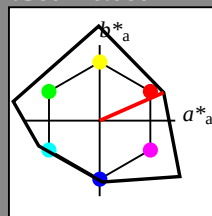


Input: Colorimetric Reflective System NCS11

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

lab^*tch and lab^*nch

D65: hue R
LCH*Ma: 47 92 24
rgb*Ma: 1.0 0.0 0.0
triangle lightness



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

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

blackness n^*

$n^* = 0,50$

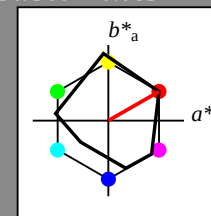
chromaticness c^*

Output: Colorimetric Reflective System MRS18

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

lab^*tch and lab^*nch

D65: hue R
LCH*Ma: 50 77 30
rgb*Ma: 1.0 0.0 0.0
triangle lightness



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

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

blackness n^*

$n^* = 0,50$

chromaticness c^*

UE480-7, 5 step scales for constant CIELAB hue 24/360 = 0.066 (left)

5 step scales for constant CIELAB hue 30/360 = 0.083 (right)

BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: *cmY0* setcmykcolor*

D65: 5 step colour scales and coordinate data for 10 hues

output: *olv* setrgbcolor / w* setgray*

Input: Colorimetric Reflective System NCS11

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

lab^*tch and lab^*nch

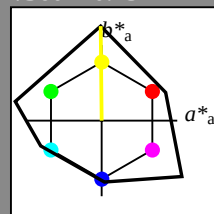
D65: hue J

LCH*Ma: 91 125 91

rgb*Ma: 1.0 1.0 0.0

triangle lightness

1,00



% Gamut

$u^*_{rel} = 149$

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

% Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	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*TCha	98.99	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*trc	1.0	0.0	0.0		
lab*ncc	0.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.75	0.75	0.75	0.75	(1.0)
cmyn3*	0.25	0.25	0.25	0.25	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	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*TCha	75.0	0.01			
relative CIELAB lab*					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	0.0		
lab*nch	0.25	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.75	0.0	0.0		
lab*trc	0.75	0.0	0.0		
lab*ncc	0.25	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.5	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	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*TCha	50.0	0.01			
relative CIELAB lab*					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	0.0		
lab*nch	0.5	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.5	0.0	0.0		
lab*trc	0.5	0.0	0.0		
lab*ncc	0.5	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.25	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	0.75	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	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*TCha	25.0	0.01			
relative CIELAB lab*					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.25	0.0	0.0		
lab*trc	0.25	0.0	0.0		
lab*ncc	0.75	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.25	0.25	0.25	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	0.75	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*Lab	18.02	0.0	0.0		
LAB*TCha	0.01	0.01			
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*Lab	18.02	0.0	0.0		
LAB*TCha	0.01	0.01			
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*Lab	18.02	0.0	0.0		
LAB*TCha	0.01	0.01			
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*Lab	18.02	0.0	0.0		
LAB*TCha	0.01	0.01			
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*Lab	18.02	0.0	0.0		
LAB*TCha	0.01	0.01			
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*Lab	18.02	0.0	0.0		
LAB*TCha	0.01	0.01			
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*Lab	18.02	0.0	0.0		
LAB*TCha	0.01	0.01			
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	0.0	0.0		

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab \cdot h = 167/360 = 0.465$

$lab \cdot tch$ and $lab \cdot nch$

D65: hue G
LCH*Ma: 63 117 167
rgb*Ma: 0.0 1.0 0.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 149$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

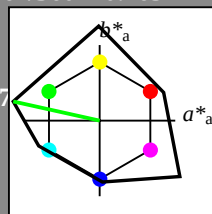
$g^*_{C,rel} = 52$

0,00

%Regularity

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

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



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

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

Output: Colorimetric Reflective System MRS18

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

$lab \cdot tch$ and $lab \cdot nch$

D65: hue G
LCH*Ma: 52 70 172
rgb*Ma: 0.0 1.0 0.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

