

Input: Colorimetric Natural Reflective System CNS18

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

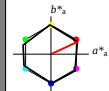
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 57 77 25

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 95.41 0.0 0.0
LAB*LAB0 95.41 0.0 0.0
LAB*TCHe 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.5 0.0 (1.0)
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 0.0
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LAB0 56.72 0.0 0.0
LAB*TCHe 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 0.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (0.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LAB0 18.03 0.0 0.0
LAB*TCHe 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 1.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 76.05 35.07 16.35
LAB*LAB0 76.05 35.07 16.35
LAB*TCHe 75.0 38.69 25.0

relative CIELAB lab*
lab*lab 0.75 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 0.75 0.5 -0.002
lab*tce 0.75 0.5 0.999
lab*nce 0.0 0.5 0.999

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 37.36 35.07 16.35
LAB*LAB0 37.36 35.07 16.35
LAB*TCHe 25.01 38.69 25.0

relative CIELAB lab*
lab*lab 0.25 0.453 0.211
lab*tch 0.25 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*lrj 0.25 0.5 -0.002
lab*tce 0.25 0.5 0.999
lab*nce 0.0 0.5 0.999

$n^* = 0.00$
blackness n^*

0.25 0.50 $n^* = 0.50$ 0.75 1.00

chromaticness c^*

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
GMa	56.7	-2.69	77.35	77.4	92
JMa	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
B50BMa	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
ICie	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 Printer Reflective System FRS06

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

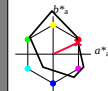
lab^*tch and lab^*nch

D65: hue R

LCH*Ma: 33 73 25

olv*Ma: 1.0 0.0 0.2

triangle lightness t^*



%Gamut

$u^*_{rel} = 115$

%Regularity

$g^*_{H,rel} = 28$

$g^*_{C,rel} = 38$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 91.97 -0.17 -5.11
LAB*LAB0 91.97 0.0 0.0
LAB*TCHe 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 0.0
lab*nce 0.0 0.0 -

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 49.11 -0.89 -3.42
LAB*LAB0 49.11 0.0 0.0
LAB*TCHe 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 -
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0
lab*tce 0.5 0.0 0.0
lab*nce 0.5 0.0 -

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (0.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 6.26 -1.62 -1.73
LAB*LAB0 6.26 0.0 0.0
LAB*TCHe 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*tch 1.0 0.0 -
lab*nch 1.0 0.0 -
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0
lab*tce 0.0 0.0 -
lab*nce 1.0 0.0 -

$n^* = 1.0$

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 62.46 32.27 11.42
LAB*LAB0 62.46 32.27 11.42
LAB*TCHe 75.0 36.36 25.0

relative CIELAB lab*
lab*lab 0.656 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 0.656 0.5 -0.016
lab*tce 0.75 0.5 0.995
lab*nce 0.0 0.5 0.997

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 19.6 31.55 13.12
LAB*LAB0 19.6 31.55 13.12
LAB*TCHe 25.01 36.36 25.01

relative CIELAB lab*
lab*lab 0.156 0.453 0.211
lab*tch 0.25 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*lrj 0.156 0.5 -0.016
lab*tce 0.25 0.5 0.995
lab*nce 0.0 0.5 0.997

0.25 0.50 $n^* = 0.50$ 0.75 1.00

chromaticness c^*

FRS06; adapted (a) CIELAB data

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

OMa	32.57	62.32	46.49	77.75	37
YMa	82.73	-3.16	113.99	114.03	92
VMa	39.43	-61.79	45.84	76.95	143
WMa	47.86	-26.79	-34.24	43.49	232
CMa	10.16	55.12	-61.03	82.24	312
MMa	34.5	80.68	-33.92	87.52	337
NMa	6.25	0.0	0.0	0.0	0
WMa	91.97	0.0	0.0	0.0	0
RCie	39.92	59.8	31.05	67.38	27
ICie	81.26	-2.52	76.25	76.29	92
GCie	52.23	-41.56	17.14	44.46	158
BCie	30.57	2.63	-43.77	43.86	273

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 62.46 32.27 11.42
LAB*LAB0 62.46 32.27 11.42
LAB*TCHe 75.0 36.36 25.0

relative CIELAB lab*
lab*lab 0.656 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 0.656 0.5 -0.016
lab*tce 0.75 0.5 0.995
lab*nce 0.0 0.5 0.997

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 0.0 0.0 (0.0)
olv4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 19.6 31.55 13.12
LAB*LAB0 19.6 31.55 13.12
LAB*TCHe 25.01 36.36 25.01

relative CIELAB lab*
lab*lab 0.156 0.453 0.211
lab*tch 0.25 0.5 0.069
lab*nch 0.0 0.5 0.069
relative Natural Colour (NC)
lab*lrj 0.156 0.5 -0.016
lab*tce 0.25 0.5 0.995
lab*nce 0.0 0.5 0.997

0.25 0.50 $n^* = 0.50$ 0.75 1.00

chromaticness c^*

$n^* = 0.00$
blackness n^*

BAM-test chart VE31; Colorimetric systems CNS18 & FRS06

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

input: olv* setrgbcolor

output: no change compared to input