

Input: Colorimetric Reflective System NRS11

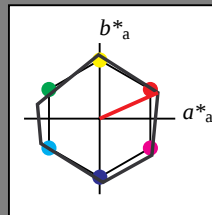
for hue $h^* = lab \cdot h = 24/360 = 0.067$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue R

LCH*Ma: 53 84 24

rgb*Ma: 1.0 0.0 0.0

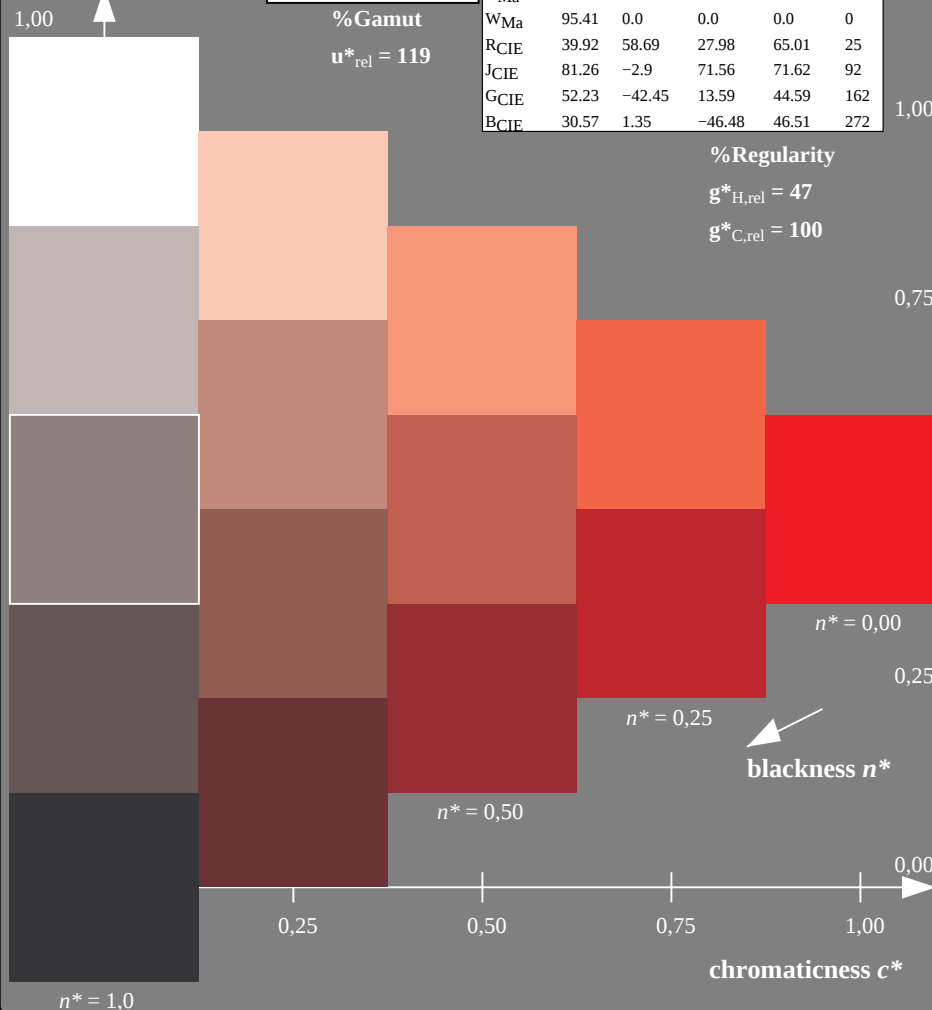
triangle lightness



NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$ 

UE470-7, 5 step scales for constant CIELAB hue 24/360 = 0.067 (left)

BAM-test chart UE47; Colorimetric systems ORS18 & ORS18

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

Output: Colorimetric Reflective System ORS18

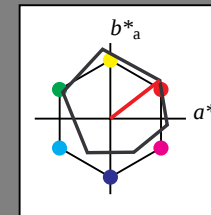
for hue $h^* = lab \cdot h = 38/360 = 0.105$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue O

