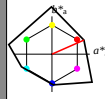


# Input: Colorimetric Reflective System NCS11

for hue  $h^* = lab^*h = 24/360 = 0.066$   
 $lab^*tch$  and  $lab^*nch$

D65: hue R  
LCH\*Ma: 47 92 24  
olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 149$   
%Regularity  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

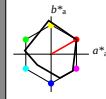
| NCS11; adapted (a) CIELAB data |         |         |              |              |     |
|--------------------------------|---------|---------|--------------|--------------|-----|
| $L^* = L^*_a$                  | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |     |
| RMa                            | 47.15   | 84.64   | 37.25        | 92.48        | 24  |
| YMa                            | 91.37   | -1.27   | 125.03       | 125.03       | 91  |
| GMa                            | 63.07   | -114.28 | 25.35        | 117.06       | 167 |
| G50BMa                         | 59.47   | -80.6   | -33.45       | 87.28        | 203 |
| BMa                            | 49.01   | 3.65    | -81.19       | 81.28        | 273 |
| B50RMa                         | 44.06   | 106.09  | -73.93       | 129.32       | 325 |
| NMa                            | 10.99   | 0.0     | 0.0          | 0.0          | 0   |
| NMa                            | 95.41   | 0.0     | 0.0          | 0.0          | 0   |
| RCIE                           | 39.92   | 58.69   | 27.98        | 65.01        | 25  |
| YCIE                           | 81.26   | -2.9    | 71.56        | 71.62        | 92  |
| GCIE                           | 52.23   | -42.45  | 13.59        | 44.59        | 162 |
| BCIE                           | 30.57   | 1.35    | -46.48       | 46.51        | 272 |

# Output: Colorimetric Reflective System MRS18

for hue  $h^* = lab^*h = 30/360 = 0.083$   
 $lab^*tch$  and  $lab^*nch$

D65: hue R  
LCH\*Ma: 50 77 30  
olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 91$   
%Regularity  
 $g^*_{H,rel} = 41$   
 $g^*_{C,rel} = 52$

| MRS18; adapted (a) CIELAB data |         |         |              |              |     |
|--------------------------------|---------|---------|--------------|--------------|-----|
| $L^* = L^*_a$                  | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |     |
| RMa                            | 49.63   | 66.96   | 38.37        | 77.18        | 30  |
| YMa                            | 90.7    | -6.36   | 88.75        | 88.98        | 94  |
| GMa                            | 52.11   | -69.73  | 9.44         | 70.37        | 172 |
| G50BMa                         | 45.03   | -36.57  | -28.47       | 46.36        | 218 |
| BMa                            | 36.65   | 23.19   | -63.05       | 67.18        | 290 |
| B50RMa                         | 34.94   | 57.17   | -44.26       | 72.31        | 322 |
| NMa                            | 18.01   | 0.0     | 0.0          | 0.0          | 0   |
| NMa                            | 95.41   | 0.0     | 0.0          | 0.0          | 0   |
| RCIE                           | 39.92   | 58.66   | 26.98        | 64.56        | 25  |
| YCIE                           | 81.26   | -2.17   | 67.76        | 67.79        | 92  |
| GCIE                           | 52.23   | -42.26  | 11.75        | 43.87        | 164 |
| BCIE                           | 30.57   | 1.15    | -46.84       | 46.87        | 271 |

relative Inform. Technology (IT)  
 $olvi3^* = 1.0$  1.0 1.0 (1.0)  
 $cmyn3^* = 0.0$  0.0 0.0 (0.0)  
 $olvi4^* = 1.0$  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\*Lab 95.41 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)  
 $lab^*trj = 1.0$  0.0 0.0  
 $lab^*tce = 1.0$  0.0 -  
 $lab^*nce = 0.0$  0.0 -

relative Inform. Technology (IT)  
 $olvi3^* = 0.5$  0.5 0.5 (1.0)  
 $cmyn3^* = 0.5$  0.5 0.5 (0.0)  
 $olvi4^* = 1.0$  1.0 1.0 0.5  
 $cmyn4^* = 0.0$  0.0 0.0 0.5  
standard and adapted CIELAB  
LAB\*LAB 56.71 -0.23 2.14  
LAB\*Lab 56.71 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 -  
 $lab^*nch = 0.5$  0.0 -  
relative Natural Colour (NC)  
 $lab^*trj = 0.5$  0.0 0.0  
 $lab^*tce = 0.5$  0.0 -  
 $lab^*nce = 0.5$  0.0 -

relative Inform. Technology (IT)  
 $olvi3^* = 0.0$  0.0 0.0 (1.0)  
 $cmyn3^* = 1.0$  1.0 1.0 (0.0)  
 $olvi4^* = 1.0$  1.0 1.0 0.0  
 $cmyn4^* = 0.0$  0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 18.02 0.5 -0.46  
LAB\*Lab 18.02 0.0 0.0  
LAB\*TChe 0.01 0.01 0.0

