

Input: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 30/360 = 0.083$

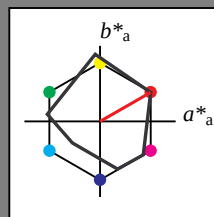
$\text{lab}^*ich$  and  $\text{lab}^*nch$

D65: hue R

LCH\*Ma: 50 77 30

rgb\*Ma: 1.0 0.0 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          |

Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 30/360 = 0.083$

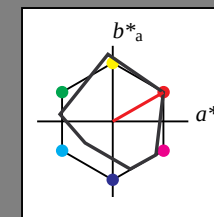
$\text{lab}^*ich$  and  $\text{lab}^*nch$

D65: hue R

LCH\*Ma: 50 77 30

rgb\*Ma: 1.0 0.0 0.0

triangle lightness  $t^*$



%Gamut

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| 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

$n^* = 1,00$

$n^* = 0,75$

$n^* = 0,50$

$n^* = 0,25$

$n^* = 0,00$

chromaticness  $c^*$

blackness  $n^*$

UE640-7, 3 step scales for constant CIELAB hue 30/360 = 0.083 (left)

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

BAM-test chart UE64; Colorimetric systems MRS18 & MRS18

D65: 3 and 5 step colour scales for 10 hues

input:  $\text{cm}y0^* \text{ setcm}y\text{color}$

output: no change compared to input

Input: Colorimetric Reflective System MRS18

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

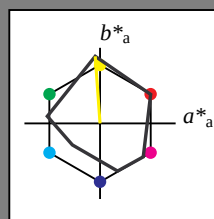
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
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| BCIE   | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

Output: Colorimetric Reflective System MRS18

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

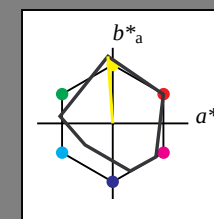
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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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

$n^* = 1,00$

$n^* = 0,75$

$n^* = 0,50$

$n^* = 0,25$

$n^* = 0,00$

chromaticness  $c^*$

blackness  $n^*$

UE640-7, 3 step scales for constant CIELAB hue 94/360 = 0.261 (left)

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

BAM-test chart UE64; Colorimetric systems MRS18 & MRS18

D65: 3 and 5 step colour scales for 10 hues

input:  $\text{cmY0}^* \text{setcmYcolor}$

output: no change compared to input

Input: Colorimetric Reflective System MRS18

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

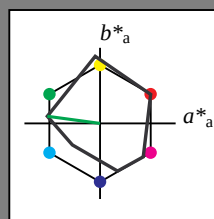
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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

MRS18; adapted (a) CIELAB data

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| NMa    | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
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Output: Colorimetric Reflective System MRS18

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

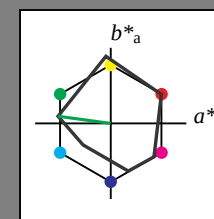
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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

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1,00

0,75

0,50

0,25

0,00

0,25

0,50

0,75

1,00

chromaticness  $c^*$

$n^* = 1,00$

$n^* = 0,50$

$n^* = 0,00$

blackness  $n^*$

1,00

0,75

0,50

0,25

0,00

0,25

0,50

0,75

1,00

chromaticness  $c^*$

$n^* = 1,00$

$n^* = 0,75$

$n^* = 0,50$

$n^* = 0,25$

$n^* = 0,00$

blackness  $n^*$

UE640-7, 3 step scales for constant CIELAB hue 172/360 = 0.479 (left)

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

BAM-test chart UE64; Colorimetric systems MRS18 & MRS18 input:  $\text{cmy0}^* \text{ setcmykcolor}$

D65: 3 and 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 218/360 = 0.605$

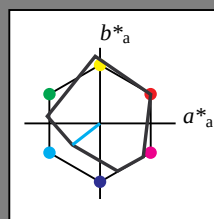
$\text{lab}^*ich$  and  $\text{lab}^*nch$

