

Input: Colorimetric Offset Reflective System ORS18

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

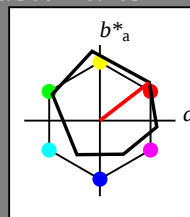
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 83 38

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



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)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	1.0 1.0 1.0 (1.0)
olv6*	0.0 0.0 0.0 (0.0)
olv7*	1.0 1.0 1.0 (1.0)
olv8*	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 0.01 0.0
relative CIELAB lab*	
lab*lab	1.0 0.0 0.0
lab*lab	1.0 0.0 0.0
lab*lab	0.0 0.0 0.0
lab*lab	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	1.0 1.0 1.0
lab*lab	0.0 0.0 0.0
lab*lab	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	1.0 0.75 0.75 (1.0)
olv4*	0.0 0.25 0.25 (0.0)
olv5*	1.0 0.75 0.75 (1.0)
olv6*	0.0 0.25 0.25 (0.0)
olv7*	1.0 0.75 0.75 (1.0)
olv8*	0.0 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*Lab	83.54 15.58 16.58
LAB*Lab	83.54 16.34 12.63
LAB*Lab	87.5 20.65 37.69
relative CIELAB lab*	
lab*lab	0.847 0.198 0.153
lab*lab	0.875 0.25 0.105
lab*lab	0.875 0.25 0.105
lab*lab	0.875 0.25 0.105
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.847 0.238 0.075
lab*lab	0.875 0.25 0.048
lab*lab	0.875 0.25 0.191

relative Inform. Technology (IT)	
olv3*	1.0 0.5 0.5 (1.0)
olv4*	0.0 0.5 0.5 (0.0)
olv5*	1.0 0.5 0.5 (1.0)
olv6*	0.0 0.5 0.5 (0.0)
olv7*	1.0 0.5 0.5 (1.0)
olv8*	0.0 0.5 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	71.67 32.15 28.41
LAB*Lab	71.67 32.69 25.25
LAB*Lab	75.0 41.31 37.69
relative CIELAB lab*	
lab*lab	0.693 0.396 0.306
lab*lab	0.75 0.5 0.105
lab*lab	0.75 0.5 0.105
lab*lab	0.75 0.5 0.105
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.693 0.477 0.15
lab*lab	0.75 0.5 0.048
lab*lab	0.75 0.5 0.191

relative Inform. Technology (IT)	
olv3*	1.0 0.25 0.25 (1.0)
olv4*	0.0 0.25 0.25 (0.0)
olv5*	1.0 0.25 0.25 (1.0)
olv6*	0.0 0.25 0.25 (0.0)
olv7*	1.0 0.25 0.25 (1.0)
olv8*	0.0 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*Lab	59.8 48.73 40.24
LAB*Lab	59.8 49.03 37.88
LAB*Lab	62.5 61.96 37.69
relative CIELAB lab*	
lab*lab	0.593 0.458 0.105
lab*lab	0.625 0.75 0.105
lab*lab	0.625 0.75 0.105
lab*lab	0.625 0.75 0.105
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.593 0.477 0.15
lab*lab	0.625 0.75 0.048
lab*lab	0.625 0.75 0.191

relative Inform. Technology (IT)	
olv3*	1.0 0.0 0.0 (1.0)
olv4*	0.0 1.0 0.0 (0.0)
olv5*	1.0 0.0 0.0 (1.0)
olv6*	0.0 1.0 0.0 (0.0)
olv7*	1.0 0.0 0.0 (1.0)
olv8*	0.0 1.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*Lab	47.94 65.37 50.51
LAB*Lab	47.94 65.37 50.51
LAB*Lab	50.0 82.61 37.69
relative CIELAB lab*	
lab*lab	0.387 0.791 0.611
lab*lab	0.5 0.5 0.105
lab*lab	0.5 0.5 0.105
lab*lab	0.5 0.5 0.105
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.387 0.954 0.299
lab*lab	0.5 0.5 0.0
lab*lab	0.5 0.5 0.191

$n^* = 0.00$

$n^* = 0.25$

$n^* = 0.50$

$n^* = 1.0$

chromaticness c^*

NE500-7, 5 step scales for constant CIELAB hue 38/360 = 0.105 (left)

BAM-test chart NE50; Colorimetric systems ORS18 & TLS00

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

Output: Colorimetric Television Luminous System TLS00

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

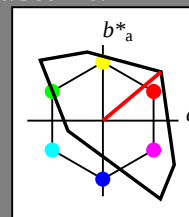
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 51 100 40

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



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)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	1.0 1.0 1.0 (1.0)
olv6*	0.0 0.0 0.0 (0.0)
olv7*	1.0 1.0 1.0 (1.0)
olv8*	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 0.01 0.0
relative CIELAB lab*	
lab*lab	1.0 0.0 0.0
lab*lab	1.0 0.0 0.0
lab*lab	0.0 0.0 0.0
lab*lab	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	1.0 1.0 1.0
lab*lab	0.0 0.0 0.0
lab*lab	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	1.0 0.75 0.75 (1.0)
olv4*	0.0 0.25 0.25 (0.0)
olv5*	1.0 0.75 0.75 (1.0)
olv6*	0.0 0.25 0.25 (0.0)
olv7*	1.0 0.75 0.75 (1.0)
olv8*	0.0 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*Lab	84.18 19.22 16.13
LAB*Lab	84.18 19.22 16.13
LAB*Lab	87.5 25.09 40.0
relative CIELAB lab*	
lab*lab	0.882 0.191 0.161
lab*lab	0.875 0.25 0.111
lab*lab	0.875 0.25 0.111
lab*lab	0.875 0.25 0.111
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.882 0.235 0.084
lab*lab	0.875 0.25 0.054
lab*lab	0.875 0.25 0.211

relative Inform. Technology (IT)	
olv3*	1.0 0.5 0.5 (1.0)
olv4*	0.0 0.5 0.5 (0.0)
olv5*	1.0 0.5 0.5 (1.0)
olv6*	0.0 0.5 0.5 (0.0)
olv7*	1.0 0.5 0.5 (1.0)
olv8*	0.0 0.5 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	72.95 38.45 32.27
LAB*Lab	72.95 38.45 32.27
LAB*Lab	75.0 50.2 40.0
relative CIELAB lab*	
lab*lab	0.765 0.383 0.321
lab*lab	0.75 0.5 0.111
lab*lab	0.75 0.5 0.111
lab*lab	0.75 0.5 0.111
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.765 0.471 0.167
lab*lab	0.75 0.5 0.054
lab*lab	0.75 0.5 0.211

relative Inform. Technology (IT)	
olv3*	1.0 0.25 0.25 (1.0)
olv4*	0.0 0.25 0.25 (0.0)
olv5*	1.0 0.25 0.25 (1.0)
olv6*	0.0 0.25 0.25 (0.0)
olv7*	1.0 0.25 0.25 (1.0)
olv8*	0.0 0.25 0.25 (0.0)
standard and adapted CIELAB	
LAB*Lab	60.33 19.23 16.14
LAB*Lab	60.33 19.23 16.14
LAB*Lab	62.5 25.1 40.0
relative CIELAB lab*	
lab*lab	0.632 0.192 0.161
lab*lab	0.625 0.25 0.111
lab*lab	0.625 0.25 0.111
lab*lab	0.625 0.25 0.111
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.632 0.236 0.084
lab*lab	0.625 0.25 0.054
lab*lab	0.625 0.25 0.211

relative Inform. Technology (IT)	
olv3*	1.0 0.0 0.0 (1.0)
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olv8*	0.0 1.0 0.0 (0.0)
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lab*lab	0.5 0.5 0.105
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lab*lab	0.5 0.5 0.105
relative Natural Colour (NC)	
lab*lab	1.0 1.0 1.0
lab*lab	0.387 0.954 0.299
lab*lab	0.5 0.5 0.0
lab*lab	0.5 0.5 0.191

