

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 38/360 = 0.105$

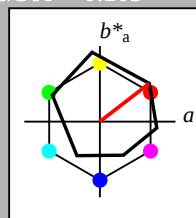
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 83 38

olv*Ma: 1.0 0.0 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 47.5
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 0.0 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 56.71 -0.24 2.14
LAB*LABa 56.71 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 37.36 0.13 0.63
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 0.03 0.47
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*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

$n^* = 1.0$

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 0.5 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 71.67 32.69 25.25
LAB*LABa 71.67 0.0 0.0
LAB*LABb 71.67 0.0 0.0

relative CIELAB lab*
lab*lab 0.693 0.396 0.306
lab*tch 0.75 0.5 0.105
lab*nch 0.0 0.5 0.105
relative Natural Colour (NC)
lab*trj 0.693 0.477 0.15
lab*tce 0.75 0.5 0.105
lab*nce 0.0 0.5 0.105

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 59.8 48.73 40.24
LAB*LABa 59.8 0.0 0.0
LAB*LABb 59.8 0.0 0.0

relative CIELAB lab*
lab*lab 0.54 0.216 0.224
lab*tch 0.625 0.75 0.048
lab*nch 0.0 0.75 0.048
relative Natural Colour (NC)
lab*trj 0.54 0.216 0.224
lab*tce 0.625 0.75 0.048
lab*nce 0.0 0.75 0.048

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.0 (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 49.3 38.93
LAB*LABa 49.3 0.0 0.0
LAB*LABb 49.3 0.0 0.0

relative CIELAB lab*
lab*lab 0.29 0.593 0.458
lab*tch 0.375 0.75 0.105
lab*nch 0.0 0.75 0.105
relative Natural Colour (NC)
lab*trj 0.29 0.593 0.458
lab*tce 0.375 0.75 0.105
lab*nce 0.0 0.75 0.105

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 32.98 32.69 25.25
LAB*LABa 32.98 0.0 0.0
LAB*LABb 32.98 0.0 0.0

relative CIELAB lab*
lab*lab 0.193 0.396 0.306
lab*tch 0.25 0.5 0.105
lab*nch 0.0 0.5 0.105
relative Natural Colour (NC)
lab*trj 0.193 0.477 0.15
lab*tce 0.25 0.5 0.105
lab*nce 0.0 0.5 0.105

$n^* = 0.50$

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 59.8 48.73 40.24
LAB*LABa 59.8 0.0 0.0
LAB*LABb 59.8 0.0 0.0

relative CIELAB lab*
lab*lab 0.54 0.216 0.224
lab*tch 0.625 0.75 0.048
lab*nch 0.0 0.75 0.048
relative Natural Colour (NC)
lab*trj 0.54 0.216 0.224
lab*tce 0.625 0.75 0.048
lab*nce 0.0 0.75 0.048

relative Inform. Technology (IT)
olv3* 0.75 0.0 0.0 (1.0)
cmyn3* 0.75 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 1.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.94 65.37 30.51
LAB*LABa 47.94 0.0 0.0
LAB*LABb 47.94 0.0 0.0

relative CIELAB lab*
lab*lab 0.387 0.791 0.611
lab*tch 0.5 0.0 0.105
lab*nch 0.0 1.0 0.105
relative Natural Colour (NC)
lab*trj 0.387 0.954 0.299
lab*tce 0.5 0.0 0.105
lab*nce 0.0 1.0 0.105

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.0 (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 37.51 61.96 37.69
LAB*LABa 37.51 0.0 0.0
LAB*LABb 37.51 0.0 0.0

relative CIELAB lab*
lab*lab 0.29 0.593 0.458
lab*tch 0.375 0.75 0.105
lab*nch 0.0 0.75 0.105
relative Natural Colour (NC)
lab*trj 0.29 0.593 0.458
lab*tce 0.375 0.75 0.105
lab*nce 0.0 0.75 0.105

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 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 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*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

$n^* = 0.00$

Output: Colorimetric Television Luminous System TLS00

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

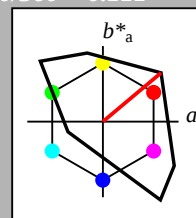
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 51 100 40

olv*Ma: 1.0 0.0 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 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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 71.57 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*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 0.25 0.25 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 1.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 59.8 48.73 40.24
LAB*LABa 59.8 0.0 0.0
LAB*LABb 59.8 0.0 0.0

relative CIELAB lab*
lab*lab 0.54 0.216 0.224
lab*tch 0.625 0.75 0.048
lab*nch 0.0 0.75 0.048
relative Natural Colour (NC)
lab*trj 0.54 0.216 0.224
lab*tce 0.625 0.75 0.048
lab*nce 0.0 0.75 0.048

relative Inform. Technology (IT)
olv3* 0.25 0.5 0.5 (1.0)
cmyn3* 0.5 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 1.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.94 65.37 30.51
LAB*LABa 47.94 0.0 0.0
LAB*LABb 47.94 0.0 0.0

relative CIELAB lab*
lab*lab 0.387 0.791 0.611
lab*tch 0.5 0.0 0.105
lab*nch 0.0 1.0 0.105
relative Natural Colour (NC)
lab*trj 0.387 0.954 0.299
lab*tce 0.5 0.0 0.105
lab*nce 0.0 1.0 0.105

