



### Input: Colorimetric Television Luminous System TLS70

for hue  $h^* = lab^*h = 107/360 = 0.298$

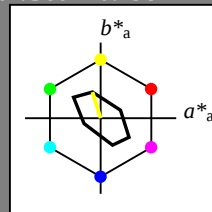
$lab^*tch$  and  $lab^*nch$

D65: hue Y

LCH\*Ma: 94 36 107

olv\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.0 -

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)  
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 82.56 0.0 0.0  
LAB\*LABa 82.56 0.0 0.0  
LAB\*TCHa 50.0 0.0 -

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)  
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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 1.0$

### TLS70; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 76.43       | 26.27   | 10.57   | 28.32        | 22           |
| YMa  | 93.93       | -10.76  | 34.63   | 36.27        | 107          |
| LMa  | 89.32       | -35.8   | 27.64   | 45.24        | 142          |
| CMa  | 90.93       | -21.95  | -7.07   | 23.07        | 198          |
| VMa  | 72.1        | 15.76   | -35.63  | 38.97        | 294          |
| MMa  | 78.5        | 37.52   | -25.23  | 45.22        | 326          |
| NMa  | 69.7        | 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           |
| JCIE | 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)  
olvi3\* 1.0 1.0 0.5 (1.0)  
cmyn3\* 0.0 0.0 0.5 (0.0)  
olvi4\* 1.0 1.0 0.5 1.0  
cmyn4\* 0.0 0.0 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 94.67 -5.37 17.31  
LAB\*LABa 94.67 -5.37 17.31  
LAB\*TCHa 75.0 18.13 107.28

relative CIELAB lab\*  
lab\*lab 0.971 -0.147 0.477  
lab\*tch 0.75 0.5 0.298  
lab\*nch 0.0 0.5 0.298

relative Natural Colour (NC)  
lab\*lrj 0.971 -0.164 0.472  
lab\*tce 0.75 0.5 0.304  
lab\*nce 0.0 0.5 j21g

relative Inform. Technology (IT)  
olvi3\* 0.5 0.5 0.0 (1.0)  
cmyn3\* 0.5 0.5 1.0 (0.0)  
olvi4\* 1.0 1.0 0.5 0.5  
cmyn4\* 0.0 0.0 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 81.82 -5.37 17.31  
LAB\*LABa 81.82 -5.37 17.31  
LAB\*TCHa 25.01 18.13 107.28

relative CIELAB lab\*  
lab\*lab 0.471 -0.147 0.477  
lab\*tch 0.25 0.5 0.298  
lab\*nch 0.5 0.5 0.298

relative Natural Colour (NC)  
lab\*lrj 0.471 -0.164 0.472  
lab\*tce 0.25 0.5 0.304  
lab\*nce 0.5 0.5 j21g

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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 0.00$

blackness  $n^*$

chromaticness  $c^*$

### Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 103/360 = 0.286$

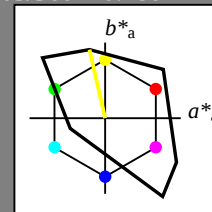
$lab^*tch$  and  $lab^*nch$

D65: hue Y

LCH\*Ma: 93 93 103

olv\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 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)  
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 47.72 0.0 0.0  
LAB\*LABa 47.72 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 1.0$

### TLS00; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 50.5        | 76.92   | 64.55   | 100.42       | 40           |
| YMa  | 92.66       | -20.69  | 90.75   | 93.08        | 103          |
| LMa  | 83.63       | -82.75  | 79.9    | 115.04       | 136          |
| CMa  | 86.88       | -46.16  | -13.55  | 48.12        | 196          |
| VMa  | 30.39       | 76.06   | -103.59 | 128.52       | 306          |
| MMa  | 57.3        | 94.35   | -58.41  | 110.97       | 328          |
| NMa  | 0.01        | 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           |
| JCIE | 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)  
olvi3\* 1.0 1.0 0.5 (1.0)  
cmyn3\* 0.0 0.0 0.5 (0.0)  
olvi4\* 1.0 1.0 0.5 1.0  
cmyn4\* 0.0 0.0 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 94.03 -10.34 45.37  
LAB\*LABa 94.03 -10.34 45.37  
LAB\*TCHa 75.0 46.53 102.85

relative CIELAB lab\*  
lab\*lab 0.985 -0.11 0.487  
lab\*tch 0.75 0.5 0.286  
lab\*nch 0.0 0.5 0.286

