



# Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 93/360 = 0.258$

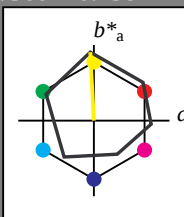
$lab^*tch$  and  $lab^*nch$

D50: hue Y

LCH\*Ma: 91 91 93

olv\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$



## ORS18; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 47.94       | 65.05   | 50.54   | 82.38        | 38           |
| Y <sub>Ma</sub>  | 91.0        | -4.72   | 90.58   | 90.7         | 93           |
| L <sub>Ma</sub>  | 50.9        | -63.18  | 34.98   | 72.22        | 151          |
| C <sub>Ma</sub>  | 56.99       | -39.34  | -48.1   | 62.16        | 231          |
| V <sub>Ma</sub>  | 25.72       | 30.89   | -44.4   | 54.09        | 305          |
| M <sub>Ma</sub>  | 49.99       | 75.76   | -4.64   | 75.9         | 356          |
| N <sub>Ma</sub>  | 18.09       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.46       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 41.88       | 61.66   | 30.69   | 68.88        | 26           |
| J <sub>CIE</sub> | 81.97       | 2.02    | 67.79   | 67.82        | 88           |
| G <sub>CIE</sub> | 51.62       | -41.32  | 9.74    | 42.46        | 167          |
| B <sub>CIE</sub> | 29.2        | -5.79   | -49.61  | 49.96        | 263          |

%Regularity

$g^*_{H,rel} = 65$

$g^*_{C,rel} = 60$

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |     |     |     |
|----------------------------------|-----|-----|-----|
| olv3*                            | 1.0 | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 | 0.0 |

| relative Inform. Technology (IT) |       |      |           |
|----------------------------------|-------|------|-----------|
| olv3*                            | 0.5   | 0.5  | 0.5 (1.0) |
| cmyn3*                           | 0.5   | 0.5  | 0.5 (0.0) |
| olv4*                            | 1.0   | 1.0  | 1.0 0.5   |
| cmyn4*                           | 0.0   | 0.0  | 0.0 0.5   |
| standard and adapted CIELAB      |       |      |           |
| LAB*LAB                          | 56.78 | 0.13 | 2.11      |

## Input: Colorimetric Offset Reflective System ORS18

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

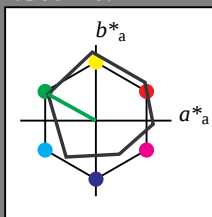
$lab^*tch$  and  $lab^*nch$

D50: hue L

LCH\*Ma: 51 72 151

olv\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$



## ORS18; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 47.94       | 65.05   | 50.54   | 82.38        | 38           |
| Y <sub>Ma</sub>  | 91.0        | -4.72   | 90.58   | 90.7         | 93           |
| L <sub>Ma</sub>  | 50.9        | -63.18  | 34.98   | 72.22        | 151          |
| C <sub>Ma</sub>  | 56.99       | -39.34  | -48.1   | 62.16        | 231          |
| V <sub>Ma</sub>  | 25.72       | 30.89   | -44.4   | 54.09        | 305          |
| M <sub>Ma</sub>  | 49.99       | 75.76   | -4.64   | 75.9         | 356          |
| N <sub>Ma</sub>  | 18.09       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.46       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 41.88       | 61.66   | 30.69   | 68.88        | 26           |
| J <sub>CIE</sub> | 81.97       | 2.02    | 67.79   | 67.82        | 88           |
| G <sub>CIE</sub> | 51.62       | -41.32  | 9.74    | 42.46        | 167          |
| B <sub>CIE</sub> | 29.2        | -5.79   | -49.61  | 49.96        | 263          |

## %Regularity

$g^*_{H,rel} = 65$

$g^*_{C,rel} = 60$

relative Inform. Technology (IT)  
olv3\* 1.0 1.0 1.0 (1.0)  
cmyn3\* 0.0 0.0 0.0 (0.0)  
olv4\* 1.0 1.0 1.0 (1.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 95.46 -39.34 4.69  
LAB\*LAB 95.46 0.0 0.0  
LAB\*LAB 99.99 0.01 -

relative Inform. Technology (IT)  
olv3\* 0.75 1.0 0.75 (1.0)  
cmyn3\* 0.25 0.0 0.25 (0.0)  
olv4\* 1.0 0.75 1.0 (1.0)  
cmyn4\* 0.25 0.0 0.25 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 84.32 -16.03 12.7  
LAB\*LAB 84.32 -15.78 8.74  
LAB\*LAB 87.5 18.05 15.03

relative Inform. Technology (IT)  
olv3\* 0.5 1.0 0.5 (1.0)  
cmyn3\* 0.5 0.0 0.5 (0.0)  
olv4\* 1.0 0.5 1.0 (1.0)  
cmyn4\* 0.5 0.0 0.5 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 73.18 -31.58 20.7  
LAB\*LAB 73.18 -31.58 17.49  
LAB\*LAB 75.0 36.1 15.03

relative Inform. Technology (IT)  
olv3\* 0.25 1.0 0.25 (1.0)  
cmyn3\* 0.25 0.0 0.25 (0.0)  
olv4\* 1.0 0.25 1.0 (1.0)  
cmyn4\* 0.25 0.0 0.25 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 62.04 -47.31 28.7  
LAB\*LAB 62.04 -47.31 26.23  
LAB\*LAB 62.5 54.16 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 1.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 1.0 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 1.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 50.9 -62.95 36.7  
LAB\*LAB 50.9 -63.16 34.97  
LAB\*LAB 50.0 72.21 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.5 0.0 (1.0)  
cmyn3\* 0.5 0.0 0.5 (0.0)  
olv4\* 1.0 0.5 1.0 (0.5)  
cmyn4\* 0.5 0.0 0.5 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 42.74 -47.04 27.41  
LAB\*LAB 42.74 -47.04 25.17  
LAB\*LAB 42.5 54.16 15.03

relative Inform. Technology (IT)  
olv3\* 0.75 0.75 0.75 (1.0)  
cmyn3\* 0.25 0.25 0.25 (0.0)  
olv4\* 1.0 1.0 1.0 (1.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 76.12 -0.12 3.4  
LAB\*LAB 76.12 0.0 0.0  
LAB\*LAB 75.0 0.01 -

relative Inform. Technology (IT)  
olv3\* 0.5 0.75 0.5 (1.0)  
cmyn3\* 0.5 0.25 0.5 (0.0)  
olv4\* 1.0 0.5 1.0 (0.5)  
cmyn4\* 0.5 0.0 0.5 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 64.98 -15.76 11.41  
LAB\*LAB 64.98 -15.76 8.75  
LAB\*LAB 62.5 18.05 15.03

relative Inform. Technology (IT)  
olv3\* 0.25 0.75 0.25 (1.0)  
cmyn3\* 0.25 0.25 0.25 (0.0)  
olv4\* 1.0 0.25 1.0 (0.25)  
cmyn4\* 0.25 0.0 0.25 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 53.84 -31.41 19.41  
LAB\*LAB 53.84 -31.41 17.49  
LAB\*LAB 50.0 36.11 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.75 0.0 (1.0)  
cmyn3\* 0.75 0.0 0.75 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.75 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 33.84 -31.41 19.41  
LAB\*LAB 33.84 -31.41 17.49  
LAB\*LAB 50.0 36.11 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.5 0.0 (1.0)  
cmyn3\* 0.5 0.0 0.5 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.5 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 33.84 -31.41 19.41  
LAB\*LAB 33.84 -31.41 17.49  
LAB\*LAB 50.0 36.11 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.25 0.0 (1.0)  
cmyn3\* 0.25 0.0 0.25 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.25 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 33.84 -31.41 19.41  
LAB\*LAB 33.84 -31.41 17.49  
LAB\*LAB 50.0 36.11 15.03

relative Inform. Technology (IT)  
olv3\* 0.25 0.25 0.25 (1.0)  
cmyn3\* 0.75 0.75 0.75 (0.0)  
olv4\* 1.0 1.0 1.0 (1.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 37.44 -37.44 0.82  
LAB\*LAB 37.44 0.0 0.0  
LAB\*LAB 25.0 0.01 -

relative Inform. Technology (IT)  
olv3\* 0.25 0.5 0.25 (1.0)  
cmyn3\* 0.75 0.25 0.75 (0.0)  
olv4\* 1.0 0.5 1.0 (0.5)  
cmyn4\* 0.25 0.0 0.25 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 37.44 -37.44 0.82  
LAB\*LAB 37.44 0.0 0.0  
LAB\*LAB 25.0 0.01 -

relative Inform. Technology (IT)  
olv3\* 0.0 0.5 0.0 (1.0)  
cmyn3\* 0.5 0.0 0.5 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.5 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 34.5 -31.58 17.49  
LAB\*LAB 34.5 -31.58 15.03  
LAB\*LAB 25.01 36.1 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.25 0.0 (1.0)  
cmyn3\* 0.25 0.0 0.25 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.25 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 34.5 -31.58 17.49  
LAB\*LAB 34.5 -31.58 15.03  
LAB\*LAB 25.01 36.1 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 1.0 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 0.0 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.25 0.25 0.25 (1.0)  
cmyn3\* 0.75 0.75 0.75 (0.0)  
olv4\* 1.0 1.0 1.0 (1.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 37.44 -37.44 0.82  
LAB\*LAB 37.44 0.0 0.0  
LAB\*LAB 25.0 0.01 -

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olv4\* 1.0 1.0 1.0 (1.0)  
cmyn4\* 0.5 0.5 0.5 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 50.0 72.21 15.03

relative Inform. Technology (IT)  
olv3\* 0.25 0.5 0.25 (1.0)  
cmyn3\* 0.75 0.25 0.75 (0.0)  
olv4\* 1.0 0.5 1.0 (0.5)  
cmyn4\* 0.25 0.0 0.25 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 50.0 72.21 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.5 0.0 (1.0)  
cmyn3\* 0.5 0.0 0.5 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.5 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 50.0 72.21 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.25 0.0 (1.0)  
cmyn3\* 0.25 0.0 0.25 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.25 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 50.0 72.21 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 1.0 (0.0)  
olv4\* 1.0 0.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 47.72 0.0 0.0  
LAB\*LAB 50.0 72.21 15.03

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 (0.0)  
cmyn4\* 0.0 0.0 0.0 (0.0)  
standard and adapted CIELAB  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 18.1 0.0 0.0  
LAB\*LAB 0.0 0.0 0.0

OE500-7, 5 step scales for constant CIELAB hue 151/360 = 0.42 (left)

5 step scales for constant CIELAB hue 140/360 = 0.389 (right)

