

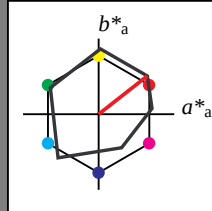
## Input: Colorimetric Offset Reflective System ORS18

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

A: hue O

LCH\*Ma: 48 82 38

olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1.0$ 

## ORS18; adapted (a) CIELAB data

| $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|---------------|---------|---------|--------------|--------------|
| OMa 47.94     | 64.42   | 50.58   | 81.9         | 38           |
| YMa 92.62     | 2.41    | 86.36   | 86.39        | 88           |
| LMa 50.9      | -63.82  | 35.02   | 72.81        | 151          |
| CMa 51.25     | -53.68  | -57.69  | 78.82        | 227          |
| VMa 25.72     | 30.34   | -44.37  | 53.76        | 304          |
| MMa 56.25     | 70.59   | 7.57    | 70.99        | 6            |
| NMa 18.11     | 0.0     | 0.0     | 0.0          | 0            |
| WMa 95.6      | 0.0     | 0.0     | 0.0          | 0            |
| RCIE 47.79    | 60.85   | 41.08   | 73.41        | 34           |
| JCIE 83.82    | 6.52    | 66.9    | 67.22        | 84           |
| GCIE 49.0     | -36.83  | 2.78    | 36.95        | 176          |
| BCIE 25.14    | -18.35  | -56.22  | 59.15        | 252          |

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  | 71.77 | 32.86 | 28.36 |
| LAB*LABa | 71.77 | 32.2  | 25.28 |
| LAB*TCHa | 75.0  | 40.94 | 38.14 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.692 | 0.393 | 0.309 |
| lab*tch | 0.75  | 0.5   | 0.106 |
| lab*nch | 0.0   | 0.5   | 0.106 |

relative Natural Colour (NC)

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lrj | 0.692 | 0.496 | 0.064 |
| lab*tce | 0.75  | 0.5   | 0.02  |
| lab*nce | 0.0   | 0.5   | 0.08j |

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  | 33.03 | 33.24 | 25.79 |
| LAB*LABa | 33.03 | 32.2  | 25.28 |
| LAB*TCHa | 25.01 | 40.94 | 38.14 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.193 | 0.393 | 0.309 |
| lab*tch | 0.25  | 0.5   | 0.106 |
| lab*nch | 0.5   | 0.5   | 0.106 |

relative Natural Colour (NC)

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lrj | 0.193 | 0.496 | 0.064 |
| lab*tce | 0.25  | 0.5   | 0.02  |
| lab*nce | 0.5   | 0.5   | 0.08j |

 $n^* = 0.50$  $n^* = 0.50$ chromaticness  $c^*$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$ 

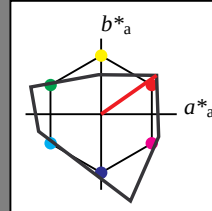
## Output: Colorimetric Television Luminous System TLS00

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

A: hue O

LCH\*Ma: 66 90 35

olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 | -   |

 $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$ 

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  | 80.48 | 36.66 | 25.69 |
| LAB*LABa | 80.48 | 36.66 | 25.69 |
| LAB*TCHa | 75.0  | 44.77 | 35.02 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.843 | 0.409 | 0.287 |
| lab*tch | 0.75  | 0.5   | 0.097 |
| lab*nch | 0.0   | 0.5   | 0.097 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.843 | 0.5 | 0.007 |
| lab*tce | 0.75  | 0.5 | 0.002 |
| lab*nce | 0.0   | 0.5 | 0.00j |

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  | 32.79 | 36.66 | 25.69 |
| LAB*LABa | 32.79 | 36.66 | 25.69 |
| LAB*TCHa | 25.01 | 44.77 | 35.02 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.344 | 0.409 | 0.287 |
| lab*tch | 0.25  | 0.5   | 0.097 |
| lab*nch | 0.5   | 0.5   | 0.097 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.344 | 0.5 | 0.007 |
| lab*tce | 0.25  | 0.5 | 0.002 |
| lab*nce | 0.5   | 0.5 | 0.00j |

 $n^* = 0.50$  $n^* = 0.50$ chromaticness  $c^*$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$ 

BAM-test chart SE10; Colorimetric systems ORS18 &amp; ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

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

input:  $cmY0^* setcmykcolor$ 

output: Startup (S) data dependend

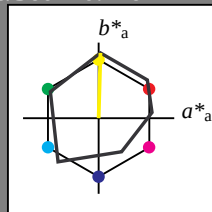
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 88/360 = 0.246$  $lab^*tch$  and  $lab^*nch$ 

A: hue Y

LCH\*Ma: 93 86 88

olv\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1.0$ 

## ORS18; adapted (a) CIELAB data

| $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|---------------|---------|---------|--------------|--------------|
| OMa           | 47.94   | 64.42   | 50.58        | 81.9         |
| YMa           | 92.62   | 2.41    | 86.36        | 86.39        |
| LMa           | 50.9    | -63.82  | 35.02        | 72.81        |
| CMa           | 51.25   | -53.68  | -57.69       | 78.82        |
| VMa           | 25.72   | 30.34   | -44.37       | 53.76        |
| MMa           | 56.25   | 70.59   | 7.57         | 70.99        |
| NMa           | 18.11   | 0.0     | 0.0          | 0.0          |
| WMa           | 95.6    | 0.0     | 0.0          | 0.0          |
| RCIE          | 47.79   | 60.85   | 41.08        | 73.41        |
| JCIE          | 83.82   | 6.52    | 66.9         | 67.22        |
| GCIE          | 49.0    | -36.83  | 2.78         | 36.95        |
| BCIE          | 25.14   | -18.35  | -56.22       | 59.15        |

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 | 1.0 | 1.0   |
| cmyn4* | 0.0 | 0.0 | 0.5 | 0.0   |

standard and adapted CIELAB

|          |      |       |       |
|----------|------|-------|-------|
| LAB*LAB  | 94.1 | 1.65  | 47.73 |
| LAB*LABa | 94.1 | 1.21  | 43.17 |
| LAB*TCHa | 75.0 | 43.19 | 88.4  |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.981 | 0.014 | 0.5   |
| lab*tch | 0.75  | 0.5   | 0.246 |
| lab*nch | 0.0   | 0.5   | 0.246 |

relative Natural Colour (NC)

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lrj | 0.981 | -0.033 | 0.499 |
| lab*tce | 0.75  | 0.5    | 0.261 |
| lab*nce | 0.0   | 0.5    | 0.246 |