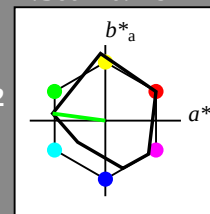
$g^*_{C,rel} = 52$

0,00

%Regularity

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

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



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

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

UE480-7, 5 step scales for constant CIELAB hue 167/360 = 0.465 (left)

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

BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: *cmY0* setcmykcolor*

D65: 5 step colour scales and coordinate data for 10 hues

output: *olv* setrgbcolor / w* setgray*

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab^*h = 203/360 = 0.563$

lab^*tch and lab^*nch

D65: hue G50B
LCH*Ma: 59 87 203
rgb*Ma: 0.0 1.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 149$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

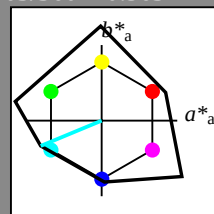
$g^*_{C,rel} = 52$

0,00

%Regularity

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

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



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

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

Output: 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

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

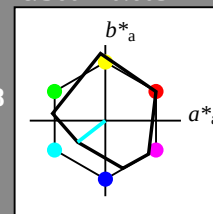
$g^*_{C,rel} = 52$

0,00

%Regularity

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

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



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

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

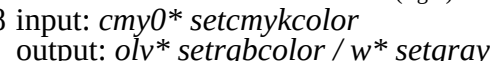
UE480-7, 5 step scales for constant CIELAB hue 203/360 = 0.563 (left)



BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: $cmy0^* setcmykcolor$

D65: 5 step colour scales and coordinate data for 10 hues

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



output: $olv^* setrgbcolor$ / $w^* setgray$

Input: Colorimetric Reflective System NCS11

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

lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 49 81 273

rgb*Ma: 0.0 0.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 149$

%Regularity

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

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

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

0,50

$n^* = 0,50$

0,75

$n^* = 0,75$

1,00

$n^* = 1,0$

chromaticness c^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

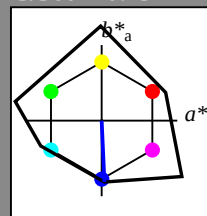
blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*



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

Output: Colorimetric Reflective System MRS18

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

lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 37 67 290

rgb*Ma: 0.0 0.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

0,50

$n^* = 0,50$

0,75

$n^* = 0,75$

1,00

$n^* = 1,0$

chromaticness c^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

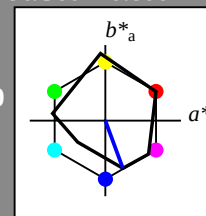
blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*



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
 $g^*_{H,rel} = 41$
 $g^*_{C,rel} = 52$

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

0,50

$n^* = 0,50$

0,75

$n^* = 0,75$

1,00

$n^* = 1,0$

chromaticness c^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

blackness n^*

UE480-7, 5 step scales for constant CIELAB hue 273/360 = 0.757 (left)

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

BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: $cmy0^* setcmykcolor$

D65: 5 step colour scales and coordinate data for 10 hues

output: $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Reflective System NCS11

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

$lab \cdot tch$ and $lab \cdot nch$

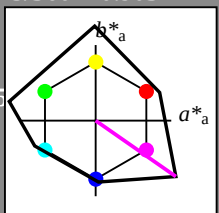
D65: hue B50R
 LCH*Ma: 44 129 325
 rgb*Ma: 1.0 0.0 1.0

