

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab^*h = 24/360 = 0.066$

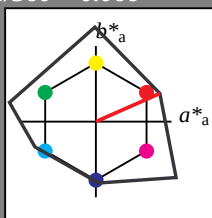
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 47 92 24

rgb*Ma: 1.0 0.0 0.0

triangle lightness t^*



NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 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 -0.01
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)
olvi3* 1.0 0.75 0.75 (1.0)
cmyn3* 0.0 0.25 0.25 (0.0)
olvi4* 1.0 0.75 0.75 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 83.34 21.17 9.31
LAB*LABa 83.34 21.15 9.31
LAB*TCHa 97.5 23.11 23.75

relative CIELAB lab*
lab*lab 0.857 0.229 0.101
lab*tch 0.875 0.25 0.066
lab*nch 0.0 0.25 0.066
relative Natural Colour (NC)
lab*trj 0.857 0.25 -0.005
lab*tce 0.875 0.25 0.996
lab*nce 0.0 0.25 0.996

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 74.21 0.0 0.0
LAB*LABa 74.21 0.0 0.0
LAB*TCHa 75.0 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.75 0.5 0.5 (1.0)
cmyn3* 0.25 0.5 0.5 (0.0)
olvi4* 1.0 0.75 0.75 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 62.24 21.2 9.32
LAB*LABa 62.24 21.16 9.31
LAB*TCHa 62.5 23.12 23.75

relative CIELAB lab*
lab*lab 0.617 0.229 0.101
lab*tch 0.625 0.25 0.066
lab*nch 0.0 0.25 0.066
relative Natural Colour (NC)
lab*trj 0.617 0.25 -0.005
lab*tce 0.625 0.25 0.996
lab*nce 0.0 0.25 0.996

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.21 0.04 0.0
LAB*LABa 53.21 0.0 0.0
LAB*TCHa 50.0 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.5 0.25 0.25 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olvi4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 50.17 42.37 18.64
LAB*LABa 50.17 42.32 18.63
LAB*TCHa 50.0 46.23 23.75

relative CIELAB lab*
lab*lab 0.371 0.686 0.302
lab*tch 0.625 0.75 0.066
lab*nch 0.0 0.75 0.066
relative Natural Colour (NC)
lab*trj 0.371 0.75 -0.017
lab*tce 0.625 0.75 0.996
lab*nce 0.0 0.75 0.996

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 32.11 0.07 0.01
LAB*LABa 32.11 0.0 0.0
LAB*TCHa 25.0 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 0.25 0.25 (1.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 38.11 63.53 27.95
LAB*LABa 38.11 63.48 27.93
LAB*TCHa 37.51 69.35 23.75

relative CIELAB lab*
lab*lab 0.321 0.686 0.302
lab*tch 0.375 0.75 0.066
lab*nch 0.0 0.75 0.066
relative Natural Colour (NC)
lab*trj 0.321 0.75 -0.017
lab*tce 0.375 0.75 0.996
lab*nce 0.0 0.75 0.996

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 29.07 42.38 18.64
LAB*LABa 29.07 42.32 18.63
LAB*TCHa 25.0 0.01 -

relative CIELAB lab*
lab*lab 0.321 0.686 0.302
lab*tch 0.375 0.75 0.066
lab*nch 0.0 0.75 0.066
relative Natural Colour (NC)
lab*trj 0.321 0.75 -0.017
lab*tce 0.375 0.75 0.996
lab*nce 0.0 0.75 0.996

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 20.04 21.22 9.33
LAB*LABa 20.04 21.15 9.31
LAB*TCHa 12.5 23.11 23.75

relative CIELAB lab*
lab*lab 0.107 0.229 0.101
lab*tch 0.125 0.25 0.066
lab*nch 0.0 0.25 0.066
relative Natural Colour (NC)
lab*trj 0.107 0.25 -0.005
lab*tce 0.125 0.25 0.996
lab*nce 0.0 0.25 0.996

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 11.01 0.07 0.01
LAB*LABa 11.01 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 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*TCHa 0.0 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

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 30/360 = 0.083$

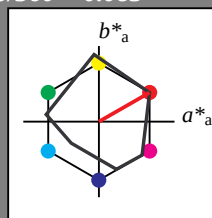
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 50 77 30

rgb*Ma: 1.0 0.0 0.0

triangle lightness t^*



MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
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	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 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 -0.97 4.75
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)
olvi3* 1.0 0.75 0.75 (1.0)
cmyn3* 0.0 0.25 0.25 (0.0)
olvi4* 1.0 0.75 0.75 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 83.96 15.97 13.58
LAB*LABa 83.96 16.73 9.59
LAB*TCHa 87.5 19.29 29.82

relative CIELAB lab*
lab*lab 0.852 0.217 0.124
lab*tch 0.875 0.25 0.083
lab*nch 0.0 0.25 0.083
relative Natural Colour (NC)
lab*trj 0.852 0.248 0.03
lab*tce 0.875 0.25 0.019
lab*nce 0.0 0.25 0.071

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olvi4* 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 -0.6 3.44
LAB*LABa 76.06 0.0 0.0
LAB*TCHa 75.0 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.75 0.5 0.5 (1.0)
cmyn3* 0.25 0.5 0.5 (0.0)
olvi4* 1.0 0.75 0.75 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 64.61 16.35 12.27
LAB*LABa 64.61 16.74 9.59
LAB*TCHa 62.5 19.29 29.82

relative CIELAB lab*
lab*lab 0.602 0.217 0.124
lab*tch 0.625 0.25 0.083
lab*nch 0.0 0.25 0.083
relative Natural Colour (NC)
lab*trj 0.602 0.248 0.03
lab*tce 0.625 0.25 0.019
lab*nce 0.0 0.25 0.071

