

Input: Colorimetric Reflective System ORS18

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

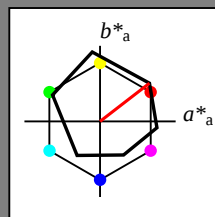
$lab^*ich$  and  $lab^*nch$

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

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| 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          |

Output: Colorimetric Reflective System NRS11

for hue  $h^* = lab^*h = 24/360 = 0.067$

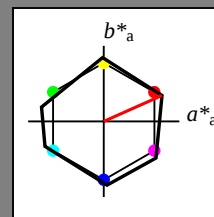
$lab^*ich$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 53 84 24

rgb\*Ma: 1.0 0.0 0.0

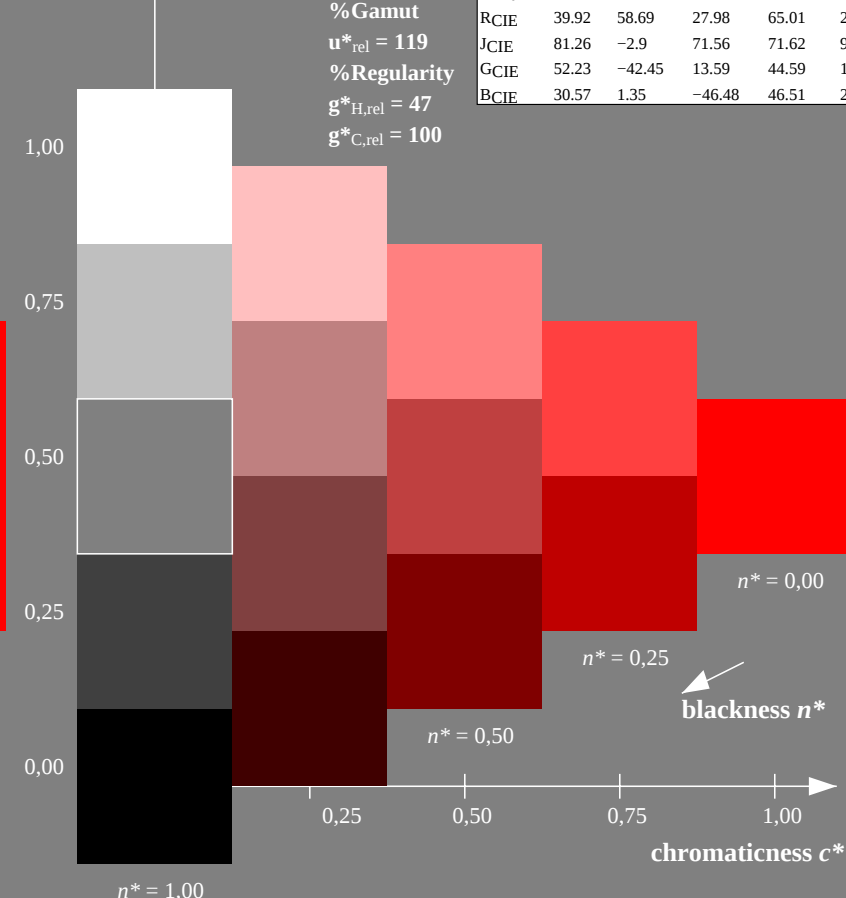
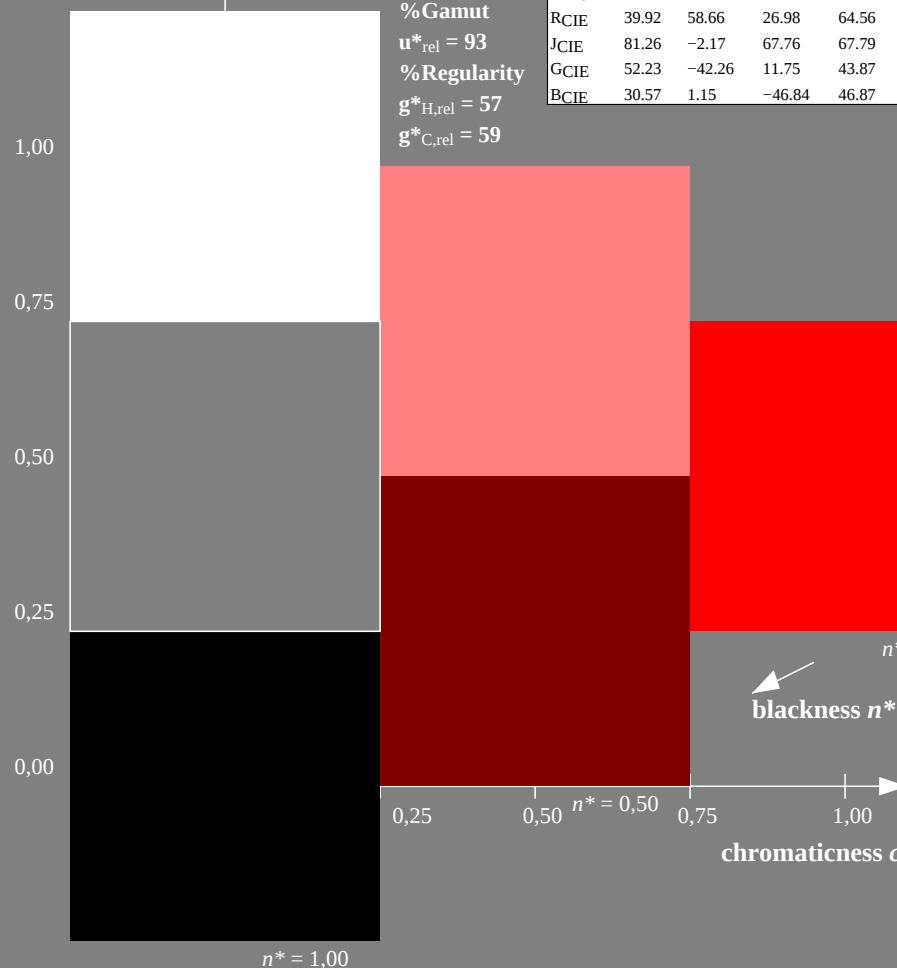
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 38/360 = 0.105 (left)

5 step scales for constant CIELAB hue 24/360 = 0.067 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

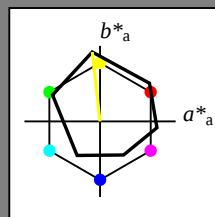
$lab^*ich$  and  $lab^*nch$

D65: hue Y

LCH\*Ma: 90 92 96

rgb\*Ma: 1.0 1.0 0.0

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 93$   
%Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

