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BAM registration: 20060101-VE45/10L/L45E00FP.PS/.PDF
application for evaluation and measurement of printer or monitor systems, Yr=2.5, XYZ
[VE45] Form 1/10, Serie: 1/1, Page: 1 Page count: 1

Input: Colorimetric Natural Reflective System CNS18

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

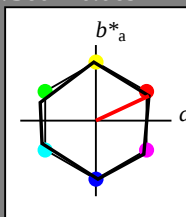
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 57 77 25

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.0 0.0

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 50.00 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 25.00 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Regularity

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

$g^*_{C,rel} = 100$

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 76.05 35.07 16.35
LAB*LABa 76.05 35.07 16.35
LAB*LABb 75.0 38.69 25.0

relative CIELAB lab*
lab*lab 0.75 0.453 0.211
lab*tch 0.75 0.5 0.5 (1.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.5 0.5 (1.0)
lab*tce 0.75 0.5 0.5 (1.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.5 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 35.07 16.36
LAB*LABa 56.71 35.07 16.36
LAB*LABb 50.0 38.7 25.0

relative CIELAB lab*
lab*lab 0.75 0.453 0.211
lab*tch 0.75 0.5 0.5 (1.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.5 0.5 (1.0)
lab*tce 0.75 0.5 0.5 (1.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.0 (1.0)
cmyn3* 0.75 0.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (0.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 47.03 52.6 24.53
LAB*LABa 47.03 52.6 24.53
LAB*LABb 37.51 58.04 25.0

relative CIELAB lab*
lab*lab 0.375 0.68 0.317
lab*tch 0.375 0.75 0.75 (0.0)
lab*nch 0.0 0.75 0.75 (0.0)
relative Natural Colour (NC)
lab*trj 0.375 0.75 0.75 (0.0)
lab*tce 0.375 0.75 0.75 (0.0)
lab*nce 0.0 0.75 0.75 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.5 0.0 (1.0)
cmyn3* 0.75 1.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (0.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 27.69 17.53 8.17
LAB*LABa 27.69 17.53 8.17
LAB*LABb 12.5 19.34 25.0

relative CIELAB lab*
lab*lab 0.125 0.226 0.106
lab*tch 0.125 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.125 0.25 0.25 (0.0)
lab*tce 0.125 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 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

Output: Colorimetric Offset Reflective System ORS18

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

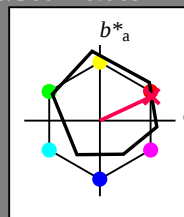
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 76 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 -0.98 4.75
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.0 0.0

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*LABb 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 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 35.07 16.36
LAB*LABa 56.71 35.07 16.36
LAB*LABb 50.0 38.7 25.0

relative CIELAB lab*
lab*lab 0.5 0.906 0.423
lab*tch 0.5 1.0 1.0 (0.0)
lab*nch 0.0 1.0 1.0 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 1.0 1.0 (0.0)
lab*tce 0.5 1.0 1.0 (0.0)
lab*nce 0.0 1.0 1.0 (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 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 37.37 0.13 0.13
LAB*LABa 37.37 0.13 0.13
LAB*LABb 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 0.0
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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 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

ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CLMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 35.07 16.35
LAB*LABa 76.07 35.07 16.35
LAB*LABb 75.0 38.69 25.0

relative CIELAB lab*
lab*lab 0.75 0.453 0.211
lab*tch 0.75 0.5 0.5 (1.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.5 0.5 (1.0)
lab*tce 0.75 0.5 0.5 (1.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.5 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 35.07 16.36
LAB*LABa 56.71 35.07 16.36
LAB*LABb 50.0 38.7 25.0

relative CIELAB lab*
lab*lab 0.75 0.453 0.211
lab*tch 0.75 0.5 0.5 (1.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.5 0.5 (1.0)
lab*tce 0.75 0.5 0.5 (1.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.0 (1.0)
cmyn3* 0.75 0.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (0.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 47.03 52.6 24.53
LAB*LABa 47.03 52.6 24.53
LAB*LABb 37.51 58.04 25.0

relative CIELAB lab*
lab*lab 0.375 0.68 0.317
lab*tch 0.375 0.75 0.75 (0.0)
lab*nch 0.0 0.75 0.75 (0.0)
relative Natural Colour (NC)
lab*trj 0.375 0.75 0.75 (0.0)
lab*tce 0.375 0.75 0.75 (0.0)
lab*nce 0.0 0.75 0.75 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 0.5 0.0 (1.0)
cmyn3* 0.75 1.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (0.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 27.69 17.53 8.17
LAB*LABa 27.69 17.53 8.17
LAB*LABb 12.5 19.34 25.0

relative CIELAB lab*
lab*lab 0.125 0.226 0.106
lab*tch 0.125 0.25 0.25 (0.0)
lab*nch 0.0 0.25 0.25 (0.0)
relative Natural Colour (NC)
lab*trj 0.125 0.25 0.25 (0.0)
lab*tce 0.125 0.25 0.25 (0.0)
lab*nce 0.0 0.25 0.25 (0.0)

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

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

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.5 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 35.07 16.36
LAB*LABa 56.71 35.07 16.36
LAB*LABb 50.0 38.7 25.0

relative CIELAB lab*
lab*lab 0.75 0.453 0.211
lab*tch 0.75 0.5 0.5 (1.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.5 0.5 (1.0)
lab*tce 0.75 0.5 0.5 (1.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.5 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 35.07 16.36
LAB*LABa 56.71 35.07 16.36
LAB*LABb 50.0 38.7 25.0

relative CIELAB lab*
lab*lab 0.75 0.453 0.211
lab*tch 0.75 0.5 0.5 (1.0)
lab*nch 0.0 0.5 0.5 (0.0)
relative Natural Colour (NC)
lab*trj 0.75 0.5 0.5 (1.0)
lab*tce 0.75 0.5 0.5 (1.0)
lab*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.0 (1.0)
cmyn3* 0.75 0.0 0.0 (0.0)
olv4* 1.0 0.25 0.25 (0.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 47.03 52.6 24.53
LAB*LABa 47.03 52.6 24.53
LAB*LABb 37.51 58.04 25.0

relative CIELAB lab*
lab*lab 0.375 0.68 0.317
lab*tch 0.375 0.75 0.75 (0.0)

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 162/360 = 0.45$

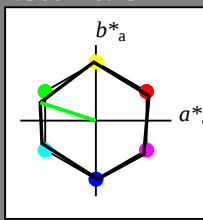
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 57 77 162

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Regularity

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

$g^*_{C,rel} = 100$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01

relative Inform. Technology (IT)
olv3* 0.75 1.0 0.75 (1.0)
cmyn3* 0.25 0.0 0.25 (0.0)
olv4* 0.75 1.0 0.75 (1.0)
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 85.73 -18.39 5.98
LAB*LABa 85.73 -18.39 5.98
LAB*TCHa 97.5 19.34 162.0

relative Inform. Technology (IT)
olv3* 0.5 1.0 0.5 (1.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olv4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 76.05 -36.79 11.96
LAB*LABa 76.05 -36.79 11.96
LAB*TCHa 75.0 38.69 162.0

