

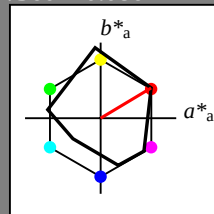
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 31/360 = 0.086$  $lab^*tch$  and  $lab^*nch$ 

D65: hue R

LCH\*Ma: 50 78 31

olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

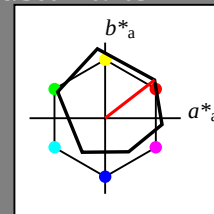
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 38/360 = 0.105$  $lab^*tch$  and  $lab^*nch$ 

D65: hue O

LCH\*Ma: 48 83 38

olv\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)  
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$

standard and adapted CIELAB  
 $LAB^*LAB = 95.41 \ -0.97 \ 4.75$   
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 99.99 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 1.0 \ 0.0 \ 0.0$   
 $lab^*tch = 1.0 \ 0.0 \ -$   
 $lab^*nch = 0.0 \ 0.0 \ -$

relative Natural Colour (NC)  
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$   
 $lab^*tce = 1.0 \ 0.0 \ -$   
 $lab^*nce = 0.0 \ 0.0 \ -$

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

standard and adapted CIELAB  
 $LAB^*LAB = 56.71 \ -0.23 \ 2.14$   
 $LAB^*LABa = 56.71 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.5 \ 0.0 \ 0.0$   
 $lab^*tch = 0.5 \ 0.0 \ -$   
 $lab^*nch = 0.5 \ 0.0 \ -$

relative Natural Colour (NC)  
 $lab^*lrj = 0.5 \ 0.0 \ 0.0$   
 $lab^*tce = 0.5 \ 0.0 \ -$   
 $lab^*nce = 0.5 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 1.0$

standard and adapted CIELAB  
 $LAB^*LAB = 18.02 \ 0.5 \ -0.46$   
 $LAB^*LABa = 18.02 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 0.01 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.0 \ 0.0 \ 0.0$   
 $lab^*tch = 0.0 \ 0.0 \ -$   
 $lab^*nch = 1.0 \ 0.0 \ -$

relative Natural Colour (NC)  
 $lab^*lrj = 0.0 \ 0.0 \ 0.0$   
 $lab^*tce = 0.0 \ 0.0 \ -$   
 $lab^*nce = 1.0 \ 0.0 \ -$

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

standard and adapted CIELAB  
 $LAB^*LAB = 71.67 \ 32.15 \ 28.41$   
 $LAB^*LABa = 71.67 \ 32.68 \ 25.25$   
 $LAB^*TCHa = 75.0 \ 41.3 \ 37.7$

relative CIELAB lab\*  
 $lab^*lab = 0.693 \ 0.396 \ 0.306$   
 $lab^*tch = 0.75 \ 0.5 \ 0.105$   
 $lab^*nch = 0.0 \ 0.5 \ 0.105$

relative Natural Colour (NC)  
 $lab^*lrj = 0.693 \ 0.477 \ 0.15$   
 $lab^*tce = 0.75 \ 0.5 \ 0.048$   
 $lab^*nce = 0.0 \ 0.5 \ r19j$

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

standard and adapted CIELAB  
 $LAB^*LAB = 32.98 \ 32.9 \ 25.8$   
 $LAB^*LABa = 32.98 \ 32.68 \ 25.25$   
 $LAB^*TCHa = 25.01 \ 41.3 \ 37.7$

relative CIELAB lab\*  
 $lab^*lab = 0.193 \ 0.396 \ 0.306$   
 $lab^*tch = 0.25 \ 0.5 \ 0.105$   
 $lab^*nch = 0.5 \ 0.5 \ 0.105$

relative Natural Colour (NC)  
 $lab^*lrj = 0.193 \ 0.477 \ 0.15$   
 $lab^*tce = 0.25 \ 0.5 \ 0.048$   
 $lab^*nce = 0.5 \ 0.5 \ r19j$

relative Inform. Technology (IT)  
 $olvi3^* = 1.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 0.0 \ 0.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 1.0 \ 1.0 \ 0.0$

standard and adapted CIELAB  
 $LAB^*LAB = 47.95 \ 65.29 \ 52.06$   
 $LAB^*LABa = 47.95 \ 65.36 \ 50.51$   
 $LAB^*TCHa = 50.0 \ 82.6 \ 37.7$

relative CIELAB lab\*  
 $lab^*lab = 0.387 \ 0.791 \ 0.611$   
 $lab^*tch = 0.5 \ 1.0 \ 0.105$   
 $lab^*nch = 0.0 \ 1.0 \ 0.105$

relative Natural Colour (NC)  
 $lab^*lrj = 0.387 \ 0.954 \ 0.299$   
 $lab^*tce = 0.5 \ 1.0 \ 0.048$   
 $lab^*nce = 0.0 \ 1.0 \ r19j$

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

0,25 0,50  $n^* = 0,50$  0,75 1,00  
 chromaticness  $c^*$

 $n^* = 1,0$ 

TE060-7, 3 step scales for constant CIELAB hue 31/360 = 0.086 (left)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

3 step scales for constant CIELAB hue 38/360 = 0.105 (right)

input: olv\* setrgbcolor

output: Startup (S) data dependend

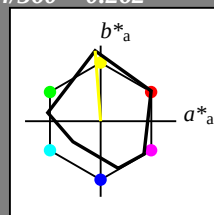
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 94/360 = 0.262$  $lab^*tch$  and  $lab^*nch$ 

D65: hue J

LCH\*Ma: 91 93 94

olv\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

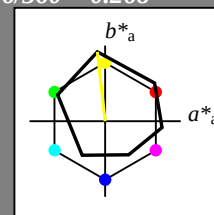
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 96/360 = 0.268$  $lab^*tch$  and  $lab^*nch$ 

D65: hue Y

LCH\*Ma: 90 92 96

olv\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)  
 $olvi3^*$  1.0 1.0 1.0 (1.0)  
 $cmyn3^*$  0.0 0.0 0.0 (0.0)  
 $olvi4^*$  1.0 1.0 1.0 1.0  
 $cmyn4^*$  0.0 0.0 0.0 0.0

standard and adapted CIELAB  
 $LAB^*LAB$  95.41 -0.97 4.75  
 $LAB^*LABa$  95.41 0.0 0.0  
 $LAB^*TCHa$  99.99 0.01 -

relative CIELAB lab\*  
 $lab^*lab$  1.0 0.0 0.0  
 $lab^*tch$  1.0 0.0 -  
 $lab^*nch$  0.0 0.0 -

relative Natural Colour (NC)  
 $lab^*lrj$  1.0 0.0 0.0  
 $lab^*tce$  1.0 0.0 -  
 $lab^*nce$  0.0 0.0 -

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

standard and adapted CIELAB  
 $LAB^*LAB$  56.71 -0.23 2.14  
 $LAB^*LABa$  56.71 0.0 0.0  
 $LAB^*TCHa$  50.0 0.01 -

relative CIELAB lab\*  
 $lab^*lab$  0.5 0.0 0.0  
 $lab^*tch$  0.5 0.0 -  
 $lab^*nch$  0.5 0.0 -

relative Natural Colour (NC)  
 $lab^*lrj$  0.5 0.0 0.0  
 $lab^*tce$  0.5 0.0 -  
 $lab^*nce$  0.5 0.0 -

relative Inform. Technology (IT)  
 $olvi3^*$  0.0 0.0 0.0 (1.0)  
 $cmyn3^*$  1.0 1.0 1.0 (0.0)  
 $olvi4^*$  1.0 1.0 1.0 0.0  
 $cmyn4^*$  0.0 0.0 0.0 1.0

standard and adapted CIELAB  
 $LAB^*LAB$  18.02 0.5 -0.46  
 $LAB^*LABa$  18.02 0.0 0.0  
 $LAB^*TCHa$  0.01 0.01 -

relative CIELAB lab\*  
 $lab^*lab$  0.0 0.0 0.0  
 $lab^*tch$  0.0 0.0 -  
 $lab^*nch$  1.0 0.0 -

relative Natural Colour (NC)  
 $lab^*lrj$  0.0 0.0 0.0  
 $lab^*tce$  0.0 0.0 -  
 $lab^*nce$  1.0 0.0 -