D65: hue G50B

LCH\*Ma: 45 46 218

rgb\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$



%Gamut

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

MRS18; adapted (a) CIELAB data

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Output: Colorimetric Reflective System MRS18

for hue  $h^* = \text{lab}^*h = 218/360 = 0.605$

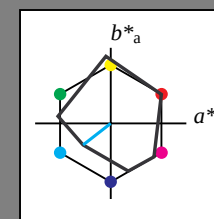
$\text{lab}^*ich$  and  $\text{lab}^*nch$

D65: hue G50B

LCH\*Ma: 45 46 218

rgb\*Ma: 0.0 1.0 1.0

triangle lightness  $t^*$



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%Regularity

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1,00

0,75

0,50

0,25

0,00

$n^* = 1,00$

$n^* = 0,50$

chromaticness  $c^*$

blackness  $n^*$

1,00

0,75

0,50

0,25

0,00

$n^* = 1,00$

$n^* = 0,75$

$n^* = 0,50$

$n^* = 0,25$

$n^* = 0,00$

chromaticness  $c^*$

blackness  $n^*$

UE640-7, 3 step scales for constant CIELAB hue 218/360 = 0.605 (left)

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

BAM-test chart UE64; Colorimetric systems MRS18 & MRS18 input:  $\text{cmy0}^* \text{ setcmykcolor}$

D65: 3 and 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System MRS18

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

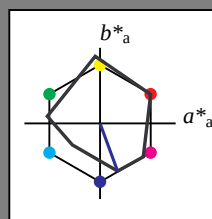
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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

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Output: Colorimetric Reflective System MRS18

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

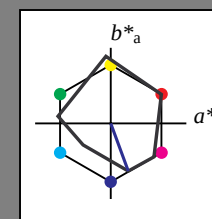
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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1,00

0,75

0,50

0,25

0,00

0,25

0,50

0,75

1,00

chromaticness  $c^*$

$n^* = 1,00$

$n^* = 0,50$

blackness  $n^*$

$n^* = 0,00$

1,00

0,75

0,50

0,25

0,00

0,25

0,50

0,75

1,00

chromaticness  $c^*$

$n^* = 1,00$

$n^* = 0,75$

$n^* = 0,50$

$n^* = 0,25$

blackness  $n^*$

$n^* = 0,00$

UE640-7, 3 step scales for constant CIELAB hue 290/360 = 0.806 (left)

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

BAM-test chart UE64; Colorimetric systems MRS18 & MRS18 input:  $\text{cmy0}^* \text{ setcmykcolor}$

D65: 3 and 5 step colour scales for 10 hues

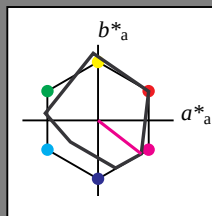
output: no change compared to input

Input: Colorimetric Reflective System MRS18

for hue  $h^* = lab^*h = 322/360 = 0.895$   
 $lab^*ich$  and  $lab^*nch$

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

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 91$   
%Regularity  
 $g^*_{H,rel} = 41$   
 $g^*_{C,rel} = 52$

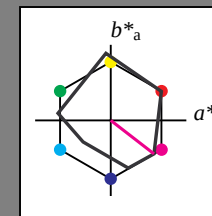
| MRS18; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| RMa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