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  | 55.37 | 2.02  | 45.16 |
| LAB*LABa | 55.37 | 1.21  | 43.17 |
| LAB*TCHa | 25.01 | 43.19 | 88.4  |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.481 | 0.014 | 0.5   |
| lab*tch | 0.25  | 0.5   | 0.246 |
| lab*nch | 0.5   | 0.5   | 0.246 |

relative Natural Colour (NC)

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lrj | 0.481 | -0.033 | 0.499 |
| lab*tce | 0.25  | 0.5    | 0.261 |
| lab*nce | 0.5   | 0.5    | 0.246 |

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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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  $c^*$

0.25 0.50 0.75 1.00

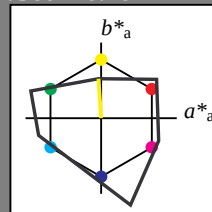
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 94/360 = 0.261$  $lab^*tch$  and  $lab^*nch$ 

A: hue Y

LCH\*Ma: 95 52 94

olv\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 | -   |

 $n^* = 1.0$  $n^* = 0.00$ blackness  $n^*$ 

chromaticness  $c^*$

0.25 0.50 0.75 1.00

3 step scales for constant CIELAB hue 94/360 = 0.261 (right)

input:  $cmY0^* setcmykcolor$ 

output: Startup (S) data dependend

BAM-test chart SE10; Colorimetric systems ORS18 &amp; ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

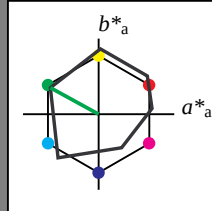
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 151/360 = 0.42$  $lab^*tch$  and  $lab^*nch$ 

A: hue L

LCH\*Ma: 51 73 151

olv\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1.0$ 

## ORS18; adapted (a) CIELAB data

|                 | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|-----------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub> | 47.94       | 64.42   | 50.58   | 81.9         | 38           |
| Y <sub>Ma</sub> | 92.62       | 2.41    | 86.36   | 86.39        | 88           |
| L <sub>Ma</sub> | 50.9        | -63.82  | 35.02   | 72.81        | 151          |
| C <sub>Ma</sub> | 51.25       | -53.68  | -57.69  | 78.82        | 227          |
| V <sub>Ma</sub> | 25.72       | 30.34   | -44.37  | 53.76        | 304          |
| M <sub>Ma</sub> | 56.25       | 70.59   | 7.57    | 70.99        | 6            |
| N <sub>Ma</sub> | 18.11       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub> | 95.6        | 0.0     | 0.0     | 0.0          | 0            |
| RCIE            | 47.79       | 60.85   | 41.08   | 73.41        | 34           |
| JCIE            | 83.82       | 6.52    | 66.9    | 67.22        | 84           |
| GCIE            | 49.0        | -36.83  | 2.78    | 36.95        | 176          |
| BCIE            | 25.14       | -18.35  | -56.22  | 59.15        | 252          |

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  | 73.25 | -31.25 | 20.68  |
| LAB*LABa | 73.25 | -31.9  | 17.51  |
| LAB*TCHa | 75.0  | 36.4   | 151.25 |

relative CIELAB lab\*

|         |       |        |      |
|---------|-------|--------|------|
| lab*lab | 0.712 | -0.437 | 0.24 |
| lab*tch | 0.75  | 0.5    | 0.42 |
| lab*nch | 0.0   | 0.5    | 0.42 |

relative Natural Colour (NC)

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lrj | 0.712 | -0.455 | 0.204 |
| lab*tce | 0.75  | 0.5    | 0.433 |
| lab*nce | 0.0   | 0.5    | 0.433 |

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  | 34.51 | -30.88 | 18.11  |
| LAB*LABa | 34.51 | -31.9  | 17.51  |
| LAB*TCHa | 25.01 | 36.4   | 151.25 |

relative CIELAB lab\*

|         |       |        |      |
|---------|-------|--------|------|
| lab*lab | 0.212 | -0.437 | 0.24 |
| lab*tch | 0.25  | 0.5    | 0.42 |
| lab*nch | 0.5   | 0.5    | 0.42 |

relative Natural Colour (NC)

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lrj | 0.212 | -0.455 | 0.204 |
| lab*tce | 0.25  | 0.5    | 0.433 |
| lab*nce | 0.5   | 0.5    | 0.433 |

 $n^* = 0.50$ 

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.0 | 1.0 | 0.0 | (1.0) |
| cmyn3* | 1.0 | 0.0 | 1.0 | (0.0) |
| olvi4* | 0.0 | 1.0 | 0.0 | 1.0   |
| cmyn4* | 1.0 | 0.0 | 1.0 | 0.0   |

standard and adapted CIELAB

|          |      |        |        |
|----------|------|--------|--------|
| LAB*LAB  | 50.9 | -62.95 | 36.7   |
| LAB*LABa | 50.9 | -63.81 | 35.01  |
| LAB*TCHa | 50.0 | 72.79  | 151.25 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.423 | -0.876 | 0.481 |
| lab*tch | 0.5   | 1.0    | 0.42  |
| lab*nch | 0.0   | 1.0    | 0.42  |

relative Natural Colour (NC)

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lrj | 0.423 | -0.912 | 0.408 |
| lab*tce | 0.5   | 1.0    | 0.433 |
| lab*nce | 0.0   | 1.0    | 0.433 |

blackness  $n^*$ chromaticness  $c^*$ 

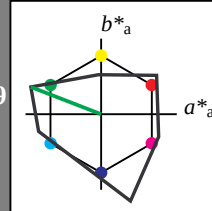
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 159/360 = 0.441$  $lab^*tch$  and  $lab^*nch$ 

A: hue L

LCH\*Ma: 77 100 159

olv\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 | 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  | 86.44 | -46.47 | 18.0   |
| LAB*LABa | 86.44 | -46.47 | 18.0   |
| LAB*TCHa | 75.0  | 49.84  | 158.83 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.906 | -0.465 | 0.18  |
| lab*tch | 0.75  | 0.5    | 0.441 |
| lab*nch | 0.0   | 0.5    | 0.441 |

relative Natural Colour (NC)

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lrj | 0.906 | -0.483 | 0.125 |
| lab*tce | 0.75  | 0.5    | 0.46  |
| lab*nce | 0.0   | 0.5    | 0.46  |

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  | 38.75 | -46.47 | 18.0   |
| LAB*LABa | 38.75 | -46.47 | 18.0   |
| LAB*TCHa | 25.01 | 49.84  | 158.83 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.406 | -0.465 | 0.18  |
| lab*tch | 0.25  | 0.5    | 0.441 |
| lab*nch | 0.5   | 0.5    | 0.441 |

relative Natural Colour (NC)

