

Input: Colorimetric Reflective System ORS18

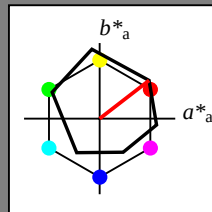
for hue $h^* = lab \cdot h = 38/360 = 0.105$

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

D65: hue O
LCH*Ma: 48 83 38
rgb*Ma: 1.0 0.0 0.0

triangle lightness

1,00



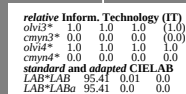
ORS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00



Output: Colorimetric Reflective System MRS18a

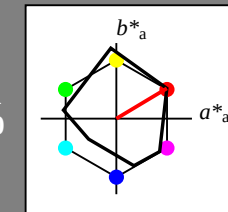
for hue $h^* = lab \cdot h = 31/360 = 0.086$

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

D65: hue R
LCH*Ma: 50 78 31
rgb*Ma: 1.0 0.0 0.0

triangle lightness

1,00



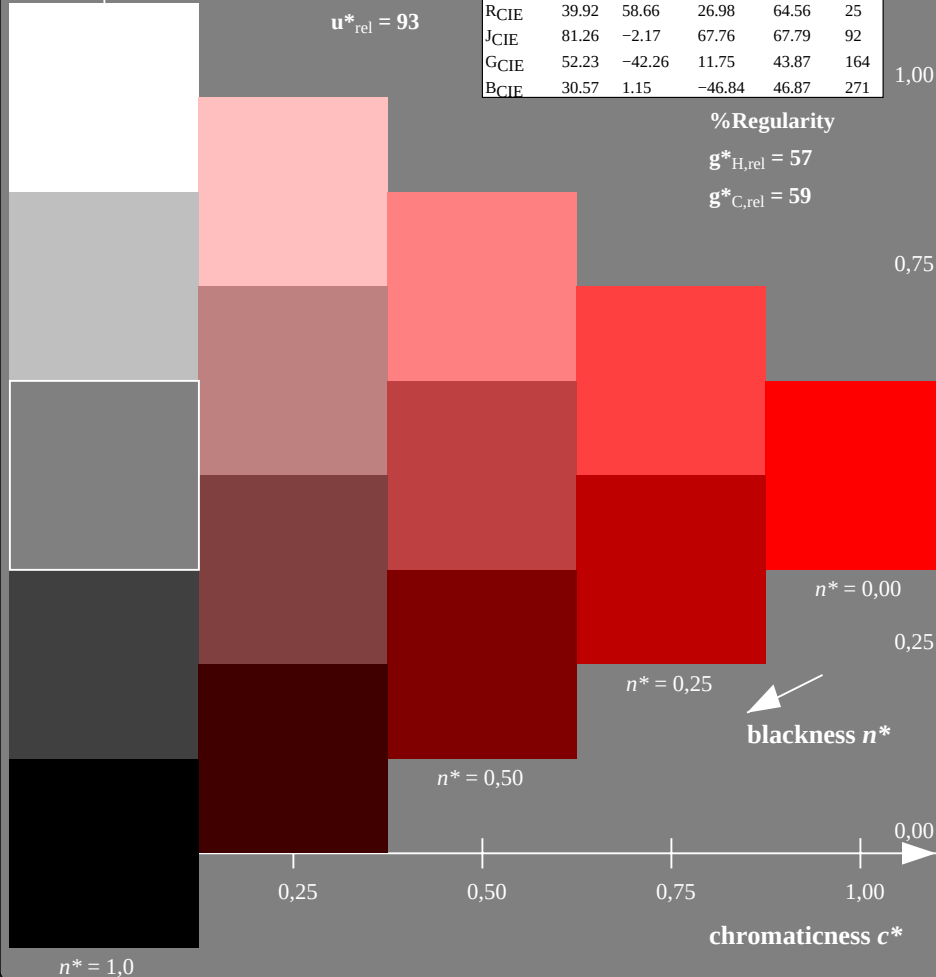
MRS18a; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

