trj 0.9 0.176 -0.177
lab*tce 0.875 0.25 0.912
lab*nce 0.0 0.25 0.912

relative Inform. Technology (IT)
olv3* 1.0 0.5 1.0 (1.0)
cmv3* 0.0 0.5 0.0 (0.0)
olv4* 1.0 0.5 1.0 (1.0)
cmv4* 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*LABb 76.35 47.17 -29.19
LAB*LABc 76.35 47.17 -29.19

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*trj 0.8 0.352 -0.354
lab*tce 0.75 0.5 0.912
lab*nce 0.0 0.5 0.912

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.75 (1.0)
cmv3* 0.25 0.5 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 47.72 0.0 0.0
LAB*LABc 47.72 0.0 0.0

relative CIELAB lab*
lab*lab 0.625 0.25 0.874
lab*tch 0.625 0.25 0.874
lab*nch 0.0 0.25 0.874
relative Natural Colour (NC)
lab*trj 0.625 0.25 0.874
lab*tce 0.625 0.25 0.874
lab*nce 0.0 0.25 0.874

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.75 (1.0)
cmv3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 0.5 1.0 (1.0)
cmv4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 52.51 47.18 -29.2
LAB*LABa 52.51 47.18 -29.2
LAB*LABb 52.51 47.18 -29.2
LAB*LABc 52.51 47.18 -29.2

relative CIELAB lab*
lab*lab 0.625 0.25 0.874
lab*tch 0.625 0.25 0.874
lab*nch 0.0 0.25 0.874
relative Natural Colour (NC)
lab*trj 0.625 0.25 0.874
lab*tce 0.625 0.25 0.874
lab*nce 0.0 0.25 0.874

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmv3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 50.01 0.0 0.0
LAB*LABa 50.01 0.0 0.0
LAB*LABb 50.01 0.0 0.0
LAB*LABc 50.01 0.0 0.0

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.25 0.5 (0.0)
cmv3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 0.5 1.0 (1.0)
cmv4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 52.51 47.18 -29.2
LAB*LABa 52.51 47.18 -29.2
LAB*LABb 52.51 47.18 -29.2
LAB*LABc 52.51 47.18 -29.2

relative CIELAB lab*
lab*lab 0.5 0.25 0.5 (0.0)
lab*tch 0.5 0.25 0.5 (0.0)
lab*nch 0.0 0.25 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.25 0.5 (0.0)
lab*tce 0.5 0.25 0.5 (0.0)
lab*nce 0.0 0.25 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmv3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0
LAB*LABc 23.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmv3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0
LAB*LABc 23.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmv3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0
LAB*LABc 23.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmv3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0
LAB*LABc 23.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (0.0)
lab*tch 0.25 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.25 0.25 0.25 (0.0)
lab*tce 0.25 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

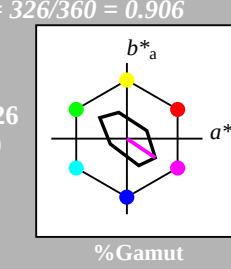
relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmv3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0
LAB*LABa 0.03 0.0 0.0
LAB*LABb 0.03 0.0 0.0
LAB*LABc 0.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (0.0)
lab*tch 0.0 0.0 0.0 (0.0)
lab*nch 0.0 0.0 0.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0 (0.0)
lab*tce 0.0 0.0 0.0 (0.0)
lab*nce 0.0 0.0 0.0 (0.0)

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^*



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
RC _{IE}	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

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmv3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 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*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmv3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 71.57 0.0 0.0
LAB*LABc 71.57 0.0 0.0

relative CIELAB lab*
lab*lab 0.9 0.212 -0.131
lab*tch 0.875 0.25 0.912
lab*nch 0.0 0.25 0.912
relative Natural Colour (NC)
lab*trj 0.9 0.176 -0.177
lab*tce 0.875 0.25 0.912
lab*nce 0.0 0.25 0.912

