

# Input: Colorimetric Natural Reflective System CNS18

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

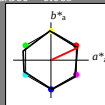
$lab^*tch$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 57 77 25

olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 100$

%Regularity

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

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

## CNS18; adapted (a) CIELAB data

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| RMa    | 56.7          | 70.15   | 32.71   | 77.4         | 25           |
| GMa    | 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          |
| B50BMa | 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          |

# Output: Colorimetric Television Luminous System TLS18

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

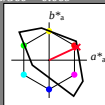
$lab^*tch$  and  $lab^*nch$

D65: hue O

LCH\*Ma: 54 82 25

olv\*Ma: 1.0 0.0 0.14

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 118$

%Regularity

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

## TLS18; adapted (a) CIELAB data

|      | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|---------------|---------|---------|--------------|--------------|
| OMa  | 52.76         | 71.63   | 49.88   | 87.29        | 35           |
| YMa  | 92.74         | -20.02  | 84.97   | 87.3         | 103          |
| YMa  | 84.0          | -78.98  | 73.94   | 108.2        | 137          |
| YMa  | 87.14         | -44.41  | -13.11  | 46.32        | 196          |
| VMa  | 35.47         | 64.92   | -95.06  | 115.12       | 304          |
| MMa  | 59.01         | 89.33   | -55.67  | 105.26       | 328          |
| 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 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\*LABa 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\*lrj 1.0 0.0 0.0  
lab\*tce 1.0 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\*LABa 56.72 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\*lrj 0.5 0.0 0.0  
lab\*tce 0.5 0.0 -  
lab\*nce 0.5 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 18.03 0.0 0.0  
LAB\*LABa 18.03 0.0 0.0  
LAB\*TCHe 0.01 0.01 -

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 -  
lab\*nch 0.0 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)  
olv3\* 1.0 0.5 0.572 (1.0)  
cmyn3\* 0.0 0.5 0.428 (0.0)  
olv4\* 1.0 0.5 0.572 (1.0)  
cmyn4\* 0.0 0.5 0.428 (0.0)

standard and adapted CIELAB  
LAB\*LAB 74.53 37.09 17.29  
LAB\*LABa 74.53 37.09 17.29  
LAB\*TCHe 75.0 40.92 25.0

relative CIELAB lab\*  
lab\*lab 0.73 0.453 0.211  
lab\*tch 0.75 0.5 0.069  
lab\*nch 0.9 0.5 0.069

relative Natural Colour (NC)  
lab\*lrj 0.73 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 0.072 (1.0)  
cmyn3\* 0.5 1.0 0.928 (0.0)  
olv4\* 1.0 0.5 0.572 0.5  
cmyn4\* 0.0 0.5 0.428 0.5

standard and adapted CIELAB  
LAB\*LAB 35.84 37.09 17.3  
LAB\*LABa 35.84 37.09 17.3  
LAB\*TCHe 25.01 40.93 25.01

relative CIELAB lab\*  
lab\*lab 0.23 0.453 0.211  
lab\*tch 0.25 0.5 0.069  
lab\*nch 0.5 0.5 0.069

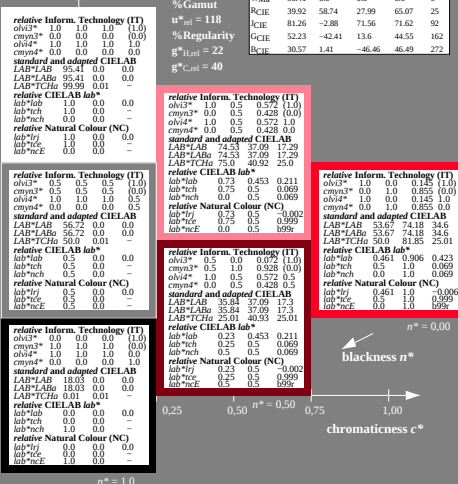
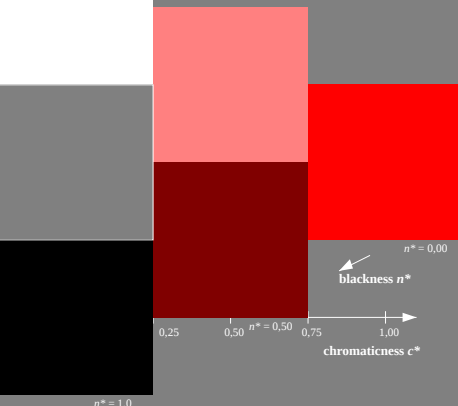
relative Natural Colour (NC)  
lab\*lrj 0.23 0.5 -0.002  
lab\*tce 0.25 0.5 0.999  
lab\*nce 0.5 0.5 0.999

relative Inform. Technology (IT)  
olv3\* 1.0 0.0 0.145 (1.0)  
cmyn3\* 0.0 1.0 0.855 (0.0)  
olv4\* 1.0 0.0 0.145 (1.0)  
cmyn4\* 0.0 1.0 0.855 (0.0)

standard and adapted CIELAB  
LAB\*LAB 53.67 74.18 34.6  
LAB\*LABa 53.67 74.18 34.6  
LAB\*TCHe 50.0 81.85 25.01

relative CIELAB lab\*  
lab\*lab 0.461 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 0.461 1.0 -0.006  
lab\*tce 0.5 1.0 0.999  
lab\*nce 0.0 1.0 0.999



L600-7, 3 step scales for constant CIELAB hue 25/360 = 0.069 (left)

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

BAM-test chart VE60; Colorimetric systems CNS18 & TLS18

D65: 3 step colour scales and coordinate data for 10 hues

input: olv\* setrgbcolor

output: no change compared to input