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

Output: Colorimetric Reflective System NRS11

for hue  $h^* = lab^*h = 91/360 = 0.253$

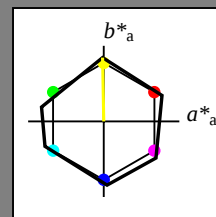
$lab^*ich$  and  $lab^*nch$

D65: hue J

LCH\*Ma: 53 84 91

rgb\*Ma: 1.0 1.0 0.0

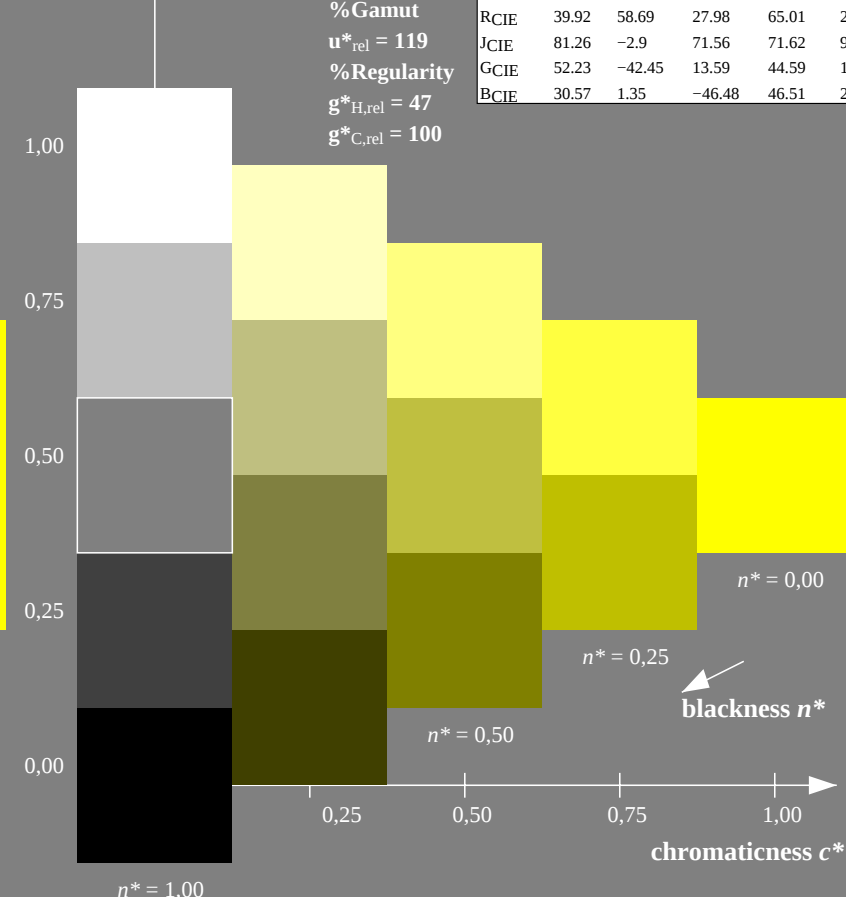
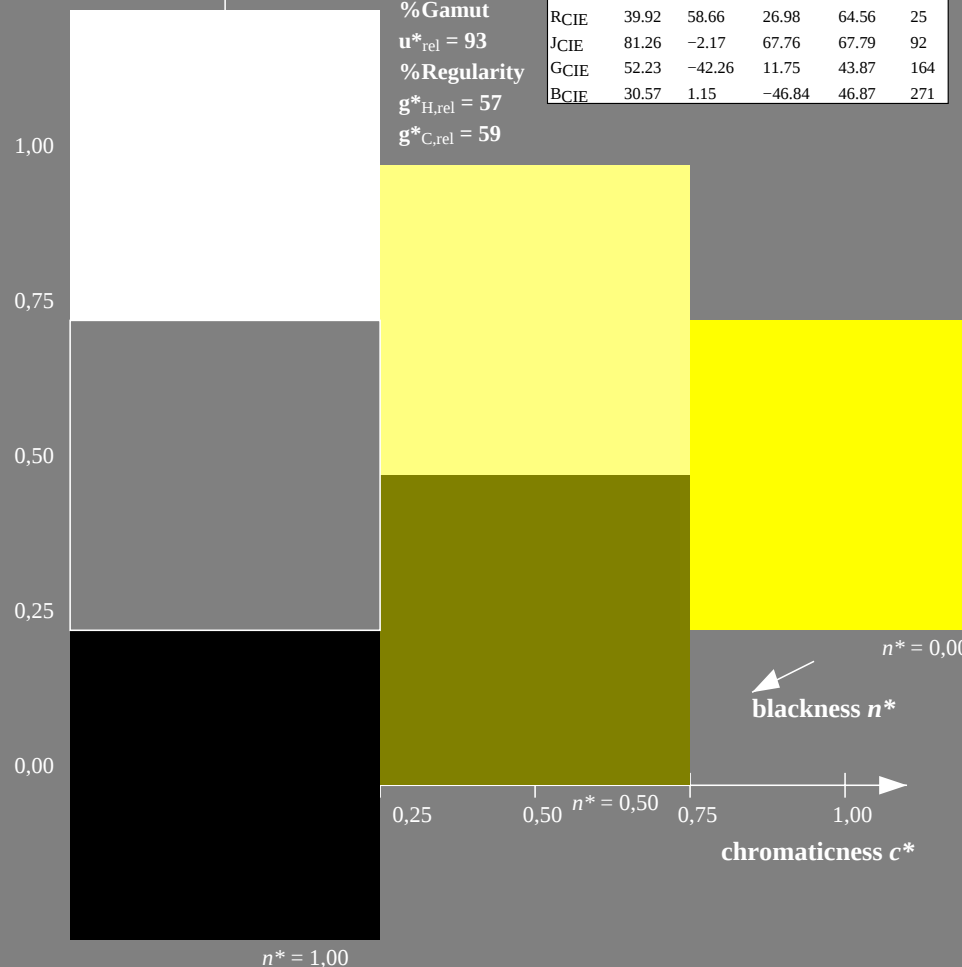
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 96/360 = 0.268 (left)

5 step scales for constant CIELAB hue 91/360 = 0.253 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

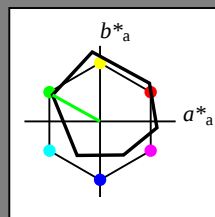
$lab^*ich$  and  $lab^*nch$

D65: hue L

LCH\*Ma: 51 72 151

rgb\*Ma: 0.0 1.0 0.0

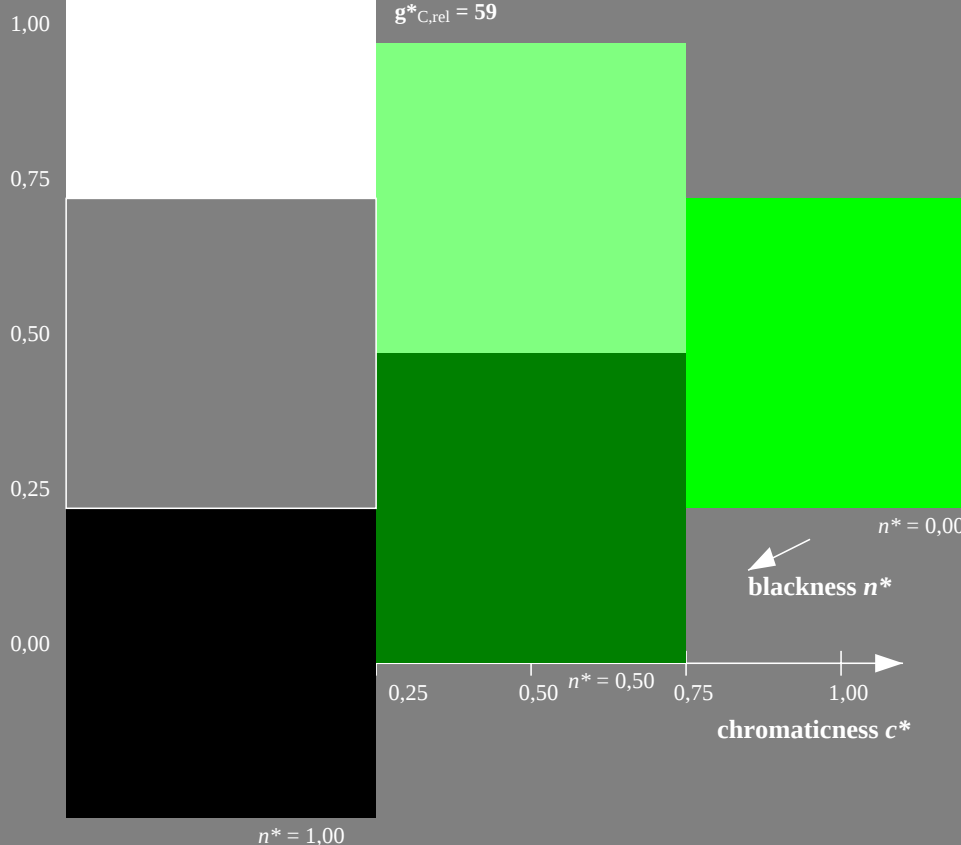
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 93$   
%Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

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



TE820-7, 3 step scales for constant CIELAB hue 151/360 = 0.419 (left)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