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 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 0.23 2.14
LAB*LABa 56.71 0.17 0.01
LAB*TCHa 50.0 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.5 0.25 0.25 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olvi4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 45.26 16.72 10.97
LAB*LABa 45.26 16.74 9.59
LAB*TCHa 37.5 19.29 29.82

relative CIELAB lab*
lab*lab 0.352 0.217 0.124
lab*tch 0.375 0

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab^*h = 91/360 = 0.252$

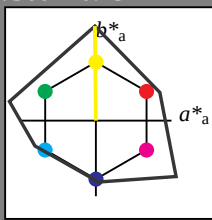
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 91 125 91

rgb*Ma: 1.0 1.0 0.0

triangle lightness t^*



NCS11; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	1.0	(1.0)
olvi3*	0.0	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
olvi4*	0.0	0.0	0.0	0.0	(0.0)
olvi5*	1.0	1.0	1.0	1.0	(1.0)
olvi5*	0.0	0.0	0.0	0.0	(0.0)
olvi6*	1.0	1.0	1.0	1.0	(1.0)
olvi6*	0.0	0.0	0.0	0.0	(0.0)
olvi7*	1.0	1.0	1.0	1.0	(1.0)
olvi7*	0.0	0.0	0.0	0.0	(0.0)
olvi8*	1.0	1.0	1.0	1.0	(1.0)
olvi8*	0.0	0.0	0.0	0.0	(0.0)
olvi9*	1.0	1.0	1.0	1.0	(1.0)
olvi9*	0.0	0.0	0.0	0.0	(0.0)
olvi10*	1.0	1.0	1.0	1.0	(1.0)
olvi10*	0.0	0.0	0.0	0.0	(0.0)
olvi11*	1.0	1.0	1.0	1.0	(1.0)
olvi11*	0.0	0.0	0.0	0.0	(0.0)
olvi12*	1.0	1.0	1.0	1.0	(1.0)
olvi12*	0.0	0.0	0.0	0.0	(0.0)
olvi13*	1.0	1.0	1.0	1.0	(1.0)
olvi13*	0.0	0.0	0.0	0.0	(0.0)
olvi14*	1.0	1.0	1.0	1.0	(1.0)
olvi14*	0.0	0.0	0.0	0.0	(0.0)
olvi15*	1.0	1.0	1.0	1.0	(1.0)
olvi15*	0.0	0.0	0.0	0.0	(0.0)
olvi16*	1.0	1.0	1.0	1.0	(1.0)
olvi16*	0.0	0.0	0.0	0.0	(0.0)
olvi17*	1.0	1.0	1.0	1.0	(1.0)
olvi17*	0.0	0.0	0.0	0.0	(0.0)
olvi18*	1.0	1.0	1.0	1.0	(1.0)
olvi18*	0.0	0.0	0.0	0.0	(0.0)
olvi19*	1.0	1.0	1.0	1.0	(1.0)
olvi19*	0.0	0.0	0.0	0.0	(0.0)
olvi20*	1.0	1.0	1.0	1.0	(1.0)
olvi20*	0.0	0.0	0.0	0.0	(0.0)
olvi21*	1.0	1.0	1.0	1.0	(1.0)
olvi21*	0.0	0.0	0.0	0.0	(0.0)
olvi22*	1.0	1.0	1.0	1.0	(1.0)
olvi22*	0.0	0.0	0.0	0.0	(0.0)
olvi23*	1.0	1.0	1.0	1.0	(1.0)
olvi23*	0.0	0.0	0.0	0.0	(0.0)
olvi24*	1.0	1.0	1.0	1.0	(1.0)
olvi24*	0.0	0.0	0.0	0.0	(0.0)
olvi25*	1.0	1.0	1.0	1.0	(1.0)
olvi25*	0.0	0.0	0.0	0.0	(0.0)
olvi26*	1.0	1.0	1.0	1.0	(1.0)
olvi26*	0.0	0.0	0.0	0.0	(0.0)
olvi27*	1.0	1.0	1.0	1.0	(1.0)
olvi27*	0.0	0.0	0.0	0.0	(0.0)
olvi28*	1.0	1.0	1.0	1.0	(1.0)
olvi28*	0.0	0.0	0.0	0.0	(0.0)
olvi29*	1.0	1.0	1.0	1.0	(1.0)
olvi29*	0.0	0.0	0.0	0.0	(0.0)
olvi30*	1.0	1.0	1.0	1.0	(1.0)
olvi30*	0.0	0.0	0.0	0.0	(0.0)
olvi31*	1.0	1.0	1.0	1.0	(1.0)
olvi31*	0.0	0.0	0.0	0.0	(0.0)
olvi32*	1.0	1.0	1.0	1.0	(1.0)
olvi32*	0.0	0.0	0.0	0.0	(0.0)
olvi33*	1.0	1.0	1.0	1.0	(1.0)
olvi33*	0.0	0.0	0.0	0.0	(0.0)
olvi34*	1.0	1.0	1.0	1.0	(1.0)
olvi34*	0.0	0.0	0.0	0.0	(0.0)
olvi35*	1.0	1.0	1.0	1.0	(1.0)
olvi35*	0.0	0.0	0.0	0.0	(0.0)
olvi36*	1.0	1.0	1.0	1.0	(1.0)
olvi36*	0.0	0.0	0.0	0.0	(0.0)
olvi37*	1.0	1.0	1.0	1.0	(1.0)
olvi37*	0.0	0.0	0.0	0.0	(0.0)
olvi38*	1.0	1.0	1.0	1.0	(1.0)
olvi38*	0.0	0.0	0.0	0.0	(0.0)
olvi39*	1.0	1.0	1.0	1.0	(1.0)
olvi39*	0.0	0.0	0.0	0.0	(0.0)
olvi40*	1.0	1.0	1.0	1.0	(1.0)
olvi40*	0.0	0.0	0.0	0.0	(0.0)
olvi41*	1.0	1.0	1.0	1.0	(1.0)
olvi41*	0.0	0.0	0.0	0.0	(0.0)
olvi42*	1.0	1.0	1.0	1.0	(1.0)
olvi42*	0.0	0.0	0.0	0.0	(0.0)
olvi43*	1.0	1.0	1.0	1.0	(1.0)
olvi43*	0.0	0.0	0.0	0.0	(0.0)
olvi44*	1.0	1.0	1.0	1.0	(1.0)
olvi44*	0.0	0.0	0.0	0.0	(0.0)
olvi45*	1.0	1.0	1.0	1.0	(1.0)
olvi45*	0.0	0.0	0.0	0.0	(0.0)
