

Input: Colorimetric Television Luminous System TLS18

for hue $h^* = lab^*h = 35/360 = 0.097$

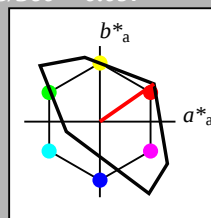
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 53 87 35

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 118$

relative Inform. Technology (IT)

olv3*	1.0	1.0	1.0	(1.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.0	0.0	0.0
cmyn4*	0.0	0.0	0.0	0.0
cmyn4*	0.0	0.0	0.0	0.0
LAB*LAB	95.41	0.0	0.0	0.0
LAB*LAB	95.41	0.0	0.0	0.0
LAB*LAB	99.99	0.01	0.0	0.0

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.75	(1.0)
olv3*	0.0	0.25	0.25	(0.0)
olv4*	1.0	0.75	0.75	1.0
olv4*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	84.74	17.9	12.47	0.0
LAB*LAB	84.74	17.9	12.47	0.0
LAB*LAB	87.5	21.81	34.85	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	76.07	0.0	0.0	0.0
LAB*LAB	76.07	0.0	0.0	0.0
LAB*LAB	75.00	0.01	0.0	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	65.4	17.91	12.47	0.0
LAB*LAB	65.4	17.91	12.47	0.0
LAB*LAB	62.5	21.82	34.85	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	56.72	0.0	0.0	0.0
LAB*LAB	56.72	0.0	0.0	0.0
LAB*LAB	50.01	0.0	0.0	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	46.05	17.91	12.47	0.0
LAB*LAB	46.05	17.91	12.47	0.0
LAB*LAB	37.5	21.82	34.85	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	37.5	21.82	34.85	0.0
LAB*LAB	37.5	21.82	34.85	0.0
LAB*LAB	25.01	0.01	0.0	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	26.7	17.9	12.47	0.0
LAB*LAB	26.7	17.9	12.47	0.0
LAB*LAB	12.5	21.81	34.85	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	18.03	18.03	0.0	0.0
LAB*LAB	18.03	18.03	0.0	0.0
LAB*LAB	0.01	0.01	0.0	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	0.0	0.0	0.0	0.0
LAB*LAB	0.0	0.0	0.0	0.0
LAB*LAB	0.0	0.0	0.0	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	(1.0)
olv3*	0.25	0.25	0.25	(0.0)
olv4*	1.0	1.0	1.0	1.0
olv4*	0.0	0.0	0.0	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn3*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
cmyn4*	0.0	0.25	0.25	0.0
LAB*LAB	0.0	0.0	0.0	0.0
LAB*LAB	0.0	0.0	0.0	0.0
LAB*LAB	0.0	0.0	0.0	0.0

TLS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)

olvi3*	1.0	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	0.5	0.5	1.0
cmyn4*	0.0	0.5	0.5	0.0

standard and adapted CIELAB

LAB*LAB	74.08	35.81	24.94
LAB*LAB ₂	74.08	35.81	24.94

LAB* <i>TCHa</i>	75.0	43.63	34.85
relative CIELAB lab*			
lab* <i>lab</i>	0.724	0.41	0.286
lab* <i>tch</i>	0.75	0.5	0.097
lab* <i>nch</i>	0.0	0.5	0.097
relative Natural Colour (NC)			
lab* <i>lrj</i>	0.724	0.488	0.109
lab* <i>tce</i>	0.75	0.5	0.035
lab* <i>nCE</i>	0.0	0.5	r14j

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	0.75
cmyn4*	0.0	0.5	0.5	0.25

standard and adapted CIELAB

LAB*LAB	54.74	35.82	24.94
LAB*LAB ₀	54.74	35.82	24.94

LAB*Erg	54.74	33.62	24.94
LAB*TChe	50.0	43.64	34.85
relative CIELAB lab*			
lab*lab	0.474	0.41	0.286
lab*tch	0.5	0.5	0.097
lab*nch	0.25	0.5	0.097
relative Natural Colour (NC)			
lab*lrj	0.474	0.488	0.109
lab*tce	0.5	0.5	0.035
lab*nCE	0.25	0.5	r14)

relative Inform. Technology (IT)				
olvi3*	0.5	0.0	0.0	(1.0)
cmyn3*	0.5	1.0	1.0	(0.0)
olvi4*	1.0	0.5	0.5	0.5
cmyn4*	0.0	0.5	0.5	0.5
standard and adapted CIELAB				
LAB*LAB	35.39	35.81	24.94	
LAB*LAB	35.39	35.81	24.94	
LAB*LAB	25.01	43.63	34.85	

