

Input: Colorimetric Reflective System ORS18

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

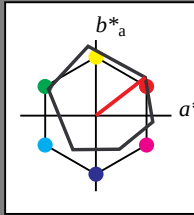
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 83 38

rgb*Ma: 1.0 0.0 0.0

triangle lightness t^*



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 47.5
LAB*LABa 95.41 0.0 0.0
LAB*TCMa 99.99 0.01 -

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 83.54 15.58 16.58
LAB*LABa 83.54 16.34 12.62
LAB*TCMa 97.5 20.65 37.7

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 32.15 28.41
LAB*LABa 71.67 32.68 25.25
LAB*TCMa 75.0 41.37 37.7

relative Inform. Technology (IT)
olvi3* 1.0 0.25 0.25 (1.0)
cmyn3* 0.0 0.75 0.75 (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 59.81 48.72 40.24
LAB*LABa 59.81 49.02 37.88
LAB*TCMa 62.5 61.95 37.7

relative Inform. Technology (IT)
olvi3* 1.0 0.0 0.0 (1.0)
cmyn3* 0.0 1.0 1.0 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 1.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 49.17 38.93
LAB*LABa 49.17 39.02 37.88
LAB*TCMa 50.0 82.6 37.7

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 45.26 16.77 10.02
LAB*LABa 45.26 16.77 10.01
LAB*TCMa 45.26 16.77 10.01

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 40.46 49.17 38.93
LAB*LABa 40.46 49.02 37.88
LAB*TCMa 40.46 49.02 37.88

relative Inform. Technology (IT)
olvi3* 0.125 0.125 0.125 (1.0)
cmyn3* 0.125 0.125 0.125 (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 35.71 61.95 37.7
LAB*LABa 35.71 61.95 37.7
LAB*TCMa 35.71 61.95 37.7

relative Inform. Technology (IT)
olvi3* 0.0625 0.0625 0.0625 (1.0)
cmyn3* 0.0625 0.0625 0.0625 (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 30.57 92.34 96
LAB*LABa 30.57 92.34 96
LAB*TCMa 30.57 92.34 96

relative Inform. Technology (IT)
olvi3* 0.03125 0.03125 0.03125 (1.0)
cmyn3* 0.03125 0.03125 0.03125 (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 25.71 54.24 305
LAB*LABa 25.71 54.24 305
LAB*TCMa 25.71 54.24 305

relative Inform. Technology (IT)
olvi3* 0.015625 0.015625 0.015625 (1.0)
cmyn3* 0.015625 0.015625 0.015625 (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 18.02 0.46
LAB*LABa 18.02 18.02 0.46
LAB*TCMa 18.02 18.02 0.46

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*TCMa 75.0 0.01 -

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 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 64.19 15.96 15.28
LAB*LABa 64.19 16.34 12.63
LAB*TCMa 62.5 20.65 37.7

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 0.25 0.25 (1.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 52.33 32.53 27.11
LAB*LABa 52.33 32.68 25.26
LAB*TCMa 50.0 41.37 37.7

relative Inform. Technology (IT)
olvi3* 0.75 0.0 0.0 (1.0)
cmyn3* 0.25 0.75 0.75 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 40.46 49.17 38.93
LAB*LABa 40.46 49.02 37.88
LAB*TCMa 40.46 49.02 37.88

relative Inform. Technology (IT)
olvi3* 0.5 0.25 0.25 (1.0)
cmyn3* 0.5 0.25 0.25 (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 16.77 10.02
LAB*LABa 45.26 16.77 10.01
LAB*TCMa 45.26 16.77 10.01

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.25 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 40.46 49.17 38.93
LAB*LABa 40.46 49.02 37.88
LAB*TCMa 40.46 49.02 37.88

relative Inform. Technology (IT)
olvi3* 0.125 0.125 0.125 (1.0)
cmyn3* 0.125 0.125 0.125 (0.0)
olvi4* 1.0 0.125 0.125 (1.0)
cmyn4* 0.0 0.125 0.125 (0.0)
standard and adapted CIELAB
LAB*LAB 35.71 61.95 37.7
LAB*LABa 35.71 61.95 37.7
LAB*TCMa 35.71 61.95 37.7