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lrj | 0.406 | -0.483 | 0.125 |
| lab*tce | 0.25  | 0.5    | 0.46  |
| lab*nce | 0.5   | 0.5    | 0.46  |

 $n^* = 0.50$ 

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.0 | 1.0 | 0.0 | (1.0) |
| cmyn3* | 1.0 | 0.0 | 1.0 | (0.0) |
| olvi4* | 0.0 | 1.0 | 0.0 | 1.0   |
| cmyn4* | 1.0 | 0.0 | 1.0 | 0.0   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 77.47 | -92.95 | 35.99  |
| LAB*LABa | 77.47 | -92.95 | 35.99  |
| LAB*TCHa | 50.0  | 99.69  | 158.83 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.812 | -0.931 | 0.361 |
| lab*tch | 0.5   | 1.0    | 0.441 |
| lab*nch | 0.0   | 1.0    | 0.441 |

relative Natural Colour (NC)

|         |       |        |      |
|---------|-------|--------|------|
| lab*lrj | 0.812 | -0.967 | 0.25 |
| lab*tce | 0.5   | 1.0    | 0.46 |
| lab*nce | 0.0   | 1.0    | 0.46 |

blackness  $n^*$ chromaticness  $c^*$ 

SE100-7, 3 step scales for constant CIELAB hue 151/360 = 0.42 (left)

3 step scales for constant CIELAB hue 159/360 = 0.441 (right)

BAM-test chart SE10; Colorimetric systems ORS18 &amp; ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input:  $cmY0^* setcmykcolor$ 

output: Startup (S) data dependend



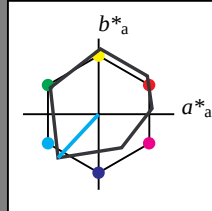
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 227/360 = 0.631$  $lab^*tch$  and  $lab^*nch$ 

A: hue C

LCH\*Ma: 51 79 227

olv\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1.0$ 

## ORS18; adapted (a) CIELAB data

 $L^*=L^*_a$   $a^*_a$   $b^*_a$   $C^*_{ab,a}$   $h^*_{ab,a}$ 

|      |       |        |        |       |     |
|------|-------|--------|--------|-------|-----|
| OMa  | 47.94 | 64.42  | 50.58  | 81.9  | 38  |
| YMa  | 92.62 | 2.41   | 86.36  | 86.39 | 88  |
| LMa  | 50.9  | -63.82 | 35.02  | 72.81 | 151 |
| CMa  | 51.25 | -53.68 | -57.69 | 78.82 | 227 |
| VMa  | 25.72 | 30.34  | -44.37 | 53.76 | 304 |
| MMa  | 56.25 | 70.59  | 7.57   | 70.99 | 6   |
| NMa  | 18.11 | 0.0    | 0.0    | 0.0   | 0   |
| WMa  | 95.6  | 0.0    | 0.0    | 0.0   | 0   |
| RCIE | 47.79 | 60.85  | 41.08  | 73.41 | 34  |
| JCIE | 83.82 | 6.52   | 66.9   | 67.22 | 84  |
| GCIE | 49.0  | -36.83 | 2.78   | 36.95 | 176 |
| BCIE | 25.14 | -18.35 | -56.22 | 59.15 | 252 |

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.5 | 1.0 | 1.0 | (1.0) |
| cmyn3* | 0.5 | 0.0 | 0.0 | (0.0) |
| olvi4* | 0.5 | 1.0 | 1.0 | 1.0   |
| cmyn4* | 0.5 | 0.0 | 0.0 | 0.0   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 73.42 | -26.18 | -25.65 |
| LAB*LABa | 73.42 | -26.83 | -28.84 |
| LAB*TCHa | 75.0  | 39.4   | 227.06 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.714 | -0.34 | -0.365 |
| lab*tch | 0.75  | 0.5   | 0.631  |
| lab*nch | 0.0   | 0.5   | 0.631  |

relative Natural Colour (NC)

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lrj | 0.714 | -0.244 | -0.435 |
| lab*tce | 0.75  | 0.5    | 0.668  |
| lab*nce | 0.0   | 0.5    | 0.676  |

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.0 | 0.5 | 0.5 | (1.0) |
| cmyn3* | 1.0 | 0.5 | 0.5 | (0.0) |
| olvi4* | 0.5 | 1.0 | 1.0 | 0.5   |
| cmyn4* | 0.5 | 0.0 | 0.0 | 0.5   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 34.68 | -25.81 | -28.22 |
| LAB*LABa | 34.68 | -26.83 | -28.84 |
| LAB*TCHa | 25.01 | 39.4   | 227.06 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.214 | -0.34 | -0.365 |
| lab*tch | 0.25  | 0.5   | 0.631  |
| lab*nch | 0.5   | 0.5   | 0.631  |

relative Natural Colour (NC)

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lrj | 0.214 | -0.244 | -0.435 |
| lab*tce | 0.25  | 0.5    | 0.668  |
| lab*nce | 0.5   | 0.5    | 0.676  |

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0.50$

$n^* = 1.0$

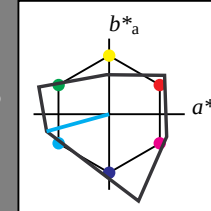
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 195/360 = 0.543$  $lab^*tch$  and  $lab^*nch$ 

A: hue C

LCH\*Ma: 78 86 195

olv\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 | -   |

blackness  $n^*$

chromaticness  $c^*$

$n^* = 1.0$

## TLS00; adapted (a) CIELAB data

 $L^*=L^*_a$   $a^*_a$   $b^*_a$   $C^*_{ab,a}$   $h^*_{ab,a}$ 

|      |       |        |         |       |     |
|------|-------|--------|---------|-------|-----|
| OMa  | 65.56 | 73.34  | 51.39   | 89.55 | 35  |
| YMa  | 94.78 | -3.49  | 52.24   | 52.36 | 94  |
| LMa  | 77.48 | -92.97 | 36.0    | 99.71 | 159 |
| CMa  | 78.36 | -82.69 | -22.74  | 85.77 | 195 |
| VMa  | 12.55 | 38.81  | -114.81 | 121.2 | 289 |
| MMa  | 66.71 | 76.08  | -29.8   | 81.71 | 339 |
| NMa  | 0.01  | 0.0    | 0.0     | 0.0   | 0   |
| WMa  | 95.41 | 0.0    | 0.0     | 0.0   | 0   |
| RCIE | 47.79 | 61.74  | 42.56   | 74.99 | 35  |
| JCIE | 83.82 | 7.06   | 70.78   | 71.13 | 84  |
| GCIE | 49.0  | -35.95 | 4.34    | 36.22 | 173 |
| BCIE | 25.14 | -17.24 | -56.24  | 58.84 | 253 |

