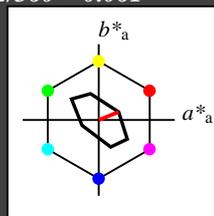


Input: Colorimetric Television Luminous System TLS70

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^*



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
NMa	78.5	37.52	-25.23	45.22	326
MMa	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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	1.0	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	0.5	0.5	1.0
cmyn4*	0.0	0.5	0.5	0.0

standard and adapted CIELAB

LAB*LAB	85.92	13.13	5.28
LAB*LABa	85.92	13.13	5.28
LAB*TCHa	75.0	14.16	21.92

relative CIELAB lab*

lab*lab	0.631	0.464	0.187
lab*tch	0.75	0.5	0.061
lab*nch	0.0	0.5	0.061

relative Natural Colour (NC)

lab*lrj	0.631	0.499	-0.024
lab*tce	0.75	0.5	0.992
lab*nce	0.0	0.5	0.96r

relative Inform. Technology (IT)

olvi3*	1.0	0.0	0.0	(1.0)
cmyn3*	0.0	1.0	1.0	(0.0)
olvi4*	1.0	0.0	0.0	1.0
cmyn4*	0.0	1.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	76.43	26.26	10.57
LAB*LABa	76.43	26.26	10.57
LAB*TCHa	50.0	28.31	21.92

relative CIELAB lab*

lab*lab	0.262	0.928	0.373
lab*tch	0.5	1.0	0.061
lab*nch	0.0	1.0	0.061

relative Natural Colour (NC)

lab*lrj	0.262	0.999	-0.048
lab*tce	0.5	1.0	0.992
lab*nce	0.0	1.0	0.96r

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.0	(1.0)
cmyn3*	0.5	1.0	1.0	(0.0)
olvi4*	1.0	0.5	0.5	0.5
cmyn4*	0.0	0.5	0.5	0.5

standard and adapted CIELAB

LAB*LAB	73.07	13.13	5.28
LAB*LABa	73.07	13.13	5.28
LAB*TCHa	25.01	14.16	21.92

relative CIELAB lab*

lab*lab	0.131	0.464	0.187
lab*tch	0.25	0.5	0.061
lab*nch	0.5	0.5	0.061

relative Natural Colour (NC)

lab*lrj	0.131	0.499	-0.024
lab*tce	0.25	0.5	0.992
lab*nce	0.5	0.5	0.96r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	1.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

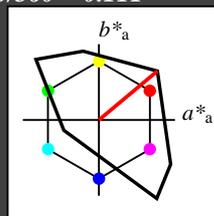


Output: Colorimetric Television Luminous System TLS00

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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
NMa	57.3	94.35	-58.41	110.97	328
MMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	1.0	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	0.5	0.5	1.0
cmyn4*	0.0	0.5	0.5	0.0

standard and adapted CIELAB

LAB*LAB	72.95	38.45	32.27
LAB*LABa	72.95	38.45	32.27
LAB*TCHa	75.0	50.2	40.0

relative CIELAB lab*

lab*lab	0.765	0.383	0.321
lab*tch	0.75	0.5	0.111
lab*nch	0.0	0.5	0.111

relative Natural Colour (NC)

lab*lrj	0.765	0.471	0.167
lab*tce	0.75	0.5	0.054
lab*nce	0.0	0.5	0.21j

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	1.0	1.0	0.5

standard and adapted CIELAB

LAB*LAB	47.72	0.0	0.0
LAB*LABa	47.72	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.0	(1.0)
cmyn3*	0.5	1.0	1.0	(0.0)
olvi4*	1.0	0.5	0.5	0.5
cmyn4*	0.0	0.5	0.5	0.5

standard and adapted CIELAB

LAB*LAB	25.26	38.45	32.27
LAB*LABa	25.26	38.45	32.27
LAB*TCHa	25.01	50.2	40.0

relative CIELAB lab*

lab*lab	0.265	0.383	0.321
lab*tch	0.25	0.5	0.111
lab*nch	0.5	0.5	0.111

relative Natural Colour (NC)

lab*lrj	0.265	0.471	0.167
lab*tce	0.25	0.5	0.054
lab*nce	0.5	0.5	0.21j



relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	1.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