LCH*Ma: 48 83 38

rgb*Ma: 1.0 0.0 0.0

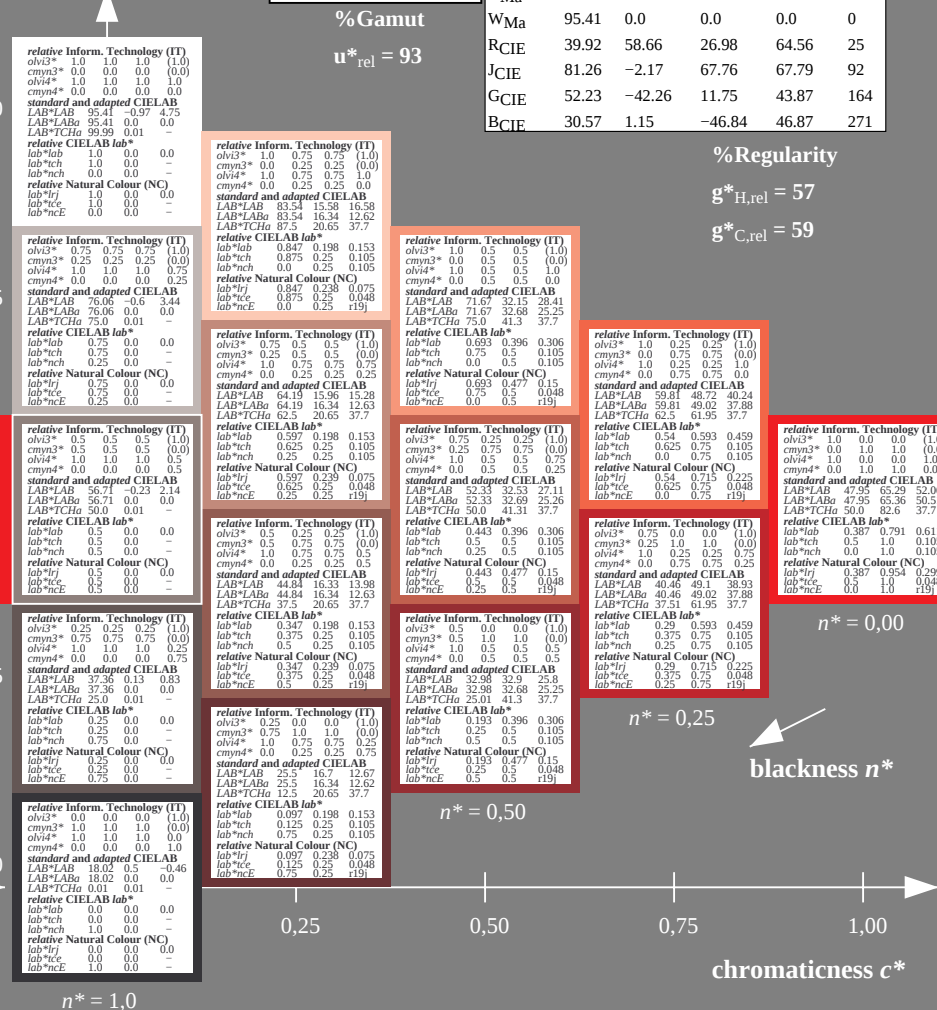
triangle lightness



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

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

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

input: $cmy0^* \cdot setcmykcolor$

output: Startup (S) data dependend

Input: Colorimetric Reflective System NRS11

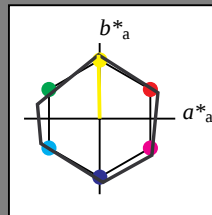
for hue $h^* = lab \cdot h = 91/360 = 0.253$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 53 84 91

rgb*Ma: 1.0 1.0 0.0

triangle lightness



%Gamut

 $u^*_{rel} = 119$

NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$

Output: Colorimetric Reflective System ORS18

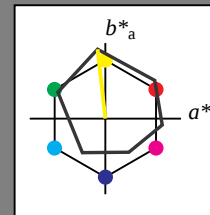
for hue $h^* = lab \cdot h = 96/360 = 0.268$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue Y