LAB*Lab	35.39	35.81	24.94
LAB*TCb	25.01	43.63	34.85
relative CIELAB lab*			
lab*lab	0.225	0.41	0.286
lab*tc	0.25	0.5	0.097
lab*nc	0.5	0.5	0.097
relative Natural Colour (NC)			
lab*lr	0.225	0.488	0.109
lab*tc	0.25	0.5	0.035
lab*nc	0.5	0.5	0.141

$$n^* = 0,50$$

0,50

AB hue 35/360 = 0.0
test chart NE56

Input: Colorimetric Television Luminous System TLS18

for hue $h^* = lab^*h = 103/360 = 0.287$

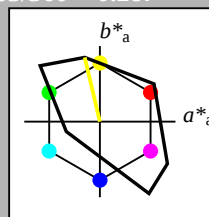
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 93 87 103

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 118$

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 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 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*tr 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (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 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 55.00 0.01 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 0.5 0.5 0.5 (0.0)
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 0.5 0.5 0.5 (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 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 35.00 0.01 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 0.75 0.75 0.75 (1.0)
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 0.75 0.75 0.75 (1.0)

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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.00 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 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 (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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.00 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 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

TLS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

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 94.07 -10.0 42.48
LAB*LABa 94.07 -10.0 42.48
LAB*LABb 94.75 21.82 103.26

relative CIELAB lab*
lab*lab 0.983 -0.114 0.487
lab*tch 0.75 0.5 0.287
lab*nch 0.0 0.5 0.287
relative Natural Colour (NC)
lab*tr 0.983 -0.121 0.485
lab*tce 0.75 0.5 0.289
lab*nce 0.0 0.5 0.158

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 74.72 -10.01 42.49
LAB*LABa 74.72 -10.01 42.49
LAB*LABb 74.72 21.82 103.26

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*tr 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (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 55.38 -10.0 42.48
LAB*LABa 55.38 -10.0 42.48
LAB*LABb 55.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.491 -0.056 0.243
lab*tch 0.375 0.25 0.287
lab*nch 0.0 0.5 0.287
relative Natural Colour (NC)
lab*tr 0.491 -0.06 0.242
lab*tce 0.375 0.25 0.289
lab*nce 0.0 0.5 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 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 36.69 -10.0 42.48
LAB*LABa 36.69 -10.0 42.48
LAB*LABb 36.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.241 -0.056 0.243
lab*tch 0.125 0.25 0.287
lab*nch 0.0 0.5 0.287
relative Natural Colour (NC)
lab*tr 0.241 -0.06 0.242
lab*tce 0.125 0.25 0.289
lab*nce 0.0 0.5 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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.00 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 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 Offset Reflective System ORS18

for hue $h^* = lab^*h = 96/360 = 0.268$

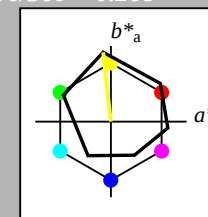
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 90 92 96

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

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 -0.98 4.75
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01 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 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*LABb 75.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*tr 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (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 56.71 0.24 2.14
LAB*LABa 56.71 0.24 2.14
LAB*LABb 55.00 0.01 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 0.5 0.5 0.5 (0.0)
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 0.5 0.5 0.5 (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 37.36 0.0 0.0
LAB*LABa 37.36 0.0 0.0
LAB*LABb 35.00 0.01 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 0.75 0.75 0.75 (1.0)
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 0.75 0.75 0.75 (1.0)

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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.00 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 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 (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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.00 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 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

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	47.94	65.39	50.52	82.63	38
Y _{Ma}	90.37	-10.26	91.75	92.32	96
L _{Ma}	50.9	-62.83	34.96	71.91	151
C _{Ma}	58.62	-30.34	-45.01	54.3	236
V _{Ma}	25.72	31.1	-44.4	54.22	305
M _{Ma}	48.13	75.28	-8.36	75.74	354
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.66	26.98	64.57	25
J _{CIE}	81.26	-2.16	67.76	67.79	92
G _{CIE}	52.23	-42.25	11.76	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.86	271

% Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

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 92.88 -6.06 50.46
LAB*LABa 92.88 -6.06 50.46
LAB*LABb 92.88 21.82 103.26

relative CIELAB lab*
lab*lab 0.967 -0.055 0.497
lab*tch 0.75 0.5 0.268
lab*nch 0.0 0.5 0.268
relative Natural Colour (NC)
lab*tr 0.967 -0.048 0.497
lab*tce 0.75 0.5 0.266
lab*nce 0.0 0.5 0.158

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 73.54 -5.69 49.16
LAB*LABa 73.54 -5.69 49.16
LAB*LABb 73.54 21.82 103.26

relative CIELAB lab*
lab*lab 0.75 0.75 0.75 (1.0)
lab*tch 0.75 0.75 0.75 (1.0)
lab*nch 0.25 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*tr 0.75 0.75 0.75 (1.0)
lab*tce 0.75 0.75 0.75 (1.0)
lab*nce 0.25 0.25 0.25 (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 54.19 -5.12 45.87
LAB*LABa 54.19 -5.12 45.87
LAB*LABb 54.19 21.82 103.26

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 0.5 0.5 0.5 (0.0)
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 0.5 0.5 0.5 (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 36.1 -5.26 22.93
LAB*LABa 36.1 -5.26 22.93
LAB*LABb 36.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.234 -0.027 0.248
lab*tch 0.125 0.25 0.268
lab*nch 0.0 0.5 0.268
relative Natural Colour (NC)
lab*tr 0.234 -0.024 0.249
lab*tce 0.125 0.25 0.266
lab*nce 0.0 0.5 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.00 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 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

NE560-7, 5 step scales for constant CIELAB hue 103/360 = 0.287 (left)

5 step scales for constant CIELAB hue 96/360 = 0.268 (right)

BAM-test chart NE56; Colorimetric systems TLS18 & ORS18

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

input: $olv^*setrgbcolor$

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

Input: Colorimetric Television Luminous System TLS18

for hue $h^* = lab^*h = 137/360 = 0.38$

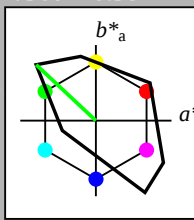
lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 84 108 137

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



TLS18; adapted (a) CIELAB data

	$L^*=L_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

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 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 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 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 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 55.00 0.01 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 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 35.00 0.01 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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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* 0.75 1.0 0.75 (1.0)
cmyn3* 0.25 0.0 0.25 (0.0)
olv4* 0.75 1.0 0.75 (1.0)
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 92.55 -19.73 18.48
LAB*LABa 92.55 -19.73 18.48
LAB*LABb 87.5 27.04 136.89

relative CIELAB lab*
lab*lab 0.963 -0.181 0.171
lab*tch 0.875 0.25 0.38
lab*nch 0.0 0.25 0.38
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*tce 0.875 -0.21 0.135
lab*nce 0.0 0.25 0.38

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.75 1.0 0.75 (1.0)
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 89.7 -39.48 36.96
LAB*LABa 89.7 -39.48 36.96
LAB*LABb 75.0 54.09 136.89

relative CIELAB lab*
lab*lab 0.926 -0.364 0.342
lab*tch 0.75 0.5 0.38
lab*nch 0.0 0.5 0.38
relative Natural Colour (NC)
lab*tr 0.926 -0.42 0.269
lab*tce 0.75 0.5 0.409
lab*nce 0.0 0.5 0.38

relative Inform. Technology (IT)
olv3* 0.25 0.5 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 70.36 -39.48 36.97
LAB*LABa 70.36 -39.48 36.97
LAB*LABb 50.0 54.1 136.89

relative CIELAB lab*
lab*lab 0.889 -0.546 0.512
lab*tch 0.625 0.75 0.38
lab*nch 0.0 0.75 0.38
relative Natural Colour (NC)
lab*tr 0.889 -0.631 0.404
lab*tce 0.625 0.75 0.409
lab*nce 0.0 0.75 0.38

relative Inform. Technology (IT)
olv3* 0.0 0.75 0.0 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 51.01 -39.48 36.96
LAB*LABa 51.01 -39.48 36.96
LAB*LABb 25.01 54.09 136.89

relative CIELAB lab*
lab*lab 0.639 -0.546 0.512
lab*tch 0.375 0.75 0.38
lab*nch 0.0 0.75 0.38
relative Natural Colour (NC)
lab*tr 0.639 -0.631 0.404
lab*tce 0.375 0.75 0.409
lab*nce 0.0 0.75 0.38