olvi46*	1.0	1.0	1.0	1.0	(1.0)
olvi46*	0.0	0.0	0.0	0.0	(0.0)
olvi47*	1.0	1.0	1.0	1.0	(1.0)
olvi47*	0.0	0.0	0.0	0.0	(0.0)
olvi48*	1.0	1.0	1.0	1.0	(1.0)
olvi48*	0.0	0.0	0.0	0.0	(0.0)
olvi49*	1.0	1.0	1.0	1.0	(1.0)
olvi49*	0.0	0.0	0.0	0.0	(0.0)
olvi50*	1.0	1.0	1.0	1.0	(1.0)
olvi50*	0.0	0.0	0.0	0.0	(0.0)
olvi51*	1.0	1.0	1.0	1.0	(1.0)
olvi51*	0.0	0.0	0.0	0.0	(0.0)
olvi52*	1.0	1.0	1.0	1.0	(1.0)
olvi52*	0.0	0.0	0.0	0.0	(0.0)
olvi53*	1.0	1.0	1.0	1.0	(1.0)
olvi53*	0.0	0.0	0.0	0.0	(0.0)
olvi54*	1.0	1.0	1.0	1.0	(1.0)
olvi54*	0.0	0.0	0.0	0.0	(0.0)
olvi55*	1.0	1.0	1.0	1.0	(1.0)
olvi55*	0.0	0.0	0.0	0.0	(0.0)
olvi56*	1.0	1.0	1.0	1.0	(1.0)
olvi56*	0.0	0.0	0.0	0.0	(0.0)
olvi57*	1.0	1.0	1.0	1.0	(1.0)
olvi57*	0.0	0.0	0.0	0.0	(0.0)
olvi58*	1.0	1.0	1.0	1.0	(1.0)
olvi58*	0.0	0.0	0.0	0.0	(0.0)
olvi59*	1.0	1.0	1.0	1.0	(1.0)
olvi59*	0.0	0.0	0.0	0.0	(0.0)
olvi60*	1.0	1.0	1.0	1.0	(1.0)
olvi60*	0.0	0.0	0.0	0.0	(0.0)
olvi61*	1.0	1.0	1.0	1.0	(1.0)
olvi61*	0.0	0.0	0.0	0.0	(0.0)
olvi62*	1.0	1.0	1.0	1.0	(1.0)
olvi62*	0.0	0.0	0.0	0.0	(0.0)
olvi63*	1.0	1.0	1.0	1.0	(1.0)
olvi63*	0.0	0.0	0.0	0.0	(0.0)
olvi64*	1.0	1.0	1.0	1.0	(1.0)
olvi64*	0.0	0.0	0.0	0.0	(0.0)
olvi65*	1.0	1.0	1.0	1.0	(1.0)
olvi65*	0.0	0.0	0.0	0.0	(0.0)
olvi66*	1.0	1.0	1.0	1.0	(1.0)
olvi66*	0.0	0.0	0.0	0.0	(0.0)
olvi67*	1.0	1.0	1.0	1.0	(1.0)
olvi67*	0.0	0.0	0.0	0.0	(0.0)
olvi68*	1.0	1.0	1.0	1.0	(1.0)
olvi68*	0.0	0.0	0.0	0.0	(0.0)
olvi69*	1.0	1.0	1.0	1.0	(1.0)
olvi69*	0.0	0.0	0.0	0.0	(0.0)
olvi70*	1.0	1.0	1.0	1.0	(1.0)
olvi70*	0.0	0.0	0.0	0.0	(0.0)
olvi71*	1.0	1.0	1.0	1.0	(1.0)
olvi71*	0.0	0.0	0.0	0.0	(0.0)
olvi72*	1.0	1.0	1.0	1.0	(1.0)
olvi72*	0.0	0.0	0.0	0.0	(0.0)
olvi73*	1.0	1.0	1.0	1.0	(1.0)
olvi73*	0.0	0.0	0.0	0.0	(0.0)
olvi74*	1.0	1.0	1.0	1.0	(1.0)
olvi74*	0.0	0.0	0.0	0.0	(0.0)
olvi75*	1.0	1.0	1.0	1.0	(1.0)
olvi75*	0.0	0.0	0.0	0.0	(0.0)
olvi76*	1.0	1.0	1.0	1.0	(1.0)
olvi76*	0.0	0.0	0.0	0.0	(0.0)
olvi77*	1.0	1.0	1.0	1.0	(1.0)
olvi77*	0.0	0.0	0.0	0.0	(0.0)
olvi78*	1.0	1.0	1.0	1.0	(1.0)
olvi78*	0.0	0.0	0.0	0.0	(0.0)
olvi79*	1.0	1.0	1.0	1.0	(1.0)
olvi79*	0.0	0.0	0.0	0.0	(0.0)
olvi80*	1.0	1.0	1.0	1.0	(1.0)
olvi80*	0.0	0.0	0.0	0.0	(0.0)
olvi81*	1.0	1.0	1.0	1.0	(1.0)
olvi81*	0.0	0.0	0.0	0.0	(0.0)
olvi82*	1.0	1.0	1.0	1.0	(1.0)
olvi82*	0.0	0.0	0.0	0.0	(0.0)
olvi83*	1.0	1.0	1.0	1.0	(1.0)
olvi83*	0.0	0.0	0.0	0.0	(0.0)
olvi84*	1.0	1.0	1.0	1.0	(1.0)
olvi84*	0.0	0.0	0.0	0.0	(0.0)
olvi85*	1.0	1.0	1.0	1.0	(1.0)
olvi85*	0.0	0.0	0.0	0.0	(0.0)
olvi86*	1.0	1.0	1.0	1.0	(1.0)
olvi86*	0.0	0.0	0.0	0.0	(0.0)
olvi87*	1.0	1.0	1.0	1.0	(1.0)
olvi87*	0.0	0.0	0.0	0.0	(0.0)
olvi88*	1.0	1.0	1.0	1.0	(1.0)
olvi88*	0.0	0.0	0.0	0.0	(0.0)
olvi89*	1.0	1.0	1.0	1.0	(1.0)
olvi89*	0.0	0.0	0.0	0.0	(0.0)
olvi90*	1.0	1.0	1.0	1.0	(1.0)
olvi90*	0.0	0.0	0.0	0.0	(0.0)
olvi91*	1.0	1.0	1.0	1.0	(1.0)
olvi91*	0.0	0.0	0.0	0.0	(0.0)
olvi92*	1.0	1.0	1.0	1.0	(1.0)
olvi92*	0.0	0.0	0.0	0.0	(0.0)
olvi93*	1.0	1.0	1.0	1.0	(1.0)
olvi93*	0.0	0.0	0.0	0.0	(0.0)
olvi94*	1.0	1.0	1.0	1.0	(1.0)
olvi94*	0.0	0.0	0.0	0.0	(0.0)
olvi95*	1.0	1.0	1.0	1.0	(1.0)
olvi95*	0.0	0.0	0.0	0.0	(0.0)
olvi96*	1.0	1.0	1.0	1.0	(1.0)
olvi96*	0.0	0.0	0.0	0.0	(0.0)
olvi97*	1.0	1.0	1.0	1.0	(1.0)
olvi97*	0.0	0.0	0.0	0.0	(0.0)
olvi98*	1.0	1.0	1.0	1.0	(1.0)
olvi98*	0.0	0.0	0.0	0.0	(0.0)
olvi99*	1.0	1.0	1.0	1.0	(1.0)
olvi99*	0.0	0.0	0.0	0.0	(0.0)
olvi100*	1.0	1.0	1.0	1.0	(1.0)
olvi100*	0.0	0.0	0.0	0.0	(0.0)