relative Inform. Technology (IT)
olvi3* 0.0625 0.0625 0.0625 (1.0)
cmyn3* 0.0625 0.0625 0.0625 (0.0)
olvi4* 1.0 0.0625 0.0625 (1.0)
cmyn4* 0.0 0.0625 0.0625 (0.0)
standard and adapted CIELAB
LAB*LAB 30.57 92.34 96
LAB*LABa 30.57 92.34 96
LAB*TCMa 30.57 92.34 96

relative Inform. Technology (IT)
olvi3* 0.03125 0.03125 0.03125 (1.0)
cmyn3* 0.03125 0.03125 0.03125 (0.0)
olvi4* 1.0 0.03125 0.03125 (1.0)
cmyn4* 0.0 0.03125 0.03125 (0.0)
standard and adapted CIELAB
LAB*LAB 25.71 54.24 305
LAB*LABa 25.71 54.24 305
LAB*TCMa 25.71 54.24 305

relative Inform. Technology (IT)
olvi3* 0.015625 0.015625 0.015625 (1.0)
cmyn3* 0.015625 0.015625 0.015625 (0.0)
olvi4* 1.0 0.015625 0.015625 (1.0)
cmyn4* 0.0 0.015625 0.015625 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 18.02 0.46
LAB*LABa 18.02 18.02 0.46
LAB*TCMa 18.02 18.02 0.46

relative Inform. Technology (IT)
olvi3* 0.0078125 0.0078125 0.0078125 (1.0)
cmyn3* 0.0078125 0.0078125 0.0078125 (0.0)
olvi4* 1.0 0.0078125 0.0078125 (1.0)
cmyn4* 0.0 0.0078125 0.0078125 (0.0)
standard and adapted CIELAB
LAB*LAB 12.5 19.46 30.93
LAB*LABa 12.5 19.46 30.93
LAB*TCMa 12.5 19.46 30.93

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 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.23 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCMa 50.0 0.01 -

relative Inform. Technology (IT)
olvi3* 0.5 0.25 0.25 (1.0)
cmyn3* 0.25 0.5 0.5 (0.0)
olvi4* 1.0 0.25 0.25 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 44.17 38.93
LAB*LABa 44.17 39.02 37.88
LAB*TCMa 44.17 38.93 37.88

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.25 0.5 0.5 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 35.71 61.95 37.7
LAB*LABa 35.71 61.95 37.7
LAB*TCMa 35.71 61.95 37.7

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.25 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 30.57 92.34 96
LAB*LABa 30.57 92.34 96
LAB*TCMa 30.57 92.34 96

relative Inform. Technology (IT)
olvi3* 0.125 0.125 0.125 (1.0)
cmyn3* 0.125 0.125 0.125 (0.0)
olvi4* 1.0 0.125 0.125 (1.0)
cmyn4* 0.0 0.125 0.125 (0.0)
standard and adapted CIELAB
LAB*LAB 25.71 54.24 305
LAB*LABa 25.71 54.24 305
LAB*TCMa 25.71 54.24 305

relative Inform. Technology (IT)
olvi3* 0.0625 0.0625 0.0625 (1.0)
cmyn3* 0.0625 0.0625 0.0625 (0.0)
olvi4* 1.0 0.0625 0.0625 (1.0)
cmyn4* 0.0 0.0625 0.0625 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 18.02 0.46
LAB*LABa 18.02 18.02 0.46
LAB*TCMa 18.02 18.02 0.46

relative Inform. Technology (IT)
olvi3* 0.03125 0.03125 0.03125 (1.0)
cmyn3* 0.03125 0.03125 0.03125 (0.0)
olvi4* 1.0 0.03125 0.03125 (1.0)
cmyn4* 0.0 0.03125 0.03125 (0.0)
standard and adapted CIELAB
LAB*LAB 12.5 19.46 30.93
LAB*LABa 12.5 19.46 30.93
LAB*TCMa 12.5 19.46 30.93

relative Inform. Technology (IT)
olvi3* 0.015625 0.015625 0.015625 (1.0)
cmyn3* 0.015625 0.015625 0.015625 (0.0)
olvi4* 1.0 0.015625 0.015625 (1.0)
cmyn4* 0.0 0.015625 0.015625 (0.0)
standard and adapted CIELAB
LAB*LAB 7.5 29.73 51.96
LAB*LABa 7.5 29.73 51.96
LAB*TCMa 7.5 29.73 51.96

