

Input: Colorimetric Natural Reflective System CNS18

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

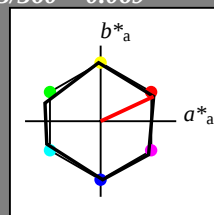
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 57 77 25

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

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

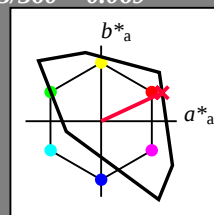
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 52 89 25

olv*Ma: 1.0 0.0 0.22

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 1.0 0.5 0.609 (1.0)
cmyn3* 0.0 0.5 0.391 (0.0)
olvi4* 1.0 0.5 0.609 1.0
cmyn4* 0.0 0.5 0.391 0.0
standard and adapted CIELAB
LAB*LAB 73.69 40.36 18.82
LAB*LABa 73.69 40.36 18.82
LAB*TCHa 75.0 44.53 25.0

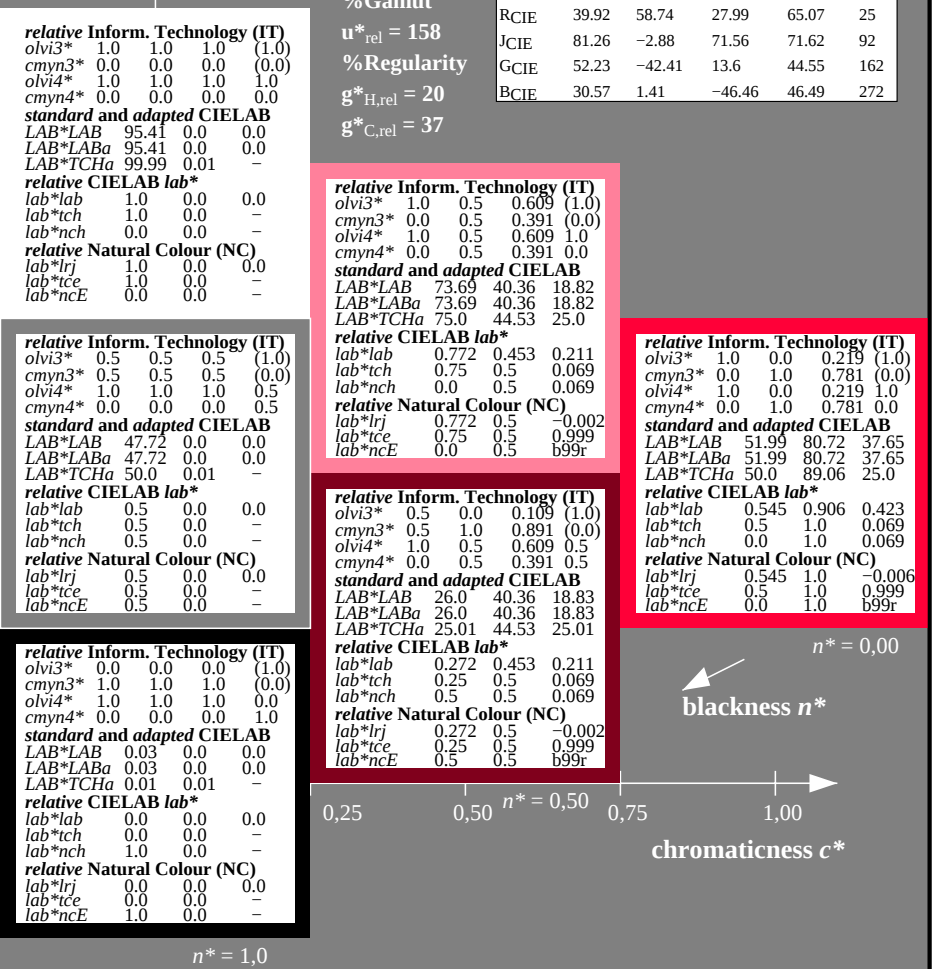
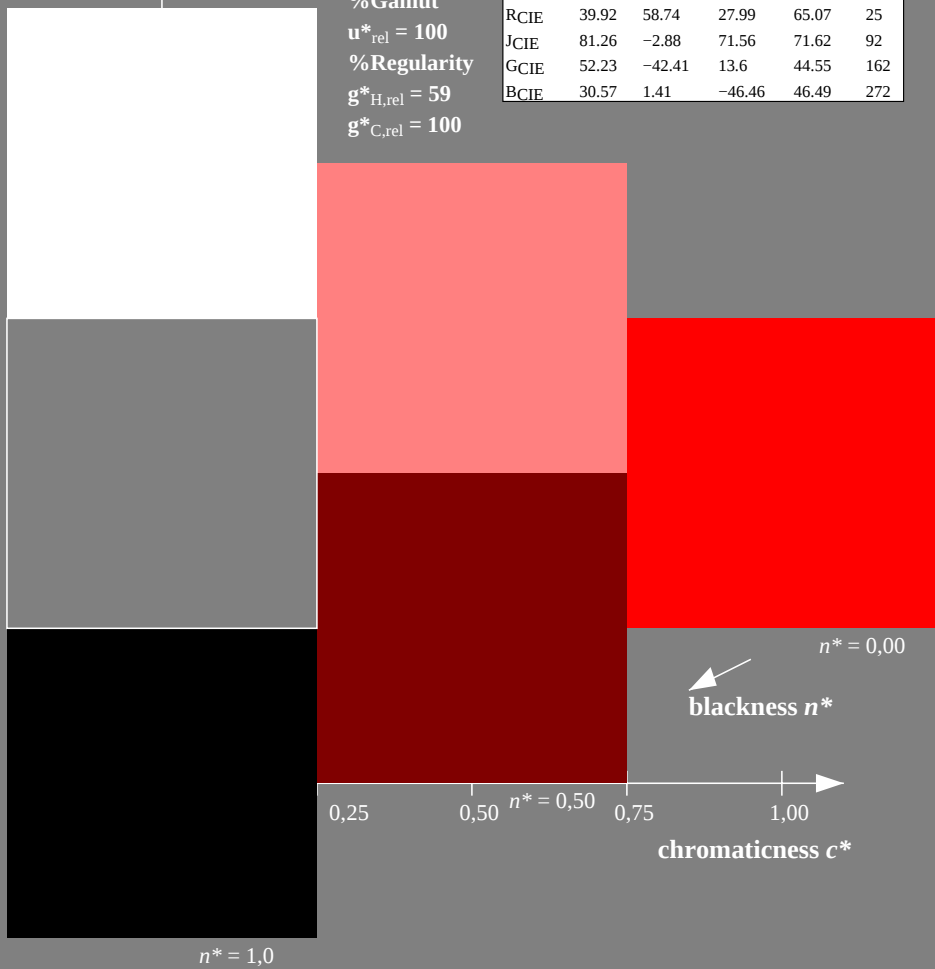
relative CIELAB lab*
lab*lab 0.772 0.453 0.211
lab*tch 0.75 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*lrj 0.772 0.5 -0.002
lab*tce 0.75 0.5 0.999
lab*nce 0.0 0.5 0.999

