

**Input: Colorimetric Reflective System ORS18**

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

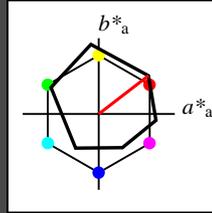
$lab^*tch$  and  $lab^*nch$

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

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

**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	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	-0.23	2.14
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	0.5	-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	-

$n^* = 1.0$

**relative Inform. Technology (IT)**

olvi3*	1.0	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	0.5	0.5	1.0
cmyn4*	0.0	0.5	0.5	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)**

olvi3*	0.5	0.0	0.0	(1.0)
cmyn3*	0.5	1.0	1.0	(0.0)
olvi4*	1.0	0.5	0.5	0.5
cmyn4*	0.0	0.5	0.5	0.5

**standard and adapted CIELAB**

LAB*LAB	32.98	32.9	25.8
LAB*LABa	32.98	32.68	25.25
LAB*TCHa	25.01	41.3	37.7

**relative CIELAB lab\***

lab*lab	0.193	0.396	0.306
lab*tch	0.25	0.5	0.105
lab*nch	0.5	0.5	0.105

**relative Natural Colour (NC)**

lab*lrj	0.193	0.477	0.15
lab*tce	0.25	0.5	0.048
lab*nce	0.5	0.5	r19j

$n^* = 0.00$

blackness  $n^*$



**Output: Colorimetric Reflective System MRS18a**

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

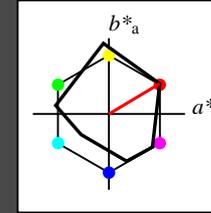
$lab^*tch$  and  $lab^*nch$

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

%Gamut

$u^*_{rel} = 92$

%Regularity

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

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

**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*	1.0	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	0.5	0.5	1.0
cmyn4*	0.0	0.5	0.5	0.0

**standard and adapted CIELAB**

LAB*LAB	72.52	33.43	20.01
LAB*LABa	72.52	33.39	20.01
LAB*TCHa	75.0	38.93	30.93

**relative CIELAB lab\***

lab*lab	0.704	0.429	0.257
lab*tch	0.75	0.5	0.086
lab*nch	0.0	0.5	0.086

**relative Natural Colour (NC)**

lab*lrj	0.704	0.496	0.064
lab*tce	0.75	0.5	0.02
lab*nce	0.0	0.5	r08j

**relative Inform. Technology (IT)**

olvi3*	0.5	0.0	0.0	(1.0)
cmyn3*	0.5	1.0	1.0	(0.0)
olvi4*	1.0	0.5	0.5	0.5
cmyn4*	0.0	0.5	0.5	0.5

**standard and adapted CIELAB**

LAB*LAB	33.82	33.47	20.03
LAB*LABa	33.82	33.39	20.01
LAB*TCHa	25.01	38.93	30.93

**relative CIELAB lab\***

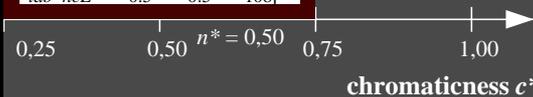
lab*lab	0.204	0.429	0.257
lab*tch	0.25	0.5	0.086
lab*nch	0.5	0.5	0.086

**relative Natural Colour (NC)**

lab*lrj	0.204	0.496	0.064
lab*tce	0.25	0.5	0.02
lab*nce	0.5	0.5	r08j

$n^* = 0.00$

blackness  $n^*$

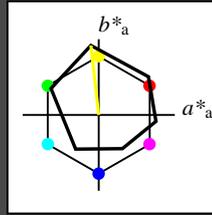


$n^* = 1.0$

**Input: 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  $t^*$



**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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

**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\* 1.0 1.0 0.5 (1.0)  
 cmyn3\* 0.0 0.0 0.5 (0.0)  
 olvi4\* 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 -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 -0.055 0.497  
 lab\*tch 0.75 0.5 0.268  
 lab\*nch 0.0 0.5 0.268

**relative Natural Colour (NC)**  
 lab\*lrj 0.967 -0.048 0.497  
 lab\*tce 0.75 0.5 0.266  
 lab\*nce 0.0 0.5 j06g

**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 -0.23 2.14  
 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\* 0.5 0.5 0.0 (1.0)  
 cmyn3\* 0.5 0.5 1.0 (0.0)  
 olvi4\* 1.0 1.0 0.5 0.5  
 cmyn4\* 0.0 0.0 0.5 0.5

**standard and adapted CIELAB**  
 LAB\*LAB 54.19 -5.32 47.85  
 LAB\*LABa 54.19 -5.13 45.87  
 LAB\*TCHa 25.01 46.16 96.39

**relative CIELAB lab\***  
 lab\*lab 0.467 -0.055 0.497  
 lab\*tch 0.25 0.5 0.268  
 lab\*nch 0.5 0.5 0.268

**relative Natural Colour (NC)**  
 lab\*lrj 0.467 -0.048 0.497  
 lab\*tce 0.25 0.5 0.266  
 lab\*nce 0.5 0.5 j06g

**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 0.5 -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 -

$n^* = 1.0$

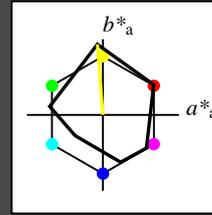


chromaticness  $c^*$

**Output: 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  $t^*$



**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  
 $g^*_{H,rel} = 42$   
 $g^*_{C,rel} = 49$

**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\* 1.0 1.0 0.5 (1.0)  
 cmyn3\* 0.0 0.0 0.5 (0.0)  
 olvi4\* 1.0 1.0 0.5 1.0  
 cmyn4\* 0.0 0.0 0.5 0.0

**standard and adapted CIELAB**  
 LAB\*LAB 93.05 -3.61 46.59  
 LAB\*LABa 93.05 -3.63 46.59  
 LAB\*TCHa 75.0 46.73 94.46

**relative CIELAB lab\***  
 lab\*lab 0.969 -0.038 0.498  
 lab\*tch 0.75 0.5 0.262  
 lab\*nch 0.0 0.5 0.262

**relative Natural Colour (NC)**  
 lab\*lrj 0.969 -0.023 0.499  
 lab\*tce 0.75 0.5 0.258  
 lab\*nce 0.0 0.5 j03g

**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\* 0.5 0.5 0.0 (1.0)  
 cmyn3\* 0.5 0.5 1.0 (0.0)  
 olvi4\* 1.0 1.0 0.5 0.5  
 cmyn4\* 0.0 0.0 0.5 0.5

**standard and adapted CIELAB**  
 LAB\*LAB 54.35 -3.57 46.6  
 LAB\*LABa 54.35 -3.63 46.59  
 LAB\*TCHa 25.01 46.73 94.46

**relative CIELAB lab\***  
 lab\*lab 0.47 -0.038 0.498  
 lab\*tch 0.25 0.5 0.262  
 lab\*nch 0.5 0.5 0.262

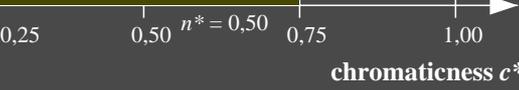
**relative Natural Colour (NC)**  
 lab\*lrj 0.47 -0.023 0.499  
 lab\*tce 0.25 0.5 0.258  
 lab\*nce 0.5 0.5 j03g

**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 -



chromaticness  $c^*$

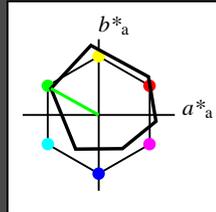
$n^* = 1.0$

**Input: 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  $t^*$



**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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

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

**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)**  
 $olv^*3^* 0.5 0.5 0.5 (1.0)$   
 $cmyn^*3^* 0.5 0.5 0.5 (0.0)$   
 $olv^*4^* 1.0 1.0 1.0 0.5$   
 $cmyn^*4^* 0.0 0.0 0.0 0.5$

