

Input: Colorimetric Reflective System NRS11

for hue $h^* = lab^*h = 24/360 = 0.067$

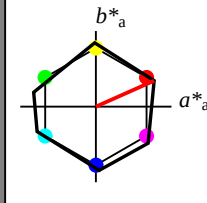
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 53 84 24

rgb*Ma: 1.0 0.0 0.0

triangle lightness t^*



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*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)
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*LABb 74.31 0.02 0.0
LAB*LABc 74.31 0.02 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)
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 0.04 0.0
LAB*LABb 53.21 0.04 0.0
LAB*LABc 53.21 0.04 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)
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 0.07 0.01
LAB*LABb 32.11 0.07 0.01
LAB*LABc 32.11 0.07 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)
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 (0.0)
standard and adapted CIELAB
LAB*LAB 11.01 0.07 0.01
LAB*LABa 11.01 0.07 0.01
LAB*LABb 11.01 0.07 0.01
LAB*LABc 11.01 0.07 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

$n^* = 1.0$

NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	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

$g^*_{H,rel} = 47$

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

relative Inform. Technology (IT)
olvi3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olvi4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 74.3 38.52 17.16
LAB*LABa 74.3 38.52 17.16
LAB*LABb 74.3 38.52 17.16
LAB*LABc 74.3 38.52 17.16

relative CIELAB lab*
lab*lab 0.75 0.457 0.203
lab*tch 0.75 0.5 0.067
lab*nch 0.0 0.5 0.067
relative Natural Colour (NC)
lab*trj 0.75 0.5 -0.009
lab*tce 0.75 0.5 0.997
lab*nce 0.0 0.5 0.998

relative Inform. Technology (IT)
olvi3* 0.75 0.25 0.25 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olvi4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 38.57 17.17
LAB*LABa 53.2 38.57 17.17
LAB*LABb 53.2 38.57 17.17
LAB*LABc 53.2 38.57 17.17

relative CIELAB lab*
lab*lab 0.5 0.457 0.203
lab*tch 0.5 0.5 0.067
lab*nch 0.0 0.5 0.067
relative Natural Colour (NC)
lab*trj 0.5 0.5 -0.009
lab*tce 0.5 0.5 0.997
lab*nce 0.0 0.5 0.998

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olvi4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 38.52 17.16
LAB*LABa 32.1 38.52 17.16
LAB*LABb 32.1 38.52 17.16
LAB*LABc 32.1 38.52 17.16

relative CIELAB lab*
lab*lab 0.25 0.457 0.203
lab*tch 0.25 0.5 0.067
lab*nch 0.0 0.5 0.067
relative Natural Colour (NC)
lab*trj 0.25 0.5 -0.009
lab*tce 0.25 0.5 0.997
lab*nce 0.0 0.5 0.998

relative Inform. Technology (IT)
olvi3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.75 1.0 0.0 (0.0)
olvi4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 11.01 38.52 17.16
LAB*LABa 11.01 38.52 17.16
LAB*LABb 11.01 38.52 17.16
LAB*LABc 11.01 38.52 17.16

relative CIELAB lab*
lab*lab 0.125 0.228 0.102
lab*tch 0.125 0.25 0.067
lab*nch 0.0 0.25 0.067
relative Natural Colour (NC)
lab*trj 0.125 0.25 -0.004
lab*tce 0.125 0.25 0.997
lab*nce 0.0 0.25 0.998

$n^* = 0.50$

relative Inform. Technology (IT)
olvi3* 1.0 0.25 0.25 (1.0)
cmyn3* 0.0 0.25 0.25 (0.0)
olvi4* 1.0 0.25 0.25 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 63.75 57.82 25.74
LAB*LABa 63.75 57.82 25.74
LAB*LABb 63.75 57.82 25.74
LAB*LABc 63.75 57.82 25.74

relative CIELAB lab*
lab*lab 0.625 0.685 0.305
lab*tch 0.625 0.75 0.067
lab*nch 0.0 0.75 0.067
relative Natural Colour (NC)
lab*trj 0.625 0.75 -0.014
lab*tce 0.625 0.75 0.997
lab*nce 0.0 0.75 0.998

relative Inform. Technology (IT)
olvi3* 0.75 0.0 0.0 (1.0)
cmyn3* 0.25 1.0 0.0 (0.0)
olvi4* 1.0 0.25 0.25 (0.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 77.09 34.32
LAB*LABa 53.2 77.09 34.32
LAB*LABb 53.2 77.09 34.32
LAB*LABc 53.2 77.09 34.32

relative CIELAB lab*
lab*lab 0.5 0.913 0.407
lab*tch 0.5 1.0 0.067
lab*nch 0.0 1.0 0.067
relative Natural Colour (NC)
lab*trj 0.5 1.0 -0.019
lab*tce 0.5 1.0 0.998
lab*nce 0.0 1.0 0.998