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.109 (1.0)
cmyn3* 0.5 1.0 0.891 (0.0)
olvi4* 1.0 0.5 0.609 0.5
cmyn4* 0.0 0.5 0.391 0.5
standard and adapted CIELAB
LAB*LAB 26.0 40.36 18.83
LAB*LABa 26.0 40.36 18.83
LAB*TCHa 25.01 44.53 25.01

relative CIELAB lab*
lab*lab 0.272 0.453 0.211
lab*tch 0.25 0.5 0.069
lab*nch 0.5 0.5 0.069
relative Natural Colour (NC)
lab*lrj 0.272 0.5 -0.002
lab*tce 0.25 0.5 0.999
lab*nce 0.5 0.5 0.999

relative Inform. Technology (IT)
olvi3* 1.0 0.0 0.219 (1.0)
cmyn3* 0.0 1.0 0.781 (0.0)
olvi4* 1.0 0.0 0.219 1.0
cmyn4* 0.0 1.0 0.781 0.0
standard and adapted CIELAB
LAB*LAB 51.99 80.72 37.65
LAB*LABa 51.99 80.72 37.65
LAB*TCHa 50.0 89.06 25.0

relative CIELAB lab*
lab*lab 0.545 0.906 0.423
lab*tch 0.5 1.0 0.069
lab*nch 0.0 1.0 0.069
relative Natural Colour (NC)
lab*lrj 0.545 1.0 -0.006
lab*tce 0.5 1.0 0.999
lab*nce 0.0 1.0 0.999



VE500-7, 3 step scales for constant CIELAB hue 25/360 = 0.069 (left)

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

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

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

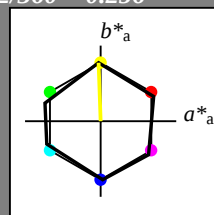
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 57 77 92

olv*Ma: 1.0 1.0 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

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

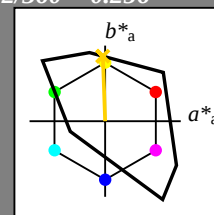
lab^*tch and lab^*nch

D65: hue Y

LCH*Ma: 85 86 92

olv*Ma: 1.0 0.82 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 1.0 0.909 0.5 (1.0)
cmyn3* 0.0 0.091 0.5 (0.0)
olvi4* 1.0 0.909 0.5 1.0
cmyn4* 0.0 0.091 0.5 0.0

standard and adapted CIELAB
LAB*LAB 90.21 -1.5 42.99
LAB*LABa 90.21 -1.5 42.99
LAB*TCHa 75.0 43.02 92.01

relative CIELAB lab*
lab*lab 0.945 -0.017 0.5
lab*tch 0.75 0.5 0.256
lab*nch 0.0 0.5 0.256

relative Natural Colour (NC)
lab*lrj 0.945 0.004 0.5
lab*tce 0.75 0.5 0.249
lab*nce 0.0 0.5 r99j

relative Inform. Technology (IT)
olvi3* 0.5 0.409 0.0 (1.0)
cmyn3* 0.5 0.591 1.0 (0.0)
olvi4* 1.0 0.909 0.5 0.5
cmyn4* 0.0 0.091 0.5 0.5

standard and adapted CIELAB
LAB*LAB 42.51 -1.49 42.99
LAB*LABa 42.51 -1.49 42.99
LAB*TCHa 25.01 43.02 92.0

relative CIELAB lab*
lab*lab 0.446 -0.016 0.5
lab*tch 0.25 0.5 0.256
lab*nch 0.5 0.5 0.256

relative Natural Colour (NC)
lab*lrj 0.446 0.004 0.5
lab*tce 0.25 0.5 0.249
lab*nce 0.5 0.5 r99j

relative Inform. Technology (IT)
olvi3* 1.0 0.819 0.0 (1.0)
cmyn3* 0.0 0.181 1.0 (0.0)
olvi4* 1.0 0.819 0.0 1.0
cmyn4* 0.0 0.181 1.0 0.0

standard and adapted CIELAB
LAB*LAB 85.01 -3.0 85.98
LAB*LABa 85.01 -3.0 85.98
LAB*TCHa 50.0 86.04 92.0

relative CIELAB lab*
lab*lab 0.891 -0.034 0.999
lab*tch 0.5 1.0 0.256
lab*nch 0.0 1.0 0.256

relative Natural Colour (NC)
lab*lrj 0.891 0.007 1.0
lab*tce 0.5 1.0 0.249
lab*nce 0.0 1.0 r99j

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 0.03 0.0 0.0
LAB*LABa 0.03 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 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 0.03 0.0 0.0
LAB*LABa 0.03 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 -

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

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

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 162/360 = 0.45$

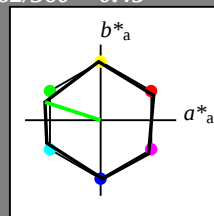
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 57 77 162

olv*Ma: 0.0 1.0 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 162/360 = 0.45$

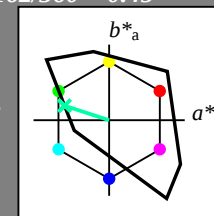
lab^*tch and lab^*nch

D65: hue L

LCH*Ma: 86 62 162

olv*Ma: 0.0 1.0 0.65

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 0.5 1.0 0.825 (1.0)
cmyn3* 0.5 0.0 0.175 (0.0)
olvi4* 0.5 1.0 0.825 1.0
cmyn4* 0.5 0.0 0.175 0.0

standard and adapted CIELAB
LAB*LAB 90.57 -29.47 9.57
LAB*LABa 90.57 -29.47 9.57
LAB*TCHa 75.0 31.0 162.01

relative CIELAB lab*
lab*lab 0.949 -0.474 0.154
lab*tch 0.75 0.5 0.45
lab*nch 0.0 0.5 0.45

relative Natural Colour (NC)
lab*lrj 0.949 -0.499 0.002
lab*tce 0.75 0.5 0.499
lab*nce 0.0 0.5 0.999

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.325 (1.0)
cmyn3* 1.0 0.5 0.675 (0.0)
olvi4* 0.5 1.0 0.825 0.5
cmyn4* 0.5 0.0 0.175 0.5

standard and adapted CIELAB
LAB*LAB 42.88 -29.48 9.58
LAB*LABa 42.88 -29.48 9.58
LAB*TCHa 25.01 31.0 161.99

relative CIELAB lab*
lab*lab 0.449 -0.474 0.155
lab*tch 0.25 0.5 0.45
lab*nch 0.5 0.5 0.45

relative Natural Colour (NC)
lab*lrj 0.449 -0.499 0.003
lab*tce 0.25 0.5 0.499
lab*nce 0.5 0.5 0.999

relative Inform. Technology (IT)
olvi3* 0.0 1.0 0.65 (1.0)
cmyn3* 1.0 0.0 0.35 (0.0)
olvi4* 0.0 1.0 0.65 1.0
cmyn4* 1.0 0.0 0.35 0.0
standard and adapted CIELAB
LAB*LAB 85.73 -58.96 19.16
LAB*LABa 85.73 -58.96 19.16
LAB*TCHa 50.0 62.0 162.0

relative CIELAB lab*
lab*lab 0.899 -0.95 0.309
lab*tch 0.5 1.0 0.45
lab*nch 0.0 1.0 0.45

relative Natural Colour (NC)
lab*lrj 0.899 -0.999 0.005
lab*tce 0.5 1.0 0.499
lab*nce 0.0 1.0 0.999

relative Inform. Technology (IT)
olvi3* 0.0 0.5 0.325 (1.0)
cmyn3* 1.0 0.5 0.675 (0.0)
olvi4* 0.5 1.0 0.825 0.5
cmyn4* 0.5 0.0 0.175 0.5

standard and adapted CIELAB
LAB*LAB 42.88 -29.48 9.58
LAB*LABa 42.88 -29.48 9.58
LAB*TCHa 25.01 31.0 161.99

relative CIELAB lab*
lab*lab 0.449 -0.474 0.155
lab*tch 0.25 0.5 0.45
lab*nch 0.5 0.5 0.45

relative Natural Colour (NC)
lab*lrj 0.449 -0.499 0.003
lab*tce 0.25 0.5 0.499
lab*nce 0.5 0.5 0.999

