

Input: Colorimetric Reflective System ORS18

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

D65: hue O
LCH*Ma: 48 83 38
olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



%Gamut
 $u^*_{rel} = 93$
%Regularity
 $g^*_{Hrel} = 57$
 $g^*_{Crel} = 59$

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 -0.97 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 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.71 -0.23 2.14
LAB*LABo 56.71 0.0 0.0
LAB*TCHo 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 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 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.02 0.5 -0.46
LAB*LABo 18.02 0.0 0.0
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 -

$n^* = 1.0$

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 71.67 32.15 28.41
LAB*LABo 71.67 32.15 28.41
LAB*TCHo 75.0 41.3 37.7

relative CIELAB lab*
lab*lab 0.693 0.396 0.306
lab*tch 0.75 0.5 0.105
lab*nch 0.0 0.5 0.105
relative Natural Colour (NC)
lab*lrj 0.693 0.477 0.15
lab*tce 0.75 0.5 0.048
lab*nce 0.0 0.5 0.15

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 1.0 (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 32.98 32.9 25.8
LAB*LABo 32.98 32.98 25.25
LAB*TCHo 25.01 41.3 37.7

relative CIELAB lab*
lab*lab 0.193 0.396 0.306
lab*tch 0.25 0.5 0.105
lab*nch 0.5 1.0 0.105
relative Natural Colour (NC)
lab*lrj 0.193 0.477 0.15
lab*tce 0.25 0.5 0.048
lab*nce 0.5 0.5 0.15

relative Inform. Technology (IT)
olv3* 1.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.95 65.29 52.06
LAB*LABo 47.95 65.36 50.51
LAB*TCHo 50.0 82.6 37.7

relative CIELAB lab*
lab*lab 0.387 0.791 0.611
lab*tch 0.387 0.5 0.048
lab*nch 0.0 1.0 0.105
relative Natural Colour (NC)
lab*lrj 0.387 0.5 0.048
lab*tce 0.5 1.0 0.299
lab*nce 0.0 1.0 0.15

$n^* = 0.00$

blackness n^*

chromaticness c^*

Output: Colorimetric Reflective System NRS11

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

D65: hue R
LCH*Ma: 53 84 24
olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



%Gamut
 $u^*_{rel} = 119$
%Regularity
 $g^*_{Hrel} = 47$
 $g^*_{Crel} = 100$

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 -0.01
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 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 53.21 0.04 0.0
LAB*LABo 53.21 0.0 0.0
LAB*TCHo 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 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 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 11.01 0.07 0.01
LAB*LABo 11.01 0.0 0.0
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 -

$n^* = 1.0$

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 74.3 38.55 17.16
LAB*LABo 74.3 38.55 17.16
LAB*TCHo 75.0 42.17 24.01

relative CIELAB lab*
lab*lab 0.75 0.457 0.203
lab*tch 0.75 0.5 0.067
lab*nch 0.0 0.5 0.067
relative Natural Colour (NC)
lab*lrj 0.75 0.5 -0.009
lab*tce 0.75 0.5 0.997
lab*nce 0.0 0.5 0.998

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 1.0 (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 32.1 38.58 17.17
LAB*LABo 32.1 38.52 17.16
LAB*TCHo 25.01 42.17 24.01

relative CIELAB lab*
lab*lab 0.25 0.457 0.203
lab*tch 0.25 0.5 0.067
lab*nch 0.5 1.0 0.067
relative Natural Colour (NC)
lab*lrj 0.25 0.5 -0.009
lab*tce 0.25 0.5 0.997
lab*nce 0.5 0.5 0.998

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 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.01
LAB*LABo 0.01 0.0 0.0
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 -

relative Inform. Technology (IT)
olv3* 1.0 0.0 0.0 (1.0)
cmyn3* 0.0 1.0 1.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 1.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 53.2 77.09 34.32
LAB*LABo 53.2 77.09 34.32
LAB*TCHo 50.0 84.34 24.01

relative CIELAB lab*
lab*lab 0.5 0.913 0.407
lab*tch 0.5 1.0 0.067
lab*nch 0.0 1.0 0.067
relative Natural Colour (NC)
lab*lrj 0.5 1.0 -0.019
lab*tce 0.5 1.0 0.997
lab*nce 0.0 1.0 0.998

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 0.5 1.0 1.0 (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 32.1 38.58 17.17
LAB*LABo 32.1 38.52 17.16
LAB*TCHo 25.01 42.17 24.01

relative CIELAB lab*
lab*lab 0.25 0.457 0.203
lab*tch 0.25 0.5 0.067
lab*nch 0.5 1.0 0.067
relative Natural Colour (NC)
lab*lrj 0.25 0.5 -0.009
lab*tce 0.25 0.5 0.997
lab*nce 0.5 0.5 0.998

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 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.01 0.01 0.01
LAB*LABo 0.01 0.0 0.0
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 -

$n^* = 0.00$

blackness n^*

chromaticness c^*

UE120-7, 3 step scales for constant CIELAB hue 38/360 = 0.105 (left)

BAM-test chart UE12; Colorimetric systems ORS18 & NRS11

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

3 step scales for constant CIELAB hue 24/360 = 0.067 (right)

input: cmy0* setcmycolor

output: no change compared to input