NE180-7, 3 step scales for constant CIELAB hue 22/360 = 0.061 (left)

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

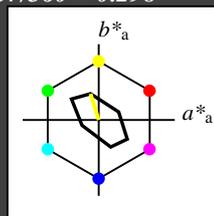
BAM-test chart NE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

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^*



TLS70; adapted (a) CIELAB data

	L^*	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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	1.0	1.0	0.5	(1.0)
cmyn3*	0.0	0.0	0.5	(0.0)
olvi4*	1.0	1.0	0.5	1.0
cmyn4*	0.0	0.0	0.5	0.0

standard and adapted CIELAB

LAB*LAB	94.67	-5.37	17.31
LAB*LABa	94.67	-5.37	17.31
LAB*TCHa	75.0	18.13	107.28

relative CIELAB lab*

lab*lab	0.971	-0.147	0.477
lab*tch	0.75	0.5	0.298
lab*nch	0.0	0.5	0.298

relative Natural Colour (NC)

lab*lrj	0.971	-0.164	0.472
lab*tce	0.75	0.5	0.304
lab*nce	0.0	0.5	j21g

relative Inform. Technology (IT)

olvi3*	1.0	1.0	0.0	(1.0)
cmyn3*	0.0	0.0	1.0	(0.0)
olvi4*	1.0	1.0	0.0	1.0
cmyn4*	0.0	0.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	93.93	-10.76	34.62
LAB*LABa	93.93	-10.76	34.62
LAB*TCHa	50.0	36.26	107.28

relative CIELAB lab*

lab*lab	0.942	-0.296	0.955
lab*tch	0.5	1.0	0.298
lab*nch	0.0	1.0	0.298

relative Natural Colour (NC)

lab*lrj	0.942	-0.329	0.944
lab*tce	0.5	1.0	0.304
lab*nce	0.0	1.0	j21g

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.0	(1.0)
cmyn3*	0.5	0.5	1.0	(0.0)
olvi4*	1.0	1.0	0.5	0.5
cmyn4*	0.0	0.0	0.5	0.5

standard and adapted CIELAB

LAB*LAB	81.82	-5.37	17.31
LAB*LABa	81.82	-5.37	17.31
LAB*TCHa	25.01	18.13	107.28

relative CIELAB lab*

lab*lab	0.471	-0.147	0.477
lab*tch	0.25	0.5	0.298
lab*nch	0.5	0.5	0.298

relative Natural Colour (NC)

lab*lrj	0.471	-0.164	0.472
lab*tce	0.25	0.5	0.304
lab*nce	0.5	0.5	j21g

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	1.0	1.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

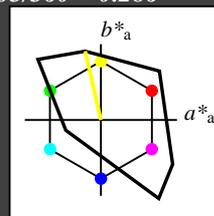
lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-



Output: 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 t^*



TLS00; adapted (a) CIELAB data

	L^*	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	1.0	1.0	0.5	(1.0)
cmyn3*	0.0	0.0	0.5	(0.0)
olvi4*	1.0	1.0	0.5	1.0
cmyn4*	0.0	0.0	0.5	0.0

standard and adapted CIELAB

LAB*LAB	94.03	-10.34	45.37
LAB*LABa	94.03	-10.34	45.37
LAB*TCHa	75.0	46.53	102.85

relative CIELAB lab*

lab*lab	0.985	-0.11	0.487
lab*tch	0.75	0.5	0.286
lab*nch	0.0	0.5	0.286

relative Natural Colour (NC)

lab*lrj	0.985	-0.116	0.486
lab*tce	0.75	0.5	0.288
lab*nce	0.0	0.5	j15g

relative Inform. Technology (IT)

olvi3*	1.0	1.0	0.0	(1.0)
cmyn3*	0.0	0.0	1.0	(0.0)
olvi4*	1.0	1.0	0.0	1.0
cmyn4*	0.0	0.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	92.65	-20.69	90.73
LAB*LABa	92.65	-20.69	90.73
LAB*TCHa	50.0	93.06	102.85

relative CIELAB lab*

lab*lab	0.971	-0.221	0.975
lab*tch	0.5	1.0	0.286
lab*nch	0.0	1.0	0.286

relative Natural Colour (NC)