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

3 step scales for constant CIELAB hue 162/360 = 0.45 (right)

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 203/360 = 0.564$

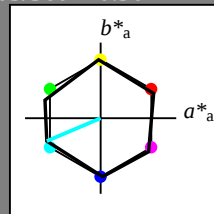
lab^*tch and lab^*nch

D65: hue G50B

LCH*Ma: 57 77 203

olv*Ma: 0.0 1.0 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 203/360 = 0.564$

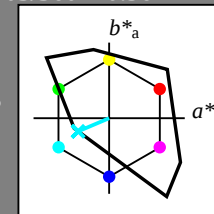
lab^*tch and lab^*nch

D65: hue C

LCH*Ma: 84 45 203

olv*Ma: 0.0 0.96 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 0.5 0.979 1.0 (1.0)
cmyn3* 0.5 0.021 0.0 (0.0)
olvi4* 0.5 0.979 1.0 1.0
cmyn4* 0.5 0.021 0.0 0.0

standard and adapted CIELAB
LAB*LAB 89.94 -20.48 -8.67
LAB*LABa 89.94 -20.48 -8.67
LAB*TCHa 75.0 22.26 202.97

relative CIELAB lab*
lab*lab 0.943 -0.459 -0.194
lab*tch 0.75 0.5 0.564
lab*nch 0.0 0.5 0.564

relative Natural Colour (NC)
lab*lrj 0.943 -0.416 -0.275
lab*tce 0.75 0.5 0.593
lab*nce 0.0 0.5 g37b

relative Inform. Technology (IT)
olvi3* 0.0 0.479 0.5 (1.0)
cmyn3* 1.0 0.521 0.5 (0.0)
olvi4* 0.5 0.979 1.0 0.5
cmyn4* 0.5 0.021 0.0 0.5

standard and adapted CIELAB
LAB*LAB 42.24 -20.47 -8.68
LAB*LABa 42.24 -20.47 -8.68
LAB*TCHa 25.01 22.25 203.0

relative CIELAB lab*
lab*lab 0.443 -0.459 -0.194
lab*tch 0.25 0.5 0.564
lab*nch 0.5 0.5 0.564

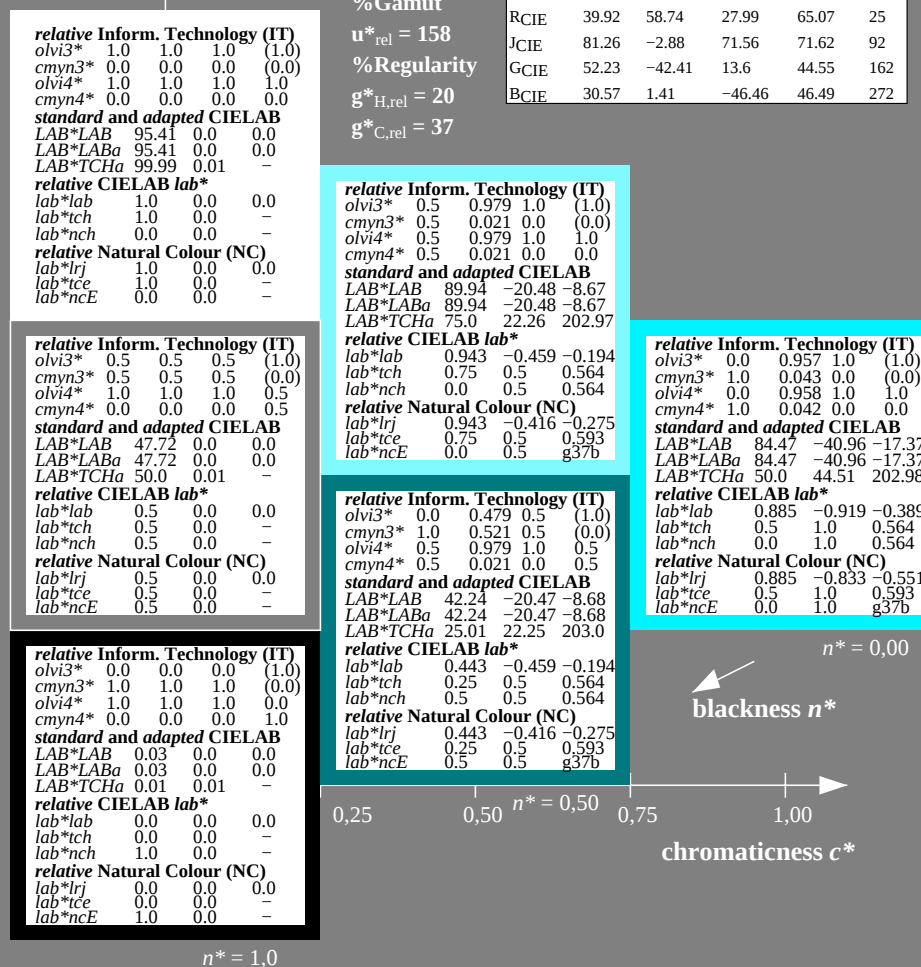
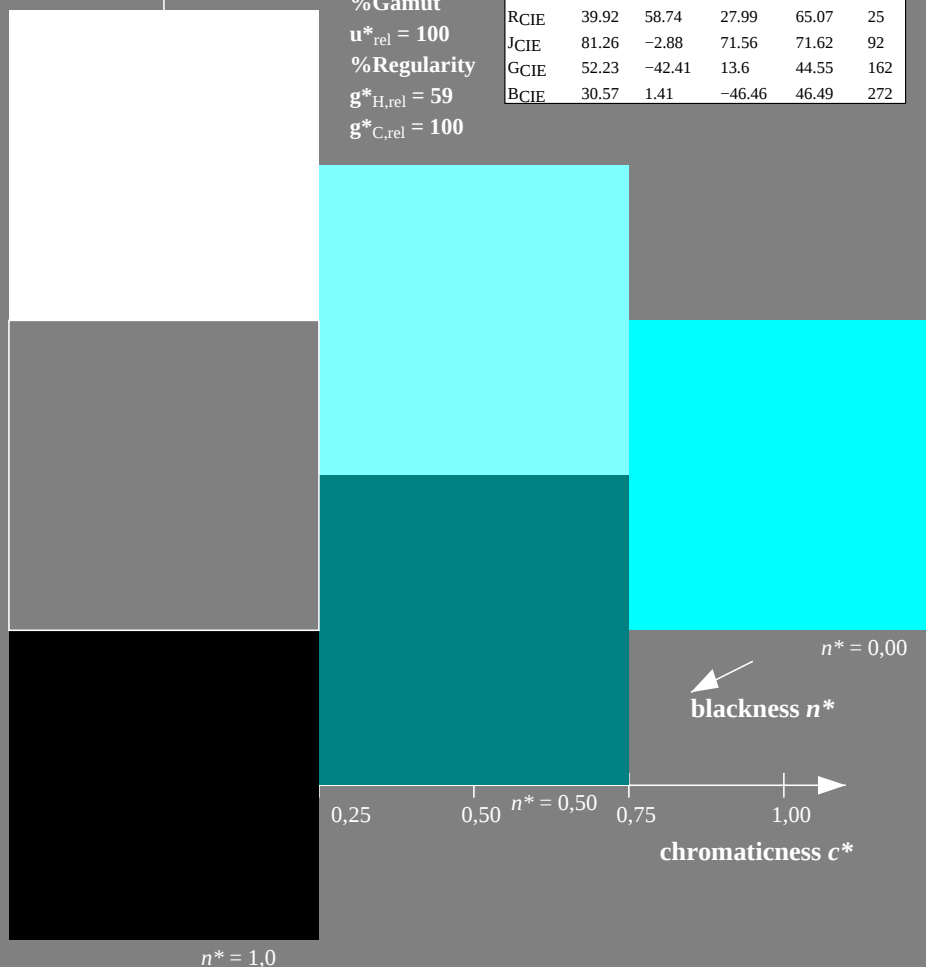
relative Natural Colour (NC)
lab*lrj 0.443 -0.416 -0.275
lab*tce 0.25 0.5 0.593
lab*nce 0.5 0.5 g37b