Output: Colorimetric Reflective System NRS11

for hue  $h^* = lab^*h = 167/360 = 0.464$

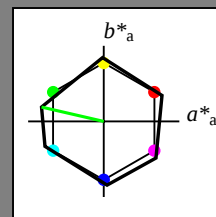
$lab^*ich$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 53 84 167

rgb\*Ma: 0.0 1.0 0.0

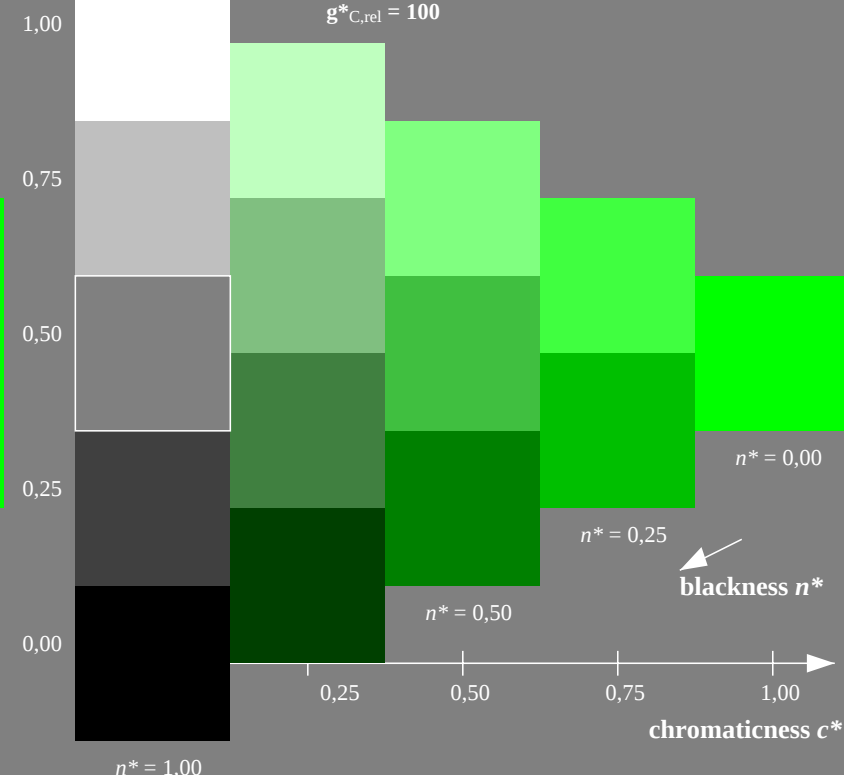
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



5 step scales for constant CIELAB hue 167/360 = 0.464 (right)

input:  $olv^* setrgbcolor$

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

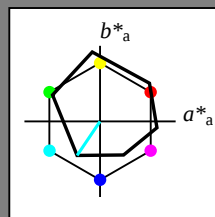
$lab^*ich$  and  $lab^*nch$

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

|      | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|------|-------------|---------|---------|--------------|--------------|
| 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          |

Output: Colorimetric Reflective System NRS11

for hue  $h^* = lab^*h = 203/360 = 0.564$

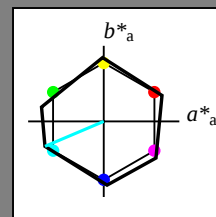
$lab^*ich$  and  $lab^*nch$

D65: hue G50B

LCH\*Ma: 53 84 203

rgb\*Ma: 0.0 1.0 1.0

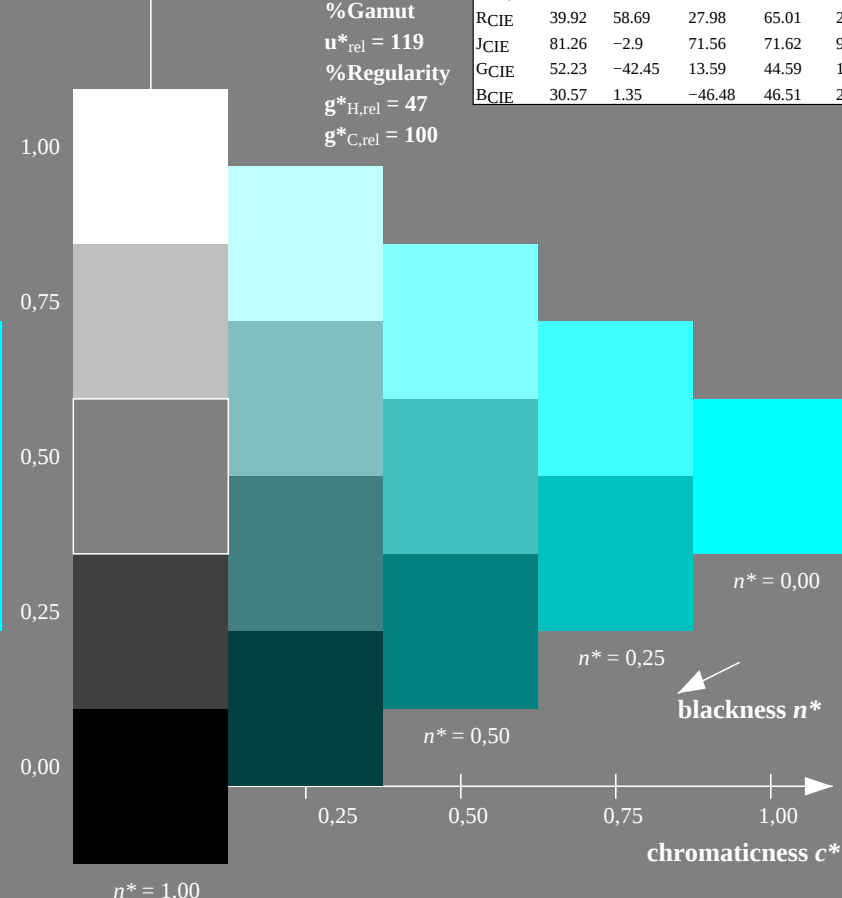
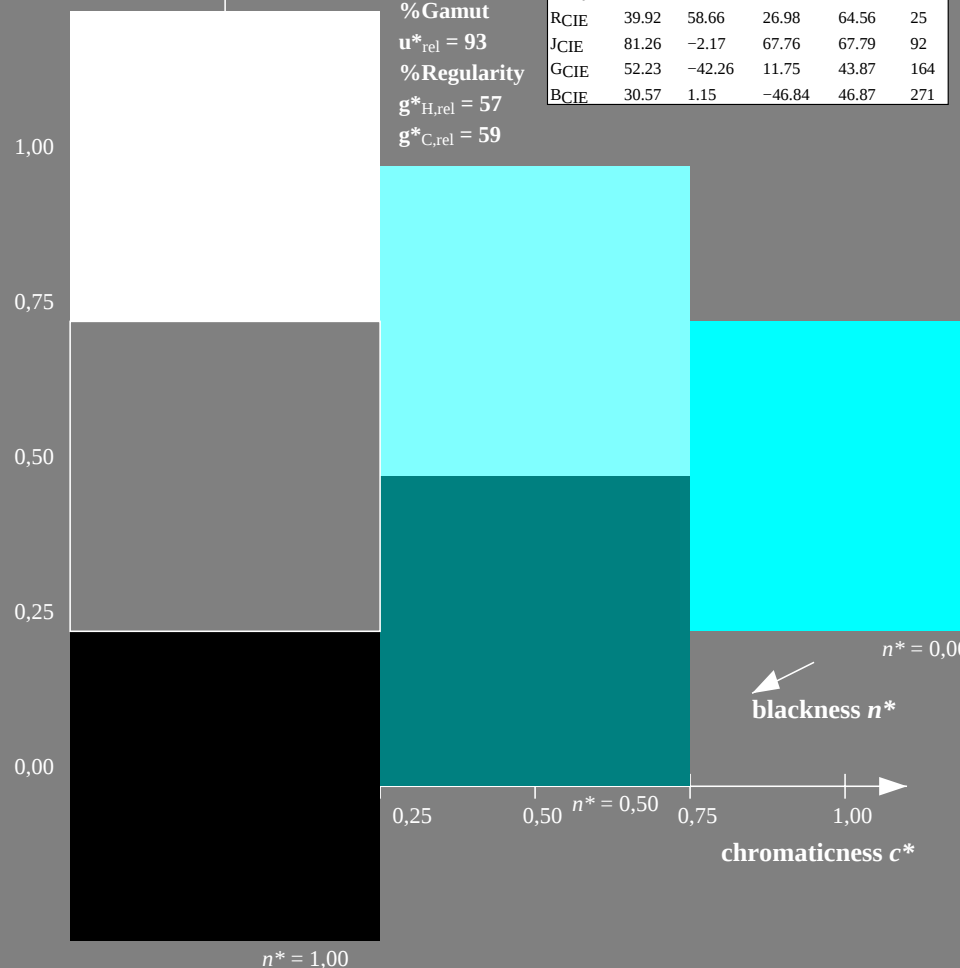
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 236/360 = 0.656 (left)

5 step scales for constant CIELAB hue 203/360 = 0.564 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