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.25 (1.0)
cmyn3* 0.75 0.0 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 66.37 -55.19 17.94
LAB*LABa 66.37 -55.19 17.94
LAB*TCHa 62.5 58.04 162.0

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 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*TCHa 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 0.75
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 66.38 -18.39 5.98
LAB*LABa 66.38 -18.39 5.98
LAB*TCHa 62.5 19.35 162.0

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 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 56.71 -36.8 11.96
LAB*LABa 56.71 -36.8 11.96
LAB*TCHa 50.0 38.7 162.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.25 1.0 0.25 0.75
cmyn4* 0.75 0.0 0.75 0.25
standard and adapted CIELAB
LAB*LAB 47.03 -55.19 17.94
LAB*LABa 47.03 -55.19 17.94
LAB*TCHa 37.51 58.04 162.0

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.75 (1.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*TCHa 50.0 0.01

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.75 (1.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 47.03 -18.39 5.98
LAB*LABa 47.03 -18.39 5.98
LAB*TCHa 37.5 19.35 162.0

relative Inform. Technology (IT)
olv3* 0.5 0.25 0.5 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.25
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 37.36 -36.79 11.96
LAB*LABa 37.36 -36.79 11.96
LAB*TCHa 25.01 38.69 162.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.25 1.0 0.25 0.75
cmyn4* 0.75 0.0 0.75 0.25
standard and adapted CIELAB
LAB*LAB 27.36 -55.19 17.94
LAB*LABa 27.36 -55.19 17.94
LAB*TCHa 25.01 58.04 162.0

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*TCHa 25.0 0.01

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*TCHa 25.0 0.01

relative Inform. Technology (IT)
olv3* 0.5 0.125 0.5 (1.0)
cmyn3* 0.5 0.125 0.5 (0.0)
olv4* 1.0 1.0 1.0 0.125
cmyn4* 0.0 0.0 0.0 0.125
standard and adapted CIELAB
LAB*LAB 18.03 18.03 0.0
LAB*LABa 18.03 0.0 0.0
LAB*TCHa 0.01 0.01

relative Inform. Technology (IT)
olv3* 0.25 0.125 0.25 (1.0)
cmyn3* 0.75 0.125 0.75 (0.0)
olv4* 0.25 1.0 0.25 0.125
cmyn4* 0.75 0.0 0.75 0.125
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCHa 0.0 0.01

relative Inform. Technology (IT)
olv3* 0.75 0.125 0.75 (1.0)
cmyn3* 0.25 0.125 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.125
cmyn4* 0.0 0.0 0.0 0.125
standard and adapted CIELAB
LAB*LAB 18.03 18.03 0.0
LAB*LABa 18.03 0.0 0.0
LAB*TCHa 0.01 0.01

relative Inform. Technology (IT)
olv3* 0.75 0.125 0.75 (1.0)
cmyn3* 0.25 0.125 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.125
cmyn4* 0.0 0.0 0.0 0.125
standard and adapted CIELAB
LAB*LAB 18.03 18.03 0.0
LAB*LABa 18.03 0.0 0.0
LAB*TCHa 0.01 0.01

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 162/360 = 0.45$

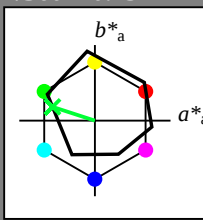
lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 53 59 162

olv*Ma: 0.0 1.0 0.21

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CLMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 -0.98 4.75
LAB*LABa 95.41 0.0 0.0
LAB*TCHa 99.99 0.01

relative Inform. Technology (IT)
olv3* 0.75 1.0 0.75 (1.0)
cmyn3* 0.25 0.0 0.25 (0.0)
olv4* 0.75 1.0 0.75 (1.0)
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 84.68 -14.78 8.58
LAB*LABa 84.68 -13.99 4.55
LAB*TCHa 87.5 14.72 162.01

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 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*TCHa 75.0 0.01

relative Inform. Technology (IT)
olv3* 0.25 1.0 0.25 (1.0)
cmyn3* 0.75 0.0 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 66.37 -55.19 17.94
LAB*LABa 66.37 -55.19 17.94
LAB*TCHa 62.5 58.04 162.0

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 75.0 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 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 75.0 0.01

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 56.71 -36.8 11.96
LAB*LABa 56.71 -36.8 11.96
LAB*TCHa 50.0 38.7 162.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.25 1.0 0.25 0.75
cmyn4* 0.75 0.0 0.75 0.25
standard and adapted CIELAB
LAB*LAB 47.03 -55.19 17.94
LAB*LABa 47.03 -55.19 17.94
LAB*TCHa 37.51 58.04 162.0

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.75 (1.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 56.71 -36.8 11.96
LAB*LABa 56.71 -36.8 11.96
LAB*TCHa 50.0 38.7 162.0

relative Inform. Technology (IT)
olv3* 0.75 0.5 0.75 (1.0)
cmyn3* 0.25 0.5 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.5
cmyn4* 0.0 0.0 0.0 0.5
standard and adapted CIELAB
LAB*LAB 56.71 -36.8 11.96
LAB*LABa 56.71 -36.8 11.96
LAB*TCHa 50.0 38.7 162.0

relative Inform. Technology (IT)
olv3* 0.5 0.25 0.5 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olv4* 0.5 1.0 0.5 0.25
cmyn4* 0.5 0.0 0.5 0.25
standard and adapted CIELAB
LAB*LAB 37.36 -36.79 11.96
LAB*LABa 37.36 -36.79 11.96
LAB*TCHa 25.01 38.69 162.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.25 1.0 0.25 0.75
cmyn4* 0.75 0.0 0.75 0.25
standard and adapted CIELAB
LAB*LAB 27.36 -55.19 17.94
LAB*LABa 27.36 -55.19 17.94
LAB*TCHa 25.01 58.04 162.0

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*TCHa 25.0 0.01

relative Inform. Technology (IT)
olv3* 0.75 0.25 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*TCHa 25.0 0.01

relative Inform. Technology (IT)
olv3* 0.5 0.125 0.5 (1.0)
cmyn3* 0.5 0.125 0.5 (0.0)
olv4* 1.0 1.0 1.0 0.125
cmyn4* 0.0 0.0 0.0 0.125
standard and adapted CIELAB
LAB*LAB 18.03 18.03 0.0
LAB*LABa 18.03 0.0 0.0
LAB*TCHa 0.01 0.01

relative Inform. Technology (IT)
olv3* 0.25 0.125 0.25 (1.0)
cmyn3* 0.75 0.125 0.75 (0.0)
olv4* 0.25 1.0 0.25 0.125
cmyn4* 0.75 0.0 0.75 0.125
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*TCHa 0.0 0.01

