

Input: Colorimetric Reflective System MRS18a

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

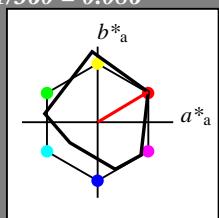
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 50 78 31

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



MRS18a; adapted (a) CIELAB data

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

relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 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*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 1.0 1.0 1.0 0.5
 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*TChA 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 -

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*ncE 0.5 0.0 -

relative Inform. Technology (IT)

olv13* 0.0 0.0 0.0 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)

olv14* 1.0 1.0 1.0 0.0
 cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB*LAB 18.02 0.1 0.02
 LAB*LABa 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 -
 lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0
 lab*tce 0.0 0.0 -
 lab*ncE 1.0 0.0 -

$n^* = 1,0$

TE160-7, 3 step scales for constant CIELAB hue 31/360 = 0.086 (left)

BAM-test chart TE16; Colorimetric systems ORS18 & ORS18

D65: 2 coordinate data of 3 step colour scales for 10 hues

C

M

Y

Output: Colorimetric Reflective System ORS18

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

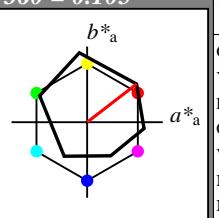
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 83 38

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
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

relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 1.0 1.0 1.0 1.0
 cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 95.41 -0.97 4.75
 LAB*LABa 95.41 0.0 0.0
 LAB*TChA 99.99 0.01 -

relative CIELAB lab*

lab*lab 1.0 0.0 0.0
 lab*tch 1.0 0.0 -
 lab*nch 0.0 0.0 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.0 0.5 0.5 (0.0)

olv14* 1.0 0.0 0.0 0.5
 cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB

LAB*LAB 71.67 32.15 28.41
 LAB*LABa 71.67 32.68 25.25
 LAB*TChA 75.0 41.3 37.7

relative CIELAB lab*

lab*lab 0.693 0.396 0.306
 lab*tch 0.75 0.5 0.105
 lab*nch 0.0 0.5 0.105

relative Natural Colour (NC)

lab*lrj 0.693 0.477 0.15
 lab*tce 0.75 0.5 0.048
 lab*ncE 0.0 0.5 r19j

relative Inform. Technology (IT)

olv13* 0.0 0.0 0.0 (1.0)
 cmyn3* 0.5 1.0 1.0 (0.0)

olv14* 1.0 0.5 0.5 0.5
 cmyn4* 0.0 0.5 0.5 0.5

standard and adapted CIELAB

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

relative CIELAB lab*

lab*lab 0.409 0.858 0.514
 lab*tch 0.5 1.0 0.086
 lab*nch 0.0 1.0 0.086

relative Natural Colour (NC)

lab*lrj 0.409 0.992 0.128
 lab*tce 0.5 1.0 0.02
 lab*ncE 0.0 1.0 r08j

$n^* = 0,00$

blackness n^*

	$L^*=L^*_a$	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

relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 1.0 1.0 1.0 1.0
 cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 71.67 32.15 28.41
 LAB*LABa 71.67 32.68 25.25
 LAB*TChA 75.0 41.3 37.7

relative CIELAB lab*

lab*lab 0.693 0.396 0.306
 lab*tch 0.75 0.5 0.105
 lab*nch 0.0 0.5 0.105

relative Natural Colour (NC)

lab*lrj 0.693 0.477 0.15
 lab*tce 0.75 0.5 0.048
 lab*ncE 0.0 0.5 r19j

relative Inform. Technology (IT)

olv13* 0.5 0.0 0.0 (1.0)
 cmyn3* 0.0 1.0 1.0 (0.0)

olv14* 1.0 0.5 0.5 0.5
 cmyn4* 0.0 0.5 0.5 0.5

standard and adapted CIELAB

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

relative CIELAB lab*

lab*lab 0.409 0.858 0.514
 lab*tch 0.5 1.0 0.086
 lab*nch 0.0 1.0 0.086

relative Natural Colour (NC)

lab*lrj 0.409 0.992 0.128
 lab*tce 0.5 1.0 0.02
 lab*ncE 0.0 1.0 r08j

$n^* = 0,00$

blackness n^*

$n^* = 1,0$

TE160-7, 3 step scales for constant CIELAB hue 38/360 = 0.105 (right)

3 step scales for constant CIELAB hue 38/360 = 0.105 (right)

$n^* = 1,0$

input: $olv^* setrgbcolor$

output: Startup (S) data dependend

C

M

Y

O

L

V

C

V

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C

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L

V

Input: Colorimetric Reflective System MRS18a

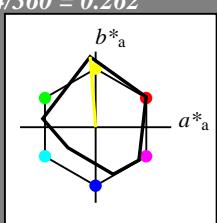
for hue $h^* = lab^*h = 94/360 = 0.262$
 lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 91 93 94