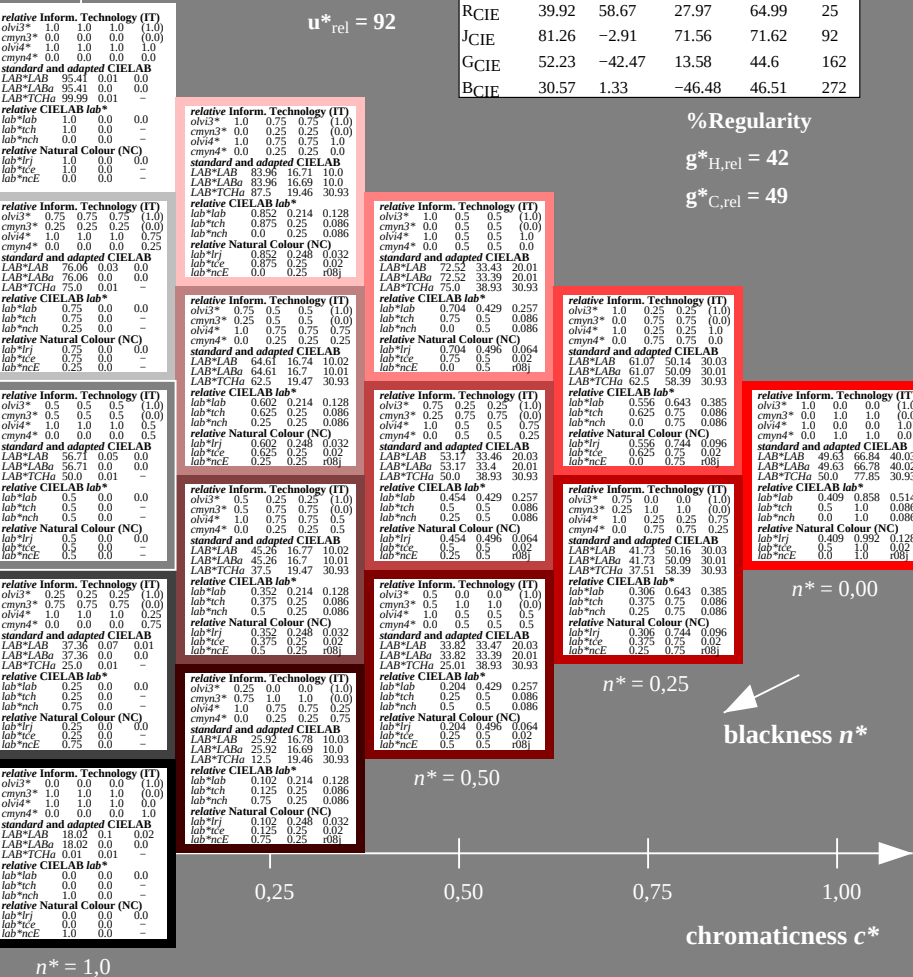
$g^*_{H,rel} = 42$

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

1,00



TE410-7, 5 step scales for constant CIELAB hue 38/360 = 0.105 (left)



5 step scales for constant CIELAB hue 31/360 = 0.086 (right)

BAM-test chart TE41; Colorimetric systems ORS18 & MRS18a input: $olv^* \cdot setrgbcolor$

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

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

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

D65: hue Y
LCH*Ma: 90 92 96
rgb*Ma: 1.0 1.0 0.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

0,75

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

blackness n^*

chromaticness c^*

0,25

0,50

0,75

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

ORS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

0,75

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

blackness n^*

chromaticness c^*

0,25

0,50

0,75

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

Output: Colorimetric Reflective System MRS18a

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

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

D65: hue J
LCH*Ma: 91 93 94
rgb*Ma: 1.0 1.0 0.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

0,75

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

blackness n^*

chromaticness c^*

0,25

0,50

0,75

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

MRS18a; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50B _{Ma}	45.03	-36.65	-27.13	45.61	217
B _{Ma}	36.65	23.26	-62.27	66.49	290
B50R _{Ma}	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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

0,75

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

blackness n^*

chromaticness c^*

0,25

0,50

0,75

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

1,00

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1,00

1,00

1,00

1,00

TE410-7, 5 step scales for constant CIELAB hue 96/360 = 0.268 (left)

5 step scales for constant CIELAB hue 94/360 = 0.262 (right)

BAM-test chart TE41; Colorimetric systems ORS18 & MRS18a input: $olv^* setrgbcolor$

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

output: no change compared to input

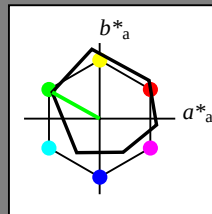
Input: Colorimetric Reflective System ORS18

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

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

D65: hue L
LCH*Ma: 51 72 151
rgb*Ma: 0.0 1.0 0.0

triangle lightness



ORS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00

0,75

0,25

0,00

blackness n^*

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

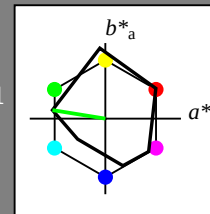
Output: Colorimetric Reflective System MRS18a

