

Version 2.1, io=0,0



Input: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 94/360 = 0.261$

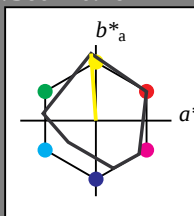
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 91 89 94

rgb*Ma: 1.0 1.0 0.0

triangle lightness t^*



MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

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

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

LAB*ICHAB 8/5 22.24 94.1			
relative CIELAB lab*			
lab*lab	0.985	-0.017	0.249
lab*ich	0.875	0.25	0.261
lab*ncH	0.0	0.25	0.261
relative Natural Colour (NC)			
lab*lrj	0.985	-0.011	0.25
lab*nce	0.875	0.25	0.258
lab*ncE	0.0	0.25	j03g

Input: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 172/360 = 0.479$

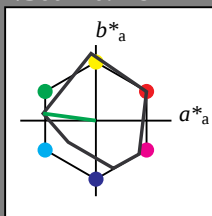
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 52 70 172

rgb*Ma: 0.0 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 -0.97 4.75
LAB*Lab 95.41 0.0 0.0
LAB*TCh 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*Lab 76.06 0.0 0.0
LAB*TCh 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 56.71 -0.23 2.14
LAB*Lab 56.71 0.0 0.0
LAB*TCh 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 37.36 -0.13 0.83
LAB*Lab 37.36 0.0 0.0
LAB*TCh 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 18.02 0.0 0.46
LAB*Lab 18.02 0.0 0.0
LAB*TCh 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

$n^* = 1.0$

MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
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B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)
olvi3* 0.5 1.0 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 73.75 -35.42 8.02
LAB*Lab 73.75 -34.85 4.72
LAB*TCh 75.0 35.18 172.29

relative CIELAB lab*
lab*lab 0.72 -0.494 0.067
lab*tch 0.75 0.5 0.479
lab*nch 0.0 0.5 0.479
relative Natural Colour (NC)
lab*trj 0.72 -0.496 -0.056
lab*tce 0.75 0.5 0.518
lab*nce 0.0 0.5 0.676

relative Inform. Technology (IT)
olvi3* 0.25 0.75 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olvi4* 0.5 1.0 0.5 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 54.41 -35.05 6.71
LAB*Lab 54.41 -34.86 4.72
LAB*TCh 50.0 35.19 172.29

relative CIELAB lab*
lab*lab 0.61 -0.494 0.067
lab*tch 0.625 0.25 0.479
lab*nch 0.25 0.25 0.479
relative Natural Colour (NC)
lab*trj 0.61 -0.496 -0.056
lab*tce 0.625 0.25 0.518
lab*nce 0.25 0.25 0.676

relative Inform. Technology (IT)
olvi3* 0.0 0.75 0.0 (1.0)
cmyn3* 0.75 0.0 0.75 (0.0)
olvi4* 0.5 1.0 0.5 (0.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 45.88 -17.46 3.78
LAB*Lab 45.88 -17.42 3.36
LAB*TCh 37.5 17.59 172.29

relative CIELAB lab*
lab*lab 0.36 -0.494 0.067
lab*tch 0.375 0.25 0.479
lab*nch 0.25 0.25 0.479
relative Natural Colour (NC)
lab*trj 0.36 -0.496 -0.056
lab*tce 0.375 0.25 0.518
lab*nce 0.25 0.25 0.676

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.0 (1.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olvi4* 0.5 1.0 0.5 (0.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 35.06 -34.85 4.72
LAB*Lab 35.06 -34.85 4.72
LAB*TCh 25.01 35.18 172.29

relative CIELAB lab*
lab*lab 0.22 -0.494 0.067
lab*tch 0.25 0.5 0.479
lab*nch 0.0 0.5 0.479
relative Natural Colour (NC)
lab*trj 0.22 -0.496 -0.056
lab*tce 0.25 0.5 0.518
lab*nce 0.0 0.5 0.676