BAM-test chart QE50; Colorimetric systems ORS18 & TLS00

input: `cmv0* setcmvcolor`

D50: 2 coordinate data of 5 step colour scales for 10 hues

output: no change compared to input

chromaticness  $c^*$

chromaticness  $c^*$

See for similar files: <http://www.ps.bam.de/QE50/>  
Technical information: <http://www.ps.bam.de> Version 2.1, io=0.0

BAM registration: 20060101-QE50/10L/L50E03NP.PS/.PDF  
BAM material: code=rhda4ta  
application for evaluation and measurement of printer or monitor systems  
/QE50/ Form 4/10, Serie: 1/1, Page: 4 Page count: 4

www.ps.bam.de/QE50/10L/L50E03NP.PS/.PDF; start output  
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)

### Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 231/360 = 0.641$

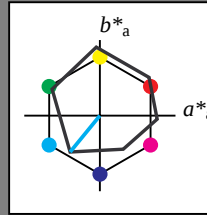
$lab^*tch$  and  $lab^*nch$

D50: hue C

LCH\*Ma: 57 62 231

olv\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$



relative Inform. Technology (IT)  
olv3\* 1.0 1.0 1.0 (1.0)  
cmyn3\* 0.0 0.0 0.0 (0.0)  
olv4\* 1.0 1.0 1.0 1.0  
cmyn4\* 0.0 0.0 0.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 95.46 -0.39 4.69  
LAB\*LABa 95.46 0.0 0.0  
LAB\*LABb 99.99 0.01 0.0

relative CIELAB lab\*  
lab\*lab 1.0 0.0 0.0  
lab\*tch 1.0 0.0 0.0  
lab\*nch 0.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 1.0 0.0 0.0  
lab\*tce 1.0 0.0 0.0  
lab\*nce 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.75 0.75 0.75 (1.0)  
cmyn3\* 0.25 0.25 0.25 (0.0)  
olv4\* 1.0 1.0 1.0 0.75  
cmyn4\* 0.0 0.0 0.0 0.25  
standard and adapted CIELAB  
LAB\*LAB 76.12 -0.12 3.4  
LAB\*LABa 76.12 0.0 0.0  
LAB\*LABb 75.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.75 0.0 0.0  
lab\*tch 0.75 0.0 0.0  
lab\*nch 0.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.75 0.0 0.0  
lab\*tce 0.75 0.0 0.0  
lab\*nce 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.5 0.5 0.5 (0.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olv4\* 1.0 1.0 1.0 0.5  
cmyn4\* 0.0 0.0 0.0 0.5  
standard and adapted CIELAB  
LAB\*LAB 56.78 0.13 2.11  
LAB\*LABa 56.78 0.0 0.0  
LAB\*LABb 55.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.5 0.0 0.0  
lab\*tch 0.5 0.0 0.0  
lab\*nch 0.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.5 0.0 0.0  
lab\*tce 0.5 0.0 0.0  
lab\*nce 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.25 0.25 0.25 (0.0)  
cmyn3\* 0.75 0.75 0.75 (1.0)  
olv4\* 1.0 1.0 1.0 0.25  
cmyn4\* 0.0 0.0 0.0 0.75  
standard and adapted CIELAB  
LAB\*LAB 37.44 -0.62 0.82  
LAB\*LABa 37.44 0.0 0.0  
LAB\*LABb 35.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.25 0.0 0.0  
lab\*tch 0.25 0.0 0.0  
lab\*nch 0.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.25 0.0 0.0  
lab\*tce 0.25 0.0 0.0  
lab\*nce 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 18.11 0.67 0.46  
LAB\*LABa 18.11 0.0 0.0  
LAB\*LABb 18.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 0.0  
lab\*nch 1.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 0.0  
lab\*nce 1.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 0.0 0.0 0.0  
LAB\*LABa 0.0 0.0 0.0  
LAB\*LABb 0.0 0.0 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 0.0  
lab\*nch 1.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 0.0  
lab\*nce 1.0 0.0 0.0

### ORS18; adapted (a) CIELAB data

|                  | $L^*=L_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-----------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 47.94     | 65.05   | 50.54   | 82.38        | 38           |
| Y <sub>Ma</sub>  | 91.0      | -4.72   | 90.58   | 90.7         | 93           |
| L <sub>Ma</sub>  | 50.9      | -63.18  | 34.98   | 72.22        | 151          |
| C <sub>Ma</sub>  | 56.99     | -39.34  | -48.1   | 62.16        | 231          |
| V <sub>Ma</sub>  | 25.72     | 30.89   | -44.4   | 54.09        | 305          |
| M <sub>Ma</sub>  | 49.99     | 75.76   | -4.64   | 75.9         | 356          |
| N <sub>Ma</sub>  | 18.09     | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.46     | 0.0     | 0.0     | 0.0          | 0            |
| RC <sub>IE</sub> | 41.88     | 61.66   | 30.69   | 68.88        | 26           |
| J <sub>CIE</sub> | 81.97     | 2.02    | 67.79   | 67.82        | 88           |
| G <sub>CIE</sub> | 51.62     | -41.32  | 9.74    | 42.46        | 167          |
| B <sub>CIE</sub> | 29.2      | -5.79   | -49.61  | 49.96        | 263          |

### %Regularity

$g^*_{H,rel} = 65$

$g^*_{C,rel} = 60$

relative Inform. Technology (IT)  
olv3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olv4\* 0.5 0.5 0.5 0.5  
cmyn4\* 0.5 0.5 0.5 0.5  
standard and adapted CIELAB  
LAB\*LAB 76.22 -19.8 -20.63  
LAB\*LABa 76.22 -19.86 -24.04  
LAB\*LABb 75.00 31.07 230.72

relative CIELAB lab\*  
lab\*lab 0.5 0.5 0.5 (1.0)  
lab\*tch 0.5 0.5 0.5 (0.0)  
lab\*nch 0.0 0.5 0.5 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.5 0.5 0.5 (0.0)  
lab\*tce 0.5 0.5 0.5 (0.0)  
lab\*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.25 0.25 0.25 (0.0)  
cmyn3\* 0.75 0.75 0.75 (1.0)  
olv4\* 0.5 0.5 0.5 0.25  
cmyn4\* 0.5 0.5 0.5 0.25  
standard and adapted CIELAB  
LAB\*LAB 56.88 -19.53 -21.92  
LAB\*LABa 56.88 -19.67 -24.05  
LAB\*LABb 55.00 31.08 230.72

relative CIELAB lab\*  
lab\*lab 0.25 0.25 0.25 (0.0)  
lab\*tch 0.25 0.25 0.25 (0.0)  
lab\*nch 0.0 0.25 0.25 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.25 0.25 0.25 (0.0)  
lab\*tce 0.25 0.25 0.25 (0.0)  
lab\*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 0.0 (0.0)  
olv4\* 0.5 0.5 0.5 0.0  
cmyn4\* 0.5 0.5 0.5 0.0  
standard and adapted CIELAB  
LAB\*LAB 37.51 -46.61 230.72  
LAB\*LABa 37.51 -46.61 230.72  
LAB\*LABb 35.00 31.07 230.72

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0 (1.0)  
lab\*tch 0.0 0.0 0.0 (0.0)  
lab\*nch 0.5 0.5 0.5 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0 (0.0)  
lab\*tce 0.0 0.0 0.0 (0.0)  
lab\*nce 0.5 0.5 0.5 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 0.0 (0.0)  
olv4\* 0.5 0.5 0.5 0.0  
cmyn4\* 0.5 0.5 0.5 0.0  
standard and adapted CIELAB  
LAB\*LAB 18.11 0.67 0.46  
LAB\*LABa 18.11 0.0 0.0  
LAB\*LABb 18.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0 (1.0)  
lab\*tch 0.0 0.0 0.0 (0.0)  
lab\*nch 1.0 0.0 0.0 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0 (0.0)  
lab\*tce 0.0 0.0 0.0 (0.0)  
lab\*nce 1.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 0.0 0.0 0.0  
LAB\*LABa 0.0 0.0 0.0  
LAB\*LABb 0.0 0.0 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 0.0  
lab\*nch 1.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 0.0  
lab\*nce 1.0 0.0 0.0

$n^* = 0.00$

$n^* = 0.25$

$n^* = 0.50$

$n^* = 1.0$

chromaticness  $c^*$

### Output: Colorimetric Television Luminous System TLS00

for hue  $h^* = lab^*h = 196/360 = 0.544$

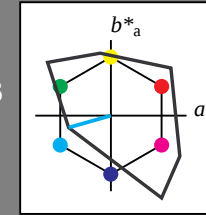
$lab^*tch$  and  $lab^*nch$

D50: hue C

LCH\*Ma: 85 58 196

olv\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$



relative Inform. Technology (IT)  
olv3\* 1.0 1.0 1.0 (1.0)  
cmyn3\* 0.0 0.0 0.0 (0.0)  
olv4\* 1.0 1.0 1.0 1.0  
cmyn4\* 0.0 0.0 0.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 95.41 0.0 0.0  
LAB\*LABa 95.41 0.0 0.0  
LAB\*LABb 99.99 0.01 0.0

relative CIELAB lab\*  
lab\*lab 1.0 0.0 0.0  
lab\*tch 1.0 0.0 0.0  
lab\*nch 0.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 1.0 0.0 0.0  
lab\*tce 1.0 0.0 0.0  
lab\*nce 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.75 0.75 0.75 (1.0)  
cmyn3\* 0.25 0.25 0.25 (0.0)  
olv4\* 1.0 1.0 1.0 0.75  
cmyn4\* 0.0 0.0 0.0 0.25  
standard and adapted CIELAB  
LAB\*LAB 71.57 0.0 0.0  
LAB\*LABa 71.57 0.0 0.0  
LAB\*LABb 75.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.75 0.0 0.0  
lab\*tch 0.75 0.0 0.0  
lab\*nch 0.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.75 0.0 0.0  
lab\*tce 0.75 0.0 0.0  
lab\*nce 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.5 0.5 0.5 (0.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olv4\* 1.0 1.0 1.0 0.5  
cmyn4\* 0.0 0.0 0.0 0.5  
standard and adapted CIELAB  
LAB\*LAB 56.99 -39.2 -45.96  
LAB\*LABa 56.99 -39.33 -48.07  
LAB\*LABb 55.00 31.07 230.72

relative CIELAB lab\*  
lab\*lab 0.5 0.0 0.0  
lab\*tch 0.5 0.0 0.0  
lab\*nch 0.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.5 0.0 0.0  
lab\*tce 0.5 0.0 0.0  
lab\*nce 0.0 0.0 0.0

relative Inform. Technology (IT)  
olv3\* 0.25 0.25 0.25 (0.0)  
cmyn3\* 0.75 0.75 0.75 (1.0)  
olv4\* 1.0 1.0 1.0 0.25  
cmyn4\* 0.0 0.0 0.0 0.75  
standard and adapted CIELAB  
LAB\*LAB 37.51 -46.61 230.72  
LAB\*LABa 37.51 -46.61 230.72  
LAB\*LABb 35.00 31.07 230.72

relative CIELAB lab\*  
lab\*lab 0.25 0.25 0.25 (0.0)  
lab\*tch 0.25 0.25 0.25 (0.0)  
lab\*nch 0.0 0.25 0.25 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.25 0.25 0.25 (0.0)  
lab\*tce 0.25 0.25 0.25 (0.0)  
lab\*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 0.0 (0.0)  
olv4\* 0.5 0.5 0.5 0.0  
cmyn4\* 0.5 0.5 0.5 0.0  
standard and adapted CIELAB  
LAB\*LAB 18.11 0.67 0.46  
LAB\*LABa 18.11 0.0 0.0  
LAB\*LABb 18.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0 (1.0)  
lab\*tch 0.0 0.0 0.0 (0.0)  
lab\*nch 1.0 0.0 0.0 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0 (0.0)  
lab\*tce 0.0 0.0 0.0 (0.0)  
lab\*nce 1.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 0.0 0.0 0.0  
LAB\*LABa 0.0 0.0 0.0  
LAB\*LABb 0.0 0.0 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 0.0  
lab\*nch 1.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 0.0  
lab\*nce 1.0 0.0 0.0