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

standard and adapted CIELAB  
 $LAB^*LAB$  92.88 -6.06 50.46  
 $LAB^*LABa$  92.88 -5.13 45.87  
 $LAB^*TCHa$  75.0 46.16 96.39

relative CIELAB lab\*  
 $lab^*lab$  0.967 -0.055 0.497  
 $lab^*tch$  0.75 0.5 0.268  
 $lab^*nch$  0.0 0.5 0.268

relative Natural Colour (NC)  
 $lab^*lrj$  0.967 -0.048 0.497  
 $lab^*tce$  0.75 0.5 0.266  
 $lab^*nce$  0.0 0.5 j06g

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

standard and adapted CIELAB  
 $LAB^*LAB$  54.19 -5.32 47.85  
 $LAB^*LABa$  54.19 -5.13 45.87  
 $LAB^*TCHa$  25.01 46.16 96.39

relative CIELAB lab\*  
 $lab^*lab$  0.467 -0.055 0.497  
 $lab^*tch$  0.25 0.5 0.268  
 $lab^*nch$  0.5 0.5 0.268

relative Natural Colour (NC)  
 $lab^*lrj$  0.467 -0.048 0.497  
 $lab^*tce$  0.25 0.5 0.266  
 $lab^*nce$  0.5 0.5 j06g

relative Inform. Technology (IT)  
 $olvi3^*$  1.0 1.0 0.0 (1.0)  
 $cmyn3^*$  0.0 0.0 1.0 (0.0)  
 $olvi4^*$  1.0 1.0 0.0 1.0  
 $cmyn4^*$  0.0 0.0 1.0 0.0

standard and adapted CIELAB  
 $LAB^*LAB$  90.37 -11.15 96.17  
 $LAB^*LABa$  90.37 -10.26 91.75  
 $LAB^*TCHa$  50.0 92.32 96.39

relative CIELAB lab\*  
 $lab^*lab$  0.935 -0.11 0.994  
 $lab^*tch$  0.5 1.0 0.268  
 $lab^*nch$  0.0 1.0 0.268

relative Natural Colour (NC)  
 $lab^*lrj$  0.935 -0.097 0.995  
 $lab^*tce$  0.5 1.0 0.266  
 $lab^*nce$  0.0 1.0 j06g

0,25 0,50 0,75 1,00  
 chromaticness  $c^*$

blackness  $n^*$  $n^* = 0,00$  $n^* = 1,0$ 

TE060-7, 3 step scales for constant CIELAB hue 94/360 = 0.262 (left)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

3 step scales for constant CIELAB hue 96/360 = 0.268 (right)

input:  $olv^* setrgbcolor$ 

output: Startup (S) data dependend

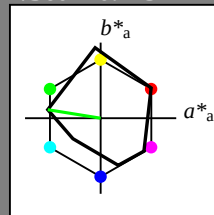
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 171/360 = 0.475$  $lab^*tch$  and  $lab^*nch$ 

D65: hue G

LCH\*Ma: 52 71 171

olv\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

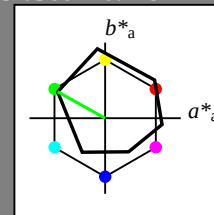
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 151/360 = 0.419$  $lab^*tch$  and  $lab^*nch$ 

D65: hue L

LCH\*Ma: 51 72 151

olv\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)  
 $olvi3^*$  1.0 1.0 1.0 (1.0)  
 $cmyn3^*$  0.0 0.0 0.0 (0.0)  
 $olvi4^*$  1.0 1.0 1.0 1.0  
 $cmyn4^*$  0.0 0.0 0.0 0.0

standard and adapted CIELAB

LAB\*LAB 95.41 -0.97 4.75

LAB\*LABa 95.41 0.0 0.0

LAB\*TCa 99.99 0.01 -

relative CIELAB lab\*

lab\*lab 1.0 0.0 0.0

lab\*tch 1.0 0.0 -

lab\*nch 0.0 0.0 -

relative Natural Colour (NC)

lab\*lrj 1.0 0.0 0.0

lab\*tce 1.0 0.0 -

lab\*nce 0.0 0.0 -

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

standard and adapted CIELAB

LAB\*LAB 56.71 -0.23 2.14

LAB\*LABa 56.71 0.0 0.0

LAB\*TCa 50.0 0.01 -

relative CIELAB lab\*

lab\*lab 0.5 0.0 0.0

lab\*tch 0.5 0.0 -

lab\*nch 0.5 0.0 -

relative Natural Colour (NC)

lab\*lrj 0.5 0.0 0.0

lab\*tce 0.5 0.0 -

lab\*nce 0.5 0.0 -

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

standard and adapted CIELAB

LAB\*LAB 73.15 -31.94 20.73

LAB\*LABa 73.15 -31.38 17.47

LAB\*TCa 75.0 35.93 150.91

relative CIELAB lab\*

lab\*lab 0.712 -0.436 0.243

lab\*tch 0.75 0.5 0.419

lab\*nch 0.0 0.5 0.419

relative Natural Colour (NC)

lab\*lrj 0.712 -0.478 0.144

lab\*tce 0.75 0.5 0.453

lab\*nce 0.0 0.5 j81g

relative Inform. Technology (IT)  
 $olvi3^*$  0.0 1.0 0.0 (1.0)  
 $cmyn3^*$  1.0 0.0 1.0 (0.0)  
 $olvi4^*$  0.0 1.0 0.0 1.0  
 $cmyn4^*$  1.0 0.0 1.0 0.0

standard and adapted CIELAB

LAB\*LAB 50.9 -62.91 36.69

LAB\*LABa 50.9 -62.78 34.94

LAB\*TCa 50.0 71.86 150.91

relative CIELAB lab\*

lab\*lab 0.425 -0.873 0.486

lab\*tch 0.5 1.0 0.419

lab\*nch 0.0 1.0 0.419

relative Natural Colour (NC)

lab\*lrj 0.425 -0.956 0.289

lab\*tce 0.5 1.0 0.453

lab\*nce 0.0 1.0 j81g

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

standard and adapted CIELAB

LAB\*LAB 34.46 -31.2 18.11

LAB\*LABa 34.46 -31.38 17.47

LAB\*TCa 25.01 35.93 150.91

relative CIELAB lab\*

lab\*lab 0.213 -0.436 0.243

lab\*tch 0.25 0.5 0.419

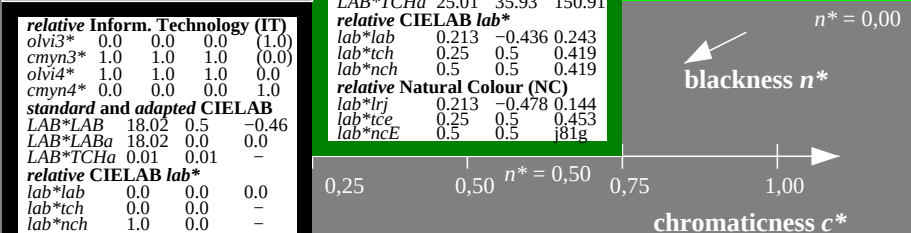
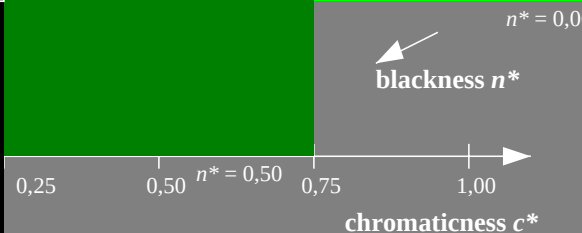
lab\*nch 0.5 0.5 0.419

relative Natural Colour (NC)

lab\*lrj 0.213 -0.478 0.144

lab\*tce 0.25 0.5 0.453

lab\*nce 0.5 0.5 j81g



TE060-7, 3 step scales for constant CIELAB hue 171/360 = 0.475 (left)

3 step scales for constant CIELAB hue 151/360 = 0.419 (right)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

input: olv\* setrgbcolor

output: Startup (S) data dependend

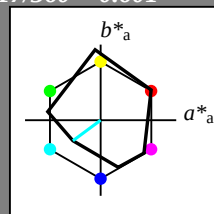
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 217/360 = 0.601$  $lab^*tch$  and  $lab^*nch$ 