triangle lightness

1,00

% Gamut

$u^*_{rel} = 149$



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

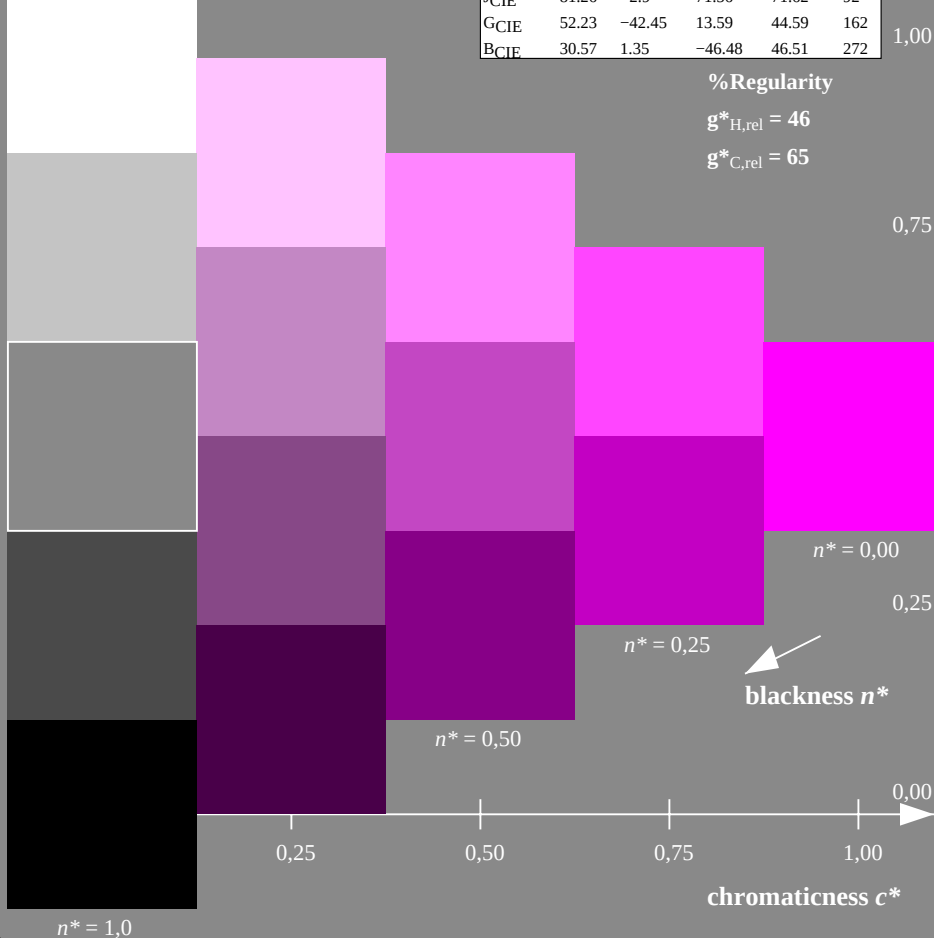
% Regularity

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

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

1,00

% Gamut



UE480-7, 5 step scales for constant CIELAB hue 325/360 = 0.903 (left)

Output: Colorimetric Reflective System MRS18

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

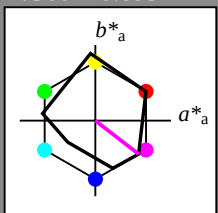
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B50R
 LCH*Ma: 35 72 322
 rgb*Ma: 1.0 0.0 1.0