**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\***  
 $lab^*lab 0.5 0.0 0.0$   
 $lab^*tch 0.5 0.0 -$   
 $lab^*nch 0.5 0.0 -$

**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)**  
 $olv^*3^* 0.0 0.0 0.0 (1.0)$   
 $cmyn^*3^* 1.0 1.0 1.0 (0.0)$   
 $olv^*4^* 1.0 1.0 1.0 0.0$   
 $cmyn^*4^* 0.0 0.0 0.0 1.0$

**standard and adapted CIELAB**  
 $LAB^*LAB 18.02 0.5 -0.46$   
 $LAB^*LABa 18.02 0.0 0.0$   
 $LAB^*TCHa 18.01 0.01 -$

**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)**  
 $lab^*lrj 0.0 0.0 0.0$   
 $lab^*tce 0.0 0.0 -$   
 $lab^*nce 1.0 0.0 -$

$n^* = 1.0$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.5 1.0 0.5 (1.0)$   
 $cmyn^*3^* 0.5 0.0 0.5 (0.0)$   
 $olv^*4^* 0.5 1.0 0.5 1.0$   
 $cmyn^*4^* 0.5 0.0 0.5 0.0$

**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)**  
 $lab^*lrj 0.712 -0.478 0.144$   
 $lab^*tce 0.75 0.5 0.453$   
 $lab^*nce 0.0 0.5 0.419$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.0 0.5 0.0 (1.0)$   
 $cmyn^*3^* 1.0 0.5 1.0 (0.0)$   
 $olv^*4^* 0.5 1.0 0.5 0.5$   
 $cmyn^*4^* 0.5 0.0 0.5 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB 34.46 -31.2 18.11$   
 $LAB^*LABa 34.46 -31.38 17.47$   
 $LAB^*TCHa 25.01 35.93 150.91$

**relative CIELAB lab\***  
 $lab^*lab 0.213 -0.436 0.243$   
 $lab^*tch 0.25 0.5 0.419$   
 $lab^*nch 0.5 0.5 0.419$

**relative Natural Colour (NC)**  
 $lab^*lrj 0.213 -0.478 0.144$   
 $lab^*tce 0.25 0.5 0.453$   
 $lab^*nce 0.5 0.5 0.419$

$n^* = 0.00$

blackness  $n^*$

chromaticness  $c^*$

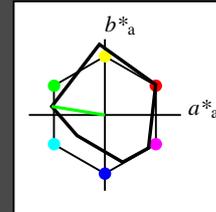
$n^* = 0.50$

**Output: 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  $t^*$



**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  
 $g^*_{H,rel} = 42$   
 $g^*_{C,rel} = 49$

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

**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)**  
 $lab^*lrj 1.0 0.0 0.0$   
 $lab^*tce 1.0 0.0 -$   
 $lab^*nce 0.0 0.0 -$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.5 0.5 0.5 (1.0)$   
 $cmyn^*3^* 0.5 0.5 0.5 (0.0)$   
 $olv^*4^* 1.0 1.0 1.0 0.5$   
 $cmyn^*4^* 0.0 0.0 0.0 0.5$

**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)**  
 $lab^*lrj 0.5 0.0 0.0$   
 $lab^*tce 0.5 0.0 -$   
 $lab^*nce 0.5 0.0 -$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.5 1.0 0.5 (1.0)$   
 $cmyn^*3^* 0.5 0.0 0.5 (0.0)$   
 $olv^*4^* 0.5 1.0 0.5 1.0$   
 $cmyn^*4^* 0.5 0.0 0.5 0.0$

**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)**  
 $lab^*lrj 0.72 -0.495 -0.06$   
 $lab^*tce 0.75 0.5 0.52$   
 $lab^*nce 0.0 0.5 0.475$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.0 0.5 0.0 (1.0)$   
 $cmyn^*3^* 1.0 0.5 1.0 (0.0)$   
 $olv^*4^* 0.5 1.0 0.5 0.5$   
 $cmyn^*4^* 0.5 0.0 0.5 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB 35.06 -34.88 5.65$   
 $LAB^*LABa 35.06 -34.96 5.63$   
 $LAB^*TCHa 25.01 35.42 170.85$

**relative CIELAB lab\***  
 $lab^*lab 0.22 -0.493 0.079$   
 $lab^*tch 0.25 0.5 0.475$   
 $lab^*nch 0.5 0.5 0.475$

**relative Natural Colour (NC)**  
 $lab^*lrj 0.22 -0.495 -0.06$   
 $lab^*tce 0.25 0.5 0.52$   
 $lab^*nce 0.5 0.5 0.475$

$n^* = 0.00$

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0.50$

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

**standard and adapted CIELAB**  
 $LAB^*LAB 18.02 0.1 0.02$   
 $LAB^*LABa 18.02 0.0 0.0$   
 $LAB^*TCHa 18.01 0.01 -$

**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)**  
 $lab^*lrj 0.0 0.0 0.0$   
 $lab^*tce 0.0 0.0 -$   
 $lab^*nce 1.0 0.0 -$

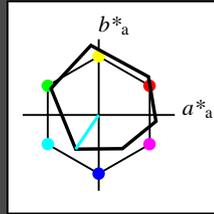
$n^* = 1.0$

**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  
 olv\*Ma: 0.0 1.0 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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

**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 1.0 (1.0)  
 cmyn3\* 0.5 0.0 0.0 (0.0)  
 olvi4\* 0.5 1.0 1.0 1.0  
 cmyn4\* 0.5 0.0 0.0 0.0

**standard and adapted CIELAB**  
 LAB\*LAB 77.01 -15.79 -18.98  
 LAB\*LABa 77.01 -15.16 -22.5  
 LAB\*TCHa 75.0 27.15 236.01

**relative CIELAB lab\***  
 lab\*lab 0.762 -0.278 -0.413  
 lab\*tch 0.75 0.5 0.656  
 lab\*nch 0.0 0.5 0.656

**relative Natural Colour (NC)**  
 lab\*lrj 0.762 -0.247 -0.433  
 lab\*tce 0.75 0.5 0.667  
 lab\*nce 0.0 0.5 g66b

**relative Inform. Technology (IT)**  
 olvi3\* 0.0 1.0 1.0 (1.0)  
 cmyn3\* 1.0 0.0 0.0 (0.0)  
 olvi4\* 0.0 1.0 1.0 0.5  
 cmyn4\* 1.0 0.0 0.0 0.5

**standard and adapted CIELAB**  
 LAB\*LAB 58.62 -30.62 -42.73  
 LAB\*LABa 58.62 -30.34 -45.01  
 LAB\*TCHa 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\*lrj 0.525 -0.496 -0.867  
 lab\*tce 0.5 1.0 0.667  
 lab\*nce 0.0 1.0 g66b

**relative Inform. Technology (IT)**  
 olvi3\* 0.0 0.5 0.5 (1.0)  
 cmyn3\* 1.0 0.5 0.5 (0.0)  
 olvi4\* 0.5 1.0 1.0 0.5  
 cmyn4\* 0.5 0.0 0.0 0.5

**standard and adapted CIELAB**  
 LAB\*LAB 38.32 -15.05 -21.59  
 LAB\*LABa 38.32 -15.16 -22.5  
 LAB\*TCHa 25.01 27.15 236.01

**relative CIELAB lab\***  
 lab\*lab 0.262 -0.278 -0.413  
 lab\*tch 0.25 0.5 0.656  
 lab\*nch 0.5 0.5 0.656

**relative Natural Colour (NC)**  
 lab\*lrj 0.262 -0.247 -0.433  
 lab\*tce 0.25 0.5 0.667  
 lab\*nce 0.5 0.5 g66b

**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 0.5 -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 -

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

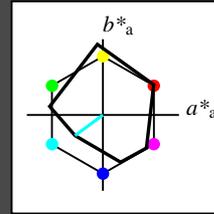
**relative Natural Colour (NC)**  
 lab\*lrj 0.0 0.0 0.0  
 lab\*tce 0.0 0.0 -  
 lab\*nce 1.0 0.0 -