relative Inform. Technology (IT)
olvi3* 0.0 0.957 1.0 (1.0)
cmyn3* 1.0 0.043 0.0 (0.0)
olvi4* 0.0 0.958 1.0 1.0
cmyn4* 1.0 0.042 0.0 0.0

standard and adapted CIELAB
LAB*LAB 84.47 -40.96 -17.37
LAB*LABa 84.47 -40.96 -17.37
LAB*TCHa 50.0 44.51 202.98

relative CIELAB lab*
lab*lab 0.885 -0.919 -0.389
lab*tch 0.5 1.0 0.564
lab*nch 0.0 1.0 0.564

relative Natural Colour (NC)
lab*lrj 0.885 -0.833 -0.551
lab*tce 0.5 1.0 0.593
lab*nce 0.0 1.0 g37b



VE500-7, 3 step scales for constant CIELAB hue 203/360 = 0.564 (left)

3 step scales for constant CIELAB hue 203/360 = 0.564 (right)

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 272/360 = 0.756$

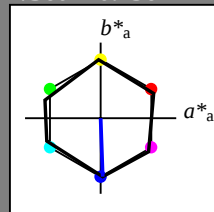
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 57 77 272

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 272/360 = 0.756$

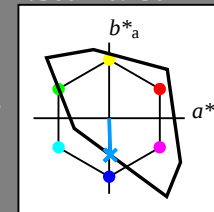
lab^*tch and lab^*nch

D65: hue V

LCH*Ma: 65 49 272

olv*Ma: 0.0 0.61 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 0.5 0.804 1.0 (1.0)
cmyn3* 0.5 0.196 0.0 (0.0)
olvi4* 0.5 0.804 1.0 1.0
cmyn4* 0.5 0.196 0.0 0.0

standard and adapted CIELAB
LAB*LAB 80.08 0.84 -24.39
LAB*LABa 80.08 0.84 -24.39
LAB*TCHa 75.0 24.42 271.98

relative CIELAB lab*
lab*lab 0.839 0.017 -0.499
lab*tch 0.75 0.5 0.756
lab*nch 0.0 0.5 0.756

relative Natural Colour (NC)
lab*lrj 0.839 0.002 -0.499
lab*tce 0.75 0.5 0.751
lab*nce 0.0 0.5 0.00r

relative Inform. Technology (IT)
olvi3* 0.0 0.304 0.5 (1.0)
cmyn3* 1.0 0.696 0.5 (0.0)
olvi4* 0.5 0.804 1.0 0.5
cmyn4* 0.5 0.196 0.0 0.5

standard and adapted CIELAB
LAB*LAB 32.38 0.86 -24.4
LAB*LABa 32.38 0.86 -24.4
LAB*TCHa 25.01 24.43 272.01

relative CIELAB lab*
lab*lab 0.339 0.018 -0.499
lab*tch 0.25 0.5 0.756
lab*nch 0.5 0.5 0.756

relative Natural Colour (NC)
lab*lrj 0.339 0.002 -0.499
lab*tce 0.25 0.5 0.751
lab*nce 0.5 0.5 0.00r

relative Inform. Technology (IT)
olvi3* 0.0 0.608 1.0 (1.0)
cmyn3* 1.0 0.392 0.0 (0.0)
olvi4* 0.0 0.608 1.0 1.0
cmyn4* 1.0 0.392 0.0 0.0

standard and adapted CIELAB
LAB*LAB 64.75 1.7 -48.81
LAB*LABa 64.75 1.7 -48.81
LAB*TCHa 50.0 48.84 272.0

relative CIELAB lab*
lab*lab 0.679 0.035 -0.998
lab*tch 0.5 1.0 0.756
lab*nch 0.0 1.0 0.756

relative Natural Colour (NC)
lab*lrj 0.679 0.004 -0.999
lab*tce 0.5 1.0 0.751
lab*nce 0.0 1.0 0.00r

relative Inform. Technology (IT)
olvi3* 0.0 0.304 0.5 (1.0)
cmyn3* 1.0 0.696 0.5 (0.0)
olvi4* 0.5 0.804 1.0 0.5
cmyn4* 0.5 0.196 0.0 0.5

standard and adapted CIELAB
LAB*LAB 32.38 0.86 -24.4
LAB*LABa 32.38 0.86 -24.4
LAB*TCHa 25.01 24.43 272.01

relative CIELAB lab*
lab*lab 0.339 0.018 -0.499
lab*tch 0.25 0.5 0.756
lab*nch 0.5 0.5 0.756

relative Natural Colour (NC)
lab*lrj 0.339 0.002 -0.499
lab*tce 0.25 0.5 0.751
lab*nce 0.5 0.5 0.00r

relative Inform. Technology (IT)
olvi3* 0.0 0.608 1.0 (1.0)
cmyn3* 1.0 0.392 0.0 (0.0)
olvi4* 0.0 0.608 1.0 1.0
cmyn4* 1.0 0.392 0.0 0.0

standard and adapted CIELAB
LAB*LAB 64.75 1.7 -48.81
LAB*LABa 64.75 1.7 -48.81
LAB*TCHa 50.0 48.84 272.0

relative CIELAB lab*
lab*lab 0.679 0.035 -0.998
lab*tch 0.5 1.0 0.756
lab*nch 0.0 1.0 0.756

relative Natural Colour (NC)
lab*lrj 0.679 0.004 -0.999
lab*tce 0.5 1.0 0.751
lab*nce 0.0 1.0 0.00r

VE500-7, 3 step scales for constant CIELAB hue 272/360 = 0.756 (left)

3 step scales for constant CIELAB hue 272/360 = 0.756 (right)