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	0.75	1.0	(1.0)
cmyn3*	0.0	0.0	0.25	0.0	(0.0)
olvi4*	1.0	1.0	0.75	1.0	
cmyn4*	0.0	0.0	0.25	0.0	
standard and adapted CIELAB					
LAB*LAB	94.39	-0.3	31.24		
LAB*LABa	94.39	-0.31	31.24		

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab^*h = 273/360 = 0.757$

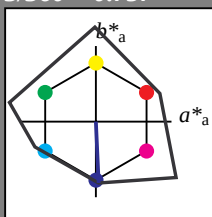
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 49 81 273

rgb*Ma: 0.0 0.0 1.0

triangle lightness t^*



NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 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 -0.01
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*trc 1.0 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 74.31 0.02 0.0
LAB*LABa 74.31 0.02 0.0
LAB*TCHa 75.0 0.01 0.0

relative CIELAB lab*
lab*lab 0.863 0.011 -0.249
lab*tch 0.875 0.25 0.757
lab*nch 0.0 0.25 0.757
relative Natural Colour (NC)
lab*trj 0.863 0.003 -0.249
lab*trc 0.875 0.25 0.757
lab*ncc 0.0 0.25 0.757

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.21 0.04 0.0
LAB*LABa 53.21 0.04 0.0
LAB*TCHa 50.0 0.01 0.0

relative CIELAB lab*
lab*lab 0.5 0.5 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*trc 0.5 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 32.12 0.07 0.01
LAB*LABa 32.12 0.07 0.01
LAB*TCHa 32.11 0.01 0.0

relative CIELAB lab*
lab*lab 0.363 0.011 -0.249
lab*tch 0.375 0.25 0.757
lab*nch 0.0 0.25 0.757
relative Natural Colour (NC)
lab*trj 0.363 0.003 -0.249
lab*trc 0.375 0.25 0.757
lab*ncc 0.0 0.25 0.757

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 11.01 0.07 0.01
LAB*LABa 11.01 0.07 0.01
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.113 0.011 -0.249
lab*tch 0.125 0.25 0.757
lab*nch 0.0 0.25 0.757
relative Natural Colour (NC)
lab*trj 0.113 0.003 -0.249
lab*trc 0.125 0.25 0.757
lab*ncc 0.0 0.25 0.757

$n^* = 1.0$

$n^* = 1.0$

UE580-7, 5 step scales for constant CIELAB hue 273/360 = 0.757 (left)

BAM-test chart UE58; Colorimetric systems ORS18 & ORS18

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

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 290/360 = 0.806$

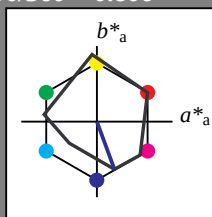
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 37 67 290

rgb*Ma: 0.0 0.0 1.0

triangle lightness t^*



MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
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	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 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 -0.97 4.75
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*trc 1.0 0.0 0.0
lab*ncc 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olvi4* 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 -0.6 3.44
LAB*LABa 76.06 0.0 0.0
LAB*TCHa 75.0 0.01 0.0

relative CIELAB lab*
lab*lab 0.81 0.086 -0.234
lab*tch 0.875 0.25 0.806
lab*nch 0.0 0.25 0.806
relative Natural Colour (NC)
lab*trj 0.81 0.064 -0.24
lab*trc 0.875 0.25 0.791
lab*ncc 0.0 0.25 0.791