$n^* = 1.0$

chromaticness  $c^*$

### TLS00; adapted (a) CIELAB data

|                  | $L^*=L_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-----------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 54.19     | 79.36   | 63.0    | 101.33       | 38           |
| Y <sub>Ma</sub>  | 93.44     | -14.18  | 82.59   | 83.8         | 100          |
| L <sub>Ma</sub>  | 82.82     | -83.73  | 70.41   | 109.41       | 140          |
| C <sub>Ma</sub>  | 85.22     | -55.9   | -15.78  | 58.1         | 196          |
| V <sub>Ma</sub>  | 25.61     | 67.05   | -108.87 | 127.87       | 302          |
| M <sub>Ma</sub>  | 58.76     | 91.18   | -53.69  | 105.82       | 330          |
| N <sub>Ma</sub>  | 0.01      | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.41     | 0.0     | 0.0     | 0.0          | 0            |
| RC <sub>IE</sub> | 41.88     | 62.0    | 31.82   | 69.69        | 27           |
| J <sub>CIE</sub> | 81.97     | 1.81    | 71.59   | 71.61        | 89           |
| G <sub>CIE</sub> | 51.62     | -41.11  | 11.52   | 42.7         | 164          |
| B <sub>CIE</sub> | 29.2      | -5.27   | -49.33  | 49.62        | 264          |

### %Regularity

$g^*_{H,rel} = 26$

$g^*_{C,rel} = 45$

relative Inform. Technology (IT)  
olv3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olv4\* 0.5 0.5 0.5 0.5  
cmyn4\* 0.5 0.5 0.5 0.5  
standard and adapted CIELAB  
LAB\*LAB 76.12 -19.8 -20.63  
LAB\*LABa 76.12 -19.86 -24.04  
LAB\*LABb 75.00 31.07 230.72

relative CIELAB lab\*  
lab\*lab 0.5 0.5 0.5 (1.0)  
lab\*tch 0.5 0.5 0.5 (0.0)  
lab\*nch 0.0 0.5 0.5 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.5 0.5 0.5 (0.0)  
lab\*tce 0.5 0.5 0.5 (0.0)  
lab\*nce 0.0 0.5 0.5 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.25 0.25 0.25 (0.0)  
cmyn3\* 0.75 0.75 0.75 (1.0)  
olv4\* 0.5 0.5 0.5 0.25  
cmyn4\* 0.5 0.5 0.5 0.25  
standard and adapted CIELAB  
LAB\*LAB 56.88 -19.53 -21.92  
LAB\*LABa 56.88 -19.67 -24.05  
LAB\*LABb 55.00 31.08 230.72

relative CIELAB lab\*  
lab\*lab 0.25 0.25 0.25 (0.0)  
lab\*tch 0.25 0.25 0.25 (0.0)  
lab\*nch 0.0 0.25 0.25 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.25 0.25 0.25 (0.0)  
lab\*tce 0.25 0.25 0.25 (0.0)  
lab\*nce 0.0 0.25 0.25 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 0.0 (0.0)  
olv4\* 0.5 0.5 0.5 0.0  
cmyn4\* 0.5 0.5 0.5 0.0  
standard and adapted CIELAB  
LAB\*LAB 37.51 -46.61 230.72  
LAB\*LABa 37.51 -46.61 230.72  
LAB\*LABb 35.00 31.07 230.72

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0 (1.0)  
lab\*tch 0.0 0.0 0.0 (0.0)  
lab\*nch 0.5 0.5 0.5 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0 (0.0)  
lab\*tce 0.0 0.0 0.0 (0.0)  
lab\*nce 0.5 0.5 0.5 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.0 0.0 (0.0)  
olv4\* 0.5 0.5 0.5 0.0  
cmyn4\* 0.5 0.5 0.5 0.0  
standard and adapted CIELAB  
LAB\*LAB 18.11 0.67 0.46  
LAB\*LABa 18.11 0.0 0.0  
LAB\*LABb 18.00 0.01 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0 (1.0)  
lab\*tch 0.0 0.0 0.0 (0.0)  
lab\*nch 1.0 0.0 0.0 (0.0)  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0 (0.0)  
lab\*tce 0.0 0.0 0.0 (0.0)  
lab\*nce 1.0 0.0 0.0 (0.0)

relative Inform. Technology (IT)  
olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olv4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 0.0 0.0 0.0  
LAB\*LABa 0.0 0.0 0.0  
LAB\*LABb 0.0 0.0 0.0

relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 0.0  
lab\*nch 1.0 0.0 0.0  
relative Natural Colour (NC)  
lab\*trj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 0.0  
lab\*nce 1.0 0.0 0.0

$n^* = 0.00$

$n^* = 0.25$

$n^* = 0.50$

$n^* = 1.0$

chromaticness  $c^*$

QE500-7, 5 step scales for constant CIELAB hue 231/360 = 0.641 (left)

5 step scales for constant CIELAB hue 196/360 = 0.544 (right)

BAM-test chart QE50; Colorimetric systems ORS18 & TLS00

D50: 2 coordinate data of 5 step colour scales for 10 hues

input:  $cmY^*0^* set cmykcolor$

output: no change compared to input

## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 305/360 = 0.847$

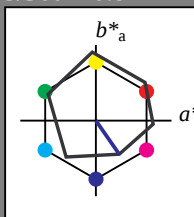
$lab^*tch$  and  $lab^*nch$

D50: hue V

LCH\*Ma: 26 54 305

olv\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$



$u^*_{rel} = 94$

## ORS18; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 47.94       | 65.05   | 50.54   | 82.38        | 38           |
| Y <sub>Ma</sub>  | 91.0        | -4.72   | 90.58   | 90.7         | 93           |
| L <sub>Ma</sub>  | 50.9        | -63.18  | 34.98   | 72.22        | 151          |
| C <sub>Ma</sub>  | 56.99       | -39.34  | -48.1   | 62.16        | 231          |
| V <sub>Ma</sub>  | 25.72       | 30.89   | -44.4   | 54.09        | 305          |
| M <sub>Ma</sub>  | 49.99       | 75.76   | -4.64   | 75.9         | 356          |
| N <sub>Ma</sub>  | 18.09       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.46       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 41.88       | 61.66   | 30.69   | 68.88        | 26           |
| J <sub>CIE</sub> | 81.97       | 2.02    | 67.79   | 67.82        | 88           |
| G <sub>CIE</sub> | 51.62       | -41.32  | 9.74    | 42.46        | 167          |
| B <sub>CIE</sub> | 29.2        | -5.79   | -49.61  | 49.96        | 263          |

%Regularity

$g^*_{H,rel} = 65$

$g^*_{C,rel} = 60$

|                                  |                      |
|----------------------------------|----------------------|
| relative Inform. Technology (IT) |                      |
| olv3*                            | 0.75 0.75 0.75 (1.0) |
| olv4*                            | 0.25 0.25 0.25 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0)    |
| standard and adapted CIELAB      |                      |
| LAB*LAB                          | 95.46 -39.34 -48.1   |
| LAB*LAB                          | 95.46 -39.34 -48.1   |
| LAB*LAB                          | 95.46 -39.34 -48.1   |
| relative CIELAB lab*             |                      |
| lab*lab                          | 1.0 0.0 0.0          |
| lab*tch                          | 0.0 0.0 0.0          |
| lab*nch                          | 0.0 0.0 0.0          |
| relative Natural Colour (NC)     |                      |
| lab*trj                          | 0.0 0.0 0.0          |
| lab*tce                          | 0.0 0.0 0.0          |
| lab*nce                          | 0.0 0.0 0.0          |

|                                  |                      |
|----------------------------------|----------------------|
| relative Inform. Technology (IT) |                      |
| olv3*                            | 0.75 0.75 0.75 (1.0) |
| olv4*                            | 0.25 0.25 0.25 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0)    |
| standard and adapted CIELAB      |                      |
| LAB*LAB                          | 76.12 -0.12 3.4      |
| LAB*LAB                          | 76.12 -0.12 3.4      |
| LAB*LAB                          | 76.12 -0.12 3.4      |
| relative CIELAB lab*             |                      |
| lab*lab                          | 0.75 0.75 0.75 (1.0) |
| lab*tch                          | 0.875 0.25 0.847     |
| lab*nch                          | 0.0 0.25 0.847       |
| relative Natural Colour (NC)     |                      |
| lab*trj                          | 0.775 0.126 -0.215   |
| lab*tce                          | 0.875 0.25 0.834     |
| lab*nce                          | 0.0 0.25 0.834       |

|                                  |                      |
|----------------------------------|----------------------|
| relative Inform. Technology (IT) |                      |
| olv3*                            | 0.5 0.5 0.5 (1.0)    |
| olv4*                            | 0.25 0.25 0.25 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0)    |
| standard and adapted CIELAB      |                      |
| LAB*LAB                          | 60.59 15.52 -19.82   |
| LAB*LAB                          | 60.59 15.52 -19.82   |
| LAB*LAB                          | 60.59 15.52 -19.82   |
| relative CIELAB lab*             |                      |
| lab*lab                          | 0.549 0.285 -0.409   |
| lab*tch                          | 0.75 0.5 0.847       |
| lab*nch                          | 0.0 0.5 0.847        |
| relative Natural Colour (NC)     |                      |
| lab*trj                          | 0.549 0.252 -0.431   |
| lab*tce                          | 0.75 0.5 0.834       |
| lab*nce                          | 0.0 0.5 0.834        |