$n^* = 0.00$

$n^* = 0.25$

$n^* = 0.50$

$n^* = 1.0$

chromaticness c^*

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

input: $olv^* setrgbcolor$

output: no change compared to input

Input: Colorimetric Offset Reflective System ORS18

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

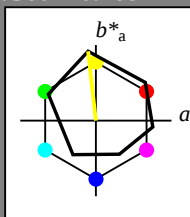
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 90 92 96

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



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 1.0 0.5 (1.0)
cmyn3* 0.0 0.0 0.5 (0.0)
olv4* 1.0 1.0 0.5 (1.0)
cmyn4* 0.0 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 92.88 -6.06 50.46
LAB*LABa 92.88 -3.12 45.87
LAB*TCHa 75.0 46.15 96.38

relative CIELAB lab*
lab*lab 0.967 -0.055 49.47
lab*tch 0.75 0.5 0.268
lab*nch 0.0 0.5 0.268
relative Natural Colour (NC)
lab*trj 0.967 -0.048 49.47
lab*tce 0.75 0.5 0.268
lab*nce 0.0 0.5 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 0.25 (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 0.984 -0.027 2.48
lab*tch 0.875 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.984 -0.024 2.49
lab*tce 0.875 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.5 (1.0)
cmyn3* 0.25 0.25 0.5 (0.0)
olv4* 1.0 1.0 0.5 (1.0)
cmyn4* 0.0 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 92.88 -6.06 50.46
LAB*LABa 92.88 -3.12 45.87
LAB*TCHa 75.0 46.15 96.38

relative CIELAB lab*
lab*lab 0.967 -0.055 49.47
lab*tch 0.75 0.5 0.268
lab*nch 0.0 0.5 0.268
relative Natural Colour (NC)
lab*trj 0.967 -0.048 49.47
lab*tce 0.75 0.5 0.268
lab*nce 0.0 0.5 0.268

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.25 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 0.5 (1.0)
cmyn4* 0.0 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.24 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCHa 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.25 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 0.5 (1.0)
cmyn4* 0.0 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.24 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCHa 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 2.68
lab*nce 0.0 0.25 2.68

Output: Colorimetric Television Luminous System TLS00

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

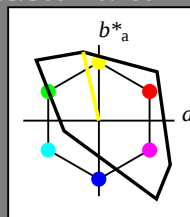
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 93 93 103

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



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 1.0 0.5 (1.0)
cmyn3* 0.0 0.0 0.5 (0.0)
olv4* 1.0 1.0 0.5 (1.0)
cmyn4* 0.0 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 94.71 -5.16 22.68
LAB*LABa 94.71 -3.16 22.68
LAB*TCHa 87.5 23.26 102.85

relative CIELAB lab*
lab*lab 0.993 -0.058 0.243
lab*tch 0.875 0.25 2.86
lab*nch 0.0 0.25 2.86
relative Natural Colour (NC)
lab*trj 0.993 -0.058 0.243
lab*tce 0.875 0.25 2.86
lab*nce 0.0 0.25 2.86

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 0.25 (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 0.967 -0.055 49.47
lab*tch 0.75 0.5 0.268
lab*nch 0.0 0.5 0.268
relative Natural Colour (NC)
lab*trj 0.967 -0.048 49.47
lab*tce 0.75 0.5 0.268
lab*nce 0.0 0.5 0.268

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.25 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 0.5 (1.0)
cmyn4* 0.0 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.24 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCHa 75.0 0.01 -

relative CIELAB lab*
lab*lab 0.984 -0.027 2.48
lab*tch 0.875 0.25 2.68
lab*nch 0.0 0.25 2.68
relative Natural Colour (NC)
lab*trj 0.984 -0.024 2.49
lab*tce 0.875 0.25 2.68
lab*nce 0.0 0.25 2.68

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.0 (1.0)
cmyn3* 0.25 0.25 0.0 (0.0)
olv4* 1.0 1.0 0.0 (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 75.0 0

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab \cdot h = 151/360 = 0.419$

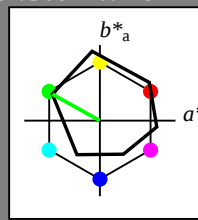
$lab \cdot tch$ and $lab \cdot nch$

D65: hue L

LCH*Ma: 51 72 151

olv*Ma: 0.0 1.0 0.0

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* 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* 0.5 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 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* 0.25 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 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.0 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 0.0 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

$n^* = 1.0$

relative Inform. Technology (IT)
olv3* 0.75 1.0 0.75 (1.0)
cmyn3* 0.25 0.0 0.25 (0.0)
olv4* 1.0 0.75 1.0 (1.0)
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 84.28 -16.47 12.74
LAB*LABa 84.28 -15.69 8.74
LAB*TCHa 97.5 17.97 150.91

relative CIELAB lab*
lab*lab 0.856 -0.217 0.121
lab*tch 0.875 0.25 0.419
lab*nch 0.0 0.25 0.419
relative Natural Colour (NC)
lab*trj 0.856 -0.238 0.072
lab*tce 0.875 0.25 0.453
lab*nce 0.0 0.25 0.419

relative Inform. Technology (IT)
olv3* 0.5 0.75 0.5 (1.0)
cmyn3* 0.5 0.25 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 64.93 -16.1 11.44
LAB*LABa 64.93 -15.7 8.74
LAB*TCHa 62.5 17.98 150.91

relative CIELAB lab*
lab*lab 0.616 -0.217 0.122
lab*tch 0.625 0.25 0.419
lab*nch 0.25 0.25 0.419
relative Natural Colour (NC)
lab*trj 0.606 -0.238 0.072
lab*tce 0.625 0.25 0.453
lab*nce 0.25 0.25 0.419

relative Inform. Technology (IT)
olv3* 0.25 0.5 0.25 (1.0)
cmyn3* 0.75 0.5 0.75 (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 45.26 -15.73 10.13
LAB*LABa 45.26 -15.7 8.74
LAB*TCHa 37.5 17.98 150.91

relative CIELAB lab*
lab*lab 0.356 -0.217 0.122
lab*tch 0.375 0.25 0.419
lab*nch 0.25 0.25 0.419
relative Natural Colour (NC)
lab*trj 0.356 -0.238 0.072
lab*tce 0.375 0.25 0.453
lab*nce 0.25 0.25 0.419