LCH*Ma: 90 92 96

rgb*Ma: 1.0 1.0 0.0

triangle lightness



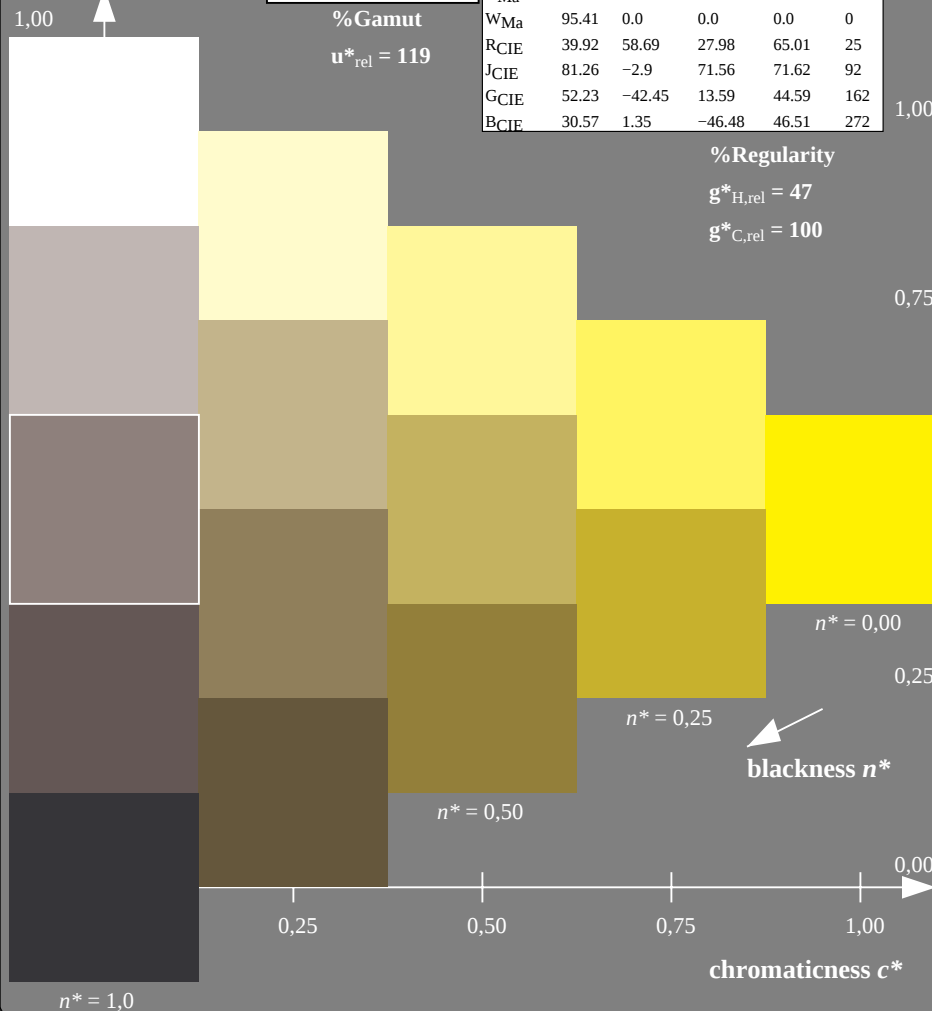
%Gamut

 $u^*_{rel} = 93$

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

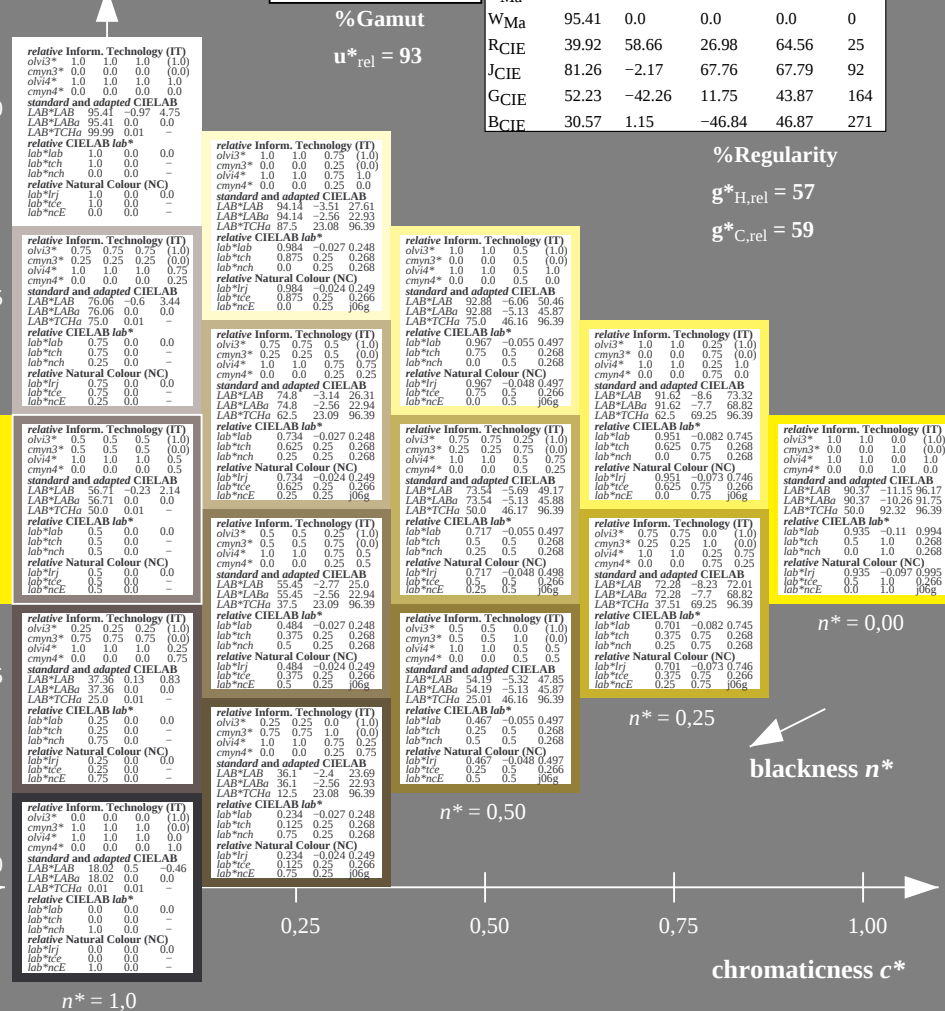
%Regularity

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

UE470-7, 5 step scales for constant CIELAB hue 91/360 = 0.253 (left)

BAM-test chart UE47; Colorimetric systems ORS18 & ORS18

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



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

input: $cmY0^* setcmykcolor$

output: Startup (S) data dependend

Input: Colorimetric Reflective System NRS11

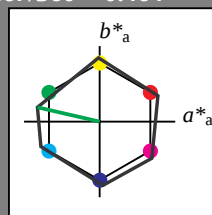
for hue $h^* = lab \cdot h = 167/360 = 0.464$

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

D65: hue G
LCH*Ma: 53 84 167
rgb*Ma: 0.0 1.0 0.0

triangle lightness

1,00



NRS11; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 47$

$g^*_{C,rel} = 100$

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*LABa	95.41	0.0	0.0		
LAB*TCha	99.91	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		
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	0.75	(1.0)
cmyn3*	0.25	0.25	0.25	0.25	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	76.06	-0.6	3.44		
LAB*LABa	76.06	0.0	0.0		
LAB*TCha	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		
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	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	56.71	0.23	2.14		
LAB*LABa	56.71	0.0	0.0		
LAB*TCha	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		
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	0.25	(1.0)
cmyn3*	0.75	0.75	0.75	0.75	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	37.36	0.13	0.83		
LAB*LABa	37.36	0.0	0.0		
LAB*TCha	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		
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	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0	(1.0)
cmyn4*	0.0	0.0	0.0	0.0	(0.0)
standard and adapted CIELAB					
LAB*LAB	18.02	0.3	0.46		
LAB*LABa	18.02	0.0	0.0		
LAB*TCha	0.01	0.01	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		
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 151/360 = 0.419 (right)

input: $cmyn0^* \text{ setcmymkcolor}$

output: Startup (S) data dependend

chromaticness c^*

blackness n^*

triangle lightness

% Gamut

$u^*_{rel} = 93$

%Regularity

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

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

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 84.28 -16.45 12.74

LAB*LABa 84.28 -15.68 8.73

LAB*TCha 87.5 17.96 150.91

relative CIELAB lab*

lab*lab 0.75 0.0 0.0 0.0

lab*tch 0.75 0.0 0.0 0.0

lab*nch 0.0 0.25 0.419

lab*trj 0.75 0.0 0.0 0.0

lab*tce 0.75 0.0 0.453

lab*nce 0.0 0.25 0.419

relative Inform. Technology (IT)

olvi3* 0.5 1.0 0.5 (1.0)

cmyn3* 0.5 0.0 0.5 (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 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 0.5 0.0 0.0 0.0

lab*tch 0.5 0.0 0.0 0.0

lab*nch 0.5 0.0 0.419

lab*trj 0.5 0.0 0.0 0.0

lab*tce 0.5 0.0 0.453

lab*nce 0.0 0.5 0.419

relative Inform. Technology (IT)

olvi3* 0.25 0.75 0.25 (1.0)

cmyn3* 0.75 0.25 0.75 (0.0)

olvi4* 0.5 1.0 0.5 0.5

cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 53.8 -31.57 19.42

LAB*LABa 53.8 -31.39 17.47

LAB*TCha 50.0 35.94 150.91

relative CIELAB lab*

lab*lab 0.25 0.0 0.0 0.0

lab*tch 0.25 0.0 0.0 0.0

lab*nch 0.25 0.0 0.419

lab*trj 0.25 0.0 0.0 0.0

lab*tce 0.25 0.0 0.453

lab*nce 0.0 0.25 0.419

relative Inform. Technology (IT)

olvi3* 0.0 1.0 0.0 (1.0)

cmyn3* 1.0 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 45.58 -15.72 10.13