|                                  |                      |
|----------------------------------|----------------------|
| relative Inform. Technology (IT) |                      |
| olv3*                            | 0.25 0.25 0.25 (1.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0)    |
| olv5*                            | 0.0 0.0 0.0 (0.0)    |
| standard and adapted CIELAB      |                      |
| LAB*LAB                          | 43.15 23.48 -32.08   |
| LAB*LAB                          | 43.15 23.48 -32.08   |
| LAB*LAB                          | 43.15 23.48 -32.08   |
| relative CIELAB lab*             |                      |
| lab*lab                          | 0.324 0.379 -0.646   |
| lab*tch                          | 0.625 0.75 0.834     |
| lab*nch                          | 0.0 0.75 0.834       |
| relative Natural Colour (NC)     |                      |
| lab*trj                          | 0.324 0.379 -0.646   |
| lab*tce                          | 0.625 0.75 0.834     |
| lab*nce                          | 0.0 0.75 0.834       |

|                                  |                    |
|----------------------------------|--------------------|
| relative Inform. Technology (IT) |                    |
| olv3*                            | 0.0 0.0 0.0 (0.0)  |
| olv4*                            | 0.0 0.0 0.0 (0.0)  |
| olv5*                            | 0.0 0.0 0.0 (0.0)  |
| standard and adapted CIELAB      |                    |
| LAB*LAB                          | 25.73 31.44 -44.34 |
| LAB*LAB                          | 25.73 31.44 -44.34 |
| LAB*LAB                          | 25.73 31.44 -44.34 |
| relative CIELAB lab*             |                    |
| lab*lab                          | 0.099 0.571 -0.82  |
| lab*tch                          | 0.5 0.0 0.847      |
| lab*nch                          | 0.0 0.0 0.847      |
| relative Natural Colour (NC)     |                    |
| lab*trj                          | 0.099 0.505 -0.862 |
| lab*tce                          | 0.5 0.0 0.834      |
| lab*nce                          | 0.0 0.0 0.834      |

|                                  |                      |
|----------------------------------|----------------------|
| relative Inform. Technology (IT) |                      |
| olv3*                            | 0.5 0.5 0.5 (1.0)    |
| olv4*                            | 0.25 0.25 0.25 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0)    |
| standard and adapted CIELAB      |                      |
| LAB*LAB                          | 47.72 0.0 0.0        |
| LAB*LAB                          | 47.72 0.0 0.0        |
| LAB*LAB                          | 47.72 0.0 0.0        |
| relative CIELAB lab*             |                      |
| lab*lab                          | 0.5 0.0 0.0          |
| lab*tch                          | 0.5 0.0 0.0          |
| lab*nch                          | 0.5 0.0 0.0          |
| relative Natural Colour (NC)     |                      |
| lab*trj                          | 0.5 0.0 0.0          |
| lab*tce                          | 0.5 0.0 0.0          |
| lab*nce                          | 0.5 0.0 0.0          |

|                                  |                      |
|----------------------------------|----------------------|
| relative Inform. Technology (IT) |                      |
| olv3*                            | 0.25 0.25 0.25 (1.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0)    |
| olv5*                            | 0.0 0.0 0.0 (0.0)    |
| standard and adapted CIELAB      |                      |
| LAB*LAB                          | 37.18 16.06 -33.42   |
| LAB*LAB                          | 37.18 16.06 -33.42   |
| LAB*LAB                          | 37.18 16.06 -33.42   |
| relative CIELAB lab*             |                      |
| lab*lab                          | 0.275 0.428 -0.615   |
| lab*tch                          | 0.375 0.75 0.847     |
| lab*nch                          | 0.0 0.75 0.847       |
| relative Natural Colour (NC)     |                      |
| lab*trj                          | 0.275 0.428 -0.615   |
| lab*tce                          | 0.375 0.75 0.834     |
| lab*nce                          | 0.0 0.75 0.834       |

|                                  |                    |
|----------------------------------|--------------------|
| relative Inform. Technology (IT) |                    |
| olv3*                            | 0.0 0.0 0.0 (0.0)  |
| olv4*                            | 0.0 0.0 0.0 (0.0)  |
| olv5*                            | 0.0 0.0 0.0 (0.0)  |
| standard and adapted CIELAB      |                    |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| relative CIELAB lab*             |                    |
| lab*lab                          | 0.049 0.285 -0.409 |
| lab*tch                          | 0.25 0.5 0.847     |
| lab*nch                          | 0.0 0.5 0.847      |
| relative Natural Colour (NC)     |                    |
| lab*trj                          | 0.049 0.252 -0.431 |
| lab*tce                          | 0.25 0.5 0.834     |
| lab*nce                          | 0.0 0.5 0.834      |

|                                  |                    |
|----------------------------------|--------------------|
| relative Inform. Technology (IT) |                    |
| olv3*                            | 0.0 0.0 0.0 (0.0)  |
| olv4*                            | 0.0 0.0 0.0 (0.0)  |
| olv5*                            | 0.0 0.0 0.0 (0.0)  |
| standard and adapted CIELAB      |                    |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| relative CIELAB lab*             |                    |
| lab*lab                          | 0.049 0.285 -0.409 |
| lab*tch                          | 0.25 0.5 0.847     |
| lab*nch                          | 0.0 0.5 0.847      |
| relative Natural Colour (NC)     |                    |
| lab*trj                          | 0.049 0.252 -0.431 |
| lab*tce                          | 0.25 0.5 0.834     |
| lab*nce                          | 0.0 0.5 0.834      |

|                                  |                    |
|----------------------------------|--------------------|
| relative Inform. Technology (IT) |                    |
| olv3*                            | 0.0 0.0 0.0 (0.0)  |
| olv4*                            | 0.0 0.0 0.0 (0.0)  |
| olv5*                            | 0.0 0.0 0.0 (0.0)  |
| standard and adapted CIELAB      |                    |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| relative CIELAB lab*             |                    |
| lab*lab                          | 0.049 0.285 -0.409 |
| lab*tch                          | 0.25 0.5 0.847     |
| lab*nch                          | 0.0 0.5 0.847      |
| relative Natural Colour (NC)     |                    |
| lab*trj                          | 0.049 0.252 -0.431 |
| lab*tce                          | 0.25 0.5 0.834     |
| lab*nce                          | 0.0 0.5 0.834      |

|                                  |                    |
|----------------------------------|--------------------|
| relative Inform. Technology (IT) |                    |
| olv3*                            | 0.0 0.0 0.0 (0.0)  |
| olv4*                            | 0.0 0.0 0.0 (0.0)  |
| olv5*                            | 0.0 0.0 0.0 (0.0)  |
| standard and adapted CIELAB      |                    |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| relative CIELAB lab*             |                    |
| lab*lab                          | 0.049 0.285 -0.409 |
| lab*tch                          | 0.25 0.5 0.847     |
| lab*nch                          | 0.0 0.5 0.847      |
| relative Natural Colour (NC)     |                    |
| lab*trj                          | 0.049 0.252 -0.431 |
| lab*tce                          | 0.25 0.5 0.834     |
| lab*nce                          | 0.0 0.5 0.834      |

|                                  |                    |
|----------------------------------|--------------------|
| relative Inform. Technology (IT) |                    |
| olv3*                            | 0.0 0.0 0.0 (0.0)  |
| olv4*                            | 0.0 0.0 0.0 (0.0)  |
| olv5*                            | 0.0 0.0 0.0 (0.0)  |
| standard and adapted CIELAB      |                    |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| LAB*LAB                          | 21.91 15.44 -22.19 |
| relative CIELAB lab*             |                    |
| lab*lab                          | 0.049 0.285 -0.409 |
| lab*tch                          | 0.25 0.5 0.847     |
| lab*nch                          | 0.0 0.5 0.847      |
| relative Natural Colour (NC)     |                    |
| lab*trj                          | 0.049 0.252 -0.431 |
| lab*tce                          | 0.25 0.5 0.834     |
| lab*nce                          | 0.0 0.5 0.834      |

|                                  |                   |
|----------------------------------|-------------------|
| relative Inform. Technology (IT) |                   |
| olv3*                            | 0.0 0.0 0.0 (0.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0) |
| standard and adapted CIELAB      |                   |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| relative CIELAB lab*             |                   |
| lab*lab                          | 0.0 0.0 0.0       |
| lab*tch                          | 0.0 0.0 0.0       |
| lab*nch                          | 0.0 0.0 0.0       |
| relative Natural Colour (NC)     |                   |
| lab*trj                          | 0.0 0.0 0.0       |
| lab*tce                          | 0.0 0.0 0.0       |
| lab*nce                          | 0.0 0.0 0.0       |

|                                  |                   |
|----------------------------------|-------------------|
| relative Inform. Technology (IT) |                   |
| olv3*                            | 0.0 0.0 0.0 (0.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0) |
| standard and adapted CIELAB      |                   |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| relative CIELAB lab*             |                   |
| lab*lab                          | 0.0 0.0 0.0       |
| lab*tch                          | 0.0 0.0 0.0       |
| lab*nch                          | 0.0 0.0 0.0       |
| relative Natural Colour (NC)     |                   |
| lab*trj                          | 0.0 0.0 0.0       |
| lab*tce                          | 0.0 0.0 0.0       |
| lab*nce                          | 0.0 0.0 0.0       |

|                                  |                   |
|----------------------------------|-------------------|
| relative Inform. Technology (IT) |                   |
| olv3*                            | 0.0 0.0 0.0 (0.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0) |
| standard and adapted CIELAB      |                   |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| relative CIELAB lab*             |                   |
| lab*lab                          | 0.0 0.0 0.0       |
| lab*tch                          | 0.0 0.0 0.0       |
| lab*nch                          | 0.0 0.0 0.0       |
| relative Natural Colour (NC)     |                   |
| lab*trj                          | 0.0 0.0 0.0       |
| lab*tce                          | 0.0 0.0 0.0       |
| lab*nce                          | 0.0 0.0 0.0       |

|                                  |                   |
|----------------------------------|-------------------|
| relative Inform. Technology (IT) |                   |
| olv3*                            | 0.0 0.0 0.0 (0.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0) |
| standard and adapted CIELAB      |                   |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| relative CIELAB lab*             |                   |
| lab*lab                          | 0.0 0.0 0.0       |
| lab*tch                          | 0.0 0.0 0.0       |
| lab*nch                          | 0.0 0.0 0.0       |
| relative Natural Colour (NC)     |                   |
| lab*trj                          | 0.0 0.0 0.0       |
| lab*tce                          | 0.0 0.0 0.0       |
| lab*nce                          | 0.0 0.0 0.0       |

|                                  |                   |
|----------------------------------|-------------------|
| relative Inform. Technology (IT) |                   |
| olv3*                            | 0.0 0.0 0.0 (0.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0) |
| standard and adapted CIELAB      |                   |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| relative CIELAB lab*             |                   |
| lab*lab                          | 0.0 0.0 0.0       |
| lab*tch                          | 0.0 0.0 0.0       |
| lab*nch                          | 0.0 0.0 0.0       |
| relative Natural Colour (NC)     |                   |
| lab*trj                          | 0.0 0.0 0.0       |
| lab*tce                          | 0.0 0.0 0.0       |
| lab*nce                          | 0.0 0.0 0.0       |

|                                  |                   |
|----------------------------------|-------------------|
| relative Inform. Technology (IT) |                   |
| olv3*                            | 0.0 0.0 0.0 (0.0) |
| olv4*                            | 0.0 0.0 0.0 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0) |
| standard and adapted CIELAB      |                   |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| LAB*LAB                          | 18.1 0.67 0.46    |
| relative CIELAB lab*             |                   |
| lab*lab                          | 0.0 0.0 0.0       |
| lab*tch                          | 0.0 0.0 0.0       |
| lab*nch                          | 0.0 0.0 0.0       |
| relative Natural Colour (NC)     |                   |
| lab*trj                          | 0.0 0.0 0.0       |
| lab*tce                          | 0.0 0.0 0.0       |
| lab*nce                          | 0.0 0.0 0.0       |