relative Inform. Technology (IT)
olvi3* 0.0078125 0.0078125 0.0078125 (1.0)
cmyn3* 0.0078125 0.0078125 0.0078125 (0.0)
olvi4* 1.0 0.0078125 0.0078125 (1.0)
cmyn4* 0.0 0.0078125 0.0078125 (0.0)
standard and adapted CIELAB
LAB*LAB 4.69 49.02 37.88
LAB*LABa 4.69 49.02 37.88
LAB*TCMa 4.69 49.02 37.88

relative Inform. Technology (IT)
olvi3* 0.00390625 0.00390625 0.00390625 (1.0)
cmyn3* 0.00390625 0.00390625 0.00390625 (0.0)
olvi4* 1.0 0.00390625 0.00390625 (1.0)
cmyn4* 0.0 0.00390625 0.00390625 (0.0)
standard and adapted CIELAB
LAB*LAB 2.34 79.27 83.89
LAB*LABa 2.34 79.27 83.89
LAB*TCMa 2.34 79.27 83.89

relative Inform. Technology (IT)
olvi3* 0.001953125 0.001953125 0.001953125 (1.0)
cmyn3* 0.001953125 0.001953125 0.001953125 (0.0)
olvi4* 1.0 0.001953125 0.001953125 (1.0)
cmyn4* 0.0 0.001953125 0.001953125 (0.0)
standard and adapted CIELAB
LAB*LAB 1.17 79.27 83.89
LAB*LABa 1.17 79.27 83.89
LAB*TCMa 1.17 79.27 83.89

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 0.25 0.25 (1.0)
cmyn4* 0.0 0.75 0.75 (0.0)
standard and adapted CIELAB
LAB*LAB 37.36 30.07 0.63
LAB*LABa 37.36 30.07 0.63
LAB*TCMa 37.36 30.07 0.63

relative Inform. Technology (IT)
olvi3* 0.25 0.125 0.125 (1.0)
cmyn3* 0.125 0.25 0.25 (0.0)
olvi4* 1.0 0.125 0.125 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 32.98 32.9 0.375
LAB*LABa 32.98 32.68 25.25
LAB*TCMa 32.98 32.68 25.25

relative Inform. Technology (IT)
olvi3* 0.25 0.0 0.0 (1.0)
cmyn3* 0.125 0.25 0.25 (0.0)
olvi4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 25.01 41.37 37.7
LAB*LABa 25.01 41.37 37.7
LAB*TCMa 25.01 41.37 37.7

relative Inform. Technology (IT)
olvi3* 0.125 0.125 0.125 (1.0)
cmyn3* 0.125 0.125 0.125 (0.0)
olvi4* 1.0 0.125 0.125 (1.0)
cmyn4* 0.0 0.125 0.125 (0.0)
standard and adapted CIELAB
LAB*LAB 20.65 37.7
LAB*LABa 20.65 37.7
LAB*TCMa 20.65 37.7

relative Inform. Technology (IT)
olvi3* 0.0625 0.0625 0.0625 (1.0)
cmyn3* 0.0625 0.0625 0.0625 (0.0)
olvi4* 1.0 0.0625 0.0625 (1.0)
cmyn4* 0.0 0.0625 0.0625 (0.0)
standard and adapted CIELAB
LAB*LAB 16.34 12.62
LAB*LABa 16.34 12.62
LAB*TCMa 16.34 12.62

relative Inform. Technology (IT)
olvi3* 0.03125 0.03125 0.03125 (1.0)
cmyn3* 0.03125 0.03125 0.03125 (0.0)
olvi4* 1.0 0.03125 0.03125 (1.0)
cmyn4* 0.0 0.03125 0.03125 (0.0)
standard and adapted CIELAB
LAB*LAB 12.5 19.46 30.93
LAB*LABa 12.5 19.46 30.93
LAB*TCMa 12.5 19.46 30.93

relative Inform. Technology (IT)
olvi3* 0.015625 0.015625 0.015625 (1.0)
cmyn3* 0.015625 0.015625 0.015625 (0.0)
olvi4* 1.0 0.015625 0.015625 (1.0)
cmyn4* 0.0 0.015625 0.015625 (0.0)
standard and adapted CIELAB
LAB*LAB 6.25 19.46 30.93
LAB*LABa 6.25 19.46 30.93
LAB*TCMa 6.25 19.46 30.93

