

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 22/360 = 0.061$

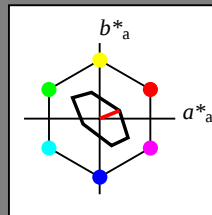
$lab \cdot tch$ and $lab \cdot nch$

D65: hue O

LCH*Ma: 76 28 22

olv*Ma: 1.0 0.0 0.0

triangle lightness



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

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

NE480-7, 5 step scales for constant CIELAB hue 22/360 = 0.061 (left)



BAM-test chart NE48; Colorimetric systems TLS70 & TLS00

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

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab \cdot h = 40/360 = 0.111$

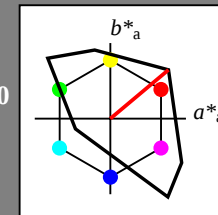
$lab \cdot tch$ and $lab \cdot nch$

D65: hue O

LCH*Ma: 51 100 40

olv*Ma: 1.0 0.0 0.0

triangle lightness



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

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

5 step scales for constant CIELAB hue 40/360 = 0.111 (right)

input: $olv^* \text{ setrgbcolor}$

output: no change compared to input

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 107/360 = 0.298$

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

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

triangle lightness

1,00

%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

0,75

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,25

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

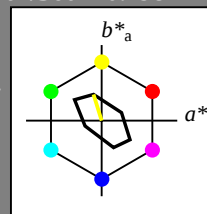
$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$



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

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

0,75

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,25

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab \cdot h = 103/360 = 0.286$

