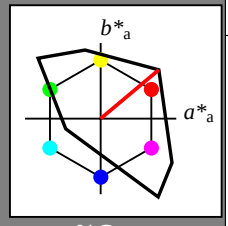
**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 40/360 = 0.111**
***lab*tch* and *lab*nch***

**D65: hue O**
**LCH*Ma: 51 100 40**
**olv*Ma: 1.0 0.0 0.0**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

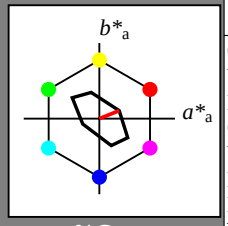
| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 22/360 = 0.061**
***lab*tch* and *lab*nch***

**D65: hue O**
**LCH*Ma: 76 28 22**
**olv*Ma: 1.0 0.0 0.0**

**triangle lightness**

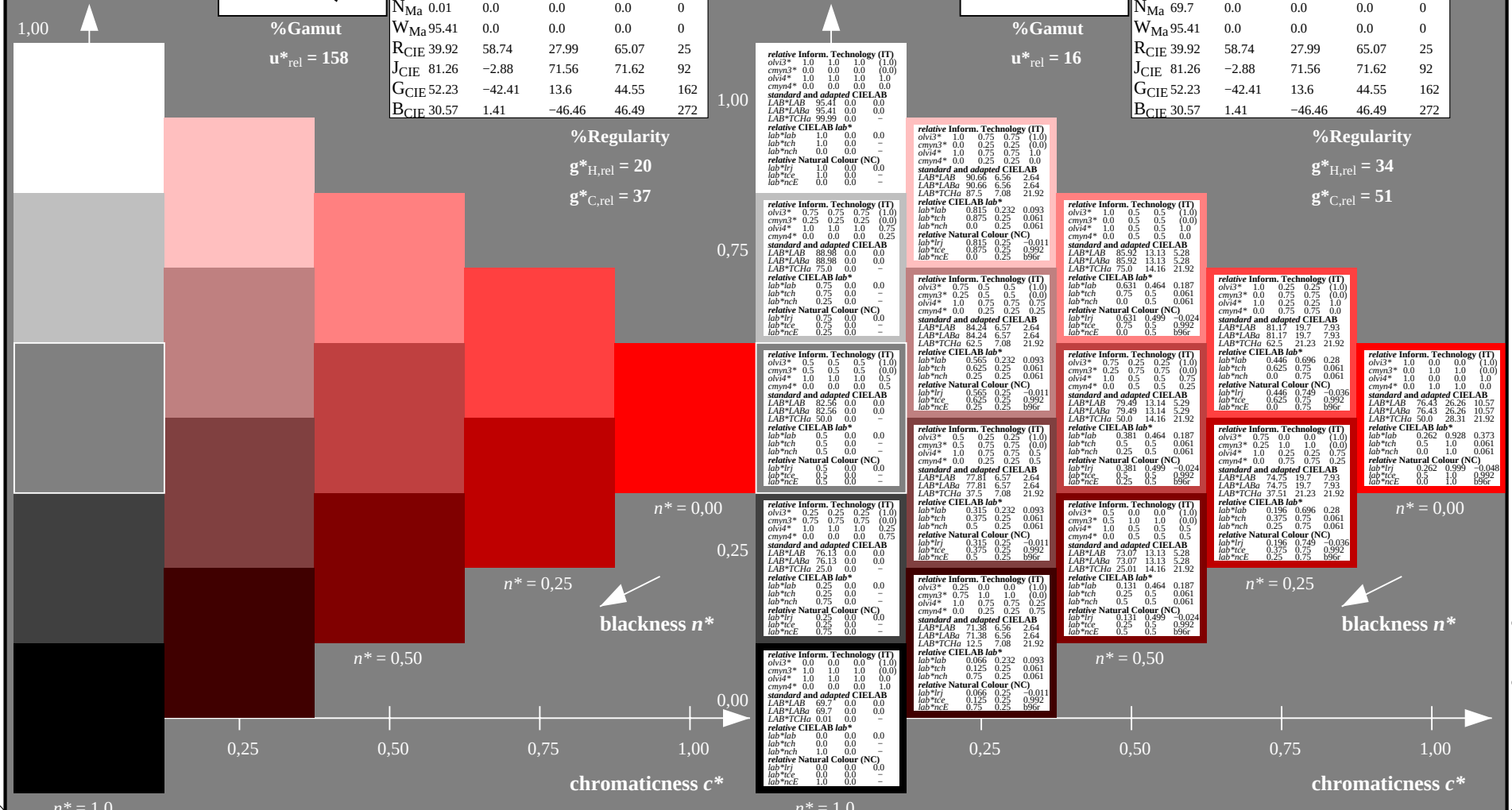



**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**




NE430−7, 5 step scales for constant CIELAB hue 40/360 = 0.111 (left)

5 step scales for constant CIELAB hue 22/360 = 0.061 (right)

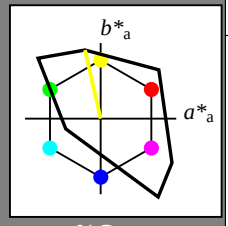
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 103/360 = 0.286**
***lab*tch* and *lab*nch***

**D65: hue Y**
**LCH*Ma: 93 93 103**
**olv*Ma: 1.0 1.0 0.0**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

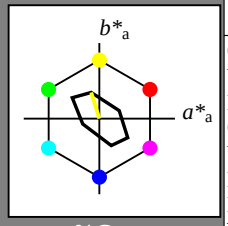
| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 107/360 = 0.298**