**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  
 olv\*Ma: 0.0 1.0 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

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

**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 1.0 1.0 (1.0)  
 cmyn3\* 0.5 0.0 0.0 (0.0)  
 olvi4\* 0.5 1.0 1.0 1.0  
 cmyn4\* 0.5 0.0 0.0 0.0

**standard and adapted CIELAB**  
 LAB\*LAB 70.21 -18.28 -13.55  
 LAB\*LABa 70.21 -18.31 -13.56  
 LAB\*TCHa 75.0 22.8 216.52

**relative CIELAB lab\***  
 lab\*lab 0.674 -0.401 -0.296  
 lab\*tch 0.75 0.5 0.601  
 lab\*nch 0.0 0.5 0.601

**relative Natural Colour (NC)**  
 lab\*lrj 0.674 -0.355 -0.35  
 lab\*tce 0.75 0.5 0.624  
 lab\*nce 0.0 0.5 g49b

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

**standard and adapted CIELAB**  
 LAB\*LAB 45.03 -36.57 -27.11  
 LAB\*LABa 45.03 -36.64 -27.13  
 LAB\*TCHa 50.0 45.6 216.52

**relative CIELAB lab\***  
 lab\*lab 0.349 -0.803 -0.594  
 lab\*tch 0.5 1.0 0.601  
 lab\*nch 0.0 1.0 0.601

**relative Natural Colour (NC)**  
 lab\*lrj 0.349 -0.71 -0.702  
 lab\*tce 0.5 1.0 0.624  
 lab\*nce 0.0 1.0 g49b

**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 0.5 0.5 (1.0)  
 cmyn3\* 1.0 0.5 0.5 (0.0)  
 olvi4\* 0.5 1.0 1.0 0.5  
 cmyn4\* 0.5 0.0 0.0 0.5

**standard and adapted CIELAB**  
 LAB\*LAB 31.52 -18.23 -13.53  
 LAB\*LABa 31.52 -18.31 -13.56  
 LAB\*TCHa 25.01 22.8 216.52

**relative CIELAB lab\***  
 lab\*lab 0.175 -0.401 -0.296  
 lab\*tch 0.25 0.5 0.601  
 lab\*nch 0.5 0.5 0.601

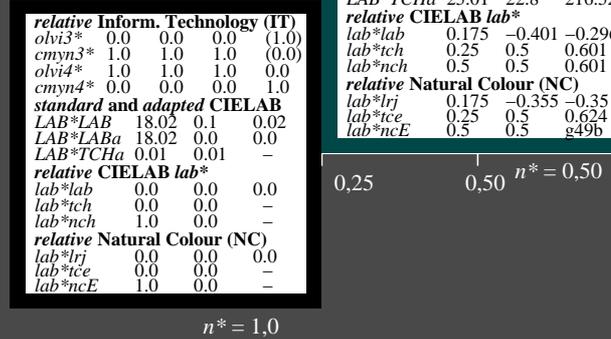
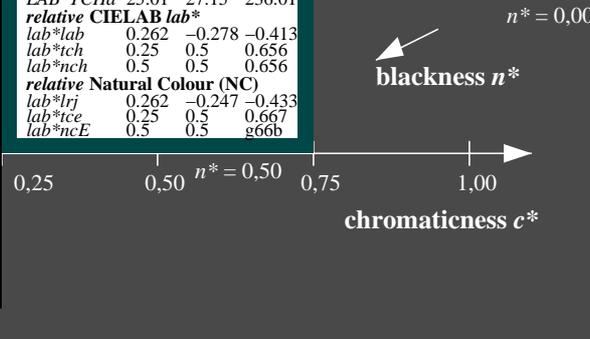
**relative Natural Colour (NC)**  
 lab\*lrj 0.175 -0.355 -0.35  
 lab\*tce 0.25 0.5 0.624  
 lab\*nce 0.5 0.5 g49b

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



UE110-7, 3 step scales for constant CIELAB hue 236/360 = 0.656 (left)

3 step scales for constant CIELAB hue 217/360 = 0.601 (right)

BAM-test chart UE11; Colorimetric systems ORS18 & MRS18a input: *cmY0\** setcmYcolor

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

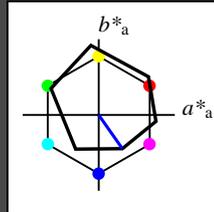
output: *olv\** setrgbcolor / *w\** setgray

**Input: 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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

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

**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)**  
 $olv^*3^* 0.5 0.5 1.0 (1.0)$   
 $cmyn^*3^* 0.5 0.5 0.0 (0.0)$   
 $olv^*4^* 0.5 0.5 1.0 1.0$   
 $cmyn^*4^* 0.5 0.5 0.0 0.0$

**standard and adapted CIELAB**  
 $LAB^*LAB 60.56 15.24 -19.79$   
 $LAB^*LABa 60.56 15.55 -22.2$   
 $LAB^*TCHa 75.0 27.11 305.0$

**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)**  
 $olv^*3^* 0.0 0.0 1.0 (1.0)$   
 $cmyn^*3^* 1.0 1.0 0.0 (0.0)$   
 $olv^*4^* 0.0 0.0 1.0 1.0$   
 $cmyn^*4^* 1.0 1.0 0.0 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB 25.72 31.46 -44.36$   
 $LAB^*LABa 25.72 31.1 -44.41$   
 $LAB^*TCHa 50.0 54.23 305.0$

**relative CIELAB lab\***  
 $lab^*lab 0.1 0.573 -0.818$   
 $lab^*tch 0.5 1.0 0.847$   
 $lab^*nch 0.0 1.0 0.847$

**relative Natural Colour (NC)**  
 $lab^*lrj 0.1 0.449 -0.892$   
 $lab^*tce 0.5 1.0 0.824$   
 $lab^*nce 0.0 1.0 b29r$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.0 0.0 0.5 (1.0)$   
 $cmyn^*3^* 1.0 1.0 0.5 (0.0)$   
 $olv^*4^* 0.5 0.5 1.0 0.5$   
 $cmyn^*4^* 0.5 0.5 0.0 0.5$

**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)**  
 $olv^*3^* 0.0 0.0 0.0 (1.0)$   
 $cmyn^*3^* 1.0 1.0 0.0 (0.0)$   
 $olv^*4^* 1.0 1.0 1.0 0.0$   
 $cmyn^*4^* 0.0 0.0 0.0 1.0$

**standard and adapted CIELAB**  
 $LAB^*LAB 18.02 0.1 0.02$   
 $LAB^*LABa 18.02 0.0 0.0$   
 $LAB^*TCHa 18.01 0.01 -$

**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)**  
 $lab^*lrj 0.0 0.0 0.0$   
 $lab^*tce 0.0 0.0 -$   
 $lab^*nce 1.0 0.0 -$

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

**standard and adapted CIELAB**  
 $LAB^*LAB 18.02 0.5 -0.46$   
 $LAB^*LABa 18.02 0.0 0.0$   
 $LAB^*TCHa 18.01 0.01 -$

**relative CIELAB lab\***  
 $lab^*lab 0.0 0.0 0.0$   
 $lab^*tch 0.0 0.0 -$   
 $lab^*nch 1.0 0.0 -$

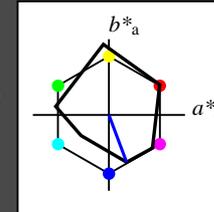
**relative Natural Colour (NC)**  
 $lab^*lrj 0.0 0.0 0.0$   
 $lab^*tce 0.0 0.0 -$   
 $lab^*nce 1.0 0.0 -$