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 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 0.23 2.14
LAB*LABa 56.71 0.23 2.14
LAB*TCHa 50.0 0.01 0.0

relative CIELAB lab*
lab*lab 0.56 0.086 -0.234
lab*tch 0.625 0.25 0.806
lab*nch 0.0 0.25 0.806
relative Natural Colour (NC)
lab*trj 0.56 0.064 -0.241
lab*trc 0.625 0.25 0.791
lab*ncc 0.0 0.25 0.791

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.36 0.0 0.0
LAB*LABa 37.36 0.0 0.0
LAB*TCHa 25.0 0.01 0.0

relative CIELAB lab*
lab*lab 0.31 0.086 -0.234
lab*tch 0.375 0.25 0.806
lab*nch 0.0 0.25 0.806
relative Natural Colour (NC)
lab*trj 0.31 0.064 -0.241
lab*trc 0.375 0.25 0.791
lab*ncc 0.0 0.25 0.791

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.46
LAB*LABa 18.02 0.0 0.46
LAB*TCHa 0.0 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.0 0.0 0.0
lab*trc 0.0 0.0 0.0
lab*ncc 1.0 0.0 0.0

$n^* = 1.0$

$n^* = 1.0$

5 step scales for constant CIELAB hue 290/360 = 0.806 (right)

input: $cmY0^* set cmykcolor$

output: Startup (S) data dependend

Input: Colorimetric Reflective System NCS11

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

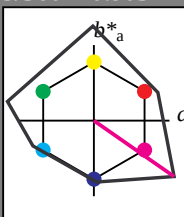
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 44 129 325

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 149$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	95.41	0.0	-0.01	
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)	1.0	0.0	0.0	
lab*trj	0.0	0.0	0.0	
lab*tce	1.0	0.0	0.0	
lab*nce	0.0	0.0	0.0	

relative Inform. Technology (IT)

olvi3*	0.75	0.75	0.75	(1.0)
cmyn3*	0.25	0.25	0.25	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	74.31	0.02	0.0	
LAB*LABa	74.31	0.02	0.0	
LAB*LABb	75.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(0.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	53.21	0.04	0.0	
LAB*LABa	53.21	0.04	0.0	
LAB*LABb	53.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	32.11	0.07	0.01	
LAB*LABa	32.11	0.07	0.01	
LAB*LABb	32.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	19.26	0.18	0.01	
LAB*LABa	19.26	0.18	0.01	
LAB*LABb	19.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(0.0)
cmyn3*	1.0	1.0	1.0	(1.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	11.01	0.07	0.01	
LAB*LABa	11.01	0.07	0.01	
LAB*LABb	11.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(0.0)
cmyn3*	1.0	1.0	1.0	(1.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	0.01	0.01	0.0	
LAB*LABa	0.01	0.01	0.0	
LAB*LABb	0.00	0.00	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(0.0)
cmyn3*	1.0	1.0	1.0	(1.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	0.00	0.00	0.00	
LAB*LABa	0.00	0.00	0.00	
LAB*LABb	0.00	0.00	0.00	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(0.0)
cmyn3*	1.0	1.0	1.0	(1.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	0.00	0.00	0.00	
LAB*LABa	0.00	0.00	0.00	
LAB*LABb	0.00	0.00	0.00	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(0.0)
cmyn3*	1.0	1.0	1.0	(1.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	0.00	0.00	0.00	
LAB*LABa	0.00	0.00	0.00	
LAB*LABb	0.00	0.00	0.00	

relative CIELAB lab*

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

UE580-7, 5 step scales for constant CIELAB hue 325/360 = 0.903 (left)

BAM-test chart UE58; Colorimetric systems ORS18 & ORS18

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

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 322/360 = 0.895$

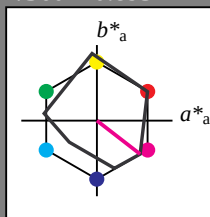
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 35 72 322

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 91$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	95.41	-0.97	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)	1.0	0.0	0.0	
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)

olvi3*	0.75	0.75	0.75	(1.0)
cmyn3*	0.25	0.25	0.25	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	76.06	-0.34	3.44	
LAB*LABa	76.06	0.0	0.0	
LAB*LABb	75.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(0.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	56.71	0.23	2.14	
LAB*LABa	56.71	0.0	0.0	
LAB*LABb	56.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	35.71	0.67	-0.73	
LAB*LABa	35.71	0.0	0.0	
LAB*LABb	35.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(0.0)
cmyn3*	1.0	1.0	1.0	(1.0)
olvi4*	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	(0.0)
LAB*LAB	18.02	0.5	0.46	
LAB*LABa	18.02	0.0	0.0	
LAB*LABb	18.00	0.01	0.0	

relative CIELAB lab*

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

relative Inform. Technology (IT)				
olvi3*	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	1.0	1.0	1.0	0.25
cmyn4*	0.0	0.0	0.0	0.75
standard and adapted CIELAB				
LAB*LAB	37.36	0.13	0.83	
LAB*LAB _a	37.36	0.0	0.0	

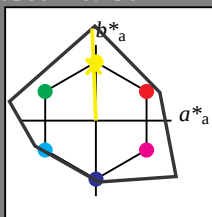
Input: Colorimetric Reflective System NCS11

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

lab^*tch and lab^*nch

D65: hue J
LCH*Ma: 90 122 92
rgb*Ma: 0.97 1.0 0.0

triangle lightness t^*



$u^*_{rel} = 149$

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
olvi3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 -0.01
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 Inform. Technology (IT)
olvi3* 0.992 1.0 0.75 (1.0)
olvi3* 0.008 0.0 0.25 (0.0)
olvi4* 0.992 1.0 0.75 (1.0)
olvi4* 0.008 0.0 0.25 (0.0)
olvi5* 0.992 1.0 0.75 (1.0)
olvi5* 0.008 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 94.16 -1.21 30.44
LAB*LABa 94.16 -1.21 30.44
LAB*LABb 94.16 -1.21 30.44
LAB*LABc 94.16 -1.21 30.44