triangle lightness

1,00

% Gamut



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

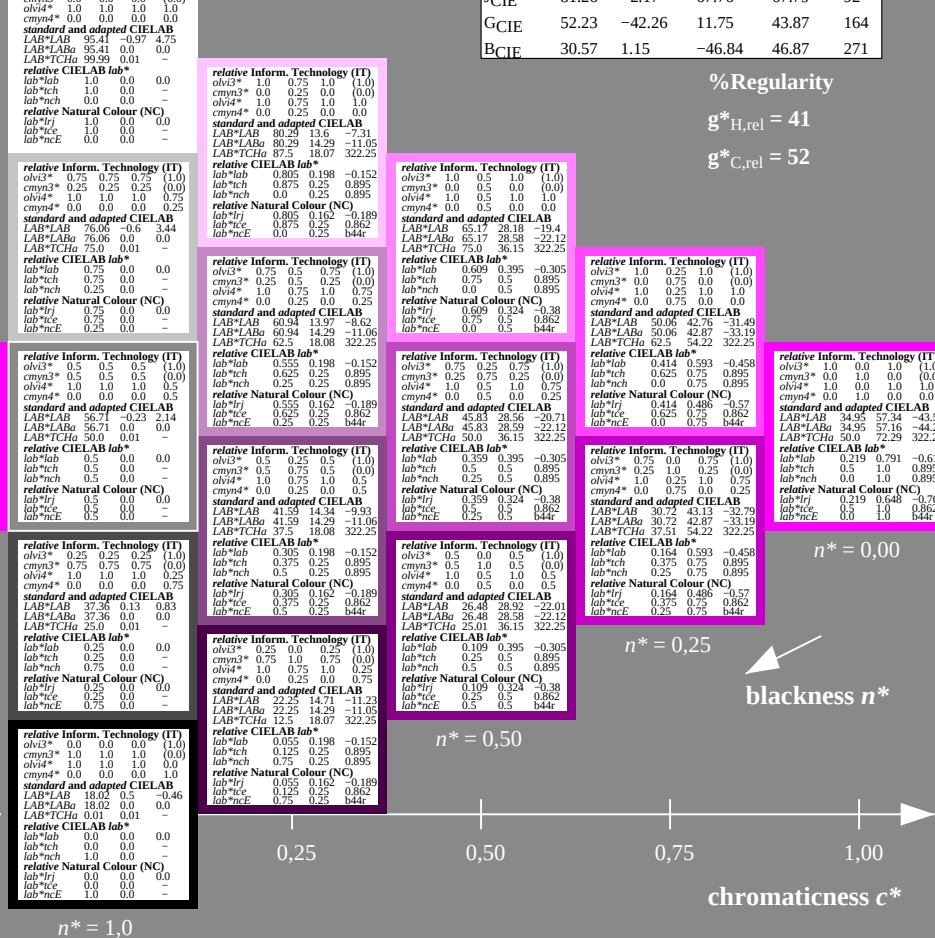
% Regularity

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

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

1,00

% Gamut



5 step scales for constant CIELAB hue 322/360 = 0.895 (right)

BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: *cmY0* setcmykcolor*

D65: 5 step colour scales and coordinate data for 10 hues

output: *olv* setrgbcolor / w* setgray*

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab^*h = 25/360 = 0.071$

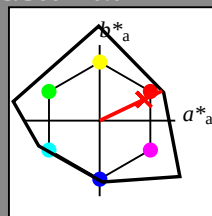
lab^*tch and lab^*nch

D65: hue R

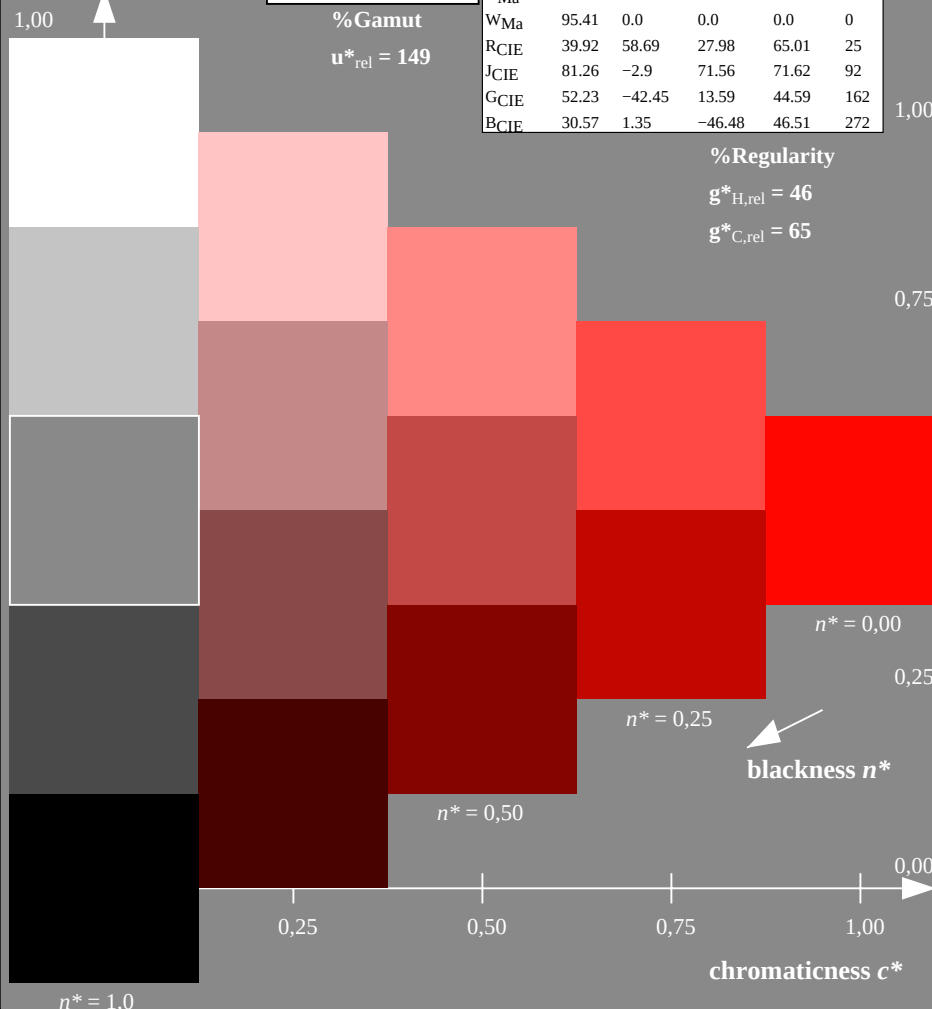
LCH*Ma: 48 91 25

rgb*Ma: 1.0 0.02 0.0

triangle lightness



$u^*_{rel} = 149$



UE480-7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)



BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: *cmY0* setcmykcolor*
D65: 5 step colour scales and coordinate data for 10 hues