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

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

D65: hue G
LCH*Ma: 52 71 171
rgb*Ma: 0.0 1.0 0.0

triangle lightness



MRS18a; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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

1,00

0,75

0,25

0,00

blackness n^*

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

TE410-7, 5 step scales for constant CIELAB hue 151/360 = 0.419 (left)

5 step scales for constant CIELAB hue 171/360 = 0.475 (right)

BAM-test chart TE41; Colorimetric systems ORS18 & MRS18a input: $olv^* setrgbcolor$

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

output: no change compared to input

Input: Colorimetric Reflective System ORS18

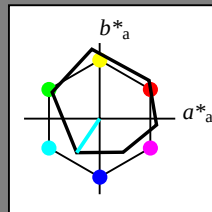
for hue $h^* = lab^*h = 236/360 = 0.656$

lab^*tch and lab^*nch

D65: hue C
LCH*Ma: 59 54 236
rgb*Ma: 0.0 1.0 1.0

triangle lightness

1,00



%Gamut

$u^*_{rel} = 93$

ORS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olvi4*	1.0	1.0	1.0	1.0	
cmyn4*	0.0	0.0	0.0	0.0	
standard and adapted CIELAB					
LAB*LAB	95.41	0.01	0.0		
LAB*LABa	95.41	0.0	0.0		
LAB*TCMa	98.99	0.01			

relative CIELAB lab*					
lab*lab	1.0	0.0	0.0		
lab*tch	1.0	0.0	-		
lab*nch	0.0	0.0	-		
lab*trj	1.0	0.0	0.0		
lab*trc	1.0	0.0	0.0		
lab*ncc	0.0	0.0	-		

relative Natural Colour (NC)					
lab*trj	1.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	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	0.25	
standard and adapted CIELAB					
LAB*LAB	76.06	0.03	0.0		
LAB*LABa	76.06	0.0	0.0		
LAB*TCMa	75.0	0.01	-		

relative CIELAB lab*					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	-		
lab*nch	0.25	0.0	-		
lab*trj	0.75	0.0	0.0		
lab*trc	0.25	0.0	0.0		
lab*ncc	0.25	0.0	-		

relative Natural Colour (NC)					
lab*trj	0.75	0.0	0.0		
lab*trc	0.25	0.0	0.0		
lab*ncc	0.25	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	0.5	
standard and adapted CIELAB					
LAB*LAB	56.71	0.05	0.0		
LAB*LABa	56.71	0.0	0.0		
LAB*TCMa	50.0	0.01	-		

relative CIELAB lab*					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	-		
lab*nch	0.5	0.0	-		
lab*trj	0.5	0.0	0.0		
lab*trc	0.5	0.0	0.0		
lab*ncc	0.5	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*	0.0	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	1.0	
standard and adapted CIELAB					
LAB*LAB	18.02	0.0	0.0		
LAB*LABa	18.02	0.0	0.0		
LAB*TCMa	0.01	0.0	-		

relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	-		
lab*nch	1.0	0.0	-		
lab*trj	0.0	0.0	0.0		
lab*trc	0.0	0.0	0.0		
lab*ncc	1.0	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		

$n^* = 1,0$

Output: Colorimetric Reflective System MRS18a

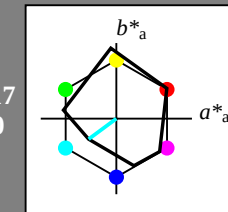
for hue $h^* = lab^*h = 217/360 = 0.601$

lab^*tch and lab^*nch

D65: hue G50B
LCH*Ma: 45 46 217
rgb*Ma: 0.0 1.0 1.0

triangle lightness

1,00



%Gamut

$u^*_{rel} = 92$

MRS18a; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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

relative Inform. Technology (IT)					
olvi3*	0.75	1.0	1.0	(1.0)	
cmyn3*	0.25	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	82.81	-9.13	-6.77		
LAB*LABa	82.81	-9.13	-6.77		
LAB*TCMa	87.5	11.4	216.52		

relative CIELAB lab*					
lab*lab	0.837	-0.177	-0.175		
lab*tch	0.837	0.25	0.601		
lab*nch	0.0	0.25	0.601		
lab*trj	0.837	-0.177	-0.175		
lab*trc	0.837	0.25	0.601		
lab*ncc	0.0	0.25	0.601		

relative Natural Colour (NC)					
lab*trj	0.837	-0.177	-0.175		
lab*trc	0.837	0.25	0.601		
lab*ncc	0.0	0.25	0.601		