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

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

triangle lightness

1,00

%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,75

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,25

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

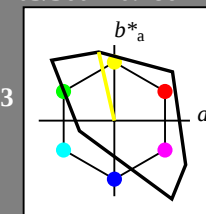
$g^*_{C,rel} = 37$

0,00

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$



relative Inform. Technology (IT)					
olvi3*	1.0	1.0	1.0	(1.0)	
olvi4*	0.0	0.0	0.0	(0.0)	
olvi5*	0.0	0.0	0.0	(0.0)	
olvi6*	0.0	0.0	0.0	(0.0)	
olvi7*	0.0	0.0	0.0	(0.0)	
olvi8*	0.0	0.0	0.0	(0.0)	
olvi9*	0.0	0.0	0.0	(0.0)	
olvi10*	0.0	0.0	0.0	(0.0)	
olvi11*	0.0	0.0	0.0	(0.0)	
olvi12*	0.0	0.0	0.0	(0.0)	
olvi13*	0.0	0.0	0.0	(0.0)	
olvi14*	0.0	0.0	0.0	(0.0)	
olvi15*	0.0	0.0	0.0	(0.0)	
olvi16*	0.0	0.0	0.0	(0.0)	
olvi17*	0.0	0.0	0.0	(0.0)	
olvi18*	0.0	0.0	0.0	(0.0)	
olvi19*	0.0	0.0	0.0	(0.0)	
olvi20*	0.0	0.0	0.0	(0.0)	
olvi21*	0.0	0.0	0.0	(0.0)	
olvi22*	0.0	0.0	0.0	(0.0)	
olvi23*	0.0	0.0	0.0	(0.0)	
olvi24*	0.0	0.0	0.0	(0.0)	
olvi25*	0.0	0.0	0.0	(0.0)	
olvi26*	0.0	0.0	0.0	(0.0)	
olvi27*	0.0	0.0	0.0	(0.0)	
olvi28*	0.0	0.0	0.0	(0.0)	
olvi29*	0.0	0.0	0.0	(0.0)	
olvi30*	0.0	0.0	0.0	(0.0)	
olvi31*	0.0	0.0	0.0	(0.0)	
olvi32*	0.0	0.0	0.0	(0.0)	
olvi33*	0.0	0.0	0.0	(0.0)	
olvi34*	0.0	0.0	0.0	(0.0)	
olvi35*	0.0	0.0	0.0	(0.0)	
olvi36*	0.0	0.0	0.0	(0.0)	
olvi37*	0.0	0.0	0.0	(0.0)	
olvi38*	0.0	0.0	0.0	(0.0)	
olvi39*	0.0	0.0	0.0	(0.0)	
olvi40*	0.0	0.0	0.0	(0.0)	
olvi41*	0.0	0.0	0.0	(0.0)	
olvi42*	0.0	0.0	0.0	(0.0)	
olvi43*	0.0	0.0	0.0	(0.0)	
olvi44*	0.0	0.0	0.0	(0.0)	
olvi45*	0.0	0.0	0.0	(0.0)	
olvi46*	0.0	0.0	0.0	(0.0)	
olvi47*	0.0	0.0	0.0	(0.0)	
olvi48*	0.0	0.0	0.0	(0.0)	
olvi49*	0.0	0.0	0.0	(0.0)	
olvi50*	0.0	0.0	0.0	(0.0)	
olvi51*	0.0	0.0	0.0	(0.0)	
olvi52*	0.0	0.0	0.0	(0.0)	
olvi53*	0.0	0.0	0.0	(0.0)	
olvi54*	0.0	0.0	0.0	(0.0)	
olvi55*	0.0	0.0	0.0	(0.0)	
olvi56*	0.0	0.0	0.0	(0.0)	
olvi57*	0.0	0.0	0.0	(0.0)	
olvi58*	0.0	0.0	0.0	(0.0)	
olvi59*	0.0	0.0	0.0	(0.0)	
olvi60*	0.0	0.0	0.0	(0.0)	
olvi61*	0.0	0.0	0.0	(0.0)	
olvi62*	0.0	0.0	0.0	(0.0)	
olvi63*	0.0	0.0	0.0	(0.0)	
olvi64*	0.0	0.0	0.0	(0.0)	
olvi65*	0.0	0.0	0.0	(0.0)	
olvi66*	0.0	0.0	0.0	(0.0)	
olvi67*	0.0	0.0	0.0	(0.0)	
olvi68*	0.0	0.0	0.0	(0.0)	
olvi69*	0.0	0.0	0.0	(0.0)	
olvi70*	0.0	0.0	0.0	(0.0)	
olvi71*	0.0	0.0	0.0	(0.0)	
olvi72*	0.0	0.0	0.0	(0.0)	
olvi73*	0.0	0.0	0.0	(0.0)	
olvi74*	0.0	0.0	0.0	(0.0)	
olvi75*	0.0	0.0	0.0	(0.0)	
olvi76*	0.0	0.0	0.0	(0.0)	
olvi77*	0.0	0.0	0.0	(0.0)	
olvi78*	0.0	0.0	0.0	(0.0)	
olvi79*	0.0	0.0	0.0	(0.0)	
olvi80*	0.0	0.0	0.0	(0.0)	
olvi81*	0.0	0.0	0.0	(0.0)	
olvi82*	0.0	0.0	0.0	(0.0)	
olvi83*	0.0	0.0	0.0	(0.0)	
olvi84*	0.0	0.0	0.0	(0.0)	
olvi85*	0.0	0.0	0.0	(0.0)	
olvi86*	0.0	0.0	0.0	(0.0)	
olvi87*	0.0	0.0	0.0	(0.0)	
olvi88*	0.0	0.0	0.0	(0.0)	
olvi89*	0.0	0.0	0.0	(0.0)	
olvi90*	0.0	0.0	0.0	(0.0)	
olvi91*	0.0	0.0	0.0	(0.0)	
olvi92*	0.0	0.0	0.0	(0.0)	
olvi93*	0.0	0.0	0.0	(0.0)	
olvi94*	0.0	0.0	0.0	(0.0)	
olvi95*	0.0	0.0	0.0	(0.0)	
olvi96*	0.0	0.0	0.0	(0.0)	
olvi97*	0.0	0.0	0.0	(0.0)	
olvi98*	0.0	0.0	0.0	(0.0)	
olvi99*	0.0	0.0	0.0	(0.0)	
olvi100*	0.0	0.0	0.0	(0.0)	

u*_{rel} = 158

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 142/360 = 0.395$

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

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

triangle lightness

1,00

%Gamut

$u^*_{rel} = 16$

%Regularity

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

0,75

0,50

0,25

0,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

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

$g^*_{H,rel} = 34$

$g^*_{C,rel} = 51$

0,75

0,50

0,25

0,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab \cdot h = 136/360 = 0.378$

