

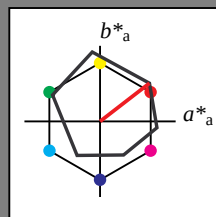
## Input: Colorimetric Reflective System ORS18

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

D65: hue O

LCH\*Ma: 48 83 38

rgb\*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

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

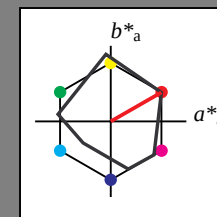
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = lab^*h = 30/360 = 0.083$  $lab^*ich$  and  $lab^*nch$ 

D65: hue R

LCH\*Ma: 50 77 30

rgb\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 91$ 

%Regularity

 $g^*_{H,rel} = 41$  $g^*_{C,rel} = 52$ 

## MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

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

1,00

0,75

0,50

0,25

0,00

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

UE600-7, 3 step scales for constant CIELAB hue 38/360 = 0.105 (left)



BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

5 step scales for constant CIELAB hue 30/360 = 0.083 (right)

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*

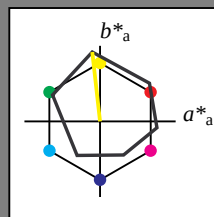
Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 96/360 = 0.268$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue Y

LCH\*Ma: 90 92 96

rgb\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

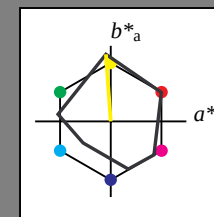
Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 94/360 = 0.261$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue J

LCH\*Ma: 91 89 94

rgb\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{H,\text{rel}} = 41$  $g^*_{C,\text{rel}} = 52$ 

MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

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

1,00

0,75

0,50

0,25

0,00

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

UE600-7, 3 step scales for constant CIELAB hue 96/360 = 0.268 (left)

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

BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*

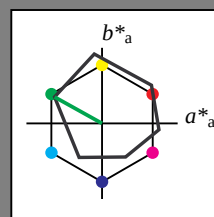
## Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 151/360 = 0.419$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue L

LCH\*Ma: 51 72 151

rgb\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

## ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

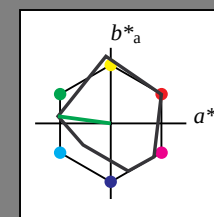
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 172/360 = 0.479$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue G

LCH\*Ma: 52 70 172

rgb\*Ma: 0.0 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{H,\text{rel}} = 41$  $g^*_{C,\text{rel}} = 52$ 

## MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

 $n^* = 1,00$  $n^* = 0,50$  $n^* = 0,00$ blackness  $n^*$ 

0,25

0,50

0,75

1,00

chromaticness  $c^*$ 

1,00

0,75

0,50

0,25

0,00

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

0,25

0,50

0,75

1,00

chromaticness  $c^*$ 

UE600-7, 3 step scales for constant CIELAB hue 151/360 = 0.419 (left)

5 step scales for constant CIELAB hue 172/360 = 0.479 (right)

BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*

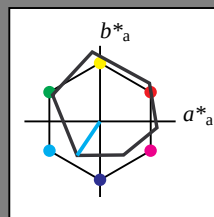
## Input: Colorimetric Reflective System ORS18

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

D65: hue C

LCH\*Ma: 59 54 236

rgb\*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

|                    | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------|-------------|---------|---------|--------------|--------------|
| RMa                | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa                | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa                | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50B <sub>Ma</sub> | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| B <sub>Ma</sub>    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50R <sub>Ma</sub> | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| N <sub>Ma</sub>    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>    | 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          |

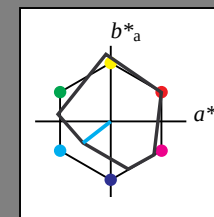
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = lab^*h = 218/360 = 0.605$  $lab^*ich$  and  $lab^*nch$ 

D65: hue G50B

LCH\*Ma: 45 46 218

rgb\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{rel} = 91$ 

%Regularity

 $g^*_{H,rel} = 41$  $g^*_{C,rel} = 52$ 

## MRS18; adapted (a) CIELAB data

|                    | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------|-------------|---------|---------|--------------|--------------|
| RMa                | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa                | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa                | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50B <sub>Ma</sub> | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| B <sub>Ma</sub>    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50R <sub>Ma</sub> | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| N <sub>Ma</sub>    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>    | 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          |

1,00

0,75

0,50

0,25

0,00

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

1,00

0,75

0,50

0,25

0,00

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

UE600-7, 3 step scales for constant CIELAB hue 236/360 = 0.656 (left)



BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

5 step scales for constant CIELAB hue 218/360 = 0.605 (right)

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*

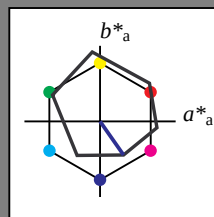
## Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 305/360 = 0.847$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue V

LCH\*Ma: 26 54 305

rgb\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

## ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

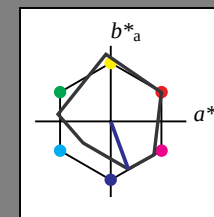
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 290/360 = 0.806$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue B

LCH\*Ma: 37 67 290

rgb\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{H,\text{rel}} = 41$  $g^*_{C,\text{rel}} = 52$ 

## MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

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

1,00

0,75

0,50

0,25

0,00

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

UE600-7, 3 step scales for constant CIELAB hue 305/360 = 0.847 (left)



BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

5 step scales for constant CIELAB hue 290/360 = 0.806 (right)

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*

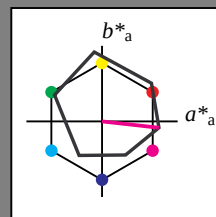
## Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 354/360 = 0.982$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue M