***lab*tch* and *lab*nch***

**D65: hue Y**
**LCH*Ma: 94 36 107**
**olv*Ma: 1.0 1.0 0.0**

**triangle lightness**




**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**

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

NE430−7, 5 step scales for constant CIELAB hue 103/360 = 0.286 (left)
5 step scales for constant CIELAB hue 107/360 = 0.298 (right)

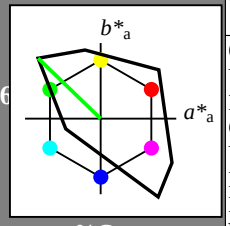
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 136/360 = 0.378**
***lab*tch* and *lab*nch***

**D65: hue L**
**LCH*Ma: 84 115 136**
**olv*Ma: 0.0 1.0 0.0**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

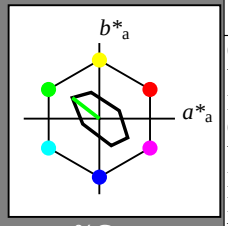
| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 142/360 = 0.395**
***lab*tch* and *lab*nch***

**D65: hue L**
**LCH*Ma: 89 45 142**
**olv*Ma: 0.0 1.0 0.0**

**triangle lightness**




**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**

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

NE430−7, 5 step scales for constant CIELAB hue 136/360 = 0.378 (left)
5 step scales for constant CIELAB hue 142/360 = 0.395 (right)

BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

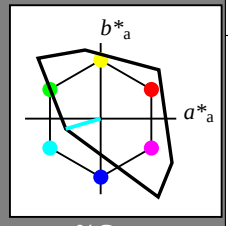
input: *olv* setrgbcolor*
output: *no change compared to input*

