

See for similar files: <http://www.ps.bam.de/TE53/>

Version 2.1, io=11, CIEXYZ

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-8

Input: Colorimetric Reflective System MRS18

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

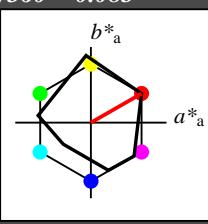
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 50 77 30

rgb*Ma: 1.0 0.0 0.0

triangle lightness t^*



relative Inform. Technology (IT)						
olv3*	1.0	1.0	1.0	(1.0)		
cmy3*	0.0	0.0	0.0	(0.0)		
olv4*	1.0	1.0	1.0	0.25		
cmy4*	0.0	0.0	0.0	1.0		
standard and adapted CIELAB						
LAB*LAB	95.00	95.00	95.00	0.00		
LAB*TchA	94.41	0.0	0.0			
LAB*TChA	99.99	0.01				

relative Inform. Technology (IT)						
olv3*	0.7	0.7	0.75	(1.0)		
cmy3*	0.25	0.25	0.25	(0.0)		
olv4*	1.0	1.0	1.0	0.75		
cmy4*	0.0	0.0	0.0	0.25		
standard and adapted CIELAB						
LAB*LAB	76.06	0.6	0.34			
LAB*TchA	76.06	0.0	0.0			
LAB*TChA	75.01	0.0				

relative CIELAB lab*						
lab*tch	0.75	0.0	0.0			
lab*nch	0.75	0.0	0.0			
relative Natural Colour (NC)	lab*irj	0.75	0.0			
lab*ice	0.75	0.0	-			
lab*nce	0.75	0.0	-			

relative CIELAB lab*						
lab*tch	0.75	0.5	0.5	(1.0)		
lab*nch	0.75	0.5	0.5	(0.0)		
relative Natural Colour (NC)	lab*irj	0.75	0.5	0.025		
lab*ice	0.75	0.5	0.025	r071		
lab*nce	0.75	0.5	0.025	r071		

relative Inform. Technology (IT)						
olv3*	0.5	0.5	0.5	(1.0)		
cmy3*	0.25	0.25	0.25	(0.0)		
olv4*	1.0	1.0	1.0	0.75		
cmy4*	0.0	0.0	0.0	0.25		
standard and adapted CIELAB						
LAB*LAB	56.71	0.23	2.14			
LAB*TchA	56.71	0.0	0.0			
LAB*TChA	50.01	0.0				

relative Inform. Technology (IT)						
olv3*	0.5	0.5	0.5	(1.0)		
cmy3*	0.25	0.25	0.25	(0.0)		
olv4*	1.0	1.0	1.0	0.75		
cmy4*	0.0	0.0	0.0	0.25		
standard and adapted CIELAB						
LAB*LAB	57.61	0.23	2.14			
LAB*TchA	57.61	0.0	0.0			
LAB*TChA	50.01	0.0				

relative CIELAB lab*						
lab*tch	0.5	0.0	0.0			
lab*nch	0.5	0.0	0.0			
relative Natural Colour (NC)	lab*irj	0.5	0.0			
lab*ice	0.5	0.0	0.0	r071		
lab*nce	0.5	0.0	0.0	r071		

relative Inform. Technology (IT)						
olv3*	0.75	0.75	0.75	(1.0)		
cmy3*	0.25	0.25	0.25	(0.0)		
olv4*	1.0	1.0	1.0	0.25		
cmy4*	0.0	0.0	0.0	0.75		
standard and adapted CIELAB						
LAB*LAB	37.36	0.13	0.83			
LAB*TchA	37.36	0.0	0.0			
LAB*TChA	25.25	0.01				

relative CIELAB lab*						
lab*tch	0.25	0.0	0.0			
lab*nch	0.25	0.0	0.0			
relative Natural Colour (NC)	lab*irj	0.25	0.0			
lab*ice	0.25	0.0	0.0	r071		
lab*nce	0.25	0.0	0.0	r071		

relative Inform. Technology (IT)						
olv3*	0.75	0.75	0.75	(1.0)		
cmy3*	0.25	0.25	0.25	(0.0)		
olv4*	1.0	1.0	1.0	0.25		
cmy4*	0.0	0.0	0.0	0.75		
standard and adapted CIELAB						
LAB*LAB	37.36	0.13	0.83			
LAB*TchA	37.36	0.0	0.0			
LAB*TChA	25.25	0.01				