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 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*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0

lab*tce 1.0 0.0 -

lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 1.0 1.0 1.0 0.5

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*TChA 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 -

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0

lab*tce 0.5 0.0 -

lab*ncE 0.5 0.0 -

relative Inform. Technology (IT)

olv13* 0.0 0.0 0.0 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)

olv14* 1.0 1.0 1.0 0.0

cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB*LAB 18.02 0.1 0.02

LAB*LABa 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 -

lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0

lab*tce 0.0 0.0 -

lab*ncE 1.0 0.0 -

$n^* = 1,0$

MRS18a; adapted (a) CIELAB data

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

	RMa	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
B050Ba	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

relative Inform. Technology (IT)

olv13* 1.0 1.0 0.5 (1.0)
 cmyn3* 0.0 0.0 0.5 (0.0)

olv14* 1.0 1.0 0.5 1.0

cmyn4* 0.0 0.0 0.5 0.0

standard and adapted CIELAB

LAB*LAB 95.41 -0.97 4.75

LAB*LABa 95.41 0.0 0.0

LAB*TChA 99.99 0.01 -

relative CIELAB lab*

lab*lab 1.0 0.0 0.0

lab*tch 1.0 0.0 -

lab*nch 0.0 0.0 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0

lab*tce 1.0 0.0 -

lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 1.0 1.0 0.0 0.5

cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB

LAB*LAB 90.69 -7.25 93.17

LAB*LABa 90.69 -7.26 93.18

LAB*TChA 50.0 0.0 93.46

relative CIELAB lab*

lab*lab 0.939 -0.077 0.997

lab*tch 0.5 1.0 0.262

lab*nch 0.0 1.0 0.262

relative Natural Colour (NC)

lab*lrj 0.939 -0.047 0.999

lab*tce 0.5 1.0 0.258

lab*ncE 0.0 1.0 j03g

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

chromaticness c^*

blackness n^*

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

Output: Colorimetric Reflective System ORS18

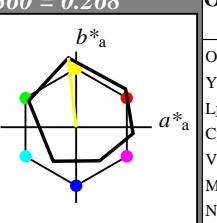
for hue $h^* = lab^*h = 96/360 = 0.268$
 lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 90 92 96

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



%Gamut
 $u^*_{rel} = 92$
 %Regularity
 $g^*_{H,rel} = 42$
 $g^*_{C,rel} = 49$

relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 1.0 1.0 1.0 1.0

cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 95.41 -0.97 4.75

LAB*LABa 95.41 0.0 0.0

LAB*TChA 99.99 0.01 -

relative CIELAB lab*

lab*lab 1.0 0.0 0.0

lab*tch 1.0 0.0 -

lab*nch 0.0 0.0 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0

lab*tce 1.0 0.0 -

lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 1.0 1.0 0.5 0.5

cmyn4* 0.0 0.0 0.5 0.5

standard and adapted CIELAB

LAB*LAB 92.88 -6.06 50.46

LAB*LABa 92.88 -5.13 45.87

LAB*TChA 75.0 46.16 96.39

relative CIELAB lab*

lab*lab 0.967 -0.048 0.497

lab*tch 0.75 0.5 0.266

lab*nch 0.0 0.5 j06g

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

ORS18; adapted (a) CIELAB data
 $L^*=L^*_a \quad a^*_a \quad b^*_a \quad C^*_{ab,a} \quad h^*_{ab,a}$

	OMa	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

relative Inform. Technology (IT)

olv13* 1.0 1.0 0.5 (1.0)
 cmyn3* 0.0 0.0 0.5 (0.0)

olv14* 1.0 1.0 0.5 1.0

cmyn4* 0.0 0.0 0.5 0.0

standard and adapted CIELAB

LAB*LAB 92.88 -11.15 96.17

LAB*LABa 90.37 -10.26 91.75

LAB*TChA 50.0 92.32 96.39

relative CIELAB lab*

lab*lab 0.935 -0.11 0.994

lab*tch 0.5 1.0 0.268

lab*nch 0.0 1.0 0.268

relative Natural Colour (NC)

lab*lrj 0.935 -0.097 0.995

lab*tce 0.5 1.0 0.266

lab*ncE 0.0 1.0 j06g

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

TE160-7, 3 step scales for constant CIELAB hue 94/360 = 0.262 (left)

BAM-test chart TE16; Colorimetric systems ORS18 & ORS18

D65: 2 coordinate data of 3 step colour scales for 10 hues

3 step scales for constant CIELAB hue 96/360 = 0.268 (right)

input: olv* setrgbcolor
 output: Startup (S) data dependend

C M Y O L V

C M Y O L V

Input: Colorimetric Reflective System MRS18a

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

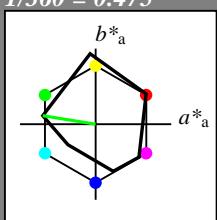
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 52 71 171