## Input: Colorimetric Television Luminous System TLS00

**for hue *h** = lab*h = 196/360 = 0.545**
***lab*tch* and *lab*nch***

**D65: hue C**
**LCH*Ma: 87 48 196**
**olv*Ma: 0.0 1.0 1.0**

**triangle lightness**

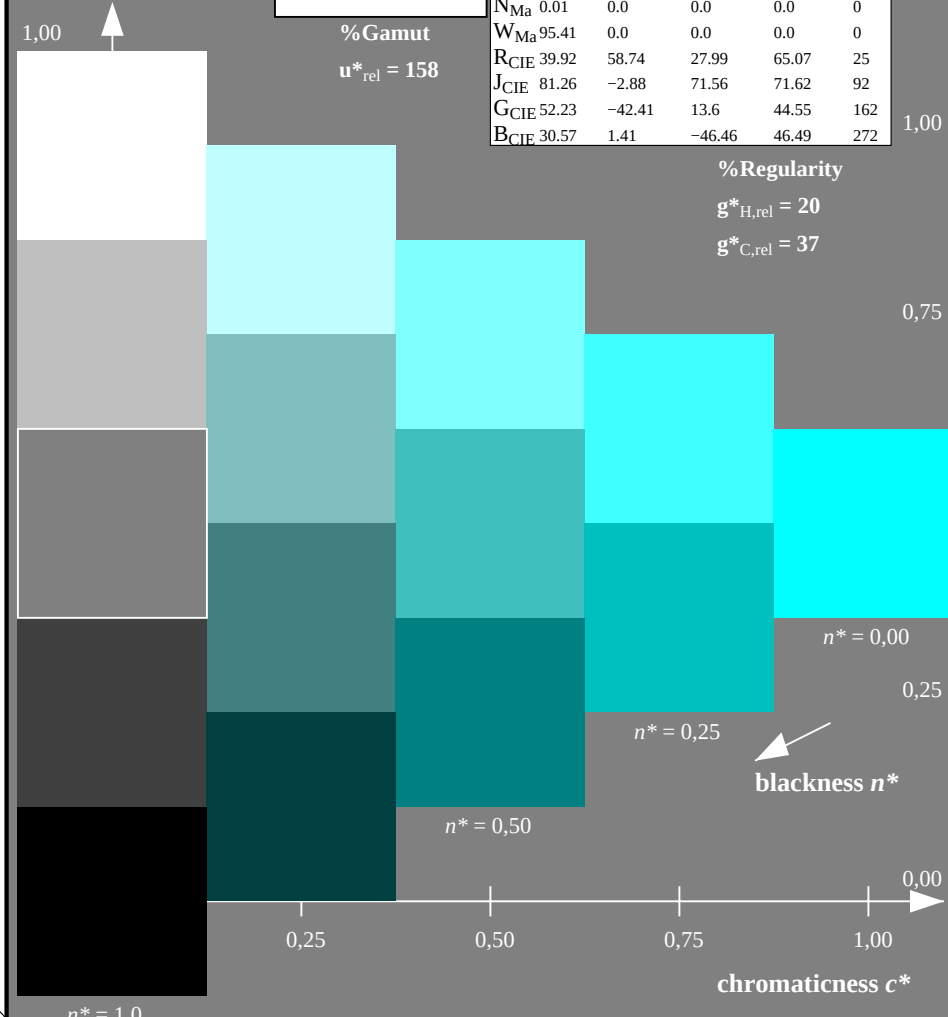



**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

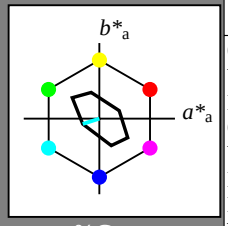



## Output: Colorimetric Television Luminous System TLS70

**for hue *h** = lab*h = 198/360 = 0.55**
***lab*tch* and *lab*nch***

**D65: hue C**
**LCH*Ma: 91 23 198**
**olv*Ma: 0.0 1.0 1.0**

**triangle lightness**

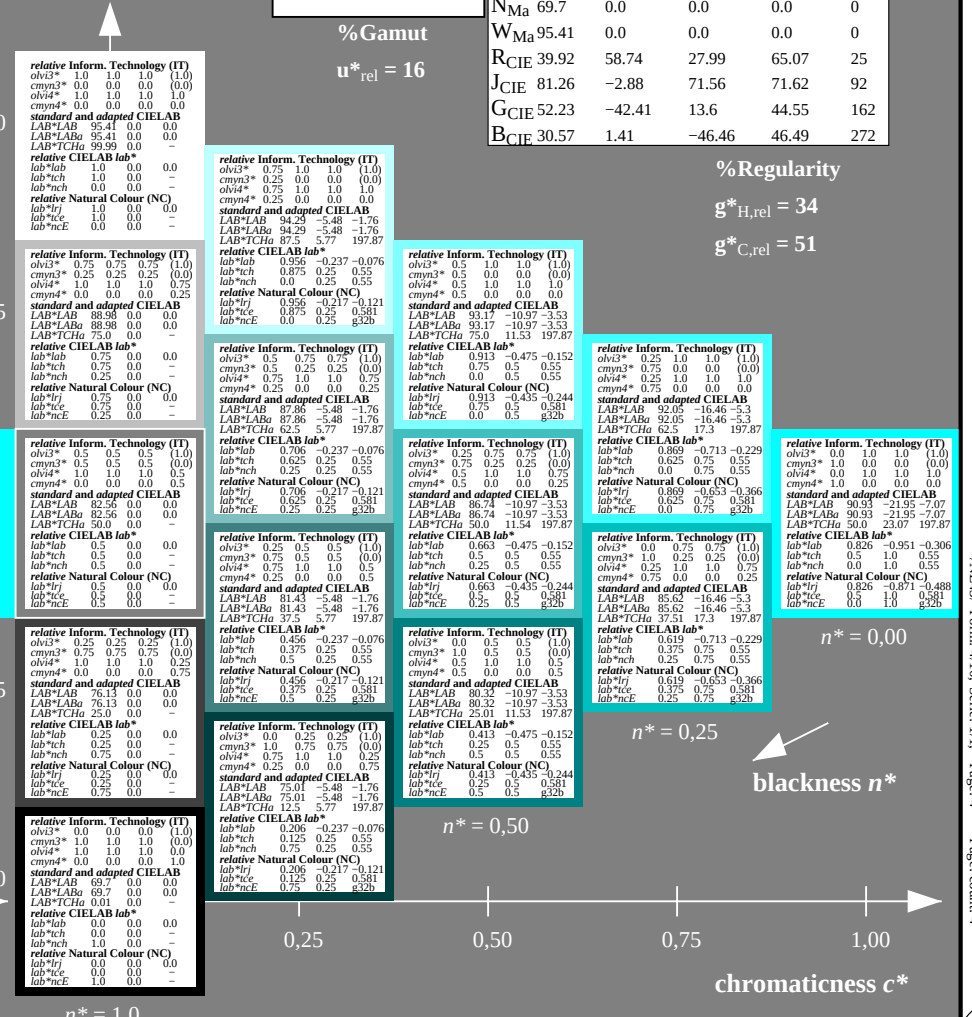



**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**




NE430−7, 5 step scales for constant CIELAB hue 196/360 = 0.545 (left)

5 step scales for constant CIELAB hue 198/360 = 0.55 (right)

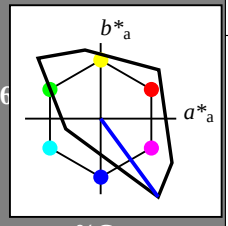
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 306/360 = 0.851**
***lab*tch* and *lab*nch***

**D65: hue V**
**LCH*Ma: 30 129 306**
**olv*Ma: 0.0 0.0 1.0**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

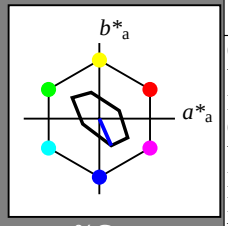
| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 294/360 = 0.816**