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (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 34.46 -31.22 18.12
LAB*LABa 34.46 -31.4 17.48
LAB*TCHa 30.0 35.95 150.91

relative CIELAB lab*
lab*lab 0.213 -0.436 0.243
lab*tch 0.25 0.5 0.419
lab*nch 0.0 0.5 0.419
relative Natural Colour (NC)
lab*trj 0.213 -0.478 0.144
lab*tce 0.25 0.5 0.453
lab*nce 0.0 0.5 0.419

relative Inform. Technology (IT)
olv3* 0.106 -0.217 0.121
cmyn3* 0.125 0.0 0.125 (0.0)
olv4* 0.75 0.25 0.419
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 26.24 -25.8 8.82
LAB*LABa 26.24 -15.69 8.74
LAB*TCHa 12.5 17.97 150.91

relative CIELAB lab*
lab*lab 0.106 -0.217 0.121
lab*tch 0.125 0.0 0.125 (0.0)
lab*nch 0.75 0.25 0.419
relative Natural Colour (NC)
lab*trj 0.106 -0.238 0.072
lab*tce 0.125 0.0 0.125 (0.0)
lab*nce 0.75 0.25 0.419

$n^* = 0.50$

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 (1.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 73.15 -31.96 20.73
LAB*LABa 73.15 -31.4 17.48
LAB*TCHa 75.0 35.95 150.91

relative CIELAB lab*
lab*lab 0.712 -0.436 0.243
lab*tch 0.75 0.5 0.419
lab*nch 0.0 0.5 0.419
relative Natural Colour (NC)
lab*trj 0.712 -0.478 0.144
lab*tce 0.75 0.5 0.453
lab*nce 0.0 0.5 0.419

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 (1.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 53.81 -31.6 19.43
LAB*LABa 53.81 -31.4 17.48
LAB*TCHa 50.0 35.95 150.91

relative CIELAB lab*
lab*lab 0.569 -0.654 0.365
lab*tch 0.625 0.75 0.419
lab*nch 0.0 0.75 0.419
relative Natural Colour (NC)
lab*trj 0.569 -0.717 0.217
lab*tce 0.625 0.75 0.453
lab*nce 0.0 0.75 0.419

relative Inform. Technology (IT)
olv3* 0.0 0.75 0.0 (1.0)
cmyn3* 0.625 0.75 0.419
olv4* 0.25 1.0 0.25 (1.0)
cmyn4* 0.625 0.0 0.625 (0.0)
standard and adapted CIELAB
LAB*LAB 42.68 -47.09 27.41
LAB*LABa 42.68 -47.1 26.21
LAB*TCHa 37.51 53.92 150.91

relative CIELAB lab*
lab*lab 0.319 -0.654 0.365
lab*tch 0.375 0.75 0.419
lab*nch 0.0 0.75 0.419
relative Natural Colour (NC)
lab*trj 0.319 -0.717 0.217
lab*tce 0.375 0.75 0.453
lab*nce 0.0 0.75 0.419

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 34.46 -31.22 18.12
LAB*LABa 34.46 -31.4 17.48
LAB*TCHa 30.0 35.95 150.91

relative CIELAB lab*
lab*lab 0.213 -0.436 0.243
lab*tch 0.25 0.5 0.419
lab*nch 0.0 0.5 0.419
relative Natural Colour (NC)
lab*trj 0.213 -0.478 0.144
lab*tce 0.25 0.5 0.453
lab*nce 0.0 0.5 0.419

relative Inform. Technology (IT)
olv3* 0.106 -0.217 0.121
cmyn3* 0.125 0.0 0.125 (0.0)
olv4* 0.75 0.25 0.419
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 26.24 -25.8 8.82
LAB*LABa 26.24 -15.69 8.74
LAB*TCHa 12.5 17.97 150.91

relative CIELAB lab*
lab*lab 0.106 -0.217 0.121
lab*tch 0.125 0.0 0.125 (0.0)
lab*nch 0.75 0.25 0.419
relative Natural Colour (NC)
lab*trj 0.106 -0.238 0.072
lab*tce 0.125 0.0 0.125 (0.0)
lab*nce 0.75 0.25 0.419

$n^* = 0.25$

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.25 1.0 0.25 (1.0)
cmyn4* 0.75 0.0 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 62.02 -47.46 28.72
LAB*LABa 62.02 -47.1 26.21
LAB*TCHa 62.5 53.92 150.91

relative CIELAB lab*
lab*lab 0.569 -0.654 0.365
lab*tch 0.625 0.75 0.419
lab*nch 0.0 0.75 0.419
relative Natural Colour (NC)
lab*trj 0.569 -0.717 0.217
lab*tce 0.625 0.75 0.453
lab*nce 0.0 0.75 0.419

relative Inform. Technology (IT)
olv3* 0.0 1.0 0.0 (1.0)
cmyn3* 0.625 1.0 0.0 (0.0)
olv4* 0.0 1.0 0.0 (1.0)
cmyn4* 0.625 0.0 0.625 (0.0)
standard and adapted CIELAB
LAB*LAB 50.9 -62.95 36.7
LAB*LABa 50.9 -62.81 34.95
LAB*TCHa 50.0 71.89 150.91

relative CIELAB lab*
lab*lab 0.425 -0.873 0.486
lab*tch 0.5 1.0 0.419
lab*nch 0.0 1.0 0.419
relative Natural Colour (NC)
lab*trj 0.425 -0.956 0.289
lab*tce 0.5 1.0 0.419
lab*nce 0.0 1.0 0.419

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.0 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.25 1.0 0.25 (1.0)
cmyn4* 0.75 0.0 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 42.68 -47.09 27.41
LAB*LABa 42.68 -47.1 26.21
LAB*TCHa 37.51 53.92 150.91

relative CIELAB lab*
lab*lab 0.319 -0.654 0.365
lab*tch 0.375 0.75 0.419
lab*nch 0.0 0.75 0.419
relative Natural Colour (NC)
lab*trj 0.319 -0.717 0.217
lab*tce 0.375 0.75 0.453
lab*nce 0.0 0.75 0.419

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 34.46 -31.22 18.12
LAB*LABa 34.46 -31.4 17.48
LAB*TCHa 30.0 35.95 150.91

relative CIELAB lab*
lab*lab 0.213 -0.436 0.243
lab*tch 0.25 0.5 0.419
lab*nch 0.0 0.5 0.419
relative Natural Colour (NC)
lab*trj 0.213 -0.478 0.144
lab*tce 0.25 0.5 0.453
lab*nce 0.0 0.5 0.419

relative Inform. Technology (IT)
olv3* 0.106 -0.217 0.121
cmyn3* 0.125 0.0 0.125 (0.0)
olv4* 0.75 0.25 0.419
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 26.24 -25.8 8.82
LAB*LABa 26.24 -15.69 8.74
LAB*TCHa 12.5 17.97 150.91

relative CIELAB lab*
lab*lab 0.106 -0.217 0.121
lab*tch 0.125 0.0 0.125 (0.0)
lab*nch 0.75 0.25 0.419
relative Natural Colour (NC)
lab*trj 0.106 -0.238 0.072
lab*tce 0.125 0.0 0.125 (0.0)
lab*nce 0.75 0.25 0.419