LAB*LABa 45.58 -15.69 8.74

LAB*TCha 37.5 17.97 150.91

relative CIELAB lab*

lab*lab 0.0 0.0 0.0 0.0

lab*tch 0.0 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0 0.0

lab*trj 0.0 0.0 0.0 0.0

lab*tce 0.0 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0 0.0

relative Inform. Technology (IT)

olvi3* 0.0 0.5 0.0 (1.0)

cmyn3* 0.5 0.5 0.0 (0.0)

olvi4* 0.5 1.0 0.5 0.5

cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 42.68 -47.06 27.41

LAB*LABa 42.68 -47.09 26.21

LAB*TCha 37.51 53.9 150.91

relative CIELAB lab*

lab*lab 0.0 0.0 0.0 0.0

lab*tch 0.0 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0 0.0

lab*trj 0.0 0.0 0.0 0.0

lab*tce 0.0 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0 0.0

relative Inform. Technology (IT)

olvi3* 0.0 0.75 0.0 (1.0)

cmyn3* 0.75 0.0 0.75 (0.0)

olvi4* 0.25 1.0 0.25 1.0

cmyn4* 0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 62.02 -47.43 28.71

LAB*LABa 62.02 -47.09 26.21

LAB*TCha 62.5 53.9 150.91

relative CIELAB lab*

lab*lab 0.0 0.0 0.0 0.0

lab*tch 0.0 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0 0.0

lab*trj 0.0 0.0 0.0 0.0

lab*tce 0.0 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0 0.0

relative Inform. Technology (IT)

olvi3* 0.0 1.0 0.0 (1.0)

cmyn3* 1.0 0.0 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 50.9 -62.78 34.94

LAB*LABa 50.9 -62.78 34.94

LAB*TCha 50.0 71.86 150.91

relative CIELAB lab*

lab*lab 0.0 0.0 0.0 0.0

lab*tch 0.0 0.0 0.0 0.0

lab*nch 0.0 0.0 0.0 0.0

lab*trj 0.0 0.0 0.0 0.0

lab*tce 0.0 0.0 0.0 0.0

lab*nce 0.0 0.0 0.0 0.0

relative Inform. Technology (IT)

olvi3* 0.0 0.5 0.0 (1.0)

cmyn3* 0.5 0.5 0.0 (0.0)

olvi4* 0.25 1.0 0

Input: Colorimetric Reflective System NRS11

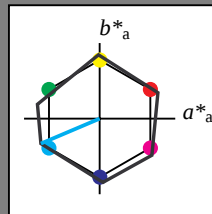
for hue $h^* = \text{lab} \cdot h = 203/360 = 0.564$ $\text{lab} \cdot \text{tch}$ and $\text{lab} \cdot \text{nch}$

D65: hue G50B

LCH*Ma: 53 84 203

rgb*Ma: 0.0 1.0 1.0

triangle lightness



NRS11; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50B _{Ma}	53.2	-77.72	-32.98	84.44	203
B _{Ma}	53.2	4.37	-84.28	84.41	273
B50R _{Ma}	53.2	69.09	-48.41	84.37	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$

1,00

0,75

 $n^* = 0,00$

0,25

 $n^* = 0,25$ $n^* = 0,50$ blackness n^* chromaticness c^*

Output: Colorimetric Reflective System ORS18

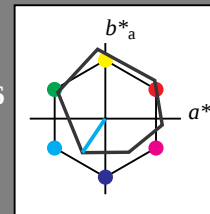
for hue $h^* = \text{lab} \cdot h = 236/360 = 0.656$ $\text{lab} \cdot \text{tch}$ and $\text{lab} \cdot \text{nch}$

D65: hue C

LCH*Ma: 59 54 236

rgb*Ma: 0.0 1.0 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
N _{Ma}	18.01	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Regularity

 $g^*_{H,rel} = 57$ $g^*_{C,rel} = 59$ $n^* = 0,00$ $n^* = 0,25$ blackness n^* chromaticness c^*

UE470-7, 5 step scales for constant CIELAB hue 203/360 = 0.564 (left)

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

BAM-test chart UE47; Colorimetric systems ORS18 & ORS18

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

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

output: Startup (S) data dependend

Input: Colorimetric Reflective System NRS11

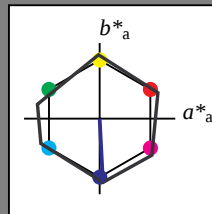
for hue $h^* = lab \cdot h = 273/360 = 0.758$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 53 84 273

rgb*Ma: 0.0 0.0 1.0

triangle lightness



NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$

Output: Colorimetric Reflective System ORS18

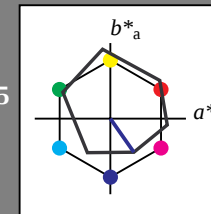
for hue $h^* = lab \cdot h = 305/360 = 0.847$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue V