$n^* = 1.0$

0.25

0.50

0.75

1.00

$n^* = 1.0$

QE500-7, 5 step scales for constant CIELAB hue 305/360 = 0.847 (left)

5 step scales for constant CIELAB hue 302/360 = 0.838 (right)

BAM-test chart QE50; Colorimetric systems ORS18 & TLS00

D50: 2 coordinate data of 5 step colour scales for 10 hues

input:  $cmv0^* setcmykcolor$

output: no change compared to input

## TLS00; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 54.19       | 79.36   | 63.0    | 101.33       | 38           |
| Y <sub>Ma</sub>  | 93.44       | -14.18  | 82.59   | 83.8         | 100          |
| L <sub>Ma</sub>  | 82.82       | -83.73  | 70.41   | 109.41       | 140          |
| C <sub>Ma</sub>  | 85.22       | -55.9   | -15.78  | 58.1         | 196          |
| V <sub>Ma</sub>  | 25.61       | 67.05   | -108.87 | 127.87       | 302          |
| M <sub>Ma</sub>  | 58.76       | 91.18   | -53.69  | 105.82       | 330          |
| N <sub>Ma</sub>  | 0.01        | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 41.88       | 62.0    | 31.82   | 69.69        | 27           |
| J <sub>CIE</sub> | 81.97       | 1.81    | 71.59   | 71.61        | 89           |
| G <sub>CIE</sub> | 51.62       | -41.11  | 11.52   | 42.7         | 164          |
| B <sub>CIE</sub> | 29.2        | -5.27   | -49.33  | 49.62        | 264          |

%Regularity

$g^*_{H,rel} = 26$

$g^*_{C,rel} = 45$

|                                  |                      |
|----------------------------------|----------------------|
| relative Inform. Technology (IT) |                      |
| olv3*                            | 0.75 0.75 0.75 (1.0) |
| olv4*                            | 0.25 0.25 0.25 (0.0) |
| olv5*                            | 0.0 0.0 0.0 (0.0)    |
| standard and adapted CIELAB      |                      |
| LAB*LAB                          | 77.96 16.76 -27.2    |
| LAB*LAB                          | 77.96 16.76 -27.2    |
| LAB*LAB                          | 77.96 16.76 -27.2    |
| relative CIELAB lab*             |                      |
| lab*lab                          | 1.0 0.0 0.0          |
| lab*tch                          | 0.875 0.25 0.847     |
| lab*nch                          | 0.0 0.25 0.847       |
| relative Natural Colour (NC)     |                      |
| lab*trj                          | 0.875 0.116 -0.221   |
| lab*tce                          | 0.875 0.25 0.827     |
| lab*nce                          | 0.0                  |

See for similar files: <http://www.ps.bam.de/QE50/>  
Technical information: <http://www.ps.bam.de> Version 2.1, io=0.0

Page count: 6

www.ps.bam.de/QE50/10L/L50E05NP.PS/.PDF; start output  
N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)

BAM registration: 20060101-QE50/10L/L50E05NP.PS/.PDF  
application for evaluation and measurement of printer or monitor systems  
BAM material: code=rh4ta  
/QE50 Form 6/10, Serie: 1/1, Page: 6

### Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 356/360 = 0.99$

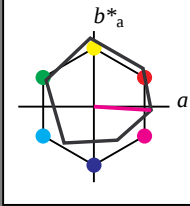
$lab^*tch$  and  $lab^*nch$

D50: hue M

LCH\*Ma: 50 76 356

olv\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$



#### ORS18; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 47.94       | 65.05   | 50.54   | 82.38        | 38           |
| Y <sub>Ma</sub>  | 91.0        | -4.72   | 90.58   | 90.7         | 93           |
| L <sub>Ma</sub>  | 50.9        | -63.18  | 34.98   | 72.22        | 151          |
| C <sub>Ma</sub>  | 56.99       | -39.34  | -48.1   | 62.16        | 231          |
| V <sub>Ma</sub>  | 25.72       | 30.89   | -44.4   | 54.09        | 305          |
| M <sub>Ma</sub>  | 49.99       | 75.76   | -4.64   | 75.9         | 356          |
| N <sub>Ma</sub>  | 18.09       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.46       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 41.88       | 61.66   | 30.69   | 68.88        | 26           |
| J <sub>CIE</sub> | 81.97       | 2.02    | 67.79   | 67.82        | 88           |
| G <sub>CIE</sub> | 51.62       | -41.32  | 9.74    | 42.46        | 167          |
| B <sub>CIE</sub> | 29.2        | -5.79   | -49.61  | 49.96        | 263          |

%Regularity

$g^*_{H,rel} = 65$

$g^*_{C,rel} = 60$

relative Inform. Technology (IT)

|         |     |     |     |       |
|---------|-----|-----|-----|-------|
| olv3*   | 1.0 | 1.0 | 1.0 | (1.0) |
| olv4*   | 0.0 | 0.0 | 0.0 | (0.0) |
| olv5*   | 0.0 | 0.0 | 0.0 | (0.0) |
| olv6*   | 0.0 | 0.0 | 0.0 | (0.0) |
| olv7*   | 0.0 | 0.0 | 0.0 | (0.0) |
| olv8*   | 0.0 | 0.0 | 0.0 | (0.0) |
| olv9*   | 0.0 | 0.0 | 0.0 | (0.0) |
| olv10*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv11*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv12*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv13*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv14*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv15*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv16*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv17*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv18*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv19*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv20*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv21*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv22*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv23*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv24*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv25*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv26*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv27*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv28*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv29*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv30*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv31*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv32*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv33*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv34*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv35*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv36*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv37*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv38*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv39*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv40*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv41*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv42*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv43*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv44*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv45*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv46*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv47*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv48*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv49*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv50*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv51*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv52*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv53*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv54*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv55*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv56*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv57*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv58*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv59*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv60*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv61*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv62*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv63*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv64*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv65*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv66*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv67*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv68*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv69*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv70*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv71*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv72*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv73*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv74*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv75*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv76*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv77*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv78*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv79*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv80*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv81*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv82*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv83*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv84*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv85*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv86*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv87*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv88*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv89*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv90*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv91*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv92*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv93*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv94*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv95*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv96*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv97*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv98*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv99*  | 0.0 | 0.0 | 0.0 | (0.0) |
| olv100* | 0.0 | 0.0 | 0.0 | (0.0) |

relative Inform. Technology (IT)

|         |     |      |     |       |
|---------|-----|------|-----|-------|
| olv3*   | 1.0 | 0.75 | 1.0 | (1.0) |
| olv4*   | 0.0 | 0.25 | 0.0 | (0.0) |
| olv5*   | 0.0 | 0.75 | 1.0 | (1.0) |
| olv6*   | 0.0 | 0.25 | 0.0 | (0.0) |
| olv7*   | 0.0 | 0.75 | 1.0 | (1.0) |
| olv8*   | 0.0 | 0.25 | 0.0 | (0.0) |
| olv9*   | 0.0 | 0.75 | 1.0 | (1.0) |
| olv10*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv11*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv12*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv13*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv14*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv15*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv16*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv17*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv18*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv19*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv20*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv21*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv22*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv23*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv24*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv25*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv26*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv27*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv28*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv29*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv30*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv31*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv32*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv33*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv34*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv35*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv36*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv37*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv38*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv39*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv40*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv41*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv42*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv43*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv44*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv45*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv46*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv47*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv48*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv49*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv50*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv51*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv52*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv53*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv54*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv55*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv56*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv57*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv58*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv59*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv60*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv61*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv62*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv63*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv64*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv65*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv66*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv67*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv68*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv69*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv70*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv71*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv72*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv73*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv74*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv75*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv76*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv77*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv78*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv79*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv80*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv81*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv82*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv83*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv84*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv85*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv86*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv87*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv88*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv89*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv90*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv91*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv92*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv93*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv94*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv95*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv96*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv97*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv98*  | 0.0 | 0.25 | 0.0 | (0.0) |
| olv99*  | 0.0 | 0.75 | 1.0 | (1.0) |
| olv100* | 0.0 | 0.25 | 0.0 | (0.0) |

|                                    |       |       |       |
|------------------------------------|-------|-------|-------|
| LAB* <i>tchd</i> 87.3 18.97 356.48 |       |       |       |
| relative CIELAB lab*               |       |       |       |
| lab*lab                            | 0.853 | 0.249 | -0.0  |
| lab*tch                            | 0.875 | 0.25  | 0.99  |
| lab*nch                            | 0.0   | 0.25  | 0.99  |
| relative Natural Colour (NC)       |       |       |       |
| lab*lrj                            | 0.853 | 0.232 | -0.09 |
| lab*tce                            | 0.875 | 0.25  | 0.939 |
| lab*nce                            | 0.0   | 0.25  | b75r  |

## Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 26/360 = 0.074$

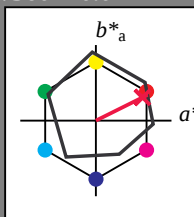
$lab^*tch$  and  $lab^*nch$

D50: hue R

LCH\*Ma: 49 76 26

olv\*Ma: 1.0 0.0 0.3

triangle lightness  $t^*$



$u^*_{rel} = 94$

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                     | 95.46 | -39.49 | 4.69 |       |
| LAB*Lab                     | 95.46 | 0.0    | 0.0  |       |
| LAB*TChA                    | 99.99 | 0.01   | 0.0  |       |

relative CIELAB lab\*

|                              |     |     |     |  |
|------------------------------|-----|-----|-----|--|
| lab*lab                      | 1.0 | 0.0 | 0.0 |  |
| lab*tch                      | 0.0 | 1.0 | 0.0 |  |
| lab*nch                      | 0.0 | 0.0 | 1.0 |  |
| relative Natural Colour (NC) |     |     |     |  |
| lab*lrj                      | 0.0 | 0.0 | 0.0 |  |
| lab*tce                      | 1.0 | 0.0 | 0.0 |  |
| lab*nce                      | 0.0 | 0.0 | 1.0 |  |

relative Inform. Technology (IT)

|                             |       |        |      |       |
|-----------------------------|-------|--------|------|-------|
| olvi3*                      | 0.75  | 0.75   | 0.75 | (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                     | 76.12 | -12.12 | 3.4  |       |
| LAB*Lab                     | 76.12 | 0.0    | 0.0  |       |
| LAB*TChA                    | 75.00 | 0.01   | 0.0  |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.848 | 0.224 | 0.111 |  |
| lab*tch                      | 0.875 | 0.25  | 0.073 |  |
| lab*nch                      | 0.0   | 0.25  | 0.073 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.848 | 0.25  | 0.0   |  |
| lab*tce                      | 0.875 | 0.25  | 0.0   |  |
| lab*nce                      | 0.0   | 0.25  | 0.073 |  |

relative Inform. Technology (IT)

|                             |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| olvi3*                      | 0.75  | 0.5   | 0.575 | (1.0) |
| cmyn3*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| olvi4*                      | 1.0   | 0.75  | 0.825 | (1.0) |
| cmyn4*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| standard and adapted CIELAB |       |       |       |       |
| LAB*LAB                     | 64.39 | 17.1  | 11.12 |       |
| LAB*Lab                     | 64.39 | 17.07 | 8.5   |       |
| LAB*TChA                    | 62.5  | 19.06 | 26.46 |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.598 | 0.224 | 0.111 |  |
| lab*tch                      | 0.625 | 0.25  | 0.074 |  |
| lab*nch                      | 0.0   | 0.25  | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.598 | 0.25  | 0.0   |  |
| lab*tce                      | 0.625 | 0.25  | 0.0   |  |
| lab*nce                      | 0.0   | 0.25  | 0.074 |  |

relative Inform. Technology (IT)

|                             |       |      |      |       |
|-----------------------------|-------|------|------|-------|
| olvi3*                      | 0.25  | 0.25 | 0.25 | (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                     | 56.78 | 0.0  | 2.11 |       |
| LAB*Lab                     | 56.78 | 0.0  | 0.0  |       |
| LAB*TChA                    | 50.0  | 0.01 | 0.0  |       |

relative CIELAB lab\*

|                              |     |     |     |  |
|------------------------------|-----|-----|-----|--|
| lab*lab                      | 0.3 | 0.0 | 0.0 |  |
| lab*tch                      | 0.5 | 0.0 | 0.0 |  |
| lab*nch                      | 0.0 | 0.0 | 0.0 |  |
| relative Natural Colour (NC) |     |     |     |  |
| lab*lrj                      | 0.5 | 0.0 | 0.0 |  |
| lab*tce                      | 0.5 | 0.0 | 0.0 |  |
| lab*nce                      | 0.0 | 0.0 | 0.0 |  |

relative Inform. Technology (IT)

|                             |       |      |      |       |
|-----------------------------|-------|------|------|-------|
| olvi3*                      | 0.25  | 0.25 | 0.25 | (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                     | 37.44 | 0.0  | 0.82 |       |
| LAB*Lab                     | 37.44 | 0.0  | 0.0  |       |
| LAB*TChA                    | 25.0  | 0.01 | 0.0  |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.348 | 0.224 | 0.111 |  |
| lab*tch                      | 0.375 | 0.25  | 0.074 |  |
| lab*nch                      | 0.0   | 0.25  | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.348 | 0.25  | 0.0   |  |
| lab*tce                      | 0.375 | 0.25  | 0.0   |  |
| lab*nce                      | 0.0   | 0.25  | 0.074 |  |

relative Inform. Technology (IT)

|                             |       |      |      |       |
|-----------------------------|-------|------|------|-------|
| olvi3*                      | 0.25  | 0.25 | 0.25 | (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                     | 37.44 | 0.0  | 0.82 |       |
| LAB*Lab                     | 37.44 | 0.0  | 0.0  |       |
| LAB*TChA                    | 25.0  | 0.01 | 0.0  |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.348 | 0.224 | 0.111 |  |
| lab*tch                      | 0.375 | 0.25  | 0.074 |  |
| lab*nch                      | 0.0   | 0.25  | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.348 | 0.25  | 0.0   |  |
| lab*tce                      | 0.375 | 0.25  | 0.0   |  |
| lab*nce                      | 0.0   | 0.25  | 0.074 |  |

relative Inform. Technology (IT)

|                             |       |      |      |       |
|-----------------------------|-------|------|------|-------|
| olvi3*                      | 0.25  | 0.25 | 0.25 | (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                     | 37.44 | 0.0  | 0.82 |       |
| LAB*Lab                     | 37.44 | 0.0  | 0.0  |       |
| LAB*TChA                    | 25.0  | 0.01 | 0.0  |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.348 | 0.224 | 0.111 |  |
| lab*tch                      | 0.375 | 0.25  | 0.074 |  |
| lab*nch                      | 0.0   | 0.25  | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.348 | 0.25  | 0.0   |  |
| lab*tce                      | 0.375 | 0.25  | 0.0   |  |
| lab*nce                      | 0.0   | 0.25  | 0.074 |  |

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  | (1.0) |
| cmyn4*                      | 0.0  | 0.0  | 0.0  | (0.0) |
| standard and adapted CIELAB |      |      |      |       |
| LAB*LAB                     | 18.1 | 0.0  | 0.46 |       |
| LAB*Lab                     | 18.1 | 0.0  | 0.0  |       |
| LAB*TChA                    | 0.0  | 0.01 | 0.0  |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.098 | 0.224 | 0.111 |  |
| lab*tch                      | 0.125 | 0.25  | 0.074 |  |
| lab*nch                      | 0.0   | 0.25  | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.098 | 0.25  | 0.0   |  |
| lab*tce                      | 0.125 | 0.25  | 0.0   |  |
| lab*nce                      | 0.0   | 0.25  | 0.074 |  |

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  | (1.0) |
| cmyn4*                      | 0.0  | 0.0  | 0.0  | (0.0) |
| standard and adapted CIELAB |      |      |      |       |
| LAB*LAB                     | 18.1 | 0.0  | 0.46 |       |
| LAB*Lab                     | 18.1 | 0.0  | 0.0  |       |
| LAB*TChA                    | 0.0  | 0.01 | 0.0  |       |

relative CIELAB lab\*

|                              |     |     |     |  |
|------------------------------|-----|-----|-----|--|
| lab*lab                      | 0.0 | 0.0 | 0.0 |  |
| lab*tch                      | 0.0 | 0.0 | 0.0 |  |
| lab*nch                      | 0.0 | 0.0 | 0.0 |  |
| relative Natural Colour (NC) |     |     |     |  |
| lab*lrj                      | 0.0 | 0.0 | 0.0 |  |
| lab*tce                      | 0.0 | 0.0 | 0.0 |  |
| lab*nce                      | 0.0 | 0.0 | 0.0 |  |

relative Inform. Technology (IT)

|                             |      |      |      |       |
|-----------------------------|------|------|------|-------|
| olvi3*                      | 0.0  | 0.0  | 0.0  | (1.0) |
| cmyn3*                      | 1.0  | 1.0  | 1.0  | (0.0) |
| olvi4*                      | 1.0  | 1.0  | 1.0  | (1.0) |
| cmyn4*                      | 0.0  | 0.0  | 0.0  | (0.0) |
| standard and adapted CIELAB |      |      |      |       |
| LAB*LAB                     | 18.1 | 0.0  | 0.46 |       |
| LAB*Lab                     | 18.1 | 0.0  | 0.0  |       |
| LAB*TChA                    | 0.0  | 0.01 | 0.0  |       |

relative CIELAB lab\*

|                              |     |     |     |  |
|------------------------------|-----|-----|-----|--|
| lab*lab                      | 0.0 | 0.0 | 0.0 |  |
| lab*tch                      | 0.0 | 0.0 | 0.0 |  |
| lab*nch                      | 0.0 | 0.0 | 0.0 |  |
| relative Natural Colour (NC) |     |     |     |  |
| lab*lrj                      | 0.0 | 0.0 | 0.0 |  |
| lab*tce                      | 0.0 | 0.0 | 0.0 |  |
| lab*nce                      | 0.0 | 0.0 | 0.0 |  |

## ORS18; adapted (a) CIELAB data

|                  | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------------------|-------------|---------|---------|--------------|--------------|
| O <sub>Ma</sub>  | 47.94       | 65.05   | 50.54   | 82.38        | 38           |
| Y <sub>Ma</sub>  | 91.0        | -4.72   | 90.58   | 90.7         | 93           |
| L <sub>Ma</sub>  | 50.9        | -63.18  | 34.98   | 72.22        | 151          |
| C <sub>Ma</sub>  | 56.99       | -39.34  | -48.1   | 62.16        | 231          |
| V <sub>Ma</sub>  | 25.72       | 30.89   | -44.4   | 54.09        | 305          |
| M <sub>Ma</sub>  | 49.99       | 75.76   | -4.64   | 75.9         | 356          |
| N <sub>Ma</sub>  | 18.09       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>  | 95.46       | 0.0     | 0.0     | 0.0          | 0            |
| R <sub>CIE</sub> | 41.88       | 61.66   | 30.69   | 68.88        | 26           |
| J <sub>CIE</sub> | 81.97       | 2.02    | 67.79   | 67.82        | 88           |
| G <sub>CIE</sub> | 51.62       | -41.32  | 9.74    | 42.46        | 167          |
| B <sub>CIE</sub> | 29.2        | -5.79   | -49.61  | 49.96        | 263          |