$n^* = 0.50$

relative Inform. Technology (IT)
olvi3* 0.0 0.25 0.0 (1.0)
cmyn3* 0.25 0.0 0.25 (0.0)
olvi4* 0.25 1.0 0.25 (0.0)
cmyn4* 0.25 0.0 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 35.06 -34.85 4.72
LAB*Lab 35.06 -34.85 4.72
LAB*TCh 25.01 35.18 172.29

relative CIELAB lab*
lab*lab 0.33 -0.494 0.067
lab*tch 0.33 0.25 0.479
lab*nch 0.25 0.25 0.479
relative Natural Colour (NC)
lab*trj 0.33 -0.496 -0.056
lab*tce 0.33 0.25 0.518
lab*nce 0.25 0.25 0.676

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

$n^* = 0.00$

blackness n^*

chromaticness c^*

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 172/360 = 0.479$

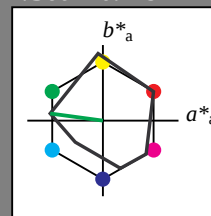
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 52 70 172

rgb*Ma: 0.0 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 -0.97 4.75
LAB*Lab 95.41 0.0 0.0
LAB*TCh 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*Lab 76.06 0.0 0.0
LAB*TCh 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 56.71 -0.23 2.14
LAB*Lab 56.71 0.0 0.0
LAB*TCh 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 37.36 -0.13 0.83
LAB*Lab 37.36 0.0 0.0
LAB*TCh 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 0.75 0.0 (1.0)
cmyn3* 0.75 0.0 0.75 (0.0)
olvi4* 0.5 1.0 0.5 (0.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 45.88 -17.46 3.78
LAB*Lab 45.88 -17.42 3.36
LAB*TCh 37.5 17.59 172.29

relative CIELAB lab*
lab*lab 0.36 -0.494 0.067
lab*tch 0.375 0.25 0.479
lab*nch 0.25 0.25 0.479
relative Natural Colour (NC)
lab*trj 0.36 -0.496 -0.056
lab*tce 0.375 0.25 0.518
lab*nce 0.25 0.25 0.676

$n^* = 0.50$

blackness n^*

chromaticness c^*

MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)
olvi3* 0.5 0.75 0.5 (1.0)
cmyn3* 0.5 0.25 0.5 (0.0)
olvi4* 0.5 1.0 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 73.75 -35.42 8.02
LAB*Lab 73.75 -34.85 4.72
LAB*TCh 75.0 35.18 172.29

relative CIELAB lab*
lab*lab 0.72 -0.494 0.067
lab*tch 0.75 0.5 0.479
lab*nch 0.0 0.5 0.479
relative Natural Colour (NC)
lab*trj 0.72 -0.496 -0.056
lab*tce 0.75 0.5 0.518
lab*nce 0.0 0.5 0.676

relative Inform. Technology (IT)
olvi3* 0.25 0.75 0.25 (1.0)
cmyn3* 0.75 0.25 0.75 (0.0)
olvi4* 0.5 1.0 0.5 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 54.41 -35.05 6.71
LAB*Lab 54.41 -34.86 4.72
LAB*TCh 50.0 35.19 172.29

relative CIELAB lab*
lab*lab 0.61 -0.494 0.067
lab*tch 0.625 0.25 0.479
lab*nch 0.25 0.25 0.479
relative Natural Colour (NC)
lab*trj 0.61 -0.496 -0.056
lab*tce 0.625 0.25 0.518
lab*nce 0.25 0.25 0.676

relative Inform. Technology (IT)
olvi3* 0.0 0.75 0.0 (1.0)
cmyn3* 0.75 0.0 0.75 (0.0)
olvi4* 0.5 1.0 0.5 (0.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 45.88 -17.46 3.78
LAB*Lab 45.88 -17.42 3.36
LAB*TCh 37.5 17.59 172.29

relative CIELAB lab*
lab*lab 0.36 -0.494 0.067
lab*tch 0.375 0.25 0.479
lab*nch 0.25 0.25 0.479
relative Natural Colour (NC)
lab*trj 0.36 -0.496 -0.056
lab*tce 0.375 0.25 0.518
lab*nce 0.25 0.25 0.676

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.0 (1.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olvi4* 0.5 1.0 0.5 (0.0)
cmyn4* 0.5 0.0 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 35.06 -34.85 4.72
LAB*Lab 35.06 -34.85 4.72
LAB*TCh 25.01 35.18 172.29

relative CIELAB lab*
lab*lab 0.22 -0.494 0.067
lab*tch 0.25 0.5 0.479
lab*nch 0.0 0.5 0.479
relative Natural Colour (NC)
lab*trj 0.22 -0.496 -0.056
lab*tce 0.25 0.5 0.518
lab*nce 0.0 0.5 0.676