relative Inform. Technology (IT)
olvi3* 0.0078125 0.0078125 0.0078125 (1.0)
cmyn3* 0.0078125 0.0078125 0.0078125 (0.0)
olvi4* 1.0 0.0078125 0.0078125 (1.0)
cmyn4* 0.0 0.0078125 0.0078125 (0.0)
standard and adapted CIELAB
LAB*LAB 3.125 19.46 30.93
LAB*LABa 3.125 19.46 30.93
LAB*TCMa 3.125 19.46 30.93

relative Inform. Technology (IT)
olvi3* 0.00390625 0.00390625 0.00390625 (1.0)
cmyn3* 0.00390625 0.00390625 0.00390625 (0.0)
olvi4* 1.0 0.00390625 0.00390625 (1.0)
cmyn4* 0.0 0.00390625 0.00390625 (0.0)
standard and adapted CIELAB
LAB*LAB 1.5625 19.46 30.93
LAB*LABa 1.5625 19.46 30.93
LAB*TCMa 1.5625 19.46 30.93

relative Inform. Technology (IT)
olvi3* 0.001953125 0.001953125 0.001953125 (1.0)
cmyn3* 0.001953125 0.001953125 0.001953125 (0.0)
olvi4* 1.0 0.001953125 0.001953125 (1.0)
cmyn4* 0.0 0.001953125 0.001953125 (0.0)
standard and adapted CIELAB
LAB*LAB 0.78125 19.46 30.93
LAB*LABa 0.78125 19.46 30.93
LAB*TCMa 0.78125 19.46 30.93

relative Inform. Technology (IT)
olvi3* 0.0009765625 0.0009765625 0.0009765625 (1.0)
cmyn3* 0.0009765625 0.0009765625 0.0009765625 (0.0)
olvi4* 1.0 0.0009765625 0.0009765625 (1.0)
cmyn4* 0.0 0.0009765625 0.0009765625 (0.0)
standard and adapted CIELAB
LAB*LAB 0.390625 19.46 30.93
LAB*LABa 0.390625 19.46 30.93
LAB*TCMa 0.390625 19.46 30.93

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 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.23 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCMa 50.0 0.01 -

relative Inform. Technology (IT)
olvi3* 0.5 0.25 0.25 (1.0)
cmyn3* 0.25 0.5 0.5 (0.0)
olvi4* 1.0 0.25 0.25 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 44.17 38.93
LAB*LABa 44.17 39.02 37.88
LAB*TCMa 44.17 38.93 37.88

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.25 0.5 0.5 (0.0)<

Input: Colorimetric Reflective System ORS18

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

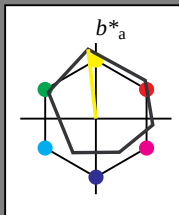
lab^*tch and lab^*nch

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	$C^*_{ab,a}$	$h^*_{ab,a}$
QMa	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 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 47.5
LAB*LABa 95.41 0.0 0.0
LAB*TCMa 99.99 0.01

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

relative Inform. Technology (IT)
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*TCMa 75.0 0.01

relative CIELAB lab*
lab*lab 0.984 -0.027 0.248
lab*tch 0.875 0.25 0.268
lab*nch 0.0 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.984 -0.024 0.249
lab*tce 0.875 0.25 0.268
lab*nce 0.0 0.25 0.268

relative Inform. Technology (IT)
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 92.88 -6.06 50.46
LAB*LABa 92.88 -5.13 45.87
LAB*TCMa 75.0 46.16 96.39

relative CIELAB lab*
lab*lab 0.967 -0.055 0.497
lab*tch 0.75 0.5 0.268
lab*nch 0.0 0.5 0.268
relative Natural Colour (NC)
lab*trj 0.967 -0.048 0.497
lab*tce 0.75 0.5 0.268
lab*nce 0.0 0.5 0.268

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 56.71 -0.23 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCMa 50.0 0.01

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 0.266
lab*nch 0.0 0.25 0.266
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 0.266
lab*nce 0.0 0.25 0.266

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 73.54 -5.13 45.88
LAB*LABa 73.54 -5.13 45.88
LAB*TCMa 50.0 46.17 96.39

relative CIELAB lab*
lab*lab 0.951 -0.082 0.745
lab*tch 0.625 0.75 0.268
lab*nch 0.0 0.75 0.268
relative Natural Colour (NC)
lab*trj 0.951 -0.073 0.746
lab*tce 0.625 0.75 0.268
lab*nce 0.0 0.75 0.268

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 0.0 0.0
LAB*TCMa 50.0 0.01

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 0.266
lab*nch 0.0 0.25 0.266
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 0.266
lab*nce 0.0 0.25 0.266