relative CIELAB lab*						
lab*tch	0.204	0.434	0.249			
lab*nch	0.25	0.5	0.083			
relative Natural Colour (NC)	lab*irj	0.75	0.75	0.25		
lab*ice	0.375	0.25	0.03	r071		
lab*nce	0.375	0.25	0.03	r071		

relative Inform. Technology (IT)						
olv3*	1.0	1.0	1.0	(1.0)		
cmy3*	0.0	0.0	0.0	(0.0)		
olv4*	1.0	1.0	1.0	0.25		
cmy4*	0.0	0.0	0.0	0.75		
standard and adapted CIELAB						
LAB*LAB	18.02	0.5	-0.46			
LAB*TchA	18.02	0.0	0.0			
LAB*TChA	0.01	0.01				

relative CIELAB lab*						
lab*tch	0.103	0.217	0.124			
lab*nch	0.125	0.25	0.083			
relative Natural Colour (NC)	lab*irj	0.102	0.248	0.03		
lab*ice	0.120	0.25	0.019	r071		
lab*nce	0.120	0.25	0.019	r071		

relative Inform. Technology (IT)						
olv3*	0.0	0.0	0.0	(1.0)		
cmy3*	1.0	1.0	1.0	(0.0)		
olv4*	0.0	0.0	0.0	1.0		
cmy4*	0.0	0.0	0.0	0.0		
standard and adapted CIELAB						
LAB*LAB	11.01	0.07	0.01			
LAB*TchA	11.01	0.0	0.0			
LAB*TChA	0.01	0.01				

relative CIELAB lab*						
lab*tch	0.107	0.229	0.101			
lab*nch	0.125	0.25	0.063			
relative Natural Colour (NC)	lab*irj	0.107	0.25	-0.005		
lab*ice	0.120	0.25	0.006	r071		
lab*nce	0.120	0.25	0.006	r071		

relative Inform. Technology (IT)						
olv3*	0.0	0.0	0.0	(1.0)		
cmy3*	1.0	1.0	1.0	(0.0)		
olv4*	0.0	0.0	0.0	1.0		
cmy4*	0.0	0.0	0.0	0.0		
standard and adapted CIELAB						
LAB*LAB	11.01	0.07	0.01			
LAB*TchA	11.01	0.0	0.0			
LAB*TChA	0.01	0.01				

relative CIELAB lab*						
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Input: Colorimetric Reflective System MRS18

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

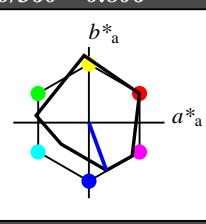
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 37 67 290