VE45-7, 5 step scales for constant CIELAB hue 162/360 = 0.45 (left)

5 step scales for constant CIELAB hue 162/360 = 0.45 (right)

BAM-test chart VE45; Colorimetric systems CNS18 & ORS18

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

input: olv* setrgbcolor

output: rgb* (TRI9) setrgbcolor

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 203/360 = 0.564$

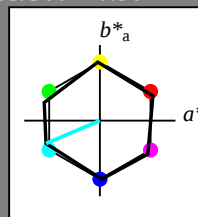
lab^*tch and lab^*nch

D65: hue G50B

LCH*Ma: 57 77 203

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Regularity

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

$g^*_{C,rel} = 100$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0
relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*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 1.0 1.0 (1.0)
cmyn3* 0.25 0.0 0.0 (0.0)
olv4* 0.75 1.0 1.0 (1.0)
cmyn4* 0.25 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 85.73 -17.79 -7.55
LAB*LABa 85.73 -17.79 -7.55
LAB*LABb 85.73 -17.79 -7.55
LAB*LABc 85.73 -17.79 -7.55
relative CIELAB lab*
lab*lab 0.875 -0.229 -0.097
lab*tch 0.875 0.25 0.564
lab*nch 0.0 0.25 0.564
relative Natural Colour (NC)
lab*trj 0.875 -0.207 -0.137
lab*tce 0.875 0.25 0.593
lab*nce 0.0 0.25 0.593

relative Inform. Technology (IT)
olv3* 0.5 1.0 1.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 0.5 1.0 1.0 (1.0)
cmyn4* 0.5 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.05 -35.61 -15.11
LAB*LABa 76.05 -35.61 -15.11
LAB*LABb 76.05 -35.61 -15.11
LAB*LABc 76.05 -35.61 -15.11
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 1.0 1.0 (1.0)
cmyn3* 0.25 0.0 0.0 (0.0)
olv4* 0.25 1.0 1.0 (1.0)
cmyn4* 0.25 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 66.37 -53.42 -22.67
LAB*LABa 66.37 -53.42 -22.67
LAB*LABb 66.37 -53.42 -22.67
LAB*LABc 66.37 -53.42 -22.67
relative CIELAB lab*
lab*lab 0.625 0.0 0.0
lab*tch 0.625 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.625 0.0 0.0
lab*tce 0.625 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 0.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -71.22 -30.23
LAB*LABa 56.71 -71.22 -30.23
LAB*LABb 56.71 -71.22 -30.23
LAB*LABc 56.71 -71.22 -30.23
relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*tch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 76.07 0.0 0.0
LAB*LABc 76.07 0.0 0.0
relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*tch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.75 0.0 0.0
lab*tce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.75 0.75 (1.0)
cmyn3* 0.5 0.25 0.25 (0.0)
olv4* 0.75 1.0 1.0 (1.0)
cmyn4* 0.5 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 66.38 -17.8 -7.55
LAB*LABa 66.38 -17.8 -7.55
LAB*LABb 66.38 -17.8 -7.55
LAB*LABc 66.38 -17.8 -7.55
relative CIELAB lab*
lab*lab 0.625 -0.207 -0.137
lab*tch 0.625 0.25 0.593
lab*nch 0.0 0.25 0.593
relative Natural Colour (NC)
lab*trj 0.625 -0.207 -0.137
lab*tce 0.625 0.25 0.593
lab*nce 0.0 0.25 0.593

relative Inform. Technology (IT)
olv3* 0.25 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 0.5 1.0 1.0 (1.0)
cmyn4* 0.5 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -35.61 -15.11
LAB*LABa 56.71 -35.61 -15.11
LAB*LABb 56.71 -35.61 -15.11
LAB*LABc 56.71 -35.61 -15.11
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* 0.0 0.75 0.75 (1.0)
cmyn3* 0.0 0.25 0.25 (0.0)
olv4* 0.25 1.0 1.0 (1.0)
cmyn4* 0.25 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.03 -53.42 -22.67
LAB*LABa 47.03 -53.42 -22.67
LAB*LABb 47.03 -53.42 -22.67
LAB*LABc 47.03 -53.42 -22.67
relative CIELAB lab*
lab*lab 0.375 -0.689 -0.292
lab*tch 0.375 0.75 0.564
lab*nch 0.0 0.75 0.564
relative Natural Colour (NC)
lab*trj 0.375 -0.624 -0.413
lab*tce 0.375 0.75 0.593
lab*nce 0.0 0.75 0.593

relative Inform. Technology (IT)
olv3* 0.0 0.25 0.25 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 0.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.51 -58.04 20.30
LAB*LABa 37.51 -58.04 20.30
LAB*LABb 37.51 -58.04 20.30
LAB*LABc 37.51 -58.04 20.30
relative CIELAB lab*
lab*lab 0.375 -0.689 -0.292
lab*tch 0.375 0.75 0.564
lab*nch 0.0 0.75 0.564
relative Natural Colour (NC)
lab*trj 0.375 -0.624 -0.413
lab*tce 0.375 0.75 0.593
lab*nce 0.0 0.75 0.593

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

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olv4* 0.75 1.0 1.0 (1.0)
cmyn4* 0.25 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 85.73 -17.79 -7.55
LAB*LABa 85.73 -17.79 -7.55
LAB*LABb 85.73 -17.79 -7.55
LAB*LABc 85.73 -17.79 -7.55
relative CIELAB lab*
lab*lab 0.875 -0.229 -0.097
lab*tch 0.875 0.25 0.564
lab*nch 0.0 0.25 0.564
relative Natural Colour (NC)
lab*trj 0.875 -0.207 -0.137
lab*tce 0.875 0.25 0.593
lab*nce 0.0 0.25 0.593

relative Inform. Technology (IT)
olv3* 0.5 0.25 0.25 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 0.5 1.0 1.0 (1.0)
cmyn4* 0.5 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.05 -35.61 -15.11
LAB*LABa 76.05 -35.61 -15.11
LAB*LABb 76.05 -35.61 -15.11
LAB*LABc 76.05 -35.61 -15.11
relative CIELAB lab*
lab*lab 0.625 -0.207 -0.137
lab*tch 0.625 0.25 0.593
lab*nch 0.0 0.25 0.593
relative Natural Colour (NC)
lab*trj 0.625 -0.207 -0.137
lab*tce 0.625 0.25 0.593
lab*nce 0.0 0.25 0.593

relative Inform. Technology (IT)
olv3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.25 0.0 0.0 (0.0)
olv4* 0.25 1.0 1.0 (1.0)
cmyn4* 0.25 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 66.37 -53.42 -22.67
LAB*LABa 66.37 -53.42 -22.67
LAB*LABb 66.37 -53.42 -22.67
LAB*LABc 66.37 -53.42 -22.67
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* 0.0 0.0 0.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 0.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -71.22 -30.23
LAB*LABa 56.71 -71.22 -30.23
LAB*LABb 56.71 -71.22 -30.23
LAB*LABc 56.71 -71.22 -30.23
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* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.03 0.0 0.0
LAB*LABc 18.03 0.0 0.0
relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*tce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0
relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*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* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0
relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*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* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 95.41 0.0 0.0
LAB*LABc 95.41 0.0 0.0
relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*tch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 1.0 0.0 0.0
lab*tce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