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 74.31 0.02 0.0
LAB*LABa 74.31 0.02 0.0
LAB*LABb 74.31 0.02 0.0
LAB*LABc 74.31 0.02 0.0

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
olvi3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
olvi4* 0.0 0.0 0.0 (0.0)
olvi5* 1.0 1.0 1.0 (1.0)
olvi5* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 73.07 -1.2 30.45
LAB*LABa 73.07 -1.2 30.45
LAB*LABb 73.07 -1.2 30.45
LAB*LABc 73.07 -1.2 30.45

NCS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

%Gamut

$u^*_{rel} = 149$

$n^* = 0.00$

$n^* = 0.25$

$n^* = 0.50$

$n^* = 0.75$

$n^* = 1.00$

$n^* = 1.25$

$n^* = 1.50$

$n^* = 1.75$

$n^* = 2.00$

$n^* = 2.25$

$n^* = 2.50$

$n^* = 2.75$

$n^* = 3.00$

$n^* = 3.25$

$n^* = 3.50$

$n^* = 3.75$

$n^* = 4.00$

$n^* = 4.25$

$n^* = 4.50$

$n^* = 4.75$

$n^* = 5.00$

$n^* = 5.25$

$n^* = 5.50$

$n^* = 5.75$

$n^* = 6.00$

$n^* = 6.25$

$n^* = 6.50$

$n^* = 6.75$

$n^* = 7.00$

$n^* = 7.25$

$n^* = 7.50$

$n^* = 7.75$

$n^* = 8.00$

$n^* = 8.25$

$n^* = 8.50$

$n^* = 8.75$

$n^* = 9.00$

$n^* = 9.25$

$n^* = 9.50$

$n^* = 9.75$

$n^* = 10.00$

$n^* = 10.25$

$n^* = 10.50$

$n^* = 10.75$

$n^* = 11.00$

$n^* = 11.25$

$n^* = 11.50$

$n^* = 11.75$

$n^* = 12.00$

$n^* = 12.25$

$n^* = 12.50$

$n^* = 12.75$

$n^* = 13.00$

$n^* = 13.25$

$n^* = 13.50$

$n^* = 13.75$

$n^* = 14.00$

$n^* = 14.25$

$n^* = 14.50$

$n^* = 14.75$

$n^* = 15.00$

$n^* = 15.25$

$n^* = 15.50$

$n^* = 15.75$

$n^* = 16.00$

$n^* = 16.25$

$n^* = 16.50$

$n^* = 16.75$

$n^* = 17.00$

$n^* = 17.25$

$n^* = 17.50$

$n^* = 17.75$

$n^* = 18.00$

$n^* = 18.25$

$n^* = 18.50$

$n^* = 18.75$

$n^* = 19.00$

$n^* = 19.25$

$n^* = 19.50$

$n^* = 19.75$

$n^* = 20.00$

$n^* = 20.25$

$n^* = 20.50$

$n^* = 20.75$

$n^* = 21.00$

$n^* = 21.25$

$n^* = 21.50$

$n^* = 21.75$

$n^* = 22.00$

$n^* = 22.25$

$n^* = 22.50$

$n^* = 22.75$

$n^* = 23.00$

$n^* = 23.25$

$n^* = 23.50$

$n^* = 23.75$

$n^* = 24.00$

$n^* = 24.25$

$n^* = 24.50$

$n^* = 24.75$

$n^* = 25.00$

$n^* = 25.25$

$n^* = 25.50$

$n^* = 25.75$

$n^* = 26.00$

$n^* = 26.25$

$n^* = 26.50$

$n^* = 26.75$

$n^* = 27.00$

Input: Colorimetric Reflective System NCS11

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

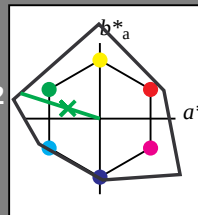
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 65 110 162