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.5 | 1.0 | 1.0 | (1.0) |
| cmyn3* | 0.5 | 0.0 | 0.0 | (0.0) |
| olvi4* | 0.5 | 1.0 | 1.0 | 1.0   |
| cmyn4* | 0.5 | 0.0 | 0.0 | 0.0   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 86.88 | -41.33 | -11.36 |
| LAB*LABa | 86.88 | -41.33 | -11.36 |
| LAB*TCHa | 75.0  | 42.88  | 195.38 |

relative CIELAB lab\*

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lab | 0.911 | -0.481 | -0.132 |
| lab*tch | 0.75  | 0.5    | 0.543  |
| lab*nch | 0.0   | 0.5    | 0.543  |

relative Natural Colour (NC)

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lrj | 0.911 | -0.452 | -0.211 |
| lab*tce | 0.75  | 0.5    | 0.57   |
| lab*nce | 0.0   | 0.5    | 0.576  |

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.0 | 0.5 | 0.5 | (1.0) |
| cmyn3* | 1.0 | 0.5 | 0.5 | (0.0) |
| olvi4* | 0.5 | 1.0 | 1.0 | 0.5   |
| cmyn4* | 0.5 | 0.0 | 0.0 | 0.5   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 39.19 | -41.33 | -11.36 |
| LAB*LABa | 39.19 | -41.33 | -11.36 |
| LAB*TCHa | 25.01 | 42.88  | 195.38 |

relative CIELAB lab\*

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lab | 0.411 | -0.481 | -0.132 |
| lab*tch | 0.25  | 0.5    | 0.543  |
| lab*nch | 0.5   | 0.5    | 0.543  |

relative Natural Colour (NC)

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lrj | 0.411 | -0.452 | -0.211 |
| lab*tce | 0.25  | 0.5    | 0.57   |
| lab*nce | 0.5   | 0.5    | 0.576  |

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0.50$

$n^* = 1.0$

SE100-7, 3 step scales for constant CIELAB hue 227/360 = 0.631 (left)

3 step scales for constant CIELAB hue 195/360 = 0.543 (right)

BAM-test chart SE10; Colorimetric systems ORS18 &amp; ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: `cmv0* setcmvcolor`output: `Startup (S) data dependend`

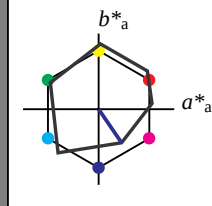
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 304/360 = 0.845$  $lab^*tch$  and  $lab^*nch$ 

A: hue V

LCH\*Ma: 26 54 304

olv\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1.0$ 

## ORS18; adapted (a) CIELAB data

| $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|---------------|---------|---------|--------------|--------------|
| OMa 47.94     | 64.42   | 50.58   | 81.9         | 38           |
| YMa 92.62     | 2.41    | 86.36   | 86.39        | 88           |
| LMa 50.9      | -63.82  | 35.02   | 72.81        | 151          |
| CMa 51.25     | -53.68  | -57.69  | 78.82        | 227          |
| VMa 25.72     | 30.34   | -44.37  | 53.76        | 304          |
| MMa 56.25     | 70.59   | 7.57    | 70.99        | 6            |
| NMa 18.11     | 0.0     | 0.0     | 0.0          | 0            |
| WMa 95.6      | 0.0     | 0.0     | 0.0          | 0            |
| RCIE 47.79    | 60.85   | 41.08   | 73.41        | 34           |
| JCIE 83.82    | 6.52    | 66.9    | 67.22        | 84           |
| GCIE 49.0     | -36.83  | 2.78    | 36.95        | 176          |
| BCIE 25.14    | -18.35  | -56.22  | 59.15        | 252          |

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  | 60.66 | 15.94 | -19.84 |
| LAB*LABa | 60.66 | 15.17 | -22.17 |
| LAB*TCHa | 75.0  | 26.87 | 304.36 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.549 | 0.282 | -0.412 |
| lab*tch | 0.75  | 0.5   | 0.845  |
| lab*nch | 0.0   | 0.5   | 0.845  |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.549 | 0.274 | -0.417 |
| lab*tce | 0.75  | 0.5   | 0.842  |
| lab*nce | 0.0   | 0.5   | 0.842  |

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  | 21.92 | 16.31 | -22.41 |
| LAB*LABa | 21.92 | 15.17 | -22.17 |
| LAB*TCHa | 25.01 | 26.87 | 304.36 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.049 | 0.282 | -0.412 |
| lab*tch | 0.25  | 0.5   | 0.845  |
| lab*nch | 0.5   | 0.5   | 0.845  |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.049 | 0.274 | -0.417 |
| lab*tce | 0.25  | 0.5   | 0.842  |
| lab*nce | 0.5   | 0.5   | 0.842  |

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.0 | 0.0 | 0.0 | (1.0) |
| cmyn3* | 1.0 | 1.0 | 0.0 | (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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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  $c^*$ 

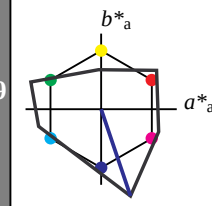
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 289/360 = 0.802$  $lab^*tch$  and  $lab^*nch$ 

A: hue V

LCH\*Ma: 13 121 289

olv\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 65.56     | 73.34   | 51.39   | 89.55        | 35           |
| YMa 94.78     | -3.49   | 52.24   | 52.36        | 94           |
| LMa 77.48     | -92.97  | 36.0    | 99.71        | 159          |
| CMa 78.36     | -82.69  | -22.74  | 85.77        | 195          |
| VMa 12.55     | 38.81   | -114.81 | 121.2        | 289          |
| MMa 66.71     | 76.08   | -29.8   | 81.71        | 339          |
| NMa 0.01      | 0.0     | 0.0     | 0.0          | 0            |
| WMa 95.41     | 0.0     | 0.0     | 0.0          | 0            |
| RCIE 47.79    | 61.74   | 42.56   | 74.99        | 35           |
| JCIE 83.82    | 7.06    | 70.78   | 71.13        | 84           |
| GCIE 49.0     | -35.95  | 4.34    | 36.22        | 173          |
| BCIE 25.14    | -17.24  | -56.24  | 58.84        | 253          |