%Regularity

$g^*_{H,rel} = 65$

$g^*_{C,rel} = 60$

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  | 1.0   | 1.0   | (1.0) |
| cmyn4*                      | 0.0  | 0.5   | 0.5   | (0.0) |
| standard and adapted CIELAB |      |       |       |       |
| LAB*LAB                     | 72.0 | 34.05 | 20.12 |       |
| LAB*Lab                     | 72.0 | 34.13 | 16.99 |       |
| LAB*TChA                    | 75.0 | 38.12 | 26.46 |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.697 | 0.448 | 0.223 |  |
| lab*tch                      | 0.75  | 0.5   | 0.074 |  |
| lab*nch                      | 0.0   | 0.5   | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.697 | 0.5   | 0.0   |  |
| lab*tce                      | 0.75  | 0.5   | 0.0   |  |
| lab*nce                      | 0.0   | 0.5   | 0.074 |  |

relative Inform. Technology (IT)

|                             |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| olvi3*                      | 0.75  | 0.0   | 0.25  | (1.0) |
| cmyn3*                      | 0.25  | 0.0   | 0.0   | (0.0) |
| olvi4*                      | 1.0   | 0.5   | 0.65  | (1.0) |
| cmyn4*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| standard and adapted CIELAB |       |       |       |       |
| LAB*LAB                     | 52.67 | 34.32 | 18.84 |       |
| LAB*Lab                     | 52.67 | 34.13 | 16.99 |       |
| LAB*TChA                    | 50.0  | 38.13 | 26.46 |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.542 | 0.671 | 0.334 |  |
| lab*tch                      | 0.625 | 0.75  | 0.074 |  |
| lab*nch                      | 0.0   | 0.75  | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.542 | 0.75  | 0.0   |  |
| lab*tce                      | 0.625 | 0.75  | 0.0   |  |
| lab*nce                      | 0.0   | 0.75  | 0.074 |  |

relative Inform. Technology (IT)

|                             |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| olvi3*                      | 0.5   | 0.0   | 0.25  | (1.0) |
| cmyn3*                      | 0.25  | 0.0   | 0.0   | (0.0) |
| olvi4*                      | 1.0   | 0.5   | 0.65  | (1.0) |
| cmyn4*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| standard and adapted CIELAB |       |       |       |       |
| LAB*LAB                     | 40.34 | 51.55 | 26.55 |       |
| LAB*Lab                     | 40.34 | 51.19 | 23.49 |       |
| LAB*TChA                    | 37.51 | 57.19 | 26.47 |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.295 | 0.671 | 0.334 |  |
| lab*tch                      | 0.375 | 0.75  | 0.074 |  |
| lab*nch                      | 0.0   | 0.75  | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.295 | 0.75  | 0.0   |  |
| lab*tce                      | 0.375 | 0.75  | 0.0   |  |
| lab*nce                      | 0.0   | 0.75  | 0.074 |  |

relative Inform. Technology (IT)

|                             |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| olvi3*                      | 0.5   | 0.0   | 0.15  | (1.0) |
| cmyn3*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| olvi4*                      | 1.0   | 0.5   | 0.65  | (1.0) |
| cmyn4*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| standard and adapted CIELAB |       |       |       |       |
| LAB*LAB                     | 33.33 | 34.38 | 17.51 |       |
| LAB*Lab                     | 33.33 | 34.13 | 16.99 |       |
| LAB*TChA                    | 25.01 | 38.12 | 26.47 |       |

relative CIELAB lab\*

|                              |       |       |       |  |
|------------------------------|-------|-------|-------|--|
| lab*lab                      | 0.197 | 0.447 | 0.223 |  |
| lab*tch                      | 0.25  | 0.5   | 0.074 |  |
| lab*nch                      | 0.0   | 0.5   | 0.074 |  |
| relative Natural Colour (NC) |       |       |       |  |
| lab*lrj                      | 0.197 | 0.5   | 0.0   |  |
| lab*tce                      | 0.25  | 0.5   | 0.0   |  |
| lab*nce                      | 0.0   | 0.5   | 0.074 |  |

relative Inform. Technology (IT)

|                             |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| olvi3*                      | 0.25  | 0.0   | 0.0   | (1.0) |
| cmyn3*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| olvi4*                      | 1.0   | 0.5   | 0.65  | (1.0) |
| cmyn4*                      | 0.0   | 0.0   | 0.0   | (0.0) |
| standard and adapted CIELAB |       |       |       |       |
| LAB*LAB                     | 25.71 | 17.0  | 8.54  |       |
| LAB*Lab                     | 25.71 | 17.06 | 8.5   |       |
| LAB*TChA                    | 12.5  | 19.06 | 26.48 |       |

$$n^* = 0,25$$



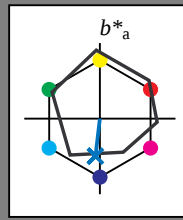


### Input: Colorimetric Offset Reflective System ORS18

for hue  $h^* = lab^*h = 263/360 = 0.731$   
 $lab^*tch$  and  $lab^*nch$

D50: hue B  
LCH\*Ma: 42 47 263  
olv\*Ma: 0.0 0.52 1.0

triangle lightness  $t^*$



| ORS18; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| O <sub>Ma</sub>                | 47.94       | 65.05   | 50.54   | 82.38        | 38           |
| Y <sub>Ma</sub>                | 91.0        | -4.72   | 90.58   | 90.7         | 93           |
| L <sub>Ma</sub>                | 50.9        | -63.18  | 34.98   | 72.22        | 151          |
| C <sub>Ma</sub>                | 56.99       | -39.34  | -48.1   | 62.16        | 231          |
| V <sub>Ma</sub>                | 25.72       | 30.89   | -44.4   | 54.09        | 305          |
| M <sub>Ma</sub>                | 49.99       | 75.76   | -4.64   | 75.9         | 356          |
| N <sub>Ma</sub>                | 18.09       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>                | 95.46       | 0.0     | 0.0     | 0.0          | 0            |
| RC <sub>IE</sub>               | 41.88       | 61.66   | 30.69   | 68.88        | 26           |
| J <sub>CIE</sub>               | 81.97       | 2.02    | 67.79   | 67.82        | 88           |
| G <sub>CIE</sub>               | 51.62       | -41.32  | 9.74    | 42.46        | 167          |
| B <sub>CIE</sub>               | 29.2        | -5.79   | -49.61  | 49.96        | 263          |

%Regularity

$g^*_{H,rel} = 65$

$g^*_{C,rel} = 60$

| relative Inform. Technology (IT) |     |     |
|----------------------------------|-----|-----|
| olv3*                            | 1.0 | 1.0 |
| olv4*                            | 0.0 | 0.0 |
| olv5*                            | 0.0 | 0.0 |
| olv6*                            | 0.0 | 0.0 |
| olv7*                            | 0.0 | 0.0 |
| olv8*                            | 0.0 | 0.0 |
| olv9*                            | 0.0 | 0.0 |
| olv10*                           | 0.0 | 0.0 |
| olv11*                           | 0.0 | 0.0 |
| olv12*                           | 0.0 | 0.0 |
| olv13*                           | 0.0 | 0.0 |
| olv14*                           | 0.0 | 0.0 |
| olv15*                           | 0.0 | 0.0 |
| olv16*                           | 0.0 | 0.0 |
| olv17*                           | 0.0 | 0.0 |
| olv18*                           | 0.0 | 0.0 |
| olv19*                           | 0.0 | 0.0 |
| olv20*                           | 0.0 | 0.0 |
| olv21*                           | 0.0 | 0.0 |
| olv22*                           | 0.0 | 0.0 |
| olv23*                           | 0.0 | 0.0 |
| olv24*                           | 0.0 | 0.0 |
| olv25*                           | 0.0 | 0.0 |
| olv26*                           | 0.0 | 0.0 |
| olv27*                           | 0.0 | 0.0 |
| olv28*                           | 0.0 | 0.0 |
| olv29*                           | 0.0 | 0.0 |
| olv30*                           | 0.0 | 0.0 |
| olv31*                           | 0.0 | 0.0 |
| olv32*                           | 0.0 | 0.0 |
| olv33*                           | 0.0 | 0.0 |
| olv34*                           | 0.0 | 0.0 |
| olv35*                           | 0.0 | 0.0 |
| olv36*                           | 0.0 | 0.0 |
| olv37*                           | 0.0 | 0.0 |
| olv38*                           | 0.0 | 0.0 |
| olv39*                           | 0.0 | 0.0 |
| olv40*                           | 0.0 | 0.0 |
| olv41*                           | 0.0 | 0.0 |
| olv42*                           | 0.0 | 0.0 |
| olv43*                           | 0.0 | 0.0 |
| olv44*                           | 0.0 | 0.0 |
| olv45*                           | 0.0 | 0.0 |
| olv46*                           | 0.0 | 0.0 |
| olv47*                           | 0.0 | 0.0 |
| olv48*                           | 0.0 | 0.0 |
| olv49*                           | 0.0 | 0.0 |
| olv50*                           | 0.0 | 0.0 |
| olv51*                           | 0.0 | 0.0 |
| olv52*                           | 0.0 | 0.0 |
| olv53*                           | 0.0 | 0.0 |
| olv54*                           | 0.0 | 0.0 |
| olv55*                           | 0.0 | 0.0 |
| olv56*                           | 0.0 | 0.0 |
| olv57*                           | 0.0 | 0.0 |
| olv58*                           | 0.0 | 0.0 |
| olv59*                           | 0.0 | 0.0 |
| olv60*                           | 0.0 | 0.0 |
| olv61*                           | 0.0 | 0.0 |
| olv62*                           | 0.0 | 0.0 |
| olv63*                           | 0.0 | 0.0 |
| olv64*                           | 0.0 | 0.0 |
| olv65*                           | 0.0 | 0.0 |
| olv66*                           | 0.0 | 0.0 |
| olv67*                           | 0.0 | 0.0 |
| olv68*                           | 0.0 | 0.0 |
| olv69*                           | 0.0 | 0.0 |
| olv70*                           | 0.0 | 0.0 |
| olv71*                           | 0.0 | 0.0 |
| olv72*                           | 0.0 | 0.0 |
| olv73*                           | 0.0 | 0.0 |
| olv74*                           | 0.0 | 0.0 |
| olv75*                           | 0.0 | 0.0 |
| olv76*                           | 0.0 | 0.0 |
| olv77*                           | 0.0 | 0.0 |
| olv78*                           | 0.0 | 0.0 |
| olv79*                           | 0.0 | 0.0 |
| olv80*                           | 0.0 | 0.0 |
| olv81*                           | 0.0 | 0.0 |
| olv82*                           | 0.0 | 0.0 |
| olv83*                           | 0.0 | 0.0 |
| olv84*                           | 0.0 | 0.0 |
| olv85*                           | 0.0 | 0.0 |
| olv86*                           | 0.0 | 0.0 |
| olv87*                           | 0.0 | 0.0 |
| olv88*                           | 0.0 | 0.0 |
| olv89*                           | 0.0 | 0.0 |
| olv90*                           | 0.0 | 0.0 |
| olv91*                           | 0.0 | 0.0 |
| olv92*                           | 0.0 | 0.0 |
| olv93*                           | 0.0 | 0.0 |
| olv94*                           | 0.0 | 0.0 |
| olv95*                           | 0.0 | 0.0 |
| olv96*                           | 0.0 | 0.0 |
| olv97*                           | 0.0 | 0.0 |
| olv98*                           | 0.0 | 0.0 |
| olv99*                           | 0.0 | 0.0 |
| olv100*                          | 0.0 | 0.0 |