**Output: 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

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

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

**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)**  
 $lab^*lrj 1.0 0.0 0.0$   
 $lab^*tce 1.0 0.0 -$   
 $lab^*nce 0.0 0.0 -$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.5 0.5 1.0 (1.0)$   
 $cmyn^*3^* 0.5 0.5 0.0 (0.0)$   
 $olv^*4^* 0.5 0.5 1.0 1.0$   
 $cmyn^*4^* 0.5 0.5 0.0 0.0$

**standard and adapted CIELAB**  
 $LAB^*LAB 66.03 11.67 -31.12$   
 $LAB^*LABa 66.03 11.63 -31.13$   
 $LAB^*TCHa 75.0 33.24 290.48$

**relative CIELAB lab\***  
 $lab^*lab 0.62 0.175 -0.467$   
 $lab^*tch 0.75 0.5 0.807$   
 $lab^*nch 0.0 0.5 0.807$

**relative Natural Colour (NC)**  
 $lab^*lrj 0.62 0.128 -0.482$   
 $lab^*tce 0.75 0.5 0.791$   
 $lab^*nce 0.0 0.5 b16r$

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

**standard and adapted CIELAB**  
 $LAB^*LAB 36.65 23.33 -62.24$   
 $LAB^*LABa 36.65 23.25 -62.26$   
 $LAB^*TCHa 50.0 66.47 290.48$

**relative CIELAB lab\***  
 $lab^*lab 0.241 0.35 -0.936$   
 $lab^*tch 0.5 1.0 0.807$   
 $lab^*nch 0.0 1.0 0.807$

**relative Natural Colour (NC)**  
 $lab^*lrj 0.241 0.257 -0.965$   
 $lab^*tce 0.5 1.0 0.791$   
 $lab^*nce 0.0 1.0 b16r$

**relative Inform. Technology (IT)**  
 $olv^*3^* 0.0 0.0 0.5 (1.0)$   
 $cmyn^*3^* 1.0 1.0 0.5 (0.0)$   
 $olv^*4^* 0.5 0.5 1.0 0.5$   
 $cmyn^*4^* 0.5 0.5 0.0 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB 27.34 11.71 -31.1$   
 $LAB^*LABa 27.34 11.63 -31.13$   
 $LAB^*TCHa 25.01 33.24 290.48$

**relative CIELAB lab\***  
 $lab^*lab 0.12 0.175 -0.467$   
 $lab^*tch 0.25 0.5 0.807$   
 $lab^*nch 0.5 0.5 0.807$

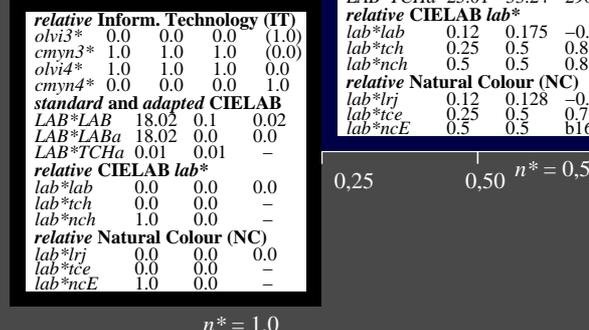
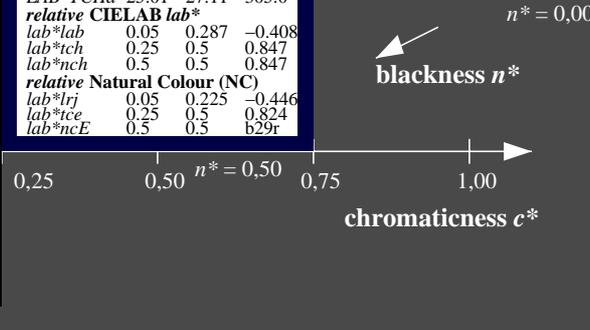
**relative Natural Colour (NC)**  
 $lab^*lrj 0.12 0.128 -0.482$   
 $lab^*tce 0.25 0.5 0.791$   
 $lab^*nce 0.5 0.5 b16r$

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

**standard and adapted CIELAB**  
 $LAB^*LAB 18.02 0.1 0.02$   
 $LAB^*LABa 18.02 0.0 0.0$   
 $LAB^*TCHa 18.01 0.01 -$

**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)**  
 $lab^*lrj 0.0 0.0 0.0$   
 $lab^*tce 0.0 0.0 -$   
 $lab^*nce 1.0 0.0 -$



UE110-7, 3 step scales for constant CIELAB hue 305/360 = 0.847 (left)

3 step scales for constant CIELAB hue 290/360 = 0.807 (right)

BAM-test chart UE11; Colorimetric systems ORS18 & MRS18a input:  $cm^*0^*$  setcmkcolor

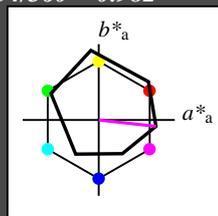
D65: 2 coordinate data of 3 step colour scales for 10 hues

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

**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  
 olv\*Ma: 1.0 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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

**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*	1.0	0.5	1.0	(1.0)
cmyn3*	0.0	0.5	0.0	(0.0)
olvi4*	1.0	0.5	1.0	1.0
cmyn4*	0.0	0.5	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	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	0.72r

**relative Inform. Technology (IT)**

olvi3*	0.5	0.0	0.5	(1.0)
cmyn3*	0.5	1.0	0.5	(0.0)
olvi4*	1.0	0.5	1.0	0.5
cmyn4*	0.0	0.5	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	33.08	37.84	-3.62
LAB*LABa	33.08	37.63	-4.17
LAB*TCHa	25.01	37.86	353.66

**relative CIELAB lab\***

lab*lab	0.195	0.497	-0.054
lab*tch	0.25	0.5	0.982
lab*nch	0.5	0.5	0.982

**relative Natural Colour (NC)**

lab*lrj	0.195	0.454	-0.208
lab*tce	0.25	0.5	0.932
lab*nce	0.5	0.5	0.72r

**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	0.5	-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)**

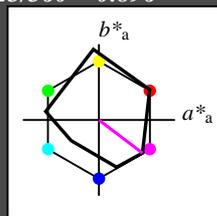
lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-



**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  
 olv\*Ma: 1.0 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

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

**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*	1.0	0.5	1.0	(1.0)
cmyn3*	0.0	0.5	0.0	(0.0)
olvi4*	1.0	0.5	1.0	1.0
cmyn4*	0.0	0.5	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	65.17	28.68	-21.78
LAB*LABa	65.17	28.63	-21.79
LAB*TCHa	75.0	35.99	322.71

**relative CIELAB lab\***

lab*lab	0.609	0.398	-0.302
lab*tch	0.75	0.5	0.896
lab*nch	0.0	0.5	0.896

**relative Natural Colour (NC)**

lab*lrj	0.609	0.324	-0.38
lab*tce	0.75	0.5	0.862
lab*nce	0.0	0.5	0.844r

**relative Inform. Technology (IT)**

olvi3*	0.5	0.0	0.5	(1.0)
cmyn3*	0.5	1.0	0.5	(0.0)
olvi4*	1.0	0.5	1.0	0.5
cmyn4*	0.0	0.5	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	26.48	28.72	-21.77
LAB*LABa	26.48	28.63	-21.79
LAB*TCHa	25.01	35.99	322.71

**relative CIELAB lab\***

lab*lab	0.109	0.398	-0.302
lab*tch	0.25	0.5	0.896
lab*nch	0.5	0.5	0.896

**relative Natural Colour (NC)**

lab*lrj	0.109	0.324	-0.38
lab*tce	0.25	0.5	0.862
lab*nce	0.5	0.5	0.844r

**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	-



See for similar files: <http://www.ps.bam.de/UE11/>  
 Technical information: <http://www.ps.bam.de>  
 Version 2.1, io=0,1, CIEXYZ