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  | 53.98 | 19.4  | -57.39 |
| LAB*LABa | 53.98 | 19.4  | -57.39 |
| LAB*TCHa | 75.0  | 60.59 | 288.68 |

relative CIELAB lab\*

|         |       |      |        |
|---------|-------|------|--------|
| lab*lab | 0.566 | 0.16 | -0.473 |
| lab*tch | 0.75  | 0.5  | 0.802  |
| lab*nch | 0.0   | 0.5  | 0.802  |

relative Natural Colour (NC)

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lrj | 0.566 | 0.193 | -0.46 |
| lab*tce | 0.75  | 0.5   | 0.813 |
| lab*nce | 0.0   | 0.5   | 0.813 |

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  | 6.29  | 19.4  | -57.39 |
| LAB*LABa | 6.29  | 19.4  | -57.39 |
| LAB*TCHa | 25.01 | 60.59 | 288.68 |

relative CIELAB lab\*

|         |       |      |        |
|---------|-------|------|--------|
| lab*lab | 0.066 | 0.16 | -0.473 |
| lab*tch | 0.25  | 0.5  | 0.802  |
| lab*nch | 0.5   | 0.5  | 0.802  |

relative Natural Colour (NC)

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lrj | 0.066 | 0.193 | -0.46 |
| lab*tce | 0.25  | 0.5   | 0.813 |
| lab*nce | 0.5   | 0.5   | 0.813 |

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 0.0 | 0.0 | 0.0 | (1.0) |
| cmyn3* | 1.0 | 1.0 | 0.0 | (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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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  $c^*$ 

SE100-7, 3 step scales for constant CIELAB hue 304/360 = 0.845 (left)

3 step scales for constant CIELAB hue 289/360 = 0.802 (right)

BAM-test chart SE10; Colorimetric systems ORS18 &amp; ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: `cmv0* setcmvcolor`output: *Startup (S) data depend*

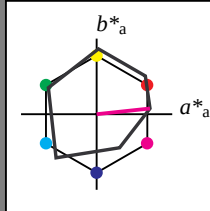
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 6/360 = 0.017$  $lab^*tch$  and  $lab^*nch$ 

A: hue M

LCH\*Ma: 56 71 6

olv\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1.0$ 

## ORS18; adapted (a) CIELAB data

| $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|-------------|---------|---------|--------------|--------------|
| OMa         | 47.94   | 64.42   | 50.58        | 81.9         |
| YMa         | 92.62   | 2.41    | 86.36        | 86.39        |
| LMa         | 50.9    | -63.82  | 35.02        | 72.81        |
| CMa         | 51.25   | -53.68  | -57.69       | 78.82        |
| VMa         | 25.72   | 30.34   | -44.37       | 53.76        |
| MMa         | 56.25   | 70.59   | 7.57         | 70.99        |
| NMa         | 18.11   | 0.0     | 0.0          | 0.0          |
| WMa         | 95.6    | 0.0     | 0.0          | 0.0          |
| RCIE        | 47.79   | 60.85   | 41.08        | 73.41        |
| JCIE        | 83.82   | 6.52    | 66.9         | 67.22        |
| GCIE        | 49.0    | -36.83  | 2.78         | 36.95        |
| BCIE        | 25.14   | -18.35  | -56.22       | 59.15        |

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  | 75.92 | 35.91 | 7.13 |
| LAB*LABa | 75.92 | 35.29 | 3.78 |
| LAB*TCHa | 75.0  | 35.49 | 6.12 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.746 | 0.497 | 0.053 |
| lab*tch | 0.75  | 0.5   | 0.017 |
| lab*nch | 0.0   | 0.5   | 0.017 |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.746 | 0.476 | -0.151 |
| lab*tce | 0.75  | 0.5   | 0.951  |
| lab*nce | 0.0   | 0.5   | b80r   |

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  | 37.18 | 36.28 | 4.56 |
| LAB*LABa | 37.18 | 35.29 | 3.78 |
| LAB*TCHa | 25.01 | 35.49 | 6.12 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.246 | 0.497 | 0.053 |
| lab*tch | 0.25  | 0.5   | 0.017 |
| lab*nch | 0.5   | 0.5   | 0.017 |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.246 | 0.476 | -0.151 |
| lab*tce | 0.25  | 0.5   | 0.951  |
| lab*nce | 0.5   | 0.5   | b80r   |

 $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$  $n^* = 0.50$ 

relative Inform. Technology (IT)

|        |     |     |     |       |
|--------|-----|-----|-----|-------|
| olvi3* | 1.0 | 0.0 | 1.0 | (1.0) |
| cmyn3* | 0.0 | 1.0 | 0.0 | (0.0) |
| olvi4* | 1.0 | 0.0 | 1.0 | 1.0   |
| cmyn4* | 0.0 | 1.0 | 0.0 | 0.0   |

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 56.25 | 71.39 | 9.61 |
| LAB*LABa | 56.25 | 70.58 | 7.56 |
| LAB*TCHa | 50.0  | 70.98 | 6.12 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.492 | 0.994 | 0.107 |
| lab*tch | 0.5   | 1.0   | 0.017 |
| lab*nch | 0.0   | 1.0   | 0.017 |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.492 | 0.953 | -0.303 |
| lab*tce | 0.5   | 1.0   | 0.951  |
| lab*nce | 0.0   | 1.0   | b80r   |

 $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$  $n^* = 0.00$ 

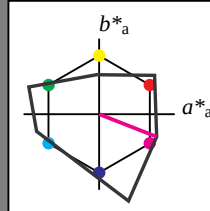
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 339/360 = 0.941$  $lab^*tch$  and  $lab^*nch$ 

A: hue M

LCH\*Ma: 67 82 339

olv\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 | -   |

 $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$  $n^* = 1.0$ 

## TLS00; adapted (a) CIELAB data

| $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|-------------|---------|---------|--------------|--------------|
| OMa         | 65.56   | 73.34   | 51.39        | 89.55        |
| YMa         | 94.78   | -3.49   | 52.24        | 52.36        |
| LMa         | 77.48   | -92.97  | 36.0         | 99.71        |
| CMa         | 78.36   | -82.69  | -22.74       | 85.77        |
| VMa         | 12.55   | 38.81   | -114.81      | 121.2        |
| MMa         | 66.71   | 76.08   | -29.8        | 81.71        |
| NMa         | 0.01    | 0.0     | 0.0          | 0.0          |
| WMa         | 95.41   | 0.0     | 0.0          | 0.0          |
| RCIE        | 47.79   | 61.74   | 42.56        | 74.99        |
| JCIE        | 83.82   | 7.06    | 70.78        | 71.13        |
| GCIE        | 49.0    | -35.95  | 4.34         | 36.22        |
| BCIE        | 25.14   | -17.24  | -56.24       | 58.84        |