rgb*Ma: 0.0 0.0 1.0

triangle lightness t^*



relative Inform. Technology (IT)	
olv3*	1.0 1.0 1.0 (1.0)
cmyn3*	0.0 0.0 0.0 (0.0)
olv4*	1.0 1.0 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	95.41 0.09 -0.47
LAB*TChla	94.41 0.00 0.00
LAB*TChla	99.99 0.01 -
relative CIELAB lab*	
lab*tch	1.0 0.0 0.0
lab*nch	1.0 0.0 0.0
lab*trj	1.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	1.0 0.0 0.0
lab*ncE	1.0 0.0 0.0
lab*ncE	1.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.75 0.75 1.0 (1.0)
cmyn3*	0.25 0.25 0.25 (0.0)
olv4*	1.0 1.0 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	76.06 -0.6 3.44
LAB*TChla	76.06 0.0 0.0
LAB*TChla	75.79 0.01 -
relative CIELAB lab*	
lab*tch	0.75 0.0 0.0
lab*nch	0.75 0.0 0.0
lab*trj	0.75 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.75 0.0 0.0
lab*ncE	0.75 0.0 0.0
lab*ncE	0.75 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.5 0.5 0.5 (1.0)
cmyn3*	0.5 0.5 0.5 (0.0)
olv4*	1.0 1.0 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	56.71 -0.23 2.14
LAB*TChla	56.71 0.0 0.0
LAB*TChla	50.01 0.01 -
relative CIELAB lab*	
lab*tch	0.5 0.0 0.0
lab*nch	0.5 0.0 0.0
lab*trj	0.5 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.5 0.0 0.0
lab*ncE	0.5 0.0 0.0
lab*ncE	0.5 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.5 0.5 0.5 (1.0)
cmyn3*	0.5 0.5 0.5 (0.0)
olv4*	1.0 1.0 1.0 (1.0)
cmyn4*	0.0 0.0 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*TChla	37.36 0.01 -
relative CIELAB lab*	
lab*tch	0.25 0.0 0.0
lab*nch	0.25 0.0 0.0
lab*trj	0.25 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.25 0.0 0.0
lab*ncE	0.25 0.0 0.0
lab*ncE	0.25 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.75 0.75 1.0 (1.0)
cmyn3*	0.25 0.25 0.25 (0.0)
olv4*	1.0 1.0 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	22.67 0.21 -15.9
LAB*TChla	22.67 0.59 -15.79
LAB*TChla	22.53 0.0 0.0
relative CIELAB lab*	
lab*tch	0.25 0.0 0.0
lab*nch	0.25 0.0 0.0
lab*trj	0.25 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.25 0.0 0.0
lab*ncE	0.25 0.0 0.0
lab*ncE	0.25 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 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*TChla	18.02 0.0 0.0
LAB*TChla	0.01 0.01 -
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
olv3*	0.0 0.0 0.0 (1.0)
cmyn3*	1.0 1.0 1.0 (0.0)
olv4*	0.75 0.75 1.0 (1.0)
cmyn4*	0.0 0.0 0.0 (0.0)
standard and adapted CIELAB	
LAB*LAB	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
LAB*TChla	99.99 0.01 -0.46
relative CIELAB lab*	
lab*tch	0.0 0.0 0.0
lab*nch	0.0 0.0 0.0
lab*trj	0.0 0.0 0.0
relative Natural Colour (NC)	
lab*rc	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0
lab*ncE	0.0 0.0 0.0

relative Inform. Technology (IT)	
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Input: Colorimetric Reflective System MRS18

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

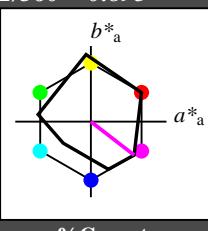
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 35 72 322

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



relative Inform. Technology (IT)

olv^* 1.0 1.0 1.0 (1.0)

$cmyn3^*$ 0.0 0.0 0.0 (0.0)

olv^* 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^*tch 0.875 0.25 0.862

lab^*nch 0.0 0.0 0.0

lab^*rce 0.1 0.0 0.0

lab^*nCE 0.0 0.0 0.0

relative CIELAB lab*

lab^*tch 0.75 0.0 0.0

lab^*nch 1.0 0.0 0.0

relative Natural Colour (NC)

lab^*rce 0.75 0.0 0.0

lab^*nCE 0.25 0.0 0.0

relative Inform. Technology (IT)

olv^* 0.75 0.25 0.75 (1.0)

$cmyn3^*$ 0.25 0.25 0.25 (0.0)

olv^* 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^*tch 0.875 0.25 0.862

lab^*nch 0.0 0.0 0.0

lab^*rce 0.1 0.0 0.0

lab^*nCE 0.0 0.0 0.0

relative CIELAB lab*

lab^*tch 0.75 0.0 0.0

lab^*nch 0.75 0.0 0.0

relative Natural Colour (NC)

lab^*rce 0.75 0.0 0.0

lab^*nCE 0.25 0.0 0.0

relative Inform. Technology (IT)

olv^* 0.5 0.5 0.5 (1.0)

$cmyn3^*$ 0.0 0.0 0.0 (0.0)

olv^* 1.0 1.0 1.0 (1.0)

$cmyn4^*$ 0.0 0.0 0.0 (0.0)

standard and adapted CIELAB

LAB^*LAB 57.36 0.13 0.83

LAB^*LAB 37.36 0.0 0.0

lab^*tch 0.25 0.25 0.0

lab^*nch 0.25 0.0 0.0

relative Natural Colour (NC)

lab^*rce 0.25 0.0 0.0

lab^*nCE 0.25 0.0 0.0

relative CIELAB lab*

lab^*tch 0.25 0.0 0.0

lab^*nch 0.25 0.0 0.0

relative Natural Colour (NC)

lab^*rce 0.25 0.0 0.0

lab^*nCE 0.25 0.0 0.0

relative Inform. Technology (IT)

olv^* 0.0 0.0 0.0 (1.0)