D65: hue G50B

LCH\*Ma: 45 46 217

olv\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

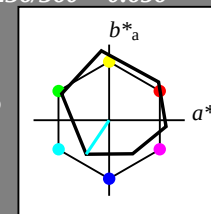
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 236/360 = 0.656$  $lab^*tch$  and  $lab^*nch$ 

D65: hue C

LCH\*Ma: 59 54 236

olv\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 95.41 | -0.97 | 4.75 |
| LAB*LABa | 95.41 | 0.0   | 0.0  |
| LAB*TCHa | 99.99 | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 1.0 | 0.0 | 0.0 |
| lab*tch | 1.0 | 0.0 | -   |
| lab*nch | 0.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 1.0 | 0.0 | 0.0 |
| lab*tce | 1.0 | 0.0 | -   |
| lab*nce | 0.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 56.71 | -0.23 | 2.14 |
| LAB*LABa | 56.71 | 0.0   | 0.0  |
| LAB*TCHa | 50.0  | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.5 | 0.0 | 0.0 |
| lab*tch | 0.5 | 0.0 | -   |
| lab*nch | 0.5 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.5 | 0.0 | 0.0 |
| lab*tce | 0.5 | 0.0 | -   |
| lab*nce | 0.5 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |      |       |
|----------|-------|------|-------|
| LAB*LAB  | 18.02 | 0.5  | -0.46 |
| LAB*LABa | 18.02 | 0.0  | 0.0   |
| LAB*TCHa | 0.01  | 0.01 | -     |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.0 | 0.0 | 0.0 |
| lab*tch | 0.0 | 0.0 | -   |
| lab*nch | 1.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.0 | 0.0 | 0.0 |
| lab*tce | 0.0 | 0.0 | -   |
| lab*nce | 1.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 77.01 | -15.79 | -18.98 |
| LAB*LABa | 77.01 | -15.16 | -22.5  |
| LAB*TCHa | 75.0  | 27.15  | 236.01 |

relative CIELAB lab\*

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lab | 0.762 | -0.278 | -0.413 |
| lab*tch | 0.75  | 0.5    | 0.656  |
| lab*nch | 0.0   | 0.5    | 0.656  |

relative Natural Colour (NC)

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lrj | 0.762 | -0.247 | -0.433 |
| lab*tce | 0.75  | 0.5    | 0.667  |
| lab*nce | 0.0   | 0.5    | g66b   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 38.32 | -15.05 | -21.59 |
| LAB*LABa | 38.32 | -15.16 | -22.5  |
| LAB*TCHa | 25.01 | 27.15  | 236.01 |

relative CIELAB lab\*

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lab | 0.262 | -0.278 | -0.413 |
| lab*tch | 0.25  | 0.5    | 0.656  |
| lab*nch | 0.5   | 0.5    | 0.656  |

relative Natural Colour (NC)

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lrj | 0.262 | -0.247 | -0.433 |
| lab*tce | 0.25  | 0.5    | 0.667  |
| lab*nce | 0.5   | 0.5    | g66b   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 58.62 | -30.62 | -42.73 |
| LAB*LABa | 58.62 | -30.34 | -45.01 |
| LAB*TCHa | 50.0  | 54.29  | 236.01 |

relative CIELAB lab\*

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lab | 0.525 | -0.558 | -0.828 |
| lab*tch | 0.5   | 1.0    | 0.656  |
| lab*nch | 0.0   | 1.0    | 0.656  |

relative Natural Colour (NC)

|         |       |        |        |
|---------|-------|--------|--------|
| lab*lrj | 0.525 | -0.496 | -0.867 |
| lab*tce | 0.5   | 1.0    | 0.667  |
| lab*nce | 0.0   | 1.0    | g66b   |

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

TE060-7, 3 step scales for constant CIELAB hue 217/360 = 0.601 (left)

3 step scales for constant CIELAB hue 236/360 = 0.656 (right)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

input: olv\* setrgbcolor

output: Startup (S) data dependend



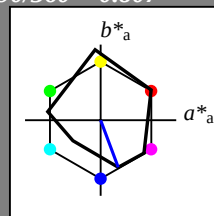
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 290/360 = 0.807$  $lab^*tch$  and  $lab^*nch$ 

D65: hue B

LCH\*Ma: 37 66 290

olv\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

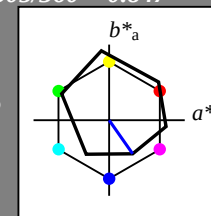
## Output: Colorimetric Reflective System ORS18

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

D65: hue V

LCH\*Ma: 26 54 305

olv\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 95.41 | -0.97 | 4.75 |
| LAB*LABa | 95.41 | 0.0   | 0.0  |
| LAB*TCHa | 99.99 | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 1.0 | 0.0 | 0.0 |
| lab*tch | 1.0 | 0.0 | -   |
| lab*nch | 0.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 1.0 | 0.0 | 0.0 |
| lab*tce | 1.0 | 0.0 | -   |
| lab*nce | 0.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 56.71 | -0.23 | 2.14 |
| LAB*LABa | 56.71 | 0.0   | 0.0  |
| LAB*TCHa | 50.0  | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.5 | 0.0 | 0.0 |
| lab*tch | 0.5 | 0.0 | -   |
| lab*nch | 0.5 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.5 | 0.0 | 0.0 |
| lab*tce | 0.5 | 0.0 | -   |
| lab*nce | 0.5 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |      |       |
|----------|-------|------|-------|
| LAB*LAB  | 18.02 | 0.5  | -0.46 |
| LAB*LABa | 18.02 | 0.0  | 0.0   |
| LAB*TCHa | 0.01  | 0.01 | -     |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.0 | 0.0 | 0.0 |
| lab*tch | 0.0 | 0.0 | -   |
| lab*nch | 1.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.0 | 0.0 | 0.0 |
| lab*tce | 0.0 | 0.0 | -   |
| lab*nce | 1.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 60.56 | 15.24 | -19.79 |
| LAB*LABa | 60.56 | 15.55 | -22.2  |
| LAB*TCHa | 75.0  | 27.11 | 305.0  |

relative CIELAB lab\*

|         |      |       |        |
|---------|------|-------|--------|
| lab*lab | 0.55 | 0.287 | -0.408 |
| lab*tch | 0.75 | 0.5   | 0.847  |
| lab*nch | 0.0  | 0.5   | 0.847  |

relative Natural Colour (NC)

|         |      |       |        |
|---------|------|-------|--------|
| lab*lrj | 0.55 | 0.225 | -0.446 |
| lab*tce | 0.75 | 0.5   | 0.824  |
| lab*nce | 0.0  | 0.5   | 0.824  |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 21.87 | 15.98 | -22.4 |
| LAB*LABa | 21.87 | 15.55 | -22.2 |
| LAB*TCHa | 25.01 | 27.11 | 305.0 |

relative CIELAB lab\*

|         |      |       |        |
|---------|------|-------|--------|
| lab*lab | 0.05 | 0.287 | -0.408 |
| lab*tch | 0.25 | 0.5   | 0.847  |
| lab*nch | 0.5  | 0.5   | 0.847  |

relative Natural Colour (NC)

|         |      |       |        |
|---------|------|-------|--------|
| lab*lrj | 0.05 | 0.225 | -0.446 |
| lab*tce | 0.25 | 0.5   | 0.824  |
| lab*nce | 0.5  | 0.5   | 0.824  |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