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olvi4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 38.52 17.16
LAB*LABa 32.1 38.52 17.16
LAB*LABb 32.1 38.52 17.16
LAB*LABc 32.1 38.52 17.16

relative CIELAB lab*
lab*lab 0.25 0.457 0.203
lab*tch 0.25 0.5 0.067
lab*nch 0.0 0.5 0.067
relative Natural Colour (NC)
lab*trj 0.25 0.5 -0.009
lab*tce 0.25 0.5 0.997
lab*nce 0.0 0.5 0.998

relative Inform. Technology (IT)
olvi3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.75 1.0 0.0 (0.0)
olvi4* 1.0 0.25 0.25 (0.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 11.01 38.52 17.16
LAB*LABa 11.01 38.52 17.16
LAB*LABb 11.01 38.52 17.16
LAB*LABc 11.01 38.52 17.16

relative CIELAB lab*
lab*lab 0.125 0.228 0.102
lab*tch 0.125 0.25 0.067
lab*nch 0.0 0.25 0.067
relative Natural Colour (NC)
lab*trj 0.125 0.25 -0.004
lab*tce 0.125 0.25 0.997
lab*nce 0.0 0.25 0.998

$n^* = 0.25$

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 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*LABb 18.02 0.5 0.46
LAB*LABc 18.02 0.5 0.46

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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.0 0.0 0.0
LAB*LABc 0.0 0.0 0.0

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

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.0 0.0 0.0
LAB*LABc 0.0 0.0 0.0

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

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LABa 0.0 0.0 0.0
LAB*LABb 0.0 0.0 0.0
LAB*LABc 0.0 0.0 0.0

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

$n^* = 0.00$

Output: Colorimetric Reflective System ORS18

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

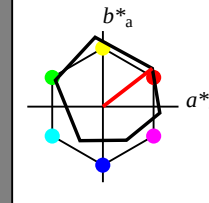
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 83 38

rgb*Ma: 1.0 0.0 0.0

triangle lightness t^*



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*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)
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*LABb 76.06 0.0 0.0
LAB*LABc 76.06 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)
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 0.23 2.14
LAB*LABb 56.71 0.23 2.14
LAB*LABc 56.71 0.23 2.14

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

relative Inform. Technology (IT)
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 32.13 38.52 17.16
LAB*LABa 32.13 38.52 17.16
LAB*LABb 32.13 38.52 17.16
LAB*LABc 32.13 38.52 17.16

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)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 0.46
LAB*LABa 18.02 0.5 0.46
LAB*LABb 18.02 0.5 0.46
LAB*LABc 18.02 0.5 0.46

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

$n^* = 1.0$

ORS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	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	64.56	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

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

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

relative Inform. Technology (IT)
olvi3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olvi4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 71.67 32.68 25.25
LAB*LABa 71.67 32.68 25.25
LAB*LABb 71.67 32.68 25.25
LAB*LABc 71.67 32.68 25.25

relative CIELAB lab*
lab*lab 0.693 0.396 0.306
lab*tch 0.75 0.5 0.105
lab*nch 0.0 0.5 0.105
relative Natural Colour (NC)
lab*trj 0.693 0.477 0.15
lab*tce 0.75 0.5 0.048
lab*nce 0.0 0.5 0.191

relative Inform. Technology (IT)
olvi3* 0.75 0.25 0.25 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olvi4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 52.33 32.69 25.26
LAB*LABa 52.33 32.69 25.26
LAB*LABb 52.33 32.69 25.26
LAB*LABc 52.33 32.69 25.26

Input: Colorimetric Reflective System NRS11

for hue $h^* = lab^*h = 91/360 = 0.253$

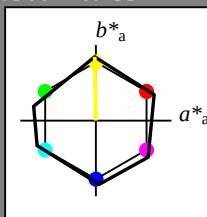
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 53 84 91

rgb*Ma: 1.0 1.0 0.0

triangle lightness t^*



NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	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

$g^*_{H,rel} = 47$

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

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* 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 75.00 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)
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 53.21 0.04 0.0
LAB*LABa 53.21 0.04 0.0
LAB*TCHa 50.00 0.01 0.0

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

relative Inform. Technology (IT)
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 32.11 0.07 0.01
LAB*LABa 32.11 0.07 0.01
LAB*TCHa 25.00 0.01 0.0

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

relative Inform. Technology (IT)
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 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 0.0 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 1.01 0.07 0.01
LAB*LABa 1.01 0.07 0.01
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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 Reflective System ORS18

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

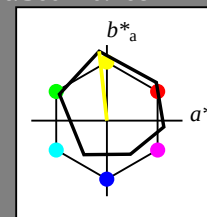
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 90 92 96

rgb*Ma: 1.0 1.0 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CLMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	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	64.56	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

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

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

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* 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 75.00 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)
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 53.2 -0.72 42.18
LAB*LABa 53.2 -0.72 42.18
LAB*TCHa 50.0 0.01 0.0

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

relative Inform. Technology (IT)
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 32.11 -0.69 42.2
LAB*LABa 32.11 -0.69 42.2
LAB*TCHa 25.0 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)
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 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 0.0 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 0.0 0.0 0.0
lab*nch 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)
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 (0.0)
cmyn4* 0.0 0.0 0.0 (1.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.0
LAB*LABa 0.01 0.01 0.0
LAB*TCHa 0.01 0.01 0.0

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

TE570-7, 5 step scales for constant CIELAB hue 91/360 = 0.253 (left)