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)  
 $lab^*trj = 0.0$  0.0 0.0  
 $lab^*tce = 0.0$  0.0 -  
 $lab^*nce = 1.0$  0.0 -

relative Inform. Technology (IT)  
 $olvi3^* = 1.0$  0.5 0.5 (1.0)  
 $cmyn3^* = 0.0$  0.5 0.5 (0.0)  
 $olvi4^* = 1.0$  0.5 0.5 (1.0)  
 $cmyn4^* = 0.0$  0.5 0.5 0.0  
standard and adapted CIELAB  
LAB\*LAB 72.52 32.93 22.4  
LAB\*Lab 72.52 33.47 19.18  
LAB\*TChe 75.0 38.58 29.82

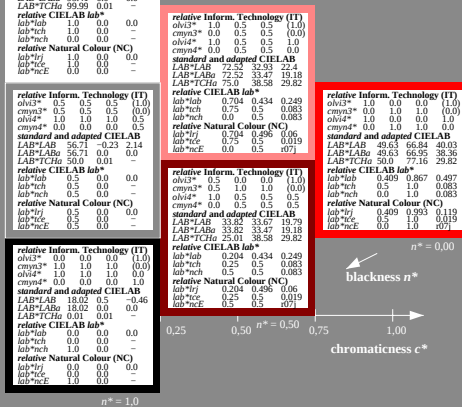
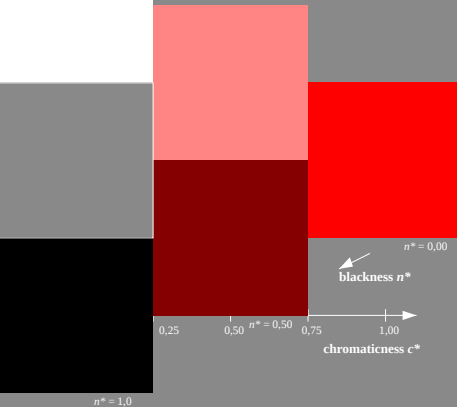
relative CIELAB lab\*  
 $lab^*lab = 0.704$  0.434 0.249  
 $lab^*tch = 0.75$  0.5 0.083  
 $lab^*nch = 0.0$  0.5 0.083  
relative Natural Colour (NC)  
 $lab^*trj = 0.704$  0.496 0.06  
 $lab^*tce = 0.75$  0.5 0.019  
 $lab^*nce = 0.0$  0.5 0.071

relative Inform. Technology (IT)  
 $olvi3^* = 0.5$  0.0 0.0 (1.0)  
 $cmyn3^* = 0.5$  1.0 1.0 (0.0)  
 $olvi4^* = 1.0$  0.5 0.5 0.5  
 $cmyn4^* = 0.0$  0.5 0.5 0.5  
standard and adapted CIELAB  
LAB\*LAB 33.83 33.67 19.79  
LAB\*Lab 33.82 33.47 19.18  
LAB\*TChe 25.01 38.58 29.82

relative CIELAB lab\*  
 $lab^*lab = 0.204$  0.434 0.249  
 $lab^*tch = 0.25$  0.5 0.083  
 $lab^*nch = 0.0$  0.5 0.083  
relative Natural Colour (NC)  
 $lab^*trj = 0.204$  0.496 0.06  
 $lab^*tce = 0.25$  0.5 0.019  
 $lab^*nce = 0.5$  0.5 0.071

relative Inform. Technology (IT)  
 $olvi3^* = 1.0$  0.0 1.0 (1.0)  
 $cmyn3^* = 0.0$  1.0 1.0 (0.0)  
 $olvi4^* = 1.0$  0.0 0.0 1.0  
 $cmyn4^* = 0.0$  1.0 1.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 49.63 66.96 40.03  
LAB\*Lab 49.63 66.95 38.36  
LAB\*TChe 50.0 77.16 29.82

relative CIELAB lab\*  
 $lab^*lab = 0.409$  0.867 0.497  
 $lab^*tch = 0.409$  0.993 0.119  
 $lab^*nch = 0.0$  1.0 0.083  
relative Natural Colour (NC)  
 $lab^*trj = 0.409$  0.993 0.119  
 $lab^*tce = 0.5$  1.0 0.019  
 $lab^*nce = 0.0$  1.0 0.071



1080-7, 3 step scales for constant CIELAB hue 24/360 = 0.066 (left)

BAM-test chart TE08; Colorimetric systems NCS11a & MRS18  
D65: 3 step colour scales and coordinate data for 10 hues

3 step scales for constant CIELAB hue 30/360 = 0.083 (right)

input: `olv* setrgbcolor`  
output: `olv* setrgbcolor / w* setgray`