lab*lrj	0.971	-0.233	0.972
lab*tce	0.5	1.0	0.288
lab*nce	0.0	1.0	j15g

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.0	(1.0)
cmyn3*	0.5	0.5	1.0	(0.0)
olvi4*	1.0	1.0	0.5	0.5
cmyn4*	0.0	0.0	0.5	0.5

standard and adapted CIELAB

LAB*LAB	46.34	-10.34	45.37
LAB*LABa	46.34	-10.34	45.37
LAB*TCHa	25.01	46.53	102.85

relative CIELAB lab*

lab*lab	0.486	-0.11	0.487
lab*tch	0.25	0.5	0.286
lab*nch	0.5	0.5	0.286

relative Natural Colour (NC)

lab*lrj	0.486	-0.116	0.486
lab*tce	0.25	0.5	0.288
lab*nce	0.5	0.5	j15g



NE180-7, 3 step scales for constant CIELAB hue 107/360 = 0.298 (left)

3 step scales for constant CIELAB hue 103/360 = 0.286 (right)

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

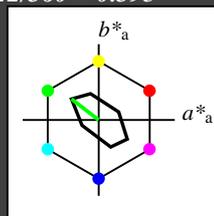
input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	1.0	0.5	(1.0)
cmyn3*	0.5	0.0	0.5	(0.0)
olvi4*	0.5	1.0	0.5	1.0
cmyn4*	0.5	0.0	0.5	0.0

standard and adapted CIELAB

LAB*LAB	92.36	-17.89	13.82
LAB*LABa	92.36	-17.89	13.82
LAB*TCHa	75.0	22.61	142.34

relative CIELAB lab*

lab*lab	0.881	-0.395	0.305
lab*tch	0.75	0.5	0.395
lab*nch	0.0	0.5	0.395

relative Natural Colour (NC)

lab*lrj	0.881	-0.45	0.216
lab*tce	0.75	0.5	0.429
lab*nce	0.0	0.5	0.171g

relative Inform. Technology (IT)

olvi3*	0.0	1.0	0.0	(1.0)
cmyn3*	1.0	0.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	89.32	-35.79	27.63
LAB*LABa	89.32	-35.79	27.63
LAB*TCHa	50.0	45.23	142.34

relative CIELAB lab*

lab*lab	0.763	-0.79	0.611
lab*tch	0.5	1.0	0.395
lab*nch	0.0	1.0	0.395

relative Natural Colour (NC)

lab*lrj	0.763	-0.901	0.432
lab*tce	0.5	1.0	0.429
lab*nce	0.0	1.0	0.171g

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.0	(1.0)
cmyn3*	1.0	0.5	1.0	(0.0)
olvi4*	0.5	1.0	0.5	0.5
cmyn4*	0.5	0.0	0.5	0.5

standard and adapted CIELAB

LAB*LAB	79.51	-17.89	13.82
LAB*LABa	79.51	-17.89	13.82
LAB*TCHa	25.01	22.61	142.34

relative CIELAB lab*

lab*lab	0.382	-0.395	0.305
lab*tch	0.25	0.5	0.395
lab*nch	0.5	0.5	0.395

relative Natural Colour (NC)

lab*lrj	0.382	-0.45	0.216
lab*tce	0.25	0.5	0.429
lab*nce	0.5	0.5	0.171g

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

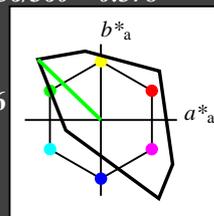


Output: Colorimetric Television Luminous System TLS00

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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	1.0	0.5	(1.0)
cmyn3*	0.5	0.0	0.5	(0.0)
olvi4*	0.5	1.0	0.5	1.0
cmyn4*	0.5	0.0	0.5	0.0

standard and adapted CIELAB

LAB*LAB	89.51	-41.36	39.94
LAB*LABa	89.51	-41.36	39.94
LAB*TCHa	75.0	57.51	136.01

relative CIELAB lab*

lab*lab	0.938	-0.359	0.347
lab*tch	0.75	0.5	0.378
lab*nch	0.0	0.5	0.378

relative Natural Colour (NC)