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

BAM-test chart TE57; Colorimetric systems NRS11 & ORS18

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

input: $olv^* setrgb^* color$

output: no change compared to input

Input: Colorimetric Reflective System NRS11

for hue $h^* = lab^*h = 167/360 = 0.464$

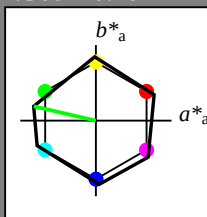
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 53 84 167

rgb*Ma: 0.0 1.0 0.0

triangle lightness t^*



$u^*_{rel} = 119$

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*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)

olvi3*	0.75	1.0	0.75	(1.0)
cmyn3*	0.25	0.0	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	84.85	-20.53	4.74
LAB*LABa	84.85	-20.53	4.74
LAB*LABb	97.5	21.1	167.01

relative CIELAB lab*

lab*lab	0.875	-0.243	0.056
lab*tch	0.875	0.25	0.464
lab*nch	0.0	0.25	0.464

relative Natural Colour (NC)

lab*trj	0.875	-0.243	-0.016
lab*tce	0.875	0.25	0.511
lab*nce	0.0	0.25	0.464

relative Inform. Technology (IT)

olvi3*	0.5	1.0	0.5	(1.0)
cmyn3*	0.5	0.0	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	74.31	0.02	0.0
LAB*LABa	74.31	0.02	0.0
LAB*LABb	75.0	0.01	0.0

relative CIELAB lab*

lab*lab	0.75	0.0	0.0
lab*tch	0.75	0.0	0.0
lab*nch	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	0.75	0.0	0.0
lab*tce	0.75	0.0	0.0
lab*nce	0.0	0.0	0.0

relative Inform. Technology (IT)

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*LABb	50.0	0.01	0.0

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	0.0
lab*nch	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	0.5	0.0	0.0
lab*tce	0.5	0.0	0.0
lab*nce	0.0	0.0	0.0

relative Inform. Technology (IT)

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	0.07	0.01
LAB*LABb	25.0	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)

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	(0.0)

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.07	0.01
LAB*LABb	0.01	0.01	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	0.0
lab*nch	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	(0.0)

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.07	0.01
LAB*LABb	0.01	0.01	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	0.0
lab*nch	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	(0.0)

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.07	0.01
LAB*LABb	0.01	0.01	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	0.0
lab*nch	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	(0.0)

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.07	0.01
LAB*LABb	0.01	0.01	0.0

relative CIELAB lab*

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

TE570-7, 5 step scales for constant CIELAB hue 167/360 = 0.464 (left)

NRS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	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

$g^*_{H,rel} = 47$

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

relative Inform. Technology (IT)

olvi3*	0.25	1.0	0.25	(1.0)
cmyn3*	0.75	0.0	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	63.75	-61.66	14.24
LAB*LABa	63.75	-61.66	14.24
LAB*LABb	62.5	63.32	167.01

relative CIELAB lab*

lab*lab	0.625	-0.73	0.169
lab*tch	0.625	0.75	0.464
lab*nch	0.0	0.75	0.464

relative Natural Colour (NC)

lab*trj	0.625	-0.747	-0.05
lab*tce	0.625	0.75	0.511
lab*nce	0.0	0.75	0.464

relative Inform. Technology (IT)

olvi3*	0.0	1.0	0.0	(1.0)
cmyn3*	1.0	0.0	1.0	(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	53.2	-82.21	18.98
LAB*LABa	53.2	-82.21	18.98
LAB*LABb	50.0	84.42	167.01

relative CIELAB lab*

lab*lab	0.5	-0.973	0.225
lab*tch	0.5	1.0	0.464
lab*nch	0.0	1.0	0.464

relative Natural Colour (NC)

lab*trj	0.5	-0.996	-0.067
lab*tce	0.5	1.0	0.511
lab*nce	0.0	1.0	0.464

relative Inform. Technology (IT)

olvi3*	0.0	0.75	0.0	(1.0)
cmyn3*	0.75	0.25	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	53.2	-41.09	9.5
LAB*LABa	53.2	-41.09	9.5
LAB*LABb	50.0	42.22	167.01

relative CIELAB lab*

lab*lab	0.375	-0.486	0.112
lab*tch	0.375	0.5	0.464
lab*nch	0.0	0.5	0.464

relative Natural Colour (NC)

lab*trj	0.375	-0.498	-0.033
lab*tce	0.375	0.5	0.511
lab*nce	0.0	0.5	0.464

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.0	(1.0)
cmyn3*	1.0	0.5	1.0	(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	42.65	-61.64	14.24
LAB*LABa	42.65	-61.64	14.24
LAB*LABb	37.51	63.32	167.01

relative CIELAB lab*

lab*lab	0.375	-0.73	0.169
lab*tch	0.375	0.75	0.464
lab*nch	0.0	0.75	0.464

relative Natural Colour (NC)

lab*trj	0.375	-0.747	-0.05
lab*tce	0.375	0.75	0.511
lab*nce	0.0	0.75	0.464

relative Inform. Technology (IT)

olvi3*	0.0	0.25	0.0	(1.0)
cmyn3*	0.75	0.25	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	-41.09	9.5
LAB*LABa	32.11	-41.09	9.5
LAB*LABb	25.01	42.22	167.01

relative CIELAB lab*

lab*lab	0.25	-0.486	0.112
lab*tch	0.25	0.5	0.464
lab*nch	0.0	0.5	0.464

relative Natural Colour (NC)