$n^* = 0.50$

blackness n^*

chromaticness c^*

UE540-7, 5 step scales for constant CIELAB hue 172/360 = 0.479 (left)

5 step scales for constant CIELAB hue 172/360 = 0.479 (right)

BAM-test chart UE54; Colorimetric systems MRS18 & MRS18 input: $cmY0^* setcmykcolor$

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

output: no change compared to input

See for similar files: <http://www.ps.bam.de/UE54/>
Technical information: <http://www.ps.bam.de> Version 2.1, io=0,0

Page count: 4

www.ps.bam.de/UE54/10Q/Q54E03NP.PS/.PDF; start output
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)

BAM registration: 20060101-UE54/10Q/Q54E03NP.PS/.PDF BAM material: code=rh4ta
application for evaluation and measurement of printer or monitor systems
/UE54/ Form 4/10, Serie: 1/1, Page: 4

Input: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 218/360 = 0.605$

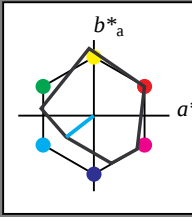
lab^*tch and lab^*nch

D65: hue G50B

LCH*Ma: 45 46 218

rgb*Ma: 0.0 1.0 1.0

triangle lightness t^*



MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
B _{Ma}	36.65	23.19	-63.05	67.18	290
B50R _{Ma}	34.94	57.17	-44.26	72.31	322
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)
olvi3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*Lab 95.41 -0.97 4.75
LAB*Lab 95.41 0.0 0.0
LAB*TCh 99.99 0.01 0.0

relative Inform. Technology (IT)
olvi3* 0.75 1.0 1.0 (1.0)
cmyn3* 0.25 0.0 0.0 (0.0)
olvi4* 0.75 1.0 1.0 (1.0)
cmyn4* 0.25 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*Lab 82.81 -0.87 -3.2
LAB*Lab 82.81 -9.13 -7.11
LAB*TCh 87.5 11.58 217.91

relative Inform. Technology (IT)
olvi3* 0.5 1.0 1.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olvi4* 0.5 1.0 1.0 (1.0)
cmyn4* 0.5 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*Lab 70.21 -18.77 -11.17
LAB*Lab 70.21 -18.27 -14.23
LAB*TCh 75.0 23.17 217.91

relative Inform. Technology (IT)
olvi3* 0.25 1.0 1.0 (1.0)
cmyn3* 0.75 0.0 0.0 (0.0)
olvi4* 0.25 1.0 1.0 (1.0)
cmyn4* 0.75 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*Lab 57.62 -27.67 -19.14
LAB*Lab 57.62 -27.42 -21.35
LAB*TCh 62.5 34.76 217.91

relative Inform. Technology (IT)
olvi3* 0.0 1.0 1.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olvi4* 0.0 1.0 1.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*Lab 45.03 -36.57 -27.11
LAB*Lab 45.03 -36.36 -28.47
LAB*TCh 50.0 46.35 217.91

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 0.0 0.5 0.5 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*Lab 38.28 -27.3 -20.44
LAB*Lab 38.28 -27.42 -21.35
LAB*TCh 37.5 34.76 217.91

relative Inform. Technology (IT)
olvi3* 0.0 0.25 0.25 (0.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olvi4* 0.0 0.25 0.25 (0.0)
cmyn4* 0.75 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*Lab 31.52 -18.03 -13.78
LAB*Lab 31.52 -18.27 -14.23
LAB*TCh 30.0 46.35 217.91

relative Inform. Technology (IT)
olvi3* 0.0 0.125 0.125 (0.0)
cmyn3* 0.875 0.125 0.125 (0.0)
olvi4* 0.0 0.125 0.125 (0.0)
cmyn4* 0.875 0.125 0.125 (0.0)
standard and adapted CIELAB
LAB*Lab 24.77 -9.13 -7.11
LAB*Lab 24.77 -9.13 -7.11
LAB*TCh 25.0 46.35 217.91