LCH*Ma: 26 54 305

rgb*Ma: 0.0 0.0 1.0

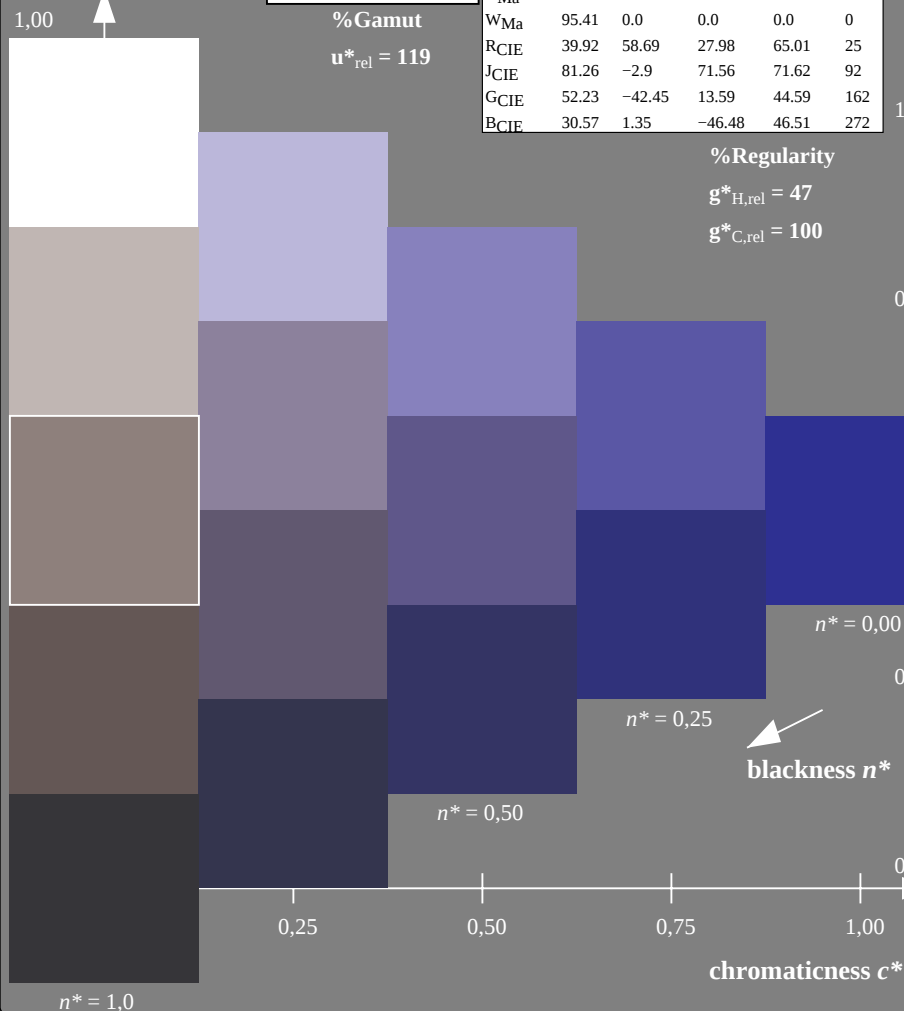
triangle lightness



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

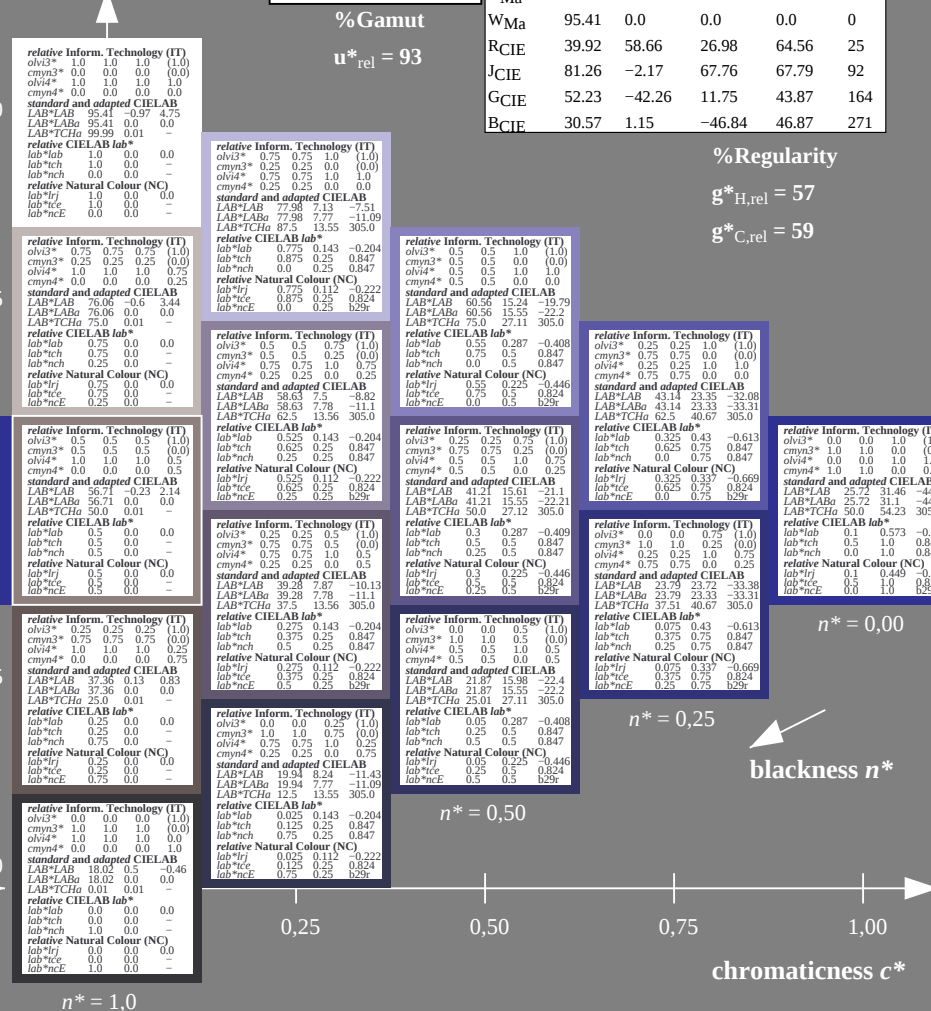
%Regularity

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

UE470-7, 5 step scales for constant CIELAB hue 273/360 = 0.758 (left)

BAM-test chart UE47; Colorimetric systems ORS18 & ORS18

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



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

input: $cmY0^* \text{ set } cmykcolor$

output: Startup (S) data dependent

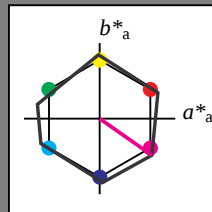
Input: Colorimetric Reflective System NRS11

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

D65: hue B50R
 LCH*Ma: 53 84 325
 rgb*Ma: 1.0 0.0 1.0

triangle lightness

1,00



%Gamut

 $u^*_{rel} = 119$

NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50B _{Ma}	53.2	-77.72	-32.98	84.44	203
B _{Ma}	53.2	4.37	-84.28	84.41	273
B50R _{Ma}	53.2	69.09	-48.41	84.37	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$

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	
relative CIELAB lab*	
lab*lab 1.0 0.0 0.0	
lab*tch 1.0 0.0 0.0	
lab*nch 0.0 0.0 0.0	
relative Natural Colour (NC)	
lab*trj 1.0 0.0 0.0	
lab*trc 1.0 0.0 0.0	
lab*ncc 0.0 0.0 0.0	

relative Inform. Technology (IT)	
olvi3* 0.75 0.75 0.75 (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*LABb 76.06 0.0 0.0	
LAB*LABc 76.06 0.0 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*trc 0.25 0.0 0.0	
lab*ncc 0.25 0.0 0.0	

relative Inform. Technology (IT)	
olvi3* 0.5 0.5 0.5 (1.0)	
cmyn3* 0.5 0.5 0.5 (0.0)	
olvi4* 1.0 1.0 1.0 (1.0)	
cmyn4* 0.0 0.0 0.0 (0.0)	
standard and adapted CIELAB	
LAB*LAB 56.71 0.23 2.14	
LAB*LABa 56.71 0.0 0.0	
LAB*LABb 56.71 0.0 0.0	
LAB*LABc 56.71 0.0 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*trc 0.5 0.0 0.0	
lab*ncc 0.5 0.0 0.0	

relative Inform. Technology (IT)	
olvi3* 0.25 0.25 0.25 (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*LABb 37.36 0.0 0.0	
LAB*LABc 37.36 0.0 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*trc 0.25 0.0 0.0	
lab*ncc 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*LABb 18.02 0.0 0.0	
LAB*LABc 18.02 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*trc 0.0 0.0 0.0	
lab*ncc 1.0 0.0 0.0	