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 34.51 -19.73 18.48
LAB*LABa 34.51 -19.73 18.48
LAB*LABb 12.5 27.04 136.89

relative CIELAB lab*
lab*lab 0.213 -0.181 0.171
lab*tch 0.125 0.25 0.38
lab*nch 0.0 0.25 0.38
relative Natural Colour (NC)
lab*tr 0.213 -0.21 0.135
lab*tce 0.125 0.25 0.409
lab*nce 0.0 0.25 0.38

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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* 0.5 1.0 0.5 (1.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 89.7 -39.48 36.96
LAB*LABa 89.7 -39.48 36.96
LAB*LABb 75.0 54.09 136.89

relative CIELAB lab*
lab*lab 0.926 -0.364 0.342
lab*tch 0.75 0.5 0.38
lab*nch 0.0 0.5 0.38
relative Natural Colour (NC)
lab*tr 0.926 -0.42 0.269
lab*tce 0.75 0.5 0.409
lab*nce 0.0 0.5 0.38

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 51.01 -39.48 36.96
LAB*LABa 51.01 -39.48 36.96
LAB*LABb 25.01 54.09 136.89

relative CIELAB lab*
lab*lab 0.639 -0.546 0.512
lab*tch 0.375 0.75 0.38
lab*nch 0.0 0.75 0.38
relative Natural Colour (NC)
lab*tr 0.639 -0.631 0.404
lab*tce 0.375 0.75 0.409
lab*nce 0.0 0.75 0.38

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.0 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 34.51 -19.73 18.48
LAB*LABa 34.51 -19.73 18.48
LAB*LABb 12.5 27.04 136.89

relative CIELAB lab*
lab*lab 0.213 -0.181 0.171
lab*tch 0.125 0.25 0.38
lab*nch 0.0 0.25 0.38
relative Natural Colour (NC)
lab*tr 0.213 -0.21 0.135
lab*tce 0.125 0.25 0.409
lab*nce 0.0 0.25 0.38

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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* 0.5 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 76.06 -0.61 3.44
LAB*LABa 76.06 -0.61 3.44
LAB*LABb 75.00 0.01 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* 0.25 0.5 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 56.71 0.24 2.14
LAB*LABa 56.71 0.24 2.14
LAB*LABb 55.00 0.01 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* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 1.0 (0.0)
olv4* 0.0 1.0 0.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 37.51 0.0 0.0
LAB*LABa 37.51 0.0 0.0
LAB*LABb 35.00 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 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 (1.0)
cmyn3* 1.0 0.0 1.0 (0.0)
olv4* 0.0 1.0 0.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.01 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 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 0.0 1.0 (0.0)
olv4* 0.0 1.0 0.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.01 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 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 0.0 1.0 (0.0)
olv4* 0.0 1.0 0.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.01 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 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* 0.5 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 95.41 -0.98 4.75
LAB*LABa 95.41 -0.98 4.75
LAB*LABb 99.99 0.01 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 0.75
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 76.06 -0.61 3.44
LAB*LABa 76.06 -0.61 3.44
LAB*LABb 75.00 0.01 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* 0.25 0.75 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 56.71 0.24 2.14
LAB*LABa 56.71 0.24 2.14
LAB*LABb 55.00 0.01 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* 0.0 0.25 0.0 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.75
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 37.51 0.0 0.0
LAB*LABa 37.51 0.0 0.0
LAB*LABb 35.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.25 0.0
lab*tch 0.0 0.25 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.25 0.0
lab*tce 0.0 0.25 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* 0.0 1.0 0.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.01 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 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* 0.0 1.0 0.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.01 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 1.0 0.0

Input: Colorimetric Television Luminous System TLS18

for hue $h^* = lab^*h = 196/360 = 0.546$

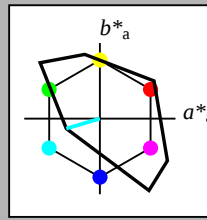
lab^*tch and lab^*nch

D65: hue C

LCH*Ma: 87 46 196

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



TLS18; adapted (a) CIELAB data					
	$L^*=L_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

