

Input: Colorimetric Reflective System ORS18

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

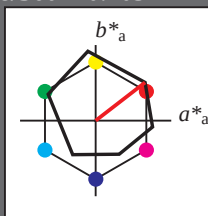
lab*tch and lab*nch

D65: hue 0

LCH*Ma: 48 83 38

rgb*Ma: 1.0 0.0 0.0

triangle lightness

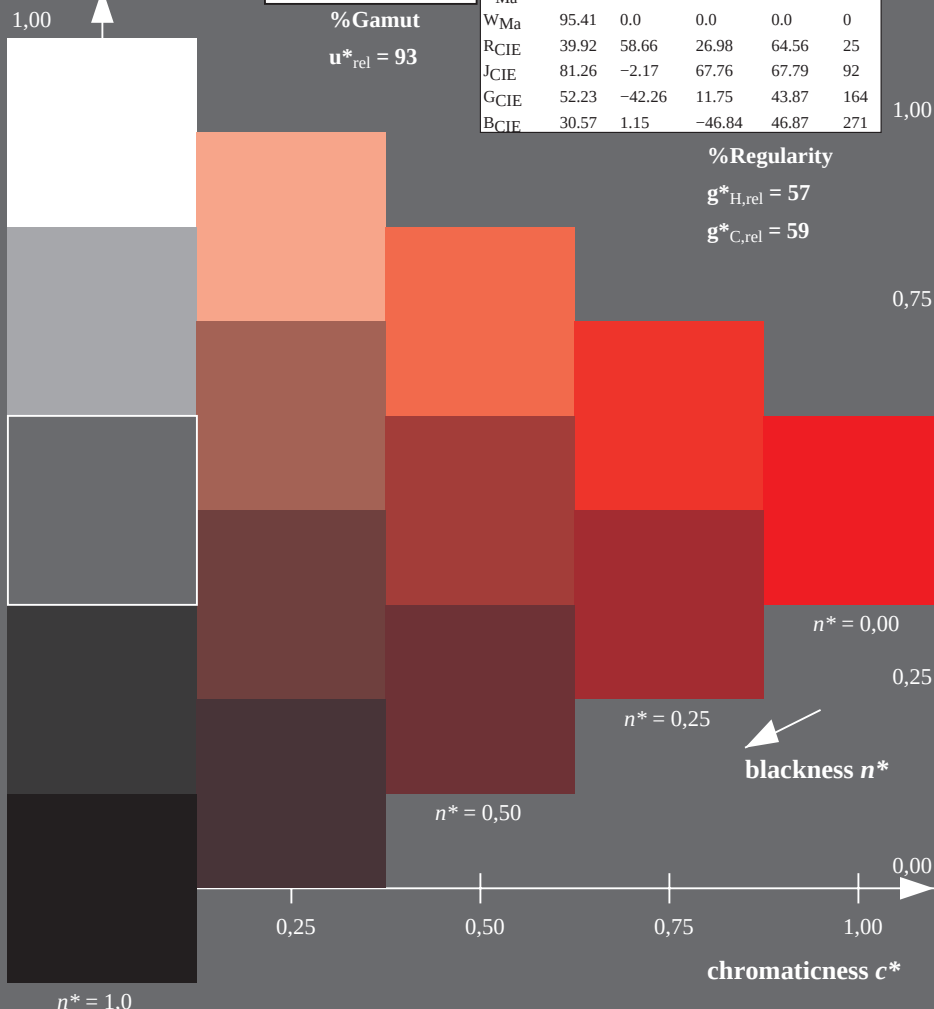


%Gamut

$$\mathbf{u}_{rel}^* = 93$$

ORS18; adapted (a) CIELAB data					
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	47.94	65.37	50.52	82.62	38
Y _{Ma}	90.37	-10.27	91.77	92.34	96
L _{Ma}	50.9	-62.79	34.95	71.87	151
C _{Ma}	58.62	-30.35	-45.01	54.3	236
V _{Ma}	25.71	31.11	-44.42	54.24	305
M _{Ma}	48.13	75.27	-8.35	75.73	354
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
R _{CIE}	39.92	58.66	26.98	64.56	25
J _{CIE}	81.26	-2.17	67.76	67.79	92
G _{CIE}	52.23	-42.26	11.75	43.87	164
B _{CIE}	30.57	1.15	-46.84	46.87	271

%Regularity

$$g^*_{H_{rel}} = 57$$
$$g^*_{C,rel} = 59$$


UE400-7, 5 step scales for constant CIELAB hue 38/360 = 0.105 (left)

