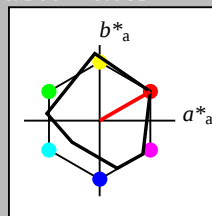


Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 30/360 = 0.083$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue R  
LCH\*Ma: 50 77 30  
rgb\*Ma: 1.0 0.0 0.0  
triangle lightness



| MRS18; adapted (a) CIELAB data |                   |             |             |              |              |
|--------------------------------|-------------------|-------------|-------------|--------------|--------------|
|                                | $L^* = L^*_{a,a}$ | $a^*_{a,a}$ | $b^*_{a,a}$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

blackness  $n^*$

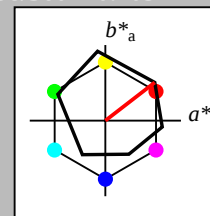
chromaticness  $c^*$

Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab \cdot h = 38/360 = 0.105$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue O  
LCH\*Ma: 48 83 38  
rgb\*Ma: 1.0 0.0 0.0  
triangle lightness



| ORS18; adapted (a) CIELAB data |                   |             |             |              |              |
|--------------------------------|-------------------|-------------|-------------|--------------|--------------|
|                                | $L^* = L^*_{a,a}$ | $a^*_{a,a}$ | $b^*_{a,a}$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |
| V <sub>Ma</sub>                | 25.71             | 31.11       | -44.42      | 54.24        | 305          |
| M <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          |

%Regularity

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

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

1,00

0,75

$n^* = 0,00$

0,25

$n^* = 0,25$

blackness  $n^*$

chromaticness  $c^*$

UE450-7, 5 step scales for constant CIELAB hue 30/360 = 0.083 (left)

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

BAM-test chart UE45; Colorimetric systems MRS18 & ORS18

D65: 5 step colour scales and coordinate data for 10 hues

input: `cmv0* setcmvcolor`

output: `olv* setrgbcolor / w* setgray`

Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 94/360 = 0.261$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue J

LCH\*Ma: 91 89 94

rgb\*Ma: 1.0 1.0 0.0

triangle lightness

1.00

0.75

0.50

0.25

0.00

0.00

0.00

0.00

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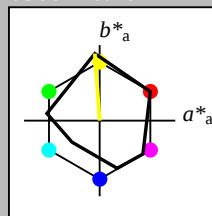
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| MRS18; adapted (a) CIELAB data |               |         |         |              |              |
|--------------------------------|---------------|---------|---------|--------------|--------------|
|                                | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |

%Regularity

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

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

1.00

0.75

0.50

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Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab \cdot h = 96/360 = 0.268$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue Y

LCH\*Ma: 90 92 96

rgb\*Ma: 1.0 1.0 0.0

triangle lightness

1.00

0.75

0.50

0.25

0.00

0.00

0.00

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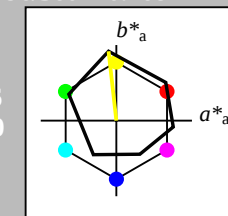
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| ORS18; adapted (a) CIELAB data |               |         |         |              |              |
|--------------------------------|---------------|---------|---------|--------------|--------------|
|                                | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |
| V <sub>Ma</sub>                | 25.71         | 31.11   | -44.42  | 54.24        | 305          |
| M <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          |

%Regularity

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

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

1.00

0.75

0.50

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Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 172/360 = 0.479$

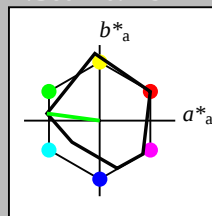
$lab \cdot tch$  and  $lab \cdot nch$

D65: hue G

LCH\*Ma: 52 70 172

rgb\*Ma: 0.0 1.0 0.0

triangle lightness



| 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          |

%Regularity

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

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

Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab \cdot h = 151/360 = 0.419$