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

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

triangle lightness

1,00

%Gamut

$u^*_{rel} = 158$

%Regularity

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,75

0,50

0,25

0,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

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

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

0,75

0,50

0,25

0,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

0,25

0,50

0,75

1,00

NE480-7, 5 step scales for constant CIELAB hue 142/360 = 0.395 (left)

5 step scales for constant CIELAB hue 136/360 = 0.378 (right)

BAM-test chart NE48; Colorimetric systems TLS70 & TLS00

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

input: $olv^* \text{ setrgcolor}$

output: no change compared to input

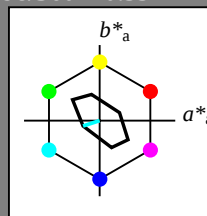
Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 198/360 = 0.55$

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

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

triangle lightness



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

0,25

0,50

0,75

1,00

chromaticness c^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

NE480-7, 5 step scales for constant CIELAB hue 198/360 = 0.55 (left)



BAM-test chart NE48; Colorimetric systems TLS70 & TLS00

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

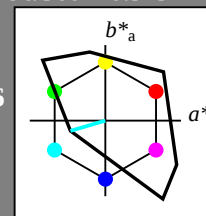
Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab \cdot h = 196/360 = 0.545$

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

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

triangle lightness



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

0,25

0,50

0,75

1,00

chromaticness c^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

5 step scales for constant CIELAB hue 196/360 = 0.545 (right)

input: $olv^* \text{ setrgcolor}$

output: no change compared to input

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 326/360 = 0.906$

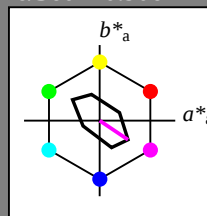
$lab \cdot tch$ and $lab \cdot nch$

D65: hue M

LCH*Ma: 79 45 326

olv*Ma: 1.0 0.0 1.0

triangle lightness



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

$n^* = 0,00$

0,25

$n^* = 0,25$

blackness n^*

$n^* = 0,50$

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab \cdot h = 328/360 = 0.912$

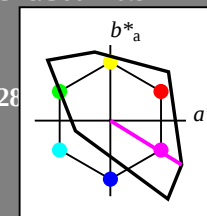
$lab \cdot tch$ and $lab \cdot nch$

D65: hue M

LCH*Ma: 57 111 328

olv*Ma: 1.0 0.0 1.0

triangle lightness



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

$n^* = 0,00$

0,25

$n^* = 0,25$

blackness n^*

$n^* = 0,50$

chromaticness c^*

NE480-7, 5 step scales for constant CIELAB hue 326/360 = 0.906 (left)

5 step scales for constant CIELAB hue 328/360 = 0.912 (right)

BAM-test chart NE48; Colorimetric systems TLS70 & TLS00

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

input: $olv^* \cdot setrgbcolor$

output: no change compared to input

Input: Colorimetric Television Luminous System TLS70

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

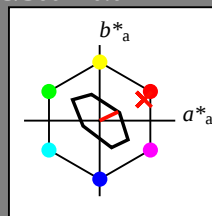
$lab \cdot tch$ and $lab \cdot nch$

D65: hue R

LCH*Ma: 77 27 25

olv*Ma: 1.0 0.05 0.0

triangle lightness



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

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

NE480-7, 5 step scales for constant CIELAB hue 25/360 = 0.071 (left)