BAM-test chart UE40: Colorimetric systems ORS18 & MRS18

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

Output: Colorimetric Reflective System MRS18

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

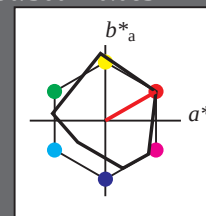
lab*tch and lab*nch

D65: hue R

LCH*Ma: 50 77 30

rgb*Ma: 1.0 0.0 0.0

triangle lightness

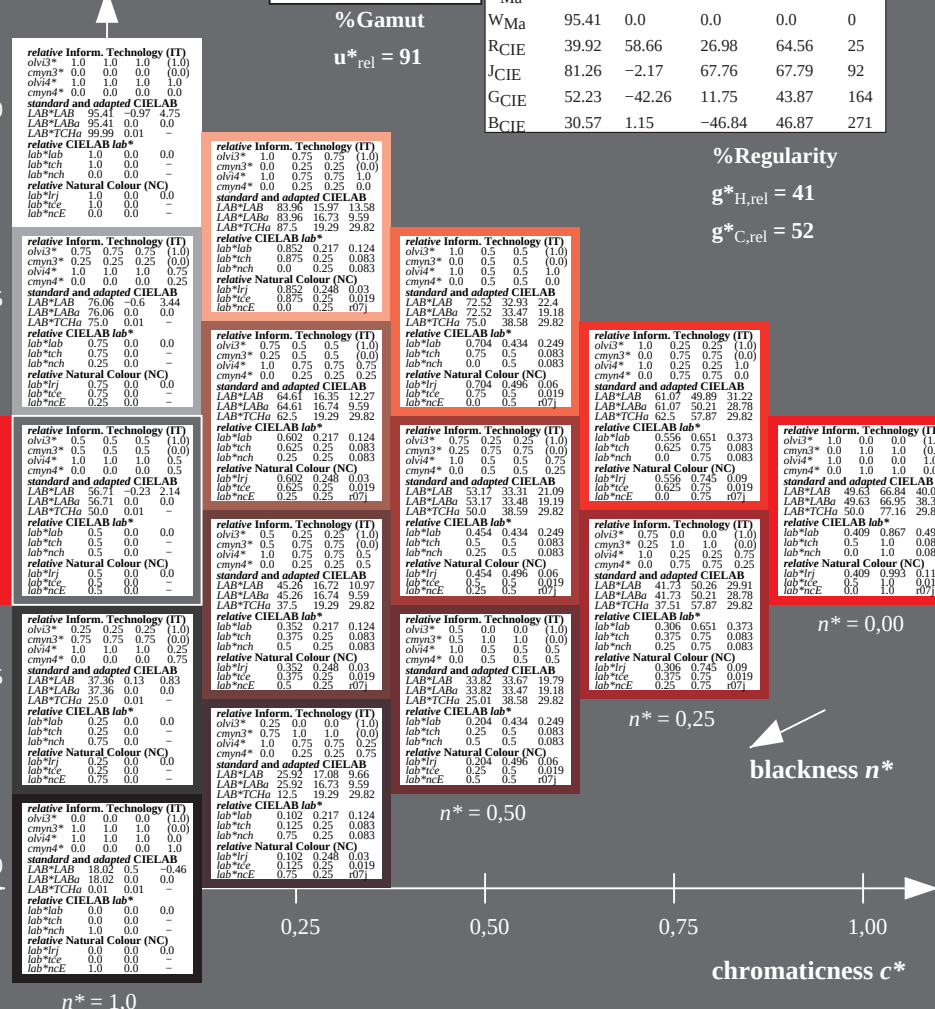


%Gamut

$$\mathbf{u}_{rel}^* = 91$$

MRS18; adapted (a) CIELAB data						
	L^*_a	a^*_a	b^*_a	$C^*_{ab,a}$	h^*_{ab}	
R _{Ma}	49.63	66.96	38.37	77.18	30	
J _{Ma}	90.7	-6.36	88.75	88.98	94	
G _{Ma}	52.11	-69.73	9.44	70.37	172	
G50B _{Ma}	45.03	-36.57	-28.47	46.36	218	
B _{Ma}	36.65	23.19	-63.05	67.18	290	
B50R _{Ma}	34.94	57.17	-44.26	72.31	322	
N _{Ma}	18.01	0.0	0.0	0.0	0	
W _{Ma}	95.41	0.0	0.0	0.0	0	
R _{CIE}	39.92	58.66	26.98	64.56	25	
J _{CIE}	81.26	-2.17	67.76	67.79	92	
G _{CIE}	52.23	-42.26	11.75	43.87	164	
B _{CIE}	30.57	1.15	-46.84	46.87	271	

%Regularity

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


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

```
input: cmv0* setcmvcolor
```

output: $cmv0^* / 000n^*$ setcmvcolor

Input: Colorimetric Reflective System ORS18

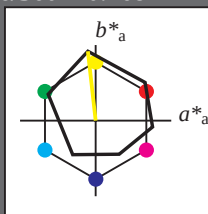
for hue $h^* = lab \cdot h = 96/360 = 0.268$

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

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

triangle lightness

1,00



%Gamut

$u^*_{rel} = 93$

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

%Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	95.41	-0.97	4.75		
LAB*LABa	95.41	0.0	0.0		
LAB*LABb	95.41	0.0	0.0		
LAB*LABc	95.41	0.0	0.0		
LAB*LABd	95.41	0.0	0.0		
LAB*LABe	95.41	0.0	0.0		
LAB*LABf	95.41	0.0	0.0		
LAB*LABg	95.41	0.0	0.0		
LAB*LABh	95.41	0.0	0.0		
LAB*LABi	95.41	0.0	0.0		
LAB*LABj	95.41	0.0	0.0		
LAB*LABk	95.41	0.0	0.0		
LAB*LABl	95.41	0.0	0.0		
LAB*LABm	95.41	0.0	0.0		
LAB*LABn	95.41	0.0	0.0		
LAB*LABo	95.41	0.0	0.0		
LAB*LABp	95.41	0.0	0.0		
LAB*LABq	95.41	0.0	0.0		
LAB*LABr	95.41	0.0	0.0		
LAB*LABs	95.41	0.0	0.0		
LAB*LABt	95.41	0.0	0.0		
LAB*LABu	95.41	0.0	0.0		
LAB*LABv	95.41	0.0	0.0		
LAB*LABw	95.41	0.0	0.0		
LAB*LABx	95.41	0.0	0.0		
LAB*LABy	95.41	0.0	0.0		
LAB*LABz	95.41	0.0	0.0		

