

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
 $g^*_{H,rel} = 57$
 $g^*_{C,rel} = 59$

relative Inform. Technology (IT)
 $olv^*3^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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)
 $lab^*lrj 1.0 0.0 0.0$
 $lab^*tce 1.0 0.0 -$
 $lab^*nce 0.0 0.0 -$

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*
 $lab^*lab 0.5 0.0 0.0$
 $lab^*tch 0.5 0.0 -$
 $lab^*nch 0.0 0.0 -$
relative Natural Colour (NC)
 $lab^*lrj 0.5 0.0 0.0$
 $lab^*tce 0.5 0.0 -$
 $lab^*nce 0.0 0.0 -$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.5 0.5 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

relative Inform. Technology (IT)
 $olv^*3^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*3^+ 0.0 0.5 0.5 (0.0)$
 $olv^*4^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*4^+ 0.0 0.5 0.5 (0.0)$
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)
 $lab^*lrj 0.693 0.477 0.15$
 $lab^*tce 0.75 0.5 0.048$
 $lab^*nce 0.0 0.5 r19$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*4^+ 0.0 0.5 0.5 (0.0)$
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*
 $lab^*lab 0.193 0.396 0.306$
 $lab^*tch 0.25 0.5 0.105$
 $lab^*nch 0.0 0.5 0.105$
relative Natural Colour (NC)
 $lab^*lrj 0.193 0.477 0.15$
 $lab^*tce 0.25 0.5 0.048$
 $lab^*nce 0.0 0.5 r19$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

relative Inform. Technology (IT)
 $olv^*3^+ 1.0 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 0.0 1.0 (0.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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*
 $lab^*lab 0.387 0.791 0.611$
 $lab^*tch 0.5 1.0 0.105$
 $lab^*nch 0.0 1.0 0.105$
relative Natural Colour (NC)
 $lab^*lrj 0.387 0.954 0.299$
 $lab^*tce 0.5 1.0 0.048$
 $lab^*nce 0.0 1.0 r19$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*4^+ 0.0 0.5 0.5 (0.0)$
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*
 $lab^*lab 0.193 0.396 0.306$
 $lab^*tch 0.25 0.5 0.105$
 $lab^*nch 0.0 0.5 0.105$
relative Natural Colour (NC)
 $lab^*lrj 0.193 0.477 0.15$
 $lab^*tce 0.25 0.5 0.048$
 $lab^*nce 0.0 0.5 r19$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

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
 $g^*_{H,rel} = 47$
 $g^*_{C,rel} = 100$

relative Inform. Technology (IT)
 $olv^*3^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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)
 $lab^*lrj 1.0 0.0 0.0$
 $lab^*tce 1.0 0.0 -$
 $lab^*nce 0.0 0.0 -$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.5 0.5 (1.0)$
 $cmyn^*3^+ 0.0 0.5 0.5 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.5 0.5 (0.0)$
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*
 $lab^*lab 0.5 0.0 0.0$
 $lab^*tch 0.5 0.0 -$
 $lab^*nch 0.0 0.0 -$
relative Natural Colour (NC)
 $lab^*lrj 0.5 0.0 0.0$
 $lab^*tce 0.5 0.0 -$
 $lab^*nce 0.0 0.0 -$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
standard and adapted CIELAB
LAB*LAB 32.1 38.52 17.16
LAB*LABo 32.1 38.52 17.16
LAB*TCHo 25.01 42.17 24.01

relative CIELAB lab*
 $lab^*lab 0.25 0.457 0.203$
 $lab^*tch 0.25 0.5 0.067$
 $lab^*nch 0.0 0.5 0.067$
relative Natural Colour (NC)
 $lab^*lrj 0.25 0.5 -0.009$
 $lab^*tce 0.25 0.5 0.997$
 $lab^*nce 0.0 0.5 0.998$

relative Inform. Technology (IT)
 $olv^*3^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*3^+ 0.0 0.5 0.5 (0.0)$
 $olv^*4^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*4^+ 0.0 0.5 0.5 (0.0)$
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)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*4^+ 0.0 0.5 0.5 (0.0)$
standard and adapted CIELAB
LAB*LAB 32.1 38.52 17.16
LAB*LABo 32.1 38.52 17.16
LAB*TCHo 25.01 42.17 24.01

relative CIELAB lab*
 $lab^*lab 0.5 0.0 0.0$
 $lab^*tch 0.5 0.0 -$
 $lab^*nch 0.0 0.0 -$
relative Natural Colour (NC)
 $lab^*lrj 0.5 0.0 0.0$
 $lab^*tce 0.5 0.0 -$
 $lab^*nce 0.0 0.0 -$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

relative Inform. Technology (IT)
 $olv^*3^+ 1.0 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 1.0 1.0 (0.0)$
 $olv^*4^+ 1.0 0.0 0.0 (1.0)$
 $cmyn^*4^+ 0.0 1.0 1.0 (0.0)$
standard and adapted CIELAB
LAB*LAB 53.2 77.06 34.32
LAB*LABo 53.2 77.06 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)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 0.5 0.5 (1.0)$
 $cmyn^*4^+ 0.0 0.5 0.5 (0.0)$
standard and adapted CIELAB
LAB*LAB 32.1 38.52 17.16
LAB*LABo 32.1 38.52 17.16
LAB*TCHo 25.01 42.17 24.01

relative CIELAB lab*
 $lab^*lab 0.25 0.457 0.203$
 $lab^*tch 0.25 0.5 0.067$
 $lab^*nch 0.0 0.5 0.067$
relative Natural Colour (NC)
 $lab^*lrj 0.25 0.5 -0.009$
 $lab^*tce 0.25 0.5 0.997$
 $lab^*nce 0.0 0.5 0.998$

relative Inform. Technology (IT)
 $olv^*3^+ 0.5 0.0 0.0 (1.0)$
 $cmyn^*3^+ 0.0 0.0 0.0 (0.0)$
 $olv^*4^+ 1.0 1.0 1.0 (1.0)$
 $cmyn^*4^+ 0.0 0.0 0.0 (0.0)$
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)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$