relative Inform. Technology (IT)					
olvi3*	0.5	0.75	0.75	(1.0)	
cmyn3*	0.5	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	1.0	
cmyn4*	0.0	0.0	0.0	0.25	
standard and adapted CIELAB					
LAB*LAB	63.46	-9.15	-6.78		
LAB*LABa	63.46	-9.15	-6.78		
LAB*TCMa	62.5	11.4	216.52		

relative CIELAB lab*					
lab*lab	0.587	-0.177	-0.175		
lab*tch	0.587	0.25	0.601		
lab*nch	0.0	0.25	0.601		
lab*trj	0.587	-0.177	-0.175		
lab*trc	0.587	0.25	0.601		
lab*ncc	0.0	0.25	0.601		

relative Natural Colour (NC)					
lab*trj	0.587	-0.177	-0.175		
lab*trc	0.587	0.25	0.601		
lab*ncc	0.0	0.25	0.601		

relative Inform. Technology (IT)					
olvi3*	0.25	0.75	0.75	(1.0)	
cmyn3*	0.75	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	1.0	
cmyn4*	0.0	0.0	0.0	0.5	
standard and adapted CIELAB					
LAB*LAB	44.11	0.09	-6.76		
LAB*LABa	44.11	0.09	-6.76		
LAB*TCMa	37.5	11.4	216.52		

relative CIELAB lab*					
lab*lab	0.337	-0.2	-0.148		
lab*tch	0.337	0.25	0.601		
lab*nch	0.0	0.25	0.601		
lab*trj	0.337	-0.177	-0.175		
lab*trc	0.337	0.25	0.601		
lab*ncc	0.0	0.25	0.601		

relative Natural Colour (NC)					
lab*trj	0.337	-0.177	-0.175		
lab*trc	0.337	0.25	0.601		
lab*ncc	0.0	0.25	0.601		

relative Inform. Technology (IT)					
olvi3*	0.0	0.5	0.5	(1.0)	
cmyn3*	1.0	0.75	0.75	(0.0)	
olvi4*	1.0	1.0	1.0	1.0	
cmyn4*	0.0	0.0	0.0	0.5	
standard and adapted CIELAB					
LAB*LAB	24.77	-9.15	-6.77		
LAB*LABa	24.77	-9.15	-6.77		
LAB*TCMa	12.5	11.4	216.52		

relative CIELAB lab*					
lab*lab	0.087	-0.2	-0.148		
lab*tch	0.087	0.25	0.601		
lab*nch	0.0	0.25	0.601		
lab*trj	0.087	-0.177	-0.175		
lab*trc	0.087	0.25	0.601		
lab*ncc	0.0	0.25	0.601		

$n^* = 0,00$

relative Inform. Technology (IT)					
olvi3*	0.5	1.0	1.0	(1.0)	
cmyn3*	0.5	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	70.21	-18.28	-13.55		
LAB*LABa	70.21	-18.28	-13.55		
LAB*TCMa	75.0	22.8	216.52		

relative CIELAB lab*		
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BAM registration: 20060101-TE41/10Q/Q41E04NP.PS.PDF BAM material: code=rha4ta
application for evaluation and measurement of printer or monitor systems

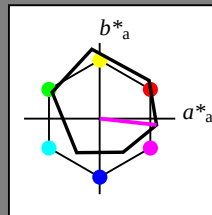
TE41/ Form: 5/10, Serie: 1/1, Page: 5 Page: count: 5