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 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 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*trj 0.25 0.0 0.0
lab*tce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

$n^* = 1.0$

TLS00; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
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 0.0 0.0
LAB*LABb 72.95 0.0 0.0

relative CIELAB lab*
lab*lab 0.765 0.383 0.321
lab*tch 0.75 0.5 0.111
lab*nch 0.0 0.5 0.111
relative Natural Colour (NC)
lab*trj 0.765 0.471 0.167
lab*tce 0.75 0.5 0.111
lab*nce 0.0 0.5 0.111

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 0.0 0.0
LAB*LABb 49.11 0.0 0.0

relative CIELAB lab*
lab*lab 0.647 0.574 0.482
lab*tch 0.625 0.75 0.111
lab*nch 0.0 0.75 0.111
relative Natural Colour (NC)
lab*trj 0.647 0.707 0.251
lab*tce 0.625 0.75 0.111
lab*nce 0.0 0.75 0.111

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.0 (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 37.36 0.13 0.63
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* 0.5 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 0.0 0.0
LAB*LABb 25.26 0.0 0.0

relative CIELAB lab*
lab*lab 0.397 0.574 0.482
lab*tch 0.375 0.75 0.111
lab*nch 0.0 0.75 0.111
relative Natural Colour (NC)
lab*trj 0.397 0.707 0.251
lab*tce 0.375 0.75 0.111
lab*nce 0.0 0.75 0.111

$n^* = 0.50$

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 37.36 0.13 0.63
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* 0.25 0.5 0.5 (1.0)
cmyn3* 0.5 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 1.0 1.0 (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

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* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1

Input: Colorimetric Offset Reflective System ORS18

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

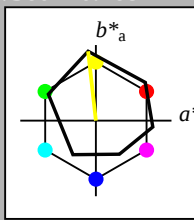
lab^*tch and lab^*nch

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 47.5
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 0.0 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* 0.5 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 0.0 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*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 37.36 0.13 0.63
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 0.03 0.47
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*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 0.03 0.47
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*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 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 -3.12 45.87
LAB*LABb 94.14 -2.56 22.93

relative CIELAB lab*
lab*lab 0.984 -0.027 0.248
lab*tch 0.875 0.25 0.268
lab*nch 0.0 0.25 0.268

relative Natural Colour (NC)
lab*trj 0.984 -0.024 0.249
lab*tce 0.875 0.25 0.268
lab*nce 0.0 0.25 0.268

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 74.8 -3.15 26.3
LAB*LABa 74.8 -2.56 22.94
LAB*LABb 75.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.748 -0.024 0.248
lab*tch 0.625 0.25 0.268
lab*nch 0.0 0.25 0.268

relative Natural Colour (NC)
lab*trj 0.748 -0.024 0.249
lab*tce 0.625 0.25 0.268
lab*nce 0.0 0.25 0.268

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 0.0 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*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 37.36 0.13 0.63
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 0.03 0.47
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*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 TLS00

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

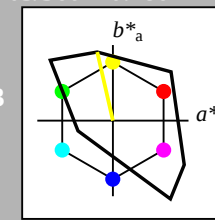
lab^*tch and lab^*nch

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 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 71.57 0.0 0.0
LAB*LABa 71.57 0.0 0.0
LAB*LABb 70.87 0.01 0.0

relative CIELAB lab*
lab*lab 0.716 0.0 0.0
lab*tch 0.716 0.0 0.0
lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)
lab*trj 0.716 0.0 0.0
lab*tce 0.716 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 56.71 -0.24 2.14
LAB*LABa 56.71 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*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 37.36 0.13 0.63
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 0.03 0.47
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*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 0.03 0.47
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*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 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 94.71 -5.16 22.68
LAB*LABa 94.71 -3.16 22.68
LAB*LABb 94.71 0.0 0.0

relative CIELAB lab*
lab*lab 0.993 -0.058 0.243
lab*tch 0.875 0.25 0.268
lab*nch 0.0 0.25 0.268

relative Natural Colour (NC)
lab*trj 0.993 -0.058 0.243
lab*tce 0.875 0.25 0.268
lab*nce 0.0 0.25 0.268

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 70.87 -5.17 22.69
LAB*LABa 70.87 -3.17 22.69
LAB*LABb 70.87 0.0 0.0

relative CIELAB lab*
lab*lab 0.709 -0.116 0.486
lab*tch 0.625 0.25 0.268
lab*nch 0.0 0.25 0.268

relative Natural Colour (NC)
lab*trj 0.709 -0.116 0.486
lab*tce 0.625 0.25 0.268
lab*nce 0.0 0.25 0.268

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 0.0 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*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 37.36 0.13 0.63
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 0.03 0.47
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*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

NE500-7, 5 step scales for constant CIELAB hue 96/360 = 0.268 (left)

5 step scales for constant CIELAB hue 103/360 = 0.286 (right)