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*LABb	95.41	0.0	0.0		
LAB*LABc	95.41	0.0	0.0		
LAB*LABd	95.41	0.0	0.0		
LAB*LABe	95.41	0.0	0.0		
LAB*LABf	95.41	0.0	0.0		
LAB*LABg	95.41	0.0	0.0		
LAB*LABh	95.41	0.0	0.0		
LAB*LABi	95.41	0.0	0.0		
LAB*LABj	95.41	0.0	0.0		
LAB*LABk	95.41	0.0	0.0		
LAB*LABl	95.41	0.0	0.0		
LAB*LABm	95.41	0.0	0.0		
LAB*LABn	95.41	0.0	0.0		
LAB*LABo	95.41	0.0	0.0		
LAB*LABp	95.41	0.0	0.0		
LAB*LABq	95.41	0.0	0.0		
LAB*LABr	95.41	0.0	0.0		
LAB*LABs	95.41	0.0	0.0		
LAB*LABt	95.41	0.0	0.0		
LAB*LABu	95.41	0.0	0.0		
LAB*LABv	95.41	0.0	0.0		
LAB*LABw	95.41	0.0	0.0		
LAB*LABx	95.41	0.0	0.0		
LAB*LABy	95.41	0.0	0.0		
LAB*LABz	95.41	0.0	0.0		

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*LABb	95.41	0.0	0.0		
LAB*LABc	95.41	0.0	0.0		
LAB*LABd	95.41	0.0	0.0		
LAB*LABe	95.41	0.0	0.0		
LAB*LABf	95.41	0.0	0.0		
LAB*LABg	95.41	0.0	0.0		
LAB*LABh	95.41	0.0	0.0		
LAB*LABi	95.41	0.0	0.0		
LAB*LABj	95.41	0.0	0.0		
LAB*LABk	95.41	0.0	0.0		
LAB*LABl	95.41	0.0	0.0		
LAB*LABm	95.41	0.0	0.0		
LAB*LABn	95.41	0.0	0.0		
LAB*LABo	95.41	0.0	0.0		
LAB*LABp	95.41	0.0	0.0		
LAB*LABq	95.41	0.0	0.0		
LAB*LABr	95.41	0.0	0.0		
LAB*LABs	95.41	0.0	0.0		
LAB*LABt	95.41	0.0	0.0		
LAB*LABu	95.41	0.0	0.0		
LAB*LABv	95.41	0.0	0.0		
LAB*LABw	95.41	0.0	0.0		
LAB*LABx	95.41	0.0	0.0		
LAB*LABy	95.41	0.0	0.0		
LAB*LABz	95.41	0.0	0.0		

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*LABb	95.41	0.0	0.0		
LAB*LABc	95.41	0.0	0.0		
LAB*LABd	95.41	0.0	0.0		
LAB*LABe	95.41	0.0	0.0		
LAB*LABf	95.41	0.0	0.0		
LAB*LABg	95.41	0.0	0.0		
LAB*LABh	95.41	0.0	0.0		
LAB*LABi	95.41	0.0	0.0		
LAB*LABj	95.41	0.0	0.0		
LAB*LABk	95.41	0.0	0.0		
LAB*LABl	95.41	0.0	0.0		
LAB*LABm	95.41	0.0	0.0		
LAB*LABn	95.41	0.0	0.0		
LAB*LABo	95.41	0.0	0.0		
LAB*LABp	95.41	0.0	0.0		
LAB*LABq	95.41	0.0	0.0		
LAB*LABr	95.41	0.0	0.0		
LAB*LABs	95.41	0.0	0.0		
LAB*LABt	95.41	0.0	0.0		
LAB*LABu	95.41	0.0	0.0		
LAB*LABv	95.41	0.0	0.0		
LAB*LABw	95.41	0.0	0.0		
LAB*LABx	95.41	0.0	0.0		
LAB*LABy	95.41	0.0	0.0		
LAB*LABz	95.41	0.0	0.0		

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*LABb	95.41	0.0	0.0		
LAB*LABc	95.41	0.0	0.0		
LAB*LABd	95.41	0.0	0.0		
LAB*LABe	95.41	0.0	0.0		
LAB*LABf	95.41	0.0	0.0		
LAB*LABg	95.41	0.0	0.0		
LAB*LABh	95.41	0.0	0.0		
LAB*LABi	95.41	0.0	0.0		
LAB*LABj	95.41	0.0	0.0		
LAB*LABk	95.41	0.0	0.0		
LAB*LABl	95.41	0.0	0.0		
LAB*LABm	95.41	0.0	0.0		
LAB*LABn	95.41	0.0	0.0		
LAB*LABo	95.41	0.0	0.0		
LAB*LABp	95.41	0.0	0.0		
LAB*LABq	95.41	0.0	0.0		
LAB*LABr	95.41	0.0	0.0		
LAB*LABs	95.41	0.0	0.0		
LAB*LABt	95.41	0.0	0.0		
LAB*LABu	95.41	0.0	0.0		
LAB*LABv	95.41	0.0	0.0		
LAB*LABw	95.41	0.0	0.0		
LAB*LABx	95.41	0.0	0.0		
LAB*LABy	95.41	0.0	0.0		
LAB*LABz	95.41	0.0	0.0		

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*LABb	95.41	0.0	0.0		
LAB*LABc	95.41	0.0	0.0		
LAB*LABd	95.41	0.0	0.0		
LAB*LABe	95.41	0.0	0.0		
LAB*LABf	95.41	0.0	0.0		
LAB*LABg	95.41	0.0	0.0		
LAB*LABh	95.41	0.0	0.0		
LAB*LABi	95.41	0.0	0.0		
LAB*LABj	95.41	0.0	0.0		
LAB*LABk	95.41	0.0	0.0		
LAB*LABl	95.41	0.0	0.0		
LAB*LABm	95.41	0.0	0.0		
LAB*LABn	95.41	0.0	0.0		
LAB*LABo	95.41	0.0	0.0		
LAB*LABp	95.41	0.0	0.0		
LAB*LABq	95.41	0.0	0.0		
LAB*LABr	95.41	0.0	0.0		
LAB*LABs	95.41	0.0	0.0		
LAB*LABt	95.41	0.0	0.0		
LAB*LABu	95.41	0.0	0.0		
LAB*LABv	95.41	0.0	0.0		
LAB*LABw	95.41	0.0	0.0		
LAB*LABx	95.41	0.0	0.0		
LAB*LABy	95.41	0.0	0.0		
LAB*LABz	95.41	0.0	0.0		