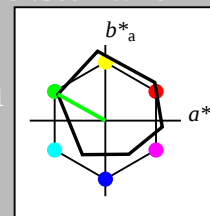
$lab \cdot tch$  and  $lab \cdot nch$

D65: hue L

LCH\*Ma: 51 72 151

rgb\*Ma: 0.0 1.0 0.0

triangle lightness

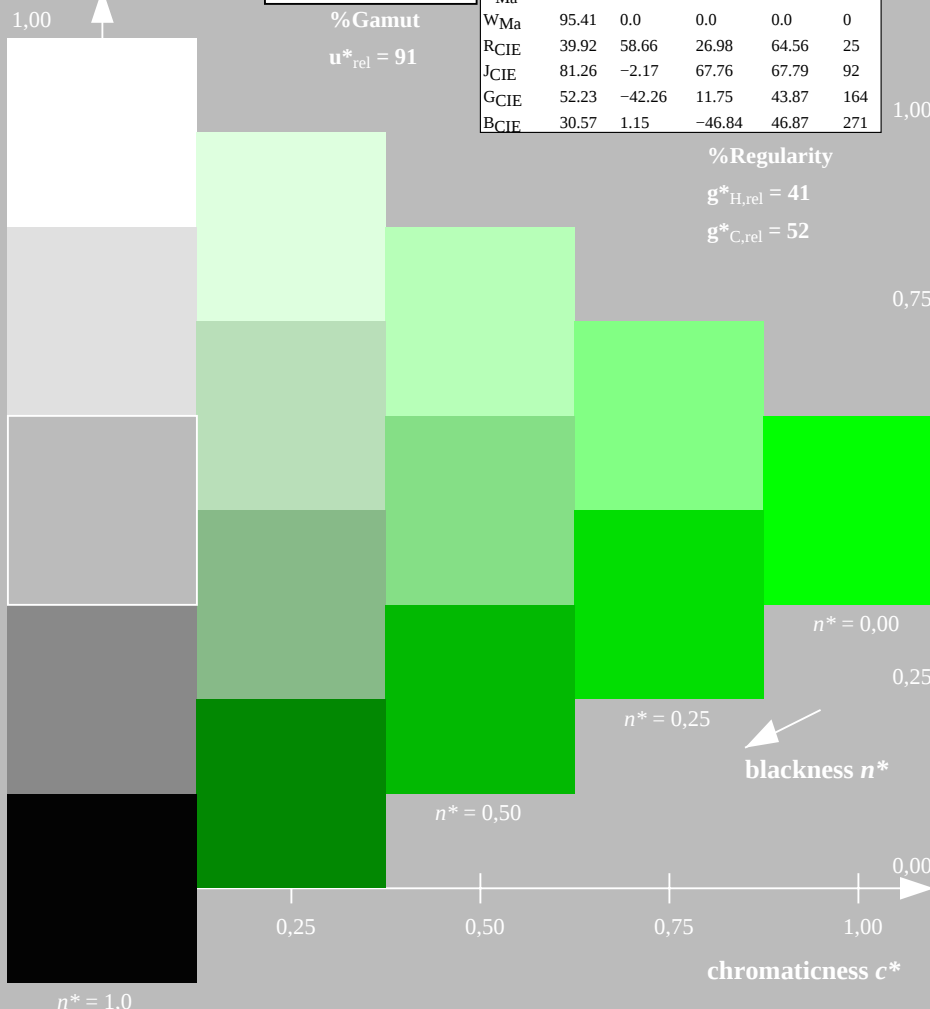


| ORS18; adapted (a) CIELAB data |               |         |         |              |              |
|--------------------------------|---------------|---------|---------|--------------|--------------|
|                                | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |
| V <sub>Ma</sub>                | 25.71         | 31.11   | -44.42  | 54.24        | 305          |
| M <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          |