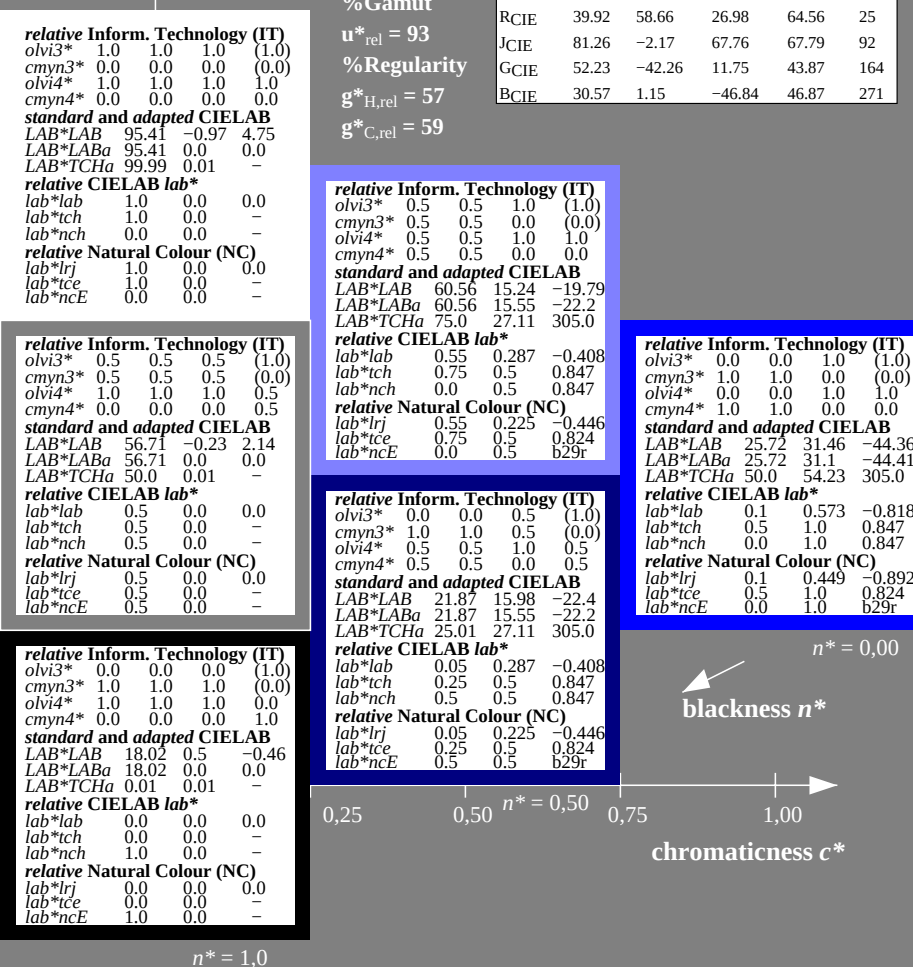
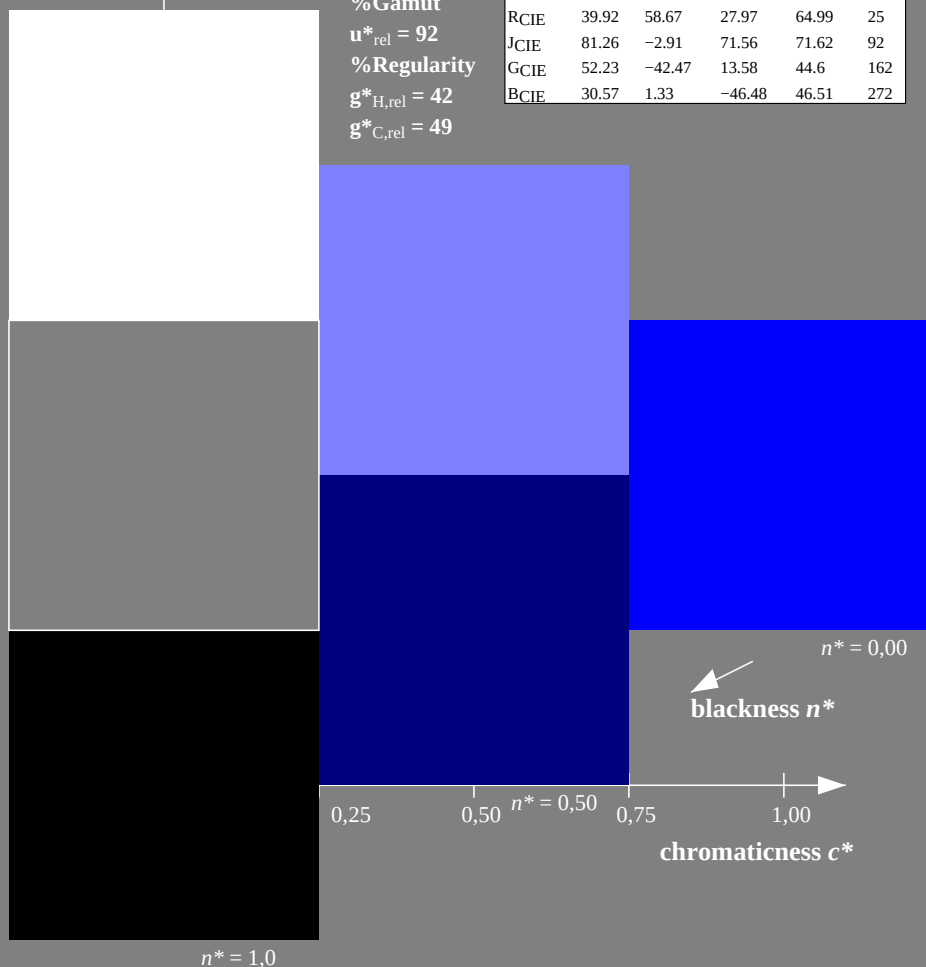
|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 25.72 | 31.46 | -44.36 |
| LAB*LABa | 25.72 | 31.1  | -44.41 |
| LAB*TCHa | 50.0  | 54.23 | 305.0  |

relative CIELAB lab\*

|         |     |       |        |
|---------|-----|-------|--------|
| lab*lab | 0.1 | 0.573 | -0.818 |
| lab*tch | 0.5 | 1.0   | 0.847  |
| lab*nch | 0.0 | 1.0   | 0.847  |

relative Natural Colour (NC)

|         |     |       |        |
|---------|-----|-------|--------|
| lab*lrj | 0.1 | 0.449 | -0.892 |
| lab*tce | 0.5 | 1.0   | 0.824  |
| lab*nce | 0.0 | 1.0   | 0.824  |



TE060-7, 3 step scales for constant CIELAB hue 290/360 = 0.807 (left)

3 step scales for constant CIELAB hue 305/360 = 0.847 (right)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

input: olv\* setrgbcolor

output: Startup (S) data dependend

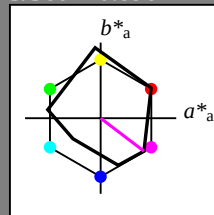
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 323/360 = 0.896$  $lab^*tch$  and  $lab^*nch$ 

D65: hue B50R

LCH\*Ma: 35 72 323

olv\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

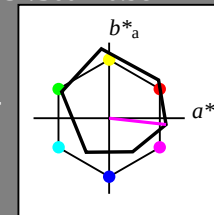
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 354/360 = 0.982$  $lab^*tch$  and  $lab^*nch$ 

D65: hue M

LCH\*Ma: 48 76 354

olv\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 95.41 | -0.97 | 4.75 |
| LAB*LABa | 95.41 | 0.0   | 0.0  |
| LAB*TCHa | 99.99 | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 1.0 | 0.0 | 0.0 |
| lab*tch | 1.0 | 0.0 | -   |
| lab*nch | 0.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 1.0 | 0.0 | 0.0 |
| lab*tce | 1.0 | 0.0 | -   |
| lab*nce | 0.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 56.71 | -0.23 | 2.14 |
| LAB*LABa | 56.71 | 0.0   | 0.0  |
| LAB*TCHa | 50.0  | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.5 | 0.0 | 0.0 |
| lab*tch | 0.5 | 0.0 | -   |
| lab*nch | 0.5 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.5 | 0.0 | 0.0 |
| lab*tce | 0.5 | 0.0 | -   |
| lab*nce | 0.5 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |      |       |
|----------|-------|------|-------|
| LAB*LAB  | 18.02 | 0.5  | -0.46 |
| LAB*LABa | 18.02 | 0.0  | 0.0   |
| LAB*TCHa | 0.01  | 0.01 | -     |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.0 | 0.0 | 0.0 |
| lab*tch | 0.0 | 0.0 | -   |
| lab*nch | 1.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.0 | 0.0 | 0.0 |
| lab*tce | 0.0 | 0.0 | -   |
| lab*nce | 1.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 71.77 | 37.1  | -1.01  |
| LAB*LABa | 71.77 | 37.63 | -4.17  |
| LAB*TCHa | 75.0  | 37.86 | 353.66 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.695 | 0.497 | -0.054 |
| lab*tch | 0.75  | 0.5   | 0.982  |
| lab*nch | 0.0   | 0.5   | 0.982  |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.695 | 0.454 | -0.208 |
| lab*tce | 0.75  | 0.5   | 0.932  |
| lab*nce | 0.0   | 0.5   | 0.72r  |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 33.08 | 37.84 | -3.62  |
| LAB*LABa | 33.08 | 37.63 | -4.17  |
| LAB*TCHa | 25.01 | 37.86 | 353.66 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.195 | 0.497 | -0.054 |
| lab*tch | 0.25  | 0.5   | 0.982  |
| lab*nch | 0.5   | 0.5   | 0.982  |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.195 | 0.454 | -0.208 |
| lab*tce | 0.25  | 0.5   | 0.932  |
| lab*nce | 0.5   | 0.5   | 0.72r  |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 48.14 | 75.18 | -6.78  |
| LAB*LABa | 48.14 | 75.25 | -8.35  |
| LAB*TCHa | 50.0  | 75.71 | 353.66 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.389 | 0.994 | -0.109 |
| lab*tch | 0.5   | 1.0   | 0.982  |
| lab*nch | 0.0   | 1.0   | 0.982  |