BAM registration: 20060101-UE11/10S/S11E05FP.PS/.PDF BAM material: code=rh4da  
 application for evaluation and measurement of printer or monitor systems, Yr=2.5, XYZ  
 /UE11/ Form 6/10, Serie: 1/1, Page: 6 Page count: 6

UE110-7, 3 step scales for constant CIELAB hue 354/360 = 0.982 (left)

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

BAM-test chart UE11; Colorimetric systems ORS18 & MRS18a input:  $cmv0^* setcmvcolor$

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

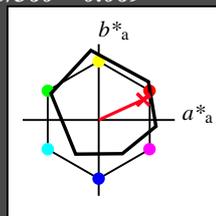
output:  $olv^* setrgbcolor / w^* setgray$

**Input: 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  $t^*$



**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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

**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 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 0.5 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 0.5 -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 -

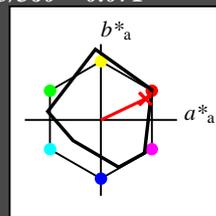
$n^* = 1.0$

**Output: 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  $t^*$



**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
G50RMa	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  
 $g^*_{H,rel} = 42$   
 $g^*_{C,rel} = 49$

**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 0.01 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 -

$n^* = 1.0$

**relative Inform. Technology (IT)**  
 olv3\* 1.0 0.5 0.661 (1.0)  
 cmyn3\* 0.0 0.5 0.339 (0.0)  
 olv4\* 1.0 0.5 0.661 1.0  
 cmyn4\* 0.0 0.5 0.339 0.0

**standard and adapted CIELAB**  
 LAB\*LAB 71.7 33.75 18.92  
 LAB\*LABa 71.7 34.27 15.76  
 LAB\*TCHa 75.0 37.72 24.69

**relative CIELAB lab\***  
 lab\*lab 0.694 0.454 0.209  
 lab\*tch 0.75 0.5 0.069  
 lab\*nch 0.0 0.5 0.069

**relative Natural Colour (NC)**  
 lab\*lrj 0.694 0.5 0.0  
 lab\*tce 0.75 0.5 1.0  
 lab\*nce 0.0 0.5 0.99r

**relative Inform. Technology (IT)**  
 olv3\* 0.5 0.0 0.161 (1.0)  
 cmyn3\* 0.5 1.0 0.839 (0.0)  
 olv4\* 1.0 0.5 0.661 0.5  
 cmyn4\* 0.0 0.5 0.339 0.5

**standard and adapted CIELAB**  
 LAB\*LAB 33.01 34.49 16.31  
 LAB\*LABa 33.01 34.27 15.77  
 LAB\*TCHa 25.01 37.73 24.7

**relative CIELAB lab\***  
 lab\*lab 0.194 0.454 0.209  
 lab\*tch 0.25 0.5 0.069  
 lab\*nch 0.5 0.5 0.069

**relative Natural Colour (NC)**  
 lab\*lrj 0.194 0.5 0.0  
 lab\*tce 0.25 0.5 0.0  
 lab\*nce 0.5 0.5 0.00j

$n^* = 0.50$

**relative Inform. Technology (IT)**  
 olv3\* 1.0 0.0 0.322 (1.0)  
 cmyn3\* 0.0 1.0 0.678 (0.0)  
 olv4\* 1.0 0.0 0.323 1.0  
 cmyn4\* 0.0 1.0 0.677 0.0

**standard and adapted CIELAB**  
 LAB\*LAB 48.01 68.48 33.09  
 LAB\*LABa 48.01 68.55 31.53  
 LAB\*TCHa 50.0 75.45 24.7

**relative CIELAB lab\***  
 lab\*lab 0.388 0.908 0.418  
 lab\*tch 0.5 1.0 0.069  
 lab\*nch 0.0 1.0 0.069

**relative Natural Colour (NC)**  
 lab\*lrj 0.388 1.0 0.0  
 lab\*tce 0.5 1.0 0.0  
 lab\*nce 0.0 1.0 0.00j

$n^* = 0.00$

$n^* = 0.50$

$n^* = 1.0$

chromaticness  $c^*$

**relative Inform. Technology (IT)**  
 olv3\* 1.0 0.5 0.552 (1.0)  
 cmyn3\* 0.0 0.5 0.448 (0.0)  
 olv4\* 1.0 0.5 0.552 1.0  
 cmyn4\* 0.0 0.5 0.448 0.0

**standard and adapted CIELAB**  
 LAB\*LAB 71.76 32.94 15.69  
 LAB\*LABa 71.76 32.9 15.68  
 LAB\*TCHa 75.0 36.45 25.49

**relative CIELAB lab\***  
 lab\*lab 0.694 0.451 0.215  
 lab\*tch 0.75 0.5 0.071  
 lab\*nch 0.0 0.5 0.071

**relative Natural Colour (NC)**  
 lab\*lrj 0.694 0.5 0.0  
 lab\*tce 0.75 0.5 1.0  
 lab\*nce 0.0 0.5 0.99r

**relative Inform. Technology (IT)**  
 olv3\* 0.5 0.0 0.052 (1.0)  
 cmyn3\* 0.5 1.0 0.948 (0.0)  
 olv4\* 1.0 0.5 0.552 0.5  
 cmyn4\* 0.0 0.5 0.448 0.5

**standard and adapted CIELAB**  
 LAB\*LAB 33.07 32.98 15.72  
 LAB\*LABa 33.07 32.9 15.69  
 LAB\*TCHa 25.01 36.45 25.5

**relative CIELAB lab\***  
 lab\*lab 0.195 0.451 0.215  
 lab\*tch 0.25 0.5 0.071  
 lab\*nch 0.5 0.5 0.071

**relative Natural Colour (NC)**  
 lab\*lrj 0.195 0.5 0.0  
 lab\*tce 0.25 0.5 0.0  
 lab\*nce 0.5 0.5 0.00j

$n^* = 0.50$

$n^* = 1.0$

chromaticness  $c^*$

**relative Inform. Technology (IT)**  
 olv3\* 1.0 0.0 0.103 (1.0)  
 cmyn3\* 0.0 1.0 0.897 (0.0)  
 olv4\* 1.0 0.0 0.104 1.0  
 cmyn4\* 0.0 1.0 0.896 0.0

**standard and adapted CIELAB**  
 LAB\*LAB 48.11 65.86 31.39  
 LAB\*LABa 48.11 65.8 31.37  
 LAB\*TCHa 50.0 72.9 25.49

**relative CIELAB lab\***  
 lab\*lab 0.389 0.902 0.43  
 lab\*tch 0.5 1.0 0.071  
 lab\*nch 0.0 1.0 0.071

**relative Natural Colour (NC)**  
 lab\*lrj 0.389 1.0 0.0  
 lab\*tce 0.5 1.0 0.0  
 lab\*nce 0.0 1.0 0.00j

$n^* = 0.00$

$n^* = 0.50$

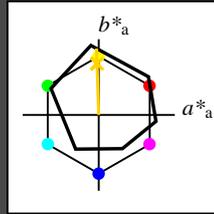
$n^* = 1.0$

chromaticness  $c^*$

**Input: 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  $t^*$



**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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

**relative Inform. Technology (IT)**  
 $olv^*3^*$  1.0 1.0 1.0 (1.0)  
 $cmyn^*3^*$  0.0 0.0 0.0 (0.0)  
 $olv^*4^*$  1.0 1.0 1.0 1.0  
 $cmyn^*4^*$  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)**  
 $olv^*3^*$  1.0 0.951 0.5 (1.0)  
 $cmyn^*3^*$  0.0 0.049 0.5 (0.0)  
 $olv^*4^*$  1.0 0.951 0.5 1.0  
 $cmyn^*4^*$  0.0 0.049 0.5 0.0

**standard and adapted CIELAB**  
 $LAB^*LAB$  90.8 -2.3 48.29  
 $LAB^*LABa$  90.8 -1.41 43.85  
 $LAB^*TCHa$  75.0 43.87 91.85