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 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*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0

lab*tce 1.0 0.0 -

lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 1.0 1.0 1.0 0.5

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*TChA 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 -

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0

lab*tce 0.5 0.0 -

lab*ncE 0.5 0.0 -

relative Inform. Technology (IT)

olv13* 0.0 0.0 0.0 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)

olv14* 1.0 1.0 1.0 0.0

cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB*LAB 18.02 0.1 0.02
 LAB*LABa 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 -

lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0

lab*tce 0.0 0.0 -

lab*ncE 1.0 0.0 -

$n^* = 1,0$

MRS18a; adapted (a) CIELAB data

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

	RMa	JMa	GMa	B050Ma	BMa	B50RMa	NMa	WMa	RCIE	JCIE	GCIE	BCIE
L^*	49.63	66.8	40.02	77.87	31							
a^*		-7.27	93.19	93.48	94							
b^*			-69.93	11.26	70.85	171						
$C^*_{ab,a}$				45.61	217							
$h^*_{ab,a}$						290						

relative Inform. Technology (IT)

olv13* 0.5 1.0 0.5 (1.0)
 cmyn3* 0.5 0.0 0.5 (0.0)

olv14* 0.5 1.0 0.5 1.0

cmyn4* 0.5 0.0 0.5 0.0

standard and adapted CIELAB

LAB*LAB 73.75 -34.92 5.64
 LAB*LABa 73.75 -34.96 5.63

LAB*TChA 75.0 35.42 170.85

relative CIELAB lab*

lab*lab 0.72 -0.493 0.079

lab*tch 0.75 0.5 0.475

lab*nch 0.0 0.5 0.475

relative Natural Colour (NC)

lab*lrj 0.72 -0.495 -0.06

lab*tce 0.75 0.5 0.52

lab*ncE 0.0 0.5 g07b

relative Inform. Technology (IT)

olv13* 0.0 0.5 0.0 (1.0)
 cmyn3* 1.0 0.5 1.0 (0.0)

olv14* 0.5 1.0 0.5 0.5

cmyn4* 0.5 0.0 0.5 0.5

standard and adapted CIELAB

LAB*LAB 52.11 -69.86 11.28
 LAB*LABa 52.11 -69.92 11.26

LAB*TChA 50.0 70.83 170.85

relative CIELAB lab*

lab*lab 0.441 -0.986 0.159

lab*tch 0.5 1.0 0.475

lab*nch 0.0 1.0 0.475

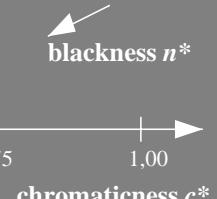
relative Natural Colour (NC)

lab*lrj 0.441 -0.991 -0.122

lab*tce 0.5 1.0 0.52

lab*ncE 0.0 1.0 g07b

$n^* = 0,00$



$n^* = 0,50$

$n^* = 1,00$

$n^* = 0,25$

Output: Colorimetric Reflective System ORS18

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

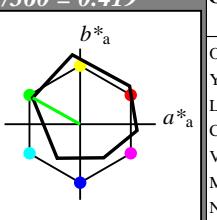
lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 51 72 151

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



	OMa	YMa	LMa	CMa	VMa	MMa	NMa	WMa	RCIE	JCIE	GCIE	BCIE
L^*	47.94	65.37	50.52	82.62	38							
a^*		-10.27	91.77	92.34	96							
b^*		-62.79	34.95	71.87	151							
$C^*_{ab,a}$		-30.35	-45.01	54.3	236							
$h^*_{ab,a}$		-44.42	54.24	305								

	relative Inform. Technology (IT)
olv13* 1.0 1.0 1.0 (1.0)	
cmyn3* 0.0 0.0 0.0 (0.0)	
olv14* 1.0 1.0 1.0 1.0	
cmyn4* 0.0 0.0 0.0 0.0	

standard and adapted CIELAB

LAB*LAB 95.41 -0.97 4.75
 LAB*LABa 95.41 0.0 0.0
 LAB*TChA 99.99 0.01 -

relative CIELAB lab*

lab*lab 1.0 0.0 0.0

lab*tch 1.0 0.0 -

lab*nch 0.0 0.0 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0

lab*tce 1.0 0.0 -

lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.0 0.0 (1.0)

cmyn3* 0.0 0.5 1.0 (0.0)

olv14* 0.5 1.0 0.5 0.5

cmyn4* 0.0 0.0 0.5 0.5

standard and adapted CIELAB

LAB*LAB 73.15 -31.94 20.73
 LAB*LABa 73.15 -31.38 17.47

LAB*TChA 75.0 35.93 150.91

relative CIELAB lab*

lab*lab 0.712 -0.436 0.243

lab*tch 0.75 0.5 0.419

lab*nch 0.0 0.5 0.419

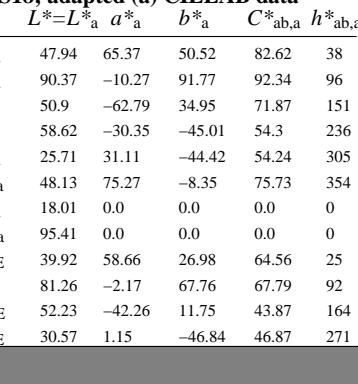
relative Natural Colour (NC)