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	-

Input: Colorimetric Reflective System ORS18

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

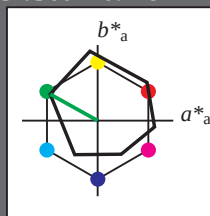
$lab \cdot tch$ and $lab \cdot nch$

D65: hue L

LCH*Ma: 51 72 151

rgb*Ma: 0.0 1.0 0.0

triangle lightness



1,00

%Gamut

$u^*_{rel} = 93$

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

%Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	95.41	-0.97	4.75		
LAB*LABa	95.41	0.0	0.0		
LAB*TCMa	98.99	0.01	-		
relative CIELAB lab*					
lab*lab	1.0	0.0	0.0		
lab*tch	1.0	0.0	-		
lab*nch	0.0	0.0	-		
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*	0.75	0.75	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	76.06	-0.6	3.44		
LAB*LABa	76.06	0.0	0.0		
LAB*TCMa	75.0	0.01	-		
relative CIELAB lab*					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	-		
lab*nch	0.25	0.0	-		
relative Natural Colour (NC)					
lab*lrj	0.75	0.0	0.0		
lab*tce	0.75	0.0	-		
lab*nce	0.25	0.0	-		

relative Inform. Technology (IT)					
olvi3*	0.5	0.5	0.5	(1.0)	
cmyn3*	0.5	0.5	0.5	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	56.71	-0.23	2.14		
LAB*LABa	56.71	0.0	0.0		
LAB*TCMa	50.0	0.01	-		
relative CIELAB lab*					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	-		
lab*nch	0.5	0.0	-		
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*	0.25	0.25	0.25	(1.0)	
cmyn3*	0.75	0.75	0.75	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	37.36	0.13	0.83		
LAB*LABa	37.36	0.0	0.0		
LAB*TCMa	25.0	0.01	-		
relative CIELAB lab*					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	-		
lab*nch	0.75	0.0	-		
relative Natural Colour (NC)					
lab*lrj	0.25	0.0	0.0		
lab*tce	0.25	0.0	-		
lab*nce	0.75	0.0	-		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	(1.0)	
cmyn3*	1.0	1.0	1.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(1.0)	
standard and adapted CIELAB					
LAB*LAB	18.02	0.5	-0.46		
LAB*LABa	18.02	0.0	0.0		
LAB*TCMa	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 MRS18

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

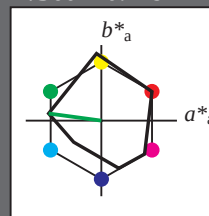
$lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 52 70 172

rgb*Ma: 0.0 1.0 0.0

triangle lightness



%Gamut

$u^*_{rel} = 91$

MRS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)					
olvi3*	0.75	1.0	0.75	(1.0)	
cmyn3*	0.25	0.0	0.25	(0.0)	
olvi4*	0.75	1.0	0.75	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	84.58	-18.19	6.39		
LAB*LABa	84.58	-17.42	2.36		
LAB*TCMa	87.5	17.59	172.29		
relative CIELAB lab*					
lab*lab	0.86	-0.247	0.034		
lab*tch	0.875	0.25	0.479		
lab*nch	0.0	0.25	0.479		
relative Natural Colour (NC)					
lab*lrj	0.86	-0.247	-0.028		
lab*tce	0.875	0.25	0.518		
lab*nce	0.0	0.25	0.676		

relative Inform. Technology (IT)					
olvi3*	0.5	0.75	0.5	(1.0)	
cmyn3*	0.5	0.25	0.5	(0.0)	
olvi4*	0.75	1.0	0.75	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	65.23	-17.83	5.08		
LAB*LABa	65.23	-17.42	2.36		
LAB*TCMa	62.5	17.59	172.29		
relative CIELAB lab*					
lab*lab	0.5	0.75	0.5		
lab*tch	0.5	0.25	0.479		
lab*nch	0.0	0.25	0.479		
relative Natural Colour (NC)					
lab*lrj	0.5	-0.247	-0.028		
lab*tce	0.5	0.25	0.518		
lab*nce	0.0	0.25	0.676		

relative Inform. Technology (IT)					
olvi3*	0.25	0.5	0.25	(1.0)	
cmyn3*	0.75	0.25	0.75	(0.0)	
olvi4*	0.5	1.0	0.5	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	54.41	-35.05	6.71		
LAB*LABa	54.41	-34.85	4.72		
LAB*TCMa	50.0	35.19	172.29		
relative CIELAB lab*					
lab*lab	0.47	-0.494	0.067		
lab*tch	0.5	0.25	0.479		
lab*nch	0.0	0.25	0.479		
relative Natural Colour (NC)					
lab*lrj	0.47	-0.494	-0.056		
lab*tce	0.5	0.25	0.518		
lab*nce	0.0	0.25	0.676		

relative Inform. Technology (IT)					
olvi3*	0.0	0.5	0.0	(1.0)	
cmyn3*	1.0	0.5	1.0	(0.0)	
olvi4*	0.5	1.0	0.5	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	35.06	-34.67	5.41		
LAB*LABa	35.06	-34.85	4.72		
LAB*TCMa	25.01	35.19	172.29		
relative CIELAB lab*					
lab*lab	0.22	-0.494	0.067		
lab*tch	0.25	0.5	0.479		
lab*nch	0.5	0.25	0.479		
relative Natural Colour (NC)					
lab*lrj	0.22	-0.494	-0.056		
lab*tce	0.25	0.5	0.518		
lab*nce	0.5	0.25	0.676		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	(1.0)	
cmyn3*	1.0	0.75	1.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(1.0)	
standard and adapted CIELAB					
LAB*LAB	26.54	-17.42	2.36		
LAB*LABa	26.54	-17.42	2.36		
LAB*TCMa	12.5	17.59	172.29		
relative CIELAB lab*					
lab*lab	0.11	-0.247	0.034		
lab*tch	0.125	0.25	0.479		
lab*nch	0.75	0.25	0.479		
relative Natural Colour (NC)					
lab*lrj	0.11	-0.247	-0.028		
lab*tce	0.125	0.25	0.518		
lab*nce	0.75	0.25	0.676		