$cmyn3^*$ 1.0 1.0 1.0 (0.0)

olv^* 0.75 0.75 0.75 (0.0)

$cmyn4^*$ 0.0 0.0 0.0 (1.0)

standard and adapted CIELAB

LAB^*LAB 18.02 0.5 -0.46

LAB^*LAB 0.01 0.0 0.01

relative CIELAB lab*

lab^*tch 0.0 0.0 0.0

lab^*nch 1.0 0.0 0.0

relative Natural Colour (NC)

lab^*rce 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

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

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

See for similar files: <http://www.ps.bam.de/TE53/> Version 2.1, io=11, CIEXYZ

Output: Colorimetric Reflective System NCS11

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

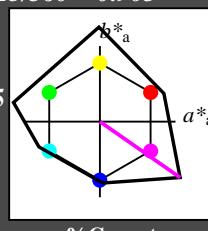
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 44 129 325

rgb*Ma: 1.0 0.0 1.0

triangle lightness t^*



relative Inform. Technology (IT)

olv^* 1.0 1.0 1.0 (1.0)

$cmyn3^*$ 0.0 0.0 0.0 (0.0)

olv^* 1.0 1.0 1.0 (1.0)

$cmyn4^*$ 0.0 0.0 0.0 (0.0)

standard and adapted CIELAB

LAB^*LAB 87.5 1.29 0.01

lab^*tch 87.5 1.29 -11.05

lab^*nch 87.5 1.29 -11.05

relative CIELAB lab*

lab^*tch 0.875 0.25 0.862

lab^*nch 0.0 0.0 0.0

lab^*rce 0.1 0.0 0.0

lab^*nCE 0.0 0.0 0.0

relative Inform. Technology (IT)

olv^* 1.0 0.75 1.0 (1.0)

$cmyn3^*$ 0.0 0.25 0.0 (0.0)

olv^* 1.0 0.75 1.0 (1.0)

$cmyn4^*$ 0.0 0.25 0.0 (0.0)

standard and adapted CIELAB

LAB^*LAB 74.31 0.02 0.0

lab^*tch 74.31 0.02 0.0

relative CIELAB lab*

lab^*tch 0.875 0.25 0.862

lab^*nch 0.0 0.0 0.0

lab^*rce 0.1 0.0 0.0

lab^*nCE 0.0 0.0 0.0

relative Inform. Technology (IT)

olv^* 1.0 0.25 1.0 (1.0)

$cmyn3^*$ 0.25 0.25 0.25 (0.0)

olv^* 1.0 0.25 1.0 (1.0)

$cmyn4^*$ 0.0 0.25 0.0 (0.0)

standard and adapted CIELAB

LAB^*LAB 56.89 73.53 0.01

lab^*tch 69.73 53.03 -36.95

lab^*nch 64.65 32.52 325.12

relative CIELAB lab*

lab^*tch 0.875 0.25 0.862

lab^*nch 0.0 0.0 0.0

lab^*rce 0.1 0.0 0.0

lab^*nCE 0.0 0.0 0.0

relative Inform. Technology (IT)

olv^* 0.5 0.25 1.0 (1.0)

$cmyn3^*$ 0.25 0.25 0.25 (0.0)

olv^* 0.5 0.25 1.0 (1.0)

$cmyn4^*$ 0.0 0.25 0.0 (0.0)

standard and adapted CIELAB

LAB^*LAB 34.95 57.34 -43.57

lab^*tch 53.33 0.04 0.0

lab^*nch 50.01 0.01 0.0

relative CIELAB lab*

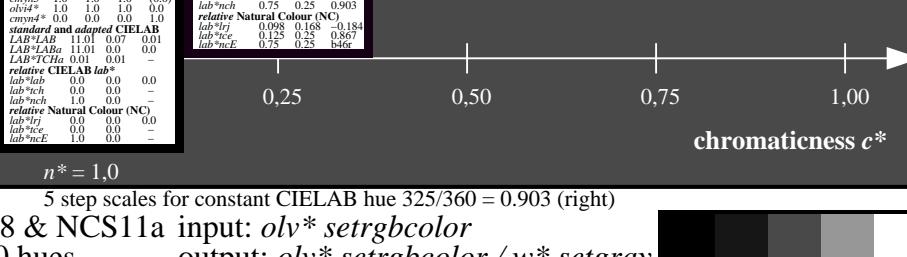
lab^*tch 0.875 0.25 0.862

lab^*nch 0.0 0.0 0.0

lab^*rce 0.1 0.0 0.0

lab^*nCE 0.0 0.0 0.0

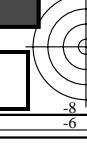
n* = 1,0



5 step scales for constant CIELAB hue 322/360 = 0.903 (right)