$n^* = 0.00$

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.25 0.5 (0.0)
olv4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.5 0.0 0.5 (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* 0.25 0.5 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 50.9 -62.95 36.7
LAB*LABa 50.9 -62.81 34.95
LAB*TCHa 50.0 71.89 150.91

relative CIELAB lab*
lab*lab 0.425 -0.873 0.486
lab*tch 0.5 1.0 0.419
lab*nch 0.0 1.0 0.419
relative Natural Colour (NC)
lab*trj 0.425 -0.956 0.289
lab*tce 0.5 1.0 0.419
lab*nce 0.0 1.0 0.419

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.0 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.25 1.0 0.25 (1.0)
cmyn4* 0.75 0.0 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 42.68 -47.09 27.41
LAB*LABa 42.68 -47.1 26.21
LAB*TCHa 37.51 53.92 150.91

relative CIELAB lab*
lab*lab 0.319 -0.654 0.365
lab*tch 0.375 0.75 0.419
lab*nch 0.0 0.75 0.419
relative Natural Colour (NC)
lab*trj 0.319 -0.717 0.217
lab*tce 0.375 0.75 0.453
lab*nce 0.0 0.75 0.419

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.0 (1.0)
cmyn3* 1.0 0.5 1.0 (0.0)
olv4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 34.46 -31.22 18.12
LAB*LABa 34.46 -31.4 17.48
LAB*TCHa 30.0 35.95 150.91

relative CIELAB lab*
lab*lab 0.213 -0.436 0.243
lab*tch 0.25 0.5 0.419
lab*nch 0.0 0.5 0.419
relative Natural Colour (NC)
lab*trj 0.213 -0.478 0.144
lab*tce 0.25 0.5 0.453
lab*nce 0.0 0.5 0.419

relative Inform. Technology (IT)
olv3* 0.106 -0.217 0.121
cmyn3* 0.125 0.0 0.125 (0.0)
olv4* 0.75 0.25 0.419
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 26.24 -25.8 8.82
LAB*LABa 26.24 -15.69 8.74
LAB*TCHa 12.5 17.97 150.91

relative CIELAB lab*
lab*lab 0.106 -0.217 0.121
lab*tch 0.125 0.0 0.125 (0.0)
lab*nch 0.75 0.25 0.419
relative Natural Colour (NC)
lab*trj 0.106 -0.238 0.072
lab*tce 0.125 0.0 0.125 (0.0)
lab*nce 0.75 0.25 0.419

$n^* = 0.25$

Output: Colorimetric Television Luminous System TLS00

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

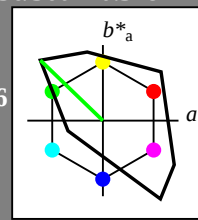
$lab \cdot tch$ and $lab \cdot nch$

D65: hue L

LCH*Ma: 84 115 136

olv*Ma: 0.0 1.0 0.0

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

Input: Colorimetric Offset Reflective System ORS18

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

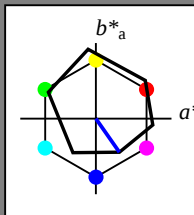
lab^*tch and lab^*nch

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 0.75
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 0.0 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 (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 75.00 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 1.0 1.0 (0.25)
cmyn4* 0.0 0.0 0.0 (0.75)
standard and adapted CIELAB
LAB*LAB 37.36 -0.38 0.63
LAB*LABa 37.36 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 (0.0)
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 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

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

$g^*_{C,rel} = 155$

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*LABa 60.56 15.23 -19.79
LAB*LABb 77.99 7.77 -11.09
LAB*LABc 87.5 30.5

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

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 15.55 -22.2
LAB*LABa 41.22 15.55 -22.2
LAB*LABb 50.0 27.1 305.0

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

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 15.57 -22.2
LAB*LABa 21.87 15.57 -22.2
LAB*LABb 25.01 27.1 305.0

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

$n^* = 0.50$

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 (0.75)
cmyn4* 0.75 0.75 0.75 (0.25)
standard and adapted CIELAB
LAB*LAB 43.14 23.34 -32.07
LAB*LABa 43.14 23.34 -32.07
LAB*LABb 62.5 40.6 305.0

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 0.847
lab*nce 0.0 0.75 0.847

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 (0.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 25.73 31.09 -44.34
LAB*LABa 25.73 31.09 -44.34
LAB*LABb 50.0 54.21 305.0

relative CIELAB lab*
lab*lab 0.1 0.573 -0.818
lab*tch 0.5 0.1 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 0.1 0.847
lab*nce 0.0 1.0 0.847

$n^* = 0.00$

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 (0.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 15.87 15.57 -22.2
LAB*LABa 15.87 15.57 -22.2
LAB*LABb 25.01 27.1 305.0

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

$n^* = 0.25$

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

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

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

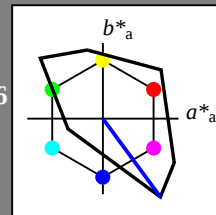
lab^*tch and lab^*nch

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*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 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*LABa 55.31 19.01 -25.89
LAB*LABb 62.5 32.13 306.29

relative CIELAB lab*
lab*lab 0.5 0.287 -0.408
lab*tch 0.5 0.287 -0.408
lab*nch 0.0 0.5 0.851
relative Natural Colour (NC)
lab*trj 0.5 0.225 -0.443
lab*tce 0.5 0.225 -0.443
lab*nce 0.0 0.5 0.851

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 31.46 19.01 -25.89
LAB*LABa 31.46 19.01 -25.89
LAB*LABb 50.0 54.21 306.29

relative CIELAB lab*
lab*lab 0.25 0.287 -0.408
lab*tch 0.25 0.287 -0.408
lab*nch 0.0 0.5 0.851
relative Natural Colour (NC)
lab*trj 0.25 0.225 -0.443
lab*tce 0.25 0.225 -0.443
lab*nce 0.0 0.5 0.851

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 15.87 15.57 -22.2
LAB*LABa 15.87 15.57 -22.2
LAB*LABb 25.01 27.1 306.29

relative CIELAB lab*
lab*lab 0.0 0.287 -0.408
lab*tch 0.25 0.287 -0.408
lab*nch 0.0 0.5 0.851
relative Natural Colour (NC)
lab*trj 0.0 0.225 -0.443
lab*tce 0.0 0.225 -0.443
lab*nce 0.0 0.5 0.851

$n^* = 1.0$

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

input: $olv^* setrgbcolor$

output: no change compared to input

BAM-test chart NE50; Colorimetric systems ORS18 & TLS00

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

NE500-7, 5 step scales for constant CIELAB hue 305/360 = 0.847 (left)