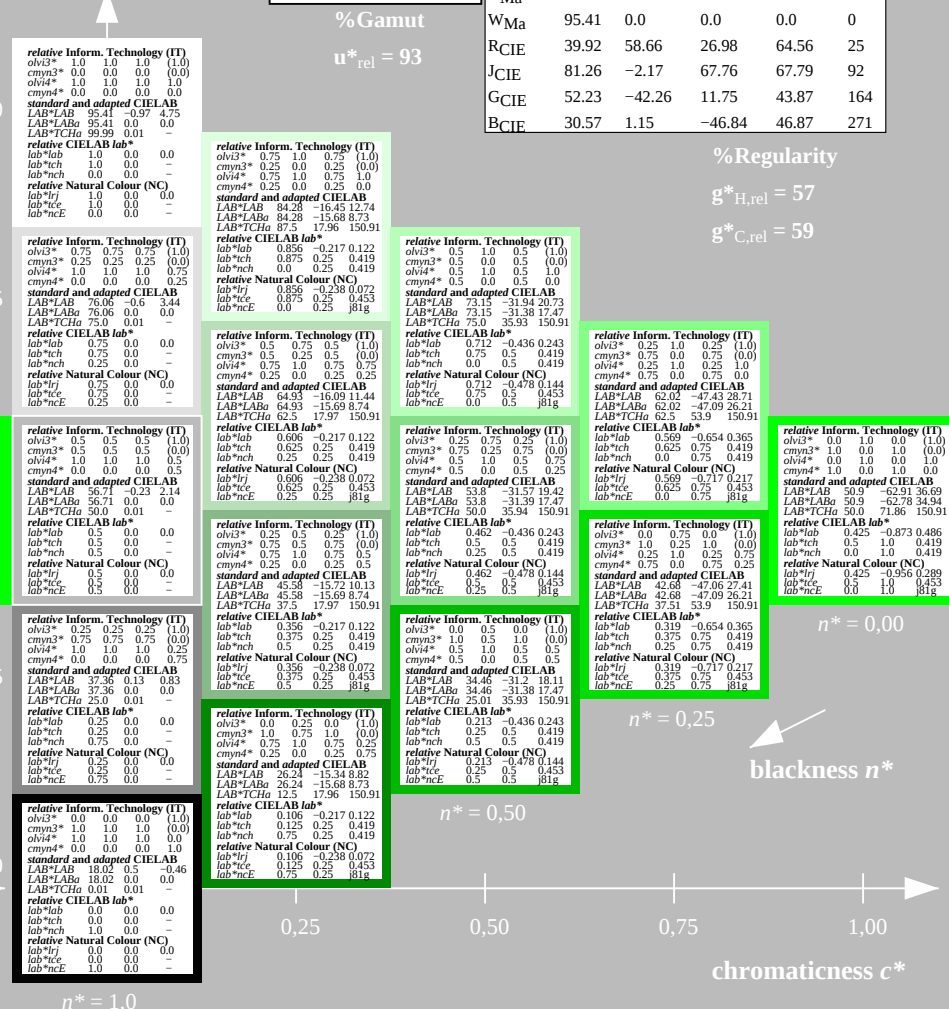
%Regularity

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

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



UE450-7, 5 step scales for constant CIELAB hue 172/360 = 0.479 (left)



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

BAM-test chart UE45; Colorimetric systems MRS18 & ORS18

D65: 5 step colour scales and coordinate data for 10 hues

input:  $cmY0^* setcmykcolor$

output:  $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Reflective System MRS18

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

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

D65: hue G50B  
LCH\*Ma: 45 46 218  
rgb\*Ma: 0.0 1.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

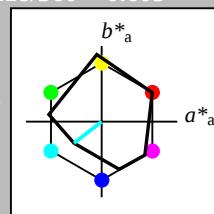
$g^*_{C,rel} = 59$

0,00

%Regularity

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

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



| 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          |

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  
rgb\*Ma: 0.0 1.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

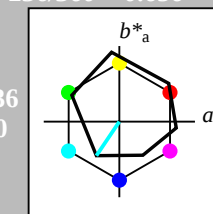
$g^*_{C,rel} = 59$

0,00

%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          |
| 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          |

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

UE450-7, 5 step scales for constant CIELAB hue 218/360 = 0.605 (left)

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

BAM-test chart UE45; Colorimetric systems MRS18 & ORS18

D65: 5 step colour scales and coordinate data for 10 hues

input:  $cmv^* \text{ setcmvcolor}$

output:  $olv^* \text{ setrgbcolor} / w^* \text{ setgray}$

Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 290/360 = 0.806$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue B

LCH\*Ma: 37 67 290

rgb\*Ma: 0.0 0.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

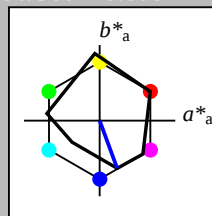
$g^*_{C,rel} = 52$

0,00

%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          |

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

Output: Colorimetric Reflective System ORS18

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

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue V

LCH\*Ma: 26 54 305

rgb\*Ma: 0.0 0.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

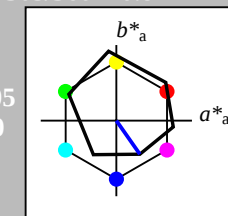
$g^*_{C,rel} = 59$

0,00

%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          |
| 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          |

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

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

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

0,00

%Regularity

%Regularity

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

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

0,75

%Regularity

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

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

0,50

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,00

Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 322/360 = 0.895$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue B50R  
LCH\*Ma: 35 72 322  
rgb\*Ma: 1.0 0.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,50

%Regularity

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

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

1,00

%Regularity

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

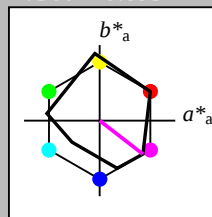
$g^*_{C,rel} = 52$

0,25

%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          |

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,50

%Regularity

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

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

1,00

%Regularity

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

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

0,25

%Regularity

Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab \cdot h = 354/360 = 0.982$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue M  
LCH\*Ma: 48 76 354  
rgb\*Ma: 1.0 0.0 1.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,50

%Regularity

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

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

1,00

%Regularity

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

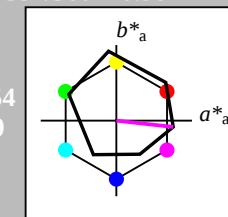
$g^*_{C,rel} = 59$

0,25

%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          |
| 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          |