relative Natural Colour (NC)

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lrj | 0.389 | 0.909 | -0.416 |
| lab*tce | 0.5   | 1.0   | 0.932  |
| lab*nce | 0.0   | 1.0   | 0.72r  |

0,25 0,50 0,75 1,00  
chromaticness  $c^*$

blackness  $n^*$  $n^* = 0,00$  $n^* = 1,0$ 

TE060-7, 3 step scales for constant CIELAB hue 323/360 = 0.896 (left)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

3 step scales for constant CIELAB hue 354/360 = 0.982 (right)

input: olv\* setrgbcolor

output: Startup (S) data dependend

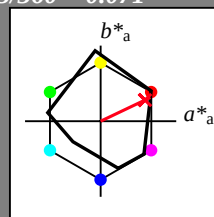
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 25/360 = 0.071$  $lab^*tch$  and  $lab^*nch$ 

D65: hue R

LCH\*Ma: 48 73 25

olv\*Ma: 1.0 0.0 0.1

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

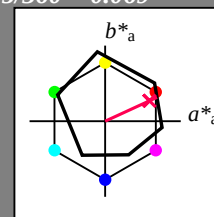
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 25/360 = 0.069$  $lab^*tch$  and  $lab^*nch$ 

D65: hue R

LCH\*Ma: 48 75 25

olv\*Ma: 1.0 0.0 0.32

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 95.41 | -0.97 | 4.75 |
| LAB*LABa | 95.41 | 0.0   | 0.0  |
| LAB*TCHa | 99.99 | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 1.0 | 0.0 | 0.0 |
| lab*tch | 1.0 | 0.0 | -   |
| lab*nch | 0.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 1.0 | 0.0 | 0.0 |
| lab*tce | 1.0 | 0.0 | -   |
| lab*nce | 0.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 56.71 | -0.23 | 2.14 |
| LAB*LABa | 56.71 | 0.0   | 0.0  |
| LAB*TCHa | 50.0  | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.5 | 0.0 | 0.0 |
| lab*tch | 0.5 | 0.0 | -   |
| lab*nch | 0.5 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.5 | 0.0 | 0.0 |
| lab*tce | 0.5 | 0.0 | -   |
| lab*nce | 0.5 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |      |       |
|----------|-------|------|-------|
| LAB*LAB  | 18.02 | 0.5  | -0.46 |
| LAB*LABa | 18.02 | 0.0  | 0.0   |
| LAB*TCHa | 0.01  | 0.01 | -     |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.0 | 0.0 | 0.0 |
| lab*tch | 0.0 | 0.0 | -   |
| lab*nch | 1.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.0 | 0.0 | 0.0 |
| lab*tce | 0.0 | 0.0 | -   |
| lab*nce | 1.0 | 0.0 | -   |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 1.0 | 0.5 | 0.661 | (1.0) |
| cmyn3* | 0.0 | 0.5 | 0.339 | (0.0) |
| olvi4* | 1.0 | 0.5 | 0.661 | 1.0   |
| cmyn4* | 0.0 | 0.5 | 0.339 | 0.0   |

standard and adapted CIELAB

|          |      |       |       |
|----------|------|-------|-------|
| LAB*LAB  | 71.7 | 33.75 | 18.92 |
| LAB*LABa | 71.7 | 34.27 | 15.76 |
| LAB*TCHa | 75.0 | 37.72 | 24.69 |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.694 | 0.454 | 0.209 |
| lab*tch | 0.75  | 0.5   | 0.069 |
| lab*nch | 0.0   | 0.5   | 0.069 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.694 | 0.5 | 0.0   |
| lab*tce | 0.75  | 0.5 | 1.0   |
| lab*nce | 0.0   | 0.5 | 0.99r |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.5 | 0.0 | 0.161 | (1.0) |
| cmyn3* | 0.5 | 1.0 | 0.839 | (0.0) |
| olvi4* | 1.0 | 0.5 | 0.661 | 0.5   |
| cmyn4* | 0.0 | 0.5 | 0.339 | 0.5   |

standard and adapted CIELAB

|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 33.01 | 34.49 | 16.31 |
| LAB*LABa | 33.01 | 34.27 | 15.77 |
| LAB*TCHa | 25.01 | 37.73 | 24.7  |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.194 | 0.454 | 0.209 |
| lab*tch | 0.25  | 0.5   | 0.069 |
| lab*nch | 0.5   | 0.5   | 0.069 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.194 | 0.5 | 0.0   |
| lab*tce | 0.25  | 0.5 | 0.0   |
| lab*nce | 0.5   | 0.5 | 0.00j |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 1.0 | 0.0 | 0.322 | (1.0) |
| cmyn3* | 0.0 | 1.0 | 0.678 | (0.0) |
| olvi4* | 1.0 | 0.0 | 0.323 | 1.0   |
| cmyn4* | 0.0 | 1.0 | 0.677 | 0.0   |