***lab*tch* and *lab*nch***

**D65: hue V**
**LCH*Ma: 72 39 294**
**olv*Ma: 0.0 0.0 1.0**

**triangle lightness**




**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**

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

NE430−7, 5 step scales for constant CIELAB hue 306/360 = 0.851 (left)
5 step scales for constant CIELAB hue 294/360 = 0.816 (right)

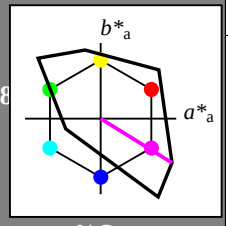
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 328/360 = 0.912**
***lab*tch* and *lab*nch***

**D65: hue M**
**LCH*Ma: 57 111 328**
**olv*Ma: 1.0 0.0 1.0**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

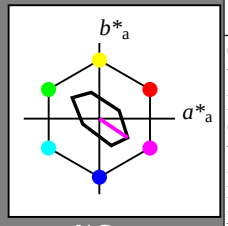
**TLS00; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 326/360 = 0.906**
***lab*tch* and *lab*nch***

**D65: hue M**
**LCH*Ma: 79 45 326**
**olv*Ma: 1.0 0.0 1.0**

**triangle lightness**




**%Gamut**
**u*rel = 16**

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

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

NE430−7, 5 step scales for constant CIELAB hue 328/360 = 0.912 (left)
5 step scales for constant CIELAB hue 326/360 = 0.906 (right)

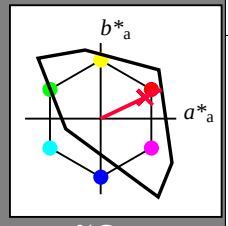
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 25/360 = 0.071**
***lab*tch* and *lab*nch***