$n^* = 0,50$

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

Input: Colorimetric Reflective System ORS18

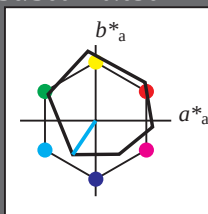
for hue $h^* = lab \cdot h = 236/360 = 0.656$

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

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

triangle lightness

1,00



% Gamut

$u^*_{rel} = 93$

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

% Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	95.41	-0.97	4.75		
LAB*LABa	95.41	0.0	0.0		
LAB*TCMa	98.91	0.01	0.0		
relative CIELAB lab*					
lab*lab	1.0	0.0	0.0		
lab*tch	1.0	0.0	0.0		
lab*nch	0.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	1.0	0.0	0.0		
lab*nce	1.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.75	0.75	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	76.06	-0.6	3.44		
LAB*LABa	76.06	0.0	0.0		
LAB*TCMa	75.0	0.01	0.0		
relative CIELAB lab*					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	0.0		
lab*nch	0.25	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.75	0.0	0.0		
lab*nce	0.25	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.5	0.5	0.5	(1.0)	
cmyn3*	0.5	0.5	0.5	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	56.71	-0.23	2.14		
LAB*LABa	56.71	0.0	0.0		
LAB*TCMa	50.0	0.01	0.0		
relative CIELAB lab*					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	0.0		
lab*nch	0.5	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.5	0.0	0.0		
lab*nce	0.5	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.25	0.25	0.25	(1.0)	
cmyn3*	0.75	0.75	0.75	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	37.36	0.13	0.83		
LAB*LABa	37.36	0.0	0.0		
LAB*TCMa	25.0	0.01	0.0		
relative CIELAB lab*					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.25	0.0	0.0		
lab*nce	0.75	0.0	0.0		

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

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

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

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

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

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

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

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

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

BAM-test chart UE40; Colorimetric systems ORS18 & MRS18
 D65: 5 step colour scales and coordinate data for 10 hues

input: $cm y 0^* \text{ set } c m y k c o l o r$
 output: $cm y 0^* / 000 n^* \text{ set } c m y k c o l o r$

chromaticness c^*

blackness n^* </

Input: Colorimetric Reflective System ORS18

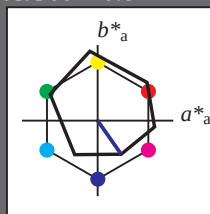
for hue $h^* = lab^*h = 305/360 = 0.847$

lab^*tch and lab^*nch

D65: hue V
LCH*Ma: 26 54 305
rgb*Ma: 0.0 0.0 1.0

triangle lightness

1,00



%Gamut

$u^*_{rel} = 93$

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

%Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	(1.0)	
cmyn3*	0.0	0.0	0.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	95.41	-0.97	4.75		
LAB*Lab	95.41	0.0	0.0		
LAB*TCha	98.99	0.01	-		
relative CIELAB lab*					
lab*lab	1.0	0.0	0.0		
lab*tch	1.0	0.0	0.0		
lab*nch	0.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	1.0	0.0	0.0		
lab*tce	1.0	0.0	0.0		
lab*nce	0.0	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.75	0.75	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	76.06	-0.6	3.44		
LAB*Lab	76.06	0.0	0.0		
LAB*TCha	75.0	0.01	-		
relative CIELAB lab*					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	0.0		
lab*nch	0.25	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.75	0.0	0.0		
lab*tce	0.75	0.0	0.0		
lab*nce	0.25	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.5	0.5	0.5	(1.0)	
cmyn3*	0.5	0.5	0.5	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	56.71	0.23	2.14		
LAB*Lab	56.71	0.0	0.0		
LAB*TCha	50.0	0.01	-		
relative CIELAB lab*					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	0.0		
lab*nch	0.5	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.5	0.0	0.0		
lab*tce	0.5	0.0	0.0		
lab*nce	0.5	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.25	0.25	0.25	(1.0)	
cmyn3*	0.75	0.75	0.75	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	37.36	0.13	0.83		
LAB*Lab	37.36	0.0	0.0		
LAB*TCha	25.0	0.01	-		
relative CIELAB lab*					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.25	0.0	0.0		
lab*tce	0.25	0.0	0.0		
lab*nce	0.75	0.0	0.0		