relative Natural Colour (NC)  
lab\*lrj 0.985 -0.116 0.486  
lab\*tce 0.75 0.5 0.288  
lab\*nce 0.0 0.5 j15g

relative Inform. Technology (IT)  
olvi3\* 0.5 0.5 0.0 (1.0)  
cmyn3\* 0.5 0.5 1.0 (0.0)  
olvi4\* 1.0 1.0 0.5 0.5  
cmyn4\* 0.0 0.0 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 46.34 -10.34 45.37  
LAB\*LABa 46.34 -10.34 45.37  
LAB\*TCHa 25.01 46.53 102.85

relative CIELAB lab\*  
lab\*lab 0.486 -0.11 0.487  
lab\*tch 0.25 0.5 0.286  
lab\*nch 0.5 0.5 0.286

relative Natural Colour (NC)  
lab\*lrj 0.486 -0.116 0.486  
lab\*tce 0.25 0.5 0.288  
lab\*nce 0.5 0.5 j15g

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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 0.00$

blackness  $n^*$

chromaticness  $c^*$

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00  
D65: 2 coordinate data of 3 step colour scales for 10 hues

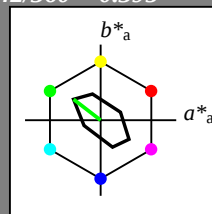
input:  $olv^* setrgbcolor$   
output:  $olv^* setrgbcolor / w^* setgray$

### Input: Colorimetric Television Luminous System TLS70

for hue  $h^* = lab^*h = 142/360 = 0.395$   
 $lab^*tch$  and  $lab^*nch$

D65: hue L  
LCH\*Ma: 89 45 142  
olv\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.0 -

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)  
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 82.56 0.0 0.0  
LAB\*LABa 82.56 0.0 0.0  
LAB\*TCHa 50.0 0.0 -

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)  
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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 1.0$

### TLS70; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 76.43       | 26.27   | 10.57   | 28.32        | 22           |
| Y <sub>Ma</sub>  | 93.93       | -10.76  | 34.63   | 36.27        | 107          |
| L <sub>Ma</sub>  | 89.32       | -35.8   | 27.64   | 45.24        | 142          |
| C <sub>Ma</sub>  | 90.93       | -21.95  | -7.07   | 23.07        | 198          |
| V <sub>Ma</sub>  | 72.1        | 15.76   | -35.63  | 38.97        | 294          |
| M <sub>Ma</sub>  | 78.5        | 37.52   | -25.23  | 45.22        | 326          |
| N <sub>Ma</sub>  | 69.7        | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 39.92       | 58.74   | 27.99   | 65.07        | 25           |
| J <sub>CIE</sub> | 81.26       | -2.88   | 71.56   | 71.62        | 92           |
| G <sub>CIE</sub> | 52.23       | -42.41  | 13.6    | 44.55        | 162          |
| B <sub>CIE</sub> | 30.57       | 1.41    | -46.46  | 46.49        | 272          |

relative Inform. Technology (IT)  
olvi3\* 0.5 1.0 0.5 (1.0)  
cmyn3\* 0.5 0.0 0.5 (0.0)  
olvi4\* 0.5 1.0 0.5 1.0  
cmyn4\* 0.5 0.0 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 92.36 -17.89 13.82  
LAB\*LABa 92.36 -17.89 13.82  
LAB\*TCHa 75.0 22.61 142.34

relative CIELAB lab\*  
lab\*lab 0.881 -0.395 0.305  
lab\*tch 0.75 0.5 0.395  
lab\*nch 0.0 0.5 0.395

relative Natural Colour (NC)  
lab\*lrj 0.881 -0.45 0.216  
lab\*tce 0.75 0.5 0.429  
lab\*nce 0.0 0.5 0.71g

relative Inform. Technology (IT)  
olvi3\* 0.0 0.5 0.0 (1.0)  
cmyn3\* 1.0 0.5 1.0 (0.0)  
olvi4\* 0.5 1.0 0.5 0.5  
cmyn4\* 0.5 0.0 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 79.51 -17.89 13.82  
LAB\*LABa 79.51 -17.89 13.82  
LAB\*TCHa 25.01 22.61 142.34

relative CIELAB lab\*  
lab\*lab 0.382 -0.395 0.305  
lab\*tch 0.25 0.5 0.395  
lab\*nch 0.5 0.5 0.395

relative Natural Colour (NC)  
lab\*lrj 0.382 -0.45 0.216  
lab\*tce 0.25 0.5 0.429  
lab\*nce 0.5 0.5 0.71g