BAM-test chart NE50; Colorimetric systems ORS18 & TLS00

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

input: $olv^* setrgbcolor$

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

lab*tch and lab*nch

olv*Ma: 0.0 1.0 1.0

— 100 —

Generate data of 5 step colour scales

*lab*tch* and *lab*nch*

olv*Ma: 0.0 1.0 1.0

10 miles

0

color / w* setgray

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

input: *olv** *setrgbcolor*

```
output: olv* setrabcolor / w* setgray
```

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 305/360 = 0.847$

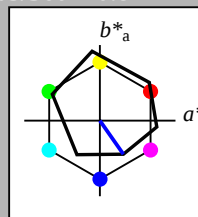
lab^*tch and lab^*nch

D65: hue V

LCH*Ma: 26 54 305

olv*Ma: 0.0 0.0 1.0

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 47.5
LAB*LAB 95.41 0.0 0.0
LAB*LAB 99.99 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)
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*LAB 76.06 0.0 0.0
LAB*LAB 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 (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 56.71 -0.24 2.14
LAB*LAB 56.71 0.0 0.0
LAB*LAB 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 (0.0)
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 37.36 0.13 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.03 0.47
LAB*LAB 18.02 0.0 0.0
LAB*LAB 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 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

$n^* = 1.0$

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* 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 60.56 15.23 -19.79
LAB*LAB 60.56 15.23 -19.79
LAB*LAB 75.00 27.1 305.0

relative CIELAB lab*
lab*lab 0.5 0.287 -0.408
lab*tch 0.75 0.5 0.847
lab*nch 0.0 0.5 0.847
relative Natural Colour (NC)
lab*trj 0.5 0.225 -0.446
lab*tce 0.75 0.5 0.824
lab*nce 0.0 0.5 0.824

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 (0.75)
cmyn4* 0.5 0.5 0.5 (0.25)
standard and adapted CIELAB
LAB*LAB 41.22 15.56 -21.1
LAB*LAB 41.22 15.56 -21.1
LAB*LAB 50.00 27.1 305.0

relative CIELAB lab*
lab*lab 0.25 0.287 -0.409
lab*tch 0.5 0.5 0.847
lab*nch 0.0 0.5 0.847
relative Natural Colour (NC)
lab*trj 0.25 0.225 -0.446
lab*tce 0.5 0.5 0.824
lab*nce 0.0 0.5 0.824

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 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 21.87 15.97 -32.24
LAB*LAB 21.87 15.97 -32.24
LAB*LAB 25.01 27.1 305.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.287 -0.408
lab*tch 0.25 0.5 0.847
lab*nch 0.0 0.5 0.847
relative Natural Colour (NC)
lab*trj 0.0 0.225 -0.446
lab*tce 0.25 0.5 0.824
lab*nce 0.0 0.5 0.824

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 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 19.94 8.23 -11.43
LAB*LAB 19.94 7.77 -11.09
LAB*LAB 12.5 13.55 305.0

relative CIELAB lab*
lab*lab 0.025 0.143 -0.204
lab*tch 0.125 0.25 0.847
lab*nch 0.0 0.25 0.847
relative Natural Colour (NC)
lab*trj 0.025 0.112 -0.222
lab*tce 0.125 0.25 0.824
lab*nce 0.0 0.25 0.824

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.25 0.25 0.25 (1.0)
cmyn4* 0.75 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 43.14 23.34 -32.07
LAB*LAB 43.14 23.34 -32.07
LAB*LAB 62.5 40.66 305.0

relative CIELAB lab*
lab*lab 0.32 0.43 -0.613
lab*tch 0.625 0.75 0.847
lab*nch 0.0 0.75 0.847
relative Natural Colour (NC)
lab*trj 0.325 0.337 -0.669
lab*tce 0.625 0.75 0.824
lab*nce 0.0 0.75 0.824

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 25.73 31.09 -44.39
LAB*LAB 25.73 31.09 -44.39
LAB*LAB 50.00 54.21 305.0

relative CIELAB lab*
lab*lab 0.1 0.573 -0.818
lab*tch 0.5 0.0 0.847
lab*nch 0.0 1.0 0.847
relative Natural Colour (NC)
lab*trj 0.1 0.449 -0.892
lab*tce 0.5 0.0 0.824
lab*nce 0.0 1.0 0.824

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 31.09 -44.39
LAB*LAB 23.87 31.09 -44.39
LAB*LAB 50.00 54.21 305.0

relative CIELAB lab*
lab*lab 0.075 0.43 -0.613
lab*tch 0.375 0.75 0.847
lab*nch 0.0 0.75 0.847
relative Natural Colour (NC)
lab*trj 0.075 0.337 -0.669
lab*tce 0.375 0.75 0.824
lab*nce 0.0 0.75 0.824