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

$n^* = 1,0$

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

BAM-test chart UE40; Colorimetric systems ORS18 & MRS18

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

output: $cmv0^* / 000n^* setcmvcolor$

Output: Colorimetric Reflective System MRS18

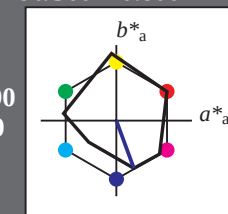
for hue $h^* = lab^*h = 290/360 = 0.806$

lab^*tch and lab^*nch

D65: hue B
LCH*Ma: 37 67 290
rgb*Ma: 0.0 0.0 1.0

triangle lightness

1,00



%Gamut

$u^*_{rel} = 91$

MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)					
olvi3*	0.75	0.75	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	80.72	5.1	-11.98		
LAB*Lab	80.72	5.79	-15.75		
LAB*TCha	87.5	6.79	290.19		
relative CIELAB lab*					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	0.0		
lab*nch	0.25	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.75	0.0	0.0		
lab*tce	0.75	0.0	0.0		
lab*nce	0.25	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.5	0.5	0.5	(1.0)	
cmyn3*	0.5	0.5	0.5	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	66.03	11.17	-28.74		
LAB*Lab	66.03	11.59	-31.51		
LAB*TCha	75.0	33.59	290.19		
relative CIELAB lab*					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	0.0		
lab*nch	0.5	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.5	0.0	0.0		
lab*tce	0.5	0.0	0.0		
lab*nce	0.5	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.25	0.25	0.25	(1.0)	
cmyn3*	0.75	0.75	0.75	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	46.68	11.55	-30.05		
LAB*Lab	46.68	11.59	-31.52		
LAB*TCha	50.0	33.59	290.19		
relative CIELAB lab*					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.25	0.0	0.0		
lab*tce	0.25	0.0	0.0		
lab*nce	0.75	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.0	0.0	0.0	(1.0)	
cmyn3*	1.0	1.0	1.0	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	32.0	17.62	-46.8		
LAB*Lab	32.0	17.39	-47.28		
LAB*TCha	37.51	50.38	290.19		
relative CIELAB lab*					
lab*lab	0.0	0.0	0.0		
lab*tch	0.0	0.0	0.0		
lab*nch	1.0	0.0	0.0		
relative Natural Colour (NC)					
lab*trj	0.0	0.0	0.0		
lab*tce	0.0	0.0	0.0		
lab*nce	1.0	0.0	0.0		

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

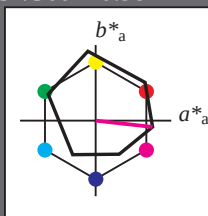
$n^* = 0,00$

Input: Colorimetric Reflective System ORS18

for hue $h^* = \text{lab}^*h = 354/360 = 0.982$

lab^*tch and lab^*nch

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



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

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

0,00

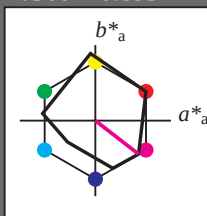
chromaticness c^*

Output: Colorimetric Reflective System MRS18

for hue $h^* = \text{lab}^*h = 322/360 = 0.895$

lab^*tch and lab^*nch

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



MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

0,00

chromaticness c^*

UE400-7, 5 step scales for constant CIELAB hue 354/360 = 0.982 (left)

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

BAM-test chart UE40; Colorimetric systems ORS18 & MRS18

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

input: $\text{cmy}0^* \text{ setcmykcolor}$

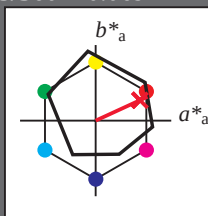
output: $\text{cmy}0^* / 000n^* \text{ setcmykcolor}$