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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 0.00$

blackness  $n^*$

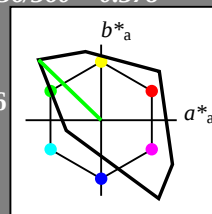
chromaticness  $c^*$

### Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 136/360 = 0.378$   
 $lab^*tch$  and  $lab^*nch$

D65: hue L  
LCH\*Ma: 84 115 136  
olv\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 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)  
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 47.72 0.0 0.0  
LAB\*LABa 47.72 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 1.0$

### TLS00; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 50.5        | 76.92   | 64.55   | 100.42       | 40           |
| Y <sub>Ma</sub>  | 92.66       | -20.69  | 90.75   | 93.08        | 103          |
| L <sub>Ma</sub>  | 83.63       | -82.75  | 79.9    | 115.04       | 136          |
| C <sub>Ma</sub>  | 86.88       | -46.16  | -13.55  | 48.12        | 196          |
| V <sub>Ma</sub>  | 30.39       | 76.06   | -103.59 | 128.52       | 306          |
| M <sub>Ma</sub>  | 57.3        | 94.35   | -58.41  | 110.97       | 328          |
| N <sub>Ma</sub>  | 0.01        | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 39.92       | 58.74   | 27.99   | 65.07        | 25           |
| J <sub>CIE</sub> | 81.26       | -2.88   | 71.56   | 71.62        | 92           |
| G <sub>CIE</sub> | 52.23       | -42.41  | 13.6    | 44.55        | 162          |
| B <sub>CIE</sub> | 30.57       | 1.41    | -46.46  | 46.49        | 272          |

relative Inform. Technology (IT)  
olvi3\* 0.5 1.0 0.5 (1.0)  
cmyn3\* 0.5 0.0 0.5 (0.0)  
olvi4\* 0.5 1.0 0.5 1.0  
cmyn4\* 0.5 0.0 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 89.51 -41.36 39.94  
LAB\*LABa 89.51 -41.36 39.94  
LAB\*TCHa 75.0 57.51 136.01

relative CIELAB lab\*  
lab\*lab 0.938 -0.359 0.347  
lab\*tch 0.75 0.5 0.378  
lab\*nch 0.0 0.5 0.378

relative Natural Colour (NC)  
lab\*lrj 0.938 -0.415 0.278  
lab\*tce 0.75 0.5 0.406  
lab\*nce 0.0 0.5 0.62g

relative Inform. Technology (IT)  
olvi3\* 0.0 0.5 0.0 (1.0)  
cmyn3\* 1.0 0.5 1.0 (0.0)  
olvi4\* 0.5 1.0 0.5 0.5  
cmyn4\* 0.5 0.0 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 41.82 -41.36 39.94  
LAB\*LABa 41.82 -41.36 39.94  
LAB\*TCHa 25.01 57.51 136.01

relative CIELAB lab\*  
lab\*lab 0.438 -0.359 0.347  
lab\*tch 0.25 0.5 0.378  
lab\*nch 0.5 0.5 0.378

relative Natural Colour (NC)  
lab\*lrj 0.438 -0.415 0.278  
lab\*tce 0.25 0.5 0.406  
lab\*nce 0.5 0.5 0.62g

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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 0.00$

blackness  $n^*$

chromaticness  $c^*$

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00  
D65: 2 coordinate data of 3 step colour scales for 10 hues

input:  $olv^* setrgbcolor$   
output:  $olv^* setrgbcolor / w^* setgray$

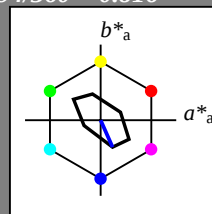


### Input: Colorimetric Television Luminous System TLS70

for hue  $h^* = lab^*h = 294/360 = 0.816$   
 $lab^*tch$  and  $lab^*nch$

D65: hue V  
LCH\*Ma: 72 39 294  
olv\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.0 -

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)  
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 82.56 0.0 0.0  
LAB\*LABa 82.56 0.0 0.0  
LAB\*TCHa 50.0 0.0 -