**D65: hue R**
**LCH*Ma: 52 89 25**
**olv*Ma: 1.0 0.0 0.21**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

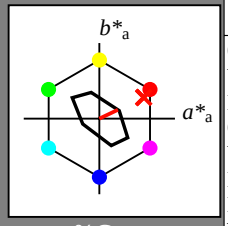
| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 25/360 = 0.071**
***lab*tch* and *lab*nch***

**D65: hue R**
**LCH*Ma: 77 27 25**
**olv*Ma: 1.0 0.05 0.0**

**triangle lightness**

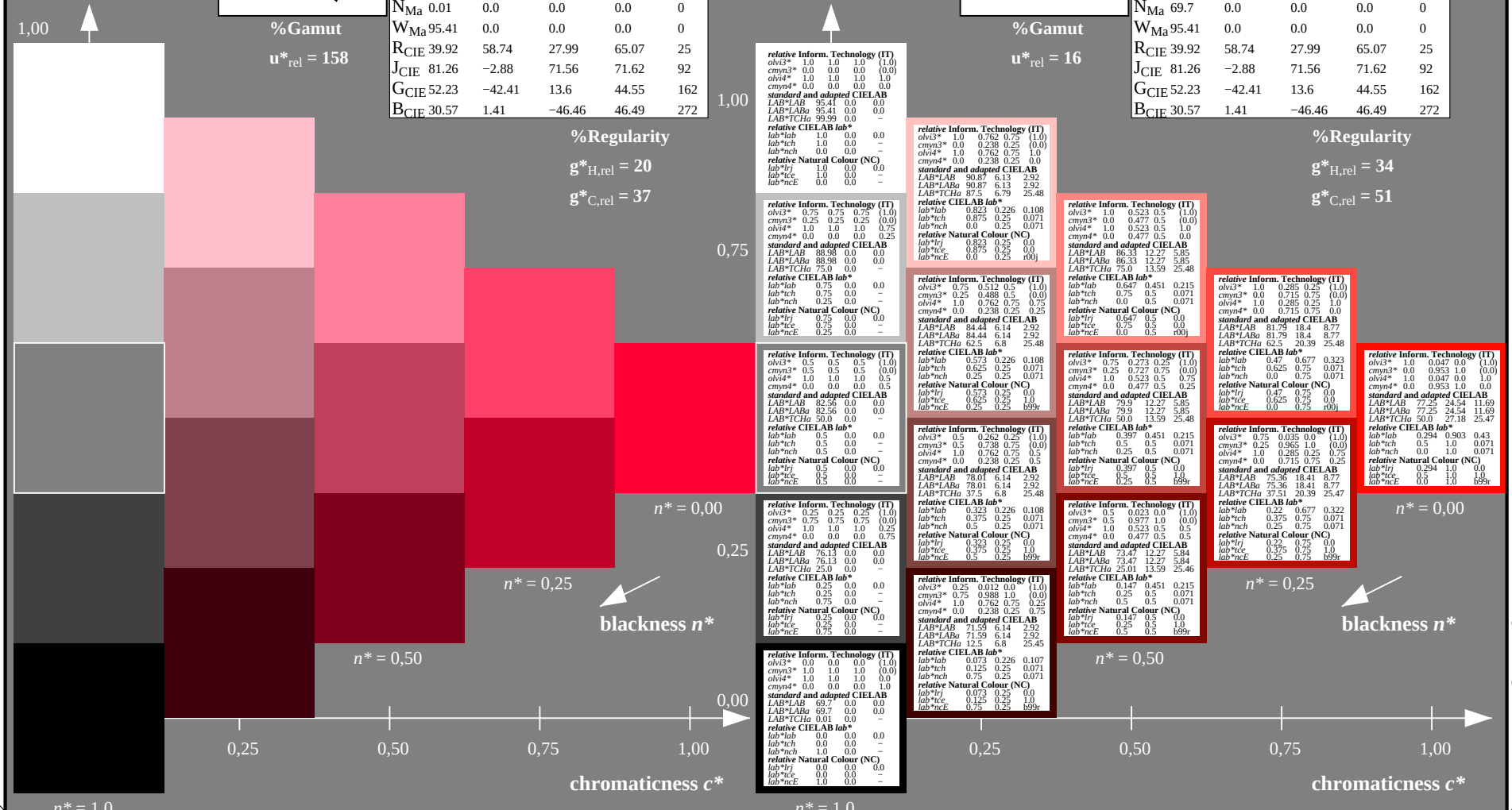



**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**




NE430−7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)