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

for hue $h^* = lab^*h = 325/360 = 0.903$

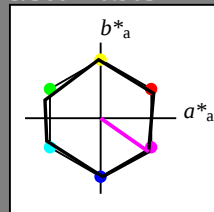
lab^*tch and lab^*nch

D65: hue B50R

LCH*Ma: 57 77 325

olv*Ma: 1.0 0.0 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 325/360 = 0.903$

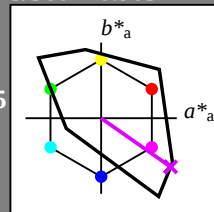
lab^*tch and lab^*nch

D65: hue M

LCH*Ma: 54 112 325

olv*Ma: 0.87 0.0 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 0.934 0.5 1.0 (1.0)
cmyn3* 0.066 0.5 0.0 (0.0)
olvi4* 0.934 0.5 1.0 1.0
cmyn4* 0.066 0.5 0.0 0.0

standard and adapted CIELAB
LAB*LAB 74.58 45.96 -32.17
LAB*LABa 74.58 45.96 -32.17
LAB*TCHa 75.0 56.11 325.0

relative CIELAB lab*
lab*lab 0.782 0.41 -0.286
lab*tch 0.75 0.5 0.903
lab*nch 0.0 0.5 0.903

relative Natural Colour (NC)
lab*lrj 0.782 0.335 -0.37
lab*tce 0.75 0.5 0.867
lab*nce 0.0 0.5 b46r

relative Inform. Technology (IT)
olvi3* 0.434 0.0 0.5 (1.0)
cmyn3* 0.566 1.0 0.5 (0.0)
olvi4* 0.934 0.5 1.0 0.5
cmyn4* 0.066 0.5 0.0 0.5

standard and adapted CIELAB
LAB*LAB 26.88 45.96 -32.17
LAB*LABa 26.88 45.96 -32.17
LAB*TCHa 25.01 56.11 325.0

relative CIELAB lab*
lab*lab 0.282 0.409 -0.286
lab*tch 0.25 0.5 0.903
lab*nch 0.5 0.5 0.903

relative Natural Colour (NC)
lab*lrj 0.282 0.335 -0.37
lab*tce 0.25 0.5 0.867
lab*nce 0.5 0.5 b46r

relative Inform. Technology (IT)
olvi3* 0.868 0.0 1.0 (1.0)
cmyn3* 0.132 1.0 0.0 (0.0)
olvi4* 0.868 0.0 1.0 1.0
cmyn4* 0.132 1.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 53.75 91.92 -64.35
LAB*LABa 53.75 91.92 -64.35
LAB*TCHa 50.0 112.21 325.0

relative CIELAB lab*
lab*lab 0.563 0.819 -0.572
lab*tch 0.5 1.0 0.903
lab*nch 0.0 1.0 0.903

relative Natural Colour (NC)
lab*lrj 0.563 0.671 -0.74
lab*tce 0.5 1.0 0.867
lab*nce 0.0 1.0 b46r

0,25 0,50 0,75 1,00
chromaticness c^*

blackness n^*

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

0,25 0,50 0,75 1,00
chromaticness c^*

blackness n^*

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

3 step scales for constant CIELAB hue 325/360 = 0.903 (right)

input: olv* setrgbcolor

output: no change compared to input

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

Input: Colorimetric Natural Reflective System CNS18

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

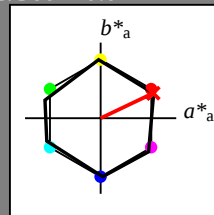
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 57 77 25

olv*Ma: 1.0 0.01 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

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

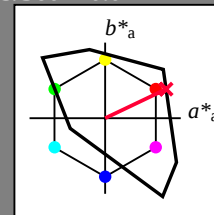
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 52 89 25

olv*Ma: 1.0 0.0 0.21

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 1.0 0.5 0.606 (1.0)
cmyn3* 0.0 0.5 0.394 (0.0)
olvi4* 1.0 0.5 0.606 1.0
cmyn4* 0.0 0.5 0.394 0.0
standard and adapted CIELAB
LAB*LAB 73.67 40.3 19.2
LAB*LABa 73.67 40.3 19.2
LAB*TCHa 75.0 44.64 25.47

relative CIELAB lab*
lab*lab 0.772 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 0.772 0.5 0.0
lab*tce 0.75 0.5 1.0
lab*nce 0.0 0.5 0.99r

relative Inform. Technology (IT)
olvi3* 0.5 0.0 0.106 (1.0)
cmyn3* 0.5 1.0 0.894 (0.0)
olvi4* 1.0 0.5 0.606 0.5
cmyn4* 0.0 0.5 0.394 0.5
standard and adapted CIELAB
LAB*LAB 25.98 40.3 19.21
LAB*LABa 25.98 40.3 19.21
LAB*TCHa 25.01 44.65 25.49

relative CIELAB lab*
lab*lab 0.272 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 0.272 0.5 0.0
lab*tce 0.25 0.5 0.0
lab*nce 0.5 0.5 0.00j

relative Inform. Technology (IT)
olvi3* 1.0 0.0 0.213 (1.0)
cmyn3* 0.0 1.0 0.787 (0.0)
olvi4* 1.0 0.0 0.213 1.0
cmyn4* 0.0 1.0 0.787 0.0
standard and adapted CIELAB
LAB*LAB 51.94 80.61 38.42
LAB*LABa 51.94 80.61 38.42
LAB*TCHa 50.0 89.29 25.48

relative CIELAB lab*
lab*lab 0.544 0.903 0.43
lab*tch 0.5 1.0 0.071
lab*nch 0.0 1.0 0.071

relative Natural Colour (NC)
lab*lrj 0.544 1.0 0.0
lab*tce 0.5 1.0 0.0
lab*nce 0.0 1.0 0.00j

relative Inform. Technology (IT)
olvi3* 0.272 0.451 0.215
cmyn3* 0.25 0.5 0.071
olvi4* 0.5 0.5 0.071
cmyn4* 0.5 0.5 0.071

relative CIELAB lab*
lab*lab 0.272 0.5 0.0
lab*tch 0.25 0.5 0.0
lab*nce 0.5 0.5 0.00j

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 0.03 0.0 0.0
LAB*LABa 0.03 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 -

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

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

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

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

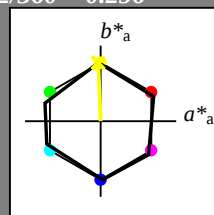
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 57 77 92

olv*Ma: 0.99 1.0 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

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

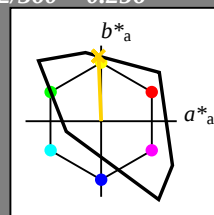
lab^*tch and lab^*nch

D65: hue J

LCH*Ma: 85 86 92

olv*Ma: 1.0 0.82 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 1.0 0.912 0.5 (1.0)
cmyn3* 0.0 0.088 0.5 (0.0)
olvi4* 1.0 0.912 0.5 1.0
cmyn4* 0.0 0.088 0.5 0.0

standard and adapted CIELAB
LAB*LAB 90.31 -1.74 43.06
LAB*LABa 90.31 -1.74 43.06
LAB*TCHa 75.0 43.09 92.32

relative CIELAB lab*
lab*lab 0.947 -0.019 0.499
lab*tch 0.75 0.5 0.256
lab*nch 0.0 0.5 0.256

relative Natural Colour (NC)
lab*lrj 0.947 0.0 0.5
lab*tce 0.75 0.5 0.25
lab*nce 0.0 0.5 0.00g

relative Inform. Technology (IT)
olvi3* 0.5 0.412 0.0 (1.0)
cmyn3* 0.5 0.588 1.0 (0.0)
olvi4* 1.0 0.912 0.5 0.5
cmyn4* 0.0 0.088 0.5 0.5

standard and adapted CIELAB
LAB*LAB 42.62 -1.73 43.05
LAB*LABa 42.62 -1.73 43.05
LAB*TCHa 25.01 43.09 92.31

relative CIELAB lab*
lab*lab 0.447 -0.019 0.499
lab*tch 0.25 0.5 0.256
lab*nch 0.5 0.5 0.256