Input: Colorimetric Reflective System ORS18

for hue $h^* = lab^*h = 354/360 = 0.982$

lab^*tch and lab^*nch

D65: hue M
LCH*Ma: 48 76 354
rgb*Ma: 1.0 0.0 1.0
triangle lightness

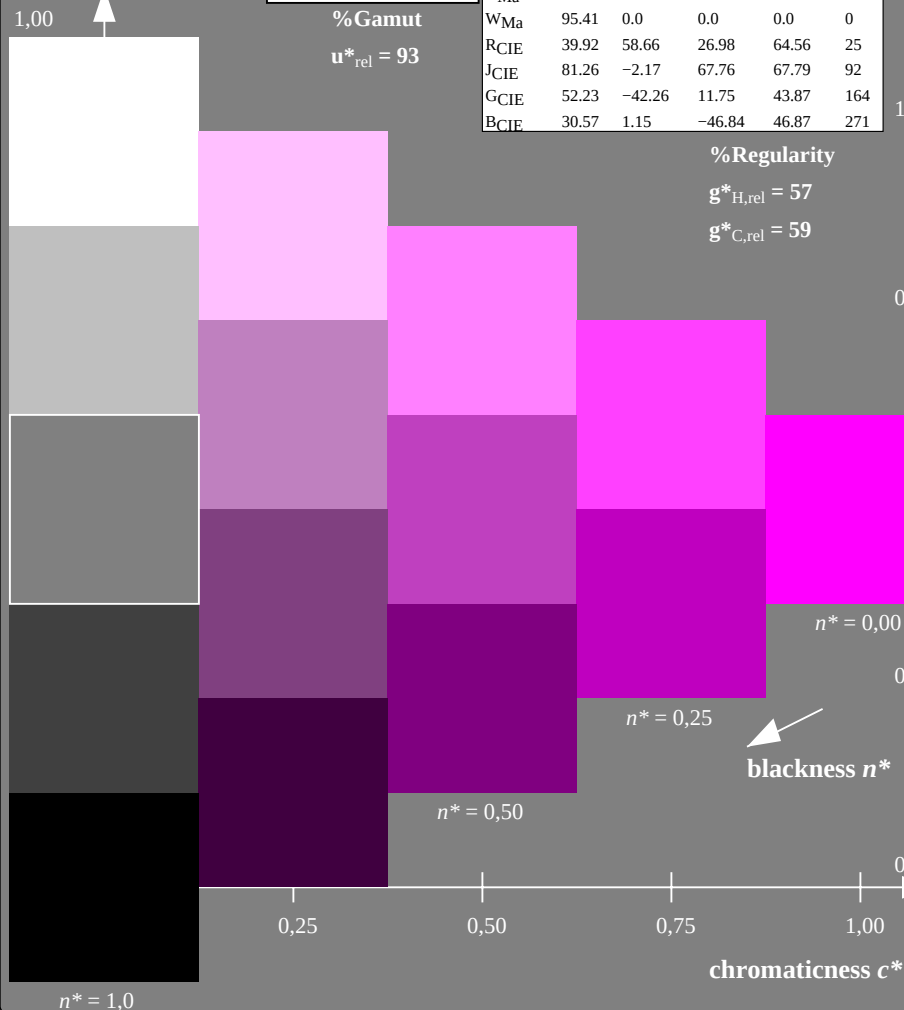


ORS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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



TE410-7, 5 step scales for constant CIELAB hue 354/360 = 0.982 (left)

BAM-test chart TE41; Colorimetric systems ORS18 & MRS18a

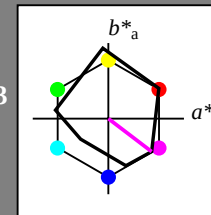
D65: 5 step colour scales and coordinate data for 10 hues