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,50

%Regularity

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

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

1,00

%Regularity

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

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

0,25

%Regularity

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,50

%Regularity

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

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

1,00

%Regularity

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

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

0,25

%Regularity

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,50

%Regularity

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

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

1,00

%Regularity

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

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

0,25

%Regularity

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,50

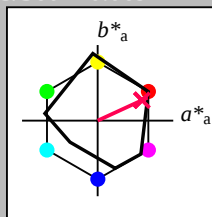
%Regularity

Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 25/360 = 0.069$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue R  
LCH\*Ma: 48 73 25  
rgb\*Ma: 1.0 0.0 0.1  
triangle lightness



| 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          |

%Regularity

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

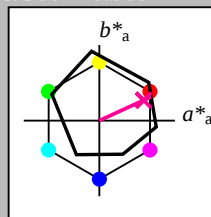
$g^*_{C,rel} = 52$

Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab \cdot h = 25/360 = 0.069$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue R  
LCH\*Ma: 48 75 25  
rgb\*Ma: 1.0 0.0 0.32  
triangle lightness

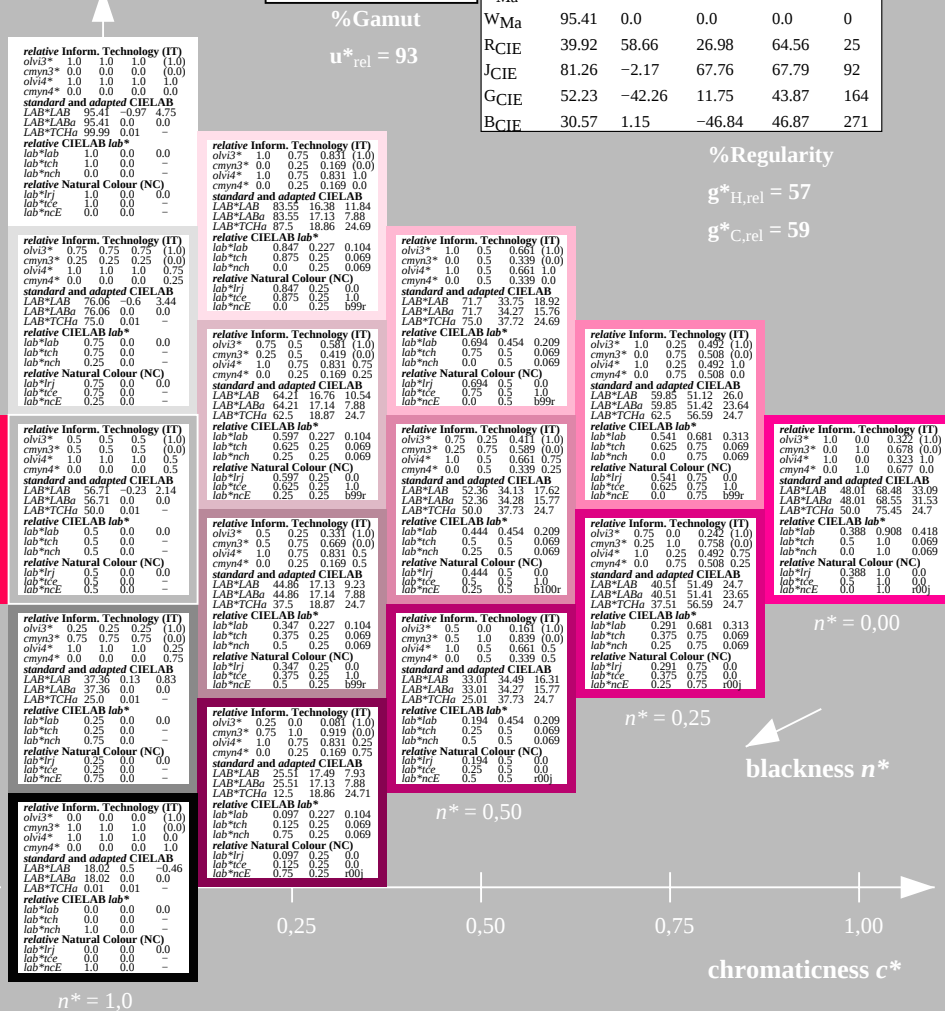
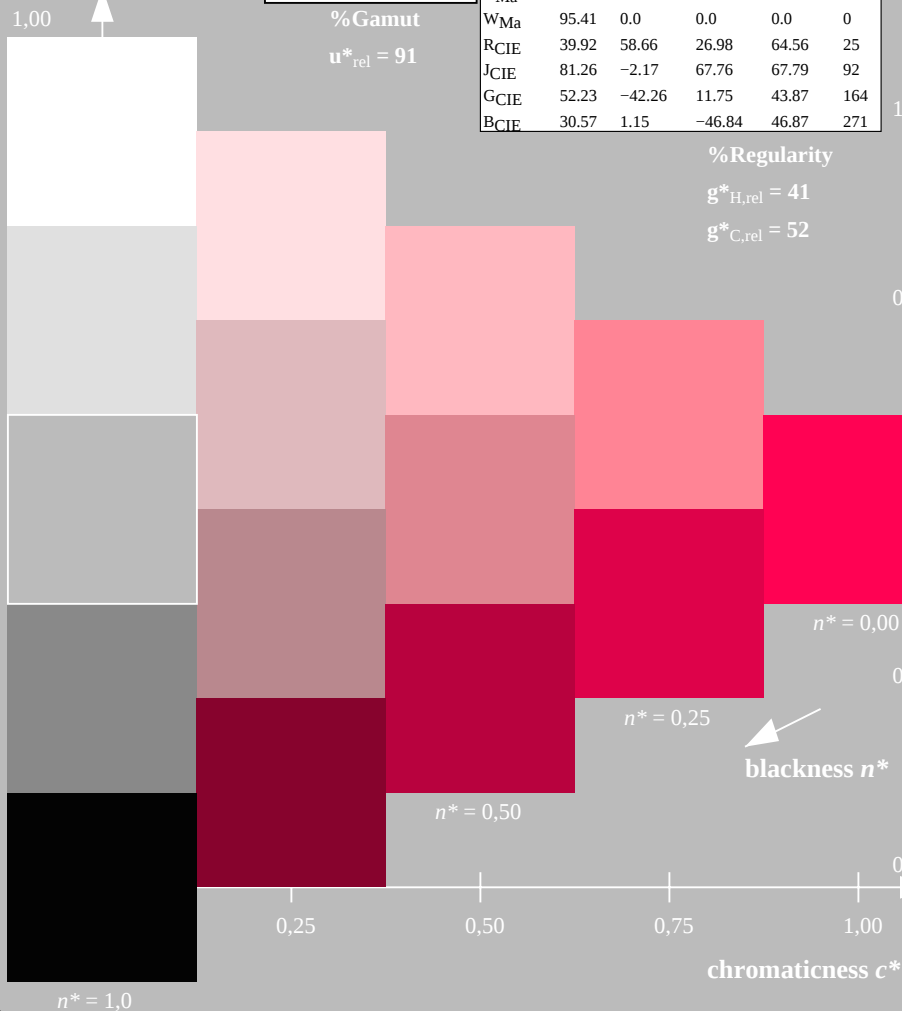