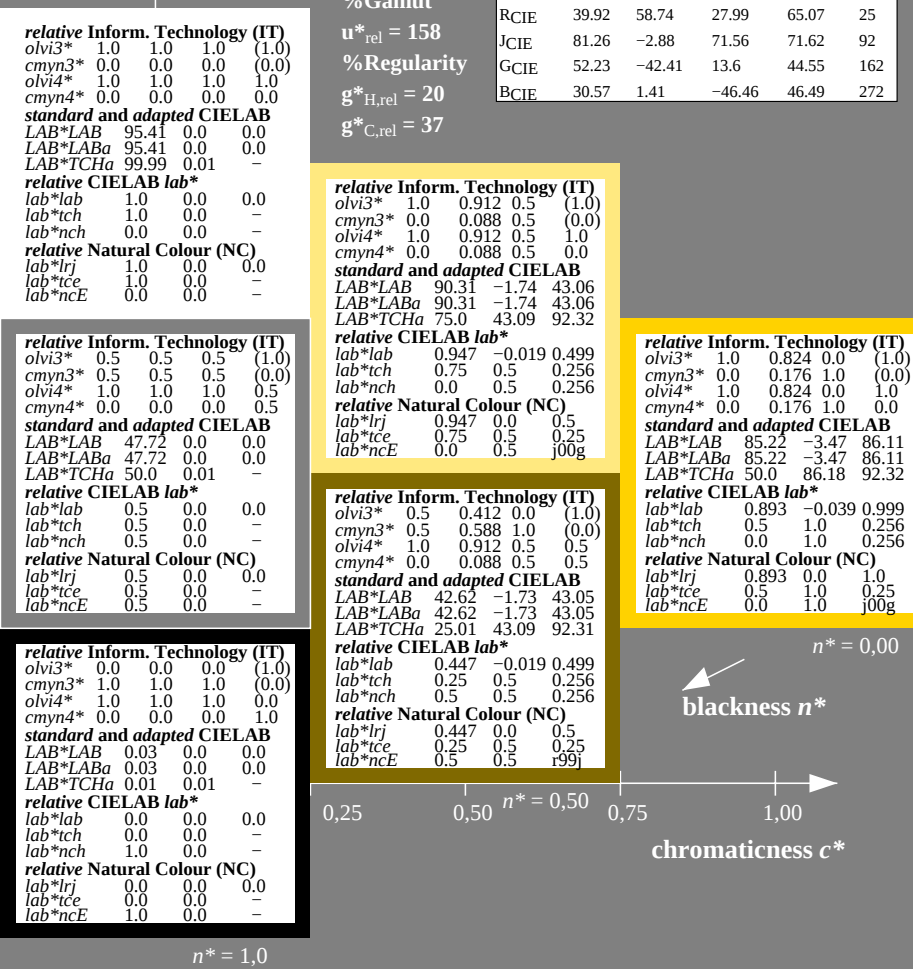
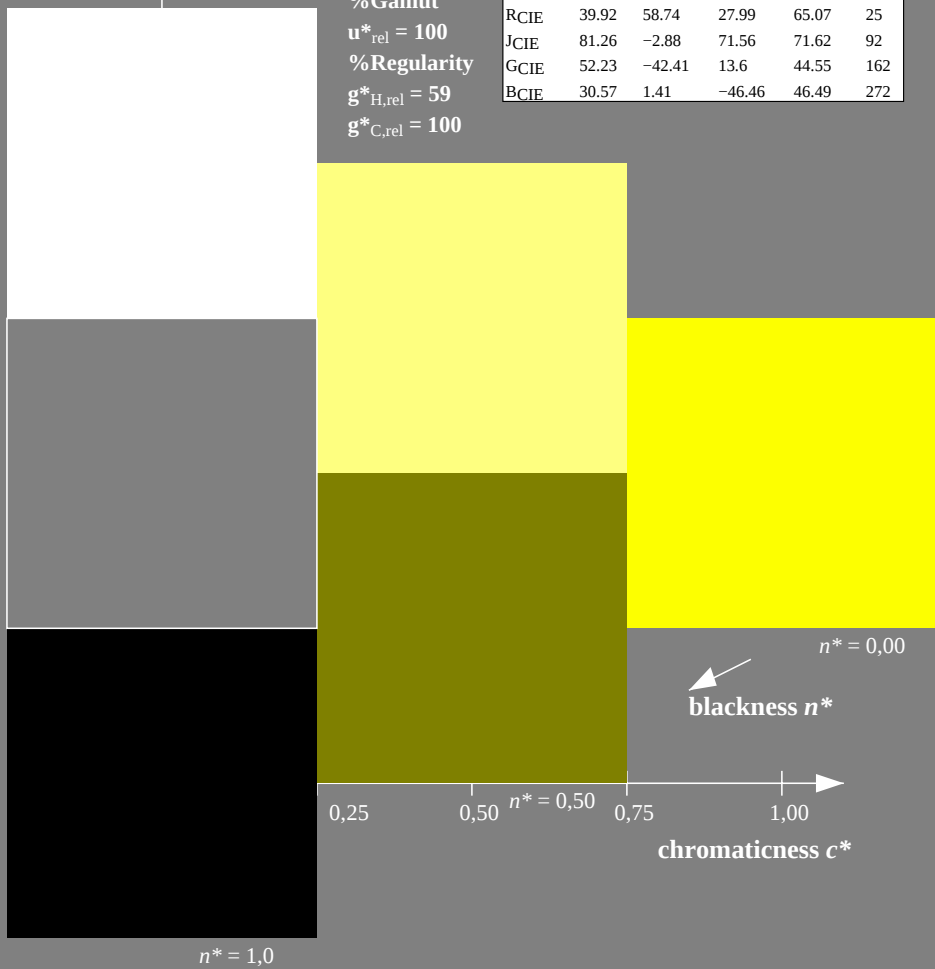
relative Natural Colour (NC)
lab*lrj 0.447 0.0 0.5
lab*tce 0.25 0.5 0.25
lab*nce 0.5 0.5 0.00g

relative Inform. Technology (IT)
olvi3* 1.0 0.824 0.0 (1.0)
cmyn3* 0.0 0.176 1.0 (0.0)
olvi4* 1.0 0.824 0.0 1.0
cmyn4* 0.0 0.176 1.0 0.0

standard and adapted CIELAB
LAB*LAB 85.22 -3.47 86.11
LAB*LABa 85.22 -3.47 86.11
LAB*TCHa 50.0 86.18 92.32

relative CIELAB lab*
lab*lab 0.893 -0.039 0.999
lab*tch 0.5 1.0 0.256
lab*nch 0.0 1.0 0.256

relative Natural Colour (NC)
lab*lrj 0.893 0.0 1.0
lab*tce 0.5 1.0 0.25
lab*nce 0.0 1.0 0.00g