VE45-7, 5 step scales for constant CIELAB hue 203/360 = 0.564 (left)

5 step scales for constant CIELAB hue 203/360 = 0.564 (right)

BAM-test chart VE45; Colorimetric systems CNS18 & ORS18

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

input: olv* setrgbcolor

output: olv* (TRI9) setrgbcolor

See for similar files: <http://www.ps.bam.de/VE45/>
Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1, CIEXYZ

BAM registration: 20060101-VE45/10L/L45E04FP.PS/.PDF
application for evaluation and measurement of printer or monitor systems, Yr=2.5, XYZ
BAM material: code=rhda4a
VE45/ Form 5/10, Serie: 1/1, Page: 5 Page count: 1

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 272/360 = 0.756$

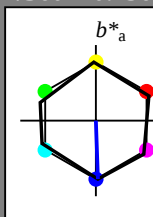
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 57 77 272

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.0 0.0

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.75
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.75 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 56.72 0.0 0.0
LAB*LABa 56.72 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 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 25.00 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01 -

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

$n^* = 1.0$

CNS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Regularity

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

$g^*_{C,rel} = 100$

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 1.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 76.05 1.35 -38.66
LAB*LABa 76.05 1.35 -38.66
LAB*LABb 75.00 38.69 27.20

relative CIELAB lab*
lab*lab 0.5 0.017 -0.499
lab*tch 0.5 0.0 0.756
lab*nch 0.0 0.5 0.756
relative Natural Colour (NC)
lab*trj 0.5 0.002 -0.499
lab*tce 0.5 0.0 0.751
lab*nce 0.0 0.5 0.007

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 1.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 56.71 1.35 -38.67
LAB*LABa 56.71 1.35 -38.67
LAB*LABb 50.00 38.7 27.20

relative CIELAB lab*
lab*lab 0.5 0.017 -0.499
lab*tch 0.5 0.0 0.756
lab*nch 0.0 0.5 0.756
relative Natural Colour (NC)
lab*trj 0.5 0.002 -0.499
lab*tce 0.5 0.0 0.751
lab*nce 0.0 0.5 0.007

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 1.0
standard and adapted CIELAB
LAB*LAB 37.36 1.35 -38.66
LAB*LABa 37.36 1.35 -38.66
LAB*LABb 25.01 38.69 27.20

relative CIELAB lab*
lab*lab 0.5 0.017 -0.499
lab*tch 0.5 0.0 0.756
lab*nch 0.0 0.5 0.756
relative Natural Colour (NC)
lab*trj 0.5 0.002 -0.499
lab*tce 0.5 0.0 0.751
lab*nce 0.0 0.5 0.007

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 1.0
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01 -

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

$n^* = 0.50$

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 1.0
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 0.01 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 1.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

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

$n^* = 0.00$

blackness n^*

chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

for hue $h^* = lab^*h = 272/360 = 0.756$

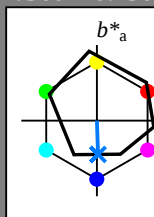
lab^*tch and lab^*nch

D65: hue V

LCH*Ma: 42 45 272

olv*Ma: 0.0 0.48 1.0

triangle lightness t^*



relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 1.0
cmyn4* 0.0 0.0 0.0 0.0
standard and adapted CIELAB
LAB*LAB 95.41 -0.98 4.75
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.0 0.0

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 0.75
cmyn4* 0.0 0.0 0.0 0.25
standard and adapted CIELAB
LAB*LAB 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*LABb 75.00 0.01 -

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 0.24 2.14
LAB*LABb 50.00 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 1.0 1.0 0.25
cmyn4* 0.0 0.0 0.0 0.75
standard and adapted CIELAB
LAB*LAB 37.36 0.13 0.98
LAB*LABa 37.36 0.13 0.98
LAB*LABb 25.01 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 0.0
cmyn4* 0.0 0.0 0.0 1.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
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

$n^* = 1.0$

blackness n^*

chromaticness c^*

ORS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
LMa	50.9	-62.83	34.96	71.91	151
CMa	58.62	-30.34	-45.01	54.3	236
VMa	25.72	31.1	-44.4	54.22	305
MMa	48.13	75.28	-8.36	75.74	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.57	25
JCIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 1.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 68.47 0.31 -19.4
LAB*LABa 68.47 0.31 -19.4
LAB*LABb 62.59 0.39 11.17

relative CIELAB lab*
lab*lab 0.652 0.017 -0.499
lab*tch 0.75 0.0 0.756
lab*nch 0.0 0.5 0.756
relative Natural Colour (NC)
lab*trj 0.652 0.004 -0.499
lab*tce 0.652 0.0 0.751
lab*nce 0.0 0.5 0.007

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 1.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 49.12 0.68 -20.71
LAB*LABa 49.12 0.68 -20.71
LAB*LABb 40.12 0.78 22.34

relative CIELAB lab*
lab*lab 0.478 0.006 -0.749
lab*tch 0.5 0.0 0.756
lab*nch 0.0 0.5 0.756
relative Natural Colour (NC)
lab*trj 0.478 0.006 -0.749
lab*tce 0.478 0.0 0.751
lab*nce 0.0 0.5 0.007

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 1.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 1.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

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

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 1.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 55.0 0.96 -31.49
LAB*LABa 55.0 0.96 -31.49
LAB*LABb 45.14 1.56 -44.69

relative CIELAB lab*
lab*lab 0.478 0.006 -0.749
lab*tch 0.5 0.0 0.756
lab*nch 0.0 0.5 0.756
relative Natural Colour (NC)
lab*trj 0.478 0.006 -0.749
lab*tce 0.478 0.0 0.751
lab*nce 0.0 0.5 0.007

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 1.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 1.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 0.5 0.5 0.5 0.0
cmyn4* 0.5 0.5 0.5 1.0
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.0
LAB*LABa 18.02 0.0 0.0
LAB*LABb 0.01 0.01 -

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

$n^* = 0.00$

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 0.5 0.5 0.5 1.0
cmyn4* 0.5 0.5 0.5 0.0
standard and adapted CIELAB
LAB*LAB 37.36 0.13 0.98
LAB*LABa 37.36 0.13 0.98
LAB*LABb 25.01 0.01 -

relative CIELAB lab*
lab*lab 0.228 0.006 -0.749
lab*tch 0.5 0.