Output: Colorimetric Reflective System MRS18a

for hue $h^* = lab^*h = 323/360 = 0.896$

lab^*tch and lab^*nch

D65: hue B50R
LCH*Ma: 35 72 323
rgb*Ma: 1.0 0.0 1.0
triangle lightness

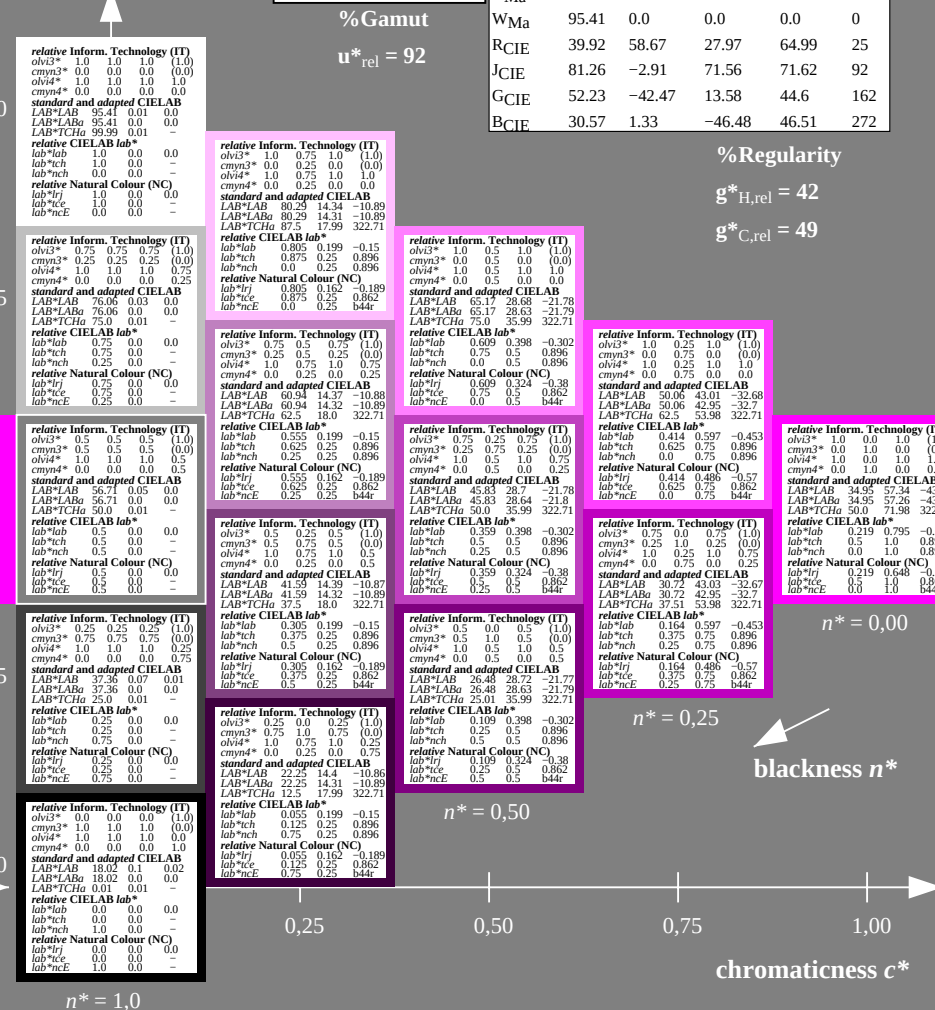


MRS18a; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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



5 step scales for constant CIELAB hue 323/360 = 0.896 (right)

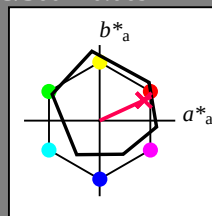
output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

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

D65: hue R
LCH*Ma: 48 75 25
rgb*Ma: 1.0 0.0 0.32
triangle lightness



ORS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00

0,75

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

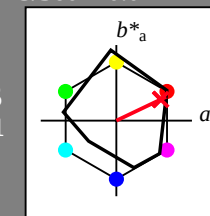
chromaticness c^*

Output: Colorimetric Reflective System MRS18a

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

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

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



MRS18a; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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

1,00

0,75

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

TE410-7, 5 step scales for constant CIELAB hue 25/360 = 0.069 (left)

5 step scales for constant CIELAB hue 25/360 = 0.071 (right)

BAM-test chart TE41; Colorimetric systems ORS18 & MRS18a input: $olv^* setrgbcolor$

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

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

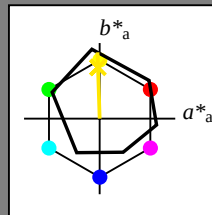
$lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 86 88 92

rgb*Ma: 1.0 0.9 0.0

triangle lightness



ORS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00

0,75

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

TE410-7, 5 step scales for constant CIELAB hue 92/360 = 0.255 (left)



BAM-test chart TE41; Colorimetric systems ORS18 & MRS18a input: $olv^* \cdot setrgbcolor$
D65: 5 step colour scales and coordinate data for 10 hues

Output: Colorimetric Reflective System MRS18a

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

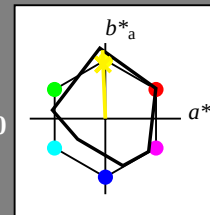
$lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 89 91 92

rgb*Ma: 1.0 0.95 0.0

triangle lightness



MRS18a; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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

1,00

0,75

blackness n^*

$n^* = 0,00$

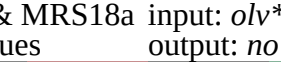
$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

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



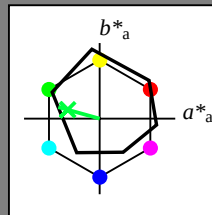
output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

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

D65: hue G
LCH*Ma: 53 57 164
rgb*Ma: 0.0 1.0 0.25
triangle lightness



ORS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

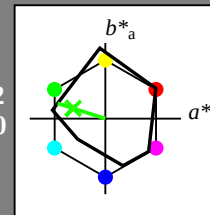
1,00

Output: Colorimetric Reflective System MRS18a

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

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

D65: hue G
LCH*Ma: 56 66 162
rgb*Ma: 0.11 1.0 0.0
triangle lightness



MRS18a; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	95.41	0.01	0.0		
LAB*LABa	95.41	0.01	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		
lab*trj	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*nce	1.0	0.0	0.0		
lab*nce	0.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.777	1.0	0.75	(1.0)	
cmyn3*	0.223	0.0	0.25	(0.0)	
olvi4*	0.777	1.0	0.75	(1.0)	
cmyn4*	0.223	0.0	0.25	(0.0)	
standard and adapted CIELAB					
LAB*LAB	85.63	-15.74	5.05		
LAB*LABa	85.63	-15.74	5.05		
LAB*TCha	87.5	16.56	162.26		
relative CIELAB lab*					
lab*lab	0.874	-0.237	0.076		
lab*tch	0.875	0.25	0.451		
lab*nch	0.0	0.25	0.451		
lab*trj	0.874	-0.249	0.0		
lab*nce	0.875	0.25	0.5		
lab*nce	0.0	0.25	0.5		