VE500-7, 3 step scales for constant CIELAB hue 92/360 = 0.256 (left)

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

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

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

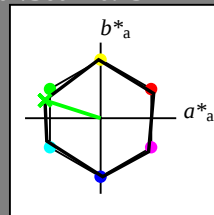
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 57 77 162

olv*Ma: 0.0 1.0 0.01

triangle lightness t^*



CNS18; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

Output: Colorimetric Television Luminous System TLS00

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

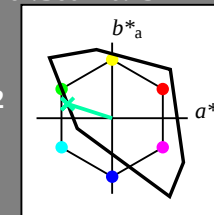
lab^*tch and lab^*nch

D65: hue G

LCH*Ma: 86 62 162

olv*Ma: 0.0 1.0 0.65

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

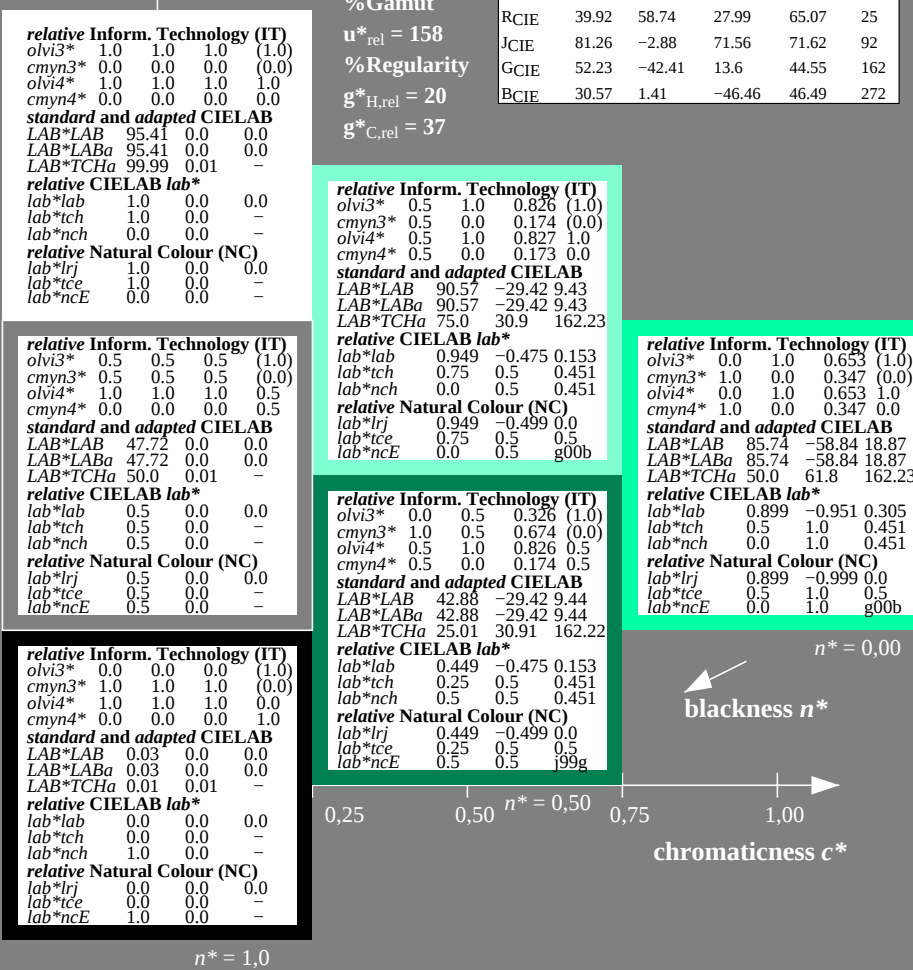
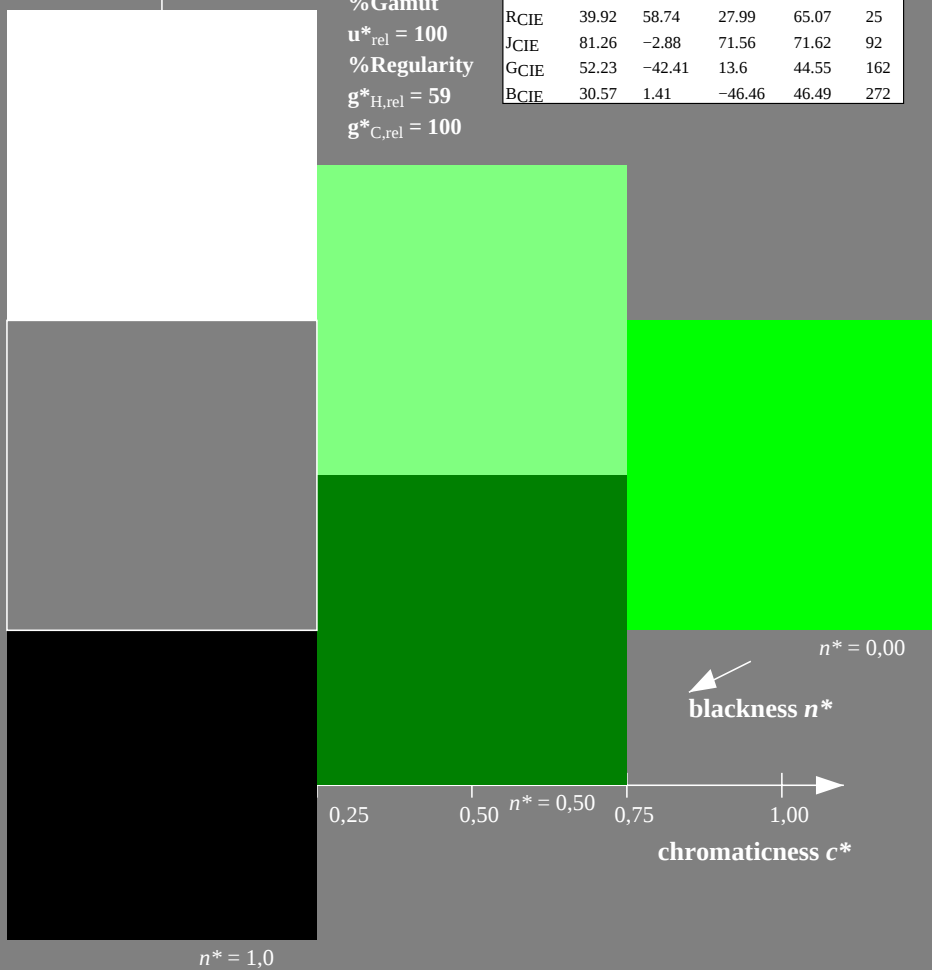
TLS00; adapted (a) CIELAB data					
	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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	0.0	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	0.826	(1.0)	
cmyn3*	0.5	0.0	0.174	(0.0)	
olvi4*	0.5	1.0	0.827	1.0	
cmyn4*	0.5	0.0	0.173	0.0	
standard and adapted CIELAB					
LAB*LAB	90.57	-29.42	9.43		
LAB*LABa	90.57	-29.42	9.43		
LAB*TCHa	75.0	30.9	162.23		
relative CIELAB lab*					
lab*lab	0.949	-0.475	0.153		
lab*tch	0.75	0.5	0.451		
lab*nch	0.0	0.5	0.451		
relative Natural Colour (NC)					
lab*lrj	0.949	-0.499	0.0		
lab*tce	0.75	0.5	0.5		
lab*nce	0.0	0.5	g00b		

