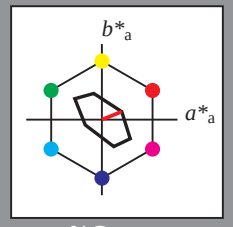
## Input: Colorimetric Television Luminous System TLS70

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 *t**




%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
0,50
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

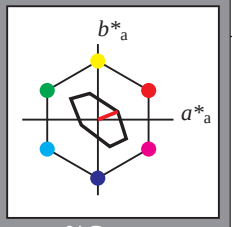
**chromaticness *c***

## 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 *t**




%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**

*n* = 0,00*
*n* = 0,25*
*n* = 0,50*
*n* = 1,0*

**blackness *n****

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

**chromaticness *c***

OE590−7, 5 step scales for constant CIELAB hue 22/360 = 0.061 (left)

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

BAM-test chart OE59; Colorimetric systems TLS70 & TLS70
D65: 2 coordinate data of 5 step colour scales for 10 hues

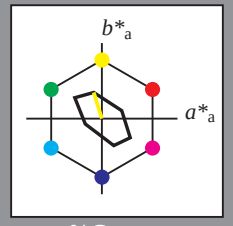
input: *cmy0* setcmykcolor*
output: *cmy0* / 000n* setcmykcolor*

## Input: 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 *t**




%Gamut

u*rel = 16

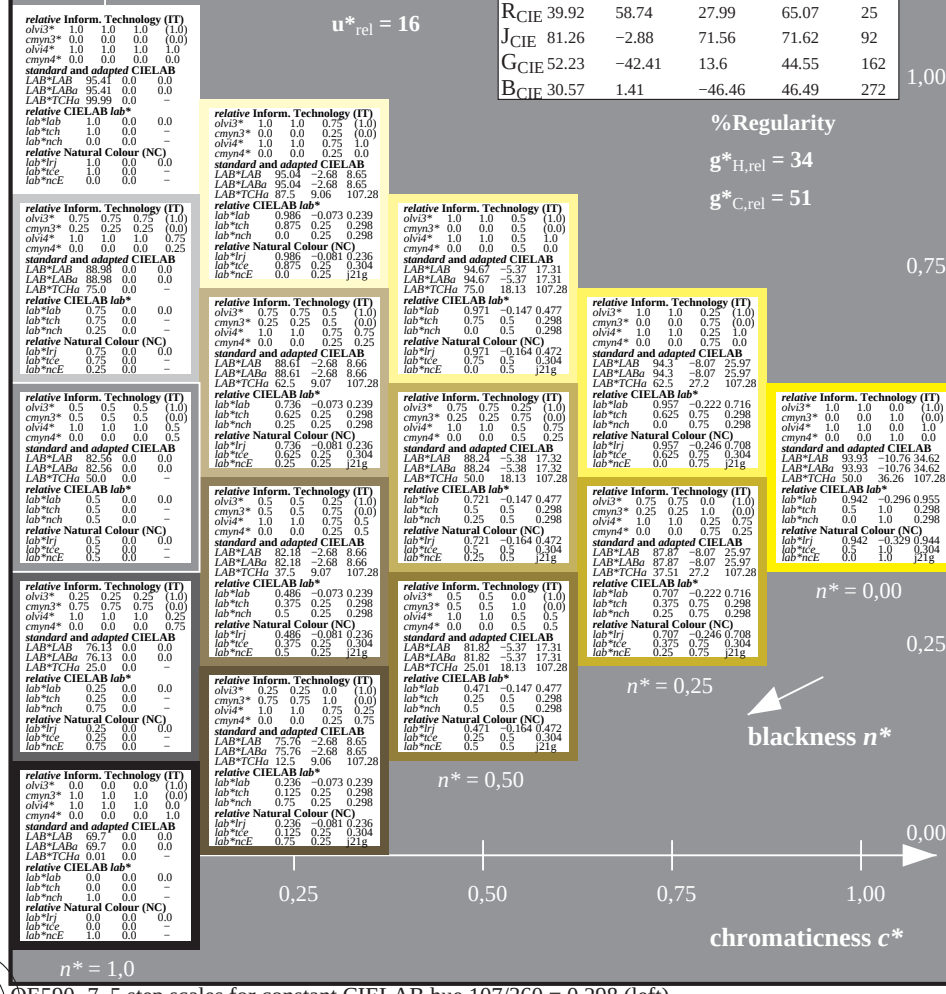
**TLS70; adapted (a) CIELAB data**

| | 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

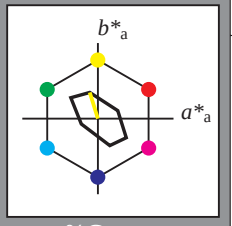