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

$n^* = 0.00$

blackness n^*

$n^* = 0.25$

$n^* = 0.50$

$n^* = 0.75$

$n^* = 1.0$

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 306/360 = 0.851$

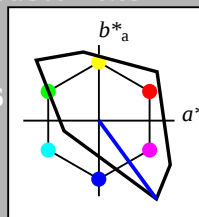
lab^*tch and lab^*nch

D65: hue V

LCH*Ma: 30 129 306

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



% 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*LAB 99.99 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)
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*LAB 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 (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 55.31 19.01 -25.89
LAB*LAB 55.31 19.01 -25.89
LAB*LAB 62.5 32.13 306.29

relative CIELAB lab*
lab*lab 0.5 0.25 0.25 -0.201
lab*tch 0.625 0.25 0.851
lab*nch 0.0 0.25 0.851
relative Natural Colour (NC)
lab*trj 0.5 0.115 -0.221
lab*tce 0.625 0.25 0.826
lab*nce 0.0 0.25 0.826

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 (0.75)
cmyn4* 0.5 0.5 0.5 (0.25)
standard and adapted CIELAB
LAB*LAB 39.05 38.03 -51.78
LAB*LAB 39.05 38.03 -51.78
LAB*LAB 50.00 64.26 306.29

relative CIELAB lab*
lab*lab 0.25 0.296 -0.402
lab*tch 0.375 0.25 0.851
lab*nch 0.0 0.25 0.851
relative Natural Colour (NC)
lab*trj 0.25 0.23 -0.443
lab*tce 0.375 0.25 0.826
lab*nce 0.0 0.25 0.826

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 15.21 15.01 -25.88
LAB*LAB 15.21 15.01 -25.88
LAB*LAB 12.5 32.12 306.29

relative CIELAB lab*
lab*lab 0.08 0.148 -0.2
lab*tch 0.125 0.25 0.851
lab*nch 0.0 0.25 0.851
relative Natural Colour (NC)
lab*trj 0.08 0.115 -0.221
lab*tce 0.125 0.25 0.826
lab*nce 0.0 0.25 0.826

$n^* = 1.0$

chromaticness c^*

% 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 62.9 38.02 -51.78
LAB*LAB 62.9 38.02 -51.78
LAB*LAB 75.00 64.26 306.29

relative CIELAB lab*
lab*lab 0.659 0.296 -0.402
lab*tch 0.75 0.5 0.851
lab*nch 0.0 0.5 0.851
relative Natural Colour (NC)
lab*trj 0.659 0.23 -0.443
lab*tce 0.75 0.5 0.826
lab*nce 0.0 0.5 0.826

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 (0.75)
cmyn4* 0.5 0.5 0.5 (0.25)
standard and adapted CIELAB
LAB*LAB 39.05 38.03 -51.78
LAB*LAB 39.05 38.03 -51.78
LAB*LAB 50.00 64.26 306.29

relative CIELAB lab*
lab*lab 0.25 0.296 -0.402
lab*tch 0.375 0.25 0.851
lab*nch 0.0 0.25 0.851
relative Natural Colour (NC)
lab*trj 0.25 0.23 -0.443
lab*tce 0.375 0.25 0.826
lab*nce 0.0 0.25 0.826

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 15.21 15.01 -25.88
LAB*LAB 15.21 15.01 -25.88
LAB*LAB 12.5 32.12 306.29

relative CIELAB lab*
lab*lab 0.08 0.148 -0.2
lab*tch 0.125 0.25 0.851
lab*nch 0.0 0.25 0.851
relative Natural Colour (NC)
lab*trj 0.08 0.115 -0.221
lab*tce 0.125 0.25 0.826
lab*nce 0.0 0.25 0.826

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

$n^* = 0.00$

chromaticness c^*

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

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

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

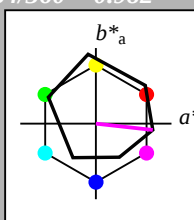
relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 62.9 38.02 -51.78
LAB*LAB 62.9 38.02 -51.78
LAB*LAB 75.00 64.26 306.29

relative CIELAB lab*
lab

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 354/360 = 0.982$
 lab^*tch and lab^*nch

D65: hue M
LCH*Ma: 48 76 354
olv*Ma: 1.0 0.0 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 47.5
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 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* 1.0 0.75 1.0 (1.0)
cmyn3* 0.0 0.25 0.0 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 83.59 18.05 1.87
LAB*LABa 83.59 18.05 1.87
LAB*TCHa 87.5 18.93 353.66

relative CIELAB lab*
lab*lab 0.847 0.248 -0.027
lab*tch 0.875 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.847 0.227 -0.103
lab*tce 0.875 0.25 0.932
lab*nce 0.0 0.25 0.72

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*TCHa 75.0 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 0.5 0.75 (1.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 64.24 18.43 0.56
LAB*LABa 64.24 18.43 0.56
LAB*TCHa 62.5 18.94 353.66

relative CIELAB lab*
lab*lab 0.597 0.248 -0.027
lab*tch 0.625 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.597 0.227 -0.103
lab*tce 0.625 0.25 0.932
lab*nce 0.0 0.25 0.72

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 0.0 0.0
LAB*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 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* 0.75 0.25 0.75 (1.0)
cmyn3* 0.25 0.75 0.25 (0.0)
olv4* 1.0 0.5 1.0 (1.0)
cmyn4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 52.42 37.64 -2.32
LAB*LABa 52.42 37.64 -2.32
LAB*TCHa 50.0 37.66 353.66

relative CIELAB lab*
lab*lab 0.445 0.454 -0.208
lab*tch 0.445 0.454 -0.208
lab*nch 0.0 0.454 -0.208
relative Natural Colour (NC)
lab*trj 0.445 0.454 -0.208
lab*tce 0.445 0.454 -0.208
lab*nce 0.0 0.454 -0.208