lab*trj	0.25	-0.498	-0.033
lab*tce	0.25	0.5	0.511
lab*nce	0.0	0.5	0.464

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	(0.0)

standard and adapted CIELAB

LAB*LAB	11.01	-41.09	9.5
LAB*LABa	11.01	-41.09	9.5
LAB*LABb	0.01	42.22	167.01

relative CIELAB lab*

lab*lab	0.0	-0.486	0.112
lab*tch	0.0	0.5	0.464
lab*nch	0.0	0.5	0.464

relative Natural Colour (NC)

lab*trj	0.0	-0.498	-0.033
lab*tce	0.0	0.5	0.511
lab*nce	0.0	0.5	0.464

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	(0.0)

standard and adapted CIELAB

LAB*LAB	11.01	-41.09	9.5
LAB*LABa	11.01	-41.09	9.5
LAB*LABb	0.01	42.22	167.01

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	(0.0)

standard and adapted CIELAB

LAB*LAB	11.01	-41.09	9.5
LAB*LABa	11.01	-41.09	9.5
LAB*LABb	0.01	42.22	167.01

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

chromaticness c^*

Output: Colorimetric Reflective System ORS18

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

lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 51 72 151

Input: Colorimetric Reflective System NRS11

for hue $h^* = lab^*h = 273/360 = 0.758$

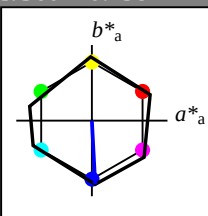
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 53 84 273

rgb*Ma: 0.0 0.0 1.0

triangle lightness t^*



NRS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	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

$g^*_{H,rel} = 47$

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

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*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)

olvi3*	0.75	0.75	0.75	(1.0)
cmyn3*	0.25	0.25	0.25	(0.0)
olvi4*	0.75	0.75	0.75	(1.0)
cmyn4*	0.25	0.25	0.25	(0.0)

standard and adapted CIELAB

LAB*LAB	84.85	1.11	-21.06
LAB*LABa	84.85	1.09	-21.06
LAB*LABb	97.5	21.09	27.97

relative CIELAB lab*

lab*lab	0.875	0.013	-0.249
lab*tch	0.875	0.013	-0.249
lab*nch	0.0	0.25	0.758

relative Natural Colour (NC)

lab*trj	0.875	0.005	-0.249
lab*tce	0.875	0.005	-0.249
lab*nce	0.0	0.25	0.753

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	74.3	2.21	-42.13
LAB*LABa	74.3	2.19	-42.13
LAB*LABb	75.0	42.2	27.97

relative CIELAB lab*

lab*lab	0.75	0.026	-0.498
lab*tch	0.75	0.026	-0.498
lab*nch	0.0	0.5	0.758

relative Natural Colour (NC)

lab*trj	0.75	0.009	-0.499
lab*tce	0.75	0.009	-0.499
lab*nce	0.0	0.5	0.753

relative Inform. Technology (IT)

olvi3*	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	0.25	0.25	0.25	(1.0)
cmyn4*	0.75	0.75	0.75	(0.0)

standard and adapted CIELAB

LAB*LAB	63.75	3.31	-63.2
LAB*LABa	63.75	3.28	-63.2
LAB*LABb	62.5	63.3	27.97

relative CIELAB lab*

lab*lab	0.625	0.039	-0.748
lab*tch	0.625	0.039	-0.748
lab*nch	0.0	0.75	0.758

relative Natural Colour (NC)

lab*trj	0.625	0.014	-0.749
lab*tce	0.625	0.014	-0.749
lab*nce	0.0	0.75	0.753

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	53.2	4.22	-84.26
LAB*LABa	53.2	4.37	-84.27
LAB*LABb	50.0	84.39	27.97

relative CIELAB lab*

lab*lab	0.5	0.052	-0.997
lab*tch	0.5	0.052	-0.997
lab*nch	0.0	1.0	0.758

relative Natural Colour (NC)

lab*trj	0.5	0.018	-0.999
lab*tce	0.5	0.018	-0.999
lab*nce	0.0	1.0	0.753

relative Inform. Technology (IT)

olvi3*	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	0.25	0.25	0.25	(1.0)
cmyn4*	0.75	0.75	0.75	(0.0)

standard and adapted CIELAB

LAB*LAB	56.71	0.23	21.4
LAB*LABa	56.71	0.21	21.4
LAB*LABb	50.0	0.01	0.0

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	0.0
lab*nch	0.0	0.5	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	0.5	0.0