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 325/360 = 0.903$

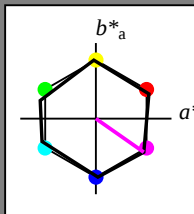
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 57 77 325

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



relative Inform. Technology (IT)

olv3*	1.0	1.0	1.0	(1.0)
olv4*	0.0	0.0	0.0	(0.0)
olv5*	0.0	0.0	0.0	(0.0)
olv6*	0.0	0.0	0.0	(0.0)
olv7*	0.0	0.0	0.0	(0.0)
olv8*	0.0	0.0	0.0	(0.0)
olv9*	0.0	0.0	0.0	(0.0)
olv10*	0.0	0.0	0.0	(0.0)
olv11*	0.0	0.0	0.0	(0.0)
olv12*	0.0	0.0	0.0	(0.0)
olv13*	0.0	0.0	0.0	(0.0)
olv14*	0.0	0.0	0.0	(0.0)
olv15*	0.0	0.0	0.0	(0.0)
olv16*	0.0	0.0	0.0	(0.0)
olv17*	0.0	0.0	0.0	(0.0)
olv18*	0.0	0.0	0.0	(0.0)
olv19*	0.0	0.0	0.0	(0.0)
olv20*	0.0	0.0	0.0	(0.0)
olv21*	0.0	0.0	0.0	(0.0)
olv22*	0.0	0.0	0.0	(0.0)
olv23*	0.0	0.0	0.0	(0.0)
olv24*	0.0	0.0	0.0	(0.0)
olv25*	0.0	0.0	0.0	(0.0)
olv26*	0.0	0.0	0.0	(0.0)
olv27*	0.0	0.0	0.0	(0.0)
olv28*	0.0	0.0	0.0	(0.0)
olv29*	0.0	0.0	0.0	(0.0)
olv30*	0.0	0.0	0.0	(0.0)
olv31*	0.0	0.0	0.0	(0.0)
olv32*	0.0	0.0	0.0	(0.0)
olv33*	0.0	0.0	0.0	(0.0)
olv34*	0.0	0.0	0.0	(0.0)
olv35*	0.0	0.0	0.0	(0.0)
olv36*	0.0	0.0	0.0	(0.0)
olv37*	0.0	0.0	0.0	(0.0)
olv38*	0.0	0.0	0.0	(0.0)
olv39*	0.0	0.0	0.0	(0.0)
olv40*	0.0	0.0	0.0	(0.0)
olv41*	0.0	0.0	0.0	(0.0)
olv42*	0.0	0.0	0.0	(0.0)
olv43*	0.0	0.0	0.0	(0.0)
olv44*	0.0	0.0	0.0	(0.0)
olv45*	0.0	0.0	0.0	(0.0)
olv46*	0.0	0.0	0.0	(0.0)
olv47*	0.0	0.0	0.0	(0.0)
olv48*	0.0	0.0	0.0	(0.0)
olv49*	0.0	0.0	0.0	(0.0)
olv50*	0.0	0.0	0.0	(0.0)
olv51*	0.0	0.0	0.0	(0.0)
olv52*	0.0	0.0	0.0	(0.0)
olv53*	0.0	0.0	0.0	(0.0)
olv54*	0.0	0.0	0.0	(0.0)
olv55*	0.0	0.0	0.0	(0.0)
olv56*	0.0	0.0	0.0	(0.0)
olv57*	0.0	0.0	0.0	(0.0)
olv58*	0.0	0.0	0.0	(0.0)
olv59*	0.0	0.0	0.0	(0.0)
olv60*	0.0	0.0	0.0	(0.0)
olv61*	0.0	0.0	0.0	(0.0)
olv62*	0.0	0.0	0.0	(0.0)
olv63*	0.0	0.0	0.0	(0.0)
olv64*	0.0	0.0	0.0	(0.0)
olv65*	0.0	0.0	0.0	(0.0)
olv66*	0.0	0.0	0.0	(0.0)
olv67*	0.0	0.0	0.0	(0.0)
olv68*	0.0	0.0	0.0	(0.0)
olv69*	0.0	0.0	0.0	(0.0)
olv70*	0.0	0.0	0.0	(0.0)
olv71*	0.0	0.0	0.0	(0.0)
olv72*	0.0	0.0	0.0	(0.0)
olv73*	0.0	0.0	0.0	(0.0)
olv74*	0.0	0.0	0.0	(0.0)
olv75*	0.0	0.0	0.0	(0.0)
olv76*	0.0	0.0	0.0	(0.0)
olv77*	0.0	0.0	0.0	(0.0)
olv78*	0.0	0.0	0.0	(0.0)
olv79*	0.0	0.0	0.0	(0.0)
olv80*	0.0	0.0	0.0	(0.0)
olv81*	0.0	0.0	0.0	(0.0)
olv82*	0.0	0.0	0.0	(0.0)
olv83*	0.0	0.0	0.0	(0.0)
olv84*	0.0	0.0	0.0	(0.0)
olv85*	0.0	0.0	0.0	(0.0)
olv86*	0.0	0.0	0.0	(0.0)
olv87*	0.0	0.0	0.0	(0.0)
olv88*	0.0	0.0	0.0	(0.0)
olv89*	0.0	0.0	0.0	(0.0)
olv90*	0.0	0.0	0.0	(0.0)
olv91*	0.0	0.0	0.0	(0.0)
olv92*	0.0	0.0	0.0	(0.0)
olv93*	0.0	0.0	0.0	(0.0)
olv94*	0.0	0.0	0.0	(0.0)
olv95*	0.0	0.0	0.0	(0.0)
olv96*	0.0	0.0	0.0	(0.0)
olv97*	0.0	0.0	0.0	(0.0)
olv98*	0.0	0.0	0.0	(0.0)
olv99*	0.0	0.0	0.0	(0.0)
olv100*	0.0	0.0	0.0	(0.0)

relative Inform. Technology (IT)