| ORS18; adapted (a) CIELAB data |               |         |         |              |              |
|--------------------------------|---------------|---------|---------|--------------|--------------|
|                                | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |

%Regularity

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

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



UE450-7, 5 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 UE45; Colorimetric systems MRS18 & ORS18

D65: 5 step colour scales and coordinate data for 10 hues

input: `cmY0* setcmykcolor`

output: `olv* setrgbcolor / w* setgray`

Input: Colorimetric Reflective System MRS18

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

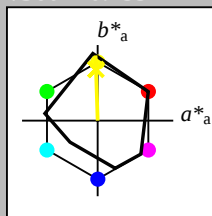
$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 89 86 92

rgb\*Ma: 1.0 0.95 0.0

triangle lightness

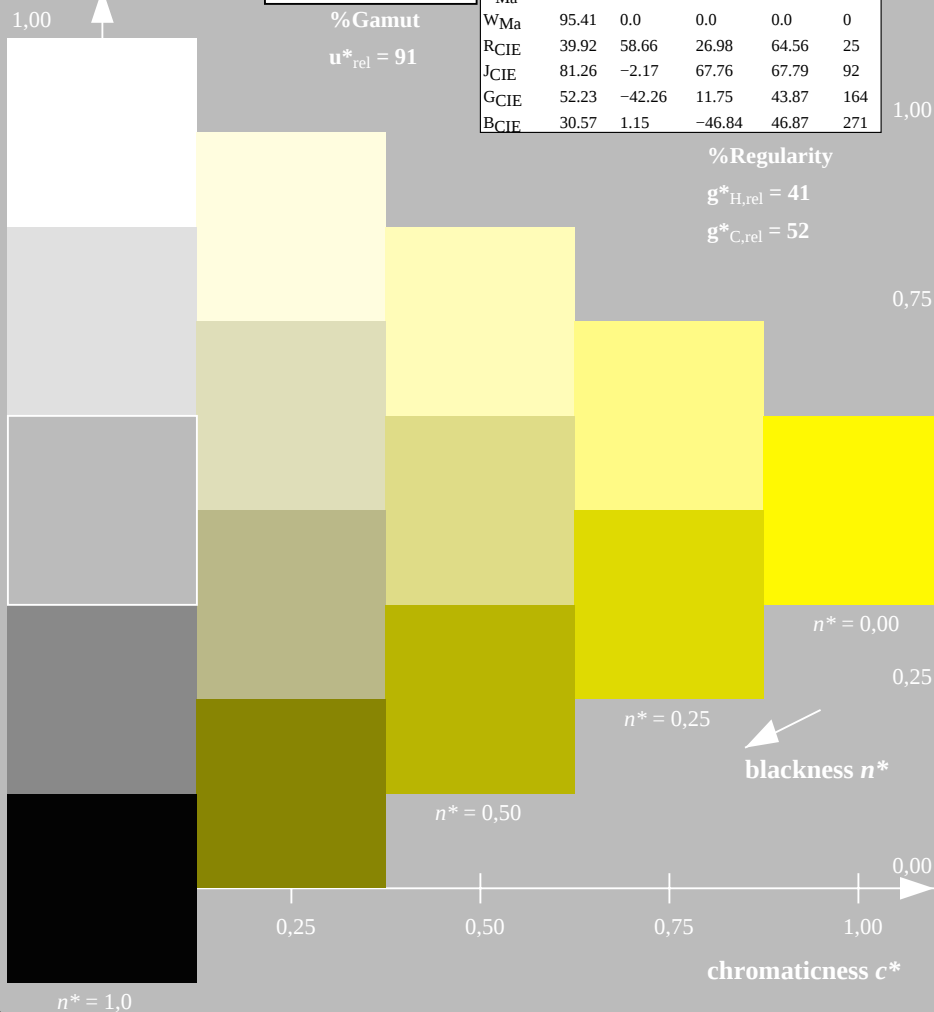


| MRS18; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| RMa                            | 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          |

%Regularity

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

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



UE450-7, 5 step scales for constant CIELAB hue 92/360 = 0.255 (left)

Output: Colorimetric Reflective System ORS18

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

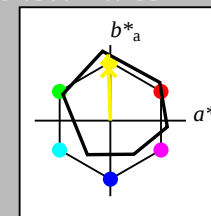
$lab^*tch$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 86 88 92

rgb\*Ma: 1.0 0.9 0.0

triangle lightness

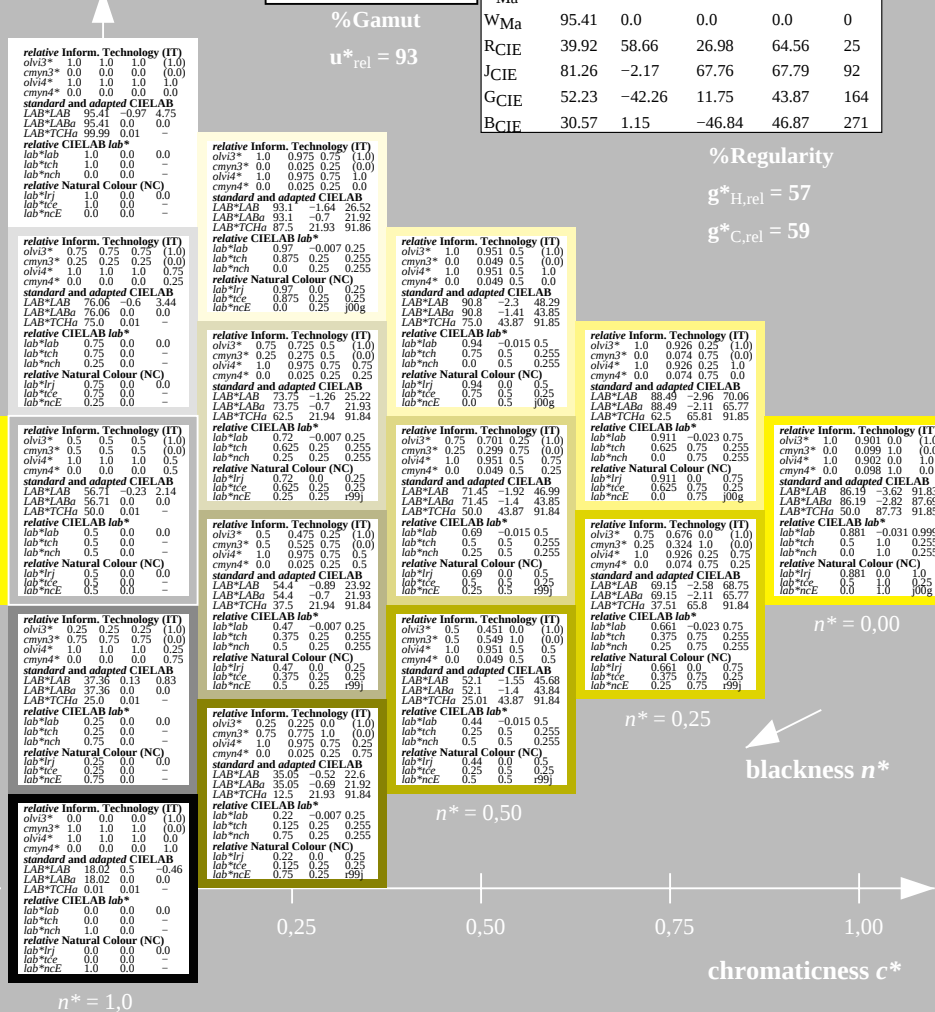


| ORS18; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| OMa                            | 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          |
| 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          |