Output: Colorimetric Reflective System MRS18

for hue  $h^* = lab^*h = 322/360 = 0.895$   
 $lab^*ich$  and  $lab^*nch$

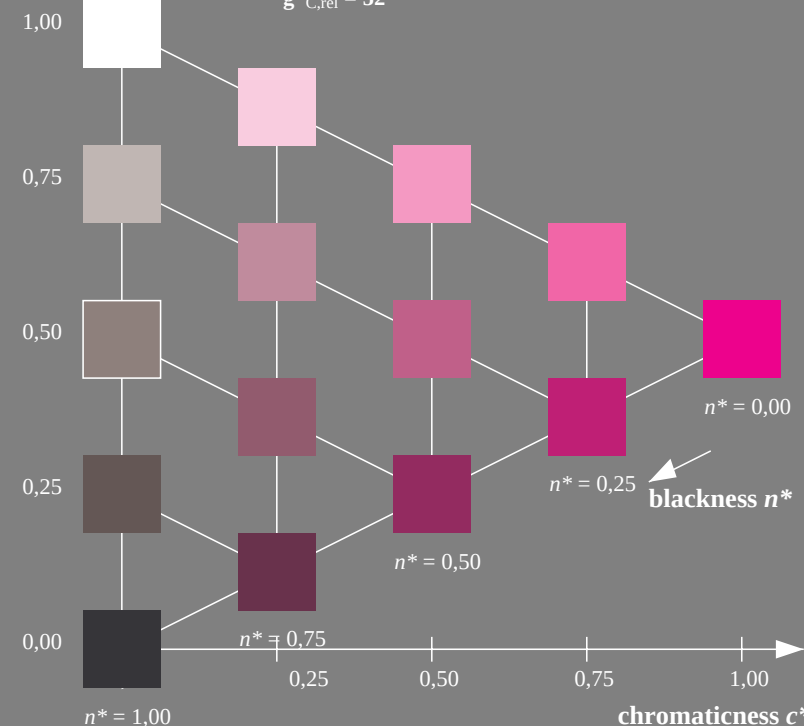
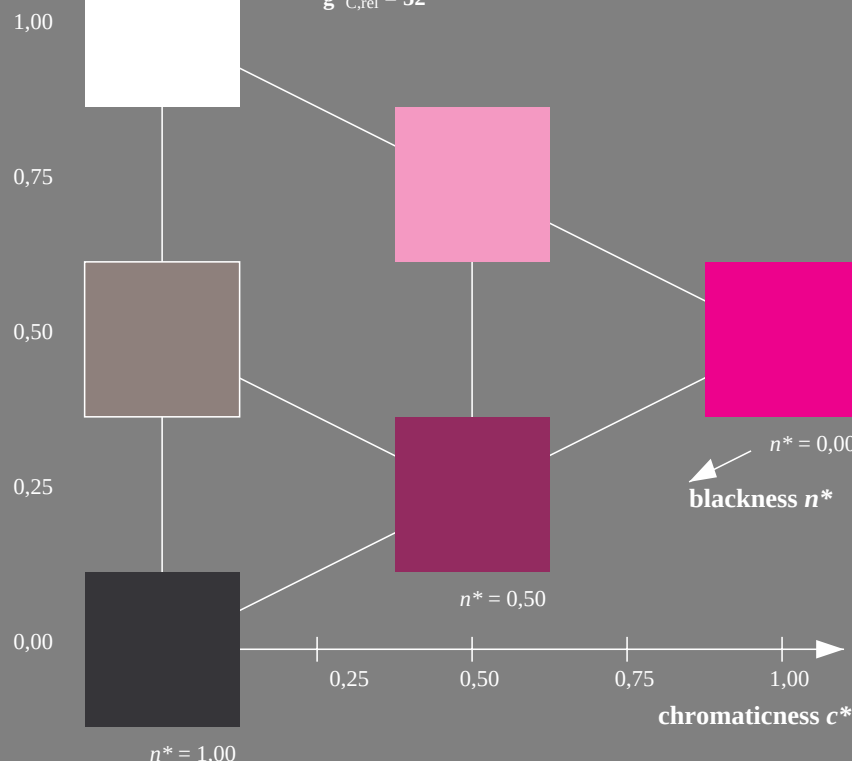
D65: hue B50R  
LCH\*Ma: 35 72 322  
rgb\*Ma: 1.0 0.0 1.0

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          |
| 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          |



UE640-7, 3 step scales for constant CIELAB hue 322/360 = 0.895 (left)

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

BAM-test chart UE64; Colorimetric systems MRS18 & MRS18 input:  $cmY0^*$  set $cmYkcolor$   
D65: 3 and 5 step colour scales for 10 hues

output: no change compared to input

Input: Colorimetric Reflective System MRS18

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

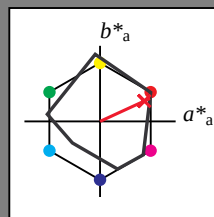
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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          |