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 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*TCh 0.01 0.01

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 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*TCh 0.01 0.01

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olvi4* 0.0 0.0 0.0 (0.0)
cmyn4* 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*TCh 50.0 0.01 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* 0.0 0.0 0.0 (0.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*Lab 44.11 -9.13 -5.81
LAB*Lab 44.11 -9.13 -5.81
LAB*TCh 37.5 11.58 217.91

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 (0.0)
cmyn4* 0.25 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*Lab 31.52 -18.03 -13.78
LAB*Lab 31.52 -18.27 -14.23
LAB*TCh 30.0 46.35 217.91

relative Inform. Technology (IT)
olvi3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 0.0 0.0 0.0 (0.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*Lab 38.28 -27.3 -20.44
LAB*Lab 38.28 -27.42 -21.35
LAB*TCh 37.5 34.76 217.91

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olvi4* 0.25 0.25 0.25 (0.0)
cmyn4* 0.75 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*Lab 31.52 -18.03 -13.78
LAB*Lab 31.52 -18.27 -14.23
LAB*TCh 30.0 46.35 217.91

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olvi4* 0.0 0.5 0.5 (0.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*Lab 38.28 -27.3 -20.44
LAB*Lab 38.28 -27.42 -21.35
LAB*TCh 37.5 34.76 217.91

relative Inform. Technology (IT)
olvi3* 0.0 0.25 0.25 (0.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olvi4* 0.0 0.25 0.25 (0.0)
cmyn4* 0.75 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*Lab 31.52 -18.03 -13.78
LAB*Lab 31.52 -18.27 -14.23
LAB*TCh 30.0 46.35 217.91

relative Inform. Technology (IT)
olvi3* 0.0 0.125 0.125 (0.0)
cmyn3* 0.875 0.125 0.125 (0.0)
olvi4* 0.0 0.125 0.125 (0.0)
cmyn4* 0.875 0.125 0.125 (0.0)
standard and adapted CIELAB
LAB*Lab 24.77 -9.13 -7.11
LAB*Lab 24.77 -9.13 -7.11
LAB*TCh 25.0 46.35 217.91

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 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*TCh 0.01 0.01

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 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*TCh 0.01 0.01

UE540-7, 5 step scales for constant CIELAB hue 218/360 = 0.605 (left)

5 step scales for constant CIELAB hue 218/360 = 0.605 (right)

BAM-test chart UE54; Colorimetric systems MRS18 & MRS15 input: $cmY0^* set cmykcolor$

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

output: no change compared to input

chromaticness c^*

Input: Colorimetric Reflective System MRS18

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

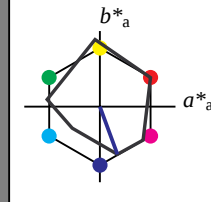
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 37 67 290

rgb*Ma: 0.0 0.0 1.0

triangle lightness t^*



MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
B _{Ma}	36.65	23.19	-63.05	67.18	290
B50R _{Ma}	34.94	57.17	-44.26	72.31	322
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)	
olvi3*	1.0 1.0 1.0 (1.0)
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*	0.75 0.75 0.75 (1.0)
olvi4*	0.25 0.25 0.25 (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*	0.5 0.5 0.5 (1.0)
olvi4*	0.25 0.25 0.25 (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*	0.25 0.25 0.25 (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)

Input: Colorimetric Reflective System MRS18

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

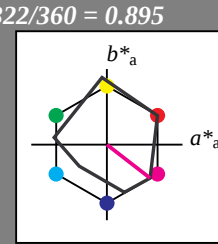
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 35 72 322

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



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 0.0 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 75.0 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 56.71 -0.23 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCHa 50.0 0.01 0.0

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

relative Inform. Technology (IT)
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 -0.13 0.63
LAB*LABa 37.36 0.0 0.0
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* 0.0 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 0.0
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