 $n^* = 1,0$ chromaticness c^* blackness n^*

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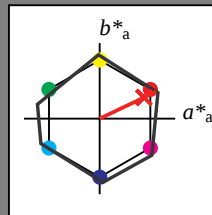
52,25

Input: Colorimetric Reflective System NRS11

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

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

D65: hue R
LCH*Ma: 53 83 25
rgb*Ma: 1.0 0.03 0.0
triangle lightness

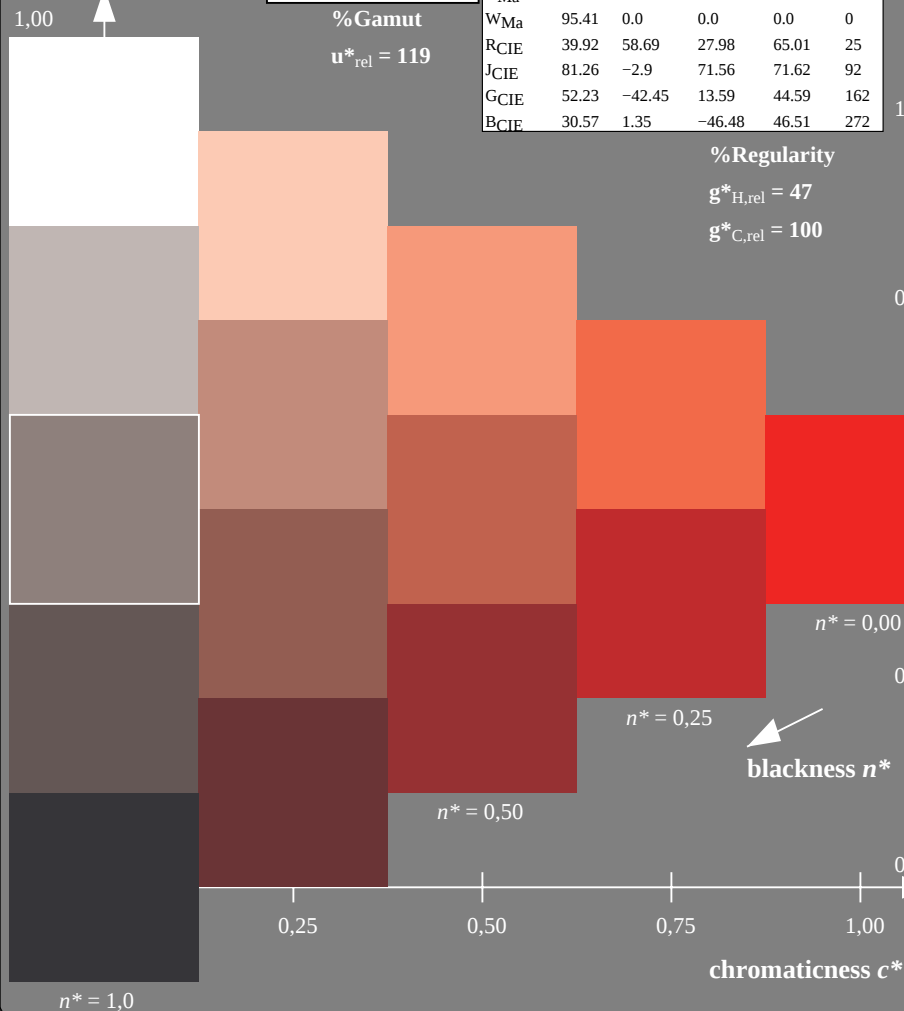


NRS11; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

$g^*_{H,rel} = 47$

$g^*_{C,rel} = 100$



UE470-7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)

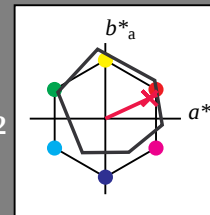
BAM-test chart UE47; Colorimetric systems ORS18 & ORS18
D65: 5 step colour scales and coordinate data for 10 hues