lab*lrj 0.712 -0.478 0.144

lab*tce 0.75 0.5 0.453

lab*ncE 0.0 0.5 j81g

$n^* = 0,00$



	relative Inform. Technology (IT)
olv13* 1.0 1.0 1.0 (1.0)	
cmyn3* 0.5 0.0 0.0 (0.0)	
olv14* 0.5 1.0 0.5 1.0	
cmyn4* 0.5 0.0 0.5 0.0	

standard and adapted CIELAB

LAB*LAB 73.15 -31.94 20.73
 LAB*LABa 73.15 -31.38 17.47

LAB*TChA 75.0 35.93 150.91

relative CIELAB lab*

lab*lab 0.712 -0.436 0.243

lab*tch 0.75 0.5 0.419

lab*nch 0.0 0.5 0.419

relative Natural Colour (NC)

lab*lrj 0.712 -0.478 0.144

lab*tce 0.75 0.5 0.453

lab*ncE 0.0 0.5 j81g

$n^* = 0,00$



$n^* = 0,50$

$n^* = 1,00$

$n^* = 0,25$

3 step scales for constant CIELAB hue 151/360 = 0.419 (right)

input: $olv^* setrgbcolor$
 output: Startup (S) data dependend

See for similar files: <http://www.ps.bam.de/TE16/>
 Technical information: <http://www.ps.bam.de>

Version 2.1, io=1,1?

Input: Colorimetric Reflective System MRS18a

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

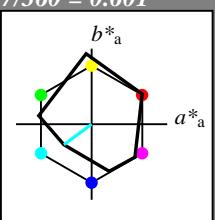
lab^*tch and lab^*nch

D65: hue G50B

LCH*Ma: 45 46 217

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



relative Inform. Technology (IT)
 olv_i3^* 1.0 1.0 1.0 (1.0)
 $cmy3^*$ 0.0 0.0 0.0 (0.0)
 olv_i4^* 1.0 1.0 1.0 1.0
 $cmy4^*$ 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^*TCh_a 99.99 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 -

relative Natural Colour (NC)

lab^*lrij 1.0 0.0 0.0
 lab^*ice 1.0 0.0 -
 lab^*nCE 0.0 0.0 -

relative Inform. Technology (IT)
 olv_i3^* 0.5 0.5 0.5 (1.0)
 $cmy3^*$ 0.5 0.5 0.5 (0.0)
 olv_i4^* 0.5 1.0 1.0 0.5
 $cmy4^*$ 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^*TCh_a 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 -

relative Natural Colour (NC)

lab^*lrij 0.5 0.0 0.0
 lab^*ice 0.5 0.0 -
 lab^*nCE 0.5 0.0 -

relative Inform. Technology (IT)
 olv_i3^* 0.0 0.0 0.0 (1.0)
 $cmy3^*$ 1.0 1.0 1.0 (0.0)
 olv_i4^* 1.0 1.0 1.0 0.0
 $cmy4^*$ 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB^*LAB 18.02 0.1 0.02
 LAB^*LABa 18.02 0.0 0.0
 LAB^*TCh_a 0.01 0.01 -

relative CIELAB lab^*

lab^*lab 0.0 0.0 0.0
 lab^*tch 0.0 0.0 -
 lab^*nch 1.0 0.0 -

relative Natural Colour (NC)

lab^*lrij 0.0 0.0 0.0
 lab^*ice 0.0 0.0 -
 lab^*nCE 1.0 0.0 -

$n^* = 1,0$

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

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

Output: Colorimetric Reflective System ORS18

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

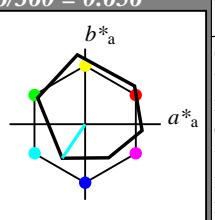
lab^*tch and lab^*nch

D65: hue C

LCH*Ma: 59 54 236

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

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

relative Inform. Technology (IT)

olv_i3^* 1.0 1.0 1.0 (1.0)

$cmy3^*$ 0.0 0.0 0.0 (0.0)

olv_i4^* 1.0 1.0 1.0 1.0

$cmy4^*$ 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB^*LAB 95.41 -0.97 4.75

LAB^*LABa 95.41 0.0 0.0

LAB^*TCh_a 99.99 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 -

relative Natural Colour (NC)

lab^*lrij 1.0 0.0 0.0

lab^*ice 1.0 0.0 -

lab^*nCE 0.0 0.0 -

relative Inform. Technology (IT)

olv_i3^* 0.5 1.0 1.0 (1.0)