Input: Colorimetric Reflective System ORS18

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

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

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



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

%Regularity

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

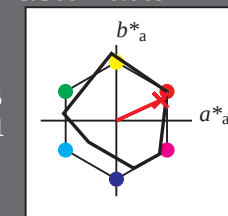
$g^*_{C,rel} = 59$

Output: Colorimetric Reflective System MRS18

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

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

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

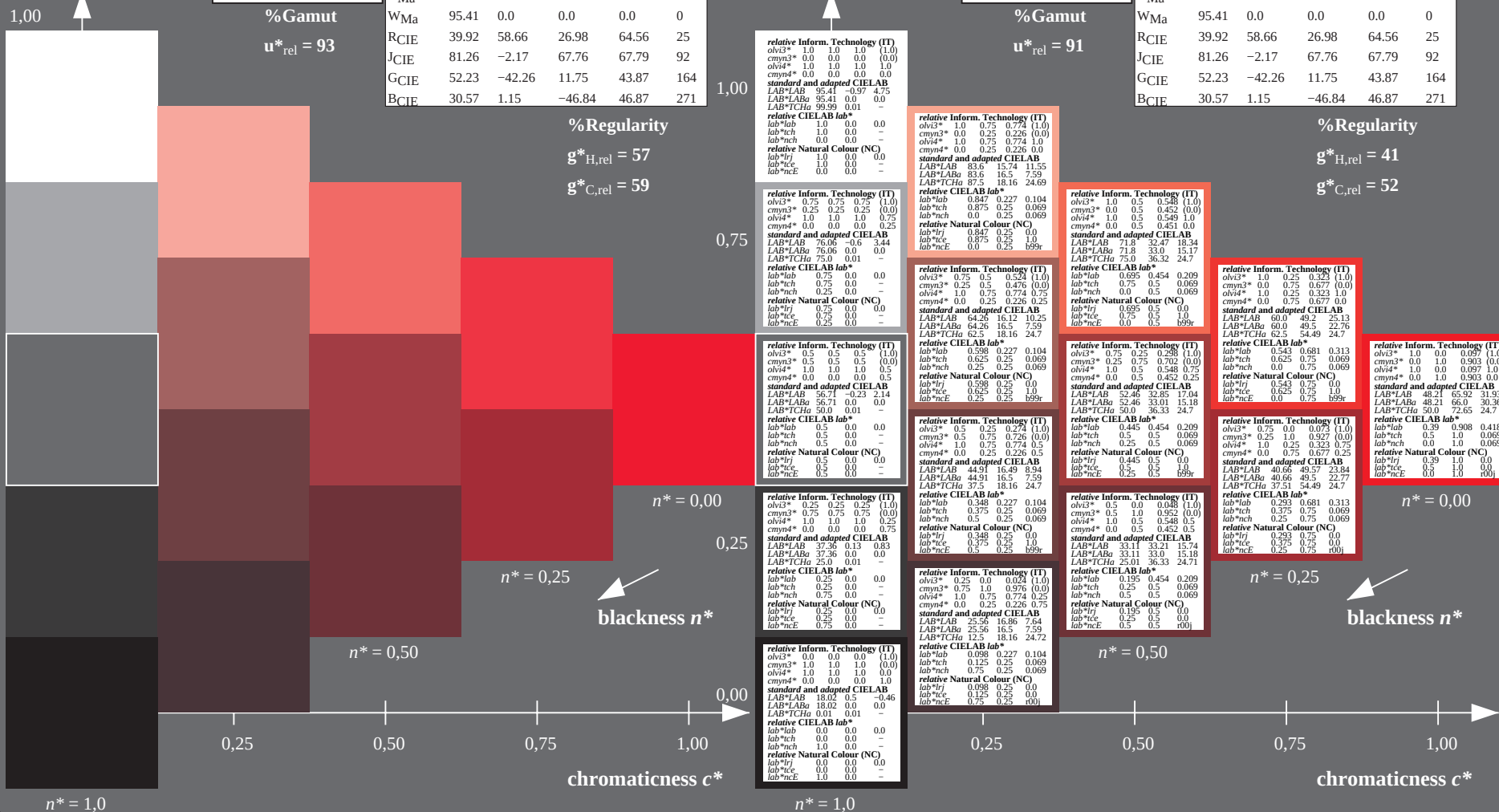


MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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



UE400-7, 5 step scales for constant CIELAB hue 25/360 = 0.069 (left)

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

BAM-test chart UE40; Colorimetric systems ORS18 & MRS18

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

input: `cmY0* setcmYkcolor`

output: `cmY0* / 000n* setcmYkcolor`

Input: Colorimetric Reflective System ORS18

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

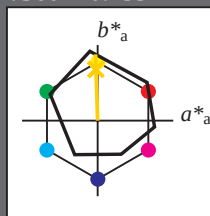
$lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 86 88 92

rgb*Ma: 1.0 0.9 0.0

triangle lightness



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

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

$n^* = 1,0$

Output: Colorimetric Reflective System MRS18

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

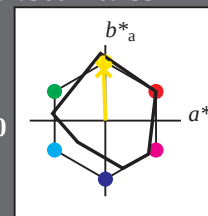
$lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 89 86 92

rgb*Ma: 1.0 0.95 0.0

triangle lightness



%Gamut

$u^*_{rel} = 91$

MRS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

$n^* = 1,0$

UE400-7, 5 step scales for constant CIELAB hue 92/360 = 0.255 (left)

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

BAM-test chart UE40; Colorimetric systems ORS18 & MRS18

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

input: `cmY0* setcmYcolor`

output: `cmY0* / 000n* setcmYcolor`

Input: Colorimetric Reflective System ORS18

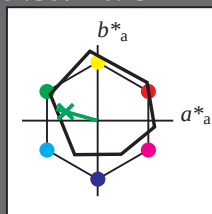
for hue $h^* = lab \cdot h = 164/360 = 0.457$

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

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

triangle lightness

1,00



%Gamut

$u^*_{rel} = 93$

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

%Regularity

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

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

1,00

relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	95.41	-0.97	4.75		
LAB*Lab	95.41	0.0	0.0		
LAB*TCha	98.99	0.01			
relative CIELAB lab*					
lab*lab	1.0	0.0	0.0		
lab*tch	1.0	0.0	0.0		
lab*nch	0.0	0.0	0.0		
lab*trj	1.0	0.0	0.0		
lab*tce	1.0	0.0	0.0		
lab*nce	0.0	0.0	0.0		
relative Natural Colour (NC)					
lab*lab	1.0	0.0	0.0		
lab*tch	1.0	0.0	0.0		
lab*nch	0.0	0.0	0.0		
lab*trj	1.0	0.0	0.0		
lab*tce	1.0	0.0	0.0		
lab*nce	0.0	0.0	0.0		

Output: Colorimetric Reflective System MRS18

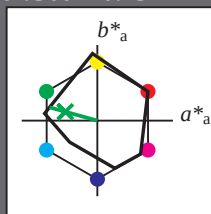
for hue $h^* = lab \cdot h = 164/360 = 0.457$

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

D65: hue G
LCH*Ma: 56 66 164
rgb*Ma: 0.1 1.0 0.0

triangle lightness

1,00



%Gamut

$u^*_{rel} = 91$

MRS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

relative Inform. Technology (IT)					
olvi3*	0.776	1.0	0.75	(1.0)	
cmyn3*	0.224	0.0	0.25	(0.0)	
olvi4*	0.776	1.0	0.75	(1.0)	
cmyn4*	0.224	0.0	0.25	(0.0)	
standard and adapted CIELAB					
LAB*LAB	85.57	-16.58	8.49		
LAB*Lab	85.57	-15.79	4.4		
LAB*TCha	87.5	16.4	164.45		
relative CIELAB lab*					
lab*lab	0.873	-0.24	0.067		
lab*tch	0.875	0.25	0.457		
lab*nch	0.0	0.25	0.457		
lab*trj	0.873	-0.249	0.0		
lab*tce	0.875	0.25	0.5		
lab*nce	0.0	0.25	0.998		
relative Natural Colour (NC)					
lab*lab	0.873	-0.24	0.067		
lab*tch	0.875	0.25	0.457		
lab*nch	0.0	0.25	0.457		
lab*trj	0.873	-0.249	0.0		
lab*tce	0.875	0.25	0.5		
lab*nce	0.0	0.25	0.998		