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

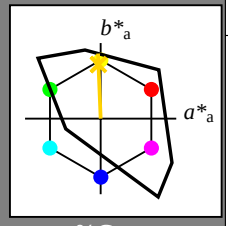
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 92/360 = 0.256**
***lab*tch* and *lab*nch***

**D65: hue J**
**LCH*Ma: 85 86 92**
**olv*Ma: 1.0 0.82 0.0**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

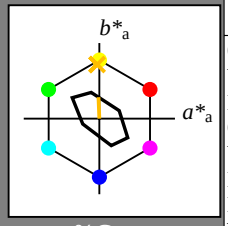
**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

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

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 92/360 = 0.256**
***lab*tch* and *lab*nch***

**D65: hue J**
**LCH*Ma: 89 28 92**
**olv*Ma: 1.0 0.74 0.0**

**triangle lightness**




**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**

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

NE430−7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)
5 step scales for constant CIELAB hue 92/360 = 0.256 (right)

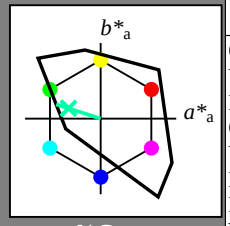
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h* = lab*h = 162/360 = 0.451***
***lab*tch* and *lab*nch***

**D65: hue G**
**LCH*Ma: 86 62 162**
**olv*Ma: 0.0 1.0 0.65**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

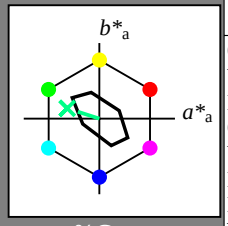
| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h* = lab*h = 162/360 = 0.451***
***lab*tch* and *lab*nch***