$cmy3^*$ 0.5 0.0 0.0 (0.0)

olv_i4^* 0.5 1.0 1.0 1.0

$cmy4^*$ 0.5 0.0 0.0 0.5

standard and adapted CIELAB

LAB^*LAB 77.01 -15.79 -18.98

LAB^*LABa 77.01 -15.16 -22.5

LAB^*TCh_a 75.0 27.15 236.01

relative CIELAB lab^*

lab^*lab 0.762 -0.247 -0.433

lab^*tch 0.75 0.5 0.656

lab^*nch 0.0 0.5 0.656

relative Natural Colour (NC)

lab^*lrij 0.762 -0.247 -0.433

lab^*ice 0.75 0.5 0.667

lab^*nCE 0.0 0.5 g66b

relative Inform. Technology (IT)
 olv_i3^* 0.0 1.0 1.0 (1.0)
 $cmy3^*$ 0.0 0.0 0.0 (0.0)
 olv_i4^* 0.0 1.0 1.0 1.0
 $cmy4^*$ 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB^*LAB 58.62 -30.62 -42.73

LAB^*LABa 58.62 -30.34 -45.01

LAB^*TCh_a 50.0 54.29 236.01

relative CIELAB lab^*

lab^*lab 0.525 -0.558 -0.828

lab^*tch 0.5 1.0 0.656

lab^*nch 0.0 1.0 0.656

relative Natural Colour (NC)

lab^*lrij 0.525 -0.496 -0.867

lab^*ice 0.5 1.0 0.667

lab^*nCE 0.0 1.0 g66b

$n^* = 0,00$

$n^* = 0,00$

relative Inform. Technology (IT)
 olv_i3^* 0.0 0.0 0.0 (1.0)
 $cmy3^*$ 1.0 1.0 1.0 (0.0)
 olv_i4^* 1.0 1.0 1.0 0.0
 $cmy4^*$ 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB^*LAB 18.02 0.5 -0.46

LAB^*LABa 18.02 0.0 0.0

LAB^*TCh_a 0.01 0.01 -

relative CIELAB lab^*

lab^*lab 0.0 0.0 0.0

lab^*tch 0.0 0.0 -

lab^*nch 1.0 0.0 -

relative Natural Colour (NC)

lab^*lrij 0.0 0.0 0.0

lab^*ice 0.0 0.0 -

lab^*nCE 1.0 0.0 -

$n^* = 0,50$

$n^* = 0,50$

$n^* = 1,0$

$n^* = 1,0$

relative Inform. Technology (IT)
 olv_i3^* 0.0 0.0 0.0 (1.0)
 $cmy3^*$ 1.0 1.0 1.0 (0.0)
 olv_i4^* 1.0 1.0 1.0 0.0
 $cmy4^*$ 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB^*LAB 18.02 0.5 -0.46

LAB^*LABa 18.02 0.0 0.0

LAB^*TCh_a 0.01 0.01 -

relative CIELAB lab^*

lab^*lab 0.0 0.0 0.0

lab^*tch 0.0 0.0 -

lab^*nch 1.0 0.0 -

relative Natural Colour (NC)

lab^*lrij 0.0 0.0 0.0

lab^*ice 0.0 0.0 -

lab^*nCE 1.0 0.0 -

$n^* = 0,50$

$n^* = 0,50$

$n^* = 1,0$

$n^* = 1,0$

$n^* = 1,0$

TE16-7, 3 step scales for constant CIELAB hue 217/360 = 0.601 (left)

BAM-test chart TE16; Colorimetric systems ORS18 & ORS18

D65: 2 coordinate data of 3 step colour scales for 10 hues

3 step scales for constant CIELAB hue 236/360 = 0.656 (right)

input: $olv^* setrgbcolor$

output: Startup (S) data dependend

Input: Colorimetric Reflective System MRS18a

for hue $h^* = lab^*h = 290/360 = 0.807$

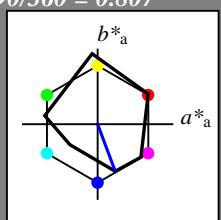
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 37 66 290

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



MRS18a; adapted (a) CIELAB data

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

relative Inform. Technology (IT)

olv3* 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*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*ncE 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 0.5

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*TChA 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 -

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*ncE 0.5 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* 1.0 1.0 1.0 0.0

cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB*LAB 18.02 0.1 0.02
 LAB*LABa 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 -

lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0
 lab*tce 0.0 0.0 -
 lab*ncE 1.0 0.0 -

$n^* = 1,0$

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

Output: Colorimetric Reflective System ORS18

for hue $h^* = lab^*h = 305/360 = 0.847$

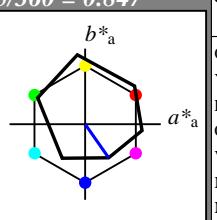
lab^*tch and lab^*nch

D65: hue V

LCH*Ma: 26 54 305

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



ORS18; adapted (a) CIELAB data

	$L^*=L_a^*$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
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