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 0.3 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.0 0.01 -

relative CIELAB lab*
lab*lab 0.347 0.248 -0.027
lab*tch 0.375 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.347 0.227 -0.103
lab*tce 0.375 0.25 0.932
lab*nce 0.0 0.25 0.72

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.5 (0.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 33.07 37.84 -4.17
LAB*LABa 33.07 37.84 -4.17
LAB*TCHa 25.01 37.86 353.66

relative CIELAB lab*
lab*lab 0.292 0.454 -0.082
lab*tch 0.375 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.292 0.454 -0.082
lab*tce 0.375 0.25 0.932
lab*nce 0.0 0.25 0.72

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 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* 0.25 0.0 0.25 (1.0)
cmyn3* 0.75 1.0 0.75 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 12.5 18.93 353.66
LAB*LABa 12.5 18.93 353.66

relative CIELAB lab*
lab*lab 0.097 0.248 -0.027
lab*tch 0.125 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.097 0.227 -0.103
lab*tce 0.125 0.25 0.932
lab*nce 0.0 0.25 0.72

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*TCHa 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 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

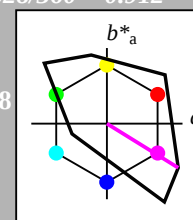
relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*TCHa 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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 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
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 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 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* 1.0 0.75 1.0 (1.0)
cmyn3* 0.0 0.25 0.0 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 85.88 23.58 -14.59
LAB*LABa 85.88 23.58 -14.59
LAB*TCHa 87.5 27.73 328.24

relative CIELAB lab*
lab*lab 0.5 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 0.5 0.176 -0.177
lab*tce 0.875 0.25 0.874
lab*nce 0.0 0.25 0.49

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*TCHa 75.0 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 0.5 0.75 (1.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 62.03 23.59 -14.6
LAB*LABa 62.03 23.59 -14.6
LAB*TCHa 62.5 27.74 328.24

relative CIELAB lab*
lab*lab 0.5 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 0.5 0.176 -0.177
lab*tce 0.875 0.25 0.874
lab*nce 0.0 0.25 0.49

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*TCHa 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 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* 0.75 0.25 0.75 (1.0)
cmyn3* 0.25 0.75 0.25 (0.0)
olv4* 1.0 0.5 1.0 (1.0)
cmyn4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 48.13 75.18 -6.79
LAB*LABa 48.13 75.18 -6.79
LAB*TCHa 50.0 75.18 353.66

relative CIELAB lab*
lab*lab 0.389 0.909 -0.416
lab*tch 0.389 0.909 -0.416
lab*nch 0.0 0.909 -0.416
relative Natural Colour (NC)
lab*trj 0.389 0.909 -0.416
lab*tce 0.389 0.909 -0.416
lab*nce 0.0 0.909 -0.416

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 0.3 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.0 0.01 -

relative CIELAB lab*
lab*lab 0.347 0.248 -0.027
lab*tch 0.375 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.347 0.227 -0.103
lab*tce 0.375 0.25 0.932
lab*nce 0.0 0.25 0.72

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.5 (0.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 33.07 37.84 -4.17
LAB*LABa 33.07 37.84 -4.17
LAB*TCHa 25.01 37.86 353.66

relative CIELAB lab*
lab*lab 0.292 0.454 -0.082
lab*tch 0.375 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.292 0.454 -0.082
lab*tce 0.375 0.25 0.932
lab*nce 0.0 0.25 0.72

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*TCHa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 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* 0.25 0.0 0.25 (1.0)
cmyn3* 0.75 1.0 0.75 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 12.5 18.93 353.66
LAB*LABa 12.5 18.93 353.66

relative CIELAB lab*
lab*lab 0.097 0.248 -0.027
lab*tch 0.125 0.25 0.982
lab*nch 0.0 0.25 0.982
relative Natural Colour (NC)
lab*trj 0.097 0.227 -0.103
lab*tce 0.125 0.25 0.932
lab*nce 0.0 0.25 0.72

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*TCHa 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 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*TCHa 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 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

NE500-7, 5 step scales for constant CIELAB hue 354/360 = 0.982 (left)

5 step scales for constant CIELAB hue 328/360 = 0.912 (right)

BAM-test chart NE50; Colorimetric systems ORS18 & TLS00

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

input: $olv^* setrgbcolor$

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

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 25/360 = 0.069$

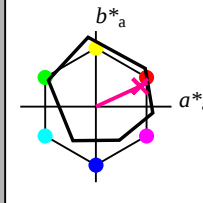
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 48 75 25

olv*Ma: 1.0 0.0 0.32

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 47.5
LAB*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*TCRa 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 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*LABb 76.06 0.0 0.0
LAB*TCRa 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.847 0.227 0.104
lab*tch 0.875 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.847 0.25 0.0
lab*tce 0.875 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.0 0.0
LAB*LABb 56.71 0.0 0.0
LAB*TCRa 55.00 0.01 -

relative CIELAB lab*
lab*lab 0.597 0.227 0.104
lab*tch 0.625 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.597 0.25 0.0
lab*tce 0.625 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.13 0.83
LAB*LABa 37.36 0.0 0.0
LAB*LABb 37.36 0.0 0.0
LAB*TCRa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.347 0.227 0.104
lab*tch 0.375 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.347 0.25 0.0
lab*tce 0.375 0.25 0.0
lab*nce 0.0 0.25 0.069