Output: Colorimetric Reflective System MRS18

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

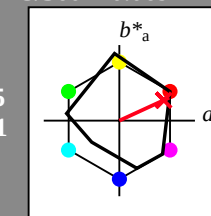
lab^*tch and lab^*nch

D65: hue R

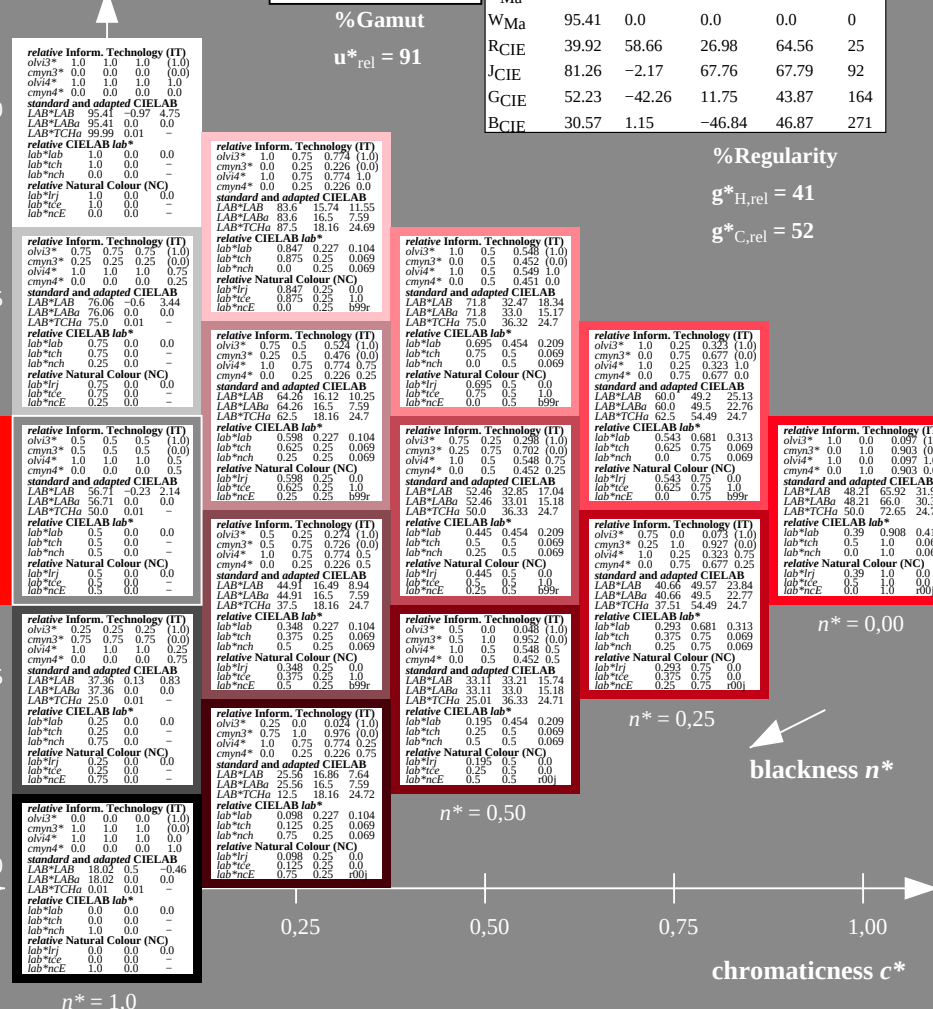
LCH*Ma: 48 73 25

rgb*Ma: 1.0 0.0 0.1

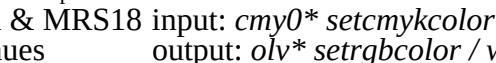
triangle lightness



$u^*_{rel} = 91$



5 step scales for constant CIELAB hue 25/360 = 0.069 (right)



BAM material: code=rh4ta
application for evaluation and measurement of printer or monitor systems, Yr=2.5, XYZ

Input: Colorimetric Reflective System NCS11

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

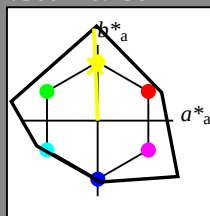
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 90 122 92

rgb*Ma: 0.97 1.0 0.0

triangle lightness



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

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

Output: Colorimetric Reflective System MRS18

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

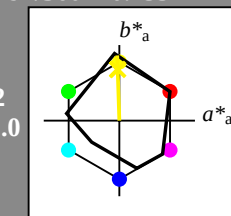
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 89 86 92

rgb*Ma: 1.0 0.95 0.0

triangle lightness



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

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

blackness n^*

$n^* = 0,50$

chromaticness c^*

UE480-7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

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

BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: $cmy0^* setcmykcolor$

D65: 5 step colour scales and coordinate data for 10 hues

output: $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Reflective System NCS11

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

$lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 65 110 162

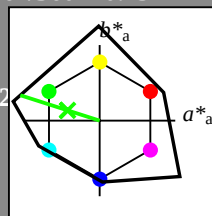
rgb*Ma: 0.08 1.0 0.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 149$



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

%Regularity

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

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

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

Output: Colorimetric Reflective System MRS18

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

$lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 56 66 164

rgb*Ma: 0.1 1.0 0.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

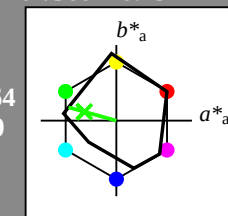
$g^*_{H,rel} = 41$

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

%Regularity

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

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



%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

UE480-7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)

5 step scales for constant CIELAB hue 164/360 = 0.457 (right)

BAM-test chart UE48; Colorimetric systems NCS11a & MRS18 input: *cmY0* setcmykcolor*