BAM-test chart TE53; Colorimetric systems MRS18 & NCS11a input: $olv^* setrgbcolor$ output: $olv^* setrgbcolor / w^* setgray$

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



/TE53/ Form: 7/10, Serie: 1/1, Page: 7

Page: count: 7

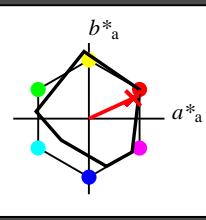


Input: Colorimetric Reflective System MRS18

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

lab^*tch and lab^*nch

D65: hue R
 LCH*Ma: 48 73 25
 rgb*Ma: 1.0 0.0 0.1
 triangle lightness t^*



%Gamut
 $u^*_{rel} = 91$

relative Inform. Technology (IT)					
olv3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olv4*	1.0	1.0	1.0	0.25	
cmyn4*	0.0	0.0	0.0	1.0	

relative Inform. Technology (IT)					
olv3*	0.75	0.75	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olv4*	1.0	1.0	1.0	0.75	
cmyn4*	0.0	0.0	0.0	0.25	

standard and adapted CIELAB

LAP*LAB 76.06 -0.6 3.44

LAP*TCh 76.06 0.0 0.0

LAP*TCh 75.85 0.01 -

relative CIELAB lab*

lab*tch 0.75 0.0 0.0

lab*nch 0.75 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nce 0.75 0.0 0.0

relative CIELAB lab*

lab*tch 0.5 0.0 0.0

lab*nch 0.5 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.5 0.0 0.0

lab*ice 0.5 0.0 0.0

lab*nce 0.5 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

lab*ice 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0

relative CIELAB lab*

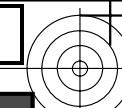
lab*tch 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.0 0.0 0.0

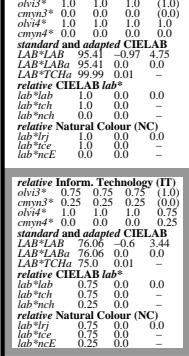
lab*ice 0.0 0.0 0.0



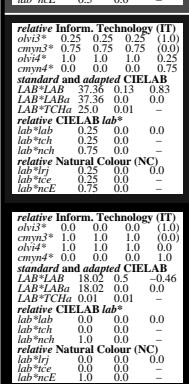
for hue $h^* = lab^*h = 92/360 =$
 lab^*tch and lab^*nch

D65: hue J
LCH^{*}Ma: 89 86 92
rgb*Ma: 1.0 0.95 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
RClE	39.92	58.66	26.98	64.56	25
JClE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
B _{ClE}	30.57	1.15	-16.84	46.87	271



relative Natural Colour (NC)			
lab* <i>l</i>	0.75	0.0	0.0
lab* <i>a</i>	0.75	0.0	-
lab* <i>c</i>	0.25	0.0	-
relative Inform. Technology (IT)			
ohv* ²	0.5	0.5	0.0
cmyv* ³	0.5	0.5	0.0
ohv* ⁴	1.0	1.0	0.5
cmyv* ⁴	0.0	0.0	0.5
standard and adapted CIELAB			
L ⁺ LAB ⁺	56.71	-0.23	4.4
L ⁻ LAB ⁻	56.71	0.0	0.0
L [*] TCI _h	56.71	0.0	-
relative CIELAB lab*			
lab* <i>l</i>	0.5	0.0	0.0
lab* <i>a</i>	0.5	0.0	-
lab* <i>c</i>	0.5	0.0	-
relative Natural Colour (NC)			
lab* <i>l</i>	0.5	0.0	0.0
lab* <i>a</i>	0.5	0.0	-
lab* <i>c</i>	0.5	0.0	-