relative Inform. Technology (IT)					
olvi3*	0.75	0.75	0.75	(1.0)	
cmyn3*	0.25	0.25	0.25	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	76.06	-0.6	3.44		
LAB*Lab	76.06	0.0	0.0		
LAB*TCha	75.0	0.01			
relative CIELAB lab*					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	0.0		
lab*nch	0.25	0.0	0.0		
lab*trj	0.75	0.0	0.0		
lab*tce	0.75	0.0	0.0		
lab*nce	0.25	0.0	0.0		
relative Natural Colour (NC)					
lab*lab	0.75	0.0	0.0		
lab*tch	0.75	0.0	0.0		
lab*nch	0.25	0.0	0.0		
lab*trj	0.75	0.0	0.0		
lab*tce	0.75	0.0	0.0		
lab*nce	0.25	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.526	0.75	0.5	(1.0)	
cmyn3*	0.474	0.25	0.5	(0.0)	
olvi4*	0.776	1.0	0.75	(1.0)	
cmyn4*	0.224	0.0	0.25	(0.0)	
standard and adapted CIELAB					
LAB*LAB	66.22	-16.22	7.19		
LAB*Lab	66.22	-15.8	4.4		
LAB*TCha	62.5	16.41	164.46		
relative CIELAB lab*					
lab*lab	0.526	-0.24	0.067		
lab*tch	0.525	0.25	0.457		
lab*nch	0.25	0.25	0.457		
lab*trj	0.523	-0.249	0.0		
lab*tce	0.525	0.25	0.5		
lab*nce	0.25	0.25	0.998		
relative Natural Colour (NC)					
lab*lab	0.526	-0.24	0.067		
lab*tch	0.525	0.25	0.457		
lab*nch	0.25	0.25	0.457		
lab*trj	0.523	-0.249	0.0		
lab*tce	0.525	0.25	0.5		
lab*nce	0.25	0.25	0.998		

relative Inform. Technology (IT)					
olvi3*	0.5	0.5	0.5	(1.0)	
cmyn3*	0.5	0.5	0.5	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	56.71	-0.23	2.14		
LAB*Lab	56.71	0.0	0.0		
LAB*TCha	50.0	0.01			
relative CIELAB lab*					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	0.0		
lab*nch	0.5	0.0	0.0		
lab*trj	0.5	0.0	0.0		
lab*tce	0.5	0.0	0.0		
lab*nce	0.5	0.0	0.0		
relative Natural Colour (NC)					
lab*lab	0.5	0.0	0.0		
lab*tch	0.5	0.0	0.0		
lab*nch	0.5	0.0	0.0		
lab*trj	0.5	0.0	0.0		
lab*tce	0.5	0.0	0.0		
lab*nce	0.5	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.25	0.25	0.25	(1.0)	
cmyn3*	0.75	0.75	0.75	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	37.36	0.13	0.83		
LAB*Lab	37.36	0.0	0.0		
LAB*TCha	25.0	0.01			
relative CIELAB lab*					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
lab*trj	0.25	0.0	0.0		
lab*tce	0.25	0.0	0.0		
lab*nce	0.75	0.0	0.0		
relative Natural Colour (NC)					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
lab*trj	0.25	0.0	0.0		
lab*tce	0.25	0.0	0.0		
lab*nce	0.75	0.0	0.0		

relative Inform. Technology (IT)					
olvi3*	0.25	0.25	0.25	(1.0)	
cmyn3*	0.75	0.75	0.75	(0.0)	
olvi4*	1.0	1.0	1.0	(1.0)	
cmyn4*	0.0	0.0	0.0	(0.0)	
standard and adapted CIELAB					
LAB*LAB	37.36	0.13	0.83		
LAB*Lab	37.36	0.0	0.0		
LAB*TCha	25.0	0.01			
relative CIELAB lab*					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
lab*trj	0.25	0.0	0.0		
lab*tce	0.25	0.0	0.0		
lab*nce	0.75	0.0	0.0		
relative Natural Colour (NC)					
lab*lab	0.25	0.0	0.0		
lab*tch	0.25	0.0	0.0		
lab*nch	0.75	0.0	0.0		
lab*trj	0.25	0.0	0.0		
lab*tce	0.25	0.0	0.0		
lab*nce	0.75	0.0	0.0		

LAB*LAB	37.36	0.0	0.0
LAB*TCHa	25.0	0.01	—
relative CIELAB lab*			
lab*lab	0.25	0.0	0.0
lab*tch	0.25	0.0	—
lab*nch	0.75	0.0	—
relative Natural Colour (NC)			
lab*lrj	0.25	0.0	0.0
lab*tce	0.25	0.0	—
lab*nch	0.75	0.0	—

Input: Colorimetric Reflective System ORS18

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

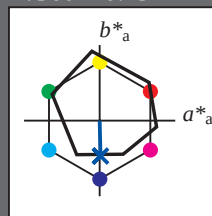
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 42 45 271

rgb*Ma: 0.0 0.49 1.0

triangle lightness



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

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

$n^* = 1,0$

Output: Colorimetric Reflective System MRS18

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

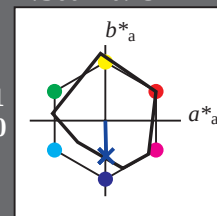
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 40 50 271

rgb*Ma: 0.0 0.37 1.0

triangle lightness



MRS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

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

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

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

$n^* = 1,0$

UE400-7, 5 step scales for constant CIELAB hue 271/360 = 0.754 (left)

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

BAM-test chart UE40; Colorimetric systems ORS18 & MRS18

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

input: $cmY0^* \text{ setcmYkcolor}$

output: $cmY0^* / 000n^* \text{ setcmYkcolor}$