relative Inform. Technology (IT)					
olvi3*	0.554	1.0	0.5	(1.0)	
cmyn3*	0.446	0.0	0.5	(0.0)	
olvi4*	0.555	1.0	0.5	(1.0)	
cmyn4*	0.445	0.0	0.5	(0.0)	
standard and adapted CIELAB					
LAB*LAB	75.86	-31.51	10.1		
LAB*LABa	75.86	-31.51	10.1		
LAB*TCha	75.0	33.13	162.26		
relative CIELAB lab*					
lab*lab	0.747	-0.475	0.152		
lab*tch	0.75	0.5	0.451		
lab*nch	0.0	0.5	0.451		
lab*trj	0.747	-0.499	0.0		
lab*nce	0.75	0.5	0.5		
lab*nce	0.0	0.5	0.5		

relative Inform. Technology (IT)					
olvi3*	0.332	1.0	0.25	(1.0)	
cmyn3*	0.668	0.0	0.75	(0.0)	
olvi4*	0.332	1.0	0.25	(1.0)	
cmyn4*	0.668	0.0	0.75	(0.0)	
standard and adapted CIELAB					
LAB*LAB	66.08	-47.28	15.15		
LAB*LABa	66.08	-47.28	15.15		
LAB*TCha	62.5	49.7	162.26		
relative CIELAB lab*					
lab*lab	0.621	-0.713	0.228		
lab*tch	0.625	0.75	0.451		
lab*nch	0.0	0.75	0.451		
lab*trj	0.621	-0.749	0.0		
lab*nce	0.625	0.75	0.5		
lab*nce	0.0	0.75	0.5		

relative Inform. Technology (IT)					
olvi3*	0.109	1.0	0.0	(1.0)	
cmyn3*	0.891	0.0	1.0	(0.0)	
olvi4*	0.109	1.0	0.0	(1.0)	
cmyn4*	0.891	0.0	1.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	56.31	-63.05	20.19		
LAB*LABa	56.31	-63.05	20.19		
LAB*TCha	50.0	66.26	162.27		
relative CIELAB lab*					
lab*lab	0.495	-0.951	0.304		
lab*tch	0.5	1.0	0.451		
lab*nch	0.0	1.0	0.451		
lab*trj	0.495	-0.999	0.0		
lab*nce	0.5	1.0	0.5		
lab*nce	0.0	1.0	0.5		

relative Inform. Technology (IT)					
olvi3*	0.75	0.75	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	76.06	0.03	0.0		
LAB*LABa	76.06	0.03	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	0.0	0.0	0.0		
lab*trj	0.75	0.0	0.0		
lab*nce	0.75	0.0	0.0		
lab*nce	0.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.527	0.75	0.5	(1.0)	
cmyn3*	0.473	0.25	0.5	(0.0)	
olvi4*	0.777	1.0	0.75	(0.0)	
cmyn4*	0.223	0.0	0.25	(0.0)	
standard and adapted CIELAB					
LAB*LAB	66.28	-15.73	5.06		
LAB*LABa	66.28	-15.73	5.06		
LAB*TCha	62.5	16.57	162.27		
relative CIELAB lab*					
lab*lab	0.624	-0.237	0.076		
lab*tch	0.625	0.25	0.451		
lab*nch	0.25	0.25	0.451		
lab*trj	0.624	-0.249	0.0		
lab*nce	0.625	0.25	0.5		
lab*nce	0.25	0.25	0.5		

relative Inform. Technology (IT)					
olvi3*	0.304	0.75	0.25	(1.0)	
cmyn3*	0.696	0.25	0.75	(0.0)	
olvi4*	0.554	1.0	0.5	(0.0)	
cmyn4*	0.446	0.0	0.5	(0.0)	
standard and adapted CIELAB					
LAB*LAB	56.51	-31.5	10.11		
LAB*LABa	56.51	-31.5	10.09		
LAB*TCha	50.0	33.13	162.27		
relative CIELAB lab*					
lab*lab	0.497	-0.499	0.0		
lab*tch	0.5	0.5	0.451		
lab*nch	0.0	0.5	0.451		
lab*trj	0.497	-0.499	0.0		
lab*nce	0.5	0.5	0.5		
lab*nce	0.25	0.5	0.5		