relative Inform. Technology (IT)					
olvi3*	0.0	0.5	0.326	(1.0)	
cmyn3*	1.0	0.5	0.674	(0.0)	
olvi4*	0.5	1.0	0.826	0.5	
cmyn4*	0.5	0.0	0.174	0.5	
standard and adapted CIELAB					
LAB*LAB	42.88	-29.42	9.44		
LAB*LABa	42.88	-29.42	9.44		
LAB*TCHa	25.01	30.91	162.22		
relative CIELAB lab*					
lab*lab	0.449	-0.475	0.153		
lab*tch	0.25	0.5	0.451		
lab*nch	0.5	0.5	0.451		
relative Natural Colour (NC)					
lab*lrj	0.449	-0.499	0.0		
lab*tce	0.25	0.5	0.5		
lab*nce	0.5	0.5	g99g		

relative Inform. Technology (IT)					
olvi3*	0.0	1.0	0.653	(1.0)	
cmyn3*	1.0	0.0	0.347	(0.0)	
olvi4*	0.0	1.0	0.653	1.0	
cmyn4*	1.0	0.0	0.347	0.0	
standard and adapted CIELAB					
LAB*LAB	85.74	-58.84	18.87		
LAB*LABa	85.74	-58.84	18.87		
LAB*TCHa	50.0	61.8	162.23		
relative CIELAB lab*					
lab*lab	0.899	-0.951	0.305		
lab*tch	0.5	1.0	0.451		
lab*nch	0.0	1.0	0.451		
relative Natural Colour (NC)					
lab*lrj	0.899	-0.999	0.0		
lab*tce	0.5	1.0	0.5		
lab*nce	0.0	1.0	g00b		



VE500-7, 3 step scales for constant CIELAB hue 162/360 = 0.451 (left)

3 step scales for constant CIELAB hue 162/360 = 0.451 (right)

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

input: olv* setrgbcolor

output: no change compared to input

Input: Colorimetric Natural Reflective System CNS18

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

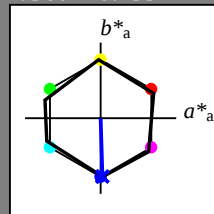
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 57 77 272

olv*Ma: 0.0 0.0 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

CNS18; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	56.7	70.15	32.71	77.4	25
JMa	56.7	-2.69	77.35	77.4	92
GMa	56.7	-73.6	23.92	77.4	162
G50BMa	56.7	-71.24	-30.23	77.4	203
BMa	56.7	2.7	-77.34	77.4	272
B50RMa	56.7	63.4	-44.38	77.4	325
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

Output: Colorimetric Television Luminous System TLS00

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

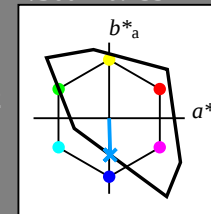
lab^*tch and lab^*nch

D65: hue B

LCH*Ma: 65 49 272

olv*Ma: 0.0 0.61 1.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.74	27.99	65.07	25
JCIE	81.26	-2.88	71.56	71.62	92
GCIE	52.23	-42.41	13.6	44.55	162
BCIE	30.57	1.41	-46.46	46.49	272

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 0.0 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 47.72 0.0 0.0
LAB*LABa 47.72 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 0.03 0.0 0.0
LAB*LABa 0.03 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* 0.5 0.805 1.0 (1.0)
cmyn3* 0.5 0.195 0.0 (0.0)
olvi4* 0.5 0.805 1.0 1.0
cmyn4* 0.5 0.195 0.0 0.0

standard and adapted CIELAB
LAB*LAB 80.13 0.73 -24.31
LAB*LABa 80.13 0.73 -24.31
LAB*TCHa 75.0 24.33 271.72

relative CIELAB lab*
lab*lab 0.84 0.015 -0.499
lab*tch 0.75 0.5 0.755
lab*nch 0.0 0.5 0.755

relative Natural Colour (NC)
lab*lrj 0.84 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 0.305 0.5 (1.0)
cmyn3* 1.0 0.695 0.5 (0.0)
olvi4* 0.5 0.805 1.0 0.5
cmyn4* 0.5 0.195 0.0 0.5

standard and adapted CIELAB
LAB*LAB 32.44 0.74 -24.32
LAB*LABa 32.44 0.74 -24.32
LAB*TCHa 25.01 24.34 271.75

relative CIELAB lab*
lab*lab 0.34 0.015 -0.499
lab*tch 0.25 0.5 0.755
lab*nch 0.5 0.5 0.755

relative Natural Colour (NC)
lab*lrj 0.34 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 0.61 1.0 (1.0)
cmyn3* 1.0 0.39 0.0 (0.0)
olvi4* 0.0 0.61 1.0 1.0
cmyn4* 1.0 0.39 0.0 0.0

standard and adapted CIELAB
LAB*LAB 64.86 1.47 -48.64
LAB*LABa 64.86 1.47 -48.64
LAB*TCHa 50.0 48.67 271.74

relative CIELAB lab*
lab*lab 0.68 0.03 -0.998
lab*tch 0.5 1.0 0.755
lab*nch 0.0 1.0 0.755

relative Natural Colour (NC)
lab*lrj 0.68 0.0 -0.999
lab*tce 0.5 1.0 0.75
lab*nce 0.0 1.0 g99b

relative Inform. Technology (IT)
olvi3* 0.0 0.305 0.5 (1.0)
cmyn3* 1.0 0.695 0.5 (0.0)
olvi4* 0.5 0.805 1.0 0.5
cmyn4* 0.5 0.195 0.0 0.5

standard and adapted CIELAB
LAB*LAB 32.44 0.74 -24.32
LAB*LABa 32.44 0.74 -24.32
LAB*TCHa 25.01 24.34 271.75

relative CIELAB lab*
lab*lab 0.34 0.015 -0.499
lab*tch 0.25 0.5 0.755
lab*nch 0.5 0.5 0.755

relative Natural Colour (NC)
lab*lrj 0.34 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 0.61 1.0 (1.0)
cmyn3* 1.0 0.39 0.0 (0.0)
olvi4* 0.0 0.61 1.0 1.0
cmyn4* 1.0 0.39 0.0 0.0

standard and adapted CIELAB
LAB*LAB 64.86 1.47 -48.64
LAB*LABa 64.86 1.47 -48.64
LAB*TCHa 50.0 48.67 271.74

relative CIELAB lab*
lab*lab 0.68 0.03 -0.998
lab*tch 0.5 1.0 0.755
lab*nch 0.0 1.0 0.755

relative Natural Colour (NC)
lab*lrj 0.68 0.0 -0.999
lab*tce 0.5 1.0 0.75
lab*nce 0.0 1.0 g99b

BAM-test chart VE50; Colorimetric systems CNS18 & TLS00

D65: 3 step colour scales and coordinate data for 10 hues

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

input: olv* setrgbcolor

output: no change compared to input