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*TCHa 99.99 0.01

relative Inform. Technology (IT)
olv3* 0.75 1.0 1.0 (1.0)
cmyn3* 0.25 0.0 0.0 (0.0)
olv4* 0.75 1.0 1.0 (1.0)
cmyn4* 0.25 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 93.34 -11.09 -3.27
LAB*LABa 93.34 -11.09 -3.27
LAB*TCHa 97.5 11.57 196.46

relative Inform. Technology (IT)
olv3* 0.5 1.0 1.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 0.5 1.0 1.0 (1.0)
cmyn4* 0.5 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 91.27 -22.2 -6.55
LAB*LABa 91.27 -22.2 -6.55
LAB*TCHa 75.0 23.15 196.46

relative Inform. Technology (IT)
olv3* 0.25 1.0 1.0 (1.0)
cmyn3* 0.75 0.0 0.0 (0.0)
olv4* 0.25 1.0 1.0 (1.0)
cmyn4* 0.75 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 89.2 -33.3 -9.83
LAB*LABa 89.2 -33.3 -9.83
LAB*TCHa 62.5 34.73 196.46

relative Inform. Technology (IT)
olv3* 0.0 1.0 1.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 1.0 1.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 87.13 -44.4 -13.11
LAB*LABa 87.13 -44.4 -13.11
LAB*TCHa 50.0 46.31 196.46

relative Inform. Technology (IT)
olv3* 0.0 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 0.0 0.75 0.75 (1.0)
cmyn4* 0.25 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.0 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olv4* 0.0 0.25 0.25 (1.0)
cmyn4* 0.75 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

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 (0.25)
cmyn4* 0.0 0.0 0.0 (0.75)
standard and adapted CIELAB
LAB*LAB 87.13 -44.4 -13.11
LAB*LABa 87.13 -44.4 -13.11
LAB*TCHa 50.0 46.31 196.46

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.0 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olv4* 0.0 0.25 0.25 (1.0)
cmyn4* 0.75 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.86 -8.02 -8.42
LAB*LABa 86.86 -8.02 -8.42
LAB*TCHa 62.5 13.57 236.02

NE560-7, 5 step scales for constant CIELAB hue 196/360 = 0.546 (left)

5 step scales for constant CIELAB hue 236/360 = 0.656 (right)

BAM-test chart NE56; Colorimetric systems TLS18 & ORS18

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

input: $olv^*setrgbcolor$

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

Input: Colorimetric Television Luminous System TLS18

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

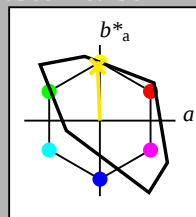
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 85 79 92

olv*Ma: 1.0 0.82 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 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)
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 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 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*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 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 55.00 0.01 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*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 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 35.00 0.01 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*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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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

TLS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)
olv3* 1.0 0.954 0.75 (1.0)
cmyn3* 0.0 0.046 0.25 (0.0)
olv4* 1.0 0.954 0.75 (1.0)
cmyn4* 0.0 0.046 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 92.9 -0.79 19.62
LAB*LABa 92.9 -0.79 19.62
LAB*LABb 87.5 19.64 92.33

relative CIELAB lab*
lab*lab 0.955 -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 0.955 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 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 0.954 0.75 (1.0)
cmyn4* 0.0 0.046 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 73.55 -0.78 19.63
LAB*LABa 73.55 -0.78 19.63
LAB*LABb 62.5 19.64 92.31

relative CIELAB lab*
lab*lab 0.718 -0.009 0.25
lab*tch 0.625 0.25 0.256
lab*nch 0.25 0.25 0.256
relative Natural Colour (NC)
lab*trj 0.718 0.0 0.25
lab*tce 0.625 0.25 0.256
lab*nce 0.25 0.25 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 0.954 0.75 (1.0)
cmyn4* 0.0 0.046 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 54.2 -0.78 19.63
LAB*LABa 54.2 -0.78 19.63
LAB*LABb 42.5 19.63 92.31

relative CIELAB lab*
lab*lab 0.468 -0.029 0.25
lab*tch 0.375 0.25 0.256
lab*nch 0.25 0.25 0.256
relative Natural Colour (NC)
lab*trj 0.468 0.0 0.25
lab*tce 0.375 0.25 0.256
lab*nce 0.25 0.25 0.256

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 0.954 0.75 (1.0)
cmyn4* 0.0 0.046 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 34.85 -0.78 19.62
LAB*LABa 34.85 -0.78 19.62
LAB*LABb 25.0 19.64 92.31

relative CIELAB lab*
lab*lab 0.218 -0.009 0.25
lab*tch 0.125 0.25 0.256
lab*nch 0.25 0.25 0.256
relative Natural Colour (NC)
lab*trj 0.218 0.0 0.25
lab*tce 0.125 0.25 0.256
lab*nce 0.25 0.25 0.256