Output: 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

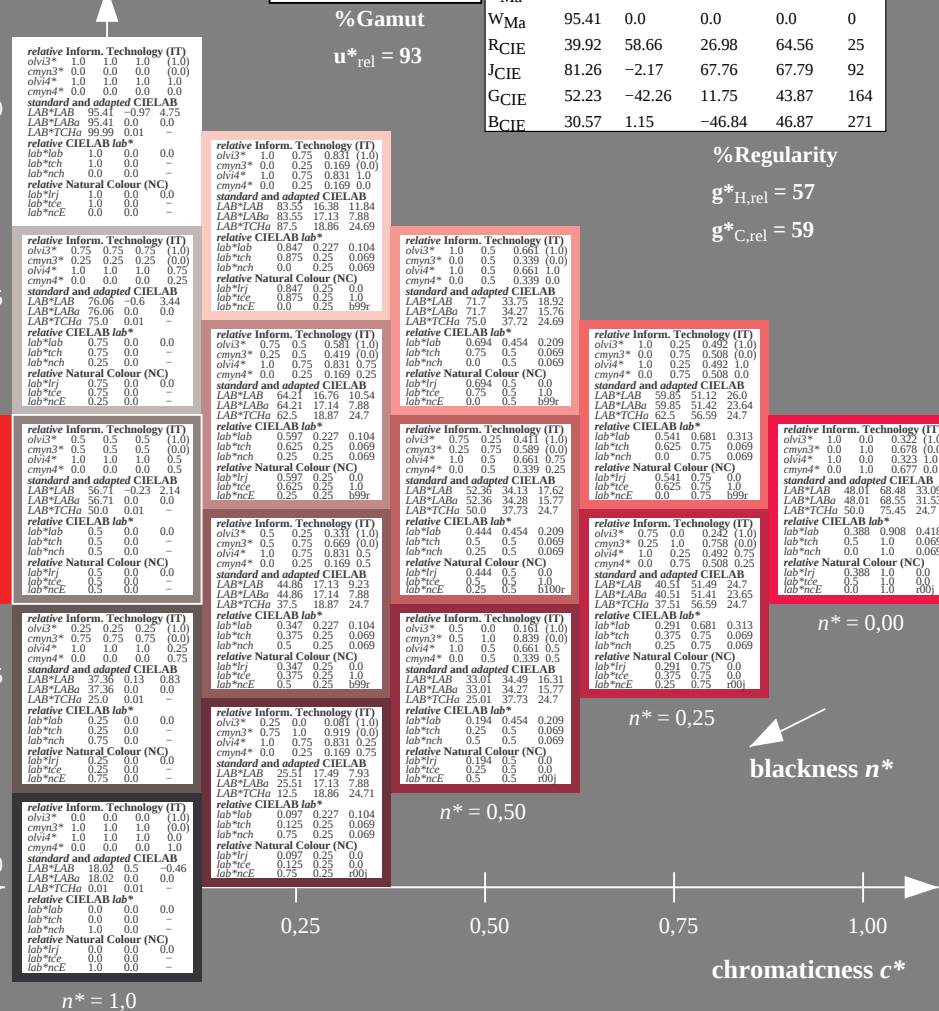


ORS18; adapted (a) CIELAB data					
	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.37	50.52	82.62	38
YMa	90.37	-10.27	91.77	92.34	96
LMa	50.9	-62.79	34.95	71.87	151
CMa	58.62	-30.35	-45.01	54.3	236
VMa	25.71	31.11	-44.42	54.24	305
MMa	48.13	75.27	-8.35	75.73	354
NMa	18.01	0.0	0.0	0.0	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

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

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



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

input: $cmY0^* set cmykcolor$
output: *Startup (S) data dependend*

Input: Colorimetric Reflective System NRS11

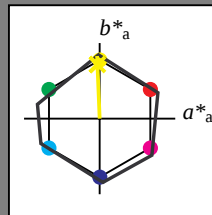
for hue $h^* = lab \cdot h = 92/360 = 0.256$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 53 83 92

rgb*Ma: 0.98 1.0 0.0

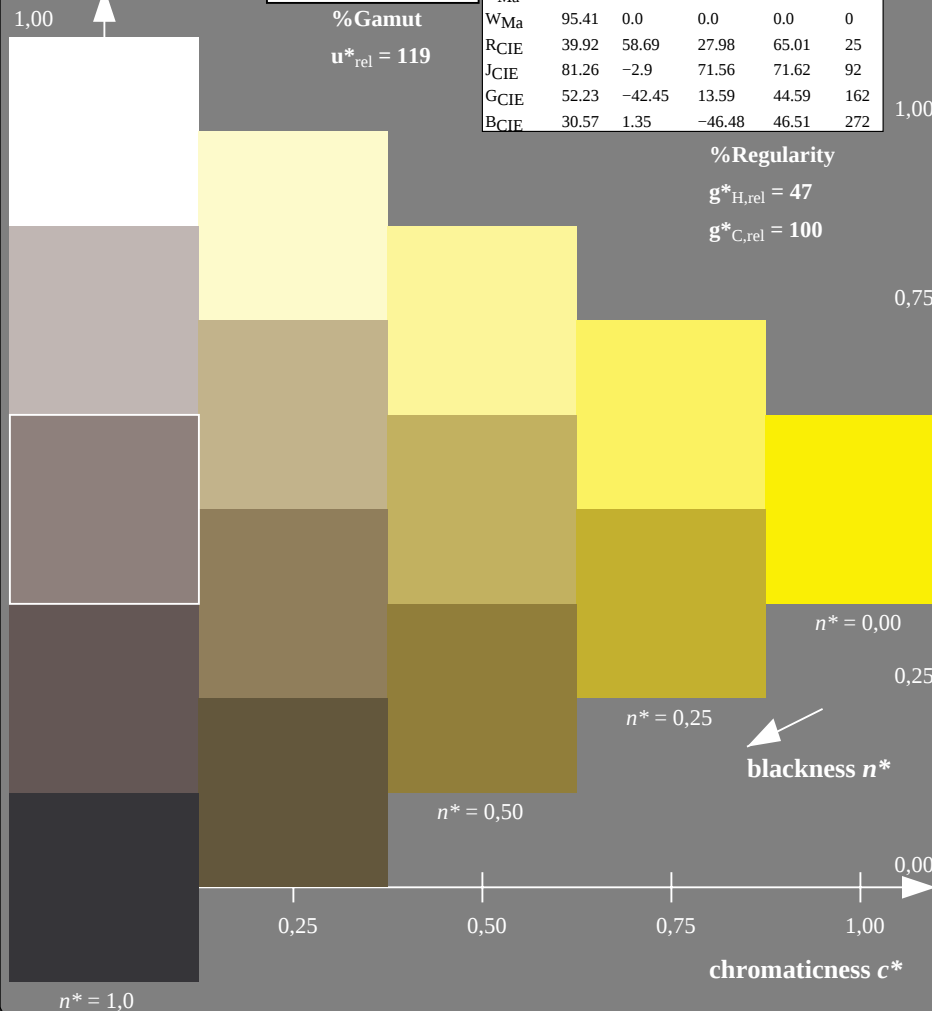
triangle lightness



NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$ 

UE470-7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

BAM-test chart UE47; Colorimetric systems ORS18 & ORS18

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

Output: Colorimetric Reflective System ORS18

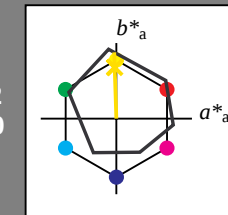
for hue $h^* = lab \cdot h = 92/360 = 0.255$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 86 88 92