relative Inform. Technology (IT)					
olvi3*	0.082	0.75	0.0	(1.0)	
cmyn3*	0.918	0.25	1.0	(0.0)	
olvi4*	0.332	1.0	0.25	(0.0)	
cmyn4*	0.668	0.0	0.75	(0.0)	
standard and adapted CIELAB					
LAB*LAB	46.73	-47.27	15.15		
LAB*LABa	46.73	-47.27	15.15		
LAB*TCha	37.51	49.7	162.28		
relative CIELAB lab*					
lab*lab	0.371	-0.713	0.228		
lab*tch	0.375	0.75	0.451		
lab*nch	0.0	0.75	0.451		
lab*trj	0.371	-0.749	0.0		
lab*nce	0.375	0.75	0.5		
lab*nce	0.25	0.75	0.5		

relative Inform. Technology (IT)					
olvi3*	0.109	1.0	0.0	(1.0)	
cmyn3*	0.891	0.0	1.0	(0.0)	
olvi4*	0.109	1.0	0.0	(1.0)	
cmyn4*	0.891	0.0	1.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	56.31	-63.05	20.19		
LAB*LABa	56.31	-63.05	20.19		
LAB*TCha	50.0	66.26	162.27		
relative CIELAB lab*					
lab*lab	0.495	-0.951	0.304		
lab*tch	0.5	1.0	0.451		
lab*nch	0.0	1.0	0.451		
lab*trj	0.495	-0.999	0.0		
lab*nce	0.5	1.0	0.5		
lab*nce	0.0	1.0	0.5		

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	0.07	0.01		
LAB*LABa	37.36	0.07	0.01		
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	0.0	0.0	0.0		
lab*trj	0.25	0.0	0.0		
lab*nce	0.25	0.0	0.0		
lab*nce	0.0	0.0	0.0		

relative CIELAB lab*				
lab*lab	0.624	-0.237	0.076	
lab*ch	0.625	0.25	0.451	
lab*ch	0.25	0.25	0.451	
relative Natural Colour (NCS)				
lab*lab	0.624	0.25	0.451	
lab*ch	0.625	0.25	0.5	
lab*ch	0.25	0.25	0.99g	
relative Inform. Technology (IT)				
olvi3*	0.277	0.5	0.25	(1.0)
cmyn3*	0.723	0.5	0.75	(0.0)
olvi4*	0.777	1.0	0.75	(0.5)
cmyn4*	0.223	0.0	0.25	(0.0)
standard and adapted CIELAB				
LAB*LAB	46.93	-15.71	5.06	
LAB*LABa	46.93	-15.77	5.05	
LAB*TCRa	37.5	16.57	162.2	

Input: Colorimetric Reflective System ORS18

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

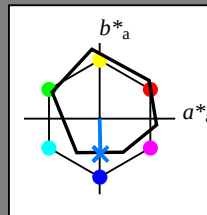
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 42 45 271

rgb*Ma: 0.0 0.49 1.0

triangle lightness



ORS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00

0,75

blackness n^*

chromaticness c^*

TE410-7, 5 step scales for constant CIELAB hue 271/360 = 0.754 (left)



BAM-test chart TE41; Colorimetric systems ORS18 & MRS18a input: $olv^* \cdot setrgbcolor$
D65: 5 step colour scales and coordinate data for 10 hues

Output: Colorimetric Reflective System MRS18a

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

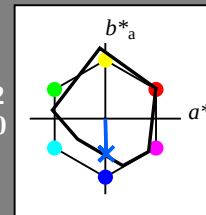
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 40 49 272

rgb*Ma: 0.0 0.36 1.0

triangle lightness



MRS18a; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.8	40.02	77.87	31
JMa	90.7	-7.27	93.19	93.48	94
GMa	52.11	-69.93	11.26	70.85	171
G50BMa	45.03	-36.65	-27.13	45.61	217
BMa	36.65	23.26	-62.27	66.49	290
B50RMa	34.94	57.27	-43.6	71.99	323
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.67	27.97	64.99	25
JCIE	81.26	-2.91	71.56	71.62	92
GCIE	52.23	-42.47	13.58	44.6	162
BCIE	30.57	1.33	-46.48	46.51	272

%Regularity

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

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

1,00

0,75

blackness n^*

chromaticness c^*

5 step scales for constant CIELAB hue 272/360 = 0.755 (right)

output: no change compared to input