rgb*Ma: 0.08 1.0 0.0

triangle lightness t^*



NCS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
olvi4*	0.0	0.0	0.0	(0.0)
olvi5*	1.0	1.0	1.0	(1.0)
olvi6*	0.0	0.0	0.0	(0.0)
olvi7*	1.0	1.0	1.0	(1.0)
olvi8*	0.0	0.0	0.0	(0.0)
olvi9*	1.0	1.0	1.0	(1.0)
olvi10*	0.0	0.0	0.0	(0.0)
olvi11*	1.0	1.0	1.0	(1.0)
olvi12*	0.0	0.0	0.0	(0.0)
olvi13*	1.0	1.0	1.0	(1.0)
olvi14*	0.0	0.0	0.0	(0.0)
olvi15*	1.0	1.0	1.0	(1.0)
olvi16*	0.0	0.0	0.0	(0.0)
olvi17*	1.0	1.0	1.0	(1.0)
olvi18*	0.0	0.0	0.0	(0.0)
olvi19*	1.0	1.0	1.0	(1.0)
olvi20*	0.0	0.0	0.0	(0.0)
olvi21*	1.0	1.0	1.0	(1.0)
olvi22*	0.0	0.0	0.0	(0.0)
olvi23*	1.0	1.0	1.0	(1.0)
olvi24*	0.0	0.0	0.0	(0.0)
olvi25*	1.0	1.0	1.0	(1.0)
olvi26*	0.0	0.0	0.0	(0.0)
olvi27*	1.0	1.0	1.0	(1.0)
olvi28*	0.0	0.0	0.0	(0.0)
olvi29*	1.0	1.0	1.0	(1.0)
olvi30*	0.0	0.0	0.0	(0.0)
olvi31*	1.0	1.0	1.0	(1.0)
olvi32*	0.0	0.0	0.0	(0.0)
olvi33*	1.0	1.0	1.0	(1.0)
olvi34*	0.0	0.0	0.0	(0.0)
olvi35*	1.0	1.0	1.0	(1.0)
olvi36*	0.0	0.0	0.0	(0.0)
olvi37*	1.0	1.0	1.0	(1.0)
olvi38*	0.0	0.0	0.0	(0.0)
olvi39*	1.0	1.0	1.0	(1.0)
olvi40*	0.0	0.0	0.0	(0.0)
olvi41*	1.0	1.0	1.0	(1.0)
olvi42*	0.0	0.0	0.0	(0.0)
olvi43*	1.0	1.0	1.0	(1.0)
olvi44*	0.0	0.0	0.0	(0.0)
olvi45*	1.0	1.0	1.0	(1.0)
olvi46*	0.0	0.0	0.0	(0.0)
olvi47*	1.0	1.0	1.0	(1.0)
olvi48*	0.0	0.0	0.0	(0.0)
olvi49*	1.0	1.0	1.0	(1.0)
olvi50*	0.0	0.0	0.0	(0.0)
olvi51*	1.0	1.0	1.0	(1.0)
olvi52*	0.0	0.0	0.0	(0.0)
olvi53*	1.0	1.0	1.0	(1.0)
olvi54*	0.0	0.0	0.0	(0.0)
olvi55*	1.0	1.0	1.0	(1.0)
olvi56*	0.0	0.0	0.0	(0.0)
olvi57*	1.0	1.0	1.0	(1.0)
olvi58*	0.0	0.0	0.0	(0.0)
olvi59*	1.0	1.0	1.0	(1.0)
olvi60*	0.0	0.0	0.0	(0.0)
olvi61*	1.0	1.0	1.0	(1.0)
olvi62*	0.0	0.0	0.0	(0.0)
olvi63*	1.0	1.0	1.0	(1.0)
olvi64*	0.0	0.0	0.0	(0.0)
olvi65*	1.0	1.0	1.0	(1.0)
olvi66*	0.0	0.0	0.0	(0.0)
olvi67*	1.0	1.0	1.0	(1.0)
olvi68*	0.0	0.0	0.0	(0.0)
olvi69*	1.0	1.0	1.0	(1.0)
olvi70*	0.0	0.0	0.0	(0.0)
olvi71*	1.0	1.0	1.0	(1.0)
olvi72*	0.0	0.0	0.0	(0.0)
olvi73*	1.0	1.0	1.0	(1.0)
olvi74*	0.0	0.0	0.0	(0.0)
olvi75*	1.0	1.0	1.0	(1.0)
olvi76*	0.0	0.0	0.0	(0.0)
olvi77*	1.0	1.0	1.0	(1.0)
olvi78*	0.0	0.0	0.0	(0.0)
olvi79*	1.0	1.0	1.0	(1.0)
olvi80*	0.0	0.0	0.0	(0.0)
olvi81*	1.0	1.0	1.0	(1.0)
olvi82*	0.0	0.0	0.0	(0.0)
olvi83*	1.0	1.0	1.0	(1.0)
olvi84*	0.0	0.0	0.0	(0.0)
olvi85*	1.0	1.0	1.0	(1.0)
olvi86*	0.0	0.0	0.0	(0.0)
olvi87*	1.0	1.0	1.0	(1.0)
olvi88*	0.0	0.0	0.0	(0.0)
olvi89*	1.0	1.0	1.0	(1.0)
olvi90*	0.0	0.0	0.0	(0.0)
olvi91*	1.0	1.0	1.0	(1.0)
olvi92*	0.0	0.0	0.0	(0.0)
olvi93*	1.0	1.0	1.0	(1.0)
olvi94*	0.0	0.0	0.0	(0.0)
olvi95*	1.0	1.0	1.0	(1.0)
olvi96*	0.0	0.0	0.0	(0.0)
olvi97*	1.0	1.0	1.0	(1.0)
olvi98*	0.0	0.0	0.0	(0.0)
olvi99*	1.0	1.0	1.0	(1.0)
olvi100*	0.0	0.0	0.0	(0.0)

relative Inform. Technology (IT)