%Regularity

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

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



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

BAM-test chart UE45; Colorimetric systems MRS18 & ORS18

D65: 5 step colour scales and coordinate data for 10 hues

input:  $cmy0^* setcmykcolor$

output:  $olv^* setrgbcolor / w^* setgray$

Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 164/360 = 0.457$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue G  
LCH\*Ma: 56 66 164  
rgb\*Ma: 0.1 1.0 0.0

triangle lightness

1,00

%Gamut

$u^*_{rel} = 91$

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

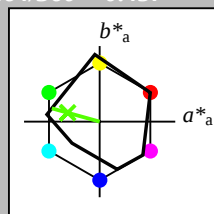
$g^*_{C,rel} = 59$

0,25

%Regularity

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

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



| 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          |

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab \cdot h = 164/360 = 0.457$

$lab \cdot tch$  and  $lab \cdot nch$

D65: hue G  
LCH\*Ma: 53 57 164  
rgb\*Ma: 0.0 1.0 0.25

triangle lightness

1,00

%Gamut

$u^*_{rel} = 93$

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

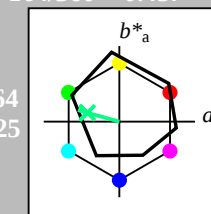
$g^*_{C,rel} = 59$

0,25

%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          |
| 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          |

%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity



%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

0,00

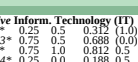
%Regularity

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

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

0,25

%Regularity



%Regularity

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

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

0,75

%Regularity

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

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

0,25

%Regularity

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

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

0,00

%Regularity

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

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

0,25

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

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

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

%Regularity

Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab \cdot h = 271/360 = 0.754$

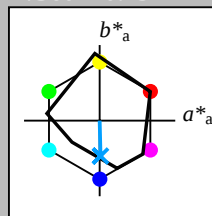
$lab \cdot tch$  and  $lab \cdot nch$

D65: hue B

LCH\*Ma: 40 50 271

rgb\*Ma: 0.0 0.37 1.0

triangle lightness

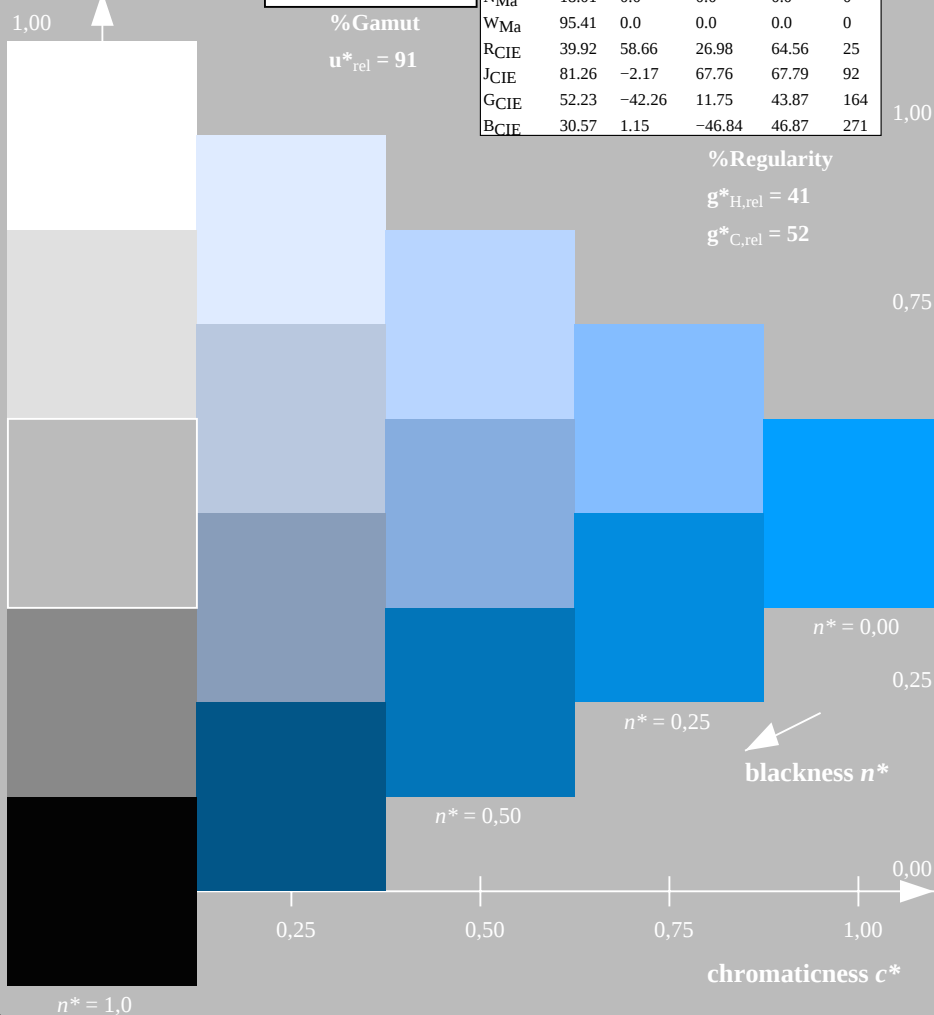


| MRS18; adapted (a) CIELAB data |               |         |         |              |              |
|--------------------------------|---------------|---------|---------|--------------|--------------|
|                                | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |