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.75 (1.0)
cmv3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 0.5 1.0 (1.0)
cmv4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 52.51 47.18 -29.2
LAB*LABa 52.51 47.18 -29.2
LAB*LABb 52.51 47.18 -29.2
LAB*LABc 52.51 47.18 -29.2

relative CIELAB lab*
lab*lab 0.625 0.25 0.874
lab*tch 0.625 0.25 0.874
lab*nch 0.0 0.25 0.874
relative Natural Colour (NC)
lab*trj 0.625 0.25 0.874
lab*tce 0.625 0.25 0.874
lab*nce 0.0 0.25 0.874

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmv3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 50.01 0.0 0.0
LAB*LABa 50.01 0.0 0.0
LAB*LABb 50.01 0.0 0.0
LAB*LABc 50.01 0.0 0.0

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (0.0)
lab*tch 0.5 0.5 0.5 (0.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.5 0.5 (0.0)
lab*tce 0.5 0.5 0.5 (0.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmv3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmv4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0
LAB*LABc 23.87 0.0 0.0

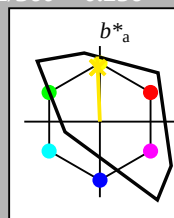
Input: Colorimetric Television Luminous System TLS00

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

lab^*tch and lab^*nch

D65: hue J
LCH*Ma: 85 86 92
olv*Ma: 1.0 0.82 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 158$

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*Lab 95.41 0.0 0.0
LAB*TCla 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*Lab 71.57 0.0 0.0
LAB*TCla 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 47.72 0.0 0.0
LAB*Lab 47.72 0.0 0.0
LAB*TCla 50.00 0.01 -

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (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 23.87 0.0 0.0
LAB*Lab 23.87 0.0 0.0
LAB*TCla 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (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 12.51 0.0 0.0
LAB*Lab 12.51 0.0 0.0
LAB*TCla 12.51 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (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 6.25 0.0 0.0
LAB*Lab 6.25 0.0 0.0
LAB*TCla 6.25 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (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 3.12 0.0 0.0
LAB*Lab 3.12 0.0 0.0
LAB*TCla 3.12 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 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*Lab 0.03 0.0 0.0
LAB*TCla 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 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* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*Lab 0.0 0.0 0.0
LAB*TCla 0.0 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

$n^* = 1.0$

$n^* = 1.0$

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
RC _{IE}	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
BC _{IE}	30.57	1.41	-46.46	46.49	272

% Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 0.912 0.5 (1.0)
cmyn3* 0.0 0.088 0.5 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 90.31 -1.74 43.06
LAB*Lab 90.31 -1.74 43.06
LAB*TCla 97.50 43.09 92.32

relative CIELAB lab*
lab*lab 0.947 -0.019 0.499
lab*tch 0.75 0.5 0.256
lab*nch 0.0 0.5 0.256
relative Natural Colour (NC)
lab*trj 0.947 0.0 0.5
lab*tce 0.75 0.5 0.256
lab*nce 0.0 0.5 0.256

relative Inform. Technology (IT)
olv3* 0.75 0.662 0.25 (1.0)
cmyn3* 0.25 0.338 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 66.47 -1.73 43.06
LAB*Lab 66.47 -1.73 43.06
LAB*TCla 50.00 43.12 92.31

relative CIELAB lab*
lab*lab 0.627 -0.029 0.749
lab*tch 0.625 0.75 0.256
lab*nch 0.0 0.75 0.256
relative Natural Colour (NC)
lab*trj 0.627 0.0 0.75
lab*tce 0.625 0.75 0.256
lab*nce 0.0 0.75 0.256

relative Inform. Technology (IT)
olv3* 0.5 0.412 0.0 (1.0)
cmyn3* 0.5 0.588 1.0 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 42.62 -1.73 43.06
LAB*Lab 42.62 -1.73 43.06
LAB*TCla 25.01 43.09 92.31

relative CIELAB lab*
lab*lab 0.447 -0.019 0.499
lab*tch 0.25 0.5 0.256
lab*nch 0.0 0.5 0.256
relative Natural Colour (NC)
lab*trj 0.447 0.0 0.5
lab*tce 0.25 0.5 0.256
lab*nce 0.0 0.5 0.256