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	0.0	0.0	0.0	(1.0)
cmyn4*	0.75	0.75	0.75	(0.0)

standard and adapted CIELAB

LAB*LAB	39.28	7.87	-10.13
LAB*LABa	39.28	7.87	-10.13
LAB*LABb	37.5	13.56	30.50

relative CIELAB lab*

lab*lab	0.25	0.143	-0.204
lab*tch	0.25	0.143	-0.204
lab*nch	0.0	0.25	0.847

relative Natural Colour (NC)

lab*trj	0.25	0.112	-0.222
lab*tce	0.25	0.112	-0.222
lab*nce	0.0	0.25	0.824

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	0.0	0.0	0.0	(1.0)
cmyn4*	0.75	0.75	0.75	(0.0)

standard and adapted CIELAB

LAB*LAB	41.21	15.61	-21.1
LAB*LABa	41.21	15.55	-22.21
LAB*LABb	50.0	27.12	30.50

relative CIELAB lab*

lab*lab	0.5	0.287	-0.408
lab*tch	0.5	0.287	-0.408
lab*nch	0.0	0.5	0.847

relative Natural Colour (NC)

lab*trj	0.5	0.225	-0.446
lab*tce	0.5	0.225	-0.446
lab*nce	0.0	0.5	0.824

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	23.72	33.38	-33.31
LAB*LABa	23.72	33.38	-33.31
LAB*LABb	37.5	46.67	30.50

relative CIELAB lab*

lab*lab	0.0	0.573	-0.818
lab*tch	0.0	0.573	-0.818
lab*nch	0.0	1.0	0.847

relative Natural Colour (NC)

lab*trj	0.0	0.449	-0.892
lab*tce	0.0	0.449	-0.892
lab*nce	0.0	1.0	0.824

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	25.72	31.46	-44.36
LAB*LABa	25.72	31.46	-44.36
LAB*LABb	50.0	54.23	30.50

relative CIELAB lab*

lab*lab	0.0	0.573	-0.818
lab*tch	0.0	0.573	-0.818
lab*nch	0.0	1.0	0.847

relative Natural Colour (NC)

lab*trj	0.0	0.449	-0.892
lab*tce	0.0	0.449	-0.892
lab*nce	0.0	1.0	0.824

relative Inform. Technology (IT)

olvi3*	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	0.25	0.25	0.25	(1.0)
cmyn4*	0.75	0.75	0.75	(0.0)

standard and adapted CIELAB

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.04	0.0
LAB*LABb	50.0	0.01	0.0

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	0.0
lab*nch	0.0	0.5	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	0.5	0.0

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	0.75	0.75	0.75	(0.0)
olvi4*	0.0	0.0	0.0	(1.0)
cmyn4*	0.75	0.75	0.75	(0.0)

standard and adapted CIELAB

LAB*LAB	42.65	1.15	-21.05
LAB*LABa	42.65	1.09	-21.06
LAB*LABb	37.5	21.1	27.97

relative CIELAB lab*

lab*lab	0.375	0.013	-0.249
lab*tch	0.375	0.013	-0.249
lab*nch	0.0	0.25	0.758

relative Natural Colour (NC)

lab*trj	0.375	0.005	-0.249
lab*tce	0.375	0.005	-0.249
lab*nce	0.0	0.25	0.753

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	32.1	2.19	-42.13
LAB*LABa	32.1	2.19	-42.13
LAB*LABb	25.01	42.2	27.97

relative CIELAB lab*

lab*lab	0.5	0.026	-0.498
lab*tch	0.5	0.026	-0.498
lab*nch	0.0	0.5	0.758

relative Natural Colour (NC)

lab*trj	0.5	0.009	-0.499
lab*tce	0.5	0.009	-0.499
lab*nce	0.0	0.5	0.753

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*LAB	18.02	0.5	0.46
LAB*LABa	18.02	0.5	0.46
LAB*LABb	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	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*	0.0	0.0	0.0	(1.0)
cmyn4*	1.0	1.0	1.0	(0.0)

standard and adapted CIELAB

LAB*LAB	18.02	0.5	0.46
LAB*LABa	18.02	0.5	0.46
LAB*LABb	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	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*	0.0	0.0	0.0	(1.0)
cmyn4*	1.0	1.0	1.0	(0.0)

standard and adapted CIELAB

LAB*LAB	18.02	0.5	0.46
LAB*LABa	18.02	0.5	0.46
LAB*LABb	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	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*	0.0	0.0	0.0	(1.0)
cmyn4*	1.0	1.0	1.0	(0.0)

standard and adapted CIELAB

LAB*LAB	18.02	0.5	0.46
LAB*LABa	18.02	0.5	0.46
LAB*LABb	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	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*	0.0	0.0	0.0	(1.0)
cmyn4*	1.0	1.0	1.0	(0.0)

standard and adapted CIELAB

LAB*LAB	18.02	0.5
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Input: Colorimetric Reflective System NRS11

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

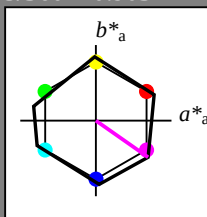
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 53 84 325

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



NRS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
GMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	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

$g^*_{H,rel} = 47$

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

relative Inform. Technology (IT)

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

relative Inform. Technology (IT)

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

LAB* <i>TCHa</i>	87.5	21.08	324.98
relative CIELAB <i>lab</i> *			
<i>lab</i> * <i>lab</i>	0.875	0.205	-0.142
<i>lab</i> * <i>tch</i>	0.875	0.25	0.903
<i>lab</i> * <i>nch</i>	0.0	0.25	0.903
relative Natural Colour (NC)			
<i>lab</i> * <i>lrj</i>	0.875	0.168	-0.184
<i>lab</i> * <i>tce</i>	0.875	0.25	0.867
<i>lab</i> * <i>nCe</i>	0.0	0.25	b46r