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  | 81.05 | 38.03 | -14.89 |
| LAB*LABa | 81.05 | 38.03 | -14.89 |
| LAB*TCHa | 75.0  | 40.85 | 338.6  |

relative CIELAB lab\*

|         |      |       |        |
|---------|------|-------|--------|
| lab*lab | 0.85 | 0.465 | -0.181 |
| lab*tch | 0.75 | 0.5   | 0.941  |
| lab*nch | 0.0  | 0.5   | 0.941  |

relative Natural Colour (NC)

|         |      |       |       |
|---------|------|-------|-------|
| lab*lrj | 0.85 | 0.407 | -0.29 |
| lab*tce | 0.75 | 0.5   | 0.901 |
| lab*nce | 0.0  | 0.5   | b60r  |

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  | 33.36 | 38.03 | -14.89 |
| LAB*LABa | 33.36 | 38.03 | -14.89 |
| LAB*TCHa | 25.01 | 40.85 | 338.6  |

relative CIELAB lab\*

|         |      |       |        |
|---------|------|-------|--------|
| lab*lab | 0.35 | 0.465 | -0.181 |
| lab*tch | 0.25 | 0.5   | 0.941  |
| lab*nch | 0.5  | 0.5   | 0.941  |

relative Natural Colour (NC)

|         |      |       |       |
|---------|------|-------|-------|
| lab*lrj | 0.35 | 0.407 | -0.29 |
|---------|------|-------|-------|



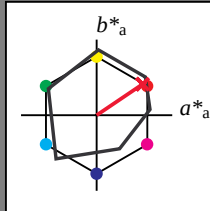
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 34/360 = 0.095$  $lab^*tch$  and  $lab^*nch$ 

A: hue R

LCH\*Ma: 49 79 34

olv\*Ma: 1.0 0.0 0.15

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1,0$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 64.42   | 50.58   | 81.9         | 38           |
| YMa  | 92.62       | 2.41    | 86.36   | 86.39        | 88           |
| LMa  | 50.9        | -63.82  | 35.02   | 72.81        | 151          |
| CMa  | 51.25       | -53.68  | -57.69  | 78.82        | 227          |
| VMa  | 25.72       | 30.34   | -44.37  | 53.76        | 304          |
| MMa  | 56.25       | 70.59   | 7.57    | 70.99        | 6            |
| NMa  | 18.11       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.6        | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 47.79       | 60.85   | 41.08   | 73.41        | 34           |
| JCIE | 83.82       | 6.52    | 66.9    | 67.22        | 84           |
| GCIE | 49.0        | -36.83  | 2.78    | 36.95        | 176          |
| BCIE | 25.14       | -18.35  | -56.22  | 59.15        | 252          |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 1.0 | 0.5 | 0.575 | (1.0) |
| cmyn3* | 0.0 | 0.5 | 0.425 | (0.0) |
| olvi4* | 1.0 | 0.5 | 0.575 | 1.0   |
| cmyn4* | 0.0 | 0.5 | 0.425 | 0.0   |

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 72.39 | 33.32 | 25.17 |
| LAB*LABa | 72.39 | 32.67 | 22.05 |
| LAB*TCHa | 75.0  | 39.41 | 34.02 |

relative CIELAB lab\*

|         |      |       |       |
|---------|------|-------|-------|
| lab*lab | 0.7  | 0.414 | 0.28  |
| lab*tch | 0.75 | 0.5   | 0.095 |
| lab*nch | 0.0  | 0.5   | 0.095 |

relative Natural Colour (NC)

|         |      |     |       |
|---------|------|-----|-------|
| lab*lrj | 0.7  | 0.5 | 0.0   |
| lab*tce | 0.75 | 0.5 | 1.0   |
| lab*nce | 0.0  | 0.5 | 0.999 |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.5 | 0.0 | 0.075 | (1.0) |
| cmyn3* | 0.5 | 1.0 | 0.925 | (0.0) |
| olvi4* | 1.0 | 0.5 | 0.575 | 0.5   |
| cmyn4* | 0.0 | 0.5 | 0.425 | 0.5   |

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 33.65 | 33.7  | 22.6  |
| LAB*LABa | 33.65 | 32.67 | 22.06 |
| LAB*TCHa | 25.01 | 39.42 | 34.03 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.201 | 0.414 | 0.28  |
| lab*tch | 0.25  | 0.5   | 0.095 |
| lab*nch | 0.5   | 0.5   | 0.095 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.201 | 0.5 | 0.0   |
| lab*tce | 0.25  | 0.5 | 0.0   |
| lab*nce | 0.5   | 0.5 | 0.999 |

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  $c^*$

0,25 0,50 0,75 1,00

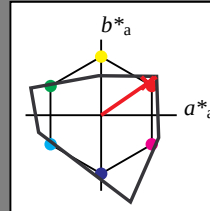
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 35/360 = 0.096$  $lab^*tch$  and  $lab^*nch$ 

A: hue R

LCH\*Ma: 66 89 35

olv\*Ma: 1.0 0.0 0.01

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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  | 65.56       | 73.34   | 51.39   | 89.55        | 35           |
| YMa  | 94.78       | -3.49   | 52.24   | 52.36        | 94           |
| LMa  | 77.48       | -92.97  | 36.0    | 99.71        | 159          |
| CMa  | 78.36       | -82.69  | -22.74  | 85.77        | 195          |
| VMa  | 12.55       | 38.81   | -114.81 | 121.2        | 289          |
| MMa  | 66.71       | 76.08   | -29.8   | 81.71        | 339          |
| NMa  | 0.01        | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 47.79       | 61.74   | 42.56   | 74.99        | 35           |
| JCIE | 83.82       | 7.06    | 70.78   | 71.13        | 84           |
| GCIE | 49.0        | -35.95  | 4.34    | 36.22        | 173          |
| BCIE | 25.14       | -17.24  | -56.24  | 58.84        | 253          |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 1.0 | 0.5 | 0.505 | (1.0) |
| cmyn3* | 0.0 | 0.5 | 0.495 | (0.0) |
| olvi4* | 1.0 | 0.5 | 0.505 | 1.0   |
| cmyn4* | 0.0 | 0.5 | 0.495 | 0.0   |