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)  
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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 1.0$

| TLS70; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| OMa                            | 76.43       | 26.27   | 10.57   | 28.32        | 22           |
| YMa                            | 93.93       | -10.76  | 34.63   | 36.27        | 107          |
| LMa                            | 89.32       | -35.8   | 27.64   | 45.24        | 142          |
| CMa                            | 90.93       | -21.95  | -7.07   | 23.07        | 198          |
| VMa                            | 72.1        | 15.76   | -35.63  | 38.97        | 294          |
| MMa                            | 78.5        | 37.52   | -25.23  | 45.22        | 326          |
| NMa                            | 69.7        | 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           |
| JCIE                           | 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)  
olvi3\* 0.5 0.5 1.0 (1.0)  
cmyn3\* 0.5 0.5 0.0 (0.0)  
olvi4\* 0.5 0.5 1.0 1.0  
cmyn4\* 0.5 0.5 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 83.75 7.88 -17.81  
LAB\*LABa 83.75 7.88 -17.81  
LAB\*TCHa 75.0 19.48 293.86

relative CIELAB lab\*  
lab\*lab 0.547 0.202 -0.456  
lab\*tch 0.75 0.5 0.816  
lab\*nch 0.0 0.5 0.816

relative Natural Colour (NC)  
lab\*lrj 0.547 0.15 -0.476  
lab\*tce 0.75 0.5 0.799  
lab\*nce 0.0 0.5 b19r

relative Inform. Technology (IT)  
olvi3\* 0.0 0.0 0.5 (1.0)  
cmyn3\* 1.0 1.0 0.5 (0.0)  
olvi4\* 0.5 0.5 1.0 0.5  
cmyn4\* 0.5 0.5 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 70.9 7.88 -17.81  
LAB\*LABa 70.9 7.88 -17.81  
LAB\*TCHa 25.01 19.48 293.86

relative CIELAB lab\*  
lab\*lab 0.047 0.202 -0.456  
lab\*tch 0.25 0.5 0.816  
lab\*nch 0.5 0.5 0.816

relative Natural Colour (NC)  
lab\*lrj 0.047 0.15 -0.476  
lab\*tce 0.25 0.5 0.799  
lab\*nce 0.5 0.5 b19r

$n^* = 0.50$

blackness  $n^*$

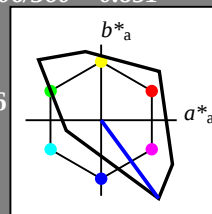
chromaticness  $c^*$

### Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 306/360 = 0.851$   
 $lab^*tch$  and  $lab^*nch$

D65: hue V  
LCH\*Ma: 30 129 306  
olv\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 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)  
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 47.72 0.0 0.0  
LAB\*LABa 47.72 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 1.0$

relative Inform. Technology (IT)  
olvi3\* 0.5 0.5 1.0 (1.0)  
cmyn3\* 0.5 0.5 0.0 (0.0)  
olvi4\* 0.5 0.5 1.0 1.0  
cmyn4\* 0.5 0.5 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 62.9 38.02 -51.78  
LAB\*LABa 62.9 38.02 -51.78  
LAB\*TCHa 75.0 64.25 306.29

relative CIELAB lab\*  
lab\*lab 0.659 0.296 -0.402  
lab\*tch 0.75 0.5 0.851  
lab\*nch 0.0 0.5 0.851

relative Natural Colour (NC)  
lab\*lrj 0.659 0.23 -0.443  
lab\*tce 0.75 0.5 0.826  
lab\*nce 0.0 0.5 b30r

relative Inform. Technology (IT)  
olvi3\* 0.0 0.0 0.5 (1.0)  
cmyn3\* 1.0 1.0 0.5 (0.0)  
olvi4\* 0.5 0.5 1.0 0.5  
cmyn4\* 0.5 0.5 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 15.21 38.02 -51.78  
LAB\*LABa 15.21 38.02 -51.78  
LAB\*TCHa 25.01 64.25 306.29

relative CIELAB lab\*  
lab\*lab 0.159 0.296 -0.402  
lab\*tch 0.25 0.5 0.851  
lab\*nch 0.5 0.5 0.851

relative Natural Colour (NC)  
lab\*lrj 0.159 0.23 -0.443  
lab\*tce 0.25 0.5 0.826  
lab\*nce 0.5 0.5 b30r