Input: Colorimetric Offset Reflective System ORS18

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

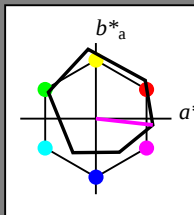
lab^*tch and lab^*nch

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)

olv1*	1.0	1.0	1.0	(1.0)
olv2*	0.0	0.0	0.0	(0.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	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	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*tce	0.0	0.0	0.0
lab*nce	0.0	0.0	0.0

relative Inform. Technology (IT)

olv1*	1.0	0.75	1.0	(1.0)
olv2*	0.0	0.25	0.0	(0.0)
olv3*	0.0	0.75	1.0	(1.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	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*LABb	97.5	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	0.982
lab*nce	0.0	0.25	0.982

relative Inform. Technology (IT)

olv1*	1.0	0.5	1.0	(1.0)
olv2*	0.0	0.25	0.0	(0.0)
olv3*	0.0	0.75	1.0	(1.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	0.0	0.25	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	71.77	37.1	-1.01
LAB*LABa	71.77	37.1	-1.01
LAB*LABb	75.0	37.96	353.66

relative CIELAB lab*

lab*lab	0.695	0.497	-0.054
lab*tch	0.75	0.5	0.982
lab*nch	0.0	0.5	0.982

relative Natural Colour (NC)

lab*trj	0.695	0.454	-0.208
lab*tce	0.75	0.5	0.982
lab*nce	0.0	0.5	0.982

relative Inform. Technology (IT)

olv1*	0.75	0.25	0.75	(1.0)
olv2*	0.0	0.25	0.0	(0.0)
olv3*	0.0	0.75	0.25	(0.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	0.0	0.25	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*LABb	50.0	37.87	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)

olv1*	0.5	0.0	0.5	(1.0)
olv2*	0.0	0.25	0.0	(0.0)
olv3*	0.0	0.75	0.25	(0.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	0.0	0.25	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	44.89	18.8	-0.74
LAB*LABa	44.89	18.8	-0.74
LAB*LABb	47.5	18.94	353.66

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	0.982
lab*nce	0.0	0.25	0.982

relative Inform. Technology (IT)

olv1*	0.25	0.0	0.25	(1.0)
olv2*	0.0	0.25	0.0	(0.0)
olv3*	0.0	0.75	0.25	(0.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	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*LABb	30.0	37.86	353.66

relative CIELAB lab*

lab*lab	0.292	0.454	-0.082
lab*tch	0.292	0.454	-0.082
lab*nch	0.0	0.454	-0.082

relative Natural Colour (NC)

lab*trj	0.292	0.454	-0.082
lab*tce	0.292	0.454	-0.082
lab*nce	0.0	0.454	-0.082

relative Inform. Technology (IT)

olv1*	0.25	0.0	0.25	(1.0)
olv2*	0.0	0.25	0.0	(0.0)
olv3*	0.0	0.75	0.25	(0.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	0.0	0.25	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	25.01	37.86	353.66
LAB*LABa	25.01	37.86	353.66
LAB*LABb	25.01	37.86	353.66

relative CIELAB lab*

lab*lab	0.195	0.497	-0.054
lab*tch	0.25	0.5	0.982
lab*nch	0.0	0.5	0.982

relative Natural Colour (NC)

lab*trj	0.195	0.454	-0.208
lab*tce	0.25	0.5	0.982
lab*nce	0.0	0.5	0.982

relative Inform. Technology (IT)

olv1*	0.25	0.0	0.25	(1.0)
olv2*	0.0	0.25	0.0	(0.0)
olv3*	0.0	0.75	0.25	(0.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	0.0	0.25	0.0	(0.0)

standard and adapted CIELAB

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

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	0.982
lab*nce	0.0	0.25	0.982

relative Inform. Technology (IT)

olv1*	0.0	0.0	0.0	(1.0)
olv2*	0.0	0.0	0.0	(0.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	0.0	0.0	0.0
LAB*LABa	0.0	0.0	0.0
LAB*LABb	0.0	0.0	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	0.0
lab*nch	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	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)

olv1*	0.0	0.0	0.0	(1.0)
olv2*	0.0	0.0	0.0	(0.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	0.0	0.0	0.0
LAB*LABa	0.0	0.0	0.0
LAB*LABb	0.0	0.0	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	0.0
lab*nch	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	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)

olv1*	0.0	0.0	0.0	(1.0)
olv2*	0.0	0.0	0.0	(0.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	0.0	0.0	0.0
LAB*LABa	0.0	0.0	0.0
LAB*LABb	0.0	0.0	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	0.0
lab*nch	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	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)

olv1*	0.0	0.0	0.0	(1.0)
olv2*	0.0	0.0	0.0	(0.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	0.0	0.0	0.0
LAB*LABa	0.0	0.0	0.0
LAB*LABb	0.0	0.0	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	0.0
lab*nch	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	0.0	0.0	0.0
lab*tce	0.0	0.0	0.0
lab*nce	0.0	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 56 step colour scales for 10 hues

input: $olv^*setrgbcolor$

output: no change compared to input

Output: Colorimetric Television Luminous System TLS00

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

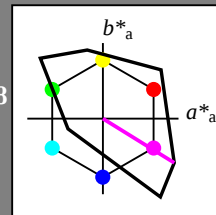
lab^*tch and lab^*nch

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)

olv1*	1.0	1.0	1.0	(1.0)
olv2*	0.0	0.0	0.0	(0.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	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

$$\mathbf{u}_{\text{rel}}^* =$$

Input: Colorimetric Offset Reflective System ORS18

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

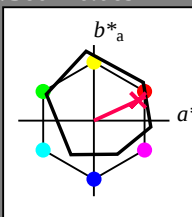
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 48 75 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



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)
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)
olv4*	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	95.41	0.0	0.0

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.831	(1.0)
olv3*	0.0	0.25	0.169	(0.0)
olv4*	1.0	0.75	0.831	(1.0)
olv4*	0.0	0.25	0.169	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	83.55	16.38	11.84
LAB*LAB	83.55	17.14	7.88
LAB*LAB	83.55	18.86	24.71

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.831	(1.0)
olv3*	0.0	0.25	0.169	(0.0)
olv4*	1.0	0.75	0.831	(1.0)
olv4*	0.0	0.25	0.169	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	71.7	33.75	18.92
LAB*LAB	71.7	34.28	15.76
LAB*LAB	71.7	35.00	12.47

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.831	(1.0)
olv3*	0.0	0.25	0.169	(0.0)
olv4*	1.0	0.75	0.831	(1.0)
olv4*	0.0	0.25	0.169	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	59.85	51.12	26.01
LAB*LAB	59.85	52.00	23.65
LAB*LAB	59.85	53.00	21.00

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.831	(1.0)
olv3*	0.0	0.25	0.169	(0.0)
olv4*	1.0	0.75	0.831	(1.0)
olv4*	0.0	0.25	0.169	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	48.0	68.48	33.09
LAB*LAB	48.0	68.56	31.53
LAB*LAB	48.0	68.56	31.53

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.831	(1.0)
olv3*	0.0	0.25	0.169	(0.0)
olv4*	1.0	0.75	0.831	(1.0)
olv4*	0.0	0.25	0.169	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	48.0	68.48	33.09
LAB*LAB	48.0	68.56	31.53
LAB*LAB	48.0	68.56	31.53

Output: Colorimetric Television Luminous System TLS00

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

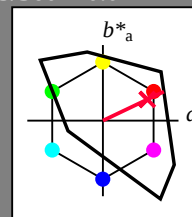
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 52 89 25

olv*Ma: 1.0 0.0 0.21

triangle lightness t^*



TLS00; adapted (a) CIELAB data

	$L^*=L_a^*$	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)
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)
olv4*	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	95.41	0.0	0.0