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 80.48 | 36.68 | 25.28 |
| LAB*LABa | 80.48 | 36.68 | 25.28 |
| LAB*TCHa | 75.0  | 44.55 | 34.58 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.844 | 0.412 | 0.284 |
| lab*tch | 0.75  | 0.5   | 0.096 |
| lab*nch | 0.0   | 0.5   | 0.096 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.844 | 0.5 | 0.0   |
| lab*tce | 0.75  | 0.5 | 1.0   |
| lab*nce | 0.0   | 0.5 | 0.999 |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.5 | 0.0 | 0.005 | (1.0) |
| cmyn3* | 0.5 | 1.0 | 0.995 | (0.0) |
| olvi4* | 1.0 | 0.5 | 0.505 | 0.5   |
| cmyn4* | 0.0 | 0.5 | 0.495 | 0.5   |

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 32.79 | 36.68 | 25.29 |
| LAB*LABa | 32.79 | 36.68 | 25.29 |
| LAB*TCHa | 25.01 | 44.55 | 34.59 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.344 | 0.412 | 0.284 |
| lab*tch | 0.25  | 0.5   | 0.096 |
| lab*nch | 0.5   | 0.5   | 0.096 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.344 | 0.5 | 0.0   |
| lab*tce | 0.25  | 0.5 | 0.0   |
| lab*nce | 0.5   | 0.5 | 0.999 |

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  $c^*$

0,25 0,50 0,75 1,00

SE100-7, 3 step scales for constant CIELAB hue 34/360 = 0.095 (left)

3 step scales for constant CIELAB hue 35/360 = 0.096 (right)

BAM-test chart SE10; Colorimetric systems ORS18 &amp; ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

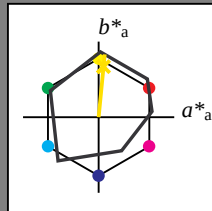
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 84/360 = 0.235$  $lab^*tch$  and  $lab^*nch$ 

A: hue J

LCH\*Ma: 89 83 84

olv\*Ma: 1.0 0.91 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1.0$ 

## ORS18; adapted (a) CIELAB data

| $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|---------------|---------|---------|--------------|--------------|
| OMa 47.94     | 64.42   | 50.58   | 81.9         | 38           |
| YMa 92.62     | 2.41    | 86.36   | 86.39        | 88           |
| LMa 50.9      | -63.82  | 35.02   | 72.81        | 151          |
| CMa 51.25     | -53.68  | -57.69  | 78.82        | 227          |
| VMa 25.72     | 30.34   | -44.37  | 53.76        | 304          |
| MMa 56.25     | 70.59   | 7.57    | 70.99        | 6            |
| NMa 18.11     | 0.0     | 0.0     | 0.0          | 0            |
| WMa 95.6      | 0.0     | 0.0     | 0.0          | 0            |
| RCIE 47.79    | 60.85   | 41.08   | 73.41        | 34           |
| JCIE 83.82    | 6.52    | 66.9    | 67.22        | 84           |
| GCIE 49.0     | -36.83  | 2.78    | 36.95        | 176          |
| BCIE 25.14    | -18.35  | -56.22  | 59.15        | 252          |

relative Inform. Technology (IT)

|        |     |       |     |       |
|--------|-----|-------|-----|-------|
| olvi3* | 1.0 | 0.954 | 0.5 | (1.0) |
| cmyn3* | 0.0 | 0.046 | 0.5 | (0.0) |
| olvi4* | 1.0 | 0.954 | 0.5 | 1.0   |
| cmyn4* | 0.0 | 0.046 | 0.5 | 0.0   |

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 92.06 | 4.5   | 45.96 |
| LAB*LABa | 92.06 | 4.04  | 41.54 |
| LAB*TCHa | 75.0  | 41.73 | 84.45 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.954 | 0.048 | 0.498 |
| lab*tch | 0.75  | 0.5   | 0.235 |
| lab*nch | 0.0   | 0.5   | 0.235 |

relative Natural Colour (NC)

|         |       |     |      |
|---------|-------|-----|------|
| lab*lrj | 0.954 | 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 | 0.454 | 0.0 | (1.0) |
| cmyn3* | 0.5 | 0.546 | 1.0 | (0.0) |
| olvi4* | 1.0 | 0.954 | 0.5 | 0.5   |
| cmyn4* | 0.0 | 0.046 | 0.5 | 0.5   |

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 53.32 | 4.88  | 43.38 |
| LAB*LABa | 53.32 | 4.05  | 41.53 |
| LAB*TCHa | 25.01 | 41.73 | 84.44 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.454 | 0.048 | 0.498 |
| lab*tch | 0.25  | 0.5   | 0.235 |
| lab*nch | 0.5   | 0.5   | 0.235 |

relative Natural Colour (NC)

|         |       |     |      |
|---------|-------|-----|------|
| lab*lrj | 0.454 | 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 | -   |

 $n^* = 0.00$ blackness  $n^*$ chromaticness  $c^*$ 

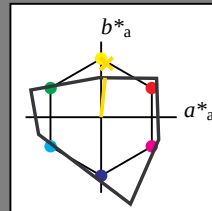
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 84/360 = 0.234$  $lab^*tch$  and  $lab^*nch$ 

A: hue J

LCH\*Ma: 91 52 84

olv\*Ma: 1.0 0.89 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 | -   |

 $n^* = 1.0$  $n^* = 0.00$ blackness  $n^*$ chromaticness  $c^*$ 

SE100-7, 3 step scales for constant CIELAB hue 84/360 = 0.235 (left)

3 step scales for constant CIELAB hue 84/360 = 0.234 (right)

BAM-test chart SE10; Colorimetric systems ORS18 &amp; ORS18

A: 2 coordinate data of 3 step colour scales for 10 hues

input: `cmv0* setcmvcolor`output: *Startup (S) data dependend*



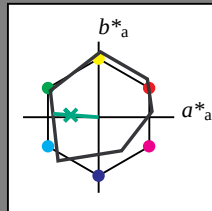
## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 176/360 = 0.488$  $lab^*tch$  and  $lab^*nch$ 

A: hue G

LCH\*Ma: 51 61 176

olv\*Ma: 0.0 1.0 0.33

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 96$ 

%Regularity

 $g^*_{H,rel} = -385$  $g^*_{C,rel} = 62$ 

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  | 95.6  | 0.43 | 4.65 |
| LAB*LABa | 95.6  | 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  | 56.86 | 0.8  | 2.08 |
| LAB*LABa | 56.86 | 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  | 18.12 | 1.18 | -0.49 |
| LAB*LABa | 18.12 | 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 | -   |