olv3*	1.0	0.75	1.0	(1.0)
olv4*	0.0	0.25	0.0	(0.0)
olv5*	0.0	0.75	0.0	(0.0)
olv6*	0.0	0.25	0.0	(0.0)
olv7*	0.0	0.75	0.0	(0.0)
olv8*	0.0	0.25	0.0	(0.0)
olv9*	0.0	0.75	0.0	(0.0)
olv10*	0.0	0.25	0.0	(0.0)
olv11*	0.0	0.75	0.0	(0.0)
olv12*	0.0	0.25	0.0	(0.0)
olv13*	0.0	0.75	0.0	(0.0)
olv14*	0.0	0.25	0.0	(0.0)
olv15*	0.0	0.75	0.0	(0.0)
olv16*	0.0	0.25	0.0	(0.0)
olv17*	0.0	0.75	0.0	(0.0)
olv18*	0.0	0.25	0.0	(0.0)
olv19*	0.0	0.75	0.0	(0.0)
olv20*	0.0	0.25	0.0	(0.0)
olv21*	0.0	0.75	0.0	(0.0)
olv22*	0.0	0.25	0.0	(0.0)
olv23*	0.0	0.75	0.0	(0.0)
olv24*	0.0	0.25	0.0	(0.0)
olv25*	0.0	0.75	0.0	(0.0)
olv26*	0.0	0.25	0.0	(0.0)
olv27*	0.0	0.75	0.0	(0.0)
olv28*	0.0	0.25	0.0	(0.0)
olv29*	0.0	0.75	0.0	(0.0)
olv30*	0.0	0.25	0.0	(0.0)
olv31*	0.0	0.75	0.0	(0.0)
olv32*	0.0	0.25	0.0	(0.0)
olv33*	0.0	0.75	0.0	(0.0)
olv34*	0.0	0.25	0.0	(0.0)
olv35*	0.0	0.75	0.0	(0.0)
olv36*	0.0	0.25	0.0	(0.0)
olv37*	0.0	0.75	0.0	(0.0)
olv38*	0.0	0.25	0.0	(0.0)
olv39*	0.0	0.75	0.0	(0.0)
olv40*	0.0	0.25	0.0	(0.0)
olv41*	0.0	0.75	0.0	(0.0)
olv42*	0.0	0.25	0.0	(0.0)
olv43*	0.0	0.75	0.0	(0.0)
olv44*	0.0	0.25	0.0	(0.0)
olv45*	0.0	0.75	0.0	(0.0)
olv46*	0.0	0.25	0.0	(0.0)
olv47*	0.0	0.75	0.0	(0.0)
olv48*	0.0	0.25	0.0	(0.0)
olv49*	0.0	0.75	0.0	(0.0)
olv50*	0.0	0.25	0.0	(0.0)
olv51*	0.0	0.75	0.0	(0.0)
olv52*	0.0	0.25	0.0	(0.0)
olv53*	0.0	0.75	0.0	(0.0)
olv54*	0.0	0.25	0.0	(0.0)
olv55*	0.0	0.75	0.0	(0.0)
olv56*	0.0	0.25	0.0	(0.0)
olv57*	0.0	0.75	0.0	(0.0)
olv58*	0.0	0.25	0.0	(0.0)
olv59*	0.0	0.75	0.0	(0.0)
olv60*	0.0	0.25	0.0	(0.0)
olv61*	0.0	0.75	0.0	(0.0)
olv62*	0.0	0.25	0.0	(0.0)
olv63*	0.0	0.75	0.0	(0.0)
olv64*	0.0	0.25	0.0	(0.0)
olv65*	0.0	0.75	0.0	(0.0)
olv66*	0.0	0.25	0.0	(0.0)
olv67*	0.0	0.75	0.0	(0.0)
olv68*	0.0	0.25	0.0	(0.0)
olv69*	0.0	0.75	0.0	(0.0)
olv70*	0.0	0.25	0.0	(0.0)
olv71*	0.0	0.75	0.0	(0.0)
olv72*	0.0	0.25	0.0	(0.0)
olv73*	0.0	0.75	0.0	(0.0)
olv74*	0.0	0.25	0.0	(0.0)
olv75*	0.0	0.75	0.0	(0.0)
olv76*	0.0	0.25	0.0	(0.0)
olv77*	0.0	0.75	0.0	(0.0)
olv78*	0.0	0.25	0.0	(0.0)
olv79*	0.0	0.75	0.0	(0.0)
olv80*	0.0	0.25	0.0	(0.0)
olv81*	0.0	0.75	0.0	(0.0)
olv82*	0.0	0.25	0.0	(0.0)
olv83*	0.0	0.75	0.0	(0.0)
olv84*	0.0	0.25	0.0	(0.0)
olv85*	0.0	0.75	0.0	(0.0)
olv86*	0.0	0.25	0.0	(0.0)
olv87*	0.0	0.75	0.0	(0.0)
olv88*	0.0	0.25	0.0	(0.0)
olv89*	0.0	0.75	0.0	(0.0)
olv90*	0.0	0.25	0.0	(0.0)
olv91*	0.0	0.75	0.0	(0.0)
olv92*	0.0	0.25	0.0	(0.0)
olv93*	0.0	0.75	0.0	(0.0)
olv94*	0.0	0.25	0.0	(0.0)
olv95*	0.0	0.75	0.0	(0.0)
olv96*	0.0	0.25	0.0	(0.0)
olv97*	0.0	0.75	0.0	(0.0)
olv98*	0.0	0.25	0.0	(0.0)
olv99*	0.0	0.75	0.0	(0.0)
olv100*	0.0	0.25	0.0	(0.0)

LAB*TCHa	87.5	19.34	325.0
relative CIELAB lab*			
lab*lab	0.875	0.205	-0.142
lab*tch	0.875	0.25	0.903
lab*ncH	0.0	0.25	0.903
relative Natural Colour (NC)			
lab*lrj	0.875	0.168	-0.184
lab*tce	0.875	0.25	0.867
lab*ncE	0.0	0.25	b46r

See for similar files: <http://www.ps.bam.de/VE45/>
Technical information: <http://www.ps.bam.de> Version 2.1, io=1,1, CIEXYZ

BAM registration: 20060101-VE45/10L/L45E06FP.PS/.PDF
application for evaluation and measurement of printer or monitor systems, Yr=2.5, XYZ
[VE45] Form 7/10, Serie: 1/1, Page: 7 Page count: 1

Input: Colorimetric Natural Reflective System CNS18

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

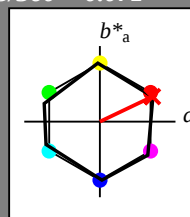
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 57 77 25

olv*Ma: 1.0 0.01 0.0

triangle lightness t^*



CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-7.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Regularity