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 -0.97 4.75
 LAB*LABa 95.41 0.0 0.0
 LAB*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*ncE 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 0.5

cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB

LAB*LAB 60.56 15.24 -19.79
 LAB*LABa 60.56 15.55 -22.22
 LAB*TChA 75.0 27.11 305.0

relative CIELAB lab*

lab*lab 0.55 0.287 -0.408

lab*tch 0.75 0.5 0.847

lab*nch 0.0 0.5 0.847

relative Natural Colour (NC)

lab*lrj 0.55 0.225 -0.446
 lab*tce 0.75 0.5 0.824
 lab*ncE 0.0 0.5 b29r

relative Inform. Technology (IT)

olv3* 0.0 0.0 0.5 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)

olv4* 0.5 0.5 1.0 0.5

cmyn4* 0.5 0.5 0.0 0.5

standard and adapted CIELAB

LAB*LAB 21.87 15.98 -22.4
 LAB*LABa 21.87 15.55 -22.2
 LAB*TChA 25.01 27.11 305.0

relative CIELAB lab*

lab*lab 0.05 0.287 -0.408

lab*tch 0.25 0.5 0.847

lab*nch 0.5 0.5 0.847

relative Natural Colour (NC)

lab*lrj 0.05 0.225 -0.446
 lab*tce 0.25 0.5 0.824
 lab*ncE 0.5 0.5 b29r

relative Inform. Technology (IT)

olv3* 0.1 0.449 -0.892
 cmyn3* 0.5 1.0 0.824
 cmyn4* 0.0 1.0 0.847

relative Natural Colour (NC)

lab*lrj 0.1 0.449 -0.892
 lab*tce 0.5 1.0 0.824
 lab*ncE 0.0 1.0 b29r

$n^* = 0,00$

blackness n^*

$n^* = 0,50$

$n^* = 1,00$

chromaticness c^*

$n^* = 1,00$

$n^* = 1,0$

chromaticness c^*

TE160-7, 3 step scales for constant CIELAB hue 290/360 = 0.807 (left)

3 step scales for constant CIELAB hue 305/360 = 0.847 (right)

BAM-test chart TE16; Colorimetric systems ORS18 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$
 output: Startup (S) data dependend

Input: Colorimetric Reflective System MRS18a

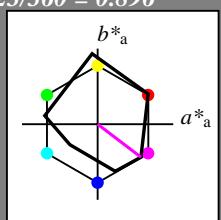
for hue $h^* = lab^*h = 323/360 = 0.896$
 lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 35 72 323

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 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*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 1.0 1.0 1.0 0.5
 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*TChA 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 -

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*ncE 0.5 0.0 -

relative Inform. Technology (IT)

olv13* 0.0 0.0 0.0 (1.0)
 cmyn3* 1.0 1.0 1.0 (0.0)

olv14* 1.0 1.0 1.0 0.0
 cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB*LAB 18.02 0.1 0.02
 LAB*LABa 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 -
 lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0
 lab*tce 0.0 0.0 -
 lab*ncE 1.0 0.0 -

$n^* = 1,0$

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

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

Output: 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

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

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

relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 1.0 1.0 1.0 1.0
 cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 95.41 -0.97 4.75
 LAB*LABa 95.41 0.0 0.0
 LAB*TChA 99.99 0.01 -

relative CIELAB lab*

lab*lab 1.0 0.0 0.0
 lab*tch 1.0 0.0 -
 lab*nch 0.0 0.0 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olv13* 0.5 0.5 0.5 (1.0)
 cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 1.0 1.0 1.0 0.5
 cmyn4* 0.0 0.0 0.0 0.5

standard and adapted CIELAB

LAB*LAB 71.77 37.1 -1.01
 LAB*LABa 71.77 37.63 -4.17
 LAB*TChA 75.0 37.86 353.66

relative CIELAB lab*

lab*lab 0.695 0.497 -0.054
 lab*tch 0.75 0.5 0.982
 lab*nch 0.0 0.5 0.982

relative Natural Colour (NC)

lab*lrj 0.695 0.454 -0.208
 lab*tce 0.75 0.5 0.932
 lab*ncE 0.0 0.5 0.672r

relative Inform. Technology (IT)

olv13* 0.5 0.0 0.5 (1.0)
 cmyn3* 0.5 1.0 0.5 (0.0)

olv14* 1.0 1.0 1.0 0.5
 cmyn4* 0.0 0.5 0.0 0.5

standard and adapted CIELAB

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

relative CIELAB lab*

lab*lab 0.219 0.795 -0.605
 lab*tch 0.5 1.0 0.896
 lab*nch 0.0 1.0 0.896

relative Natural Colour (NC)

lab*lrj 0.219 0.648 -0.761
 lab*tce 0.5 1.0 0.862
 lab*ncE 0.0 1.0 0.844r

$n^* = 0,00$

$n^* = 0,00$

blackness n^*

$c^* = 1,00$

chromaticness c^*

$n^* = 1,0$

$n^* = 1,0$

blackness n^*

$c^* = 1,00$

chromaticness c^*

See for similar files: <http://www.ps.bam.de/TE16/>

Technical information: <http://www.ps.bam.de>

Version 2.1, io=1,1?

