

Input: Colorimetric Natural Reflective System CNS18

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

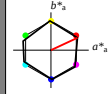
lab^*tch and lab^*nch

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*LABo 95.41 0.0 0.0
LAB*TCHo 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*LABo 56.72 0.0 0.0
LAB*TCHo 50.01 -

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 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 18.03 0.0 0.0
LAB*LABo 18.03 0.0 0.0
LAB*TCHo 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 0.0
lab*nce 1.0 0.0 -

$n^* = 1.0$

CNS18; adapted (a) CIELAB data

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

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*LABo 76.05 35.07 16.35
LAB*TCHo 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* 1.0 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*LABo 37.36 35.07 16.35
LAB*TCHo 25.0 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

relative Inform. Technology (IT)
olv3* 1.0 0.0 0.0 (1.0)
cmyn3* 0.0 1.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.7 70.15 32.7
LAB*LABo 56.7 70.15 32.7
LAB*TCHo 50.0 38.69 25.0

relative CIELAB lab*
lab*lab 0.5 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 0.5 1.0 0.006
lab*tce 0.5 1.0 0.999
lab*nce 0.0 1.0 0.999

$n^* = 0.00$

blackness n^*

chromaticness c^*

Output: Colorimetric Offset Reflective System ORS18

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

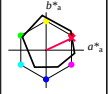
lab^*tch and lab^*nch

D65: hue O

LCH*Ma: 48 76 25

olv*Ma: 1.0 0.0 0.32

triangle lightness t^*



% Gamut

$u^*_{rel} = 93$

% Regularity

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

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

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.32 (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 -0.98 4.75
LAB*LABo 95.41 0.0 0.0
LAB*TCHo 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 (0.5)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.24 2.14
LAB*LABo 56.71 0.0 0.0
LAB*TCHo 50.01 -

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 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 18.02 0.5 -0.47
LAB*LABo 18.02 0.5 -0.47
LAB*TCHo 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 0.0
lab*nce 1.0 0.0 -

$n^* = 1.0$

ORS18; adapted (a) CIELAB data

	$L^* = L^*_a$	a^*	b^*	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	47.94	65.39	50.52	82.63	38
YMa	90.37	-10.26	91.75	92.32	96
VMa	50.9	-62.83	34.96	71.91	151
WMa	58.62	-30.34	-45.01	54.3	236
OMa	25.72	31.1	-44.4	54.22	305
NMa	48.13	75.28	-83.76	75.74	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	64.57	25
ICIE	81.26	-2.16	67.76	67.79	92
GCIE	52.23	-42.25	11.76	43.87	164
BCIE	30.57	1.15	-46.84	46.86	271

relative Inform. Technology (IT)
olv3* 1.0 0.5 0.5 (1.0)
cmyn3* 0.0 0.5 0.342 (0.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.342 (0.0)
standard and adapted CIELAB
LAB*LAB 71.7 33.71 19.13
LAB*LABo 71.7 33.71 19.13
LAB*TCHo 75.0 37.79 25.0

relative CIELAB lab*
lab*lab 0.694 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 0.694 0.5 0.003
lab*tce 0.75 0.5 0.001
lab*nce 0.0 0.5 0.001

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.158 (1.0)
cmyn3* 0.5 1.0 0.5 (0.0)
olv4* 1.0 0.5 0.5 (0.0)
cmyn4* 0.0 0.5 0.342 (0.0)
standard and adapted CIELAB
LAB*LAB 33.01 34.46 16.52
LAB*LABo 33.01 34.25 15.97
LAB*TCHo 25.01 37.79 25.0

relative CIELAB lab*
lab*lab 0.194 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 0.194 0.5 0.004
lab*tce 0.25 0.5 0.001
lab*nce 0.0 0.5 0.001

$n^* = 0.00$

blackness n^*

chromaticness c^*

VE410-7, 3 step scales for constant CIELAB hue 25/360 = 0.069 (left)

BAM-test chart VE41; Colorimetric systems CNS18 & ORS18

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

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

input: olv* setrgbcolor

output: no change compared to input