## Output: Colorimetric Television Luminous System TLS70

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 *t**




%Gamut

u*rel = 16

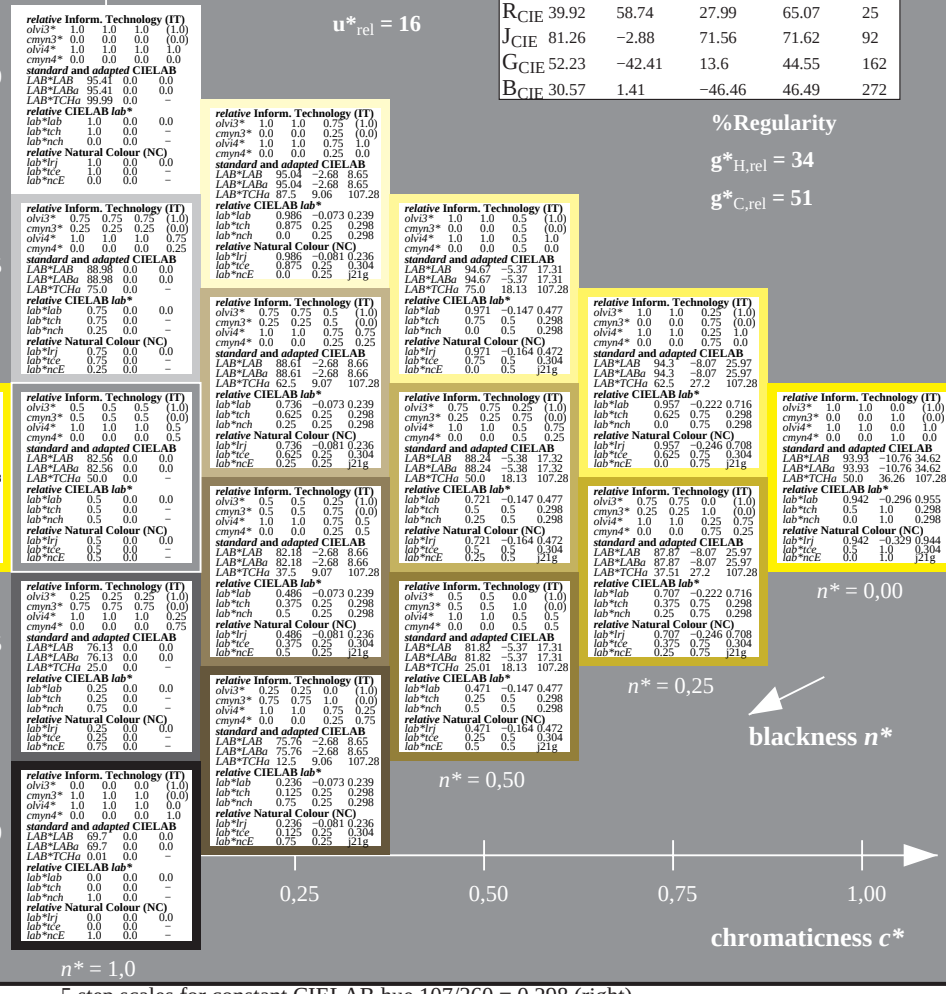
**TLS70; adapted (a) CIELAB data**

| | 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




OE590−7, 5 step scales for constant CIELAB hue 107/360 = 0.298 (left)

5 step scales for constant CIELAB hue 107/360 = 0.298 (right)

BAM-test chart OE59; Colorimetric systems TLS70 & TLS70
D65: 2 coordinate data of 5 step colour scales for 10 hues

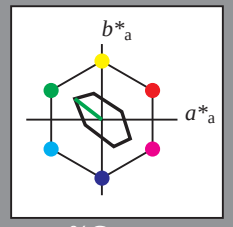
input: *cmy0* setcmykcolor*
output: *cmy0* / 000n* setcmykcolor*

## Input: 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 *t**




%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**

chromaticness *c**

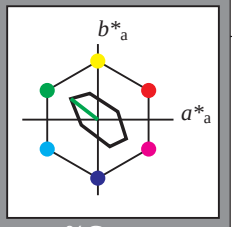
0,25 0,50 0,75 1,00

## 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 *t**




%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

OE590−7, 5 step scales for constant CIELAB hue 142/360 = 0.395 (left)

5 step scales for constant CIELAB hue 142/360 = 0.395 (right)

BAM-test chart OE59; Colorimetric systems TLS70 & TLS70
D65: 2 coordinate data of 5 step colour scales for 10 hues

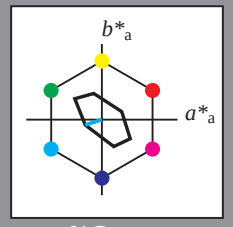
input: *cmy0* setcmykcolor*
output: *cmy0* / 000n* setcmykcolor*