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.803	(1.0)
olv3*	0.0	0.25	0.197	(0.0)
olv4*	1.0	0.75	0.803	(1.0)
olv4*	0.0	0.25	0.197	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	84.54	20.15	9.6
LAB*LAB	84.54	20.15	9.6
LAB*LAB	84.54	20.15	9.6

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.803	(1.0)
olv3*	0.0	0.25	0.197	(0.0)
olv4*	1.0	0.75	0.803	(1.0)
olv4*	0.0	0.25	0.197	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	69.69	20.16	9.6
LAB*LAB	69.69	20.16	9.6
LAB*LAB	69.69	20.16	9.6

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.803	(1.0)
olv3*	0.0	0.25	0.197	(0.0)
olv4*	1.0	0.75	0.803	(1.0)
olv4*	0.0	0.25	0.197	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	60.61	60.46	28.81
LAB*LAB	60.61	60.46	28.81
LAB*LAB	60.61	60.46	28.81

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.803	(1.0)
olv3*	0.0	0.25	0.197	(0.0)
olv4*	1.0	0.75	0.803	(1.0)
olv4*	0.0	0.25	0.197	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	49.83	40.31	19.21
LAB*LAB	49.83	40.31	19.21
LAB*LAB	49.83	40.31	19.21

relative Inform. Technology (IT)

olv3*	1.0	0.75	0.803	(1.0)
olv3*	0.0	0.25	0.197	(0.0)
olv4*	1.0	0.75	0.803	(1.0)
olv4*	0.0	0.25	0.197	(0.0)
olv4*	0.0	0.0	0.0	(0.0)

standard and adapted CIELAB

LAB*LAB	48.0	68.48	33.09
LAB*LAB	48.0	68.56	31.53
LAB*LAB	48.0	68.56	31.53

NE500-7, 5 step scales for constant CIELAB hue 25/360 = 0.069 (left)

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

BAM-test chart NE50; Colorimetric systems ORS18 & TLS00

input: $olv^*setrgbcolor$

output: no change compared to input

Input: Colorimetric Offset Reflective System ORS18

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

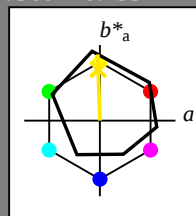
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 86 88 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



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*LABb 99.99 0.01 0.0

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 93.11 -1.64 26.52
LAB*LABa 93.11 -0.7 21.92
LAB*LABb 97.5 21.93 91.85

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 97.5 43.86 91.85

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 -1.1 65.76
LAB*LABb 97.5 65.79 91.84

relative Inform. Technology (IT)
olv3* 1.0 0.901 0.0 (1.0)
cmyn3* 0.0 0.099 1.0 (0.0)
olv4* 1.0 0.902 0.0 (1.0)
cmyn4* 0.0 0.098 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 86.15 -3.62 91.81
LAB*LABa 86.15 -2.81 87.87
LAB*LABb 97.5 87.82 91.84

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.0 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 75.0 0.01 -

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.0 0.25 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 -0.69 21.92
LAB*LABb 62.5 21.93 91.84

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 Inform. Technology (IT)
olv3* 0.75 0.675 0.0 (1.0)
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 Inform. Technology (IT)
olv3* 0.911 0.0 0.75 (0.0)
cmyn3* 0.625 0.75 0.25 (0.0)
olv4* 0.911 0.0 0.75 (0.0)
cmyn4* 0.625 0.75 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 66.15 -3.62 91.81
LAB*LABa 66.15 -2.81 87.87
LAB*LABb 97.5 87.82 91.84

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 50.0 0.01 -

relative Inform. Technology (IT)
olv3* 0.5 0.475 0.25 (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 -0.69 21.92
LAB*LABb 37.5 21.93 91.84

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 Inform. Technology (IT)
olv3* 0.661 -0.023 0.75 (0.0)
cmyn3* 0.375 0.75 0.25 (0.0)
olv4* 0.661 0.0 0.75 (0.0)
cmyn4* 0.375 0.75 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 49.15 -3.57 68.74
LAB*LABa 49.15 -2.58 68.74
LAB*LABb 37.51 65.79 91.84

relative Inform. Technology (IT)
olv3* 0.981 -0.031 0.999 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.981 0.0 1.0 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 50.0 0.01 -

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 -0.63 0.83
LAB*LABa 37.36 0.0 0.0
LAB*LABb 25.0 0.01 -

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.775 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 -1.52 22.69
LAB*LABa 35.06 -0.69 21.91
LAB*LABb 12.5 21.92 91.83

relative Inform. Technology (IT)
olv3* 0.44 -0.015 0.5 (0.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 0.44 0.0 0.5 (0.0)
cmyn4* 0.25 0.5 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 33.06 -0.52 22.69
LAB*LABa 33.06 -0.25 21.91
LAB*LABb 12.5 21.92 91.83

relative Inform. Technology (IT)
olv3* 0.661 0.0 0.75 (0.0)
cmyn3* 0.375 0.75 0.25 (0.0)
olv4* 0.661 0.0 0.75 (0.0)
cmyn4* 0.375 0.75 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 30.57 0.0 0.0
LAB*LABa 30.57 0.0 0.0
LAB*LABb 1.0 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 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

relative Inform. Technology (IT)
olv3* 0.22 -0.007 0.25 (1.0)
cmyn3* 0.125 0.25 0.25 (0.0)
olv4* 0.22 0.0 0.25 (0.0)
cmyn4* 0.125 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

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

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

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

Output: Colorimetric Television Luminous System TLS00

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

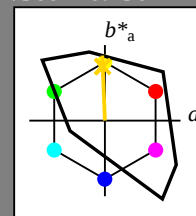
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 85 86 92

olv*Ma: 1.0 0.82 0.0

triangle lightness t^*



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*LABb 99.99 0.01 0.0

relative Inform. Technology (IT)
olv3* 1.0 0.956 0.75 (1.0)
cmyn3* 0.0 0.044 0.25 (0.0)
olv4* 1.0 0.956 0.75 (1.0)
cmyn4* 0.0 0.044 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 92.86 -0.87 21.53
LAB*LABa 92.86 -0.87 21.53
LAB*LABb 97.5 21.54 92.33

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 90.8 -2.3 48.29
LAB*LABa 90.8 -1.4 43.84
LAB*LABb 97.5 43.86 91.85

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 75.0 0.01 -

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 73.75 -1.27 25.22
LAB*LABa 73.75 -0.69 21.92
LAB*LABb 62.5 21.93 91.84

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 75.0 0.01 -

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 75.0 0.01 -

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 75.0 0.01 -

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 75.0 0.01 -

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 75.0 0.01 -

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 50.0 0.01 -

relative Inform. Technology (IT)
olv3* 0.5 0.475 0.25 (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 -0.69 21.92
LAB*LABb 37.5 21.93 91.84

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 Inform. Technology (IT)
olv3* 0.661 -0.023 0.75 (0.0)
cmyn3* 0.375 0.75 0.25 (0.0)
olv4* 0.661 0.0 0.75 (0.0)
cmyn4* 0.375 0.75 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 49.15 -3.57 68.74
LAB*LABa 49.15 -2.58 68.74
LAB*LABb 37.51 65.79 91.84

relative Inform. Technology (IT)
olv3* 0.981 -0.031 0.999 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.981 0.0 1.0 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*LABb 50.0 0.01 -