Output: Colorimetric Reflective System MRS18

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

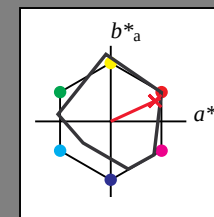
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

$n^* = 1,00$

$n^* = 0,75$

$n^* = 0,50$

$n^* = 0,25$

$n^* = 0,00$

chromaticness  $c^*$

blackness  $n^*$

UE640-7, 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 UE64; Colorimetric systems MRS18 & MRS18 input:  $\text{cmy0}^* \text{ setcmykcolor}$

D65: 3 and 5 step colour scales for 10 hues

output: no change compared to input



Input: Colorimetric Reflective System MRS18

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

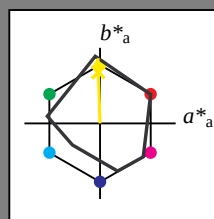
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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          |

Output: Colorimetric Reflective System MRS18

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

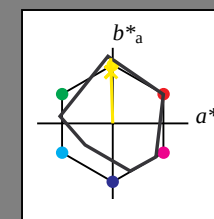
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

$n^* = 1,00$

0,25

$n^* = 0,50$

chromaticness  $c^*$

$n^* = 0,00$

blackness  $n^*$

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  $c^*$

UE640-7, 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 UE64; Colorimetric systems MRS18 & MRS18

D65: 3 and 5 step colour scales for 10 hues

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

output: no change compared to input



Input: Colorimetric Reflective System MRS18

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

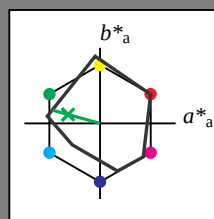
$lab^*ich$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 56 66 164

rgb\*Ma: 0.1 1.0 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          |

Output: Colorimetric Reflective System MRS18

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

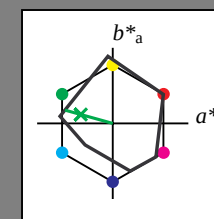
$lab^*ich$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 56 66 164

rgb\*Ma: 0.1 1.0 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

$n^* = 1,00$

0,25

$n^* = 0,50$

chromaticness  $c^*$

blackness  $n^*$

$n^* = 0,00$

1,00

0,75

0,50

0,25

0,00

$n^* = 1,00$

$n^* = 0,75$

$n^* = 0,50$

$n^* = 0,25$

blackness  $n^*$

$n^* = 0,00$

chromaticness  $c^*$

UE640-7, 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 UE64; Colorimetric systems MRS18 & MRS18 input: *cmY0\* setcmykcolor*

D65: 3 and 5 step colour scales for 10 hues

output: *no change compared to input*

Input: Colorimetric Reflective System MRS18

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

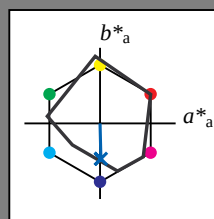
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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

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

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          |

Output: Colorimetric Reflective System MRS18

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

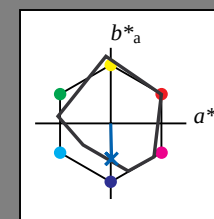
$\text{lab}^*ich$  and  $\text{lab}^*nch$

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

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

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

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

$n^* = 1,00$

$n^* = 0,50$

chromaticness  $c^*$

blackness  $n^*$

$n^* = 0,00$

1,00

0,75

0,50

0,25

0,00

$n^* = 1,00$

$n^* = 0,50$

$n^* = 0,75$

chromaticness  $c^*$

blackness  $n^*$

$n^* = 0,25$

$n^* = 0,00$

UE640-7, 3 step scales for constant CIELAB hue 271/360 = 0.754 (left)

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

BAM-test chart UE64; Colorimetric systems MRS18 & MRS18 input:  $\text{cmy0}^* \text{ setcmykcolor}$

D65: 3 and 5 step colour scales for 10 hues

output: no change compared to input