LCH\*Ma: 48 76 354

rgb\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

## ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

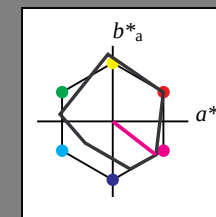
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 322/360 = 0.895$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue B50R

LCH\*Ma: 35 72 322

rgb\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{H,\text{rel}} = 41$  $g^*_{C,\text{rel}} = 52$ 

## MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

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

1,00

0,75

0,50

0,25

0,00

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

UE600-7, 3 step scales for constant CIELAB hue 354/360 = 0.982 (left)



BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

5 step scales for constant CIELAB hue 322/360 = 0.895 (right)

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*

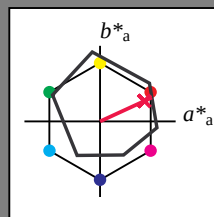
## Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 25/360 = 0.069$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue R

LCH\*Ma: 48 75 25

rgb\*Ma: 1.0 0.0 0.32

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

## ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

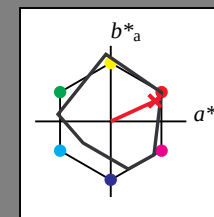
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 25/360 = 0.069$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue R

LCH\*Ma: 48 73 25

rgb\*Ma: 1.0 0.0 0.1

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{H,\text{rel}} = 41$  $g^*_{C,\text{rel}} = 52$ 

## MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

 $n^* = 1,00$ 

0,25

 $n^* = 0,50$ chromaticness  $c^*$ blackness  $n^*$  $n^* = 0,00$ 

1,00

0,75

0,50

0,25

0,00

 $n^* = 1,00$ 

0,25

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

UE600-7, 3 step scales for constant CIELAB hue 25/360 = 0.069 (left)

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

BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*



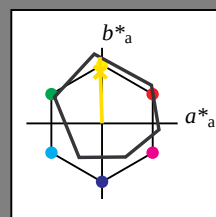
Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 92/360 = 0.255$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue J

LCH\*Ma: 86 88 92

rgb\*Ma: 1.0 0.9 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

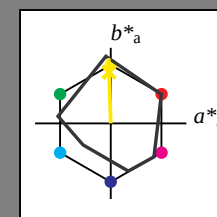
Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 92/360 = 0.255$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue J

LCH\*Ma: 89 86 92

rgb\*Ma: 1.0 0.95 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{H,\text{rel}} = 41$  $g^*_{C,\text{rel}} = 52$ 

MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

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

1,00

0,75

0,50

0,25

0,00

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

UE600-7, 3 step scales for constant CIELAB hue 92/360 = 0.255 (left)

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

BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*



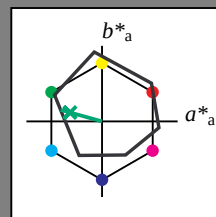
## Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 164/360 = 0.457$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue G

LCH\*Ma: 53 57 164

rgb\*Ma: 0.0 1.0 0.25

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

## ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

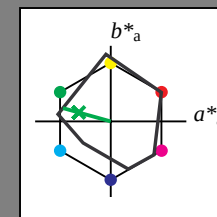
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 164/360 = 0.457$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue G

LCH\*Ma: 56 66 164

rgb\*Ma: 0.1 1.0 0.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{H,\text{rel}} = 41$  $g^*_{C,\text{rel}} = 52$ 

## MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

 $n^* = 1,00$  $n^* = 0,50$  $n^* = 0,00$ blackness  $n^*$ 

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

chromaticness  $c^*$ 

1,00

0,75

0,50

0,25

0,00

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

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

chromaticness  $c^*$ 

UE600-7, 3 step scales for constant CIELAB hue 164/360 = 0.457 (left)

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

BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*

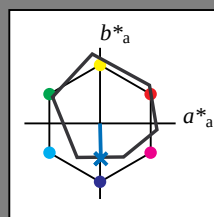
## Input: Colorimetric Reflective System ORS18

for hue  $h^* = \text{lab}^*h = 271/360 = 0.754$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue B

LCH\*Ma: 42 45 271

rgb\*Ma: 0.0 0.49 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 93$ 

%Regularity

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

## ORS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| JMa    | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| GMa    | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| G50BMa | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| BMa    | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| B50RMa | 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          |

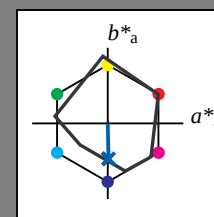
## Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 271/360 = 0.754$  $\text{lab}^*ich$  and  $\text{lab}^*nch$ 

D65: hue B

LCH\*Ma: 40 50 271

rgb\*Ma: 0.0 0.37 1.0

triangle lightness  $t^*$ 

%Gamut

 $u^*_{\text{rel}} = 91$ 

%Regularity

 $g^*_{\text{H,rel}} = 41$  $g^*_{\text{C,rel}} = 52$ 

## MRS18; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| 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          |

1,00

0,75

0,50

0,25

0,00

 $n^* = 1,00$  $n^* = 0,50$ blackness  $n^*$  $n^* = 0,00$ 

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

chromaticness  $c^*$ 

1,00

0,75

0,50

0,25

0,00

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

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

chromaticness  $c^*$ 

UE600-7, 3 step scales for constant CIELAB hue 271/360 = 0.754 (left)



BAM-test chart UE60; Colorimetric systems ORS18 &amp; ORS18

D65: 3 and 5 step colour scales for 10 hues

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

input: *cmY0\* setcmykcolor*output: *Startup (S) data dependend*