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 16.48 0.37 0.83
LAB*LABa 16.48 0.0 0.0
LAB*LABb 16.48 0.0 0.0
LAB*TCRa 10.00 0.01 -

relative CIELAB lab*
lab*lab 0.194 0.227 0.104
lab*tch 0.225 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.25 0.0
lab*tce 0.225 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.02 0.0 0.0
LAB*TCRa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.097 0.227 0.104
lab*tch 0.125 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.097 0.25 0.0
lab*tce 0.125 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.02 0.0 0.0
LAB*TCRa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.097 0.227 0.104
lab*tch 0.125 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.097 0.25 0.0
lab*tce 0.125 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.02 0.0 0.0
LAB*TCRa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.097 0.227 0.104
lab*tch 0.125 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.097 0.25 0.0
lab*tce 0.125 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.02 0.0 0.0
LAB*TCRa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.097 0.227 0.104
lab*tch 0.125 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.097 0.25 0.0
lab*tce 0.125 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 18.02 0.0 0.0
LAB*TCRa 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.097 0.227 0.104
lab*tch 0.125 0.25 0.069
lab*nch 0.0 0.25 0.069
relative Natural Colour (NC)
lab*trj 0.097 0.25 0.0
lab*tce 0.125 0.25 0.0
lab*nce 0.0 0.25 0.069

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 0.75 0.661 (1.0)
cmyn3* 0.0 0.25 0.169 (0.0)
olv4* 1.0 0.75 0.831 (1.0)
cmyn4* 0.0 0.25 0.169 (0.0)
standard and adapted CIELAB
LAB*LAB 83.55 16.38 11.84
LAB*LABa 83.55 17.14 7.88
LAB*LABb 83.55 18.86 24.69

relative CIELAB lab*
lab*lab 0.694 0.454 0.209
lab*tch 0.75 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*trj 0.694 0.5 0.0
lab*tce 0.75 0.5 0.0
lab*nce 0.0 0.5 0.069

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 0.75 0.831 (1.0)
cmyn4* 0.0 0.25 0.169 (0.0)
standard and adapted CIELAB
LAB*LAB 64.21 16.75 10.54
LAB*LABa 64.21 17.14 7.88
LAB*LABb 64.21 18.86 24.69

relative CIELAB lab*
lab*lab 0.541 0.681 0.313
lab*tch 0.625 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.541 0.75 0.0
lab*tce 0.625 0.75 0.0
lab*nce 0.0 0.75 0.069

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 0.75 0.831 (1.0)
cmyn4* 0.0 0.25 0.169 (0.0)
standard and adapted CIELAB
LAB*LAB 32.36 34.13 17.62
LAB*LABa 32.36 34.29 15.77
LAB*LABb 32.36 34.29 15.77

relative CIELAB lab*
lab*lab 0.291 0.681 0.313
lab*tch 0.375 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.291 0.75 0.0
lab*tce 0.375 0.75 0.0
lab*nce 0.0 0.75 0.069

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 33.01 34.49 16.37
LAB*LABa 33.01 34.49 16.37
LAB*LABb 33.01 34.49 16.37

relative CIELAB lab*
lab*lab 0.194 0.681 0.313
lab*tch 0.225 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.75 0.0
lab*tce 0.225 0.75 0.0
lab*nce 0.0 0.75 0.069

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 33.01 34.49 16.37
LAB*LABa 33.01 34.49 16.37
LAB*LABb 33.01 34.49 16.37

relative CIELAB lab*
lab*lab 0.194 0.681 0.313
lab*tch 0.225 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.75 0.0
lab*tce 0.225 0.75 0.0
lab*nce 0.0 0.75 0.069

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 33.01 34.49 16.37
LAB*LABa 33.01 34.49 16.37
LAB*LABb 33.01 34.49 16.37

relative CIELAB lab*
lab*lab 0.194 0.681 0.313
lab*tch 0.225 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.75 0.0
lab*tce 0.225 0.75 0.0
lab*nce 0.0 0.75 0.069

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 33.01 34.49 16.37
LAB*LABa 33.01 34.49 16.37
LAB*LABb 33.01 34.49 16.37

relative CIELAB lab*
lab*lab 0.194 0.681 0.313
lab*tch 0.225 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.75 0.0
lab*tce 0.225 0.75 0.0
lab*nce 0.0 0.75 0.069

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 33.01 34.49 16.37
LAB*LABa 33.01 34.49 16.37
LAB*LABb 33.01 34.49 16.37

relative CIELAB lab*
lab*lab 0.194 0.681 0.313
lab*tch 0.225 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.75 0.0
lab*tce 0.225 0.75 0.0
lab*nce 0.0 0.75 0.069