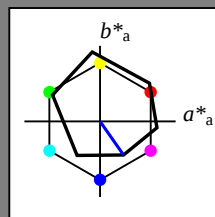
$lab^*ich$  and  $lab^*nch$

D65: hue V

LCH\*Ma: 26 54 305

rgb\*Ma: 0.0 0.0 1.0

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 93$   
%Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

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

Output: Colorimetric Reflective System NRS11

for hue  $h^* = lab^*h = 273/360 = 0.758$

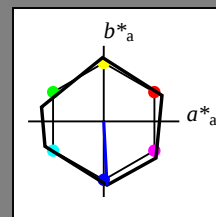
$lab^*ich$  and  $lab^*nch$

D65: hue B

LCH\*Ma: 53 84 273

rgb\*Ma: 0.0 0.0 1.0

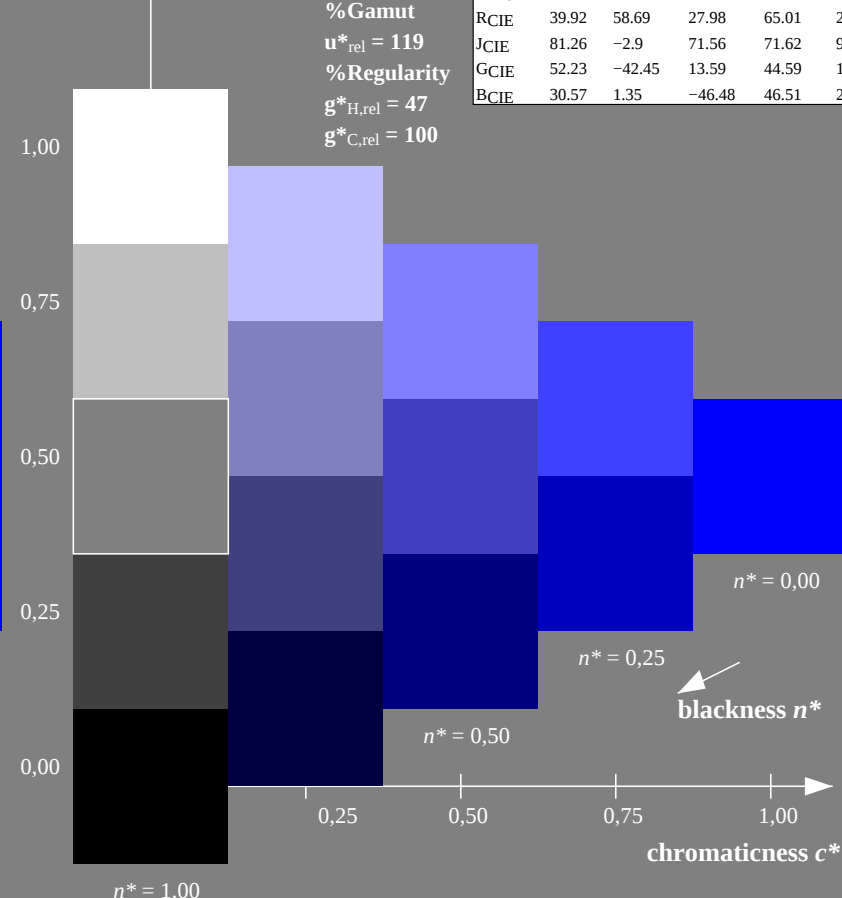
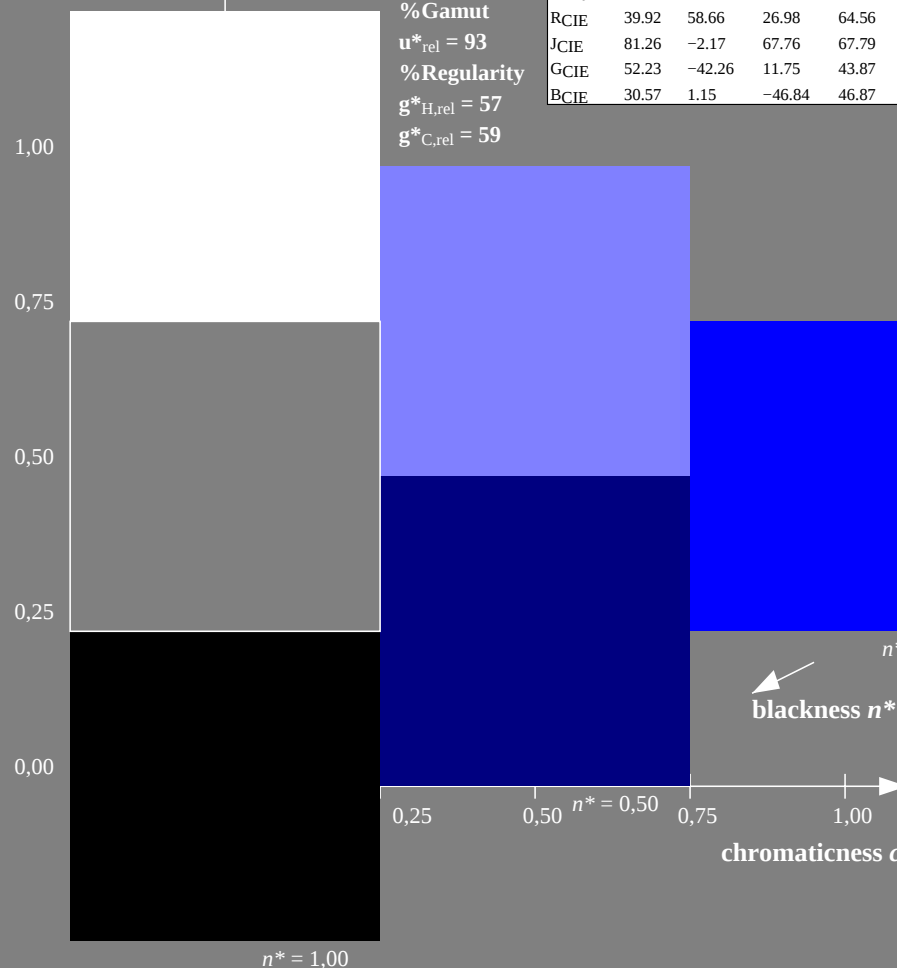
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 305/360 = 0.847 (left)

5 step scales for constant CIELAB hue 273/360 = 0.758 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

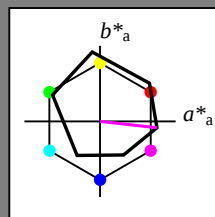
$lab^*ich$  and  $lab^*nch$

D65: hue M

LCH\*Ma: 48 76 354

rgb\*Ma: 1.0 0.0 1.0

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 93$   
%Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