Input: Colorimetric Reflective System NRS11

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

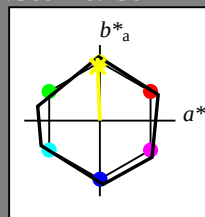
lab^*ch and lab^*nch

D65: hue J

LCH*Ma: 53 83 92

rgb*Ma: 0.98 1.0 0.0

triangle lightness t^*



NRS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	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

$g^*_{H,rel} = 47$

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

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*Lab 95.41 0.0 0.0
LAB*TCa 99.99 0.01 0.0

relative Inform. Technology (IT)
olvi3* 0.994 1.0 0.75 (1.0)
cmyn3* 0.006 0.0 0.25 (0.0)
olvi4* 0.994 1.0 0.75 (1.0)
cmyn4* 0.006 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 84.85 -0.81 20.72
LAB*Lab 84.85 -0.82 20.72
LAB*TCa 97.5 20.73 92.31

relative Inform. Technology (IT)
olvi3* 0.989 1.0 0.5 (1.0)
cmyn3* 0.011 0.0 0.5 (0.0)
olvi4* 0.989 1.0 0.5 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 74.3 -1.64 41.44
LAB*Lab 74.3 -1.67 41.44
LAB*TCa 75.0 41.47 92.32

relative Inform. Technology (IT)
olvi3* 0.983 1.0 0.25 (1.0)
cmyn3* 0.017 0.0 0.25 (0.0)
olvi4* 0.983 1.0 0.25 (1.0)
cmyn4* 0.017 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 63.75 -2.48 62.16
LAB*Lab 63.75 -2.51 62.15
LAB*TCa 62.5 62.21 92.32

relative Inform. Technology (IT)
olvi3* 0.977 1.0 0.0 (1.0)
cmyn3* 0.023 0.0 1.0 (0.0)
olvi4* 0.977 1.0 0.0 (1.0)
cmyn4* 0.023 0.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 -3.31 82.87
LAB*Lab 53.2 -3.35 82.86
LAB*TCa 50.0 82.93 92.32

relative Inform. Technology (IT)
olvi3* 0.973 0.75 0.0 (1.0)
cmyn3* 0.026 0.25 0.0 (0.0)
olvi4* 0.973 0.75 0.0 (1.0)
cmyn4* 0.026 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 -3.31 82.87
LAB*Lab 53.2 -3.35 82.86
LAB*TCa 50.0 82.93 92.32

relative Inform. Technology (IT)
olvi3* 0.973 0.75 0.0 (1.0)
cmyn3* 0.026 0.25 0.0 (0.0)
olvi4* 0.973 0.75 0.0 (1.0)
cmyn4* 0.026 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 -3.31 82.87
LAB*Lab 53.2 -3.35 82.86
LAB*TCa 50.0 82.93 92.32

relative Inform. Technology (IT)
olvi3* 0.973 0.75 0.0 (1.0)
cmyn3* 0.026 0.25 0.0 (0.0)
olvi4* 0.973 0.75 0.0 (1.0)
cmyn4* 0.026 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 -3.31 82.87
LAB*Lab 53.2 -3.35 82.86
LAB*TCa 50.0 82.93 92.32

relative Inform. Technology (IT)
olvi3* 0.973 0.75 0.0 (1.0)
cmyn3* 0.026 0.25 0.0 (0.0)
olvi4* 0.973 0.75 0.0 (1.0)
cmyn4* 0.026 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 -3.31 82.87
LAB*Lab 53.2 -3.35 82.86
LAB*TCa 50.0 82.93 92.32

relative Inform. Technology (IT)
olvi3* 0.973 0.75 0.0 (1.0)
cmyn3* 0.026 0.25 0.0 (0.0)
olvi4* 0.973 0.75 0.0 (1.0)
cmyn4* 0.026 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 -3.31 82.87
LAB*Lab 53.2 -3.35 82.86
LAB*TCa 50.0 82.93 92.32

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 53.21 0.04 0.0
LAB*Lab 53.21 0.0 0.0
LAB*TCa 50.0 0.01 -

relative Inform. Technology (IT)
olvi3* 0.694 0.5 0.25 (1.0)
cmyn3* 0.306 0.5 0.75 (0.0)
olvi4* 0.994 1.0 0.75 (1.0)
cmyn4* 0.006 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 42.65 -0.78 20.73
LAB*Lab 42.65 -0.83 20.72
LAB*TCa 37.5 20.74 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

relative Inform. Technology (IT)
olvi3* 0.689 0.5 0.0 (1.0)
cmyn3* 0.311 0.5 1.0 (0.0)
olvi4* 0.989 1.0 0.0 (1.0)
cmyn4* 0.011 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 -1.68 41.43
LAB*Lab 32.1 -1.68 41.43
LAB*TCa 25.01 41.46 92.33

TE570-7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

5 step scales for constant CIELAB hue 92/360 = 0.255 (right)

BAM-test chart TE57; Colorimetric systems NRS11 & ORS18

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

input: `olv* setrgbcolor`

output: `no change compared to input`

Input: Colorimetric Reflective System NRS11

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

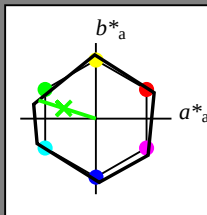
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 53 80 162

rgb*Ma: 0.08 1.0 0.0

triangle lightness t^*



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* 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 75.00 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)
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 50.00 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)
olvi3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
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 0.07 0.01
LAB*TCHa 25.00 0.01 0.0