$n^* = 0.50$

blackness  $n^*$

chromaticness  $c^*$

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00  
D65: 2 coordinate data of 3 step colour scales for 10 hues

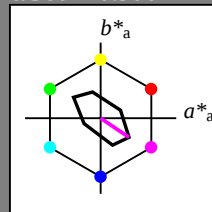
input:  $olv^* setrgbcolor$   
output:  $olv^* setrgbcolor / w^* setgray$

### Input: Colorimetric Television Luminous System TLS70

for hue  $h^* = lab^*h = 326/360 = 0.906$   
 $lab^*tch$  and  $lab^*nch$

D65: hue M  
LCH\*Ma: 79 45 326  
olv\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.0 -

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)  
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 82.56 0.0 0.0  
LAB\*LABa 82.56 0.0 0.0  
LAB\*TCHa 50.0 0.0 -

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)  
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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 1.0$

| TLS70; adapted (a) CIELAB data | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------------------|---------------|---------|---------|--------------|--------------|
| OMa                            | 76.43         | 26.27   | 10.57   | 28.32        | 22           |
| YMa                            | 93.93         | -10.76  | 34.63   | 36.27        | 107          |
| LMa                            | 89.32         | -35.8   | 27.64   | 45.24        | 142          |
| CMa                            | 90.93         | -21.95  | -7.07   | 23.07        | 198          |
| VMa                            | 72.1          | 15.76   | -35.63  | 38.97        | 294          |
| MMa                            | 78.5          | 37.52   | -25.23  | 45.22        | 326          |
| NMa                            | 69.7          | 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           |
| JCIE                           | 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)  
olvi3\* 1.0 0.5 1.0 (1.0)  
cmyn3\* 0.0 0.5 0.0 (0.0)  
olvi4\* 1.0 0.5 1.0 1.0  
cmyn4\* 0.0 0.5 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 86.95 18.76 -12.61  
LAB\*LABa 86.95 18.76 -12.61  
LAB\*TCHa 75.0 22.61 326.07

relative CIELAB lab\*  
lab\*lab 0.671 0.415 -0.278  
lab\*tch 0.75 0.5 0.906  
lab\*nch 0.0 0.5 0.906

relative Natural Colour (NC)  
lab\*lrj 0.671 0.341 -0.365  
lab\*tce 0.75 0.5 0.869  
lab\*nce 0.0 0.5 b47r

relative Inform. Technology (IT)  
olvi3\* 0.5 0.0 0.5 (1.0)  
cmyn3\* 0.5 1.0 0.5 (0.0)  
olvi4\* 1.0 0.5 1.0 0.5  
cmyn4\* 0.0 0.5 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 74.1 18.76 -12.61  
LAB\*LABa 74.1 18.76 -12.61  
LAB\*TCHa 25.01 22.61 326.07

relative CIELAB lab\*  
lab\*lab 0.171 0.415 -0.278  
lab\*tch 0.25 0.5 0.906  
lab\*nch 0.5 0.5 0.906

relative Natural Colour (NC)  
lab\*lrj 0.171 0.341 -0.365  
lab\*tce 0.25 0.5 0.869  
lab\*nce 0.5 0.5 b47r

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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 0.00$

blackness  $n^*$

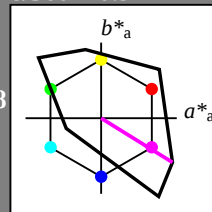
chromaticness  $c^*$

### Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 328/360 = 0.912$   
 $lab^*tch$  and  $lab^*nch$

D65: hue M  
LCH\*Ma: 57 111 328  
olv\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 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)  
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 47.72 0.0 0.0  
LAB\*LABa 47.72 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 1.0$

| TLS00; adapted (a) CIELAB data | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------------------|---------------|---------|---------|--------------|--------------|
| OMa                            | 50.5          | 76.92   | 64.55   | 100.42       | 40           |
| YMa                            | 92.66         | -20.69  | 90.75   | 93.08        | 103          |
| LMa                            | 83.63         | -82.75  | 79.9    | 115.04       | 136          |
| CMa                            | 86.88         | -46.16  | -13.55  | 48.12        | 196          |
| VMa                            | 30.39         | 76.06   | -103.59 | 128.52       | 306          |
| MMa                            | 57.3          | 94.35   | -58.41  | 110.97       | 328          |
| NMa                            | 0.01          | 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           |
| JCIE                           | 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)  
olvi3\* 1.0 0.5 1.0 (1.0)  
cmyn3\* 0.0 0.5 0.0 (0.0)  
olvi4\* 1.0 0.5 1.0 1.0  
cmyn4\* 0.0 0.5 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 76.35 47.17 -29.19  
LAB\*LABa 76.35 47.17 -29.19  
LAB\*TCHa 75.0 55.47 328.23