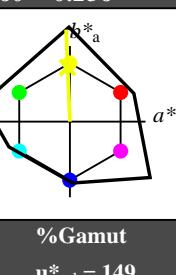
$n^* = 1,0$

TE530-7, 5 step scales for constant CIELAB hue 92/360 = 0.255 (left)

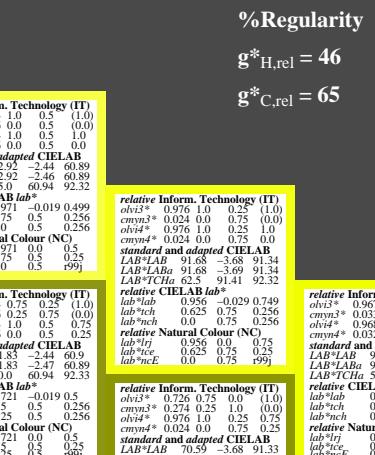
BAM-test chart TE53; Colorimetric systems MRS18 & NC D65: 2 coordinate data of 5 step colour scales for 10 hues

**Output: Colorimetric Reflective System NCS11
for hue $h^* = lab^*h = 92/360 = 0.256$** NCS11

D65: hue J
LCH*Ma: 90 122 92
rgb*Ma: 0.97 1.0 0.0
triangle lightness t^*



NCS11; adapted (a) CIELAB data					
	$L^* = L_a^*$	$a^* = a_a$	$b^* = b_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
Ma	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
R _a CIE	39.92	58.69	27.98	65.01	25
I _a CIE	81.26	-2.9	71.56	71.62	92
G _a CIE	52.23	-42.45	13.59	44.59	162
B _a CIE	30.57	1.35	-46.48	46.51	272



	0	-0.5	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
n. Technology (IT)	0.5	0.0	(1.0)							
	0.5	1.0	(0.0)							
	0.5	0.5	0.5							
	0.5	0.5	0.5							
adjusted CIELAB										
l*	7.2	-2.42	60.89							
a*	7.75	6.08	68.88							
b*	60.93	92.33								
relative CIELAB										
lab*lab	70.0	0.0	0.0							
lab*tch	0.7	0.0	0.0							
lab*uv	0.2	0.0	0.0							
relative Natural										
lab*lrj	0.7	0.0	0.0							
lab*icc	0.4	0.0	0.0							
lab*mcE	0.2	0.0	0.0							



5 step scales for constant CIELAB hue 92/360 = 0.256 (right)

put: *olv *setrgbcolor***
putput: *olv *setrgbcolor* / *w** *setgray***

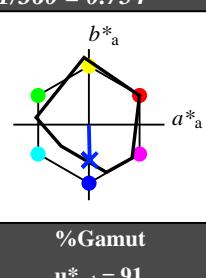
BAM registration: 20060101-TE53/10S/S53E07FP/PS/PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems, Yr=2.5, XYZ
(TE53/ Form: 801 Series: 1/1 Page: 8 Page: cont: 8



Input: Colorimetric Reflective System MRS18
 for hue $h^* = lab^*h = 271/360 = 0.754$

lab^*tch and lab^*nch

D65: hue B
 LCH*Ma: 40 50 271
 rgb*Ma: 0.0 0.37 1.0
 triangle lightness t^*



relative Inform. Technology (IT)					
olv3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olv4*	1.0	1.0	1.0	0.25	
cmyn4*	0.0	0.0	0.0	1.0	

relative Inform. Technology (IT)					
olv3*	0.7	0.7	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olv4*	1.0	1.0	1.0	0.75	
cmyn4*	0.0	0.0	0.0	0.25	

standard and adapted CIELAB

LAB*LAB 76.06 -0.6 3.44

LAB*TCh 76.06 0.0 0.0

LAB*TCh 75.75 0.01 -

relative CIELAB lab*

lab*tch 0.75 0.0 0.0

lab*nch 1.0 0.0 0.0

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

lab*tch 0.5 0.5 0.5

lab*nch 0.5 0.5 0.5

relative Natural Colour (NC)

lab*irj 0.75 0.0 0.0

lab*ice 0.75 0.0 0.0

lab*nCE 0.25 0.0 -

relative CIELAB lab*

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lab*nch 0.5 0.5 0.5

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