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 0.954 0.75 (1.0)
cmyn4* 0.0 0.046 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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 Offset Reflective System ORS18

for hue $h^* = lab^*h = 92/360 = 0.255$

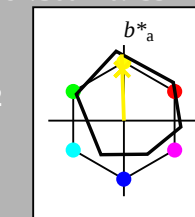
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 86 88 92

olv*Ma: 1.0 0.9 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 -0.98 4.75
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01 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)
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 76.06 -0.61 3.44
LAB*LABa 76.06 -0.61 3.44
LAB*LABb 75.00 0.01 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*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 56.71 0.24 2.14
LAB*LABa 56.71 0.24 2.14
LAB*LABb 55.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.72 -0.007 0.25
lab*tch 0.625 0.25 0.255
lab*nch 0.25 0.25 0.255
relative Natural Colour (NC)
lab*trj 0.72 0.0 0.25
lab*tce 0.625 0.25 0.255
lab*nce 0.25 0.25 0.255

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 37.36 0.0 0.0
LAB*LABa 37.36 0.0 0.0
LAB*LABb 35.00 0.01 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*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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.01 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.01 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 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

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	47.94	65.39	50.52	82.63	38
Y _{Ma}	90.37	-10.26	91.75	92.32	96
L _{Ma}	50.9	-62.83	34.96	71.91	151
C _{Ma}	58.62	-30.34	-45.01	54.3	236
V _{Ma}	25.72	31.1	-44.4	54.22	305
M _{Ma}	48.13	75.28	-8.36	75.74	354
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.66	26.98	64.57	25
J _{CIE}	81.26	-2.16	67.76	67.79	92
G _{CIE}	52.23	-42.25	11.76	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.86	271

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

relative Inform. Technology (IT)
olv3* 1.0 0.975 0.75 (1.0)
cmyn3* 0.0 0.025 0.25 (0.0)
olv4* 1.0 0.975 0.75 (1.0)
cmyn4* 0.0 0.025 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 93.1 -1.64 26.52
LAB*LABa 93.1 -1.64 26.52
LAB*LABb 87.5 21.93 91.85

relative CIELAB lab*
lab*lab 0.97 -0.007 0.25
lab*tch 0.875 0.25 0.255
lab*nch 0.0 0.25 0.255
relative Natural Colour (NC)
lab*trj 0.97 0.0 0.25
lab*tce 0.875 0.25 0.255
lab*nce 0.0 0.25 0.255

relative Inform. Technology (IT)
olv3* 0.75 0.725 0.5 (1.0)
cmyn3* 0.25 0.275 0.25 (0.0)
olv4* 1.0 0.975 0.75 (1.0)
cmyn4* 0.0 0.025 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 73.75 -1.27 25.22
LAB*LABa 73.75 -1.27 25.22
LAB*LABb 62.5 21.93 91.84

relative CIELAB lab*
lab*lab 0.72 -0.007 0.25
lab*tch 0.625 0.25 0.255
lab*nch 0.25 0.25 0.255
relative Natural Colour (NC)
lab*trj 0.72 0.0 0.25
lab*tce 0.625 0.25 0.255
lab*nce 0.25 0.25 0.255

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 0.975 0.75 (1.0)
cmyn4* 0.0 0.025 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 54.4 -0.89 23.91
LAB*LABa 54.4 -0.89 23.91
LAB*LABb 42.5 21.93 91.84

relative CIELAB lab*
lab*lab 0.47 -0.007 0.25
lab*tch 0.375 0.25 0.255
lab*nch 0.25 0.25 0.255
relative Natural Colour (NC)
lab*trj 0.47 0.0 0.25
lab*tce 0.375 0.25 0.255
lab*nce 0.25 0.25 0.255

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 0.975 0.75 (1.0)
cmyn4* 0.0 0.025 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 35.06 -0.69 21.91
LAB*LABa 35.06 -0.69 21.91
LAB*LABb 25.0 21.93 91.84

relative CIELAB lab*
lab*lab 0.44 -0.015 0.5
lab*tch 0.25 0.5 0.255
lab*nch 0.25 0.5 0.255
relative Natural Colour (NC)
lab*trj 0.44 0.0 0.5
lab*tce 0.25 0.5 0.255
lab*nce 0.5 0.5 0.255