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

Output: Colorimetric Reflective System NRS11

for hue  $h^* = lab^*h = 325/360 = 0.903$

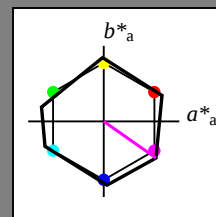
$lab^*ich$  and  $lab^*nch$

D65: hue B50R

LCH\*Ma: 53 84 325

rgb\*Ma: 1.0 0.0 1.0

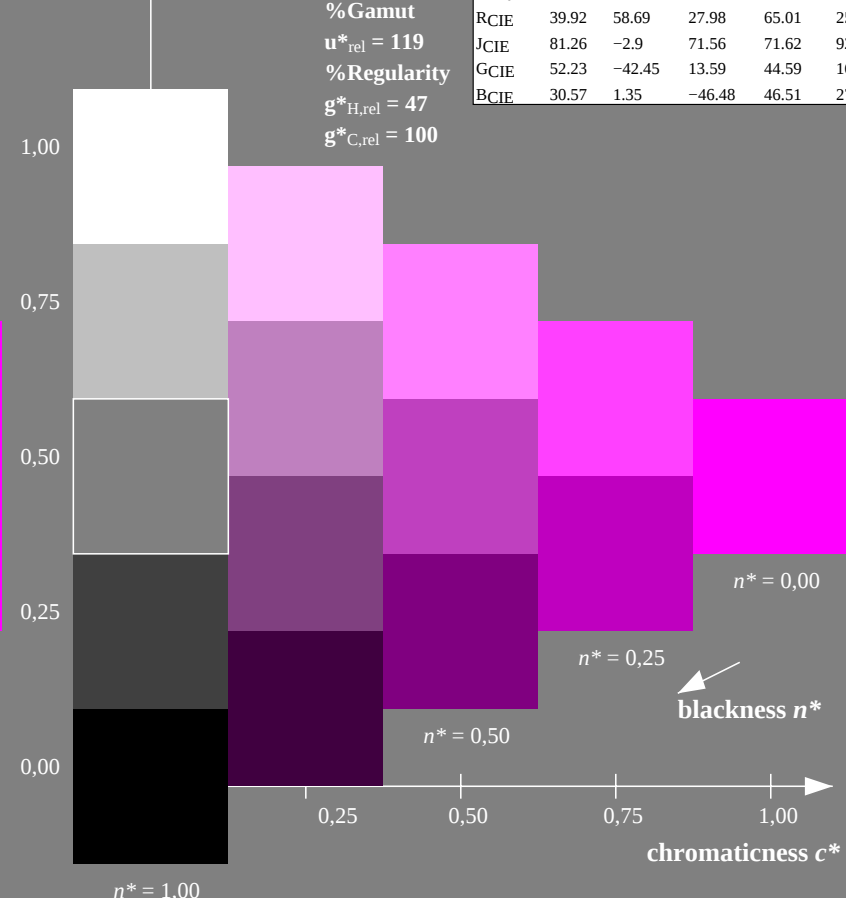
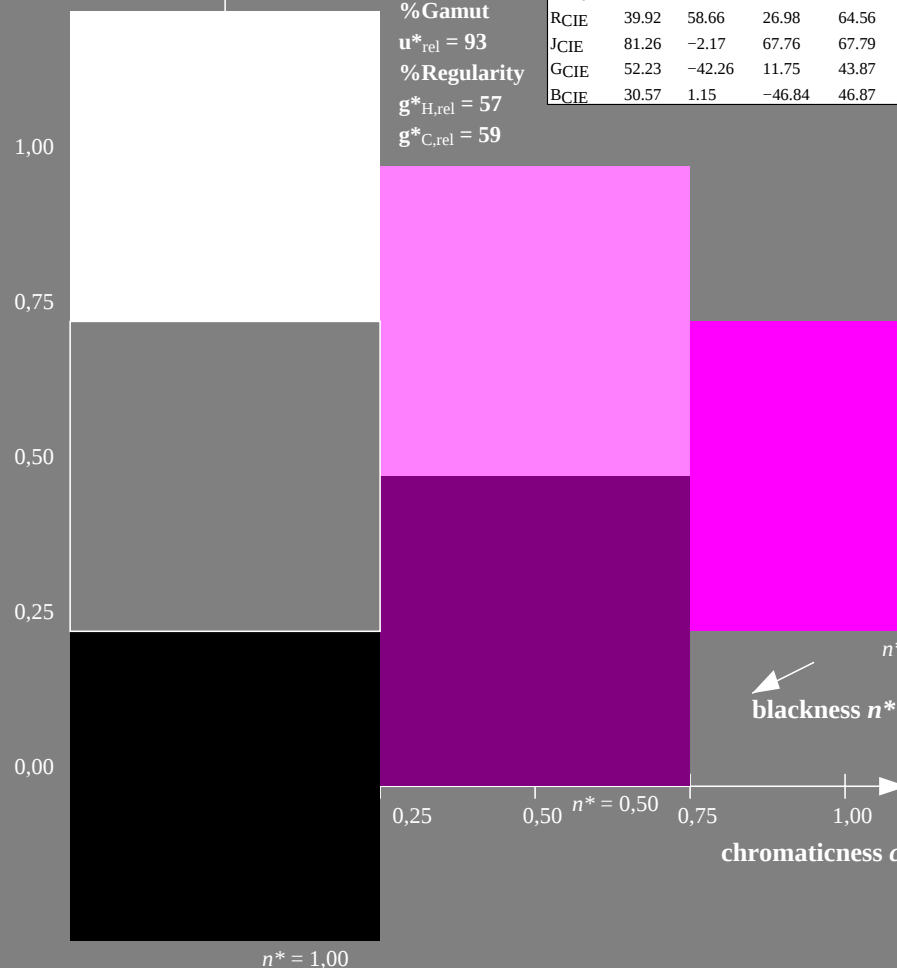
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 354/360 = 0.982 (left)

5 step scales for constant CIELAB hue 325/360 = 0.903 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$

output: no change compared to input



Input: Colorimetric Reflective System ORS18

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

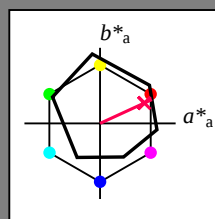
$lab^*ich$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 48 75 25

rgb\*Ma: 1.0 0.0 0.32

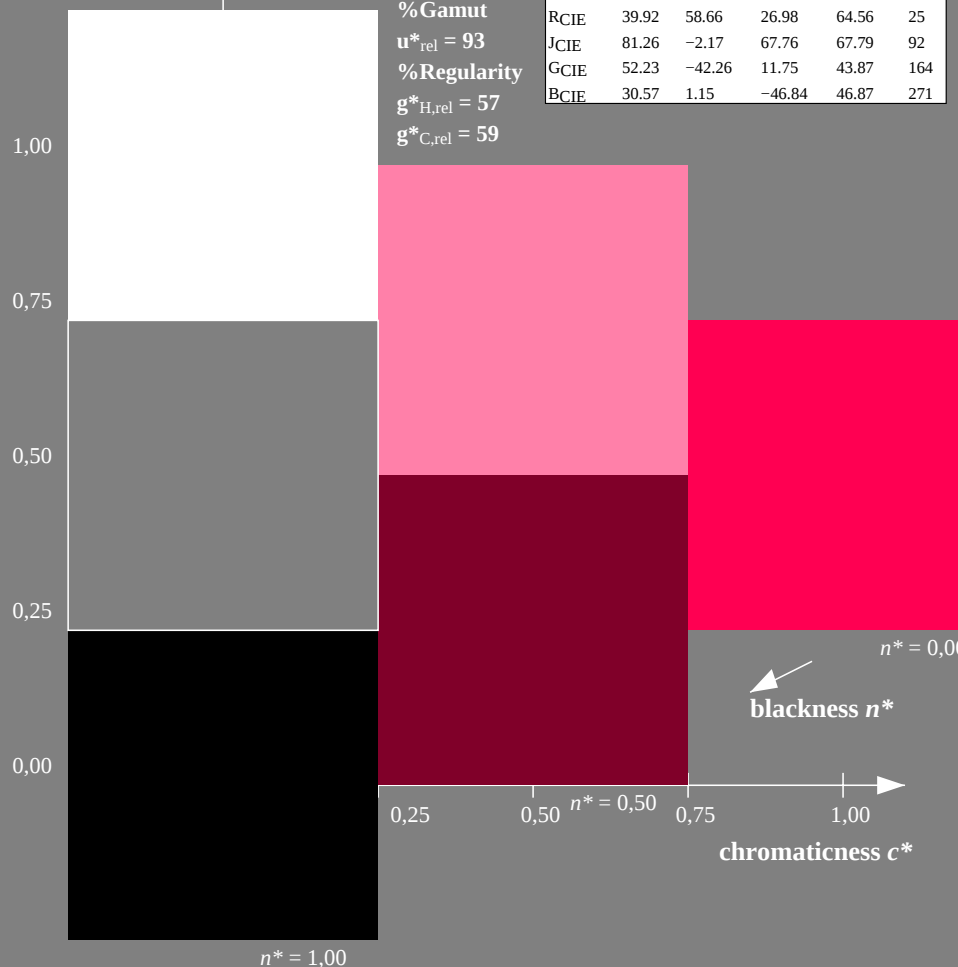
triangle lightness  $t^*$



% Gamut  
 $u^*_{rel} = 93$   
% Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