rgb*Ma: 1.0 0.9 0.0

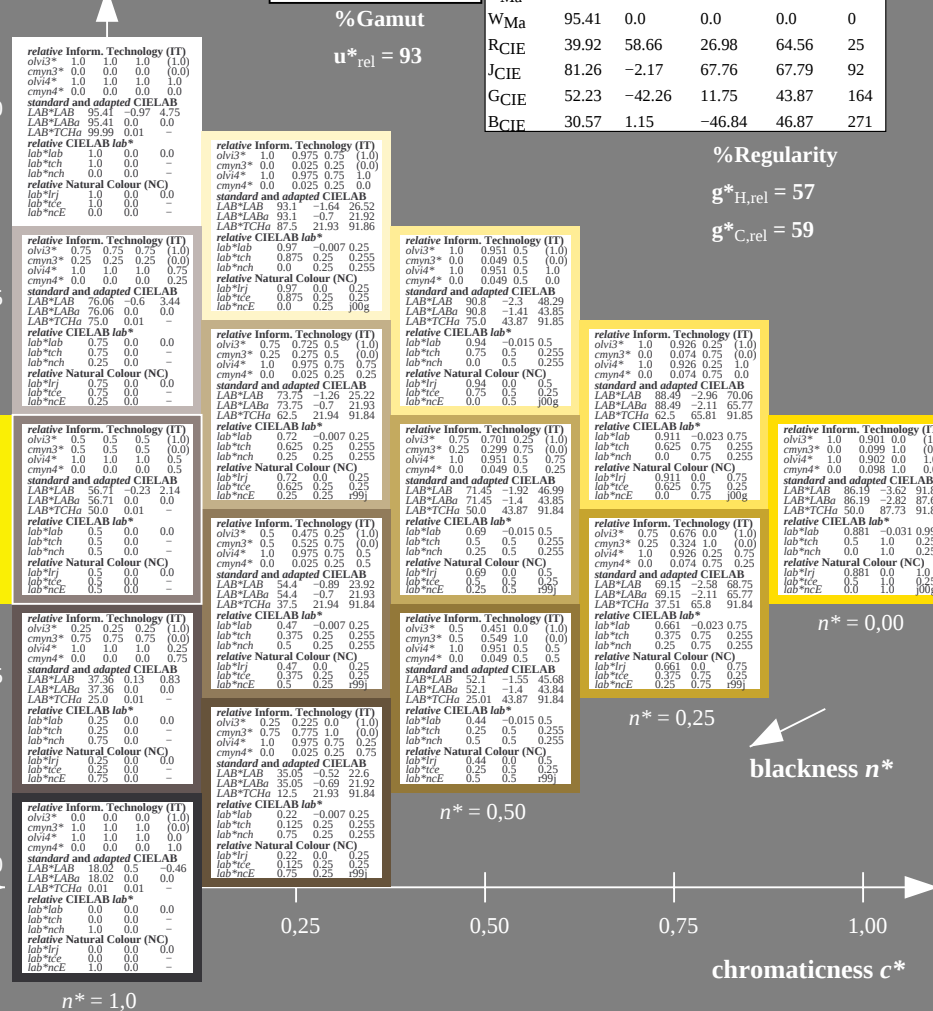
triangle lightness



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

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

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

input: $cmY0^* set cmykcolor$

output: Startup (S) data dependend

Input: Colorimetric Reflective System NRS11

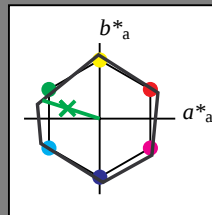
for hue $h^* = lab \cdot h = 162/360 = 0.451$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 53 80 162

rgb*Ma: 0.08 1.0 0.0

triangle lightness



NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50B _{Ma}	53.2	-77.72	-32.98	84.44	203
B _{Ma}	53.2	4.37	-84.28	84.41	273
B50R _{Ma}	53.2	69.09	-48.41	84.37	325
N _{Ma}	10.99	0.0	0.0	0.0	0
W _{Ma}	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$

1,00

0,75

 $n^* = 0,00$

0,25

 $n^* = 0,25$ $n^* = 0,50$

0,00

 $n^* = 1,0$ chromaticness c^*

UE470-7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)

BAM-test chart UE47; Colorimetric systems ORS18 & ORS18

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

Output: Colorimetric Reflective System ORS18

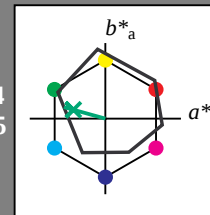
for hue $h^* = lab \cdot h = 164/360 = 0.457$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 53 57 164

rgb*Ma: 0.0 1.0 0.25

triangle lightness



ORS18; adapted (a) CIELAB data

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

%Regularity

 $g^*_{H,rel} = 57$ $g^*_{C,rel} = 59$ $n^* = 0,00$

0,25

 $n^* = 0,25$ $n^* = 0,50$

0,00

 $n^* = 1,0$ chromaticness c^*

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

input: $cmY0^* \text{ set } cmykcolor$

output: Startup (S) data dependend

Input: Colorimetric Reflective System NRS11

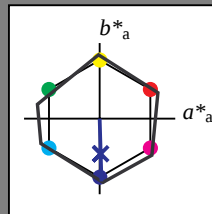
for hue $h^* = lab \cdot h = 272/360 = 0.755$ $lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 53 83 272

rgb*Ma: 0.0 0.02 1.0

triangle lightness



NRS11; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	53.2	77.06	34.32	84.36	24
JMa	53.2	-1.51	84.38	84.39	91
GMa	53.2	-82.27	18.98	84.44	167
G50BMa	53.2	-77.72	-32.98	84.44	203
BMa	53.2	4.37	-84.28	84.41	273
B50RMa	53.2	69.09	-48.41	84.37	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Regularity

 $g^*_{H,rel} = 47$ $g^*_{C,rel} = 100$

1,00

0,75

 $n^* = 0,00$

0,25

 $n^* = 0,25$ $n^* = 0,50$ chromaticness c^*

Output: Colorimetric Reflective System ORS18

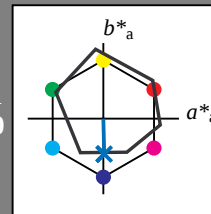
for hue $h^* = lab \cdot h = 271/360 = 0.754$ $lab \cdot tch$ and $lab \cdot nch$

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

 $n^* = 0,25$ $n^* = 0,50$ chromaticness c^*

UE470-7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)

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

BAM-test chart UE47; Colorimetric systems ORS18 & ORS18

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

input: $cmY0^* \text{ set } cmYcolor$

output: Startup (S) data dependend