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 0.975 0.75 (1.0)
cmyn4* 0.0 0.025 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.01 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 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* 0.75 0.701 0.25 (1.0)
cmyn3* 0.25 0.299 0.75 (0.0)
olv4* 1.0 0.951 0.5 (1.0)
cmyn4* 0.0 0.049 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 71.45 -1.92 46.98
LAB*LABa 71.45 -1.92 46.98
LAB*LABb 50.0 43.87 91.84

relative CIELAB lab*
lab*lab 0.91 -0.023 0.75
lab*tch 0.625 0.75 0.255
lab*nch 0.0 0.75 0.255
relative Natural Colour (NC)
lab*trj 0.91 0.0 0.75
lab*tce 0.625 0.75 0.255
lab*nce 0.0 0.75 0.255

relative Inform. Technology (IT)
olv3* 0.25 0.234 0.1 (1.0)
cmyn3* 0.75 0.766 0.25 (0.0)
olv4* 1.0 0.926 0.25 (1.0)
cmyn4* 0.0 0.074 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 59.1 -3.62 91.81
LAB*LABa 59.1 -3.62 91.81
LAB*LABb 37.51 65.79 91.84

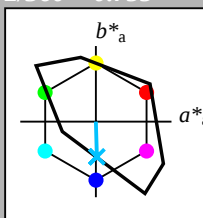
relative CIELAB lab*
lab*lab 0.911 0.0 0.75
lab*tch 0.625 0.75 0.255
lab*nch 0.0 0.75 0.255
relative Natural Colour (NC)
lab*trj 0.911 0.0 0.75
lab*tce 0.625 0.75 0.255
lab*nce 0.0 0.75 0.255

relative Inform. Technology (IT)
olv3* 0.0 0.451 0.0 (1.0)
cmyn3* 0.5 0.525 0.75 (0.0)
olv4* 1.0 0.975 0.75 (1.0)
cmyn4* 0.0 0.025 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 54.4 -0.89 23.91
LAB*LABa 54.4 -0.89 23.91
LAB*LABb 42.5

Input: Colorimetric Television Luminous System TLS18

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

D65: hue B
LCH*Ma: 65 48 272
olv*Ma: 0.0 0.58 1.0
triangle lightness t^*



TLS18; adapted (a) CIELAB data					
	$L^*=L_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

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*trc 1.0 0.0 0.0
lab*ncc 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 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01

relative CIELAB lab*
lab*lab 0.903 0.008 -0.249
lab*tch 0.875 0.25 0.755
lab*nch 0.0 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.903 0.0 -0.249
lab*trc 0.875 0.25 0.755
lab*ncc 0.0 0.25 0.755

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 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 75.00 23.75 271.72

relative CIELAB lab*
lab*lab 0.807 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*trj 0.807 0.0 -0.499
lab*trc 0.75 0.5 0.755
lab*ncc 0.0 0.5 0.755

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 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 50.00 0.01

relative CIELAB lab*
lab*lab 0.653 0.008 -0.249
lab*tch 0.625 0.25 0.755
lab*nch 0.25 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.653 0.0 -0.249
lab*trc 0.625 0.25 0.755
lab*ncc 0.25 0.25 0.755

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 61.09 0.72 -23.74
LAB*LABa 61.09 0.72 -23.74
LAB*LABb 50.00 23.76 271.74

relative CIELAB lab*
lab*lab 0.557 0.015 -0.499
lab*tch 0.5 0.5 0.755
lab*nch 0.0 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.557 0.0 -0.499
lab*trc 0.5 0.5 0.755
lab*ncc 0.0 0.5 0.755

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 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.403 0.008 -0.249
lab*tch 0.375 0.25 0.755
lab*nch 0.25 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.403 0.0 -0.249
lab*trc 0.375 0.25 0.755
lab*ncc 0.25 0.25 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.5 (1.0)
cmyn3* 1.0 0.75 0.5 (0.0)
olv4* 0.5 0.75 1.0 (1.0)
cmyn4* 0.5 0.25 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 41.74 0.72 -23.74
LAB*LABa 41.74 0.72 -23.74
LAB*LABb 25.01 23.76 271.75

relative CIELAB lab*
lab*lab 0.307 0.015 -0.499
lab*tch 0.25 0.5 0.755
lab*nch 0.25 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.307 0.0 -0.499
lab*trc 0.25 0.5 0.755
lab*ncc 0.25 0.5 0.755