relative CIELAB lab\*  
lab\*lab 0.8 0.425 -0.262  
lab\*tch 0.75 0.5 0.912  
lab\*nch 0.0 0.5 0.912

relative Natural Colour (NC)  
lab\*lrj 0.8 0.352 -0.354  
lab\*tce 0.75 0.5 0.874  
lab\*nce 0.0 0.5 b49r

relative Inform. Technology (IT)  
olvi3\* 0.5 0.0 0.5 (1.0)  
cmyn3\* 0.5 1.0 0.5 (0.0)  
olvi4\* 1.0 0.5 1.0 0.5  
cmyn4\* 0.0 0.5 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 28.66 47.17 -29.19  
LAB\*LABa 28.66 47.17 -29.19  
LAB\*TCHa 25.01 55.47 328.23

relative CIELAB lab\*  
lab\*lab 0.3 0.425 -0.262  
lab\*tch 0.25 0.5 0.912  
lab\*nch 0.5 0.5 0.912

relative Natural Colour (NC)  
lab\*lrj 0.3 0.352 -0.354  
lab\*tce 0.25 0.5 0.874  
lab\*nce 0.5 0.5 b49r

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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 0.00$

blackness  $n^*$

chromaticness  $c^*$

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00  
D65: 2 coordinate data of 3 step colour scales for 10 hues

input:  $olv^* \text{ setrgbcolor}$   
output:  $olv^* \text{ setrgbcolor} / w^* \text{ setgray}$



### Input: Colorimetric Television Luminous System TLS70

for hue  $h^* = lab^*h = 92/360 = 0.256$

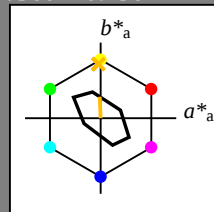
$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 89 28 92

olv\*Ma: 1.0 0.74 0.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.0 -

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)  
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 82.56 0.0 0.0  
LAB\*LABa 82.56 0.0 0.0  
LAB\*TCHa 50.0 0.0 -

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)  
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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 1.0$

| TLS70; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| O <sub>Ma</sub>                | 76.43       | 26.27   | 10.57   | 28.32        | 22           |
| Y <sub>Ma</sub>                | 93.93       | -10.76  | 34.63   | 36.27        | 107          |
| L <sub>Ma</sub>                | 89.32       | -35.8   | 27.64   | 45.24        | 142          |
| C <sub>Ma</sub>                | 90.93       | -21.95  | -7.07   | 23.07        | 198          |
| V <sub>Ma</sub>                | 72.1        | 15.76   | -35.63  | 38.97        | 294          |
| M <sub>Ma</sub>                | 78.5        | 37.52   | -25.23  | 45.22        | 326          |
| N <sub>Ma</sub>                | 69.7        | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>                | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub>               | 39.92       | 58.74   | 27.99   | 65.07        | 25           |
| J <sub>CIE</sub>               | 81.26       | -2.88   | 71.56   | 71.62        | 92           |
| G <sub>CIE</sub>               | 52.23       | -42.41  | 13.6    | 44.55        | 162          |
| B <sub>CIE</sub>               | 30.57       | 1.41    | -46.46  | 46.49        | 272          |

relative Inform. Technology (IT)  
olvi3\* 1.0 0.87 0.5 (1.0)  
cmyn3\* 0.0 0.13 0.5 (0.0)  
olvi4\* 1.0 0.87 0.5 1.0  
cmyn4\* 0.0 0.13 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 92.4 -0.57 14.19  
LAB\*LABa 92.4 -0.57 14.19  
LAB\*TCHa 75.0 14.2 92.32

relative CIELAB lab\*  
lab\*lab 0.883 -0.019 0.499  
lab\*tch 0.75 0.5 0.256  
lab\*nch 0.0 0.5 0.256

relative Natural Colour (NC)  
lab\*lrj 0.883 0.0 0.5  
lab\*tce 0.75 0.5 0.25  
lab\*nce 0.0 0.5 j00g