## Input: 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 *t**




%Gamut

u*rel = 16

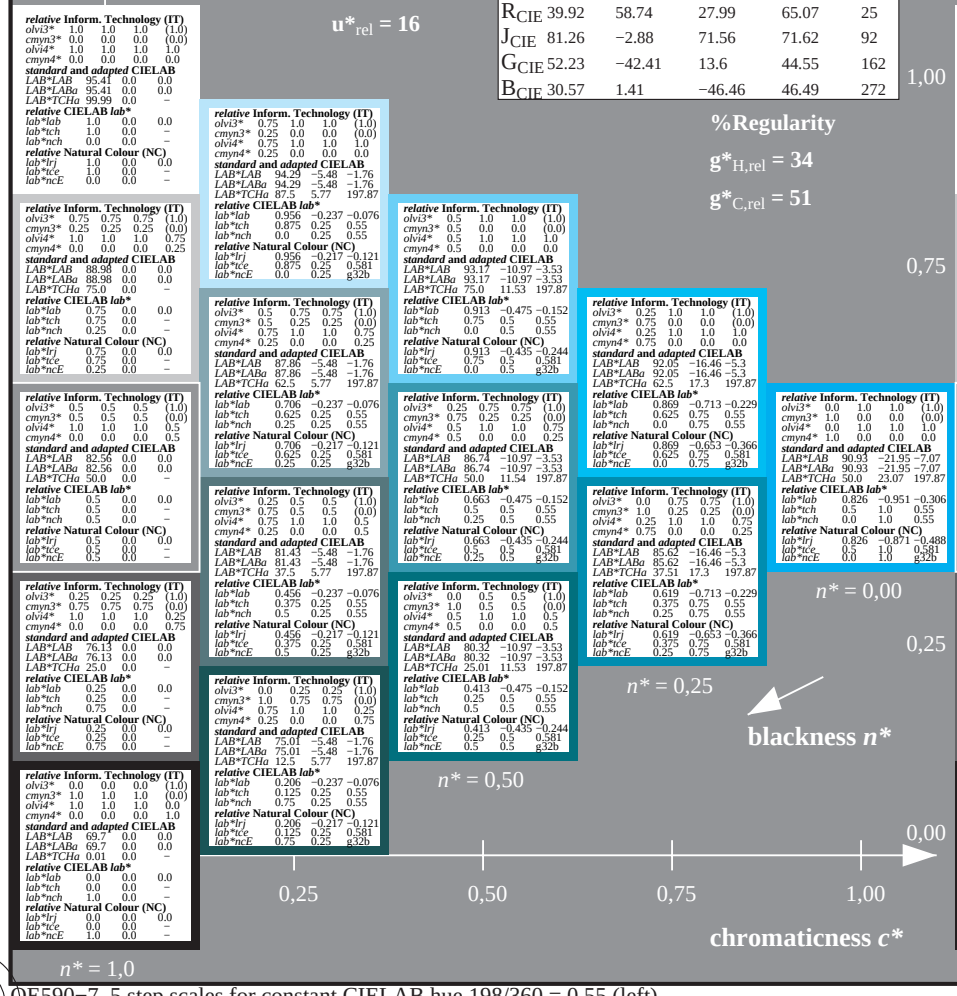
**TLS70; adapted (a) CIELAB data**

| | 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

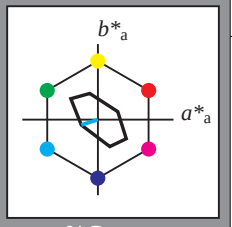



## Output: Colorimetric Television Luminous System TLS70

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 *t**




%Gamut

u*rel = 16

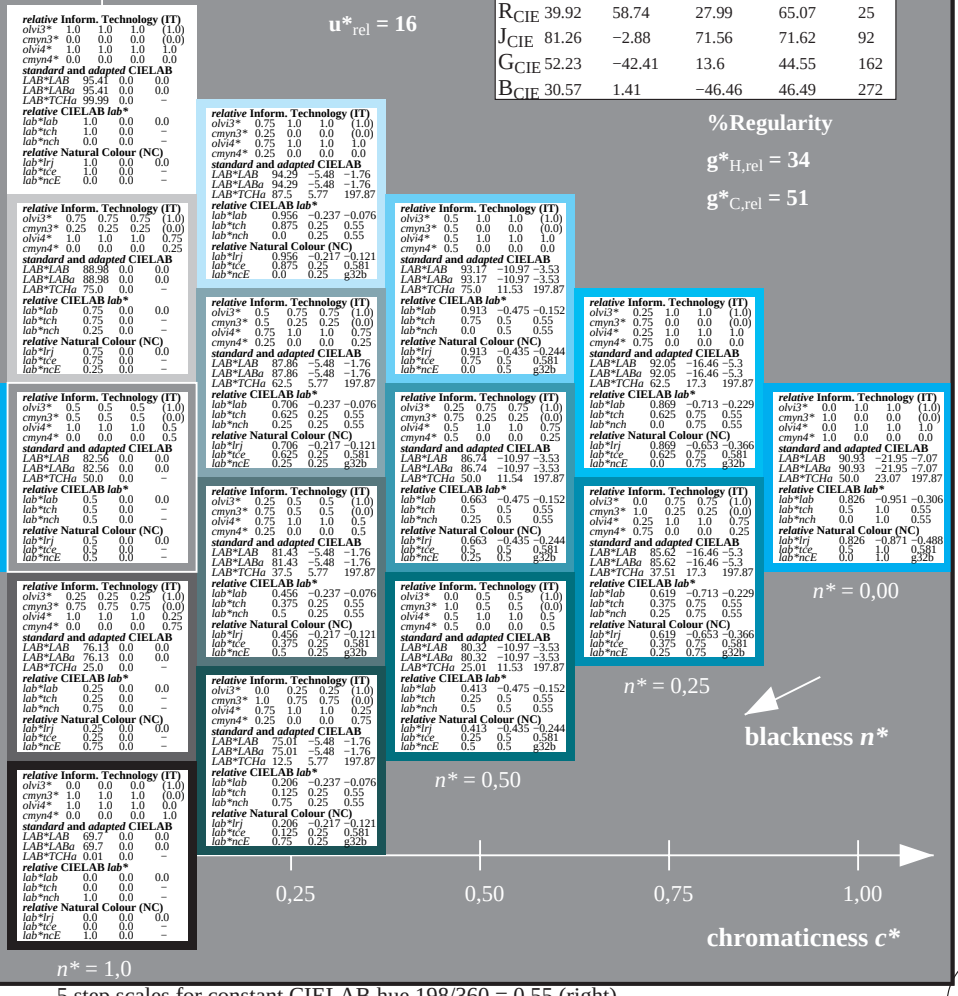
**TLS70; adapted (a) CIELAB data**

| | 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




OE590−7, 5 step scales for constant CIELAB hue 198/360 = 0.55 (left)

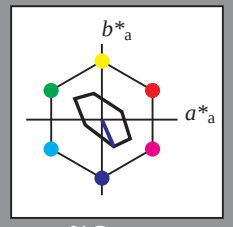
5 step scales for constant CIELAB hue 198/360 = 0.55 (right)