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 33.01 34.49 16.37
LAB*LABa 33.01 34.49 16.37
LAB*LABb 33.01 34.49 16.37

relative CIELAB lab*
lab*lab 0.194 0.681 0.313
lab*tch 0.225 0.75 0.069
lab*nch 0.0 0.75 0.069
relative Natural Colour (NC)
lab*trj 0.194 0.75 0.0
lab*tce 0.225 0.75 0.0
lab*nce 0.0 0.75 0.069

Output: Colorimetric Television Luminous System TLS00

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

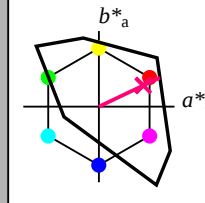
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 52 89 25

olv*Ma: 1.0 0.0 0.21

triangle lightness t^*



% 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*TCRa 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 71.57 0.0 0.0
LAB*TCRa 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.886 0.226 0.107
lab*tch 0.875 0.25 0.071
lab*nch 0.0 0.25 0.071
relative Natural Colour (NC)
lab*trj 0.886 0.25 0.0
lab*tce 0.875 0.25 0.0
lab*nce 0.0 0.25 0.071

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 60.69 20.16 9.6
LAB*LABa 60.69 20.16 9.6
LAB*LABb 60.69 20.16 9.6
LAB*TCRa 62.5 22.33 25.48

relative CIELAB lab*
lab*lab 0.525 0.625 0.323
lab*tch 0.525 0.75 0.071
lab*nch 0.0 0.75 0.071
relative Natural Colour (NC)
lab*trj 0.525 0.75 0.0
lab*tce 0.525 0.75 0.0
lab*nce 0.0 0.75 0.071

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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 47.72 0.0 0.0
LAB*TCRa 50.00 0.01 -

relative CIELAB lab*
lab*lab 0.386 0.226 0.108
lab*tch 0.375 0.25 0.071
lab*nch 0.0 0.25 0.071
relative Natural Colour (NC)
lab*trj 0.386 0.25 0.0
lab*tce 0.375 0.25 0.0
lab*nce 0.0 0.25 0.071

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 36.84 20.16 9.6
LAB*LABa 36.84 20.16 9.6
LAB*LABb 36.84 20.16 9.6
LAB*TCRa 37.5 22.33 25.48

relative CIELAB lab*
lab*lab 0.386 0.226 0.108
lab*tch 0.375 0.25 0.071
lab*nch 0.0 0.25 0.071
relative Natural Colour (NC)
lab*trj 0.386 0.25 0.0
lab*tce 0.375 0.25 0.0
lab*nce 0.0 0.25 0.071

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 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0
LAB*TCRa 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 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 23.87 0.0 0.0
LAB*TCRa 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 23.87 0.0 0.0
LAB*LABa 23.87

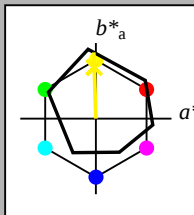
Input: Colorimetric Offset Reflective System ORS18

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^*



% 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 47.5
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 0.0 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 (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 0.0 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 (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 43.16 0.37 0.83
LAB*LABa 43.16 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 18.02 0.03 0.47
LAB*LABa 18.02 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 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 1.0 0.0 0.0

$n^* = 1.0$

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 0.951 0.5 (1.0)
cmyn3* 0.0 0.049 0.5 (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 90.8 -2.3 48.29
LAB*LABa 90.8 -1.4 43.84
LAB*LABb 75.0 43.86 91.85

relative CIELAB lab*
lab*lab 0.94 -0.015 0.5
lab*tch 0.75 0.5 0.255
lab*nch 0.0 0.5 0.255
relative Natural Colour (NC)
lab*trj 0.94 0.0 0.5
lab*tce 0.75 0.5 0.255
lab*nce 0.0 0.5 0.255

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 -1.4 43.84
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* 0.5 0.451 0.0 (1.0)
cmyn3* 0.5 0.549 1.0 (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 52.1 -1.39 43.86
LAB*LABa 52.1 -1.39 43.86
LAB*LABb 25.01 43.86 91.84

relative CIELAB lab*
lab*lab 0.44 -0.015 0.5
lab*tch 0.25 0.5 0.255
lab*nch 0.0 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 0.0 0.5 0.255

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 0.951 0.5 (1.0)
cmyn4* 0.0 0.049 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 35.06 -0.52 22.69
LAB*LABa 35.06 -0.69 21.91
LAB*LABb 12.5 21.92 91.83

relative CIELAB lab*
lab*lab 0.22 -0.007 0.25
lab*tch 0.125 0.25 0.255
lab*nch 0.0 0.25 0.255
relative Natural Colour (NC)
lab*trj 0.22 0.0 0.25
lab*tce 0.125 0.25 0.255
lab*nce 0.0 0.25 0.255