olvi3*	0.771	1.0	0.75	(1.0)
olvi4*	0.229	0.0	0.25	(0.0)
olvi5*	0.771	1.0	0.75	(1.0)
olvi6*	0.229	0.0	0.25	(0.0)
olvi7*	0.771	1.0	0.75	(1.0)
olvi8*	0.229	0.0	0.25	(0.0)
olvi9*	0.771	1.0	0.75	(1.0)
olvi10*	0.229	0.0	0.25	(0.0)
olvi11*	0.771	1.0	0.75	(1.0)
olvi12*	0.229	0.0	0.25	(0.0)
olvi13*	0.771	1.0	0.75	(1.0)
olvi14*	0.229	0.0	0.25	(0.0)
olvi15*	0.771	1.0	0.75	(1.0)
olvi16*	0.229	0.0	0.25	(0.0)
olvi17*	0.771	1.0	0.75	(1.0)
olvi18*	0.229	0.0	0.25	(0.0)
olvi19*	0.771	1.0	0.75	(1.0)
olvi20*	0.229	0.0	0.25	(0.0)
olvi21*	0.771	1.0	0.75	(1.0)
olvi22*	0.229	0.0	0.25	(0.0)
olvi23*	0.771	1.0	0.75	(1.0)
olvi24*	0.229	0.0	0.25	(0.0)
olvi25*	0.771	1.0	0.75	(1.0)
olvi26*	0.229	0.0	0.25	(0.0)
olvi27*	0.771	1.0	0.75	(1.0)
olvi28*	0.229	0.0	0.25	(0.0)
olvi29*	0.771	1.0	0.75	(1.0)
olvi30*	0.229	0.0	0.25	(0.0)
olvi31*	0.771	1.0	0.75	(1.0)
olvi32*	0.229	0.0	0.25	(0.0)
olvi33*	0.771	1.0	0.75	(1.0)
olvi34*	0.229	0.0	0.25	(0.0)
olvi35*	0.771	1.0	0.75	(1.0)
olvi36*	0.229	0.0	0.25	(0.0)
olvi37*	0.771	1.0	0.75	(1.0)
olvi38*	0.229	0.0	0.25	(0.0)
olvi39*	0.771	1.0	0.75	(1.0)
olvi40*	0.229	0.0	0.25	(0.0)
olvi41*	0.771	1.0	0.75	(1.0)
olvi42*	0.229	0.0	0.25	(0.0)
olvi43*	0.771	1.0	0.75	(1.0)
olvi44*	0.229	0.0	0.25	(0.0)
olvi45*	0.771	1.0	0.75	(1.0)
olvi46*	0.229	0.0	0.25	(0.0)
olvi47*	0.771	1.0	0.75	(1.0)
olvi48*	0.229	0.0	0.25	(0.0)
olvi49*	0.771	1.0	0.75	(1.0)
olvi50*	0.229	0.0	0.25	(0.0)
olvi51*	0.771	1.0	0.75	(1.0)
olvi52*	0.229	0.0	0.25	(0.0)
olvi53*	0.771	1.0	0.75	(1.0)
olvi54*	0.229	0.0	0.25	(0.0)
olvi55*	0.771	1.0	0.75	(1.0)
olvi56*	0.229	0.0	0.25	(0.0)
olvi57*	0.771	1.0	0.75	(1.0)
olvi58*	0.229	0.0	0.25	(0.0)
olvi59*	0.771	1.0	0.75	(1.0)
olvi60*	0.229	0.0	0.25	(0.0)
olvi61*	0.771	1.0	0.75	(1.0)
olvi62*	0.229	0.0	0.25	(0.0)
olvi63*	0.771	1.0	0.75	(1.0)
olvi64*	0.229	0.0	0.25	(0.0)
olvi65*	0.771	1.0	0.75	(1.0)
olvi66*	0.229	0.0	0.25	(0.0)
olvi67*	0.771	1.0	0.75	(1.0)
olvi68*	0.229	0.0	0.25	(0.0)
olvi69*	0.771	1.0	0.75	(1.0)
olvi70*	0.229	0.0	0.25	(0.0)
olvi71*	0.771	1.0	0.75	(1.0)
olvi72*	0.229	0.0	0.25	(0.0)
olvi73*	0.771	1.0	0.75	(1.0)
olvi74*	0.229	0.0	0.25	(0.0)
olvi75*	0.771	1.0	0.75	(1.0)
olvi76*	0.229	0.0	0.25	(0.0)
olvi77*	0.771	1.0	0.75	(1.0)
olvi78*	0.229	0.0	0.25	(0.0)
olvi79*	0.771	1.0	0.75	(1.0)
olvi80*	0.229	0.0	0.25	(0.0)
olvi81*	0.771	1.0	0.75	(1.0)
olvi82*	0.229	0.0	0.25	(0.0)
olvi83*	0.771	1.0	0.75	(1.0)
olvi84*	0.229	0.0	0.25	(0.0)
olvi85*	0.771	1.0	0.75	(1.0)
olvi86*	0.229	0.0	0.25	(0.0)
olvi87*	0.771	1.0	0.75	(1.0)
olvi88*	0.229	0.0	0.25	(0.0)
olvi89*	0.771	1.0	0.75	(1.0)
olvi90*	0.229	0.0	0.25	(0.0)
olvi91*	0.771	1.0	0.75	(1.0)
olvi92*	0.229	0.0	0.25	(0.0)
olvi93*	0.771	1.0	0.75	(1.0)
olvi94*	0.229	0.0	0.25	(0.0)
olvi95*	0.771	1.0	0.75	(1.0)
olvi96*	0.229	0.0	0.25	(0.0)
olvi97*	0.771	1.0	0.75	(1.0)
olvi98*	0.229	0.0	0.25	(0.0)
olvi99*	0.771	1.0	0.75	(1.0)
olvi100*	0.229	0.0	0.25	(0.0)

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olvi3*	0.771	1.0	0.75	(1.0)
olvi4*	0.229	0.0	0.25	(0.0)
olvi5*	0.771	1.0	0.75	(1.0)
olvi6*	0.229	0.0	0.25	(0.0)
olvi7*	0.771	1.0	0.75	(1.0)
olvi8*	0.229	0.0	0.25	(0.0)
olvi9*	0.771	1.0	0.75	(1.0)
olvi10*	0.229	0.0	0.25	(0.0)
olvi11*	0.771	1.0	0.75	(1.0)
olvi12*	0.229	0.0	0.25	(0.0)
olvi13*	0.771	1.0	0.75	(1.0)
olvi14*	0.229	0.0	0.25	(0.0)
olvi15*	0.771	1.0	0.75	(1.0)
olvi16*	0.229	0.0	0.25	(0.0)
olvi17*	0.771	1.0	0.75	(1.0)
olvi18*	0.229	0.0	0.25	(0.0)
olvi19*	0.771	1.0	0.75	(1.0)
olvi20*	0.229	0.0	0.25	(0.0)
olvi21*	0.771	1.0	0.75	(1.0)
olvi22*	0.229	0.0	0.25	(0.0)
olvi23*	0.771	1.0	0.75	(1.0)
olvi24*	0.229	0.0	0.25	(0.0)
olvi25*	0.771	1.0	0.75	(1.0)
olvi26*	0.229	0.0	0.25	(0.0)
olvi27*	0.771	1.0	0.75	(1.0)
olvi28*	0.229	0.0	0.25	(0.0)
olvi29*	0.771	1.0	0.75	(1.0)
olvi30*	0.229	0.0	0.25	(0.0)
olvi31*	0.771	1.0	0.75	(1.0)
olvi32*	0.229	0.0	0.25	(0.0)
olvi33*	0.771	1.0	0.75	(1.0)
olvi34*	0.229	0.0	0.25	(0.0)
olvi35*	0.771	1.0	0.75	(1.0)
olvi36*	0.229	0.0	0.25	(0.0)
olvi37*	0.771	1.0	0.75	(1.

