

Input: Colorimetric Offset Reflective System ORS18

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

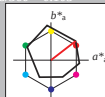
lab^*ch and lab^*nch

D50: hue O

LCH*Ma: 48 83 38

olv*Ma: 1.0 0.0 0.0

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 0.0 (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 -0.98 4.75
LAB*LABo 95.41 0.0 0.0
LAB*TCHo 99.99 0.01 -

relative CIELAB lab*
lab*lab 1.0 0.5 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 0.0 (1.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (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 56.71 -0.24 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 (1.0)
lab*ch 0.5 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0 (1.0)
lab*nce 0.5 0.0 0.0 (1.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
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 -0.47
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 (1.0)
lab*ch 0.0 0.0 - (0.0)
lab*nch 1.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 0.0 0.0 0.0 (1.0)
lab*nceE 0.0 0.0 - (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 32.69 25.25
LAB*TCHo 75.0 41.31 37.69

relative CIELAB lab*
lab*lab 0.693 0.396 0.306
lab*ch 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*nce 0.75 0.5 0.048
lab*nceE 0.0 0.5 0.15

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (1.0)
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 25.85
LAB*LABo 32.98 32.69 25.25
LAB*TCHo 25.01 41.31 37.69

relative CIELAB lab*
lab*lab 0.193 0.396 0.306
lab*ch 0.25 0.5 0.105
lab*nch 0.0 0.5 0.105
relative Natural Colour (NC)
lab*lrj 0.193 0.477 0.15
lab*nce 0.25 0.5 0.048
lab*nceE 0.0 0.5 0.15

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
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 -0.47
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 (1.0)
lab*ch 0.0 0.0 - (0.0)
lab*nch 1.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 0.0 0.0 0.0 (1.0)
lab*nceE 0.0 0.0 - (0.0)

ORS18; adapted (a) CIELAB data
 $L^* = L^*_a$ a^*_a b^*_a $C^*_{ab,a}$ $h^*_{ab,a}$
O_{Ma} 47.94 65.39 50.52 82.63 38
Y_{Ma} 90.37 -10.26 91.75 92.32 96
L_{Ma} 50.39 -62.83 34.96 71.91 151
C_{Ma} 58.62 -30.34 -45.01 54.3 236
V_{Ma} 25.72 31.1 -44.4 54.22 305
M_{Ma} 48.13 75.28 -8.36 75.74 354
N_{Ma} 18.01 0.0 0.0 0.0 0
W_{Ma} 95.41 0.0 0.0 0.0 0
R_{CIE} 39.92 58.66 26.98 64.57 25
J_{CIE} 81.26 -2.16 67.76 67.79 92
G_{CIE} 52.23 -42.25 11.76 43.87 164
B_{CIE} 30.57 1.15 -46.84 46.86 271

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 1.0 (0.0)
cmyn4* 0.0 0.0 1.0 (0.0)
standard and adapted CIELAB
LAB*LAB 47.94 65.3 52.06
LAB*LABo 47.94 65.37 50.51
LAB*TCHo 50.0 82.63 37.69

relative CIELAB lab*
lab*lab 0.387 0.791 0.611
lab*ch 0.387 0.5 0.299
lab*nch 0.0 1.0 0.105
relative Natural Colour (NC)
lab*lrj 0.387 0.5 0.299
lab*nce 0.5 1.0 0.48
lab*nceE 0.0 1.0 0.15

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.0 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 47.94 65.3 52.06
LAB*LABo 47.94 65.37 50.51
LAB*TCHo 50.0 82.63 37.69

relative CIELAB lab*
lab*lab 0.5 0.0 0.0 (1.0)
lab*ch 0.5 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0 (1.0)
lab*nce 0.5 0.0 0.0 (1.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0 (0.0)
LAB*LABo 0.03 0.0 0.0 (0.0)
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 - (0.0)
lab*nceE 0.0 0.0 - (0.0)