standard and adapted CIELAB

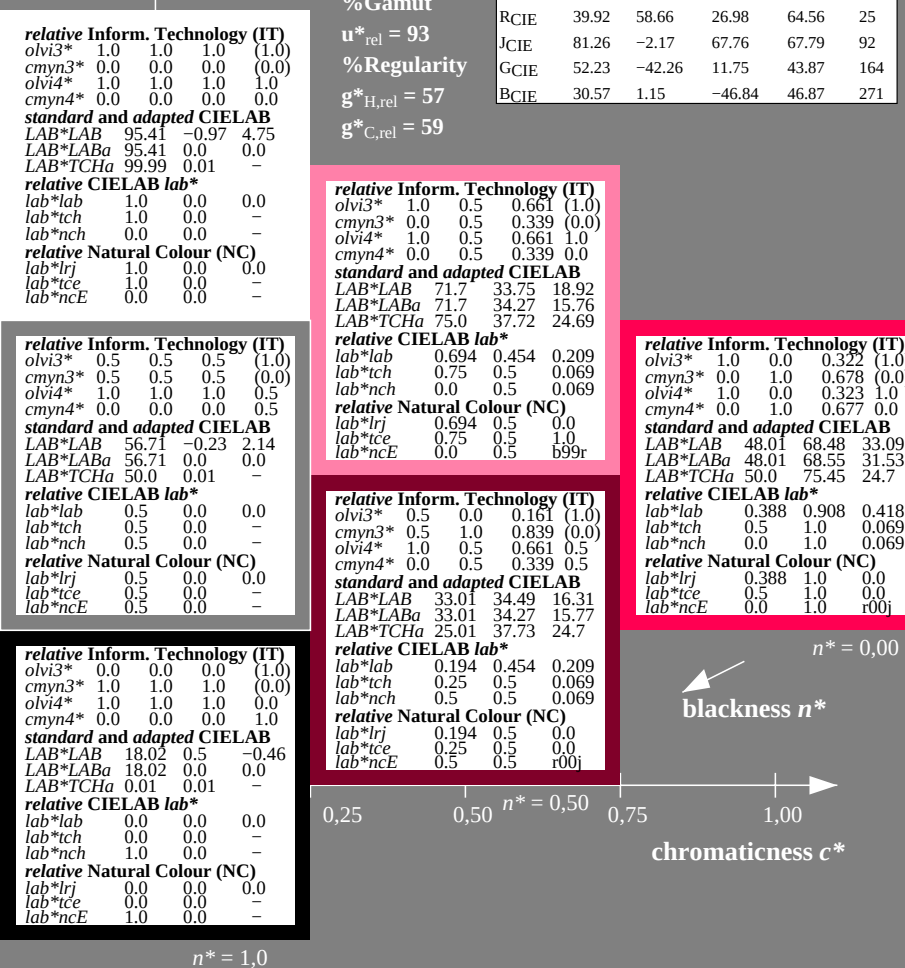
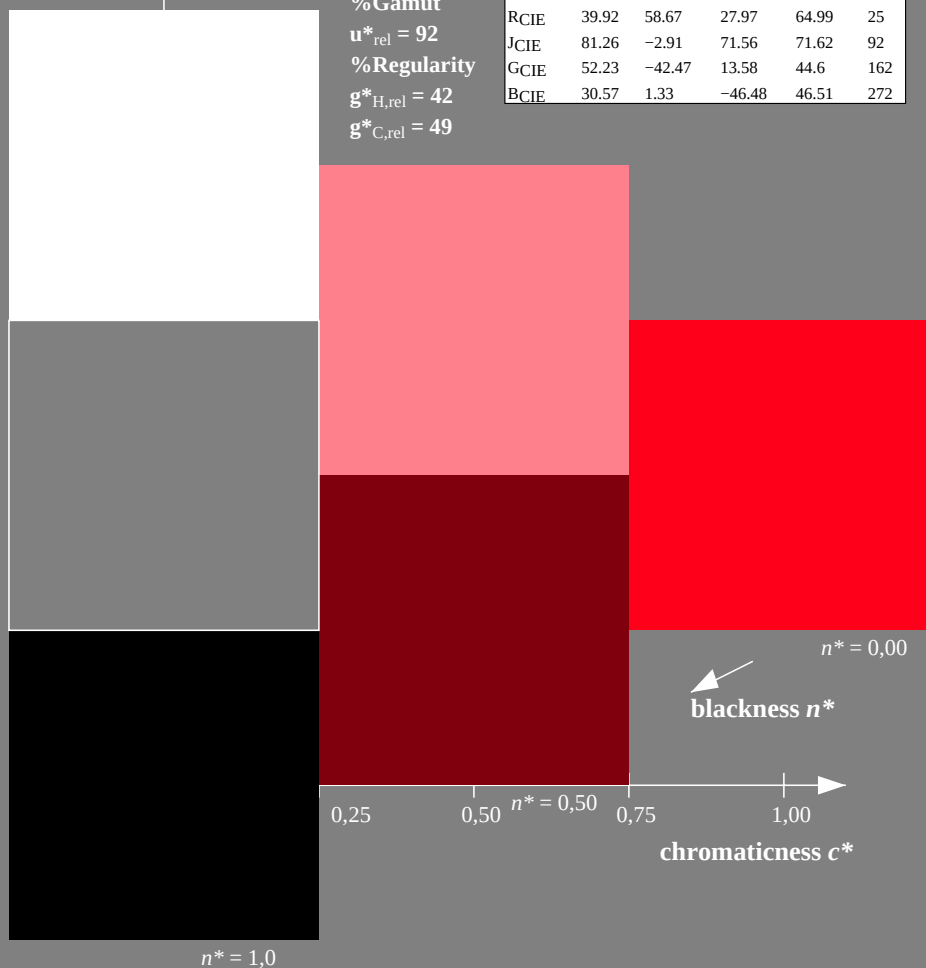
|          |       |       |       |
|----------|-------|-------|-------|
| LAB*LAB  | 48.01 | 68.48 | 33.09 |
| LAB*LABa | 48.01 | 68.55 | 31.53 |
| LAB*TCHa | 50.0  | 75.45 | 24.7  |

relative CIELAB lab\*

|         |       |       |       |
|---------|-------|-------|-------|
| lab*lab | 0.388 | 0.908 | 0.418 |
| lab*tch | 0.5   | 1.0   | 0.069 |
| lab*nch | 0.0   | 1.0   | 0.069 |

relative Natural Colour (NC)

|         |       |     |       |
|---------|-------|-----|-------|
| lab*lrj | 0.388 | 1.0 | 0.0   |
| lab*tce | 0.5   | 1.0 | 0.0   |
| lab*nce | 0.0   | 1.0 | 0.00j |



TE060-7, 3 step scales for constant CIELAB hue 25/360 = 0.071 (left)

3 step scales for constant CIELAB hue 25/360 = 0.069 (right)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

input: olv\* setrgbcolor

output: Startup (S) data dependend

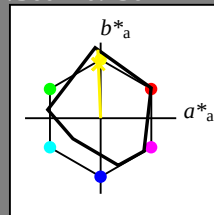
## Input: Colorimetric Reflective System MRS18a

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

D65: hue J

LCH\*Ma: 89 91 92

olv\*Ma: 1.0 0.95 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

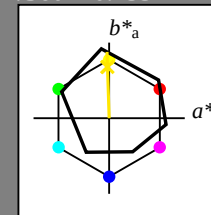
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 92/360 = 0.255$  $lab^*tch$  and  $lab^*nch$ 

D65: hue J

LCH\*Ma: 86 88 92

olv\*Ma: 1.0 0.9 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)  
 $olvi3^*$  1.0 1.0 1.0 (1.0)  
 $cmyn3^*$  0.0 0.0 0.0 (0.0)  
 $olvi4^*$  1.0 1.0 1.0 1.0  
 $cmyn4^*$  0.0 0.0 0.0 0.0

standard and adapted CIELAB  
 $LAB^*LAB$  95.41 -0.97 4.75  
 $LAB^*LABa$  95.41 0.0 0.0  
 $LAB^*TCHa$  99.99 0.01 -

relative CIELAB lab\*  
 $lab^*lab$  1.0 0.0 0.0  
 $lab^*tch$  1.0 0.0 -  
 $lab^*nch$  0.0 0.0 -

relative Natural Colour (NC)  
 $lab^*lrj$  1.0 0.0 0.0  
 $lab^*tce$  1.0 0.0 -  
 $lab^*nce$  0.0 0.0 -

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

standard and adapted CIELAB  
 $LAB^*LAB$  56.71 -0.23 2.14  
 $LAB^*LABa$  56.71 0.0 0.0  
 $LAB^*TCHa$  50.0 0.01 -

relative CIELAB lab\*  
 $lab^*lab$  0.5 0.0 0.0  
 $lab^*tch$  0.5 0.0 -  
 $lab^*nch$  0.5 0.0 -

relative Natural Colour (NC)  
 $lab^*lrj$  0.5 0.0 0.0  
 $lab^*tce$  0.5 0.0 -  
 $lab^*nce$  0.5 0.0 -

relative Inform. Technology (IT)  
 $olvi3^*$  0.0 0.0 0.0 (1.0)  
 $cmyn3^*$  1.0 1.0 1.0 (0.0)  
 $olvi4^*$  1.0 1.0 1.0 0.0  
 $cmyn4^*$  0.0 0.0 0.0 1.0

standard and adapted CIELAB  
 $LAB^*LAB$  18.02 0.5 -0.46  
 $LAB^*LABa$  18.02 0.0 0.0  
 $LAB^*TCHa$  0.01 0.01 -

relative CIELAB lab\*  
 $lab^*lab$  0.0 0.0 0.0  
 $lab^*tch$  0.0 0.0 -  
 $lab^*nch$  1.0 0.0 -

relative Natural Colour (NC)  
 $lab^*lrj$  0.0 0.0 0.0  
 $lab^*tce$  0.0 0.0 -  
 $lab^*nce$  1.0 0.0 -

relative Inform. Technology (IT)  
 $olvi3^*$  1.0 0.951 0.5 (1.0)  
 $cmyn3^*$  0.0 0.049 0.5 (0.0)  
 $olvi4^*$  1.0 0.951 0.5 1.0  
 $cmyn4^*$  0.0 0.049 0.5 0.0