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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01

relative CIELAB lab*
lab*lab 0.153 0.008 -0.249
lab*tch 0.125 0.25 0.755
lab*nch 0.25 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.153 0.0 -0.249
lab*trc 0.125 0.25 0.755
lab*ncc 0.25 0.25 0.755

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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01

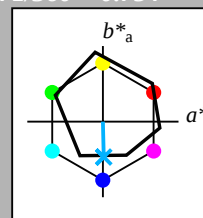
relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 0.0 0.0 0.0

NE560-7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 271/360 = 0.754$
 lab^*tch and lab^*nch

D65: hue B
LCH*Ma: 42 45 271
olv*Ma: 0.0 0.49 1.0
triangle lightness t^*



ORS18; adapted (a) CIELAB data					
	$L^*=L_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	47.94	65.39	50.52	82.63	38
Y _{Ma}	90.37	-10.26	91.75	92.32	96
L _{Ma}	50.9	-62.83	34.96	71.91	151
C _{Ma}	58.62	-30.34	-45.01	54.3	236
V _{Ma}	25.72	31.1	-44.4	54.22	305
M _{Ma}	48.13	75.28	-8.36	75.74	354
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.66	26.98	64.57	25
J _{CIE}	81.26	-2.16	67.76	67.79	92
G _{CIE}	52.23	-42.25	11.76	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.86	271

%Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 59$

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 -0.98 4.75
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*trc 1.0 0.0 0.0
lab*ncc 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 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*LABb 75.00 0.01

relative CIELAB lab*
lab*lab 0.827 0.006 -0.249
lab*tch 0.875 0.25 0.754
lab*nch 0.0 0.25 0.754
relative Natural Colour (NC)
lab*trj 0.827 0.0 -0.249
lab*trc 0.875 0.25 0.754
lab*ncc 0.0 0.25 0.754

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 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 75.00 23.75 271.72

relative CIELAB lab*
lab*lab 0.807 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*trj 0.807 0.0 -0.499
lab*trc 0.75 0.5 0.755
lab*ncc 0.0 0.5 0.755

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 61.09 0.72 -23.74
LAB*LABa 61.09 0.72 -23.74
LAB*LABb 50.00 23.76 271.74

relative CIELAB lab*
lab*lab 0.557 0.015 -0.499
lab*tch 0.5 0.5 0.755
lab*nch 0.0 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.557 0.0 -0.499
lab*trc 0.5 0.5 0.755
lab*ncc 0.0 0.5 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.5 (1.0)
cmyn3* 1.0 0.75 0.5 (0.0)
olv4* 0.5 0.75 1.0 (1.0)
cmyn4* 0.5 0.25 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 41.74 0.72 -23.74
LAB*LABa 41.74 0.72 -23.74
LAB*LABb 25.01 23.76 271.75

relative CIELAB lab*
lab*lab 0.307 0.015 -0.499
lab*tch 0.25 0.5 0.755
lab*nch 0.25 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.307 0.0 -0.499
lab*trc 0.25 0.5 0.755
lab*ncc 0.25 0.5 0.755

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 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 25.00 0.01

relative CIELAB lab*
lab*lab 0.403 0.008 -0.249
lab*tch 0.375 0.25 0.755
lab*nch 0.25 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.403 0.0 -0.249
lab*trc 0.375 0.25 0.755
lab*ncc 0.25 0.25 0.755

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.5 (1.0)
cmyn3* 1.0 0.75 0.5 (0.0)
olv4* 0.5 0.75 1.0 (1.0)
cmyn4* 0.5 0.25 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 41.74 0.72 -23.74
LAB*LABa 41.74 0.72 -23.74
LAB*LABb 25.01 23.76 271.75

relative CIELAB lab*
lab*lab 0.307 0.015 -0.499
lab*tch 0.25 0.5 0.755
lab*nch 0.25 0.5 0.755
relative Natural Colour (NC)
lab*trj 0.307 0.0 -0.499
lab*trc 0.25 0.5 0.755
lab*ncc 0.25 0.5 0.755

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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01

relative CIELAB lab*
lab*lab 0.153 0.008 -0.249
lab*tch 0.125 0.25 0.755
lab*nch 0.25 0.25 0.755
relative Natural Colour (NC)
lab*trj 0.153 0.0 -0.249
lab*trc 0.125 0.25 0.755
lab*ncc 0.25 0.25 0.755

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 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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