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



Output: Colorimetric Reflective System NRS11

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

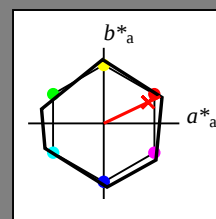
$lab^*ich$  and  $lab^*nch$

D65: hue R

LCH\*Ma: 53 83 25

rgb\*Ma: 1.0 0.03 0.0

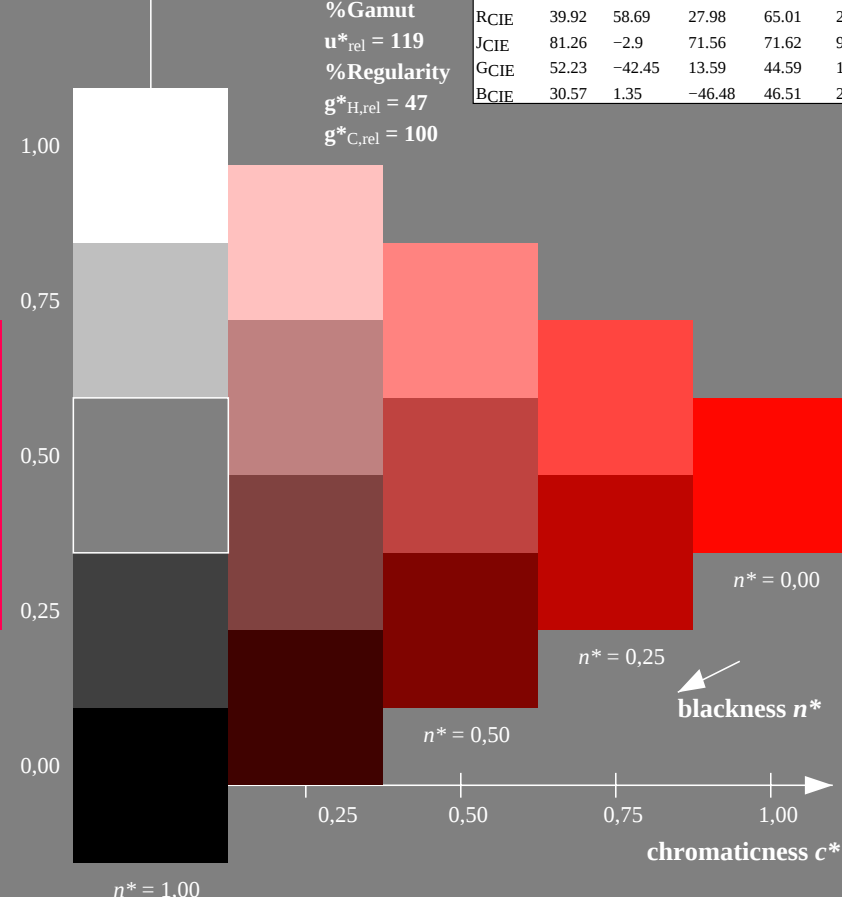
triangle lightness  $t^*$



% Gamut  
 $u^*_{rel} = 119$   
% Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 25/360 = 0.069 (left)

5 step scales for constant CIELAB hue 25/360 = 0.071 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$

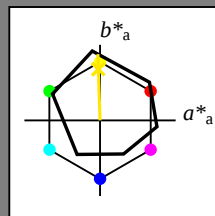
output: no change compared to input





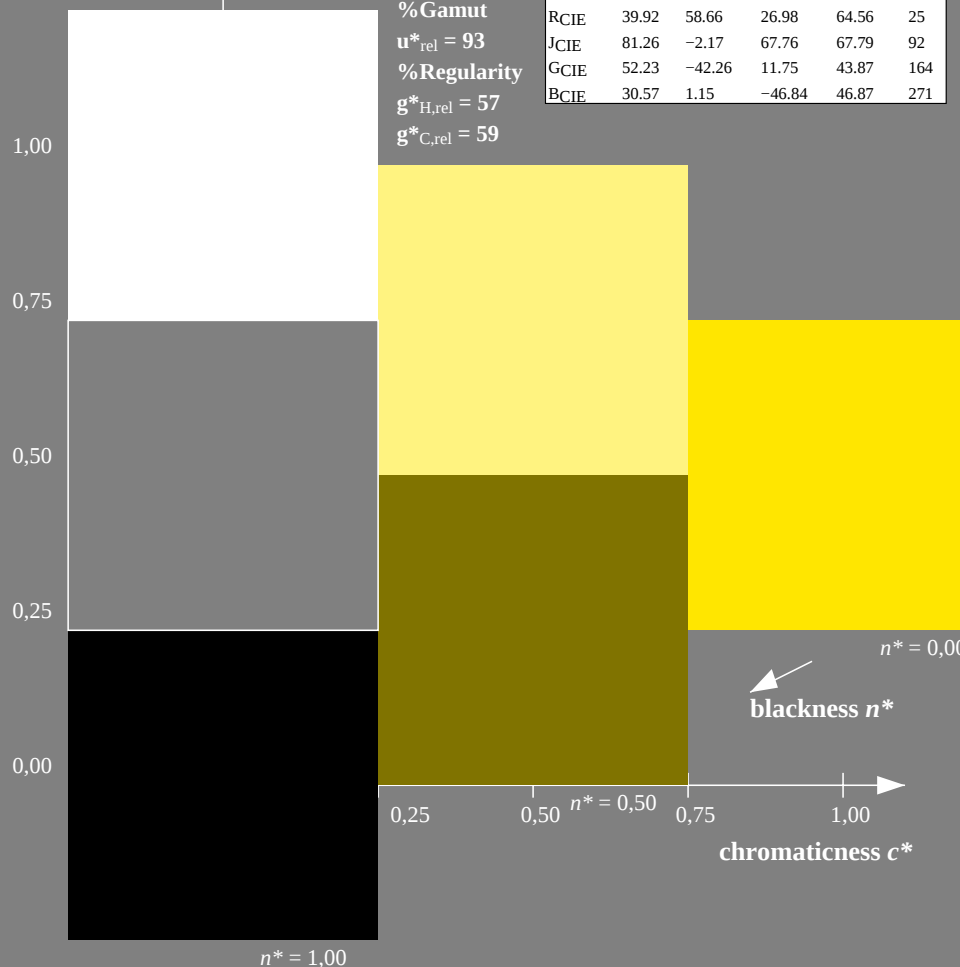
Input: Colorimetric Reflective System ORS18  
for hue  $h^* = lab^*h = 92/360 = 0.255$   
 $lab^*ich$  and  $lab^*nch$

D65: hue J  
LCH\*Ma: 86 88 92  
rgb\*Ma: 1.0 0.9 0.0  
triangle lightness  $t^*$



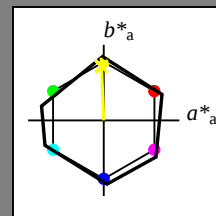
%Gamut  
 $u^*_{rel} = 93$   
%Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

| ORS18; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| OMa                            | 47.94       | 65.37   | 50.52   | 82.62        | 38           |
| YMa                            | 90.37       | -10.27  | 91.77   | 92.34        | 96           |
| LMa                            | 50.9        | -62.79  | 34.95   | 71.87        | 151          |
| CMa                            | 58.62       | -30.35  | -45.01  | 54.3         | 236          |
| VMa                            | 25.71       | 31.11   | -44.42  | 54.24        | 305          |
| MMa                            | 48.13       | 75.27   | -8.35   | 75.73        | 354          |
| NMa                            | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa                            | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE                           | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE                           | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE                           | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE                           | 30.57       | 1.15    | -46.84  | 46.87        | 271          |