## Input: 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 *t**




%Gamut

$u^*_{rel}$ = 16

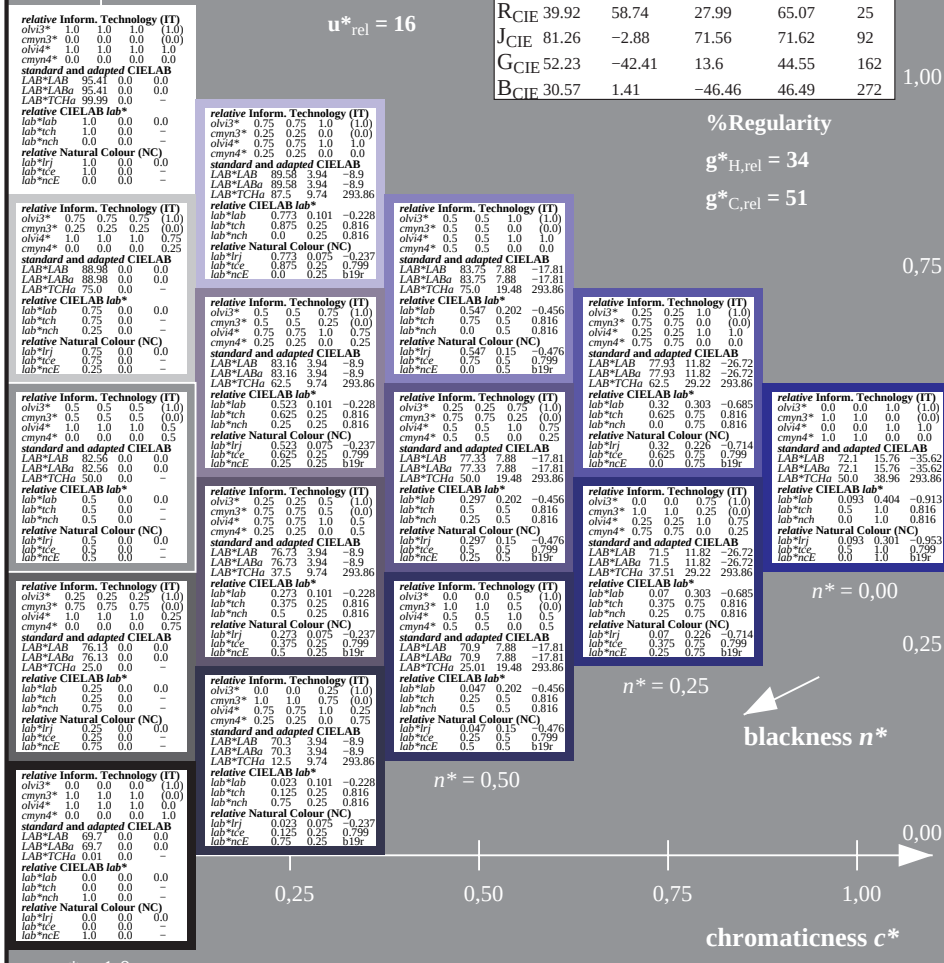
**TLS70; adapted (a) CIELAB data**

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

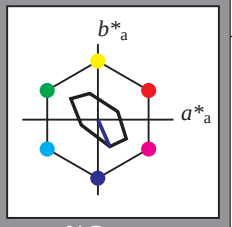



## Output: Colorimetric Television Luminous System TLS70

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 *t**




%Gamut

$u^*_{rel}$ = 16

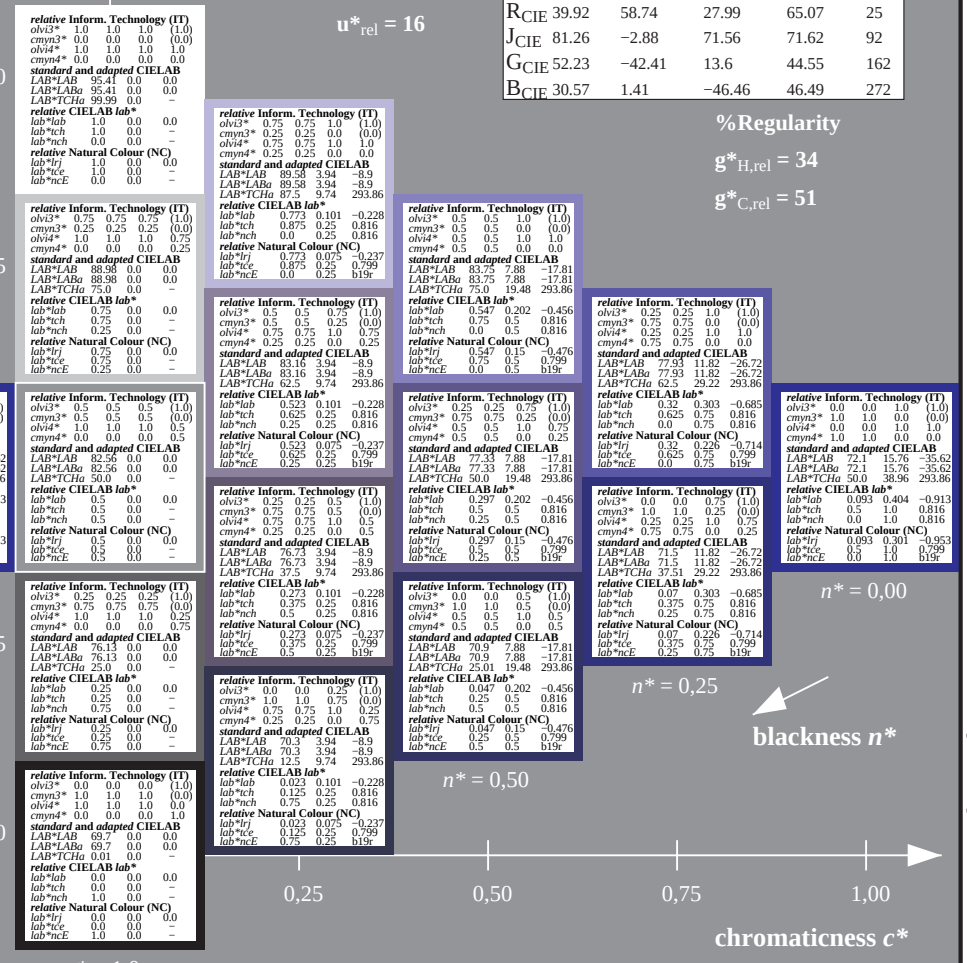
**TLS70; adapted (a) CIELAB data**

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




OE590−7, 5 step scales for constant CIELAB hue 294/360 = 0.816 (left)

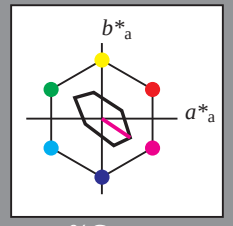
5 step scales for constant CIELAB hue 294/360 = 0.816 (right)

## Input: 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 *t**




%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**

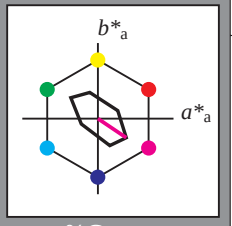
OE590−7, 5 step scales for constant CIELAB hue 326/360 = 0.906 (left)

## 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 *t**




%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

n* = 0,00
n* = 0,25
n* = 0,50
n* = 1,0

blackness *n**

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

chromaticness *c**

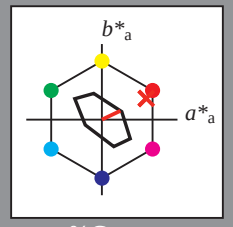
5 step scales for constant CIELAB hue 326/360 = 0.906 (right)

## Input: 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 *t**




%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

blackness *n**

n* = 0,00
n* = 0,25
n* = 0,50
n* = 1,0

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

chromaticness *c**

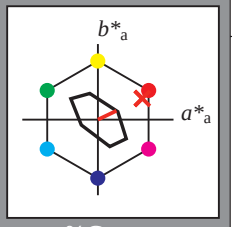
OE590−7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)

## 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 *t**




%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

blackness *n**

n* = 0,00
n* = 0,25
n* = 0,50
n* = 1,0

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

chromaticness *c**

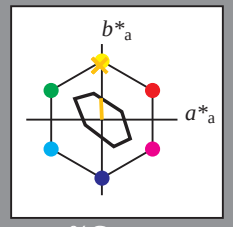
5 step scales for constant CIELAB hue 25/360 = 0.071 (right)