standard and adapted CIELAB  
 $LAB^*LAB$  90.8 -2.3 48.29  
 $LAB^*LABa$  90.8 -1.41 43.85  
 $LAB^*TCHa$  75.0 43.87 91.85

relative CIELAB lab\*  
 $lab^*lab$  0.94 -0.015 0.5  
 $lab^*tch$  0.75 0.5 0.255  
 $lab^*nch$  0.0 0.5 0.255

relative Natural Colour (NC)  
 $lab^*lrj$  0.94 0.0 0.5  
 $lab^*tce$  0.75 0.5 0.25  
 $lab^*nce$  0.0 0.5 j00g

relative Inform. Technology (IT)  
 $olvi3^*$  0.5 0.451 0.0 (1.0)  
 $cmyn3^*$  0.5 0.549 1.0 (0.0)  
 $olvi4^*$  1.0 0.951 0.5 0.5  
 $cmyn4^*$  0.0 0.049 0.5 0.5

standard and adapted CIELAB  
 $LAB^*LAB$  52.1 -1.55 45.68  
 $LAB^*LABa$  52.1 -1.4 43.84  
 $LAB^*TCHa$  25.01 43.87 91.84

relative CIELAB lab\*  
 $lab^*lab$  0.44 -0.015 0.5  
 $lab^*tch$  0.25 0.5 0.255  
 $lab^*nch$  0.5 0.5 0.255

relative Natural Colour (NC)  
 $lab^*lrj$  0.44 0.0 0.5  
 $lab^*tce$  0.25 0.5 0.25  
 $lab^*nce$  0.5 0.5 j99j

relative Inform. Technology (IT)  
 $olvi3^*$  1.0 0.901 0.0 (1.0)  
 $cmyn3^*$  0.0 0.099 1.0 (0.0)  
 $olvi4^*$  1.0 0.902 0.0 1.0  
 $cmyn4^*$  0.0 0.098 1.0 0.0

standard and adapted CIELAB  
 $LAB^*LAB$  86.19 -3.62 91.83  
 $LAB^*LABa$  86.19 -2.82 87.69  
 $LAB^*TCHa$  50.0 87.73 91.85

relative CIELAB lab\*  
 $lab^*lab$  0.881 -0.031 0.999  
 $lab^*tch$  0.5 1.0 0.255  
 $lab^*nch$  0.0 1.0 0.255

relative Natural Colour (NC)  
 $lab^*lrj$  0.881 0.0 1.0  
 $lab^*tce$  0.5 1.0 0.25  
 $lab^*nce$  0.0 1.0 j00g

0,25 0,50 0,75 1,00  
 chromaticness  $c^*$

blackness  $n^*$  $n^* = 0,00$  $n^* = 1,0$ 

TE060-7, 3 step scales for constant CIELAB hue 92/360 = 0.256 (left)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

3 step scales for constant CIELAB hue 92/360 = 0.255 (right)

input:  $olv^* setrgbcolor$ 

output: Startup (S) data dependend



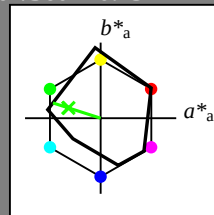
## Input: Colorimetric Reflective System MRS18a

for hue  $h^* = lab^*h = 162/360 = 0.451$  $lab^*tch$  and  $lab^*nch$ 

D65: hue G

LCH\*Ma: 56 66 162

olv\*Ma: 0.11 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

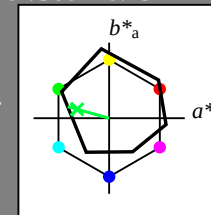
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 164/360 = 0.457$  $lab^*tch$  and  $lab^*nch$ 

D65: hue G

LCH\*Ma: 53 57 164

olv\*Ma: 0.0 1.0 0.25

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 95.41 | -0.97 | 4.75 |
| LAB*LABa | 95.41 | 0.0   | 0.0  |
| LAB*TCHa | 99.99 | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 1.0 | 0.0 | 0.0 |
| lab*tch | 1.0 | 0.0 | -   |
| lab*nch | 0.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 1.0 | 0.0 | 0.0 |
| lab*tce | 1.0 | 0.0 | -   |
| lab*nce | 0.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 56.71 | -0.23 | 2.14 |
| LAB*LABa | 56.71 | 0.0   | 0.0  |
| LAB*TCHa | 50.0  | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.5 | 0.0 | 0.0 |
| lab*tch | 0.5 | 0.0 | -   |
| lab*nch | 0.5 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.5 | 0.0 | 0.0 |
| lab*tce | 0.5 | 0.0 | -   |
| lab*nce | 0.5 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |      |       |
|----------|-------|------|-------|
| LAB*LAB  | 18.02 | 0.5  | -0.46 |
| LAB*LABa | 18.02 | 0.0  | 0.0   |
| LAB*TCHa | 0.01  | 0.01 | -     |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.0 | 0.0 | 0.0 |
| lab*tch | 0.0 | 0.0 | -   |
| lab*nch | 1.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.0 | 0.0 | 0.0 |
| lab*tce | 0.0 | 0.0 | -   |
| lab*nce | 1.0 | 0.0 | -   |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.5 | 1.0 | 0.623 | (1.0) |
| cmyn3* | 0.5 | 0.0 | 0.377 | (0.0) |
| olvi4* | 0.5 | 1.0 | 0.623 | 1.0   |
| cmyn4* | 0.5 | 0.0 | 0.377 | 0.0   |

standard and adapted CIELAB

|          |      |        |        |
|----------|------|--------|--------|
| LAB*LAB  | 74.1 | -27.96 | 10.94  |
| LAB*LABa | 74.1 | -27.39 | 7.62   |
| LAB*TCHa | 75.0 | 28.44  | 164.46 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.725 | -0.481 | 0.134 |
| lab*tch | 0.75  | 0.5    | 0.457 |
| lab*nch | 0.0   | 0.5    | 0.457 |

relative Natural Colour (NC)

|         |       |        |      |
|---------|-------|--------|------|
| lab*lrj | 0.725 | -0.499 | 0.0  |
| lab*tce | 0.75  | 0.5    | 0.5  |
| lab*nce | 0.0   | 0.5    | g00b |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.0 | 0.5 | 0.123 | (1.0) |
| cmyn3* | 1.0 | 0.5 | 0.877 | (0.0) |
| olvi4* | 0.5 | 1.0 | 0.623 | 0.5   |
| cmyn4* | 0.5 | 0.0 | 0.377 | 0.5   |

standard and adapted CIELAB

|          |       |        |        |
|----------|-------|--------|--------|
| LAB*LAB  | 35.41 | -27.22 | 8.34   |
| LAB*LABa | 35.41 | -27.39 | 7.63   |
| LAB*TCHa | 25.01 | 28.44  | 164.45 |

relative CIELAB lab\*

|         |       |        |       |
|---------|-------|--------|-------|
| lab*lab | 0.225 | -0.481 | 0.134 |
| lab*tch | 0.25  | 0.5    | 0.457 |
| lab*nch | 0.5   | 0.5    | 0.457 |

relative Natural Colour (NC)

|         |       |        |      |
|---------|-------|--------|------|
| lab*lrj | 0.225 | -0.499 | 0.0  |
| lab*tce | 0.25  | 0.5    | 0.5  |
| lab*nce | 0.5   | 0.5    | g99g |

relative Inform. Technology (IT)

|        |     |     |       |       |
|--------|-----|-----|-------|-------|
| olvi3* | 0.0 | 1.0 | 0.246 | (1.0) |
| cmyn3* | 1.0 | 0.0 | 0.754 | (0.0) |
| olvi4* | 0.0 | 1.0 | 0.246 | 1.0   |
| cmyn4* | 1.0 | 0.0 | 0.754 | 0.0   |

standard and adapted CIELAB

|          |      |        |        |
|----------|------|--------|--------|
| LAB*LAB  | 52.8 | -54.95 | 17.13  |
| LAB*LABa | 52.8 | -54.79 | 15.24  |
| LAB*TCHa | 50.0 | 56.88  | 164.45 |

relative CIELAB lab\*

|         |      |        |       |
|---------|------|--------|-------|
| lab*lab | 0.45 | -0.962 | 0.268 |
| lab*tch | 0.5  | 1.0    | 0.457 |
| lab*nch | 0.0  | 1.0    | 0.457 |

relative Natural Colour (NC)

|         |      |        |      |
|---------|------|--------|------|
| lab*lrj | 0.45 | -0.999 | 0.0  |
| lab*tce | 0.5  | 1.0    | 0.5  |
| lab*nce | 0.0  | 1.0    | g99g |