D65: 5 step colour scales and coordinate data for 10 hues

output: *olV* setrgbcolor / w* setgray*

Input: Colorimetric Reflective System NCS11

for hue $h^* = lab^*h = 272/360 = 0.755$

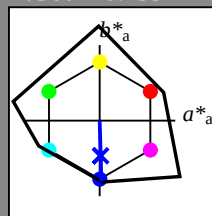
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 49 80 272

rgb*Ma: 0.0 0.02 1.0

triangle lightness

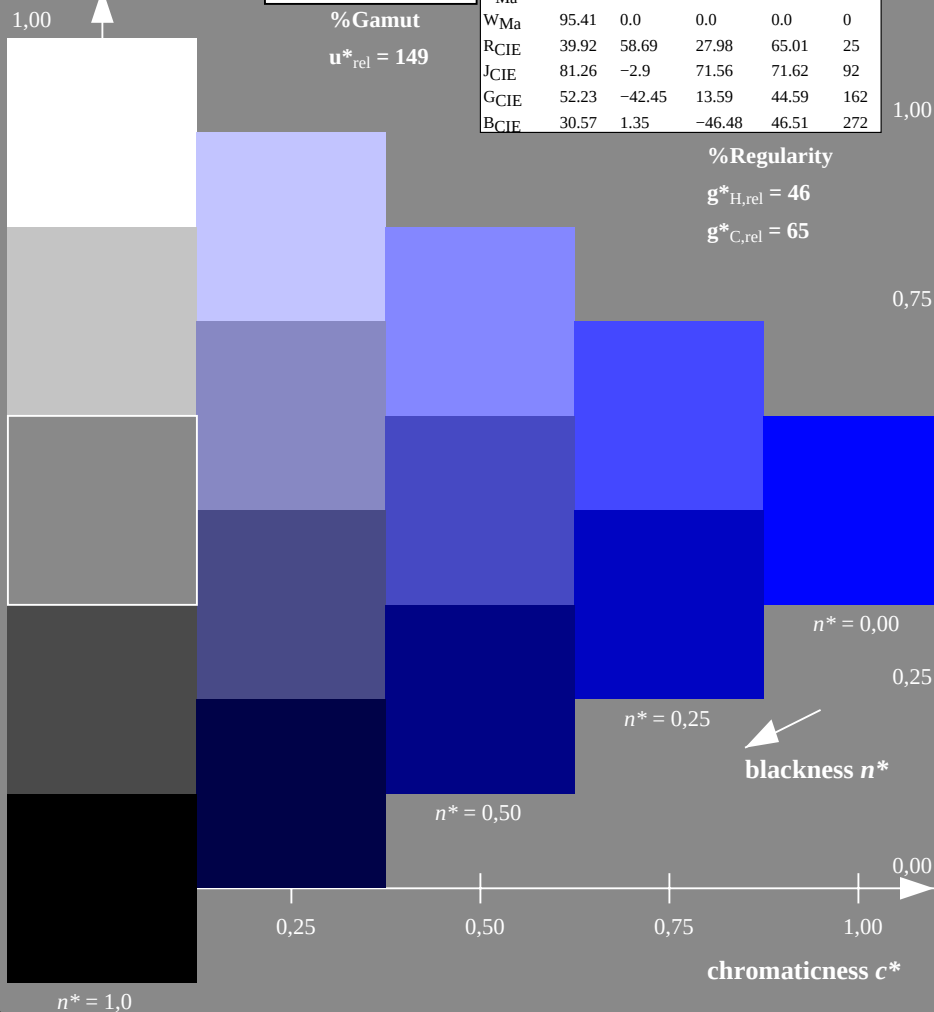


NCS11; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50B _{Ma}	59.47	-80.6	-33.45	87.28	203
B _{Ma}	49.01	3.65	-81.19	81.28	273
B50R _{Ma}	44.06	106.09	-73.93	129.32	325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

%Regularity

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

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



UE480-7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)