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 -0.63 0.83
LAB*LABa 37.36 0.0 0.0
LAB*LABb 25.0 0.01 -

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.775 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 -1.52 22.69
LAB*LABa 35.06 -0.69 21.91
LAB*LABb 12.5 21.92 91.83

relative Inform. Technology (IT)
olv3* 0.44 -0.015 0.5 (0.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 0.44 0.0 0.5 (0.0)
cmyn4* 0.25 0.5 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 33.06 -0.52 22.69
LAB*LABa 33.06 -0.25 21.91
LAB*LABb 12.5 21.92 91.83

relative Inform. Technology (IT)
olv3* 0.661 0.0 0.75 (0.0)
cmyn3* 0.375 0.75 0.25 (0.0)
olv4* 0.661 0.0 0.75 (0.0)
cmyn4* 0.375 0.75 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 30.57 0.0 0.0
LAB*LABa 30.57 0.0 0.0
LAB*LABb 1.0 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 0.47
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

Input: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 164/360 = 0.457$

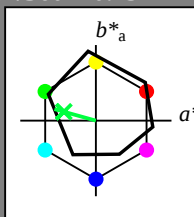
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 53 57 164

olv*Ma: 0.0 1.0 0.25

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 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*TCha 75.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.862 -0.24 0.067
lab*tch 0.875 0.25 0.457
lab*nch 0.0 0.25 0.457
relative Natural Colour (NC)
lab*trj 0.862 -0.249 0.0
lab*tce 0.875 0.25 0.3
lab*nce 0.0 0.25 0.3

relative Inform. Technology (IT)
olv3* 0.5 1.0 0.623 (1.0)
cmyn3* 0.5 0.0 0.377 (0.0)
olv4* 0.5 1.0 0.623 1.0
cmyn4* 0.5 0.0 0.377 0.0
standard and adapted CIELAB
LAB*LAB 74.1 -27.98 10.94
LAB*LABa 74.1 -27.4 7.62
LAB*TCha 75.0 28.45 164.46

relative CIELAB lab*
lab*lab 0.725 -0.481 0.134
lab*tch 0.75 0.5 0.457
lab*nch 0.0 0.5 0.457
relative Natural Colour (NC)
lab*trj 0.725 -0.499 0.0
lab*tce 0.75 0.5 0.3
lab*nce 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.5 0.75 0.5 (1.0)
cmyn3* 0.5 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 56.71 -0.24 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCha 50.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.612 -0.249 0.0
lab*tch 0.625 0.25 0.3
lab*nch 0.0 0.25 0.3
relative Natural Colour (NC)
lab*trj 0.612 -0.249 0.0
lab*tce 0.625 0.25 0.3
lab*nce 0.0 0.25 0.3

relative Inform. Technology (IT)
olv3* 0.25 0.75 0.375 (1.0)
cmyn3* 0.75 0.25 0.627 (0.0)
olv4* 0.5 1.0 0.623 0.75
cmyn4* 0.5 0.0 0.377 0.25
standard and adapted CIELAB
LAB*LAB 54.76 -27.61 9.64
LAB*LABa 54.76 -27.41 7.63
LAB*TCha 50.0 28.46 164.45

relative CIELAB lab*
lab*lab 0.587 -0.221 0.201
lab*tch 0.625 0.75 0.457
lab*nch 0.0 0.75 0.457
relative Natural Colour (NC)
lab*trj 0.587 -0.249 0.0
lab*tce 0.625 0.75 0.5
lab*nce 0.0 0.75 0.5

relative Inform. Technology (IT)
olv3* 0.0 1.0 0.246 (1.0)
cmyn3* 1.0 0.0 0.754 (0.0)
olv4* 0.0 1.0 0.246 1.0
cmyn4* 0.0 0.0 0.754 0.0
standard and adapted CIELAB
LAB*LAB 52.8 -54.81 15.26
LAB*LABa 52.8 -54.81 15.26
LAB*TCha 50.0 56.91 164.45

relative CIELAB lab*
lab*lab 0.45 -0.962 0.268
lab*tch 0.5 1.0 0.457
lab*nch 0.0 1.0 0.457
relative Natural Colour (NC)
lab*trj 0.45 -0.999 0.0
lab*tce 0.5 1.0 0.5
lab*nce 0.0 1.0 0.5

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 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*TCha 50.0 0.01 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 0.75 0.375 (1.0)
cmyn3* 0.75 0.25 0.627 (0.0)
olv4* 0.5 1.0 0.623 0.75
cmyn4* 0.5 0.0 0.377 0.25
standard and adapted CIELAB
LAB*LAB 54.76 -27.61 9.64
LAB*LABa 54.76 -27.41 7.63
LAB*TCha 50.0 28.46 164.45

relative CIELAB lab*
lab*lab 0.587 -0.221 0.201
lab*tch 0.625 0.75 0.457
lab*nch 0.0 0.75 0.457
relative Natural Colour (NC)
lab*trj 0.587 -0.249 0.0
lab*tce 0.625 0.75 0.5
lab*nce 0.0 0.75 0.5

relative Inform. Technology (IT)
olv3* 0.0 1.0 0.246 (1.0)
cmyn3* 1.0 0.0 0.754 (0.0)
olv4* 0.0 1.0 0.246 1.0
cmyn4* 0.0 0.0 0.754 0.0
standard and adapted CIELAB
LAB*LAB 52.8 -54.81 15.26
LAB*LABa 52.8 -54.81 15.26
LAB*TCha 50.0 56.91 164.45

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 37.36 0.0 0.0
LAB*LABa 37.36 0.0 0.0
LAB*TCha 25.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.362 -0.24 0.067
lab*tch 0.375 0.25 0.457
lab*nch 0.0 0.25 0.457
relative Natural Colour (NC)
lab*trj 0.362 -0.249 0.0
lab*tce 0.375 0.25 0.3
lab*nce 0.0 0.25 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.5 0.888 (1.0)
cmyn3* 0.75 0.5 0.688 (0.0)
olv4* 0.75 1.0 0.812 0.5
cmyn4* 0.25 0.0 0.188 0.5
standard and adapted CIELAB
LAB*LAB 46.06 -13.74 5.24
LAB*LABa 46.06 -13.7 3.91
LAB*TCha 37.5 14.23 164.45

relative CIELAB lab*
lab*lab 0.475 -0.499 0.0
lab*tch 0.475 0.5 0.457
lab*nch 0.0 0.5 0.457
relative Natural Colour (NC)
lab*trj 0.475 -0.499 0.0
lab*tce 0.475 0.5 0.3
lab*nce 0.0 0.5 0.3

relative Inform. Technology (IT)
olv3* 0.0 0.75 0.188 (1.0)
cmyn3* 1.0 0.25 0.812 (0.0)
olv4* 0.25 1.0 0.435 0.75
cmyn4* 0.75 0.0 0.565 0.25
standard and adapted CIELAB
LAB*LAB 44.11 -41.11 12.74
LAB*LABa 44.11 -41.11 11.45
LAB*TCha 37.51 42.69 164.45

relative CIELAB lab*
lab*lab 0.337 -0.721 0.201
lab*tch 0.375 0.75 0.457
lab*nch 0.0 0.75 0.457
relative Natural Colour (NC)
lab*trj 0.337 -0.749 0.0
lab*tce 0.375 0.75 0.5
lab*nce 0.0 0.75 0.5