BAM-test chart NE48; Colorimetric systems TLS70 & TLS00

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

Output: Colorimetric Television Luminous System TLS00

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

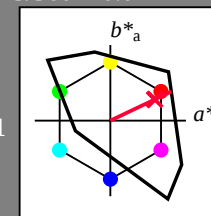
$lab \cdot tch$ and $lab \cdot nch$

D65: hue R

LCH*Ma: 52 89 25

olv*Ma: 1.0 0.0 0.21

triangle lightness



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

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,0$

chromaticness c^*

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

input: $olv^* \text{ setrgbcolor}$

output: no change compared to input

Input: Colorimetric Television Luminous System TLS70

for hue $h^* = lab \cdot h = 92/360 = 0.256$

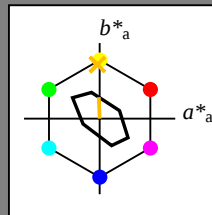
$lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 89 28 92

olv*Ma: 1.0 0.74 0.0

triangle lightness



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

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

for hue $h^* = lab \cdot h = 92/360 = 0.256$

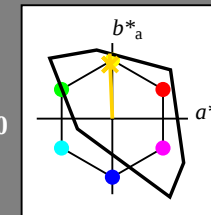
$lab \cdot tch$ and $lab \cdot nch$

D65: hue J

LCH*Ma: 85 86 92

olv*Ma: 1.0 0.82 0.0

triangle lightness



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

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

NE480-7, 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 NE48; Colorimetric systems TLS70 & TLS00

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

input: $olv^* \text{ setrgbcolor}$

output: no change compared to input

Input: Colorimetric Television Luminous System TLS70

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

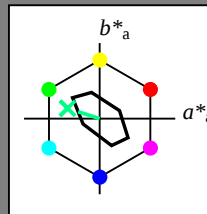
$lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 90 30 162

olv*Ma: 0.0 1.0 0.53

triangle lightness



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

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,00$

chromaticness c^*

NE480-7, 5 step scales for constant CIELAB hue 162/360 = 0.451 (left)



BAM-test chart NE48; Colorimetric systems TLS70 & TLS00

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

Output: Colorimetric Television Luminous System TLS00

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

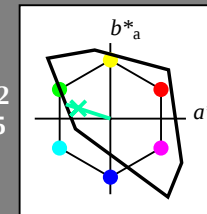
$lab \cdot tch$ and $lab \cdot nch$

D65: hue G

LCH*Ma: 86 62 162

olv*Ma: 0.0 1.0 0.65

triangle lightness



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

blackness n^*

$n^* = 0,00$

$n^* = 0,25$

$n^* = 0,50$

$n^* = 1,00$

chromaticness c^*

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

input: $olv^* setrgcolor$

output: no change compared to input

Input: Colorimetric Television Luminous System TLS70

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

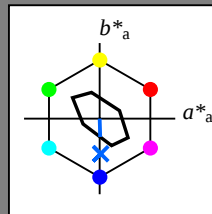
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 80 24 272

olv*Ma: 0.0 0.4 1.0

triangle lightness



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

$n^* = 0,00$

0,25

$n^* = 0,25$

$n^* = 0,50$

chromaticness c^*

Output: Colorimetric Television Luminous System TLS00

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

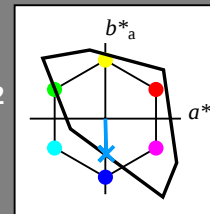
$lab \cdot tch$ and $lab \cdot nch$

D65: hue B

LCH*Ma: 65 49 272

olv*Ma: 0.0 0.61 1.0

triangle lightness



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

$g^*_{H,rel} = 20$

$g^*_{C,rel} = 37$

$n^* = 0,00$

$n^* = 0,25$

chromaticness c^*

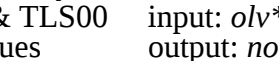
NE480-7, 5 step scales for constant CIELAB hue 272/360 = 0.755 (left)



BAM-test chart NE48; Colorimetric systems TLS70 & TLS00

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

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



input: $olv^* \text{ setrgbcolor}$

output: no change compared to input