D65: 5 step colour scales and coordinate data for 10 hues

Output: Colorimetric Reflective System MRS18

for hue $h^* = lab^*h = 271/360 = 0.754$

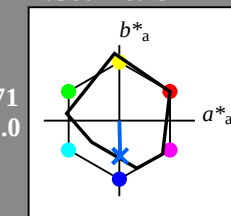
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 40 50 271

rgb*Ma: 0.0 0.37 1.0

triangle lightness

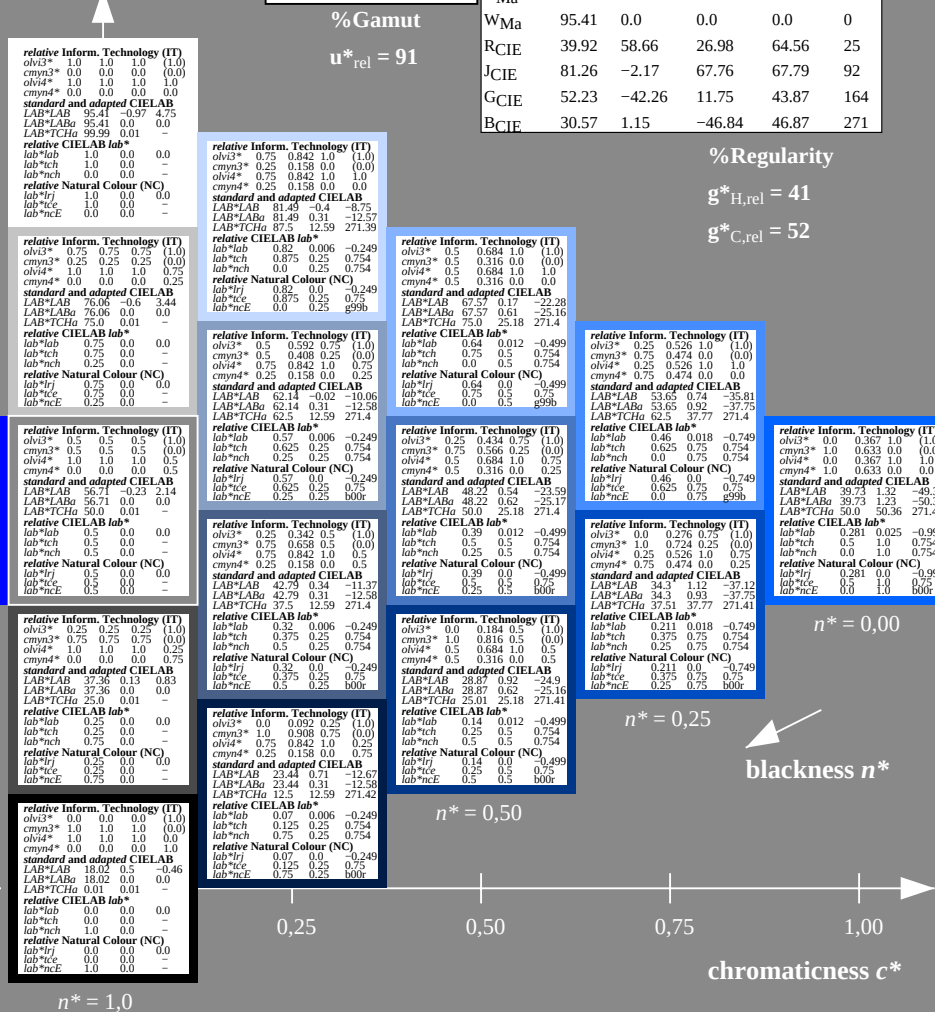


MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218
B _{Ma}	36.65	23.19	-63.05	67.18	290
B50R _{Ma}	34.94	57.17	-44.26	72.31	322
N _{Ma}	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

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

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



5 step scales for constant CIELAB hue 271/360 = 0.754 (right)

output: $olv^* setrgbcolor$ / $w^* setgray$