

# Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 38/360 = 0.106$

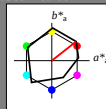
$lab^*ch$  and  $lab^*nh$

D65: hue O

LCH\*Ma: 48 82 38

olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$



%Gamut

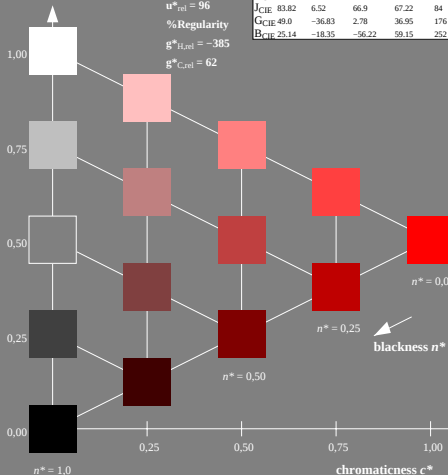
$u^*_{rel} = 96$

%Regularity

$g^*_{H,rel} = -385$

$g^*_{C,rel} = 62$

| ORS18; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| O <sub>m</sub>                 | 47.94       | 64.42   | 50.58   | 81.9         | 38           |
| Y <sub>m</sub>                 | 92.62       | 2.41    | 86.36   | 86.39        | 88           |
| L <sub>m</sub>                 | 50.9        | -63.82  | 35.02   | 72.81        | 151          |
| C <sub>m</sub>                 | 51.25       | -53.68  | -57.69  | 78.82        | 227          |
| V <sub>m</sub>                 | 25.72       | 30.34   | -44.37  | 53.76        | 304          |
| M <sub>m</sub>                 | 56.25       | 70.59   | 7.57    | 70.99        | 6            |
| N <sub>m</sub>                 | 18.11       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>m</sub>                 | 95.6        | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub>               | 47.79       | 60.85   | 41.08   | 72.41        | 34           |
| J <sub>CIE</sub>               | 83.82       | 6.52    | 66.9    | 67.22        | 84           |
| G <sub>CIE</sub>               | 49.0        | -36.83  | 2.78    | 36.95        | 176          |
| B <sub>CIE</sub>               | 25.14       | -18.35  | -56.22  | 59.15        | 252          |



RE20-7, 5 step scales for constant CIELAB hue 38/360 = 0.106 (left)

# Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 35/360 = 0.097$

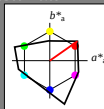
$LAB^*LCH$ ,  $LAB^*NCH$

D65: hue O

LCH\*Ma: 66 90 35

olv\*Ma: 1.0 0.0 0.0

CIELAB lightness  $L^*$



%Gamut

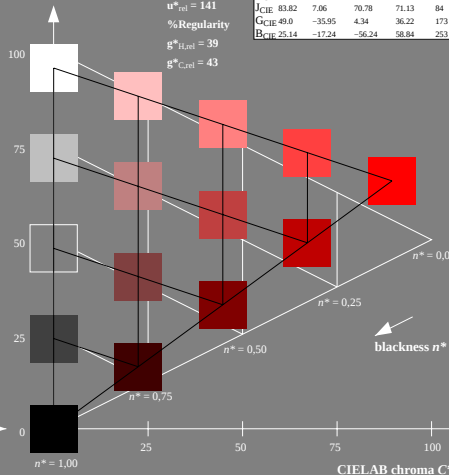
$u^*_{rel} = 141$

%Regularity

$g^*_{H,rel} = 39$

$g^*_{C,rel} = 43$

| TLS00; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| O <sub>m</sub>                 | 65.56       | 73.34   | 51.39   | 89.55        | 35           |
| Y <sub>m</sub>                 | 94.78       | -3.49   | 52.24   | 52.36        | 94           |
| L <sub>m</sub>                 | 77.48       | -92.97  | 36.0    | 99.71        | 159          |
| C <sub>m</sub>                 | 78.36       | -82.69  | -22.74  | 85.77        | 195          |
| V <sub>m</sub>                 | 12.55       | 38.81   | -114.81 | 121.2        | 289          |
| M <sub>m</sub>                 | 66.71       | 76.08   | -29.8   | 81.71        | 339          |
| N <sub>m</sub>                 | 0.01        | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>m</sub>                 | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub>               | 47.79       | 61.74   | 42.56   | 74.99        | 35           |
| J <sub>CIE</sub>               | 83.82       | 7.06    | 70.78   | 71.13        | 84           |
| G <sub>CIE</sub>               | 49.0        | -35.95  | 4.34    | 36.22        | 173          |
| B <sub>CIE</sub>               | 25.14       | -17.24  | -56.24  | 58.84        | 253          |



5 step scales for constant CIELAB hue 35/360 = 0.097 (right)

BAM-test chart RE20; Colorimetric systems ORS18 & TLS00  
A: Coordinate systems of 5 step colour scales for 10 hues

input: olv\* setrgbcolor  
output: no change compared to input