**D65: hue G**
**LCH*Ma: 90 30 162**
**olv*Ma: 0.0 1.0 0.53**

**triangle lightness**

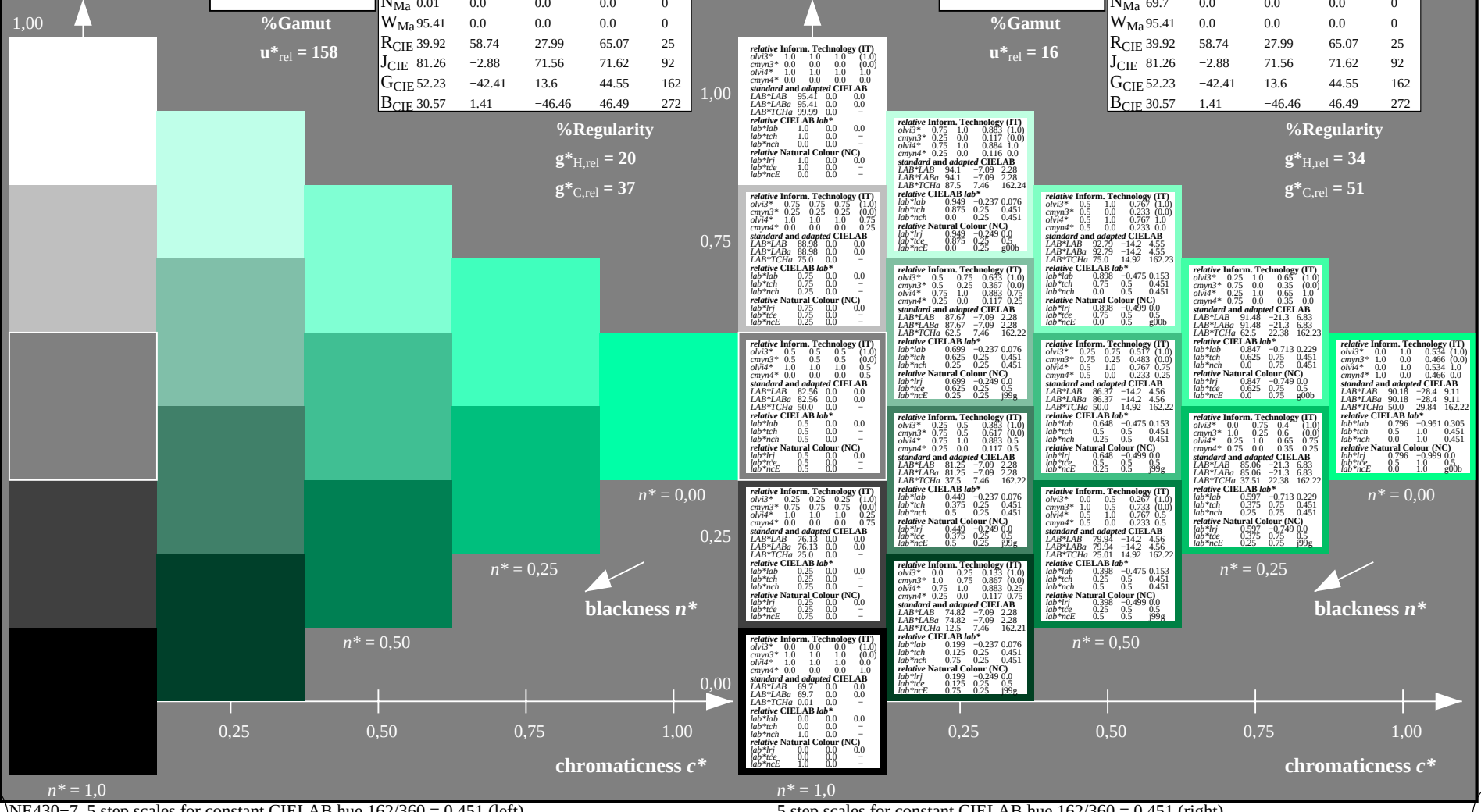



**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**




NE430−7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)

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

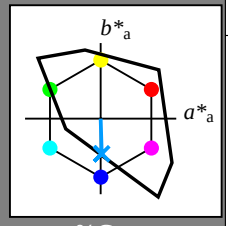
BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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

**Input: Colorimetric Television Luminous System TLS00**
**for hue *h** = *lab*h* = 272/360 = 0.755**
***lab*tch* and *lab*nch***

**D65: hue B**
**LCH*Ma: 65 49 272**
**olv*Ma: 0.0 0.61 1.0**

**triangle lightness**




**%Gamut**
**u*rel = 158**

**TLS00; adapted (a) CIELAB data**

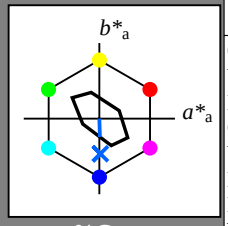
| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 50.5 | 76.92 | 64.55 | 100.42 | 40 |
| $Y_{Ma}$ | 92.66 | −20.69 | 90.75 | 93.08 | 103 |
| $L_{Ma}$ | 83.63 | −82.75 | 79.9 | 115.04 | 136 |
| $C_{Ma}$ | 86.88 | −46.16 | −13.55 | 48.12 | 196 |
| $V_{Ma}$ | 30.39 | 76.06 | −103.59 | 128.52 | 306 |
| $M_{Ma}$ | 57.3 | 94.35 | −58.41 | 110.97 | 328 |
| $N_{Ma}$ | 0.01 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 20**
**g*C,rel = 37**

**Output: Colorimetric Television Luminous System TLS70**
**for hue *h** = *lab*h* = 272/360 = 0.755**
***lab*tch* and *lab*nch***