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

TE060-7, 3 step scales for constant CIELAB hue 162/360 = 0.451 (left)

3 step scales for constant CIELAB hue 164/360 = 0.457 (right)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

input: olv\* setrgbcolor

output: Startup (S) data dependend

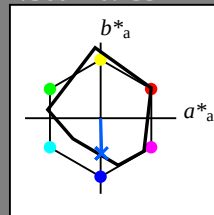
## Input: Colorimetric Reflective System MRS18a

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

D65: hue B

LCH\*Ma: 40 49 272

olv\*Ma: 0.0 0.36 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 92$ 

%Regularity

 $g^*_{H,rel} = 42$  $g^*_{C,rel} = 49$ 

## MRS18a; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.8    | 40.02   | 77.87        | 31           |
| JMa    | 90.7        | -7.27   | 93.19   | 93.48        | 94           |
| GMa    | 52.11       | -69.93  | 11.26   | 70.85        | 171          |
| G50BMa | 45.03       | -36.65  | -27.13  | 45.61        | 217          |
| BMa    | 36.65       | 23.26   | -62.27  | 66.49        | 290          |
| B50RMa | 34.94       | 57.27   | -43.6   | 71.99        | 323          |
| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.67   | 27.97   | 64.99        | 25           |
| JCIE   | 81.26       | -2.91   | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.47  | 13.58   | 44.6         | 162          |
| BCIE   | 30.57       | 1.33    | -46.48  | 46.51        | 272          |

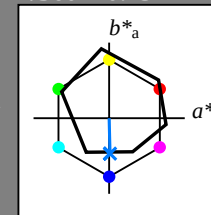
## Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab^*h = 271/360 = 0.754$  $lab^*tch$  and  $lab^*nch$ 

D65: hue B

LCH\*Ma: 42 45 271

olv\*Ma: 0.0 0.49 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 93$ 

%Regularity

 $g^*_{H,rel} = 57$  $g^*_{C,rel} = 59$ 

## ORS18; adapted (a) CIELAB data

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| OMa  | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa  | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa  | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa  | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa  | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa  | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa  | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa  | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 95.41 | -0.97 | 4.75 |
| LAB*LABa | 95.41 | 0.0   | 0.0  |
| LAB*TCHa | 99.99 | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 1.0 | 0.0 | 0.0 |
| lab*tch | 1.0 | 0.0 | -   |
| lab*nch | 0.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 1.0 | 0.0 | 0.0 |
| lab*tce | 1.0 | 0.0 | -   |
| lab*nce | 0.0 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |       |      |
|----------|-------|-------|------|
| LAB*LAB  | 56.71 | -0.23 | 2.14 |
| LAB*LABa | 56.71 | 0.0   | 0.0  |
| LAB*TCHa | 50.0  | 0.01  | -    |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.5 | 0.0 | 0.0 |
| lab*tch | 0.5 | 0.0 | -   |
| lab*nch | 0.5 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.5 | 0.0 | 0.0 |
| lab*tce | 0.5 | 0.0 | -   |
| lab*nce | 0.5 | 0.0 | -   |

relative Inform. Technology (IT)

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

standard and adapted CIELAB

|          |       |      |       |
|----------|-------|------|-------|
| LAB*LAB  | 18.02 | 0.5  | -0.46 |
| LAB*LABa | 18.02 | 0.0  | 0.0   |
| LAB*TCHa | 0.01  | 0.01 | -     |

relative CIELAB lab\*

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lab | 0.0 | 0.0 | 0.0 |
| lab*tch | 0.0 | 0.0 | -   |
| lab*nch | 1.0 | 0.0 | -   |

relative Natural Colour (NC)

|         |     |     |     |
|---------|-----|-----|-----|
| lab*lrj | 0.0 | 0.0 | 0.0 |
| lab*tce | 0.0 | 0.0 | -   |
| lab*nce | 1.0 | 0.0 | -   |

relative Inform. Technology (IT)

|        |     |       |     |       |
|--------|-----|-------|-----|-------|
| olvi3* | 0.5 | 0.744 | 1.0 | (1.0) |
| cmyn3* | 0.5 | 0.256 | 0.0 | (0.0) |
| olvi4* | 0.5 | 0.744 | 1.0 | 1.0   |
| cmyn4* | 0.5 | 0.256 | 0.0 | 0.0   |

standard and adapted CIELAB

|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 68.59 | 0.08  | -19.4  |
| LAB*LABa | 68.59 | 0.54  | -22.35 |
| LAB*TCHa | 75.0  | 22.36 | 271.4  |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.654 | 0.012 | -0.499 |
| lab*tch | 0.75  | 0.5   | 0.754  |
| lab*nch | 0.0   | 0.5   | 0.754  |

relative Natural Colour (NC)

|         |       |     |        |
|---------|-------|-----|--------|
| lab*lrj | 0.654 | 0.0 | -0.499 |
| lab*tce | 0.75  | 0.5 | 0.75   |
| lab*nce | 0.0   | 0.5 | g99b   |

relative Inform. Technology (IT)

|        |     |       |     |       |
|--------|-----|-------|-----|-------|
| olvi3* | 0.0 | 0.244 | 0.5 | (1.0) |
| cmyn3* | 1.0 | 0.756 | 0.5 | (0.0) |
| olvi4* | 0.5 | 0.744 | 1.0 | 0.5   |
| cmyn4* | 0.5 | 0.256 | 0.0 | 0.5   |

standard and adapted CIELAB

|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 29.9  | 0.83  | -22.01 |
| LAB*LABa | 29.9  | 0.55  | -22.35 |
| LAB*TCHa | 25.01 | 22.36 | 271.41 |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.154 | 0.012 | -0.499 |
| lab*tch | 0.25  | 0.5   | 0.754  |
| lab*nch | 0.5   | 0.5   | 0.754  |

relative Natural Colour (NC)

|         |       |     |        |
|---------|-------|-----|--------|
| lab*lrj | 0.154 | 0.0 | -0.499 |
| lab*tce | 0.25  | 0.5 | 0.75   |
| lab*nce | 0.5   | 0.5 | b00r   |

relative Inform. Technology (IT)

|        |     |       |     |       |
|--------|-----|-------|-----|-------|
| olvi3* | 0.0 | 0.488 | 1.0 | (1.0) |
| cmyn3* | 1.0 | 0.512 | 0.0 | (0.0) |
| olvi4* | 0.0 | 0.488 | 1.0 | 1.0   |
| cmyn4* | 1.0 | 0.512 | 0.0 | 0.0   |

standard and adapted CIELAB

|          |       |       |        |
|----------|-------|-------|--------|
| LAB*LAB  | 41.79 | 1.14  | -43.56 |
| LAB*LABa | 41.79 | 1.1   | -44.7  |
| LAB*TCHa | 50.0  | 44.73 | 271.4  |

relative CIELAB lab\*

|         |       |       |        |
|---------|-------|-------|--------|
| lab*lab | 0.307 | 0.024 | -0.998 |
| lab*tch | 0.5   | 1.0   | 0.754  |
| lab*nch | 0.0   | 1.0   | 0.754  |

relative Natural Colour (NC)

|         |       |     |        |
|---------|-------|-----|--------|
| lab*lrj | 0.307 | 0.0 | -0.999 |
| lab*tce | 0.5   | 1.0 | 0.75   |
| lab*nce | 0.0   | 1.0 | b00r   |

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

blackness  $n^*$

chromaticness  $c^*$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,0$

TE060-7, 3 step scales for constant CIELAB hue 272/360 = 0.755 (left)

3 step scales for constant CIELAB hue 271/360 = 0.754 (right)

BAM-test chart TE06; Colorimetric systems ORS18 &amp; ORS18

D65: 3 step colour scales and coordinate data for 10 hues

input: olv\* setrgbcolor

output: Startup (S) data dependend