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*Lab 23.87 0.0 0.0
LAB*TCla 25.01 43.09 92.31

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 12.51 0.0 0.0
LAB*Lab 12.51 0.0 0.0
LAB*TCla 12.51 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 6.25 0.0 0.0
LAB*Lab 6.25 0.0 0.0
LAB*TCla 6.25 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 3.12 0.0 0.0
LAB*Lab 3.12 0.0 0.0
LAB*TCla 3.12 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 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*Lab 0.03 0.0 0.0
LAB*TCla 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

$n^* = 0.50$

$n^* = 0.50$

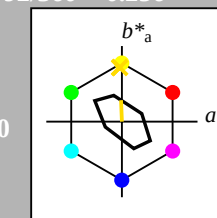
Output: Colorimetric Television Luminous System TLS70

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

lab^*tch and lab^*nch

D65: hue J
LCH*Ma: 89 28 92
olv*Ma: 1.0 0.74 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 16$

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*Lab 95.41 0.0 0.0
LAB*TCla 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*Lab 71.57 0.0 0.0
LAB*TCla 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.662 0.25 (1.0)
cmyn3* 0.25 0.338 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 66.47 -1.73 43.06
LAB*Lab 66.47 -1.73 43.06
LAB*TCla 50.00 43.12 92.31

relative CIELAB lab*
lab*lab 0.627 -0.029 0.749
lab*tch 0.625 0.75 0.256
lab*nch 0.0 0.75 0.256
relative Natural Colour (NC)
lab*trj 0.627 0.0 0.75
lab*tce 0.625 0.75 0.256
lab*nce 0.0 0.75 0.256

relative Inform. Technology (IT)
olv3* 0.5 0.412 0.0 (1.0)
cmyn3* 0.5 0.588 1.0 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 42.62 -1.73 43.06
LAB*Lab 42.62 -1.73 43.06
LAB*TCla 25.01 43.09 92.31

relative CIELAB lab*
lab*lab 0.447 -0.019 0.499
lab*tch 0.25 0.5 0.256
lab*nch 0.0 0.5 0.256
relative Natural Colour (NC)
lab*trj 0.447 0.0 0.5
lab*tce 0.25 0.5 0.256
lab*nce 0.0 0.5 0.256

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*Lab 23.87 0.0 0.0
LAB*TCla 25.01 43.09 92.31

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 12.51 0.0 0.0
LAB*Lab 12.51 0.0 0.0
LAB*TCla 12.51 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 6.25 0.0 0.0
LAB*Lab 6.25 0.0 0.0
LAB*TCla 6.25 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 0.912 0.5 (1.0)
cmyn4* 0.0 0.088 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 3.12 0.0 0.0
LAB*Lab 3.12 0.0 0.0
LAB*TCla 3.12 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 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* 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*Lab 0.03 0.0 0.0
LAB*TCla 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

$n^* = 1.0$

$n^* = 1.0$

TLS70; adapted (a) CIELAB data

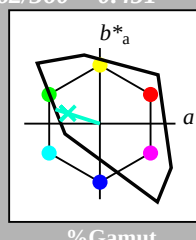
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	76.43	26.27	10.57	28.32	22
Y _{Ma}	93.93	-10.76	34.63	36.27	107
L _{Ma}	89.32	-35.8	27.64	45.24	142
C _{Ma}	90.93	-21.95	-7.07	23.07	198
V _{Ma}	72.1	15.76	-35.63	38.97	294
M _{Ma}	78.5	37.52	-25.23	45.22	326
N _{Ma}	69.7	0.0	0.0	0.0	0
W _{Ma}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