$n^* = 0.00$

blackness n^*

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab^*h = 40/360 = 0.111$

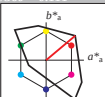
lab^*ch and lab^*nch

D50: hue O

LCH*Ma: 51 100 40

olv*Ma: 1.0 0.0 0.0

triangle lightness t^*



% Gamut

$u^*_{rel} = 158$

% Regularity

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

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

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 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 1.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 0.0 (1.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.0 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 47.72 0.0 0.0
LAB*LABo 47.72 0.0 0.0
LAB*TCHo 50.0 0.01 -

relative CIELAB lab*
lab*lab 0.5 0.0 0.0 (1.0)
lab*ch 0.5 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.5 0.0 0.0 (1.0)
lab*nce 0.5 0.0 0.0 (1.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0 (0.0)
LAB*LABo 0.03 0.0 0.0 (0.0)
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 - (0.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0 (0.0)
LAB*LABo 0.03 0.0 0.0 (0.0)
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 - (0.0)
lab*nceE 0.0 0.0 - (0.0)

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 72.95 38.45 32.27
LAB*LABo 72.95 38.45 32.27
LAB*TCHo 75.0 50.2 40.0

relative CIELAB lab*
lab*lab 0.765 0.383 0.321
lab*ch 0.75 0.5 0.111
lab*nch 0.0 0.5 0.111
relative Natural Colour (NC)
lab*lrj 0.765 0.471 0.167
lab*nce 0.75 0.5 0.054
lab*nceE 0.0 0.5 0.121

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (1.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 25.26 38.45 32.27
LAB*LABo 25.26 38.45 32.27
LAB*TCHo 25.01 40.2 40.0

relative CIELAB lab*
lab*lab 0.265 0.383 0.321
lab*ch 0.25 0.5 0.111
lab*nch 0.0 0.5 0.111
relative Natural Colour (NC)
lab*lrj 0.265 0.471 0.167
lab*nce 0.25 0.5 0.054
lab*nceE 0.0 0.5 0.121

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0 (0.0)
LAB*LABo 0.03 0.0 0.0 (0.0)
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 - (0.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0 (0.0)
LAB*LABo 0.03 0.0 0.0 (0.0)
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 - (0.0)
lab*nceE 0.0 0.0 - (0.0)

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 1.0 (0.0)
cmyn4* 0.0 1.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 50.5 76.9 64.54
LAB*LABo 50.5 76.9 64.54
LAB*TCHo 50.0 100.4 40.0

relative CIELAB lab*
lab*lab 0.529 0.766 0.643
lab*ch 0.5 1.0 0.111
lab*nch 0.0 1.0 0.111
relative Natural Colour (NC)
lab*lrj 0.529 0.942 0.325
lab*nce 0.5 1.0 0.054
lab*nceE 0.0 1.0 0.121

relative Inform. Technology (IT)
olv3* 0.5 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (1.0)
olv4* 1.0 0.5 0.5 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 25.26 38.45 32.27
LAB*LABo 25.26 38.45 32.27
LAB*TCHo 25.01 40.2 40.0

relative CIELAB lab*
lab*lab 0.265 0.383 0.321
lab*ch 0.25 0.5 0.111
lab*nch 0.0 0.5 0.111
relative Natural Colour (NC)
lab*lrj 0.265 0.471 0.167
lab*nce 0.25 0.5 0.054
lab*nceE 0.0 0.5 0.121

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0 (0.0)
LAB*LABo 0.03 0.0 0.0 (0.0)
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 - (0.0)
lab*nceE 0.0 0.0 - (0.0)

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (1.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 0.03 0.0 0.0 (0.0)
LAB*LABo 0.03 0.0 0.0 (0.0)
LAB*TCHo 0.01 0.01 -

relative CIELAB lab*
lab*lab 0.0 0.0 0.0 (1.0)
lab*ch 1.0 0.0 - (0.0)
lab*nch 0.0 0.0 - (0.0)
relative Natural Colour (NC)
lab*lrj 0.0 0.0 0.0 (1.0)
lab*nce 1.0 0.0 - (0.0)
lab*nceE 0.0 0.0 - (0.0)

$n^* = 0.00$

blackness n^*

chromaticness c^*

3 step scales for constant CIELAB hue 40/360 = 0.111 (right)

BAM-test chart QE10; Colorimetric systems ORS18 & TLS00

D50: 2 coordinate data of 3 step colour scales for 10 hues

input: $cmv0^* / 000n^* setcmkcolor$

output: $cmv0^* / 000n^* setcmkcolor$