| relative Inform. Technology (IT) |      |      |
|----------------------------------|------|------|
| olv3*                            | 0.75 | 0.75 |
| olv4*                            | 0.25 | 0.25 |
| olv5*                            | 0.0  | 0.0  |
| olv6*                            | 0.0  | 0.0  |
| olv7*                            | 0.0  | 0.0  |
| olv8*                            | 0.0  | 0.0  |
| olv9*                            | 0.0  | 0.0  |
| olv10*                           | 0.0  | 0.0  |
| olv11*                           | 0.0  | 0.0  |
| olv12*                           | 0.0  | 0.0  |
| olv13*                           | 0.0  | 0.0  |
| olv14*                           | 0.0  | 0.0  |
| olv15*                           | 0.0  | 0.0  |
| olv16*                           | 0.0  | 0.0  |
| olv17*                           | 0.0  | 0.0  |
| olv18*                           | 0.0  | 0.0  |
| olv19*                           | 0.0  | 0.0  |
| olv20*                           | 0.0  | 0.0  |
| olv21*                           | 0.0  | 0.0  |
| olv22*                           | 0.0  | 0.0  |
| olv23*                           | 0.0  | 0.0  |
| olv24*                           | 0.0  | 0.0  |
| olv25*                           | 0.0  | 0.0  |
| olv26*                           | 0.0  | 0.0  |
| olv27*                           | 0.0  | 0.0  |
| olv28*                           | 0.0  | 0.0  |
| olv29*                           | 0.0  | 0.0  |
| olv30*                           | 0.0  | 0.0  |
| olv31*                           | 0.0  | 0.0  |
| olv32*                           | 0.0  | 0.0  |
| olv33*                           | 0.0  | 0.0  |
| olv34*                           | 0.0  | 0.0  |
| olv35*                           | 0.0  | 0.0  |
| olv36*                           | 0.0  | 0.0  |
| olv37*                           | 0.0  | 0.0  |
| olv38*                           | 0.0  | 0.0  |
| olv39*                           | 0.0  | 0.0  |
| olv40*                           | 0.0  | 0.0  |
| olv41*                           | 0.0  | 0.0  |
| olv42*                           | 0.0  | 0.0  |
| olv43*                           | 0.0  | 0.0  |
| olv44*                           | 0.0  | 0.0  |
| olv45*                           | 0.0  | 0.0  |
| olv46*                           | 0.0  | 0.0  |
| olv47*                           | 0.0  | 0.0  |
| olv48*                           | 0.0  | 0.0  |
| olv49*                           | 0.0  | 0.0  |
| olv50*                           | 0.0  | 0.0  |
| olv51*                           | 0.0  | 0.0  |
| olv52*                           | 0.0  | 0.0  |
| olv53*                           | 0.0  | 0.0  |
| olv54*                           | 0.0  | 0.0  |
| olv55*                           | 0.0  | 0.0  |
| olv56*                           | 0.0  | 0.0  |
| olv57*                           | 0.0  | 0.0  |
| olv58*                           | 0.0  | 0.0  |
| olv59*                           | 0.0  | 0.0  |
| olv60*                           | 0.0  | 0.0  |
| olv61*                           | 0.0  | 0.0  |
| olv62*                           | 0.0  | 0.0  |
| olv63*                           | 0.0  | 0.0  |
| olv64*                           | 0.0  | 0.0  |
| olv65*                           | 0.0  | 0.0  |
| olv66*                           | 0.0  | 0.0  |
| olv67*                           | 0.0  | 0.0  |
| olv68*                           | 0.0  | 0.0  |
| olv69*                           | 0.0  | 0.0  |
| olv70*                           | 0.0  | 0.0  |
| olv71*                           | 0.0  | 0.0  |
| olv72*                           | 0.0  | 0.0  |
| olv73*                           | 0.0  | 0.0  |
| olv74*                           | 0.0  | 0.0  |
| olv75*                           | 0.0  | 0.0  |
| olv76*                           | 0.0  | 0.0  |
| olv77*                           | 0.0  | 0.0  |
| olv78*                           | 0.0  | 0.0  |
| olv79*                           | 0.0  | 0.0  |
| olv80*                           | 0.0  | 0.0  |
| olv81*                           | 0.0  | 0.0  |
| olv82*                           | 0.0  | 0.0  |
| olv83*                           | 0.0  | 0.0  |
| olv84*                           | 0.0  | 0.0  |
| olv85*                           | 0.0  | 0.0  |
| olv86*                           | 0.0  | 0.0  |
| olv87*                           | 0.0  | 0.0  |
| olv88*                           | 0.0  | 0.0  |
| olv89*                           | 0.0  | 0.0  |
| olv90*                           | 0.0  | 0.0  |
| olv91*                           | 0.0  | 0.0  |
| olv92*                           | 0.0  | 0.0  |
| olv93*                           | 0.0  | 0.0  |
| olv94*                           | 0.0  | 0.0  |
| olv95*                           | 0.0  | 0.0  |
| olv96*                           | 0.0  | 0.0  |
| olv97*                           | 0.0  | 0.0  |
| olv98*                           | 0.0  | 0.0  |
| olv99*                           | 0.0  | 0.0  |
| olv100*                          | 0.0  | 0.0  |

| relative Inform. Technology (IT) |      |      |
|----------------------------------|------|------|
| olv3*                            | 0.75 | 0.75 |
| olv4*                            | 0.25 | 0.25 |
| olv5*                            | 0.0  | 0.0  |
| olv6*                            | 0.0  | 0.0  |
| olv7*                            | 0.0  | 0.0  |
| olv8*                            | 0.0  | 0.0  |
| olv9*                            | 0.0  | 0.0  |
| olv10*                           | 0.0  | 0.0  |
| olv11*                           | 0.0  | 0.0  |
| olv12*                           | 0.0  | 0.0  |
| olv13*                           | 0.0  | 0.0  |
| olv14*                           | 0.0  | 0.0  |
| olv15*                           | 0.0  | 0.0  |
| olv16*                           | 0.0  | 0.0  |
| olv17*                           | 0.0  | 0.0  |
| olv18*                           | 0.0  | 0.0  |
| olv19*                           | 0.0  | 0.0  |
| olv20*                           | 0.0  | 0.0  |
| olv21*                           | 0.0  | 0.0  |
| olv22*                           | 0.0  | 0.0  |
| olv23*                           | 0.0  | 0.0  |
| olv24*                           | 0.0  | 0.0  |
| olv25*                           | 0.0  | 0.0  |
| olv26*                           | 0.0  | 0.0  |
| olv27*                           | 0.0  | 0.0  |
| olv28*                           | 0.0  | 0.0  |
| olv29*                           | 0.0  | 0.0  |
| olv30*                           | 0.0  | 0.0  |
| olv31*                           | 0.0  | 0.0  |
| olv32*                           | 0.0  | 0.0  |
| olv33*                           | 0.0  | 0.0  |
| olv34*                           | 0.0  | 0.0  |
| olv35*                           | 0.0  | 0.0  |
| olv36*                           | 0.0  | 0.0  |
| olv37*                           | 0.0  | 0.0  |
| olv38*                           | 0.0  | 0.0  |
| olv39*                           | 0.0  | 0.0  |
| olv40*                           | 0.0  | 0.0  |
| olv41*                           | 0.0  | 0.0  |
| olv42*                           | 0.0  | 0.0  |
| olv43*                           | 0.0  | 0.0  |
| olv44*                           | 0.0  | 0.0  |
| olv45*                           | 0.0  | 0.0  |
| olv46*                           | 0.0  | 0.0  |
| olv47*                           | 0.0  | 0.0  |
| olv48*                           | 0.0  | 0.0  |
| olv49*                           | 0.0  | 0.0  |
| olv50*                           | 0.0  | 0.0  |
| olv51*                           | 0.0  | 0.0  |
| olv52*                           | 0.0  | 0.0  |
| olv53*                           | 0.0  | 0.0  |
| olv54*                           | 0.0  | 0.0  |
| olv55*                           | 0.0  | 0.0  |
| olv56*                           | 0.0  | 0.0  |
| olv57*                           | 0.0  | 0.0  |
| olv58*                           | 0.0  | 0.0  |
| olv59*                           | 0.0  | 0.0  |
| olv60*                           | 0.0  | 0.0  |
| olv61*                           | 0.0  | 0.0  |
| olv62*                           | 0.0  | 0.0  |
| olv63*                           | 0.0  | 0.0  |
| olv64*                           | 0.0  | 0.0  |
| olv65*                           | 0.0  | 0.0  |
| olv66*                           | 0.0  | 0.0  |
| olv67*                           | 0.0  | 0.0  |
| olv68*                           | 0.0  | 0.0  |
| olv69*                           | 0.0  | 0.0  |
| olv70*                           | 0.0  | 0.0  |
| olv71*                           | 0.0  | 0.0  |
| olv72*                           | 0.0  | 0.0  |
| olv73*                           | 0.0  | 0.0  |
| olv74*                           | 0.0  | 0.0  |
| olv75*                           | 0.0  | 0.0  |
| olv76*                           | 0.0  | 0.0  |
| olv77*                           | 0.0  | 0.0  |
| olv78*                           | 0.0  | 0.0  |
| olv79*                           | 0.0  | 0.0  |
| olv80*                           | 0.0  | 0.0  |
| olv81*                           | 0.0  | 0.0  |
| olv82*                           | 0.0  | 0.0  |
| olv83*                           | 0.0  | 0.0  |
| olv84*                           | 0.0  | 0.0  |
| olv85*                           | 0.0  | 0.0  |
| olv86*                           | 0.0  | 0.0  |
| olv87*                           | 0.0  | 0.0  |
| olv88*                           | 0.0  | 0.0  |
| olv89*                           | 0.0  | 0.0  |
| olv90*                           | 0.0  | 0.0  |
| olv91*                           | 0.0  | 0.0  |
| olv92*                           | 0.0  | 0.0  |
| olv93*                           | 0.0  | 0.0  |
| olv94*                           | 0.0  | 0.0  |
| olv95*                           | 0.0  | 0.0  |
| olv96*                           | 0.0  | 0.0  |
| olv97*                           | 0.0  | 0.0  |
| olv98*                           | 0.0  | 0.0  |
| olv99*                           | 0.0  | 0.0  |
| olv100*                          | 0.0  | 0.0  |

| relative Inform. Technology (IT) |       |                  |
|----------------------------------|-------|------------------|
| olv3*                            | 0.5   | 0.629 0.75 (1.0) |
| cmy3*                            | 0.5   | 0.371 0.25 (0.0) |
| olv4*                            | 0.75  | 0.879 1.0 0.75   |
| cmy4*                            | 0.25  | 0.121 0.0 0.25   |
| standard and adapted CIELAB      |       |                  |
| LAB*LAB                          | 62.72 | -1.29 -9.05      |
| LAB*LABa                         | 62.72 | -1.34 -11.57     |
| LAB*LABb                         | 62.5  | 11.66 263.34     |