## Input: 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 *t**




%Gamut

u*$_{rel}$ = 16

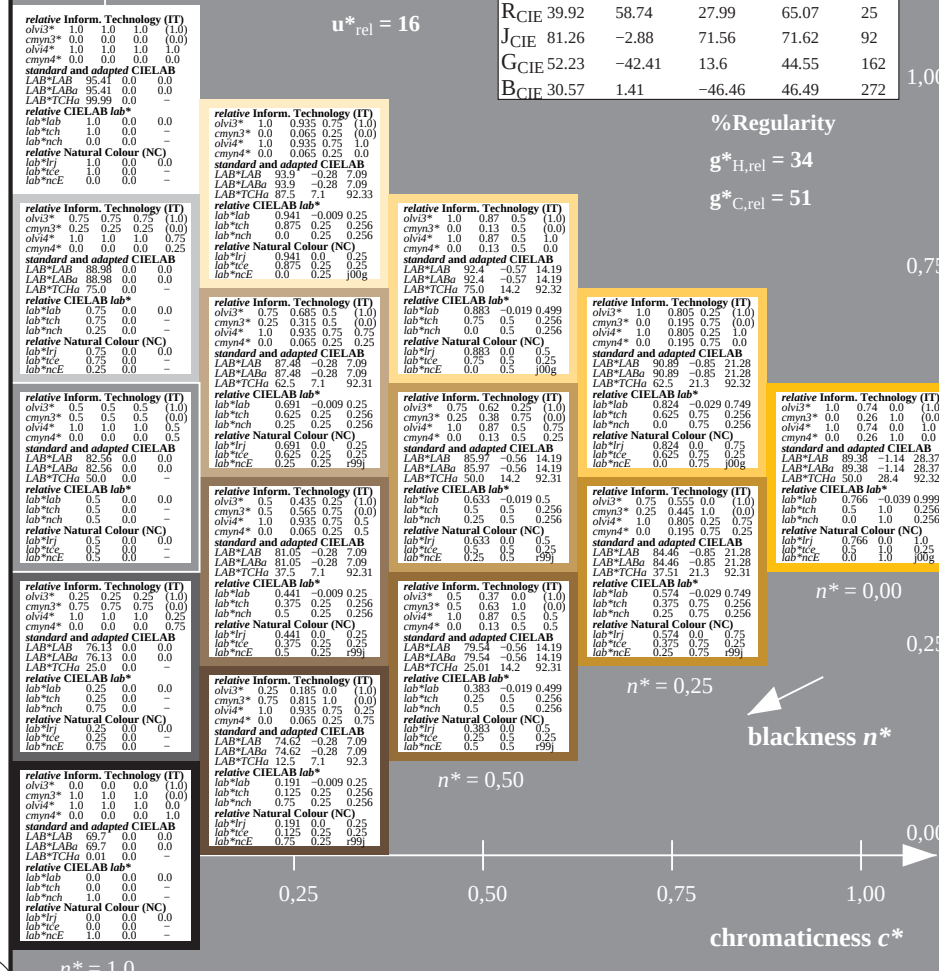
**TLS70; adapted (a) CIELAB data**

| | 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



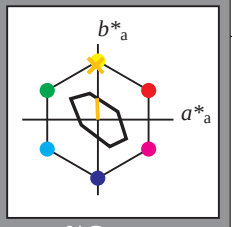

OE590−7, 5 step scales for constant CIELAB hue 92/360 = 0.256 (left)