%Regularity

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

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



UE450-7, 5 step scales for constant CIELAB hue 271/360 = 0.754 (left)

Output: Colorimetric Reflective System ORS18

for hue  $h^* = lab \cdot h = 271/360 = 0.754$

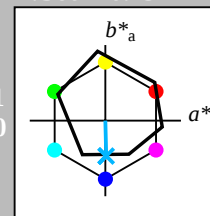
$lab \cdot tch$  and  $lab \cdot nch$

D65: hue B

LCH\*Ma: 42 45 271

rgb\*Ma: 0.0 0.49 1.0

triangle lightness

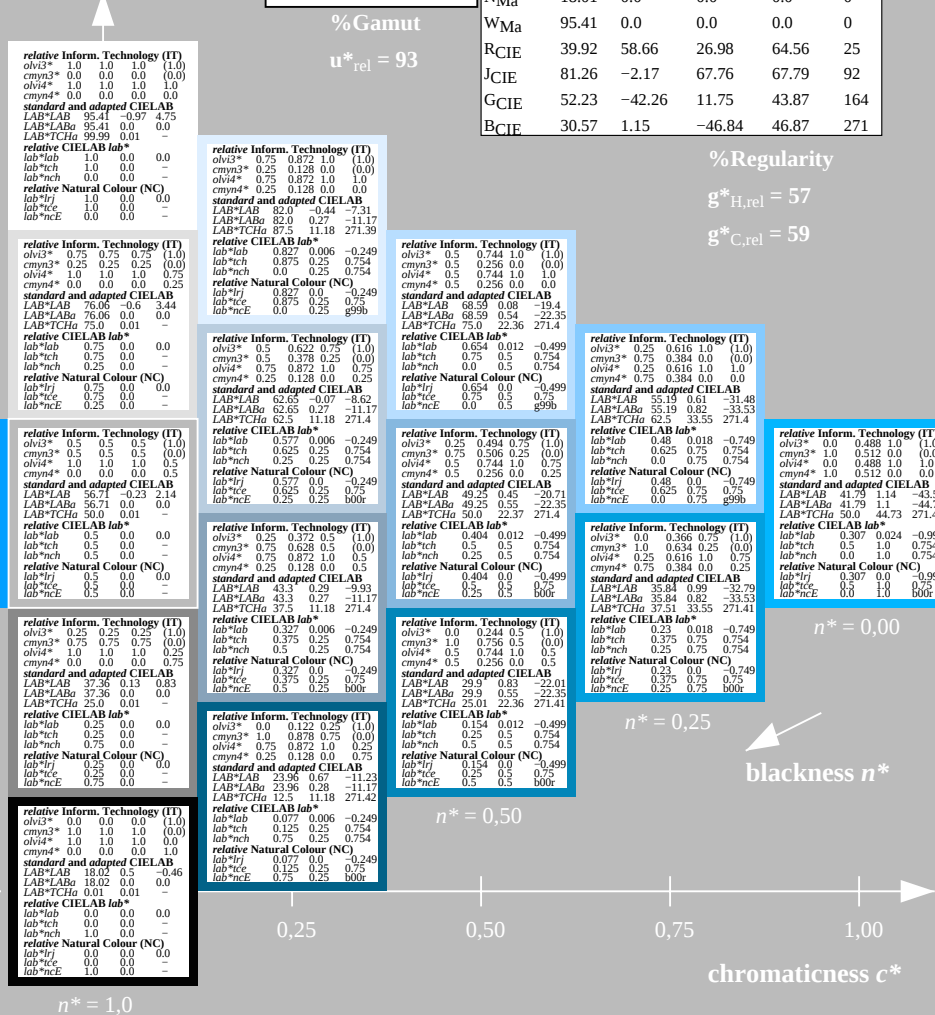


| ORS18; adapted (a) CIELAB data |               |         |         |              |              |
|--------------------------------|---------------|---------|---------|--------------|--------------|
|                                | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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          |

%Regularity

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

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



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

BAM-test chart UE45; Colorimetric systems MRS18 & ORS18

D65: 5 step colour scales and coordinate data for 10 hues

input:  $cmy0^* \text{ setcmykcolor}$

output:  $olv^* \text{ setrgbcolor} / w^* \text{ setgray}$