**relative CIELAB lab\***  
 $lab^*lab$  0.94 -0.015 0.5  
 $lab^*tch$  0.75 0.5 0.255  
 $lab^*nch$  0.0 0.5 0.255

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.94 0.0 0.5  
 $lab^*tce$  0.75 0.5 0.25  
 $lab^*nce$  0.0 0.5 j00g

**relative Inform. Technology (IT)**  
 $olv^*3^*$  0.5 0.5 0.5 (1.0)  
 $cmyn^*3^*$  0.5 0.5 0.5 (0.0)  
 $olv^*4^*$  1.0 1.0 1.0 0.5  
 $cmyn^*4^*$  0.0 0.0 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\***  
 $lab^*lab$  0.5 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)**  
 $olv^*3^*$  0.5 0.451 0.0 (1.0)  
 $cmyn^*3^*$  0.5 0.549 1.0 (0.0)  
 $olv^*4^*$  1.0 0.951 0.5 0.5  
 $cmyn^*4^*$  0.0 0.049 0.5 0.5

**standard and adapted CIELAB**  
 $LAB^*LAB$  52.1 -1.55 45.68  
 $LAB^*LABa$  52.1 -1.4 43.84  
 $LAB^*TCHa$  25.01 43.87 91.84

**relative CIELAB lab\***  
 $lab^*lab$  0.44 -0.015 0.5  
 $lab^*tch$  0.25 0.5 0.255  
 $lab^*nch$  0.5 0.5 0.255

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.44 0.0 0.5  
 $lab^*tce$  0.25 0.5 0.25  
 $lab^*nce$  0.5 0.5 j99j

**relative Inform. Technology (IT)**  
 $olv^*3^*$  0.0 0.0 0.0 (1.0)  
 $cmyn^*3^*$  1.0 1.0 1.0 (0.0)  
 $olv^*4^*$  1.0 1.0 1.0 0.0  
 $cmyn^*4^*$  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  
 $LAB^*TCHa$  18.01 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 -

**relative Inform. Technology (IT)**  
 $olv^*3^*$  0.5 0.476 0.0 (1.0)  
 $cmyn^*3^*$  0.5 0.524 1.0 (0.0)  
 $olv^*4^*$  1.0 0.976 0.5 0.5  
 $cmyn^*4^*$  0.0 0.024 0.5 0.5

**standard and adapted CIELAB**  
 $LAB^*LAB$  53.36 -1.78 45.32  
 $LAB^*LABa$  53.36 -1.84 45.3  
 $LAB^*TCHa$  25.01 45.34 92.33

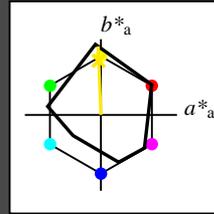
**relative CIELAB lab\***  
 $lab^*lab$  0.957 -0.019 0.499  
 $lab^*tch$  0.75 0.5 0.257  
 $lab^*nch$  0.0 0.5 0.257

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.957 0.0 0.5  
 $lab^*tce$  0.75 0.5 0.25  
 $lab^*nce$  0.0 0.5 j00g

**Output: 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  $t^*$



**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  
 $g^*_{H,rel} = 42$   
 $g^*_{C,rel} = 49$

**relative Inform. Technology (IT)**  
 $olv^*3^*$  1.0 1.0 1.0 (1.0)  
 $cmyn^*3^*$  0.0 0.0 0.0 (0.0)  
 $olv^*4^*$  1.0 1.0 1.0 1.0  
 $cmyn^*4^*$  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)**  
 $lab^*lrj$  1.0 0.0 0.0  
 $lab^*tce$  1.0 0.0 -  
 $lab^*nce$  0.0 0.0 -

**relative Inform. Technology (IT)**  
 $olv^*3^*$  1.0 0.976 0.5 (1.0)  
 $cmyn^*3^*$  0.0 0.024 0.5 (0.0)  
 $olv^*4^*$  1.0 0.976 0.5 1.0  
 $cmyn^*4^*$  0.0 0.024 0.5 0.0

**standard and adapted CIELAB**  
 $LAB^*LAB$  92.06 -1.83 45.31  
 $LAB^*LABa$  92.06 -1.84 45.31  
 $LAB^*TCHa$  75.0 45.35 92.34

**relative CIELAB lab\***  
 $lab^*lab$  0.957 -0.019 0.499  
 $lab^*tch$  0.75 0.5 0.257  
 $lab^*nch$  0.0 0.5 0.257

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.957 0.0 0.5  
 $lab^*tce$  0.75 0.5 0.25  
 $lab^*nce$  0.0 0.5 j00g

**relative Inform. Technology (IT)**  
 $olv^*3^*$  0.5 0.5 0.5 (1.0)  
 $cmyn^*3^*$  0.5 0.5 0.5 (0.0)  
 $olv^*4^*$  1.0 1.0 1.0 0.5  
 $cmyn^*4^*$  0.0 0.0 0.0 0.5

**standard and adapted CIELAB**  
 $LAB^*LAB$  86.19 -3.62 91.83  
 $LAB^*LABa$  86.19 -2.82 87.69  
 $LAB^*TCHa$  50.0 87.73 91.85

**relative CIELAB lab\***  
 $lab^*lab$  0.881 0.0 1.0  
 $lab^*tch$  0.5 1.0 0.25  
 $lab^*nch$  0.0 1.0 0.255

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.881 0.0 1.0  
 $lab^*tce$  0.5 1.0 0.25  
 $lab^*nce$  0.0 1.0 j00g

**relative Inform. Technology (IT)**  
 $olv^*3^*$  0.5 0.476 0.0 (1.0)  
 $cmyn^*3^*$  0.5 0.524 1.0 (0.0)  
 $olv^*4^*$  1.0 0.976 0.5 0.5  
 $cmyn^*4^*$  0.0 0.024 0.5 0.5

**standard and adapted CIELAB**  
 $LAB^*LAB$  53.36 -1.78 45.32  
 $LAB^*LABa$  53.36 -1.84 45.3  
 $LAB^*TCHa$  25.01 45.34 92.33

**relative CIELAB lab\***  
 $lab^*lab$  0.957 -0.019 0.499  
 $lab^*tch$  0.75 0.5 0.257  
 $lab^*nch$  0.0 0.5 0.257

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.957 0.0 0.5  
 $lab^*tce$  0.75 0.5 0.25  
 $lab^*nce$  0.0 0.5 j00g

**relative Inform. Technology (IT)**  
 $olv^*3^*$  0.0 0.0 0.0 (1.0)  
 $cmyn^*3^*$  1.0 1.0 1.0 (0.0)  
 $olv^*4^*$  1.0 1.0 1.0 0.0  
 $cmyn^*4^*$  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  
 $LAB^*TCHa$  18.01 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 -

**relative Inform. Technology (IT)**  
 $olv^*3^*$  1.0 0.952 0.0 (1.0)  
 $cmyn^*3^*$  0.0 0.048 1.0 (0.0)  
 $olv^*4^*$  1.0 0.952 0.0 1.0  
 $cmyn^*4^*$  0.0 0.048 1.0 0.0

**standard and adapted CIELAB**  
 $LAB^*LAB$  88.71 -3.67 90.61  
 $LAB^*LABa$  88.71 -3.69 90.61  
 $LAB^*TCHa$  50.0 90.68 92.34

**relative CIELAB lab\***  
 $lab^*lab$  0.913 -0.04 0.999  
 $lab^*tch$  0.5 1.0 0.256  
 $lab^*nch$  0.0 1.0 0.256

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.913 0.0 1.0  
 $lab^*tce$  0.5 1.0 0.25  
 $lab^*nce$  0.0 1.0 j00g

**relative Inform. Technology (IT)**  
 $olv^*3^*$  0.5 0.476 0.0 (1.0)  
 $cmyn^*3^*$  0.5 0.524 1.0 (0.0)  
 $olv^*4^*$  1.0 0.976 0.5 0.5  
 $cmyn^*4^*$  0.0 0.024 0.5 0.5