## 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 *t**




%Gamut

u*$_{rel}$ = 16

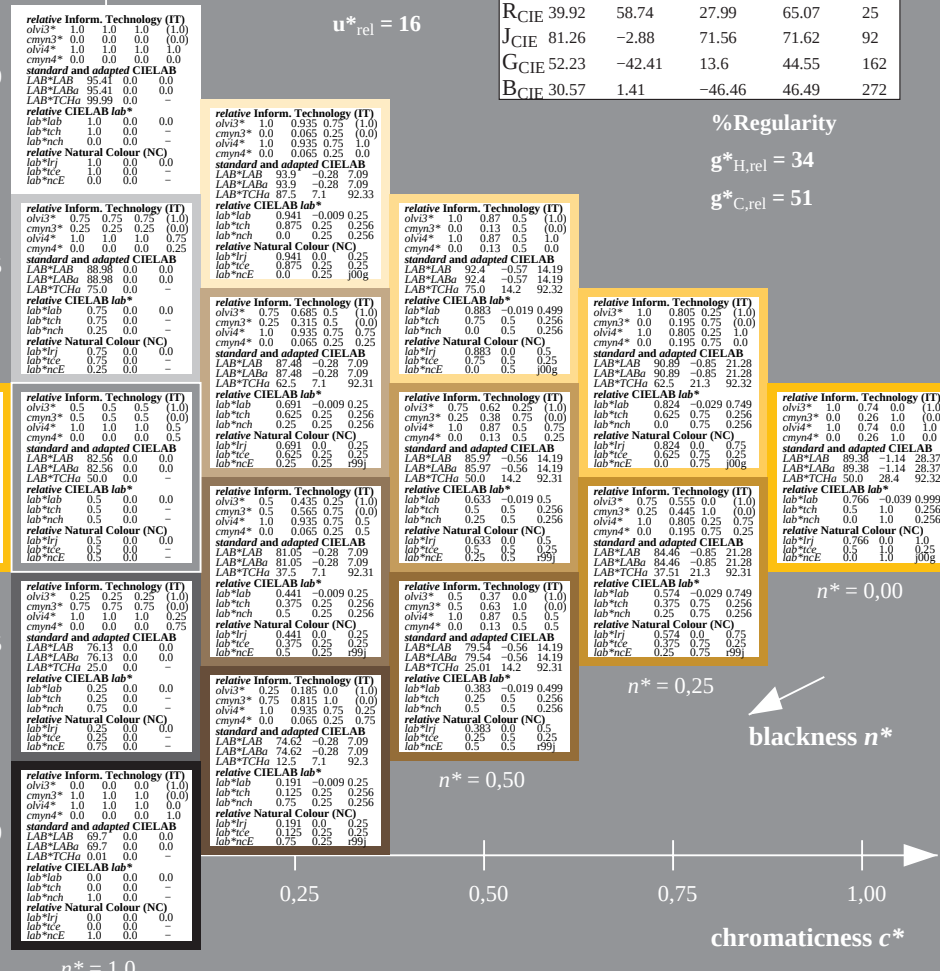
**TLS70; adapted (a) CIELAB data**

| | 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



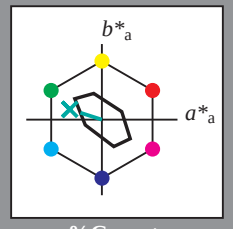

5 step scales for constant CIELAB hue 92/360 = 0.256 (right)

## Input: 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 *t**




%Gamut

u*rel = 16

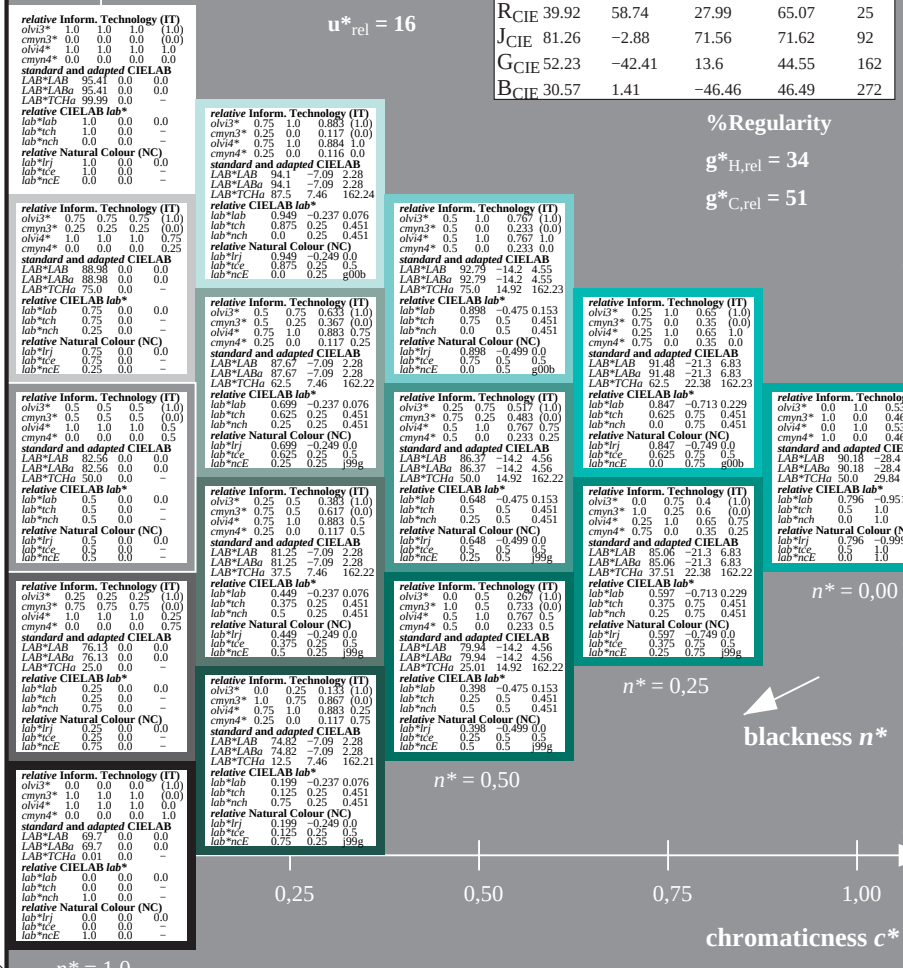
%Regularity

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 |
|---|---|---|---|---|---|
| OMa | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| YMa | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| LMa | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| CMa | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| VMa | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| MMa | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| NMa | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| WMa | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| RCIE | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| JCIE | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| GCIE | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| BCIE | 30.57 | 1.41 | −46.46 | 46.49 | 272 |