 $n^* = 1,0$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 64.42   | 50.58   | 81.9         | 38           |
| YMa  | 92.62       | 2.41    | 86.36   | 86.39        | 88           |
| LMa  | 50.9        | -63.82  | 35.02   | 72.81        | 151          |
| CMa  | 51.25       | -53.68  | -57.69  | 78.82        | 227          |
| VMa  | 25.72       | 30.34   | -44.37  | 53.76        | 304          |
| MMa  | 56.25       | 70.59   | 7.57    | 70.99        | 6            |
| NMa  | 18.11       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.6        | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 47.79       | 60.85   | 41.08   | 73.41        | 34           |
| JCIE | 83.82       | 6.52    | 66.9    | 67.22        | 84           |
| GCIE | 49.0        | -36.83  | 2.78    | 36.95        | 176          |
| BCIE | 25.14       | -18.35  | -56.22  | 59.15        | 252          |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.5 | 1.0 | 0.664 | (1.0) |
| cmyn3* | 0.5 | 0.0 | 0.336 | (0.0) |
| olvi4* | 0.5 | 1.0 | 0.664 | 1.0   |
| cmyn4* | 0.5 | 0.0 | 0.336 | 0.0   |

standard and adapted CIELAB

|          |      |        |        |
|----------|------|--------|--------|
| LAB*LAB  | 73.3 | -29.59 | 5.45   |
| LAB*LABa | 73.3 | -30.23 | 2.28   |
| LAB*TCHa | 75.0 | 30.33  | 175.69 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.712 | -0.497 | 0.038 |
| lab*tch | 0.75  | 0.5    | 0.488 |
| lab*nch | 0.0   | 0.5    | 0.488 |

relative Natural Colour (NC)

|         |       |        |      |
|---------|-------|--------|------|
| lab*lrj | 0.712 | -0.499 | 0.0  |
| lab*tce | 0.75  | 0.5    | 0.5  |
| lab*nce | 0.0   | 0.5    | g00b |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.0 | 0.5 | 0.164 | (1.0) |
| cmyn3* | 1.0 | 0.5 | 0.836 | (0.0) |
| olvi4* | 0.5 | 1.0 | 0.664 | 0.5   |
| cmyn4* | 0.5 | 0.0 | 0.336 | 0.5   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 34.57 | -29.21 | 2.89   |
| LAB*LABa | 34.57 | -30.23 | 2.29   |
| LAB*TCHa | 25.01 | 30.33  | 175.68 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.212 | -0.497 | 0.038 |
| lab*tch | 0.25  | 0.5    | 0.488 |
| lab*nch | 0.5   | 0.5    | 0.488 |

relative Natural Colour (NC)

|         |       |        |      |
|---------|-------|--------|------|
| lab*lrj | 0.212 | -0.499 | 0.0  |
| lab*tce | 0.25  | 0.5    | 0.5  |
| lab*nce | 0.5   | 0.5    | g99g |

 $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$  $n^* = 0,00$ 

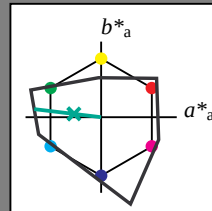
## Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 173/360 = 0.481$  $lab^*tch$  and  $lab^*nch$ 

A: hue G

LCH\*Ma: 78 89 173

olv\*Ma: 0.0 1.0 0.43

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 141$ 

%Regularity

 $g^*_{H,rel} = 39$  $g^*_{C,rel} = 43$ 

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 | -   |

 $n^* = 1,0$  $n^* = 1,0$  $n^* = 1,0$  $n^* = 1,0$  $n^* = 1,0$  $n^* = 1,0$ 

## TLS00; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 65.56       | 73.34   | 51.39   | 89.55        | 35           |
| YMa  | 94.78       | -3.49   | 52.24   | 52.36        | 94           |
| LMa  | 77.48       | -92.97  | 36.0    | 99.71        | 159          |
| CMa  | 78.36       | -82.69  | -22.74  | 85.77        | 195          |
| VMa  | 12.55       | 38.81   | -114.81 | 121.2        | 289          |
| MMa  | 66.71       | 76.08   | -29.8   | 81.71        | 339          |
| NMa  | 0.01        | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 47.79       | 61.74   | 42.56   | 74.99        | 35           |
| JCIE | 83.82       | 7.06    | 70.78   | 71.13        | 84           |
| GCIE | 49.0        | -35.95  | 4.34    | 36.22        | 173          |
| BCIE | 25.14       | -17.24  | -56.24  | 58.84        | 253          |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.5 | 1.0 | 0.715 | (1.0) |
| cmyn3* | 0.5 | 0.0 | 0.285 | (0.0) |
| olvi4* | 0.5 | 1.0 | 0.716 | 1.0   |
| cmyn4* | 0.5 | 0.0 | 0.284 | 0.0   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 86.63 | -44.26 | 5.34   |
| LAB*LABa | 86.63 | -44.26 | 5.34   |
| LAB*TCHa | 75.0  | 44.59  | 173.12 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.908 | -0.495 | 0.06  |
| lab*tch | 0.75  | 0.5    | 0.481 |
| lab*nch | 0.0   | 0.5    | 0.481 |

relative Natural Colour (NC)

|         |       |        |      |
|---------|-------|--------|------|
| lab*lrj | 0.908 | -0.499 | 0.0  |
| lab*tce | 0.75  | 0.5    | 0.5  |
| lab*nce | 0.0   | 0.5    | g00b |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.0 | 0.5 | 0.215 | (1.0) |
| cmyn3* | 1.0 | 0.5 | 0.785 | (0.0) |
| olvi4* | 0.5 | 1.0 | 0.715 | 0.5   |
| cmyn4* | 0.5 | 0.0 | 0.285 | 0.5   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 38.94 | -44.26 | 5.35   |
| LAB*LABa | 38.94 | -44.26 | 5.35   |
| LAB*TCHa | 25.01 | 44.59  | 173.11 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.408 | -0.495 | 0.06  |
| lab*tch | 0.25  | 0.5    | 0.481 |
| lab*nch | 0.5   | 0.5    | 0.481 |

relative Natural Colour (NC)

|         |       |        |      |
|---------|-------|--------|------|
| lab*lrj | 0.408 | -0.499 | 0.0  |
| lab*tce | 0.25  | 0.5    | 0.5  |
| lab*nce | 0.5   | 0.5    | g99g |

 $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,50$  $n^* = 0,00$  $n^* = 0,00$