**standard and adapted CIELAB**  
 $LAB^*LAB$  53.36 -1.78 45.32  
 $LAB^*LABa$  53.36 -1.84 45.3  
 $LAB^*TCHa$  25.01 45.34 92.33

**relative CIELAB lab\***  
 $lab^*lab$  0.957 -0.019 0.499  
 $lab^*tch$  0.75 0.5 0.257  
 $lab^*nch$  0.0 0.5 0.257

**relative Natural Colour (NC)**  
 $lab^*lrj$  0.957 0.0 0.5  
 $lab^*tce$  0.75 0.5 0.25  
 $lab^*nce$  0.0 0.5 j99j

See for similar files: <http://www.ps.bam.de/UE11/>  
 Technical information: <http://www.ps.bam.de>  
 Version 2.1, io=0,1, CIEXYZ

BAM registration: 20060101-UE11/10S/S11E07FP.PS/.PDF BAM material: code=rh4da  
 application for evaluation and measurement of printer or monitor systems, Yr=2.5, XYZ  
 /UE11/ Form 810, Serie: 1/1, Page: 8 Page count: 8

UE110-7, 3 step scales for constant CIELAB hue 92/360 = 0.255 (left)

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

BAM-test chart UE11; Colorimetric systems ORS18 & MRS18a input:  $cm^*y^*0^*$  setcmkcolor

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

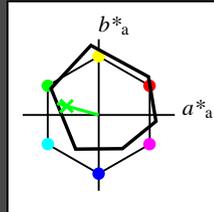
output:  $olv^*setrgbcolor$  /  $w^*setgray$

**Input: 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  $t^*$



**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

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

**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)**  
 $olvi3^* \ 0.5 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* \ 0.5 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* \ 1.0 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* \ 0.0 \ 0.0 \ 0.0 \ 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 56.71 \ -0.23 \ 2.14$   
 $LAB^*LABa \ 56.71 \ 0.0 \ 0.0$   
 $LAB^*TCHa \ 50.0 \ 0.01 \ -$

**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)**  
 $olvi3^* \ 0.0 \ 0.5 \ 0.123 \ (1.0)$   
 $cmyn3^* \ 1.0 \ 0.5 \ 0.877 \ (0.0)$   
 $olvi4^* \ 0.5 \ 1.0 \ 0.623 \ 0.5$   
 $cmyn4^* \ 0.5 \ 0.0 \ 0.377 \ 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 35.41 \ -27.22 \ 8.34$   
 $LAB^*LABa \ 35.41 \ -27.39 \ 7.63$   
 $LAB^*TCHa \ 25.01 \ 28.44 \ 164.45$

**relative CIELAB lab\***  
 $lab^*lab \ 0.225 \ -0.481 \ 0.134$   
 $lab^*tch \ 0.25 \ 0.5 \ 0.457$   
 $lab^*nch \ 0.5 \ 0.5 \ 0.457$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.225 \ -0.499 \ 0.0$   
 $lab^*tce \ 0.25 \ 0.5 \ 0.5$   
 $lab^*nce \ 0.5 \ 0.5 \ g00b$

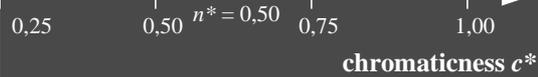
**relative Inform. Technology (IT)**  
 $olvi3^* \ 0.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* \ 1.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* \ 1.0 \ 1.0 \ 1.0 \ 0.0$   
 $cmyn4^* \ 0.0 \ 0.0 \ 0.0 \ 1.0$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 18.02 \ 0.5 \ -0.46$   
 $LAB^*LABa \ 18.02 \ 0.0 \ 0.0$   
 $LAB^*TCHa \ 0.01 \ 0.01 \ -$

**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)**  
 $lab^*lrj \ 0.0 \ 0.0 \ 0.0$   
 $lab^*tce \ 0.0 \ 0.0 \ -$   
 $lab^*nce \ 1.0 \ 0.0 \ -$

$n^* = 1.0$

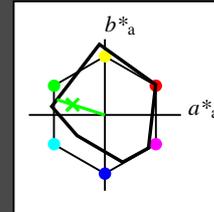


**Output: Colorimetric Reflective System MRS18a**

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  $t^*$



**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

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

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

**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)**  
 $olvi3^* \ 0.554 \ 1.0 \ 0.5 \ (1.0)$   
 $cmyn3^* \ 0.446 \ 0.0 \ 0.5 \ (0.0)$   
 $olvi4^* \ 0.555 \ 1.0 \ 0.5 \ 1.0$   
 $cmyn4^* \ 0.445 \ 0.0 \ 0.5 \ 1.0$

**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)**  
 $lab^*lrj \ 0.747 \ -0.499 \ 0.0$   
 $lab^*tce \ 0.75 \ 0.5 \ 0.5$   
 $lab^*nce \ 0.0 \ 0.5 \ j99g$

**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)**  
 $olvi3^* \ 0.054 \ 0.5 \ 0.0 \ (1.0)$   
 $cmyn3^* \ 0.946 \ 0.5 \ 1.0 \ (0.0)$   
 $olvi4^* \ 0.554 \ 1.0 \ 0.5 \ 0.5$   
 $cmyn4^* \ 0.446 \ 0.0 \ 0.5 \ 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 37.16 \ -31.47 \ 10.11$   
 $LAB^*LABa \ 37.16 \ -31.55 \ 10.08$   
 $LAB^*TCHa \ 25.01 \ 33.13 \ 162.28$

**relative CIELAB lab\***  
 $lab^*lab \ 0.247 \ -0.475 \ 0.152$   
 $lab^*tch \ 0.25 \ 0.5 \ 0.451$   
 $lab^*nch \ 0.5 \ 0.5 \ 0.451$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.247 \ -0.499 \ 0.0$   
 $lab^*tce \ 0.25 \ 0.5 \ 0.5$   
 $lab^*nce \ 0.5 \ 0.5 \ g00b$

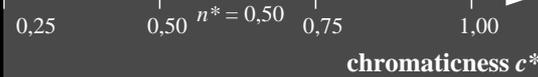
**relative Inform. Technology (IT)**  
 $olvi3^* \ 0.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* \ 1.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* \ 1.0 \ 1.0 \ 1.0 \ 0.0$   
 $cmyn4^* \ 0.0 \ 0.0 \ 0.0 \ 1.0$

**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)**  
 $lab^*lrj \ 0.0 \ 0.0 \ 0.0$   
 $lab^*tce \ 0.0 \ 0.0 \ -$   
 $lab^*nce \ 1.0 \ 0.0 \ -$

$n^* = 1.0$

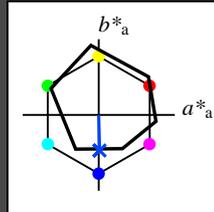


**Input: Colorimetric Reflective System ORS18**

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

D65: hue B  
 LCH\*Ma: 42 45 271  
 olv\*Ma: 0.0 0.49 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

%Gamut  
 $u^*_{rel} = 93$   
 %Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

**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)**  
 $olvi3^* \ 0.5 \ 0.744 \ 1.0 \ (1.0)$   
 $cmyn3^* \ 0.5 \ 0.256 \ 0.0 \ (0.0)$   
 $olvi4^* \ 0.5 \ 0.744 \ 1.0 \ 1.0$   
 $cmyn4^* \ 0.5 \ 0.256 \ 0.0 \ 0.0$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 68.59 \ 0.08 \ -19.4$   
 $LAB^*LABa \ 68.59 \ 0.54 \ -22.35$   
 $LAB^*TCHa \ 75.0 \ 22.36 \ 271.4$