TE160-7, 3 step scales for constant CIELAB hue 323/360 = 0.896 (left)

3 step scales for constant CIELAB hue 354/360 = 0.982 (right)

input: $olv^* setrgbcolor$

output: Startup (S) data dependend

See for similar files: <http://www.ps.bam.de/TE16/>
 Technical information: <http://www.ps.bam.de>

Version 2.1, io=1,1?

Input: Colorimetric Reflective System MRS18a

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

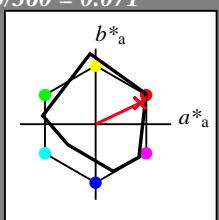
lab*tch and lab*nch

D65: hue R

LCH*Ma: 48 73 25

olv*Ma: 1.0 0.0 0.1

triangle lightness t^*



relative Inform. Technology (IT)
 olvi3* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)
 olvi4* 1.0 1.0 1.0 1.0
 cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 95.41 0.01 0.0
 LAB*LABa 95.41 0.0 0.0
 LAB*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
 lab*tce 1.0 0.0 -
 lab*ncE 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 0.5
 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*TChA 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 -

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0
 lab*tce 0.5 0.0 -
 lab*ncE 0.5 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 0.0
 cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB*LAB 18.02 0.1 0.02
 LAB*LABa 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 -
 lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0
 lab*tce 0.0 0.0 -
 lab*ncE 1.0 0.0 -

$n^* = 1,0$

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

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

Output: Colorimetric Reflective System ORS18

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

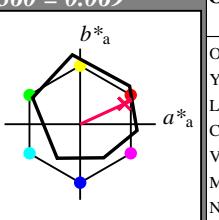
lab*tch and lab*nch

D65: hue R

LCH*Ma: 48 75 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

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

$n^* = 0,00$

blackness n^*

0,25 0,50 $n^* = 0,50$ 0,75 1,00

chromaticness c^*

$n^* = 1,0$

blackness n^*

0,25 0,50 $n^* = 0,50$ 0,75 1,00

chromaticness c^*

TE160-7, 3 step scales for constant CIELAB hue 25/360 = 0.071 (left)

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

BAM-test chart TE16; Colorimetric systems ORS18 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

input: olv* setrgbcolor
 output: Startup (S) data dependend

Input: Colorimetric Reflective System MRS18a

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

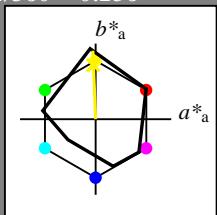
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 89 91 92

olv*Ma: 1.0 0.95 0.0

triangle lightness t^*



relative Inform. Technology (IT)
 olv^3* 1.0 1.0 1.0 (1.0)
 cmy^3* 0.0 0.0 0.0 (0.0)
 olv^4* 1.0 1.0 1.0 1.0
 cmy^4* 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^*TChA 99.99 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 -

relative Natural Colour (NC)

lab^*lrij 1.0 0.0 0.0
 lab^*tce 1.0 0.0 -
 lab^*nCE 0.0 0.0 -

relative Inform. Technology (IT)
 olv^3* 0.5 0.5 0.5 (1.0)
 cmy^3* 0.5 0.5 0.5 (0.0)
 olv^4* 1.0 1.0 1.0 0.5
 cmy^4* 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^*TChA 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 -

relative Natural Colour (NC)

lab^*lrij 0.5 0.0 0.0
 lab^*tce 0.5 0.0 -
 lab^*nCE 0.5 0.0 -

relative Inform. Technology (IT)
 olv^3* 0.0 0.0 0.0 (1.0)
 cmy^3* 1.0 1.0 1.0 (0.0)
 olv^4* 1.0 1.0 1.0 0.0
 cmy^4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB^*LAB 18.02 0.1 0.02
 LAB^*LABa 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 -
 lab^*nch 1.0 0.0 -

relative Natural Colour (NC)

lab^*lrij 0.0 0.0 0.0
 lab^*tce 0.0 0.0 -
 lab^*nCE 1.0 0.0 -

$n^* = 1,0$

MRS18a; adapted (a) CIELAB data

	L^*	a^*	b^*	$C^*_{ab,a}$	$h^*_{ab,a}$
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
B050Ma	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

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

Output: Colorimetric Reflective System ORS18

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

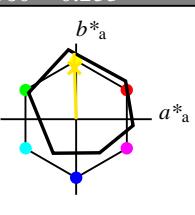
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 86 88 92

olv*Ma: 1.0 0.9 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

ORS18; adapted (a) CIELAB data

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

$n^* = 0,00$

blackness n^*

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

chromaticness c^*

$n^* = 1,0$

blackness n^*

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

chromaticness c^*

TE160-7, 3 step scales for constant CIELAB hue 92/360 = 0.256 (left)

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

BAM-test chart TE16; Colorimetric systems ORS18 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$
 output: Startup (S) data dependend

See for similar files: <http://www.ps.bam.de/TE16/>
 Technical information: <http://www.ps.bam.de>

Version 2.1, io=1,1?