Input: Colorimetric Television Luminous System TLS00

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

D65: hue G
LCH*Ma: 86 62 162
olv*Ma: 0.0 1.0 0.65

triangle lightness t^*



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*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ch 1.0 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*ce 1.0 0.0 0.0
lab*nc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 75.00 0.01

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.75 0.0 0.0
lab*ce 0.75 0.0 0.0
lab*nc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 50.00 0.01

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*ce 0.5 0.0 0.0
lab*nc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*ce 0.25 0.0 0.0
lab*nc 0.0 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* 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*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nh 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ce 0.0 0.0 0.0
lab*nc 1.0 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* 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*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nh 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ce 0.0 0.0 0.0
lab*nc 1.0 0.0 0.0

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
RC _{IE}	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

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 0.5 1.0 0.826 (1.0)
cmyn3* 0.5 0.0 0.174 (0.0)
olv4* 0.5 1.0 0.826 (1.0)
cmyn4* 0.5 0.0 0.174 (0.0)
standard and adapted CIELAB
LAB*LAB 90.57 -29.42 9.43
LAB*LABa 90.57 -29.42 9.43
LAB*LABb 90.57 -29.42 9.43

relative CIELAB lab*
lab*lab 0.949 -0.475 0.153
lab*ch 0.75 0.5 0.451
lab*nh 0.0 0.5 0.451
relative Natural Colour (NC)
lab*tr 0.949 -0.499 0.0
lab*ce 0.75 0.5 0.3
lab*nc 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.25 0.75 0.576 (1.0)
cmyn3* 0.75 0.25 0.424 (0.0)
olv4* 0.5 1.0 0.826 (1.0)
cmyn4* 0.5 0.0 0.174 (0.0)
standard and adapted CIELAB
LAB*LAB 66.73 -29.42 9.44
LAB*LABa 66.73 -29.42 9.44
LAB*LABb 66.73 -29.42 9.44

relative CIELAB lab*
lab*lab 0.689 -0.475 0.153
lab*ch 0.5 0.5 0.451
lab*nh 0.0 0.5 0.451
relative Natural Colour (NC)
lab*tr 0.689 -0.499 0.0
lab*ce 0.5 0.5 0.3
lab*nc 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.338 (1.0)
cmyn3* 0.75 0.5 0.451 (0.0)
olv4* 0.5 1.0 0.826 (1.0)
cmyn4* 0.5 0.0 0.174 (0.0)
standard and adapted CIELAB
LAB*LAB 42.88 -29.42 9.44
LAB*LABa 42.88 -29.42 9.44
LAB*LABb 42.88 -29.42 9.44

relative CIELAB lab*
lab*lab 0.449 -0.475 0.153
lab*ch 0.25 0.5 0.451
lab*nh 0.0 0.5 0.451
relative Natural Colour (NC)
lab*tr 0.449 -0.499 0.0
lab*ce 0.25 0.5 0.3
lab*nc 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.5 0.837 (0.0)
olv4* 0.5 1.0 0.837 (0.0)
cmyn4* 0.5 0.0 0.163 (0.0)
standard and adapted CIELAB
LAB*LAB 21.45 -14.7 4.72
LAB*LABa 21.45 -14.7 4.72
LAB*LABb 21.45 -14.7 4.72

relative CIELAB lab*
lab*lab 0.225 -0.237 0.076
lab*ch 0.125 0.25 0.451
lab*nh 0.0 0.25 0.451
relative Natural Colour (NC)
lab*tr 0.225 -0.249 0.0
lab*ce 0.125 0.25 0.3
lab*nc 0.0 0.25 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 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*LABb 0.01

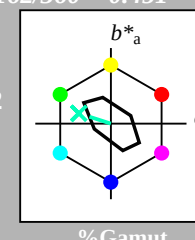
relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nh 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ce 0.0 0.0 0.0
lab*nc 1.0 0.0 0.0

Output: Colorimetric Television Luminous System TLS70

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

D65: hue G
LCH*Ma: 90 30 162
olv*Ma: 0.0 1.0 0.53

triangle lightness t^*



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*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ch 1.0 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*ce 1.0 0.0 0.0
lab*nc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 75.00 0.01