$n^* = 1.0$

MRS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)
olvi3* 1.0 0.5 1.0 (1.0)
cmyn3* 0.0 0.5 0.0 (0.0)
olvi4* 1.0 0.5 1.0 (1.0)
cmyn4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 65.17 28.58 -19.4
LAB*LABa 65.17 28.58 -19.4
LAB*TCHa 75.0 36.15 32.25

relative CIELAB lab*
lab*lab 0.609 0.395 -0.305
lab*tch 0.75 0.5 0.895
lab*nch 0.0 0.5 0.895
relative Natural Colour (NC)
lab*trj 0.609 0.324 -0.38
lab*tce 0.75 0.5 0.862
lab*nce 0.0 0.5 0.844

relative Inform. Technology (IT)
olvi3* 0.75 0.25 0.75 (1.0)
cmyn3* 0.25 0.75 0.25 (0.0)
olvi4* 1.0 0.5 1.0 (1.0)
cmyn4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 45.83 28.56 -20.71
LAB*LABa 45.83 28.56 -20.71
LAB*TCHa 50.0 36.15 32.25

relative CIELAB lab*
lab*lab 0.359 0.395 -0.305
lab*tch 0.5 0.5 0.895
lab*nch 0.0 0.5 0.895
relative Natural Colour (NC)
lab*trj 0.359 0.324 -0.38
lab*tce 0.5 0.5 0.862
lab*nce 0.0 0.5 0.844

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.5 (1.0)
cmyn3* 0.5 0.0 0.5 (0.0)
olvi4* 1.0 0.5 1.0 (1.0)
cmyn4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 26.48 28.52 -22.01
LAB*LABa 26.48 28.52 -22.01
LAB*TCHa 37.5 36.15 32.25

relative CIELAB lab*
lab*lab 0.305 0.593 -0.458
lab*tch 0.375 0.5 0.895
lab*nch 0.0 0.5 0.895
relative Natural Colour (NC)
lab*trj 0.305 0.486 -0.57
lab*tce 0.375 0.5 0.862
lab*nce 0.0 0.5 0.844

relative Inform. Technology (IT)
olvi3* 0.25 0.0 0.25 (1.0)
cmyn3* 0.75 0.0 0.25 (0.0)
olvi4* 1.0 0.5 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.0 0.46
LAB*LABa 18.02 0.0 0.0
LAB*TCHa 0.01 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 1.0 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 1.0 0.0 0.0

$n^* = 0.50$

relative Inform. Technology (IT)
olvi3* 1.0 0.0 1.0 (1.0)
cmyn3* 0.0 0.0 1.0 (0.0)
olvi4* 1.0 0.0 1.0 (1.0)
cmyn4* 0.0 0.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 50.06 42.76 -31.49
LAB*LABa 50.06 42.76 -31.49
LAB*TCHa 62.5 54.22 32.25

relative CIELAB lab*
lab*lab 0.414 0.593 -0.458
lab*tch 0.625 0.75 0.895
lab*nch 0.0 0.75 0.895
relative Natural Colour (NC)
lab*trj 0.414 0.486 -0.57
lab*tce 0.625 0.75 0.862
lab*nce 0.0 0.75 0.844

relative Inform. Technology (IT)
olvi3* 0.75 0.0 0.75 (1.0)
cmyn3* 0.25 0.75 0.25 (0.0)
olvi4* 1.0 0.0 1.0 (1.0)
cmyn4* 0.0 0.75 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 34.95 57.34 -43.57
LAB*LABa 34.95 57.34 -43.57
LAB*TCHa 50.0 72.29 32.25

relative CIELAB lab*
lab*lab 0.219 0.791 -0.611
lab*tch 0.5 0.0 0.895
lab*nch 0.0 0.0 0.895
relative Natural Colour (NC)
lab*trj 0.219 0.648 -0.76
lab*tce 0.5 0.0 0.862
lab*nce 0.0 0.0 0.844

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 1.0 (1.0)
cmyn4* 0.0 0.5 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 30.72 43.13 -32.79
LAB*LABa 30.72 43.13 -32.79
LAB*TCHa 37.5 54.22 32.25

relative CIELAB lab*
lab*lab 0.164 0.593 -0.458
lab*tch 0.375 0.75 0.895
lab*nch 0.0 0.75 0.895
relative Natural Colour (NC)
lab*trj 0.164 0.486 -0.57
lab*tce 0.375 0.75 0.862
lab*nce 0.0 0.75 0.844

relative Inform. Technology (IT)
olvi3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olvi4* 1.0 0.25 1.0 (1.0)
cmyn4* 0.0 0.25 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 26.48 28.52 -22.01
LAB*LABa 26.48 28.52 -22.01
LAB*TCHa 37.5 36.15 32.25

relative CIELAB lab*
lab*lab 0.109 0.395 -0.305
lab*tch 0.25 0.5 0.895
lab*nch 0.0 0.5 0.895
relative Natural Colour (NC)
lab*trj 0.109 0.324 -0.38
lab*tce 0.25 0.5 0.862
lab*nce 0.0 0.5 0.844