Input: Colorimetric Reflective System MRS18a

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

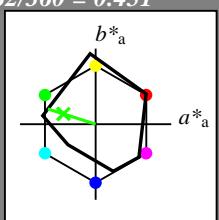
lab*tch and lab*nch

D65: hue G

LCH*Ma: 56 66 162

olv*Ma: 0.11 1.0 0.0

triangle lightness t^*



relative Inform. Technology (IT)
 olvi3* 1.0 1.0 1.0 (1.0)
 cmyn3* 0.0 0.0 0.0 (0.0)
 olvi4* 1.0 1.0 1.0 1.0
 cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB
 LAB*LAB 95.41 0.01 0.0
 LAB*LABa 95.41 0.0 0.0
 LAB*TChA 99.99 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 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0

lab*tce 1.0 0.0 -

lab*ncE 0.0 0.0 -

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 -31.54 10.09

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

relative Natural Colour (NC)

lab*lrj 0.747 -0.499 0.0

lab*tce 0.75 0.5 0.5

lab*ncE 0.0 0.5 0.5

standard and adapted CIELAB

LAB*LAB 56.71 0.05 0.0

LAB*LABa 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 -

lab*nch 0.5 0.0 -

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0

lab*tce 0.5 0.0 -

lab*ncE 0.5 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 0.0
 cmyn4* 0.0 0.0 0.0 1.0

standard and adapted CIELAB

LAB*LAB 18.02 0.1 0.02

LAB*LABa 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 -

lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0

lab*tce 0.0 0.0 -

lab*ncE 1.0 0.0 -

$n^* = 1,0$

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

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

Output: Colorimetric Reflective System ORS18

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

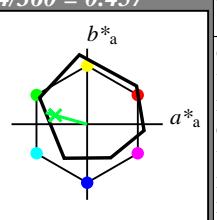
lab*tch and lab*nch

D65: hue G

LCH*Ma: 53 57 164

olv*Ma: 0.0 1.0 0.25

triangle lightness t^*



%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

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

relative Inform. Technology (IT)

olvi3* 1.0 1.0 1.0 (1.0)

cmyn3* 0.0 0.0 0.0 (0.0)

olvi4* 1.0 1.0 1.0 1.0

cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 95.41 -0.97 4.75

LAB*LABa 95.41 0.0 0.0

LAB*TChA 99.99 0.01 -

relative CIELAB lab*

lab*lab 1.0 0.0 0.0

lab*tch 1.0 0.0 -

lab*nch 0.0 0.0 -

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0

lab*tce 1.0 0.0 -

lab*ncE 0.0 0.0 -

relative Inform. Technology (IT)

olvi3* 0.5 1.0 0.623 (1.0)

cmyn3* 0.5 0.0 0.377 (0.0)

olvi4* 0.5 1.0 0.623 1.0

cmyn4* 0.5 0.0 0.377 0.0

standard and adapted CIELAB

LAB*LAB 74.1 -27.96 10.94

LAB*LABa 74.1 -27.39 7.62

LAB*TChA 75.0 28.44 164.46

relative CIELAB lab*

lab*lab 0.725 -0.481 0.134

lab*tch 0.75 0.5 0.457

lab*nch 0.0 0.5 0.457

relative Natural Colour (NC)

lab*lrj 0.725 -0.499 0.0

lab*tce 0.75 0.5 0.5

lab*ncE 0.0 0.5 g00b

relative Inform. Technology (IT)

olvi3* 0.0 0.5 0.123 (1.0)

cmyn3* 1.0 0.5 0.877 (0.0)

olvi4* 1.0 1.0 0.623 0.5

cmyn4* 0.5 0.0 0.377 0.5

standard and adapted CIELAB

LAB*LAB 18.02 0.5 -0.46

LAB*LABa 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 -

lab*nch 1.0 0.0 -

relative Natural Colour (NC)

lab*lrj 0.0 0.0 0.0

lab*tce 0.0 0.0 -

lab*ncE 1.0 0.0 -

$n^* = 0,00$

blackness n^*

chromaticness c^*

$n^* = 1,0$

$n^* = 1,0$

$n^* = 1,0$

blackness n^*

chromaticness c^*

TE160-7, 3 step scales for constant CIELAB hue 162/360 = 0.451 (left)

BAM-test chart TE16; Colorimetric systems ORS18 & ORS18
 D65: 2 coordinate data of 3 step colour scales for 10 hues
 input: $olv^* setrgbcolor$
 output: Startup (S) data dependend