relative Inform. Technology (IT)  
olvi3\* 0.5 0.37 0.0 (1.0)  
cmyn3\* 0.5 0.63 1.0 (0.0)  
olvi4\* 1.0 0.87 0.5 0.5  
cmyn4\* 0.0 0.13 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 79.54 -0.56 14.19  
LAB\*LABa 79.54 -0.56 14.19  
LAB\*TCHa 25.01 14.2 92.31

relative CIELAB lab\*  
lab\*lab 0.383 -0.019 0.499  
lab\*tch 0.25 0.5 0.256  
lab\*nch 0.5 0.5 0.256

relative Natural Colour (NC)  
lab\*lrj 0.383 0.0 0.5  
lab\*tce 0.25 0.5 0.25  
lab\*nce 0.5 0.5 r99j

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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

### Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 92/360 = 0.256$

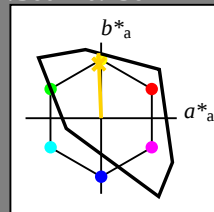
$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 85 86 92

olv\*Ma: 1.0 0.82 0.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 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)  
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 47.72 0.0 0.0  
LAB\*LABa 47.72 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

| TLS00; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| O <sub>Ma</sub>                | 50.5        | 76.92   | 64.55   | 100.42       | 40           |
| Y <sub>Ma</sub>                | 92.66       | -20.69  | 90.75   | 93.08        | 103          |
| L <sub>Ma</sub>                | 83.63       | -82.75  | 79.9    | 115.04       | 136          |
| C <sub>Ma</sub>                | 86.88       | -46.16  | -13.55  | 48.12        | 196          |
| V <sub>Ma</sub>                | 30.39       | 76.06   | -103.59 | 128.52       | 306          |
| M <sub>Ma</sub>                | 57.3        | 94.35   | -58.41  | 110.97       | 328          |
| N <sub>Ma</sub>                | 0.01        | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>                | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub>               | 39.92       | 58.74   | 27.99   | 65.07        | 25           |
| J <sub>CIE</sub>               | 81.26       | -2.88   | 71.56   | 71.62        | 92           |
| G <sub>CIE</sub>               | 52.23       | -42.41  | 13.6    | 44.55        | 162          |
| B <sub>CIE</sub>               | 30.57       | 1.41    | -46.46  | 46.49        | 272          |

relative Inform. Technology (IT)  
olvi3\* 1.0 0.912 0.5 (1.0)  
cmyn3\* 0.0 0.088 0.5 (0.0)  
olvi4\* 1.0 0.912 0.5 1.0  
cmyn4\* 0.0 0.088 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 90.31 -1.74 43.06  
LAB\*LABa 90.31 -1.74 43.06  
LAB\*TCHa 75.0 43.09 92.32

relative CIELAB lab\*  
lab\*lab 0.947 -0.019 0.499  
lab\*tch 0.75 0.5 0.256  
lab\*nch 0.0 0.5 0.256

relative Natural Colour (NC)  
lab\*lrj 0.947 0.0 0.5  
lab\*tce 0.75 0.5 0.25  
lab\*nce 0.0 0.5 j00g

relative Inform. Technology (IT)  
olvi3\* 0.5 0.412 0.0 (1.0)  
cmyn3\* 0.5 0.588 1.0 (0.0)  
olvi4\* 1.0 0.912 0.5 0.5  
cmyn4\* 0.0 0.088 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 42.62 -1.73 43.05  
LAB\*LABa 42.62 -1.73 43.05  
LAB\*TCHa 25.01 43.09 92.31

relative CIELAB lab\*  
lab\*lab 0.447 -0.019 0.499  
lab\*tch 0.25 0.5 0.256  
lab\*nch 0.5 0.5 0.256

relative Natural Colour (NC)  
lab\*lrj 0.447 0.0 0.5  
lab\*tce 0.25 0.5 0.25  
lab\*nce 0.5 0.5 r99j

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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00  
D65: 2 coordinate data of 3 step colour scales for 10 hues

input:  $olv^* setrgbcolor$   
output:  $olv^* setrgbcolor / w^* setgray$

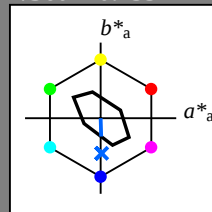


### Input: Colorimetric Television Luminous System TLS70

for hue  $h^* = lab^*h = 272/360 = 0.755$   
 $lab^*tch$  and  $lab^*nch$

D65: hue B  
LCH\*Ma: 80 24 272  
olv\*Ma: 0.0 0.4 1.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.0 -