$n^* = 0.25$

relative Inform. Technology (IT)
olvi3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olvi4* 1.0 0.0 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 0.0
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 0.0 0.0 (0.0)
olvi4* 1.0 0.0 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 0.0
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 0.0 0.0 (0.0)
olvi4* 1.0 0.0 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 0.0
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 0.0 0.0 (0.0)
olvi4* 1.0 0.0 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 0.0
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

$n^* = 0.00$

relative Inform. Technology (IT)
olvi3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olvi4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.06 -0.6 3.44
LAB*LABa 76.06 0.0 0.0
LAB*TCHa 75.0 0.01 0.0

relative CIELAB lab*
lab*lab 0.75 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*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* 0.25 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 -0.13 0.63
LAB*LABa 37.36 0.0 0.0
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* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olvi4* 1.0 0.0 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 0.0
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

$n^* = 1.0$

Output: Colorimetric Reflective System MRS18

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

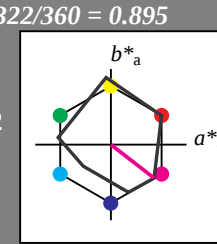
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 35 72 322

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



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 0.0 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 75.0 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 56.71 -0.23 2.14
LAB*LABa 56.71 0.0 0.0
LAB*TCHa 50.0 0.01 0.0

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

relative Inform. Technology (IT)
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 -0.13 0.63
LAB*LABa 37.36 0.0 0.0
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* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olvi4* 1.0 0.0 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 0.0
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

$n^* = 1.0$

MRS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	h^*_{ab}
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

See for similar files: <http://www.ps.bam.de/UE54/>
Technical information: <http://www.ps.bam.de> Version 2.1, io=0.0

Page count: 8

www.ps.bam.de/UE54/10Q/Q54E07NP.PS/.PDF; start output
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)

BAM registration: 20060101-UE54/10Q/Q54E07NP.PS/.PDF BAM material: code=rhda4ta
application for evaluation and measurement of printer or monitor systems
/UE54/ Form 8/10, Serie: 1/1, Page: 8

Input: Colorimetric Reflective System MRS18

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

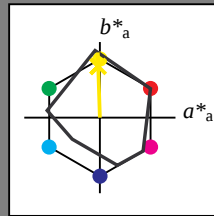
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 89 86 92

rgb*Ma: 1.0 0.95 0.0

triangle lightness t^*



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
olvi4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*Lab	95.41	-0.97	4.75
LAB*Lab	95.41	0.0	0.0
LAB*Lab	95.41	0.0	0.0

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*lab	0.0	1.0	0.0
lab*lab	0.0	0.0	1.0

relative Natural Colour (NC)

lab*trj	1.0	0.0	0.0
lab*trj	0.0	1.0	0.0
lab*trj	0.0	0.0	1.0

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	0.75
olvi4*	0.0	0.0	0.0	0.25

standard and adapted CIELAB

LAB*Lab	76.06	-0.6	3.44
LAB*Lab	76.06	0.0	0.0
LAB*Lab	76.06	0.0	0.0

relative CIELAB lab*

lab*lab	0.75	0.0	0.0
lab*lab	0.0	0.75	0.0
lab*lab	0.0	0.0	0.75

relative Natural Colour (NC)

lab*trj	0.75	0.0	0.0
lab*trj	0.0	0.75	0.0
lab*trj	0.0	0.0	0.75

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*Lab	56.71	-0.23	2.14
LAB*Lab	56.71	0.0	0.0
LAB*Lab	56.71	0.0	0.0