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 73.54 -5.13 45.88
LAB*LABa 73.54 -5.13 45.88
LAB*TCMa 50.0 46.17 96.39

relative CIELAB lab*
lab*lab 0.951 -0.082 0.745
lab*tch 0.625 0.75 0.268
lab*nch 0.0 0.75 0.268
relative Natural Colour (NC)
lab*trj 0.951 -0.073 0.746
lab*tce 0.625 0.75 0.268
lab*nce 0.0 0.75 0.268

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 -0.47 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCMa 25.0 0.01

relative CIELAB lab*
lab*lab 0.484 -0.082 0.745
lab*tch 0.375 0.25 0.268
lab*nch 0.0 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.484 -0.024 0.249
lab*tce 0.375 0.25 0.266
lab*nce 0.0 0.25 0.266

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 0.0 0.0
LAB*TCMa 50.0 0.01

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 0.266
lab*nch 0.0 0.25 0.266
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 0.266
lab*nce 0.0 0.25 0.266

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 -0.47 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCMa 25.0 0.01

relative CIELAB lab*
lab*lab 0.484 -0.082 0.745
lab*tch 0.375 0.25 0.268
lab*nch 0.0 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.484 -0.024 0.249
lab*tce 0.375 0.25 0.266
lab*nce 0.0 0.25 0.266

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 0.0 0.0
LAB*TCMa 50.0 0.01

relative CIELAB lab*
lab*lab 0.734 -0.024 0.249
lab*tch 0.625 0.25 0.266
lab*nch 0.0 0.25 0.266
relative Natural Colour (NC)
lab*trj 0.734 -0.024 0.249
lab*tce 0.625 0.25 0.266
lab*nce 0.0 0.25 0.266

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 18.02 0.0 0.46
LAB*LABa 18.02 0.0 0.46
LAB*TCMa 0.01 0.01

relative CIELAB lab*
lab*lab 0.234 -0.027 0.248
lab*tch 0.125 0.25 0.268
lab*nch 0.0 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.234 -0.024 0.249
lab*tce 0.125 0.25 0.266
lab*nce 0.0 0.25 0.266

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 73.54 -5.13 45.88
LAB*LABa 73.54 -5.13 45.88
LAB*TCMa 50.0 46.17 96.39

relative CIELAB lab*
lab*lab 0.951 -0.082 0.745
lab*tch 0.625 0.75 0.268
lab*nch 0.0 0.75 0.268
relative Natural Colour (NC)
lab*trj 0.951 -0.073 0.746
lab*tce 0.625 0.75 0.268
lab*nce 0.0 0.75 0.268

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 18.02 0.0 0.46
LAB*LABa 18.02 0.0 0.46
LAB*TCMa 0.01 0.01

relative CIELAB lab*
lab*lab 0.234 -0.027 0.248
lab*tch 0.125 0.25 0.268
lab*nch 0.0 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.234 -0.024 0.249
lab*tce 0.125 0.25 0.266
lab*nce 0.0 0.25 0.266

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 73.54 -5.13 45.88
LAB*LABa 73.54 -5.13 45.88
LAB*TCMa 50.0 46.17 96.39

relative CIELAB lab*
lab*lab 0.951 -0.082 0.745
lab*tch 0.625 0.75 0.268
lab*nch 0.0 0.75 0.268
relative Natural Colour (NC)
lab*trj 0.951 -0.073 0.746
lab*tce 0.625 0.75 0.268
lab*nce 0.0 0.75 0.268

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 18.02 0.0 0.46
LAB*LABa 18.02 0.0 0.46
LAB*TCMa 0.01 0.01

relative CIELAB lab*
lab*lab 0.234 -0.027 0.248
lab*tch 0.125 0.25 0.268
lab*nch 0.0 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.234 -0.024 0.249
lab*tce 0.125 0.25 0.266
lab*nce 0.0 0.25 0.266

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 73.54 -5.13 45.88
LAB*LABa 73.54 -5.13 45.88
LAB*TCMa 50.0 46.17 96.39

relative CIELAB lab*
lab*lab 0.951 -0.082 0.745
lab*tch 0.625 0.75 0.268
lab*nch 0.0 0.75 0.268
relative Natural Colour (NC)
lab*trj 0.951 -0.073 0.746
lab*tce 0.625 0.75 0.268
lab*nce 0.0 0.75 0.268