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.75 0.0 0.0
lab*ce 0.75 0.0 0.0
lab*nc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 50.00 0.01

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*ce 0.5 0.0 0.0
lab*nc 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 0.0
lab*nh 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*ce 0.25 0.0 0.0
lab*nc 0.0 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* 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*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nh 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ce 0.0 0.0 0.0
lab*nc 1.0 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* 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*LABb 0.01

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nh 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ce 0.0 0.0 0.0
lab*nc 1.0 0.0 0.0

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
RC _{IE}	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

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 0.5 1.0 0.883 (1.0)
cmyn3* 0.5 0.0 0.117 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 94.1 -7.09 2.28
LAB*LABa 94.1 -7.09 2.28
LAB*LABb 94.1 -7.09 2.28

relative CIELAB lab*
lab*lab 0.949 -0.237 0.076
lab*ch 0.875 0.25 0.451
lab*nh 0.0 0.25 0.451
relative Natural Colour (NC)
lab*tr 0.949 -0.249 0.0
lab*ce 0.875 0.25 0.3
lab*nc 0.0 0.25 0.3

relative Inform. Technology (IT)
olv3* 0.5 0.75 0.633 (1.0)
cmyn3* 0.5 0.25 0.367 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 87.67 -7.09 2.28
LAB*LABa 87.67 -7.09 2.28
LAB*LABb 87.67 -7.09 2.28

relative CIELAB lab*
lab*lab 0.898 -0.475 0.153
lab*ch 0.75 0.5 0.451
lab*nh 0.0 0.5 0.451
relative Natural Colour (NC)
lab*tr 0.898 -0.499 0.0
lab*ce 0.75 0.5 0.3
lab*nc 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.25 0.75 0.517 (1.0)
cmyn3* 0.75 0.25 0.483 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 86.37 -14.2 4.56
LAB*LABa 86.37 -14.2 4.56
LAB*LABb 86.37 -14.2 4.56

relative CIELAB lab*
lab*lab 0.847 -0.475 0.153
lab*ch 0.625 0.75 0.451
lab*nh 0.0 0.75 0.451
relative Natural Colour (NC)
lab*tr 0.847 -0.499 0.0
lab*ce 0.625 0.75 0.3
lab*nc 0.0 0.75 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.338 (1.0)
cmyn3* 0.75 0.5 0.451 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 42.88 -29.42 9.44
LAB*LABa 42.88 -29.42 9.44
LAB*LABb 42.88 -29.42 9.44

relative CIELAB lab*
lab*lab 0.449 -0.475 0.153
lab*ch 0.25 0.5 0.451
lab*nh 0.0 0.5 0.451
relative Natural Colour (NC)
lab*tr 0.449 -0.499 0.0
lab*ce 0.25 0.5 0.3
lab*nc 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.5 0.837 (0.0)
olv4* 0.5 1.0 0.837 (0.0)
cmyn4* 0.5 0.0 0.163 (0.0)
standard and adapted CIELAB
LAB*LAB 21.45 -14.7 4.72
LAB*LABa 21.45 -14.7 4.72
LAB*LABb 21.45 -14.7 4.72

relative CIELAB lab*
lab*lab 0.225 -0.237 0.076
lab*ch 0.125 0.25 0.451
lab*nh 0.0 0.25 0.451
relative Natural Colour (NC)
lab*tr 0.225 -0.249 0.0
lab*ce 0.125 0.25 0.3
lab*nc 0.0 0.25 0.3

relative Inform. Technology (IT)
olv3* 0.5 1.0 0.883 (1.0)
cmyn3* 0.5 0.0 0.117 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 94.1 -7.09 2.28
LAB*LABa 94.1 -7.09 2.28
LAB*LABb 94.1 -7.09 2.28