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*lab	0.0	0.5	0.0
lab*lab	0.0	0.0	0.5

relative Natural Colour (NC)

lab*trj	0.5	0.0	0.0
lab*trj	0.0	0.5	0.0
lab*trj	0.0	0.0	0.5

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*Lab	37.36	-0.13	0.63
LAB*Lab	37.36	0.0	0.0
LAB*Lab	37.36	0.0	0.0

relative CIELAB lab*

lab*lab	0.25	0.0	0.0
lab*lab	0.0	0.25	0.0
lab*lab	0.0	0.0	0.25

relative Natural Colour (NC)

lab*trj	0.25	0.0	0.0
lab*trj	0.0	0.25	0.0
lab*trj	0.0	0.0	0.25

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
olvi3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
olvi4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*Lab	18.02	0.0	0.46
LAB*Lab	18.02	0.0	0.0
LAB*Lab	18.02	0.0	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	0.0	0.0	0.0
lab*trj	0.0	0.0	0.0
lab*trj	0.0	0.0	0.0

MRS18; adapted (a) CIELAB data

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

RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

Output: Colorimetric Reflective System MRS18

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

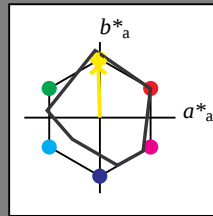
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 89 86 92

rgb*Ma: 1.0 0.95 0.0

triangle lightness t^*



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
olvi4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*Lab	95.41	-0.97	4.75
LAB*Lab	95.41	0.0	0.0
LAB*Lab	95.41	0.0	0.0

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*lab	0.0	1.0	0.0
lab*lab	0.0	0.0	1.0

relative Natural Colour (NC)

lab*trj	1.0	0.0	0.0
lab*trj	0.0	1.0	0.0
lab*trj	0.0	0.0	1.0

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	0.75
olvi4*	0.0	0.0	0.0	0.25

standard and adapted CIELAB

LAB*Lab	76.06	-0.6	3.44
LAB*Lab	76.06	0.0	0.0
LAB*Lab	76.06	0.0	0.0

relative CIELAB lab*

lab*lab	0.75	0.0	0.0
lab*lab	0.0	0.75	0.0
lab*lab	0.0	0.0	0.75

relative Natural Colour (NC)

lab*trj	0.75	0.0	0.0
lab*trj	0.0	0.75	0.0
lab*trj	0.0	0.0	0.75

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*Lab	56.71	-0.23	2.14
LAB*Lab	56.71	0.0	0.0
LAB*Lab	56.71	0.0	0.0

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*lab	0.0	0.5	0.0
lab*lab	0.0	0.0	0.5

relative Natural Colour (NC)

lab*trj	0.5	0.0	0.0
lab*trj	0.0	0.5	0.0
lab*trj	0.0	0.0	0.5

relative Inform. Technology (IT)

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

standard and adapted CIELAB

LAB*Lab	37.36	-0.13	0.63
LAB*Lab	37.36	0.0	0.0
LAB*Lab	37.36	0.0	0.0

relative CIELAB lab*

lab*lab	0.25	0.0	0.0
lab*lab	0.0	0.25	0.0
lab*lab	0.0	0.0	0.25

relative Natural Colour (NC)

lab*trj	0.25	0.0	0.0
lab*trj	0.0	0.25	0.0
lab*trj	0.0	0.0	0.25

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
olvi3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
olvi4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*Lab	18.02	0.0	0.46
LAB*Lab	18.02	0.0	0.0
LAB*Lab	18.02	0.0	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	0.0	0.0	0.0
lab*trj	0.0	0.0	0.0
lab*trj	0.0	0.0	0.0

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
olvi3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
olvi4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*Lab	18.02	0.0	0.46
LAB*Lab	18.02	0.0	0.0
LAB*Lab	18.02	0.0	0.0

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0
lab*lab	0.0	0.0	0.0

relative Natural Colour (NC)

lab*trj	0.0	0.0	0.0
lab*trj	0.0	0.0	0.0
lab*trj	0.0	0.0	0.0

UE540-7, 5 step scales for constant CIELAB hue 92/360 = 0.255 (left)

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

BAM-test chart UE54; Colorimetric systems MRS18 & MRS18 input: cmy0* setcmykcolor

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

output: no change compared to input

