

# Input: Colorimetric Television Luminous System TLS00

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

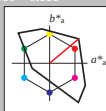
$lab^*ich$  and  $lab^*nch$

D65: hue O

LCH\*Ma: 51 100 40

olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 158$   
%Regularity  
 $g^*_{H,rel} = 20$   
 $g^*_{C,rel} = 37$

| 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          |

# Output: Colorimetric Television Luminous System TLS70

for hue  $h^* = lab^*h = 22/360 = 0.061$

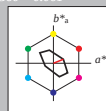
$lab^*ich$  and  $lab^*nch$

D65: hue O

LCH\*Ma: 76 28 22

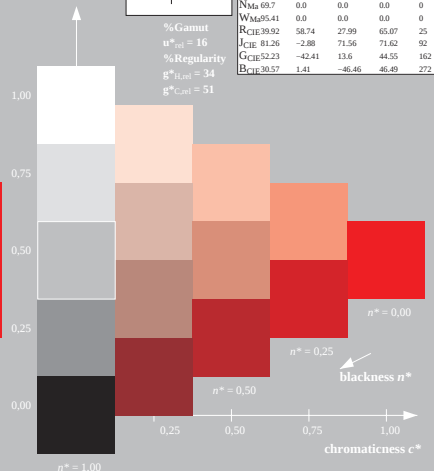
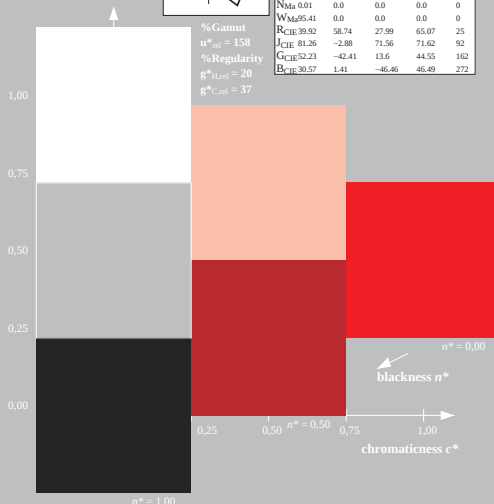
olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 16$   
%Regularity  
 $g^*_{H,rel} = 34$   
 $g^*_{C,rel} = 51$

| 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          |



OE83-7, 3 step scales for constant CIELAB hue 40/360 = 0.111 (left)

5 step scales for constant CIELAB hue 22/360 = 0.061 (right)

BAM-test chart OE83; Colorimetric systems TLS00 & TLS70

D65: 3 and 5 step colour scales for 10 hues

input: `cmY0* setcmYcolor`

output: `cmY0* / 000n* setcmYcolor`