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

$g^*_{C,rel} = 100$

relative Inform. Technology (IT)	
olv3*	1.0 1.0 1.0 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
olv6*	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 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)	
olv3*	0.75 0.75 0.75 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
olv6*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*Lab	76.07 0.0 0.0
LAB*Lab	76.07 0.0 0.0
LAB*Lab	76.07 0.0 0.0

relative CIELAB lab*	
lab*lab	0.75 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	0.75 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*	0.5 0.5 0.5 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
olv6*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*Lab	56.72 0.0 0.0
LAB*Lab	56.72 0.0 0.0
LAB*Lab	56.72 0.0 0.0

relative CIELAB lab*	
lab*lab	0.5 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	0.5 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*	0.25 0.25 0.25 (1.0)
olv4*	0.0 0.0 0.0 (0.0)
olv5*	0.0 0.0 0.0 (0.0)
olv6*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*Lab	37.37 0.0 0.0
LAB*Lab	37.37 0.0 0.0
LAB*Lab	37.37 0.0 0.0

relative CIELAB lab*	
lab*lab	0.25 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	0.25 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)
olv4*	0.0 0.0 0.0 (1.0)
olv5*	0.0 0.0 0.0 (1.0)
olv6*	0.0 0.0 0.0 (1.0)
standard and adapted CIELAB	
LAB*Lab	18.03 0.0 0.0
LAB*Lab	18.03 0.0 0.0
LAB*Lab	18.03 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)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (1.0)
olv5*	0.0 0.0 0.0 (1.0)
olv6*	0.0 0.0 0.0 (1.0)
standard and adapted CIELAB	
LAB*Lab	0.01 0.01
LAB*Lab	0.01 0.01
LAB*Lab	0.01 0.01

relative CIELAB lab*	
lab*lab	0.0 0.0 0.0
lab*tch	0.0 0.0 0.0
lab*nch	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*	1.0 0.752 0.75 (1.0)
olv4*	0.0 0.248 0.25 (0.0)
olv5*	0.0 0.752 0.75 (1.0)
olv6*	0.0 0.248 0.25 (0.0)
standard and adapted CIELAB	
LAB*Lab	85.73 17.37 8.28
LAB*Lab	85.73 17.37 8.28
LAB*Lab	85.73 17.37 8.28

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

relative Inform. Technology (IT)	
olv3*	0.75 0.502 0.5 (1.0)
olv4*	0.0 0.498 0.5 (0.0)
olv5*	0.0 0.752 0.75 (1.0)
olv6*	0.0 0.248 0.25 (0.0)
standard and adapted CIELAB	
LAB*Lab	66.38 17.37 8.28
LAB*Lab	66.38 17.37 8.28
LAB*Lab	66.38 17.37 8.28

relative CIELAB lab*	
lab*lab	0.625 0.25 0.108
lab*tch	0.625 0.25 0.071
lab*nch	0.0 0.25 0.071
relative Natural Colour (NC)	
lab*trj	0.625 0.25 0.0
lab*tce	0.625 0.25 0.0
lab*nce	0.0 0.25 0.0

relative Inform. Technology (IT)	
olv3*	0.5 0.252 0.5 (1.0)
olv4*	0.0 0.748 0.75 (1.0)
olv5*	0.0 0.752 0.75 (1.0)
olv6*	0.0 0.248 0.25 (0.0)
standard and adapted CIELAB	
LAB*Lab	47.03 17.37 8.28
LAB*Lab	47.03 17.37 8.28
LAB*Lab	47.03 17.37 8.28

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

relative Inform. Technology (IT)	
olv3*	0.25 0.005 0.0 (1.0)
olv4*	0.0 0.995 1.0 (0.0)
olv5*	0.0 0.505 0.5 (1.0)
olv6*	0.0 0.495 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	27.36 34.75 16.56
LAB*Lab	27.36 34.75 16.56
LAB*Lab	27.36 34.75 16.56

relative CIELAB lab*	
lab*lab	0.25 0.451 0.215
lab*tch	0.25 0.5 0.071
lab*nch	0.0 0.5 0.071
relative Natural Colour (NC)	
lab*trj	0.25 0.5 0.0
lab*tce	0.25 0.5 0.0
lab*nce	0.0 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (1.0)
olv5*	0.0 0.0 0.0 (1.0)
olv6*	0.0 0.0 0.0 (1.0)
standard and adapted CIELAB	
LAB*Lab	12.5 19.24 25.46
LAB*Lab	12.5 19.24 25.46
LAB*Lab	12.5 19.24 25.46

relative CIELAB lab*	
lab*lab	0.125 0.226 0.107
lab*tch	0.125 0.25 0.071
lab*nch	0.0 0.25 0.071
relative Natural Colour (NC)	
lab*trj	0.125 0.25 0.0
lab*tce	0.125 0.25 0.0
lab*nce	0.0 0.25 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (1.0)
olv5*	0.0 0.0 0.0 (1.0)
olv6*	0.0 0.0 0.0 (1.0)
standard and adapted CIELAB	
LAB*Lab	0.0 0.0 0.0
LAB*Lab	0.0 0.0 0.0
LAB*Lab	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	1.0 0.505 0.5 (1.0)
olv4*	0.0 0.495 0.5 (0.0)
olv5*	0.0 0.505 0.5 (1.0)
olv6*	0.0 0.495 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	76.05 34.74 16.55
LAB*Lab	76.05 34.74 16.55
LAB*Lab	76.05 34.74 16.55

relative CIELAB lab*	
lab*lab	0.75 0.451 0.215
lab*tch	0.75 0.5 0.071
lab*nch	0.0 0.5 0.071
relative Natural Colour (NC)	
lab*trj	0.75 0.5 0.0
lab*tce	0.75 0.5 0.0
lab*nce	0.0 0.5 0.0

relative Inform. Technology (IT)	
olv3*	1.0 0.257 0.25 (1.0)
olv4*	0.0 0.743 0.75 (0.0)
olv5*	0.0 0.257 0.25 (1.0)
olv6*	0.0 0.743 0.75 (0.0)
standard and adapted CIELAB	
LAB*Lab	66.37 52.11 24.83
LAB*Lab	66.37 52.11 24.83
LAB*Lab	66.37 52.11 24.83

relative CIELAB lab*	
lab*lab	0.625 0.677 0.323
lab*tch	0.625 0.75 0.071
lab*nch	0.0 0.75 0.071
relative Natural Colour (NC)	
lab*trj	0.625 0.75 0.0
lab*tce	0.625 0.75 0.0
lab*nce	0.0 0.75 0.0

relative Inform. Technology (IT)	
olv3*	0.75 0.007 0.0 (1.0)
olv4*	0.0 0.993 1.0 (0.0)
olv5*	0.0 0.505 0.5 (1.0)
olv6*	0.0 0.495 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	56.71 34.75 16.56
LAB*Lab	56.71 34.75 16.56
LAB*Lab	56.71 34.75 16.56

relative CIELAB lab*	
lab*lab	0.5 0.451 0.215
lab*tch	0.5 0.5 0.071
lab*nch	0.0 0.5 0.071
relative Natural Colour (NC)	
lab*trj	0.5 0.5 0.0
lab*tce	0.5 0.5 0.0
lab*nce	0.0 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.5 0.005 0.0 (1.0)
olv4*	0.0 0.995 1.0 (0.0)
olv5*	0.0 0.505 0.5 (1.0)
olv6*	0.0 0.495 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	37.36 34.75 16.55
LAB*Lab	37.36 34.75 16.55
LAB*Lab	37.36 34.75 16.55

relative CIELAB lab*	
lab*lab	0.375 0.677 0.323
lab*tch	0.375 0.75 0.071
lab*nch	0.0 0.75 0.071
relative Natural Colour (NC)	
lab*trj	0.375 0.75 0.0
lab*tce	0.375 0.75 0.0
lab*nce	0.0 0.75 0.0