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 18.02 0.0 0.46
LAB*LABa 18.02 0.0 0.46
LAB*TCMa 0.01 0.01

relative CIELAB lab*
lab*lab 0.234 -0.027 0.248
lab*tch 0.125 0.25 0.268
lab*nch 0.0 0.25 0.268
relative Natural Colour (NC)
lab*trj 0.234 -0.024 0.249
lab*tce 0.125 0.25 0.266
lab*nce 0.0 0.25 0.266

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 73.54 -5.13 45.88
LAB*LABa 73.54 -5.13 45.88
LAB*TCMa 50.0 46.17 96.39

relative CIELAB lab*
lab*lab 0.951 -0.082 0.745
lab*tch 0.625 0.75 0.268
lab*nch 0.0 0.75 0.268
relative Natural Colour (NC)
lab*trj 0.951 -0.073 0.746
lab*tce 0.625 0.75 0.268
lab*nce 0.0 0.75 0.268

Output: Colorimetric Reflective System MRS18a

for hue $h^* = lab^*h = 94/360 = 0.262$

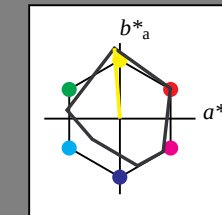
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 91 93 94

rgb*Ma: 1.0 1.0 0.0

triangle lightness t^*



MRS18a; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 42$

$g^*_{C,rel} = 49$

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 0.01 0.0
LAB*LABa 95.41 0.0 0.0
LAB*TCMa 99.99 0.01

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

relative Inform. Technology (IT)
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 0.03 0.25
LAB*LABa 76.06 0.0 0.0
LAB*TCMa 75.0 0.01

relative CIELAB lab*
lab*lab 0.985 -0.018 0.249
lab*tch 0.875 0.25 0.262
lab*nch 0.0 0.25 0.262
relative Natural Colour (NC)
lab*trj 0.985 -0.011 0.25
lab*tce 0.875 0.25 0.258
lab*nce 0.0 0.25 0.258

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 56.71 0.01 0.0
LAB*LABa 56.71 0.0 0.0
LAB*TCMa 50.0 0.01

relative CIELAB lab*
lab*lab 0.735 -0.018 0.249
lab*tch 0.625 0.25 0.262
lab*nch 0.0 0.25 0.262
relative Natural Colour (NC)
lab*trj 0.735 -0.011 0.25
lab*tce 0.625 0.25 0.258
lab*nce 0.0 0.25 0.258

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 0.05 0.0
LAB*LABa 56.71 0.0 0.0
LAB*TCMa 50.0 0.01

relative CIELAB lab*
lab*lab 0.735 -0.018 0.249
lab*tch 0.625 0.25 0.262
lab*nch 0.0 0.25 0.262
relative Natural Colour (NC)
lab*trj 0.735 -0.011 0.25
lab*tce 0.625 0.25 0.258
lab*nce 0.0 0.25 0.258

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 -0.47 0.63
LAB*LABa 37.36 0.0 0.0
LAB*TCMa 25.0 0.01

relative CIELAB lab*
lab*lab 0.485 -0.018 0.249
lab*tch 0.375 0.25 0.262
lab*nch 0.0 0.25 0.262
relative Natural Colour (NC)
lab*trj 0.485 -0.011 0.25
lab*tce 0.375 0.25 0.258
lab*nce 0.0 0.25 0.258

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 0.05 0.0
LAB*LABa 56.71 0.0

Input: Colorimetric Reflective System ORS18

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

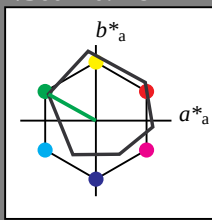
lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 51 72 151

rgb*Ma: 0.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

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 -0.97 47.5
LAB*LAB 95.41 0.0 0.0
LAB*LAB 99.99 0.01 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*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)
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 76.06 -0.6 3.44
LAB*LAB 76.06 0.0 0.0
LAB*LAB 75.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (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 56.71 -0.23 2.14
LAB*LAB 56.71 0.0 0.0
LAB*LAB 50.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 -0.36 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 25.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 -0.36 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 25.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 -0.36 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 25.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 -0.36 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 25.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 -0.36 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 25.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 -0.36 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 25.00 0.01 -

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 -0.36 0.83
LAB*LAB 37.36 0.0 0.0
LAB*LAB 25.00 0.01 -