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

relative Inform. Technology (IT)
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 (0.0)
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 0.0 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)
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 (0.0)
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 0.0 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

NRS11; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	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

$g^*_{H,rel} = 47$

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

relative Inform. Technology (IT)
olvi3* 0.54 1.0 0.5 (1.0)
cmyn3* 0.46 0.0 0.5 (0.0)
olvi4* 0.54 1.0 0.5 (1.0)
cmyn4* 0.46 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 74.31 0.02 0.0
LAB*LABa 74.31 0.02 0.0
LAB*TCHa 75.00 0.01 0.0

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

relative Inform. Technology (IT)
olvi3* 0.29 0.75 0.25 (1.0)
cmyn3* 0.71 0.25 0.75 (0.0)
olvi4* 0.54 1.0 0.5 (0.75)
cmyn4* 0.46 0.0 0.5 (0.25)
standard and adapted CIELAB
LAB*LAB 53.2 -37.83 12.13
LAB*LABa 53.2 -37.83 12.13
LAB*TCHa 50.0 39.77 162.25

relative CIELAB lab*
lab*lab 0.29 0.75 0.25 (1.0)
lab*tch 0.29 0.75 0.25 (1.0)
lab*nch 0.0 0.5 0.451 (0.0)
relative Natural Colour (NC)
lab*trj 0.29 0.75 0.25 (1.0)
lab*tce 0.29 0.75 0.25 (1.0)
lab*nce 0.0 0.5 0.451 (0.0)

relative Inform. Technology (IT)
olvi3* 0.04 0.5 0.0 (1.0)
cmyn3* 0.96 0.5 0.0 (0.0)
olvi4* 0.54 1.0 0.5 (0.5)
cmyn4* 0.46 0.0 0.5 (0.25)
standard and adapted CIELAB
LAB*LAB 32.1 -37.81 12.13
LAB*LABa 32.1 -37.81 12.13
LAB*TCHa 25.01 39.77 162.27

relative CIELAB lab*
lab*lab 0.25 0.475 0.152 (1.0)
lab*tch 0.25 0.475 0.152 (1.0)
lab*nch 0.0 0.5 0.451 (0.0)
relative Natural Colour (NC)
lab*trj 0.25 0.475 0.152 (1.0)
lab*tce 0.25 0.475 0.152 (1.0)
lab*nce 0.0 0.5 0.451 (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 0.25 0.0 (1.0)
cmyn3* 0.98 0.75 1.0 (0.0)
olvi4* 0.75 0.0 0.7 (0.0)
cmyn4* 0.23 0.0 0.25 0.75
standard and adapted CIELAB
LAB*LAB 21.55 -18.93 6.07
LAB*LABa 21.55 -18.93 6.07
LAB*TCHa 12.5 19.89 162.28

relative CIELAB lab*
lab*lab 0.125 -0.237 0.076 (1.0)
lab*tch 0.125 -0.237 0.076 (1.0)
lab*nch 0.0 0.25 0.451 (0.0)
relative Natural Colour (NC)
lab*trj 0.125 -0.237 0.076 (1.0)
lab*tce 0.125 -0.237 0.076 (1.0)
lab*nce 0.0 0.25 0.451 (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 (0.0)
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 0.0 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 Reflective System ORS18

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

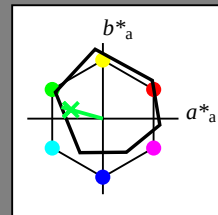
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 53 57 164

rgb*Ma: 0.0 1.0 0.25

triangle lightness t^*



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* 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 75.00 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)
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 79.54 162.26

relative CIELAB lab*
lab*lab 0.5 -0.951 0.305 (1.0)
lab*tch 0.5 0.0 1.0 (0.451)
lab*nch 0.0 1.0 0.5 (0.451)
relative Natural Colour (NC)
lab*trj 0.5 -0.951 0.305 (1.0)
lab*tce 0.5 0.0 1.0 (0.451)
lab*nce 0.0 1.0 0.5 (0.451)

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (0.0)
cmyn3* 0.75 0.75 0.75 (1.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 32.1 0.13 0.38
LAB*LABa 32.1 0.13 0.38
LAB*TCHa 25.0 79.54 162.26

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)
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 (0.0)
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*tce 0.0 0.0 0.0
lab*nce 1.0 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 (0.0)
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*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	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	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	64.56	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

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

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

relative Inform. Technology (IT)
olvi3* 0.5 1.0 0.623 (1.0)
cmyn3* 0.5 0.0 0.377 (0.0)
olvi4* 0.5 1.0 0.623 (1.0)
cmyn4* 0.5 0.0 0.377 (0.0)
standard and adapted CIELAB
LAB*LAB 74.1 -27.96 10.94
LAB*LABa 74.1 -27.96 10.94
LAB*TCHa 75.0 28.44 164.46

relative CIELAB lab*
lab*lab 0.725 -0.481 0.134 (1.0)
lab*tch 0.725 -0.481 0.134 (1.0)
lab*nch 0.0 0.5 0.457 (0.0)
relative Natural Colour (NC)
lab*trj 0.725 -0.481 0.134 (1.0)
lab*tce 0.725 -0.481 0.134 (1.0)
lab*nce 0.0 0.5 0.457 (0.0)