**D65: hue B**
**LCH*Ma: 80 24 272**
**olv*Ma: 0.0 0.4 1.0**

**triangle lightness**

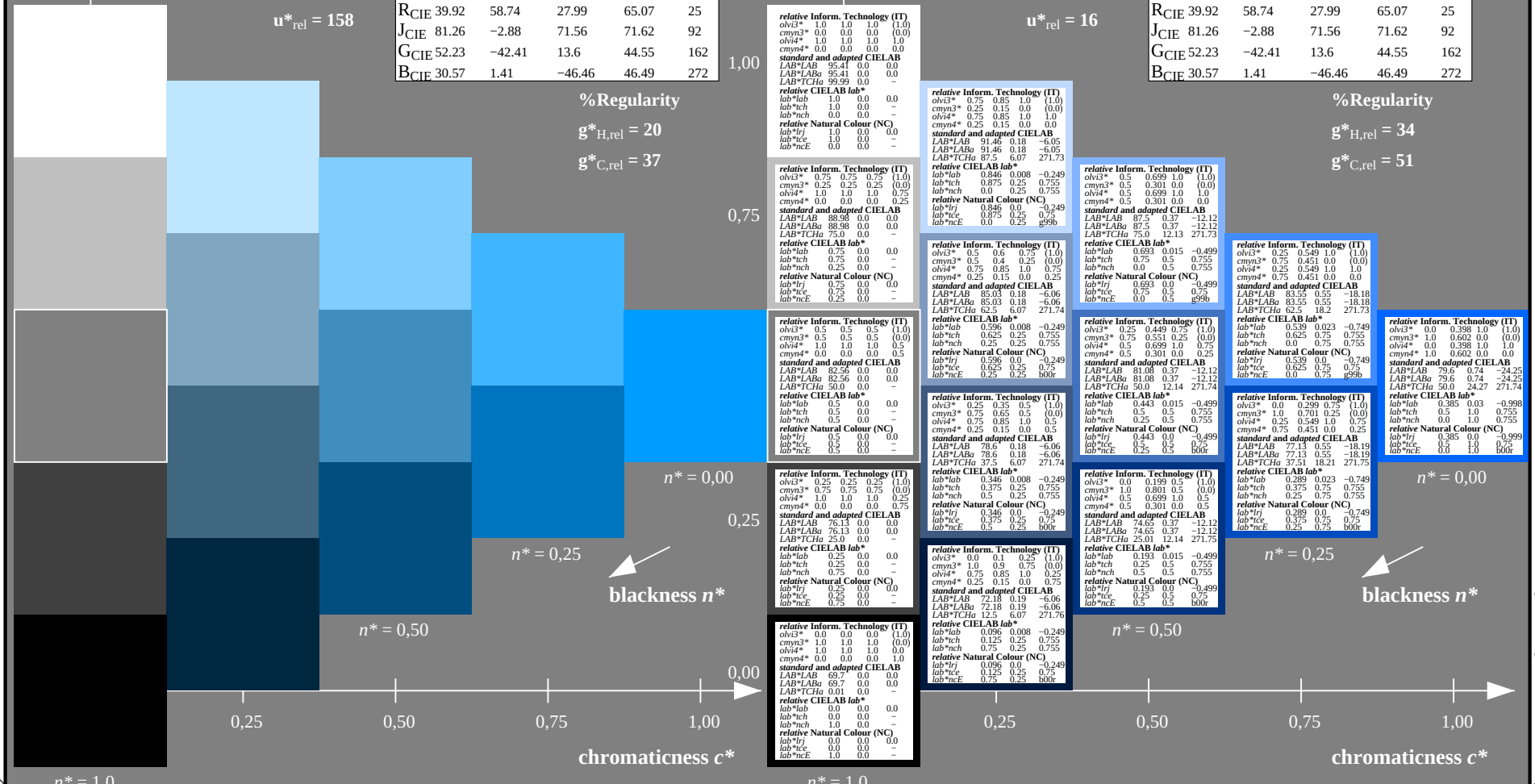



**%Gamut**
**u*rel = 16**

**TLS70; adapted (a) CIELAB data**

| | L*=L*a | a*a | b*a | C*ab,a | h*ab,a |
|---|---|---|---|---|---|
| $O_{Ma}$ | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| $Y_{Ma}$ | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| $L_{Ma}$ | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| $C_{Ma}$ | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| $V_{Ma}$ | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| $M_{Ma}$ | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| $N_{Ma}$ | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| $W_{Ma}$ | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| $R_{CIE}$ | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| $J_{CIE}$ | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| $G_{CIE}$ | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| $B_{CIE}$ | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

**%Regularity**
**g*H,rel = 34**
**g*C,rel = 51**




NE430−7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)

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

BAM-test chart NE43; Colorimetric systems TLS00 & TLS70
D65: 5 step colour scales and coordinate data for 10 hues

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