relative CIELAB lab*
lab*lab 0.949 -0.237 0.076
lab*ch 0.875 0.25 0.451
lab*nh 0.0 0.25 0.451
relative Natural Colour (NC)
lab*tr 0.949 -0.249 0.0
lab*ce 0.875 0.25 0.3
lab*nc 0.0 0.25 0.3

relative Inform. Technology (IT)
olv3* 0.5 0.75 0.633 (1.0)
cmyn3* 0.5 0.25 0.367 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 87.67 -7.09 2.28
LAB*LABa 87.67 -7.09 2.28
LAB*LABb 87.67 -7.09 2.28

relative CIELAB lab*
lab*lab 0.898 -0.475 0.153
lab*ch 0.75 0.5 0.451
lab*nh 0.0 0.5 0.451
relative Natural Colour (NC)
lab*tr 0.898 -0.499 0.0
lab*ce 0.75 0.5 0.3
lab*nc 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.25 0.75 0.517 (1.0)
cmyn3* 0.75 0.25 0.483 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 86.37 -14.2 4.56
LAB*LABa 86.37 -14.2 4.56
LAB*LABb 86.37 -14.2 4.56

relative CIELAB lab*
lab*lab 0.847 -0.475 0.153
lab*ch 0.625 0.75 0.451
lab*nh 0.0 0.75 0.451
relative Natural Colour (NC)
lab*tr 0.847 -0.499 0.0
lab*ce 0.625 0.75 0.3
lab*nc 0.0 0.75 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.338 (1.0)
cmyn3* 0.75 0.5 0.451 (0.0)
olv4* 0.5 1.0 0.883 (1.0)
cmyn4* 0.5 0.0 0.117 (0.0)
standard and adapted CIELAB
LAB*LAB 42.88 -29.42 9.44
LAB*LABa 42.88 -29.42 9.44
LAB*LABb 42.88 -29.42 9.44

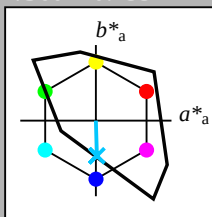
relative CIELAB lab*
lab*lab 0.449 -0.475 0.153
lab*ch 0.25 0.5 0.451
lab*nh 0.0 0.5 0.451
relative Natural Colour (NC)
lab*tr 0.449 -0.499 0.0
lab*ce 0.25 0.5 0.3
lab*nc 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.5 0.837 (0.0)
olv4* 0.5 1.0 0.837 (0.0)
cmyn4* 0.5 0.0 0.163 (0.0)
standard and adapted

Input: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 272/360 = 0.755$
 lab^*ch 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					
	$L^*=L_a^*$	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
RC _{IE}	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

%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*LABa 95.41 0.0 0.0
LAB*LABc 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ch 1.0 0.0 0.0
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*lce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABc 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.75 0.0 0.0
lab*lce 0.75 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABc 50.00 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*lce 0.5 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABc 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*lce 0.25 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

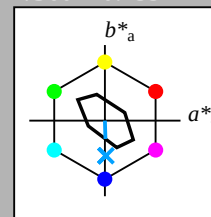
relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

NE53-7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)

Output: Colorimetric Television Luminous System TLS70

for hue $h^* = lab^*h = 272/360 = 0.755$
 lab^*ch 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					
	$L^*=L_a^*$	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
RC _{IE}	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

%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*LABa 95.41 0.0 0.0
LAB*LABc 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ch 1.0 0.0 0.0
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*lce 1.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABc 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.75 0.0 0.0
lab*lce 0.75 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABc 50.00 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*lce 0.5 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABc 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*lce 0.25 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
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*LABa 0.03 0.0 0.0
LAB*LABc 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*lce 0.0 0.0 -
lab*nce 0.0 0.0 -

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

BAM-test chart NE53; Colorimetric systems TLS00 & TLS70
D65: 2 coordinate data of 5 step colour scales for 10 hues

input: $olv^* setrgbcolor$
output: $olv^* setrgbcolor / w^* setgray$