relative Inform. Technology (IT)
olvi3* 0.5 0.75 0.5 (1.0)
cmyn3* 0.5 0.25 0.5 (0.0)
olvi4* 0.75 1.0 0.812 (0.75)
cmyn4* 0.5 0.0 0.188 (0.25)
standard and adapted CIELAB
LAB*LAB 65.41 -14.1 6.35
LAB*LABa 65.41 -14.1 6.35
LAB*TCHa 62.5 14.22 164.46

relative CIELAB lab*
lab*lab 0.5 0.75 0.5 (1.0)
lab*tch 0.5 0.75 0.5 (1.0)
lab*nch 0.0 0.5 0.457 (0.0)
relative Natural Colour (NC)
lab*trj 0.5 0.75 0.5 (1.0)
lab*tce 0.5 0.75 0.5 (1.0)
lab*nce 0.0 0.5 0.457 (0.0)

relative Inform. Technology (IT)
olvi3* 0.25 0.75 0.25 (1.0)
cmyn3* 0.75 0.25 0.627 (0.0)
olvi4* 0.5 1.0 0.623 (0.75)
cmyn4* 0.5 0.0 0.377 (0.25)
standard and adapted CIELAB
LAB*LAB 54.75 -27.6 9.64
LAB*LABa 54.75 -27.6 9.64
LAB*TCHa 50.0 28.44 164.46

relative CIELAB lab*
lab*lab 0.25 0.75 0.25 (1.0)
lab*tch 0.25 0.75 0.25 (1.0)
lab*nch 0.0 0.5 0.457 (0.0)
relative Natural Colour (NC)
lab*trj 0.25 0.75 0.25 (1.0)
lab*tce 0.25 0.75 0.25 (1.0)
lab*nce 0.0 0.5 0.457 (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.123 (1.0)
cmyn3* 0.75 0.5 0.688 (0.0)
olvi4* 0.75 1.0 0.812 (0.5)
cmyn4* 0.0 0.0 0.188 (0.5)
standard and adapted CIELAB
LAB*LAB 46.06 -13.73 5.24
LAB*LABa 46.06 -13.73 5.24
LAB*TCHa 37.5 14.22 164.46

relative CIELAB lab*
lab*lab 0.0 0.5 0.123 (1.0)
lab*tch 0.0 0.5 0.123 (1.0)
lab*nch 0.0 0.5 0.457 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.5 0.123 (1.0)
lab*tce 0.0 0.5 0.123 (1.0)
lab*nce 0.0 0.5 0.457 (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 0.25 0.0 (1.0)
cmyn3* 1.0 0.5 0.938 (0.0)
olvi4* 0.75 0.0 0.7 (0.0)
cmyn4* 0.25 0.0 0.188 0.75
standard and adapted CIELAB
LAB*LAB 26.71 -13.53 3.94
LAB*LABa 26.71 -13.53 3.94
LAB*TCHa 12.5 14.22 164.44

relative CIELAB lab*
lab*lab 0.0 0.25 0.0 (1.0)
lab*tch 0.0 0.25 0.0 (1.0)
lab*nch 0.0 0.25 0.457 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.25 0.0 (1.0)
lab*tce 0.0 0.25 0.0 (1.0)
lab*nce 0.0 0.25 0.457 (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 0.75 0.185 (1.0)
cmyn3* 0.75 0.25 0.627 (0.0)
olvi4* 0.5 1.0 0.623 (0.75)
cmyn4* 0.5 0.0 0.377 (0.25)
standard and adapted CIELAB
LAB*LAB 54.75 -27.6 9.64
LAB*LABa 54.75 -27.6 9.64
LAB*TCHa 50.0 28.44 164.46

relative CIELAB lab*
lab*lab 0.0 0.75 0.185 (1.0)
lab*tch 0.0 0.75 0.185 (1.0)
lab*nch 0.0 0.5 0.457 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.75 0.185 (1.0)
lab*tce 0.0 0.75 0.185 (1.0)
lab*nce 0.0 0.5 0.457 (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 0.25 0.0 (1.0)
cmyn3* 0.75 0.25 0.627 (0.0)
olvi4* 0.5 1.0 0.623 (0.75)
cmyn4* 0.5 0.0 0.377 (0.25)
standard and adapted CIELAB
LAB*LAB 54.75 -27.6 9.64
LAB*LABa 54.75 -27.6 9.64
LAB*TCHa 50.0 28.44 164.46

relative CIELAB lab*
lab*lab 0.0 0.25 0.0 (1.0)
lab*tch 0.0 0.25 0.0 (1.0)
lab*nch 0.0 0.5 0.457 (0.0)
relative Natural Colour (NC)
lab*trj 0.0 0.25 0.0 (1.0)
lab*tce 0.0 0.25 0.0 (1.0)
lab*nce 0.0 0.5 0.457 (0.0)

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.25 0.815 (0.0)
olvi4* 0.25 1.0 0.435 (0.75)
cmyn4* 0.75 0.0 0.565 (0.25)
standard and adapted CIELAB
LAB*LAB 44.1 -41.09 12.73
LAB*LABa 44.1 -41.09 12.73
LAB*TCHa 37.51 42.66 164.45

age: count: 10