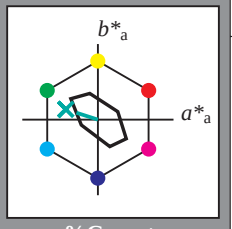



## Output: Colorimetric Television Luminous System TLS70

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 *t**




%Gamut

u*rel = 16

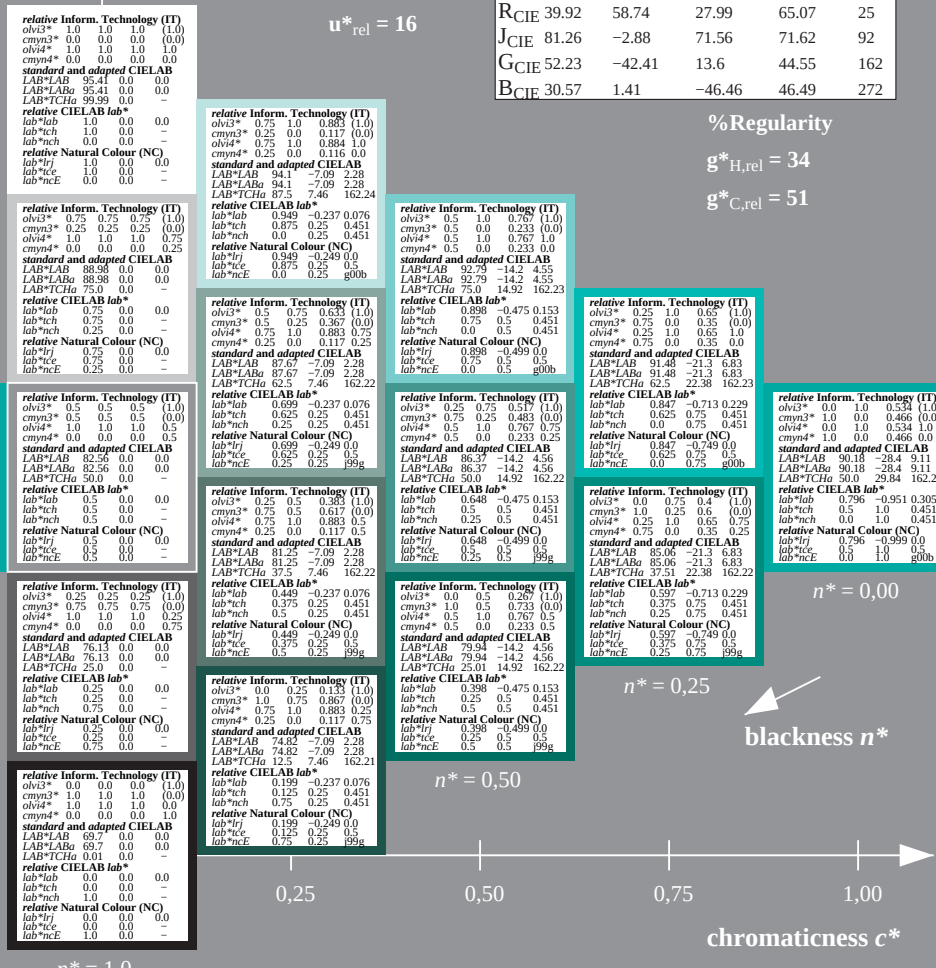
%Regularity

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 |
|---|---|---|---|---|---|
| OMa | 76.43 | 26.27 | 10.57 | 28.32 | 22 |
| YMa | 93.93 | −10.76 | 34.63 | 36.27 | 107 |
| LMa | 89.32 | −35.8 | 27.64 | 45.24 | 142 |
| CMa | 90.93 | −21.95 | −7.07 | 23.07 | 198 |
| VMa | 72.1 | 15.76 | −35.63 | 38.97 | 294 |
| MMa | 78.5 | 37.52 | −25.23 | 45.22 | 326 |
| NMa | 69.7 | 0.0 | 0.0 | 0.0 | 0 |
| WMa | 95.41 | 0.0 | 0.0 | 0.0 | 0 |
| RCIE | 39.92 | 58.74 | 27.99 | 65.07 | 25 |
| JCIE | 81.26 | −2.88 | 71.56 | 71.62 | 92 |
| GCIE | 52.23 | −42.41 | 13.6 | 44.55 | 162 |
| BCIE | 30.57 | 1.41 | −46.46 | 46.49 | 272 |




OE590−7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)

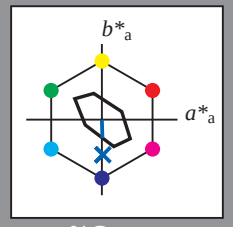
5 step scales for constant CIELAB hue 162/360 = 0.451 (right)

## Input: 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 *t**




%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

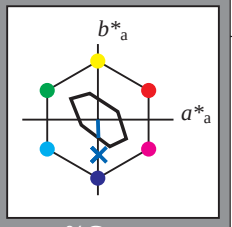
chromaticness *c**

## 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 *t**




%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 |

n* = 0,00
n* = 0,25
n* = 0,50
n* = 1,0

blackness *n**

chromaticness *c**

OE590−7, 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 OE59; Colorimetric systems TLS70 & TLS70
D65: 2 coordinate data of 5 step colour scales for 10 hues

input: *cmy0* setcmykcolor*
output: *cmy0* / 000n* setcmykcolor*