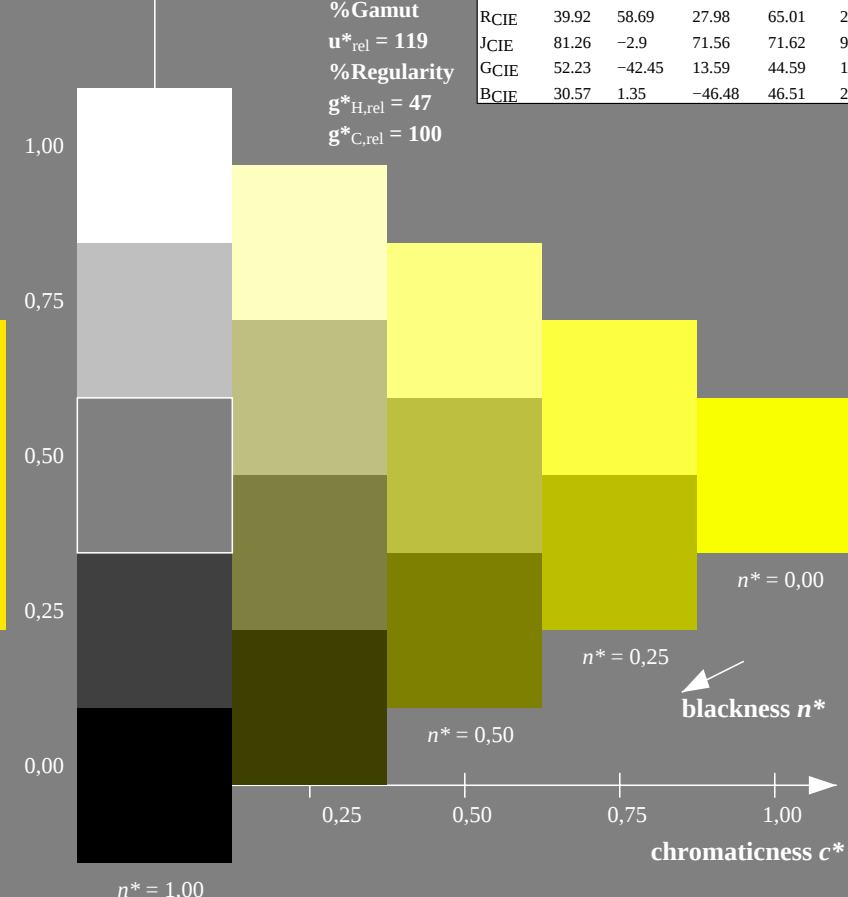
Output: Colorimetric Reflective System NRS11  
for hue  $h^* = lab^*h = 92/360 = 0.256$   
 $lab^*ich$  and  $lab^*nch$

D65: hue J  
LCH\*Ma: 53 83 92  
rgb\*Ma: 0.98 1.0 0.0  
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

| NRS11; adapted (a) CIELAB data |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| RMa                            | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa                            | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa                            | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa                         | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa                            | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa                         | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa                            | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa                            | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE                           | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE                           | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE                           | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE                           | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 92/360 = 0.255 (left)

5 step scales for constant CIELAB hue 92/360 = 0.256 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11  
D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$   
output: no change compared to input



Input: Colorimetric Reflective System ORS18

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

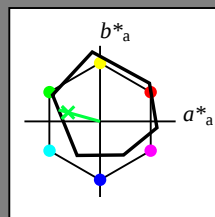
$lab^*ich$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 53 57 164

rgb\*Ma: 0.0 1.0 0.25

triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 93$   
%Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

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

Output: Colorimetric Reflective System NRS11

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

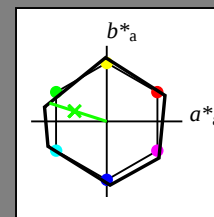
$lab^*ich$  and  $lab^*nch$

D65: hue G

LCH\*Ma: 53 80 162

rgb\*Ma: 0.08 1.0 0.0

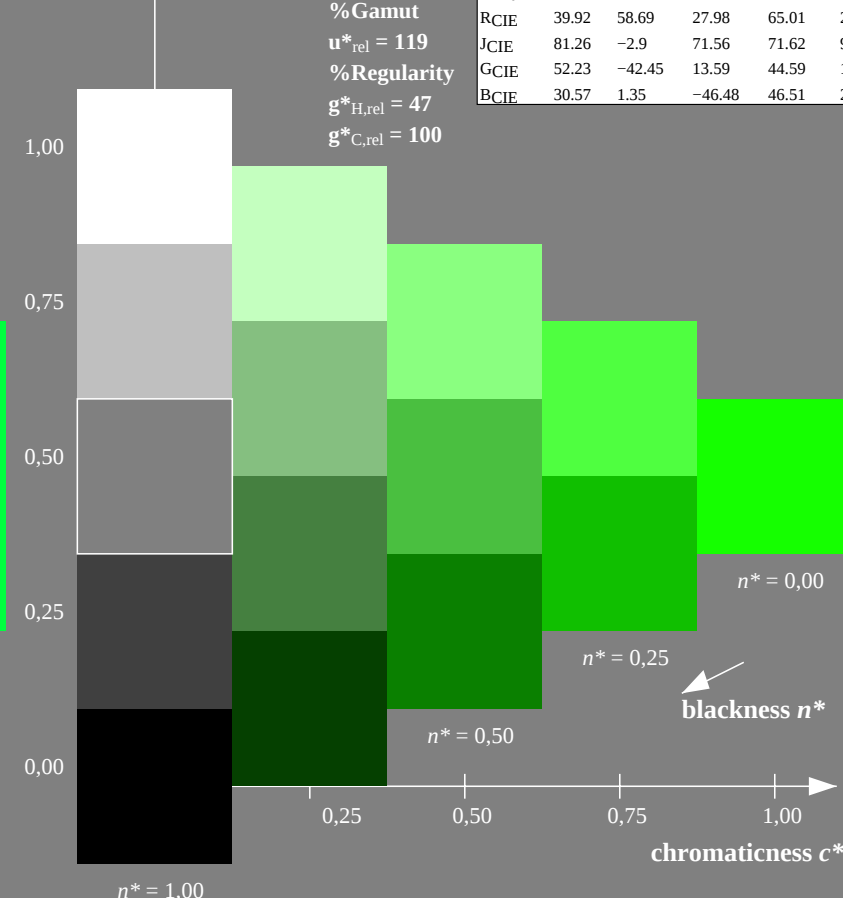
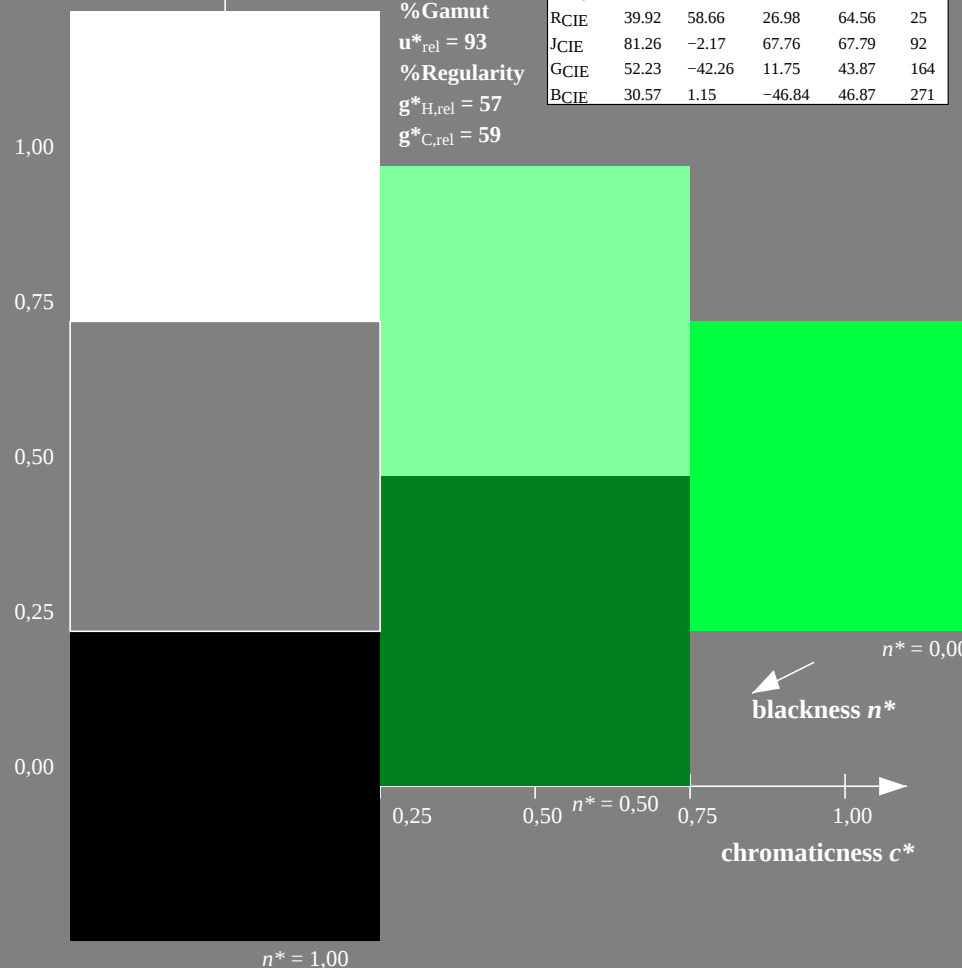
triangle lightness  $t^*$