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 1.0 0.926 0.25 (1.0)
cmyn3* 0.0 0.074 0.25 (0.0)
olv4* 1.0 0.926 0.25 (1.0)
cmyn4* 0.0 0.074 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 88.49 -2.96 70.05
LAB*LABa 88.49 -2.11 65.76
LAB*LABb 62.5 65.79 91.84

relative CIELAB lab*
lab*lab 0.911 -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 0.911 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* 0.911 -0.023 0.75
cmyn3* 0.25 0.324 1.0 (0.0)
olv4* 1.0 0.926 0.25 (1.0)
cmyn4* 0.0 0.074 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 69.14 -2.58 68.74
LAB*LABa 69.14 -2.1 65.76
LAB*LABb 37.51 65.79 91.84

relative CIELAB lab*
lab*lab 0.661 -0.023 0.75
lab*tch 0.375 0.75 0.255
lab*nch 0.0 0.75 0.255
relative Natural Colour (NC)
lab*trj 0.661 0.0 0.75
lab*tce 0.375 0.75 0.255
lab*nce 0.0 0.75 0.255

relative Inform. Technology (IT)
olv3* 0.661 -0.023 0.75
cmyn3* 0.25 0.324 1.0 (0.0)
olv4* 1.0 0.926 0.25 (1.0)
cmyn4* 0.0 0.074 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 23.87 0.0 0.0
LAB*LABa 23.87 0.0 0.0
LAB*LABb 25.01 43.86 91.84

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

$n^* = 0.25$

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
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 25.01 43.86 91.84

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

$n^* = 0.00$

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
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 25.01 43.86 91.84

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

$n^* = 0.25$

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 0.03 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

$n^* = 1.0$

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

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chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

triangle lightness t^*

chromaticness c^*

blackness n^*

Input: Colorimetric Offset Reflective System ORS18

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

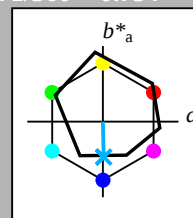
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 42 45 271

olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



% 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 47.5
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 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 0.0 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* 0.5 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 56.71 -0.24 2.14
LAB*LABa 56.71 0.0 0.0
LAB*LABb 50.00 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*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 (0.0)
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 37.36 0.0 0.0
LAB*LABa 37.36 0.0 0.0
LAB*LABb 25.00 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 (0.0)
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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 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 1.0 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 (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 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*LABb 0.01 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 1.0 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* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 0.5
cmyn4* 0.5 0.5 0.5 0.5
standard and adapted CIELAB
LAB*LAB 68.6 0.0 -19.39
LAB*LABa 68.6 0.0 -22.34
LAB*LABb 75.0 22.36 27.14

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 (0.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 0.25
cmyn4* 0.5 0.5 0.5 0.25
standard and adapted CIELAB
LAB*LAB 49.25 0.45 -20.7
LAB*LABa 49.25 0.45 -22.35
LAB*LABb 50.0 22.36 27.14

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 (0.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 29.9 0.55 -22.34
LAB*LABa 29.9 0.55 -22.34
LAB*LABb 25.01 22.36 27.14

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 1.0 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 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 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 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 1.0 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 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 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 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 1.0 0.0 0.0

Output: Colorimetric Television Luminous System TLS00

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

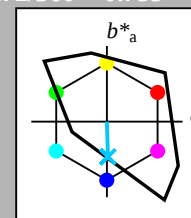
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 65 49 272

olv*Ma: 0.0 0.61 1.0

triangle lightness t^*



% 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 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 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 75.0 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* 0.5 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 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 50.0 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*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 (0.0)
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 37.36 0.0 0.0
LAB*LABa 37.36 0.0 0.0
LAB*LABb 25.00 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 (0.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 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 1.0 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 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*LABb 0.01 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 1.0 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* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 0.5
cmyn4* 0.5 0.5 0.5 0.5
standard and adapted CIELAB
LAB*LAB 80.13 0.73 -24.31
LAB*LABa 80.13 0.73 -24.31
LAB*LABb 87.5 12.16 27.12

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 (0.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 0.25
cmyn4* 0.5 0.5 0.5 0.25
standard and adapted CIELAB
LAB*LAB 63.92 0.37 -12.15
LAB*LABa 63.92 0.37 -12.15
LAB*LABb 62.5 12.17 27.14

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 (0.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 40.07 0.37 -12.15
LAB*LABa 40.07 0.37 -12.15
LAB*LABb 37.5 12.17 27.14

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 1.0 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 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 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 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 1.0 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 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*LABb 0.01 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 1.0 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 0.5
cmyn4* 0.5 0.5 0.5 0.5
standard and adapted CIELAB
LAB*LAB 80.13 0.73 -24.31
LAB*LABa 80.13 0.73 -24.31
LAB*LABb 87.5 12.16 27.12

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 (0.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 0.25
cmyn4* 0.5 0.5 0.5 0.25
standard and adapted CIELAB
LAB*LAB 63.92 0.37 -12.15
LAB*LABa 63.92 0.37 -12.15
LAB*LABb 62.5 12.17 27.14

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 (0.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 40.07 0.37 -12.15
LAB*LABa 40.07 0.37 -12.15
LAB*LABb 37.5 12.17 27.14

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 1.0 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 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 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 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0