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

UE510-7, 5 step scales for constant CIELAB hue 151/360 = 0.419 (left)

ORS18; adapted (a) CIELAB data

$L^*=L^*_a$ a^*_a b^*_a $C^*_{ab,a}$ $h^*_{ab,a}$

QMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.39	-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 0.5 0.5 (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 73.15 -31.94 20.73
LAB*LAB 73.15 0.0 0.0
LAB*LAB 75.00 35.93 150.91

relative CIELAB lab*
lab*lab 0.712 -0.436 0.243
lab*tch 0.712 -0.436 0.243
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.712 -0.436 0.243
lab*tce 0.712 -0.436 0.243
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 53.8 -31.57 19.42
LAB*LAB 53.8 0.0 0.0
LAB*LAB 50.00 35.94 150.91

relative CIELAB lab*
lab*lab 0.462 -0.436 0.243
lab*tch 0.462 -0.436 0.243
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.462 -0.436 0.243
lab*tce 0.462 -0.436 0.243
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 34.46 -31.57 19.42
LAB*LAB 34.46 0.0 0.0
LAB*LAB 50.00 35.93 150.91

relative CIELAB lab*
lab*lab 0.213 -0.436 0.243
lab*tch 0.213 -0.436 0.243
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.213 -0.436 0.243
lab*tce 0.213 -0.436 0.243
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 26.24 -31.57 19.42
LAB*LAB 26.24 0.0 0.0
LAB*LAB 50.00 35.93 150.91

relative CIELAB lab*
lab*lab 0.106 -0.436 0.243
lab*tch 0.106 -0.436 0.243
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.106 -0.436 0.243
lab*tce 0.106 -0.436 0.243
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 18.02 0.0 0.0
LAB*LAB 18.02 0.0 0.0
LAB*LAB 50.00 35.93 150.91

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

$n^* = 0.50$

$n^* = 0.25$

$n^* = 0.00$

$n^* = 0.25$

$n^* = 0.50$

$n^* = 1.0$

$n^* = 1.0$

chromaticness c^*

Output: Colorimetric Reflective System MRS18a

for hue $h^* = lab^*h = 171/360 = 0.475$

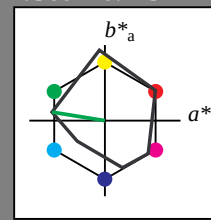
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 52 71 171

rgb*Ma: 0.0 1.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 92$

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 0.01 0.0
LAB*LAB 95.41 0.0 0.0
LAB*LAB 99.99 0.01 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*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)
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 76.06 0.03 0.0
LAB*LAB 76.06 0.0 0.0
LAB*LAB 75.00 0.01 -

relative CIELAB lab*
lab*lab 0.86 -0.247 -0.03
lab*tch 0.86 -0.247 -0.03
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.86 -0.247 -0.03
lab*tce 0.86 -0.247 -0.03
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (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 56.71 0.01 0.0
LAB*LAB 56.71 0.0 0.0
LAB*LAB 50.00 35.94 150.91

relative CIELAB lab*
lab*lab 0.425 -0.873 0.486
lab*tch 0.425 -0.873 0.486
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.425 -0.873 0.486
lab*tce 0.425 -0.873 0.486
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 50.9 -62.91 36.69
LAB*LAB 50.9 0.0 0.0
LAB*LAB 50.00 35.94 150.91

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 0.07 0.0
LAB*LAB 37.36 0.0 0.0
LAB*LAB 50.00 35.94 150.91

relative CIELAB lab*
lab*lab 0.36 -0.246 0.04
lab*tch 0.36 -0.246 0.04
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*trj 0.36 -0.246 0.04
lab*tce 0.36 -0.246 0.04
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 0.07 0.0
LAB*LAB 37.36 0.0 0.0
LAB*LAB 50.00 35.94 150.91

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

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (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 37.36 0.07 0.0
LAB*LAB 37.36 0.0 0.0
LAB*LAB 50.00 35.94 150.91

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

MRS18a; adapted (a) CIELAB data

$L^*=L^*_a$ a^*_a b^*_a <

output: *no change compared to input*

1

A horizontal line is shown with two segments. The first segment is green and labeled 'L'. The second segment is blue and labeled 'V'.

Age Group	Percentage
18-24	28%
25-34	22%
35-44	18%
45-54	15%
55-64	12%
65-74	10%
75-84	8%
85+	7%

output: *no change compared to input*