**relative CIELAB lab\***  
 $lab^*lab \ 0.654 \ 0.012 \ -0.499$   
 $lab^*tch \ 0.75 \ 0.5 \ 0.754$   
 $lab^*nch \ 0.0 \ 0.5 \ 0.754$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.654 \ 0.0 \ -0.499$   
 $lab^*tce \ 0.75 \ 0.5 \ 0.75$   
 $lab^*nce \ 0.0 \ 0.5 \ g99b$

**relative Inform. Technology (IT)**  
 $olvi3^* \ 0.0 \ 0.488 \ 1.0 \ (1.0)$   
 $cmyn3^* \ 1.0 \ 0.512 \ 0.0 \ (0.0)$   
 $olvi4^* \ 0.0 \ 0.488 \ 1.0 \ 1.0$   
 $cmyn4^* \ 1.0 \ 0.512 \ 0.0 \ 0.0$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 41.79 \ 1.14 \ -43.56$   
 $LAB^*LABa \ 41.79 \ 1.1 \ -44.7$   
 $LAB^*TCHa \ 50.0 \ 44.73 \ 271.4$

**relative CIELAB lab\***  
 $lab^*lab \ 0.307 \ 0.024 \ -0.998$   
 $lab^*tch \ 0.5 \ 1.0 \ 0.754$   
 $lab^*nch \ 0.0 \ 1.0 \ 0.754$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.307 \ 0.0 \ -0.999$   
 $lab^*tce \ 0.5 \ 1.0 \ 0.75$   
 $lab^*nce \ 0.0 \ 1.0 \ b00r$

**relative Inform. Technology (IT)**  
 $olvi3^* \ 0.0 \ 0.244 \ 0.5 \ (1.0)$   
 $cmyn3^* \ 1.0 \ 0.756 \ 0.5 \ (0.0)$   
 $olvi4^* \ 0.5 \ 0.744 \ 1.0 \ 0.5$   
 $cmyn4^* \ 0.5 \ 0.256 \ 0.0 \ 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 29.9 \ 0.83 \ -22.01$   
 $LAB^*LABa \ 29.9 \ 0.55 \ -22.35$   
 $LAB^*TCHa \ 25.01 \ 22.36 \ 271.41$

**relative CIELAB lab\***  
 $lab^*lab \ 0.154 \ 0.012 \ -0.499$   
 $lab^*tch \ 0.25 \ 0.5 \ 0.754$   
 $lab^*nch \ 0.5 \ 0.5 \ 0.754$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.154 \ 0.0 \ -0.499$   
 $lab^*tce \ 0.25 \ 0.5 \ 0.75$   
 $lab^*nce \ 0.5 \ 0.5 \ b00r$



**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**  
 $LAB^*LAB \ 18.02 \ 0.5 \ -0.46$   
 $LAB^*LABa \ 18.02 \ 0.0 \ 0.0$   
 $LAB^*TCHa \ 8.01 \ 0.01 \ -$

**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)**  
 $lab^*lrj \ 0.0 \ 0.0 \ 0.0$   
 $lab^*tce \ 0.0 \ 0.0 \ -$   
 $lab^*nce \ 1.0 \ 0.0 \ -$

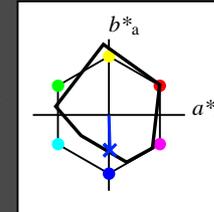
$n^* = 1.0$

**Output: Colorimetric Reflective System MRS18a**

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

D65: hue B  
 LCH\*Ma: 40 49 272  
 olv\*Ma: 0.0 0.36 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

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

**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)**  
 $olvi3^* \ 0.5 \ 0.682 \ 1.0 \ (1.0)$   
 $cmyn3^* \ 0.5 \ 0.318 \ 0.0 \ (0.0)$   
 $olvi4^* \ 0.5 \ 0.682 \ 1.0 \ 1.0$   
 $cmyn4^* \ 0.5 \ 0.318 \ 0.0 \ 0.0$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 67.55 \ 0.74 \ -24.71$   
 $LAB^*LABa \ 67.55 \ 0.7 \ -24.72$   
 $LAB^*TCHa \ 75.0 \ 24.74 \ 271.63$

**relative CIELAB lab\***  
 $lab^*lab \ 0.64 \ 0.014 \ -0.499$   
 $lab^*tch \ 0.75 \ 0.5 \ 0.755$   
 $lab^*nch \ 0.0 \ 0.5 \ 0.755$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.64 \ 0.0 \ -0.499$   
 $lab^*tce \ 0.75 \ 0.5 \ 0.75$   
 $lab^*nce \ 0.0 \ 0.5 \ g99b$

**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\***  
 $lab^*lab \ 0.5 \ 0.0 \ 0.0$   
 $lab^*tch \ 0.5 \ 0.0 \ -$   
 $lab^*nch \ 0.5 \ 0.0 \ -$

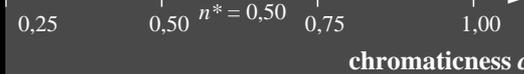
**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.5 \ 0.0 \ 0.0$   
 $lab^*tce \ 0.5 \ 0.0 \ -$   
 $lab^*nce \ 0.5 \ 0.0 \ -$

**relative Inform. Technology (IT)**  
 $olvi3^* \ 0.0 \ 0.182 \ 0.5 \ (1.0)$   
 $cmyn3^* \ 1.0 \ 0.818 \ 0.5 \ (0.0)$   
 $olvi4^* \ 0.5 \ 0.682 \ 1.0 \ 0.5$   
 $cmyn4^* \ 0.5 \ 0.318 \ 0.0 \ 0.5$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 28.86 \ 0.79 \ -24.7$   
 $LAB^*LABa \ 28.86 \ 0.71 \ -24.72$   
 $LAB^*TCHa \ 25.01 \ 24.74 \ 271.64$

**relative CIELAB lab\***  
 $lab^*lab \ 0.14 \ 0.014 \ -0.499$   
 $lab^*tch \ 0.25 \ 0.5 \ 0.755$   
 $lab^*nch \ 0.5 \ 0.5 \ 0.755$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.14 \ 0.0 \ -0.499$   
 $lab^*tce \ 0.25 \ 0.5 \ 0.75$   
 $lab^*nce \ 0.5 \ 0.5 \ b00r$



**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**  
 $LAB^*LAB \ 18.02 \ 0.1 \ 0.02$   
 $LAB^*LABa \ 18.02 \ 0.0 \ 0.0$   
 $LAB^*TCHa \ 8.01 \ 0.01 \ -$

**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)**  
 $lab^*lrj \ 0.0 \ 0.0 \ 0.0$   
 $lab^*tce \ 0.0 \ 0.0 \ -$   
 $lab^*nce \ 1.0 \ 0.0 \ -$

$n^* = 1.0$

**relative Inform. Technology (IT)**  
 $olvi3^* \ 0.0 \ 0.365 \ 1.0 \ (1.0)$   
 $cmyn3^* \ 1.0 \ 0.635 \ 0.0 \ (0.0)$   
 $olvi4^* \ 0.0 \ 0.365 \ 1.0 \ 1.0$   
 $cmyn4^* \ 1.0 \ 0.635 \ 0.0 \ 0.0$

**standard and adapted CIELAB**  
 $LAB^*LAB \ 39.71 \ 1.49 \ -49.43$   
 $LAB^*LABa \ 39.71 \ 1.41 \ -49.45$   
 $LAB^*TCHa \ 50.0 \ 49.48 \ 271.64$

**relative CIELAB lab\***  
 $lab^*lab \ 0.28 \ 0.029 \ -0.998$   
 $lab^*tch \ 0.5 \ 1.0 \ 0.755$   
 $lab^*nch \ 0.0 \ 1.0 \ 0.755$

**relative Natural Colour (NC)**  
 $lab^*lrj \ 0.28 \ 0.0 \ -0.999$   
 $lab^*tce \ 0.5 \ 1.0 \ 0.75$   
 $lab^*nce \ 0.0 \ 1.0 \ b00r$



$n^* = 0,00$

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