%Gamut  
 $u^*_{rel} = 119$   
%Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



TE820-7, 3 step scales for constant CIELAB hue 164/360 = 0.457 (left)

5 step scales for constant CIELAB hue 162/360 = 0.451 (right)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

input:  $olv^* setrgbcolor$

output: no change compared to input

Input: Colorimetric Reflective System ORS18

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

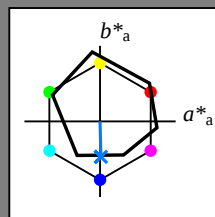
$lab^*ich$  and  $lab^*nch$

D65: hue B

LCH\*Ma: 42 45 271

rgb\*Ma: 0.0 0.49 1.0

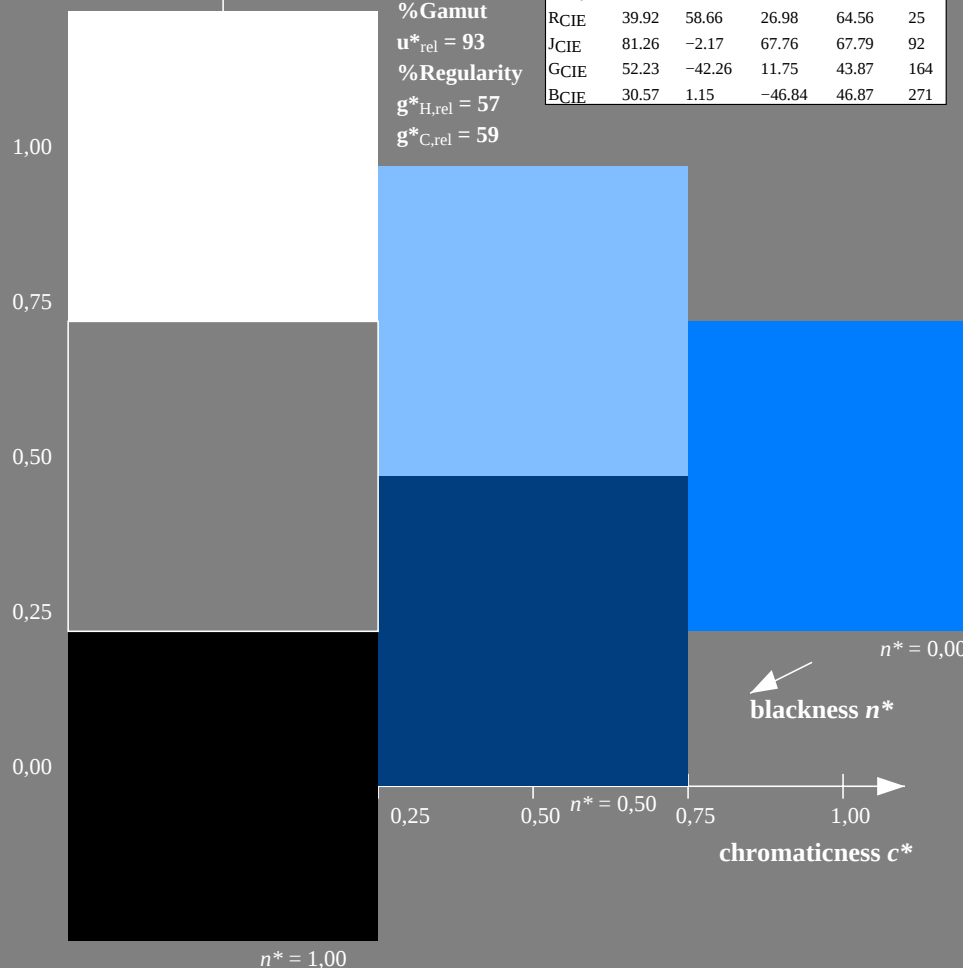
triangle lightness  $t^*$



% Gamut  
 $u^*_{rel} = 93$   
% Regularity  
 $g^*_{H,rel} = 57$   
 $g^*_{C,rel} = 59$

ORS18; adapted (a) CIELAB data

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



TE820-7, 3 step scales for constant CIELAB hue 271/360 = 0.754 (left)

BAM-test chart TE82; Colorimetric systems ORS18 & NRS11

D65: 3 and 5 step colour scales for 10 hues

Output: Colorimetric Reflective System NRS11

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

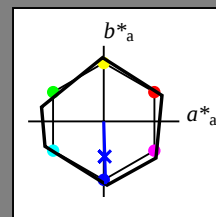
$lab^*ich$  and  $lab^*nch$

D65: hue B

LCH\*Ma: 53 83 272

rgb\*Ma: 0.0 0.02 1.0

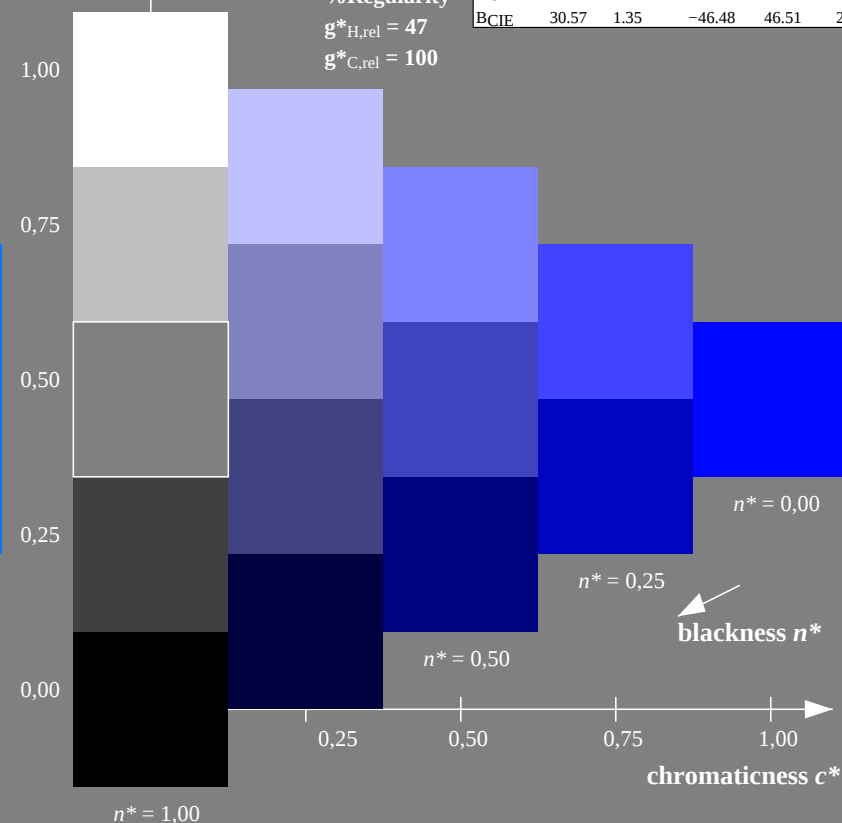
triangle lightness  $t^*$



% Gamut  
 $u^*_{rel} = 119$   
% Regularity  
 $g^*_{H,rel} = 47$   
 $g^*_{C,rel} = 100$

NRS11; adapted (a) CIELAB data

|        | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|-------------|---------|---------|--------------|--------------|
| RMa    | 53.2        | 77.06   | 34.32   | 84.36        | 24           |
| JMa    | 53.2        | -1.51   | 84.38   | 84.39        | 91           |
| GMa    | 53.2        | -82.27  | 18.98   | 84.44        | 167          |
| G50BMa | 53.2        | -77.72  | -32.98  | 84.44        | 203          |
| BMa    | 53.2        | 4.37    | -84.28  | 84.41        | 273          |
| B50RMa | 53.2        | 69.09   | -48.41  | 84.37        | 325          |
| NMa    | 10.99       | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92       | 58.69   | 27.98   | 65.01        | 25           |
| JCIE   | 81.26       | -2.9    | 71.56   | 71.62        | 92           |
| GCIE   | 52.23       | -42.45  | 13.59   | 44.59        | 162          |
| BCIE   | 30.57       | 1.35    | -46.48  | 46.51        | 272          |



5 step scales for constant CIELAB hue 272/360 = 0.755 (right)

input:  $olv^* setrgbcolor$

output: no change compared to input