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)  
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 82.56 0.0 0.0  
LAB\*LABa 82.56 0.0 0.0  
LAB\*TCHa 50.0 0.0 -

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)  
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 69.7 0.0 0.0  
LAB\*LABa 69.7 0.0 0.0  
LAB\*TCHa 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\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

$n^* = 1.0$

| TLS70; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| O <sub>Ma</sub>                | 76.43       | 26.27   | 10.57   | 28.32        | 22           |
| Y <sub>Ma</sub>                | 93.93       | -10.76  | 34.63   | 36.27        | 107          |
| L <sub>Ma</sub>                | 89.32       | -35.8   | 27.64   | 45.24        | 142          |
| C <sub>Ma</sub>                | 90.93       | -21.95  | -7.07   | 23.07        | 198          |
| V <sub>Ma</sub>                | 72.1        | 15.76   | -35.63  | 38.97        | 294          |
| M <sub>Ma</sub>                | 78.5        | 37.52   | -25.23  | 45.22        | 326          |
| N <sub>Ma</sub>                | 69.7        | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>                | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub>               | 39.92       | 58.74   | 27.99   | 65.07        | 25           |
| J <sub>CIE</sub>               | 81.26       | -2.88   | 71.56   | 71.62        | 92           |
| G <sub>CIE</sub>               | 52.23       | -42.41  | 13.6    | 44.55        | 162          |
| B <sub>CIE</sub>               | 30.57       | 1.41    | -46.46  | 46.49        | 272          |

relative Inform. Technology (IT)  
olvi3\* 0.5 0.699 1.0 (1.0)  
cmyn3\* 0.5 0.301 0.0 (0.0)  
olvi4\* 0.5 0.699 1.0 1.0  
cmyn4\* 0.5 0.301 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 87.5 0.37 -12.12  
LAB\*LABa 87.5 0.37 -12.12  
LAB\*TCHa 75.0 12.13 271.73

relative CIELAB lab\*  
lab\*lab 0.693 0.015 -0.499  
lab\*tch 0.75 0.5 0.755  
lab\*nch 0.0 0.5 0.755

relative Natural Colour (NC)  
lab\*lrj 0.693 0.0 -0.499  
lab\*tce 0.75 0.5 0.75  
lab\*nce 0.0 0.5 g99b

relative Inform. Technology (IT)  
olvi3\* 0.0 0.199 0.5 (1.0)  
cmyn3\* 1.0 0.801 0.5 (0.0)  
olvi4\* 0.5 0.699 1.0 0.5  
cmyn4\* 0.5 0.301 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 74.65 0.37 -12.12  
LAB\*LABa 74.65 0.37 -12.12  
LAB\*TCHa 25.01 12.14 271.75

relative CIELAB lab\*  
lab\*lab 0.193 0.015 -0.499  
lab\*tch 0.25 0.5 0.755  
lab\*nch 0.5 0.5 0.755

relative Natural Colour (NC)  
lab\*lrj 0.193 0.0 -0.499  
lab\*tce 0.25 0.5 0.75  
lab\*nce 0.5 0.5 b00r

blackness  $n^*$

$n^* = 0.00$

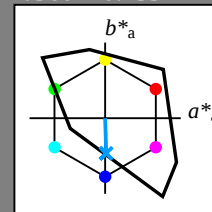
chromaticness  $c^*$

### Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 272/360 = 0.755$   
 $lab^*tch$  and  $lab^*nch$

D65: hue B  
LCH\*Ma: 65 49 272  
olv\*Ma: 0.0 0.61 1.0

triangle lightness  $t^*$



%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

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 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 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)  
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 47.72 0.0 0.0  
LAB\*LABa 47.72 0.0 0.0  
LAB\*TCHa 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)  
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 0.03 0.0 0.0  
LAB\*LABa 0.03 0.0 0.0  
LAB\*TCHa 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 -

$n^* = 1.0$

$n^* = 0.00$

chromaticness  $c^*$

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00  
D65: 2 coordinate data of 3 step colour scales for 10 hues

input:  $olv^* setrgbcolor$   
output:  $olv^* setrgbcolor / w^* setgray$