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 37.36 0.0 0.0
LAB*LABa 37.36 0.0 0.0
LAB*TCha 25.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.362 -0.24 0.067
lab*tch 0.375 0.25 0.457
lab*nch 0.0 0.25 0.457
relative Natural Colour (NC)
lab*trj 0.362 -0.249 0.0
lab*tce 0.375 0.25 0.3
lab*nce 0.0 0.25 0.3

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 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 47.72 0.0 0.0
LAB*LABa 47.72 0.0 0.0
LAB*TCha 50.0 0.01 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 0.75 0.375 (1.0)
cmyn3* 0.75 0.25 0.627 (0.0)
olv4* 0.5 1.0 0.623 0.75
cmyn4* 0.5 0.0 0.377 0.25
standard and adapted CIELAB
LAB*LAB 54.76 -27.61 9.64
LAB*LABa 54.76 -27.41 7.63
LAB*TCha 50.0 28.46 164.45

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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 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*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 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*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 0.01 0.01 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 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*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 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*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 0.01 0.01 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 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*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 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 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCha 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 0.0 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 0.0 0.0 0.0

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

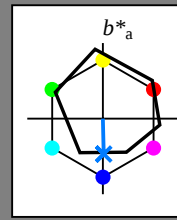
relative

Input: Colorimetric Offset Reflective System ORS18

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

D65: hue B
LCH*Ma: 42 45 271
olv*Ma: 0.0 0.49 1.0

triangle lightness t^*



$u^*_{rel} = 93$

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 -
relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0
lab*trc 1.0 0.0 -
lab*ncc 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*TCHa 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.75 0.0 0.0
lab*trc 0.75 0.0 -
lab*ncc 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*TCHa 50.00 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*trc 0.5 0.0 -
lab*ncc 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 37.36 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*trc 0.25 0.0 -
lab*ncc 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 0.03 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 -
lab*nch 1.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*trc 0.0 0.0 -
lab*ncc 1.0 0.0 -

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

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 -
lab*nch 1.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*trc 0.0 0.0 -
lab*ncc 1.0 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 82.0 -0.45 -7.31
LAB*LABa 82.0 0.27 -11.16
LAB*TCHa 97.5 11.18 271.39

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*lrj 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 (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 68.6 0.07 -19.39
LAB*LABa 68.6 0.5 -22.34
LAB*TCHa 75.0 22.36 271.4

relative CIELAB lab*
lab*lab 0.654 0.012 -0.499
lab*tch 0.75 0.5 0.754
lab*nch 0.0 0.5 0.754
relative Natural Colour (NC)
lab*lrj 0.654 0.0 -0.499
lab*trc 0.75 0.5 0.754
lab*ncc 0.0 0.5 0.754

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 49.25 0.45 -20.7
LAB*LABa 49.25 0.5 -22.35
LAB*TCHa 50.0 22.36 271.41

relative CIELAB lab*
lab*lab 0.48 0.018 -0.749
lab*tch 0.625 0.75 0.754
lab*nch 0.0 0.75 0.754
relative Natural Colour (NC)
lab*lrj 0.48 0.0 -0.749
lab*trc 0.625 0.75 0.754
lab*ncc 0.0 0.75 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.368 0.75 (1.0)
cmyn3* 0.75 0.506 0.25 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.384 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 55.19 0.61 -31.48
LAB*LABa 55.19 0.62 -33.52
LAB*TCHa 62.5 33.54 271.4

relative CIELAB lab*
lab*lab 0.48 0.018 -0.749
lab*tch 0.625 0.75 0.754
lab*nch 0.0 0.75 0.754
relative Natural Colour (NC)
lab*lrj 0.48 0.0 -0.749
lab*trc 0.625 0.75 0.754
lab*ncc 0.0 0.75 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

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 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*trc 0.25 0.0 -
lab*ncc 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.244 0.5 (1.0)
cmyn3* 1.0 0.256 0.5 (0.0)
olv4* 1.0 0.44 0.0 (0.0)
cmyn4* 0.0 0.256 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 29.9 0.5 -72.34
LAB*LABa 29.9 0.5 -72.34
LAB*TCHa 25.01 22.36 271.42

relative CIELAB lab*
lab*lab 0.154 0.012 -0.499
lab*tch 0.25 0.5 0.754
lab*nch 0.0 0.5 0.754
relative Natural Colour (NC)
lab*lrj 0.154 0.0 -0.499
lab*trc 0.25 0.5 0.754
lab*ncc 0.0 0.5 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

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 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*trc 0.25 0.0 -
lab*ncc 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.368 0.75 (1.0)
cmyn3* 0.75 0.506 0.25 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.384 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 55.19 0.61 -31.48
LAB*LABa 55.19 0.62 -33.52
LAB*TCHa 62.5 33.54 271.4

relative CIELAB lab*
lab*lab 0.48 0.018 -0.749
lab*tch 0.625 0.75 0.754
lab*nch 0.0 0.75 0.754
relative Natural Colour (NC)
lab*lrj 0.48 0.0 -0.749
lab*trc 0.625 0.75 0.754
lab*ncc 0.0 0.75 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

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 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*trc 0.25 0.0 -
lab*ncc 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

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 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*trc 0.25 0.0 -
lab*ncc 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.368 0.75 (1.0)
cmyn3* 0.75 0.506 0.25 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.384 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 55.19 0.61 -31.48
LAB*LABa 55.19 0.62 -33.52
LAB*TCHa 62.5 33.54 271.4

relative CIELAB lab*
lab*lab 0.48 0.018 -0.749
lab*tch 0.625 0.75 0.754
lab*nch 0.0 0.75 0.754
relative Natural Colour (NC)
lab*lrj 0.48 0.0 -0.749
lab*trc 0.625 0.75 0.754
lab*ncc 0.0 0.75 0.754

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

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 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*trc 0.25 0.0 -
lab*ncc 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

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 -0.03 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.00 0.01 -

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*tch 0.25 0.0 -
lab*nch 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.25 0.0 0.0
lab*trc 0.25 0.0 -
lab*ncc 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.634 0.25 (0.0)
cmyn3* 1.0 0.512 0.0 (0.0)
olv4* 1.0 0.488 1.0 (1.0)
cmyn4* 0.0 0.512 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 41.79 1.1 -44.68
LAB*LABa 41.79 1.1 -44.68
LAB*TCHa 50.0 44.71 271.41

relative CIELAB lab*
lab*lab 0.307 0.025 -0.998
lab*tch 0.5 1.0 0.754
lab*nch 0.0 1.0 0.754
relative Natural Colour (NC)
lab*lrj 0.307 0.0 -0.999
lab*trc 0.5 1.0 0.754
lab*ncc 0.0 1.0 0.754

relative Inform. Technology (IT)
olv3* 0