relative Inform. Technology (IT)	
olv3*	0.25 0.005 0.0 (1.0)
olv4*	0.0 0.995 1.0 (0.0)
olv5*	0.0 0.505 0.5 (1.0)
olv6*	0.0 0.495 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	25.01 38.49 25.47
LAB*Lab	25.01 38.49 25.47
LAB*Lab	25.01 38.49 25.47

relative CIELAB lab*	
lab*lab	0.25 0.451 0.215
lab*tch	0.25 0.5 0.071
lab*nch	0.0 0.5 0.071
relative Natural Colour (NC)	
lab*trj	0.25 0.5 0.0
lab*tce	0.25 0.5 0.0
lab*nce	0.0 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
olv4*	0.0 0.0 0.0 (1.0)
olv5*	0.0 0.0 0.0 (1.0)
olv6*	0.0 0.0 0.0 (1.0)
standard and adapted CIELAB	
LAB*Lab	0.0 0.0 0.0
LAB*Lab	0.0 0.0 0.0
LAB*Lab	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	1.0 0.257 0.25 (1.0)
olv4*	0.0 0.743 0.75 (0.0)
olv5*	0.0 0.257 0.25 (1.0)
olv6*	0.0 0.743 0.75 (0.0)
standard and adapted CIELAB	
LAB*Lab	66.37 52.11 24.83
LAB*Lab	66.37 52.11 24.83
LAB*Lab	66.37 52.11 24.83

relative CIELAB lab*	
lab*lab	0.625 0.677 0.323
lab*tch	0.625 0.75 0.071
lab*nch	0.0 0.75 0.071
relative Natural Colour (NC)	
lab*trj	0.625 0.75 0.0
lab*tce	0.625 0.75 0.0
lab*nce	0.0 0.75 0.0

relative Inform. Technology (IT)	
olv3*	0.75 0.007 0.0 (1.0)
olv4*	0.0 0.993 1.0 (0.0)
olv5*	0.0 0.505 0.5 (1.0)
olv6*	0.0 0.495 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	56.71 34.75 16.56
LAB*Lab	56.71 34.75 16.56
LAB*Lab	56.71 34.75 16.56

relative CIELAB lab*	
lab*lab	0.5 0.451 0.215
lab*tch	0.5 0.5 0.071
lab*nch	0.0 0.5 0.071
relative Natural Colour (NC)	
lab*trj	0.5 0.5 0.0
lab*tce	0.5 0.5 0.0
lab*nce	0.0 0.5 0.0

relative Inform. Technology (IT)	
olv3*	0.5 0.005 0.0 (1.0)
olv4*	0.0 0.995 1.0 (0.0)
olv5*	0.0 0.505 0.5 (1.0)
olv6*	0.0 0.495 0.5 (0.0)
standard and adapted CIELAB	
LAB*Lab	37.36 34.75 16.55
LAB*Lab	37.36 34.75 16.55
LAB*Lab	37.36 34.75 16

Input: Colorimetric Natural Reflective System CNS18

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

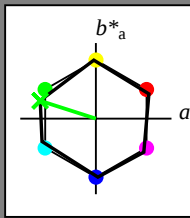
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 57 77 162

olv*Ma: 0.0 1.0 0.01

triangle lightness t^*



relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 75.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 55.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 35.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (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 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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 (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 9.01 0.0 0.0
LAB*LABa 9.01 0.0 0.0
LAB*LABb 9.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*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 (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 4.51 0.0 0.0
LAB*LABa 4.51 0.0 0.0
LAB*LABb 4.50 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 (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 2.26 0.0 0.0
LAB*LABa 2.26 0.0 0.0
LAB*LABb 2.25 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 (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 1.13 0.0 0.0
LAB*LABa 1.13 0.0 0.0
LAB*LABb 1.12 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 (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 0.57 0.0 0.0
LAB*LABa 0.57 0.0 0.0
LAB*LABb 0.56 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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Regularity

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

$g^*_{C,rel} = 100$

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 76.05 -36.78 11.8
LAB*LABa 76.05 -36.78 11.8
LAB*LABb 75.00 38.64 162.22

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 (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 56.71 -36.79 11.8
LAB*LABa 56.71 -36.79 11.8
LAB*LABb 55.00 38.64 162.22

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (0.0)
cmyn3* 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 -36.78 11.8
LAB*LABa 37.36 -36.78 11.8
LAB*LABb 35.00 38.64 162.22

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 (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 18.03 -36.78 11.8
LAB*LABa 18.03 -36.78 11.8
LAB*LABb 18.00 38.64 162.22

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 (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 9.01 -36.78 11.8
LAB*LABa 9.01 -36.78 11.8
LAB*LABb 9.00 38.64 162.22

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 (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 4.51 -36.78 11.8
LAB*LABa 4.51 -36.78 11.8
LAB*LABb 4.50 38.64 162.22

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 (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 2.26 -36.78 11.8
LAB*LABa 2.26 -36.78 11.8
LAB*LABb 2.25 38.64 162.22

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 (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 1.13 -36.78 11.8
LAB*LABa 1.13 -36.78 11.8
LAB*LABb 1.12 38.64 162.22

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 (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 0.57 -36.78 11.8
LAB*LABa 0.57 -36.78 11.8
LAB*LABb 0.56 38.64 162.22

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

Output: Colorimetric Offset Reflective System ORS18

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

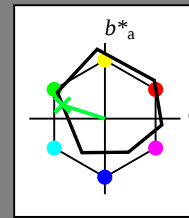
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 53 59 162

olv*Ma: 0.0 1.0 0.21

triangle lightness t^*



relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 -0.98 4.75
LAB*LABa 95.41 0.0 0.0
LAB*LABb 99.99 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.06 -0.61 3.44
LAB*LABa 76.06 0.0 0.0
LAB*LABb 75.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.61 3.44
LAB*LABa 56.71 -0.61 3.44
LAB*LABb 55.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (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 -0.61 3.44
LAB*LABa 37.36 -0.61 3.44
LAB*LABb 35.00 0.01 0.0

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

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (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 18.03 -0.61 3.44
LAB*LABa 18.03 -0.61 3.44
LAB*LABb 18.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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 (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 9.01 -0.61 3.44
LAB*LABa 9.01 -0.61 3.44
LAB*LABb 9.00 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*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 (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 4.51 -0.61 3.44
LAB*LABa 4.51 -0.61 3.44
LAB*LABb 4.50 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 (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 2.26 -0.61 3.44
LAB*LABa 2.26 -0.61 3.44
LAB*LABb 2.25 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 (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 1.13 -0.61 3.44
LAB*LABa 1.13 -0.61 3.44
LAB*LABb 1.12 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 (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 0.57 -0.61 3.44
LAB*LABa 0.57 -0.61 3.44
LAB*LABb 0.56 0.01 0.0