lab*lrj	0.938	-0.415	0.278
lab*tce	0.75	0.5	0.406
lab*nce	0.0	0.5	0.162g

relative Inform. Technology (IT)

olvi3*	0.0	1.0	0.0	(1.0)
cmyn3*	1.0	0.0	1.0	(0.0)
olvi4*	0.0	1.0	0.0	1.0
cmyn4*	1.0	0.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	83.62	-82.73	79.88
LAB*LABa	83.62	-82.73	79.88
LAB*TCHa	50.0	115.01	136.01

relative CIELAB lab*

lab*lab	0.876	-0.718	0.694
lab*tch	0.5	1.0	0.378
lab*nch	0.0	1.0	0.378

relative Natural Colour (NC)

lab*lrj	0.876	-0.83	0.555
lab*tce	0.5	1.0	0.406
lab*nce	0.0	1.0	0.162g

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.0	(1.0)
cmyn3*	1.0	0.5	1.0	(0.0)
olvi4*	0.5	1.0	0.5	0.5
cmyn4*	0.5	0.0	0.5	0.5

standard and adapted CIELAB

LAB*LAB	41.82	-41.36	39.94
LAB*LABa	41.82	-41.36	39.94
LAB*TCHa	25.01	57.51	136.01

relative CIELAB lab*

lab*lab	0.438	-0.359	0.347
lab*tch	0.25	0.5	0.378
lab*nch	0.5	0.5	0.378

relative Natural Colour (NC)

lab*lrj	0.438	-0.415	0.278
lab*tce	0.25	0.5	0.406
lab*nce	0.5	0.5	0.162g

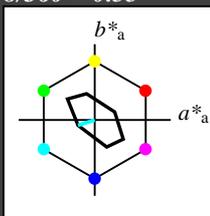


Input: Colorimetric Television Luminous System TLS70

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	1.0	1.0	(1.0)
cmyn3*	0.5	0.0	0.0	(0.0)
olvi4*	0.5	1.0	1.0	1.0
cmyn4*	0.5	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	93.17	-10.97	-3.53
LAB*LABa	93.17	-10.97	-3.53
LAB*TCHa	75.0	11.53	197.87

relative CIELAB lab*

lab*lab	0.913	-0.475	-0.152
lab*tch	0.75	0.5	0.55
lab*nch	0.0	0.5	0.55

relative Natural Colour (NC)

lab*lrj	0.913	-0.435	-0.244
lab*tce	0.75	0.5	0.581
lab*nce	0.0	0.5	g32b

relative Inform. Technology (IT)

olvi3*	0.0	1.0	1.0	(1.0)
cmyn3*	1.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	90.93	-21.95	-7.07
LAB*LABa	90.93	-21.95	-7.07
LAB*TCHa	50.0	23.07	197.87

relative CIELAB lab*

lab*lab	0.826	-0.951	-0.306
lab*tch	0.5	1.0	0.55
lab*nch	0.0	1.0	0.55

relative Natural Colour (NC)

lab*lrj	0.826	-0.871	-0.488
lab*tce	0.5	1.0	0.581
lab*nce	0.0	1.0	g32b

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.5	(1.0)
cmyn3*	1.0	0.5	0.5	(0.0)
olvi4*	0.5	1.0	1.0	0.5
cmyn4*	0.5	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	80.32	-10.97	-3.53
LAB*LABa	80.32	-10.97	-3.53
LAB*TCHa	25.01	11.53	197.87

relative CIELAB lab*

lab*lab	0.413	-0.475	-0.152
lab*tch	0.25	0.5	0.55
lab*nch	0.5	0.5	0.55

relative Natural Colour (NC)

lab*lrj	0.413	-0.435	-0.244
lab*tce	0.25	0.5	0.581
lab*nce	0.5	0.5	g32b

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-



relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	69.7	0.0	0.0
LAB*LABa	69.7	0.0	0.0
LAB*TCHa	0.01	0.0	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

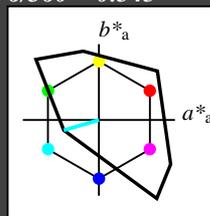
$n^* = 1.0$

Output: 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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	1.0	1.0	(1.0)
cmyn3*	0.5	0.0	0.0	(0.0)
olvi4*	0.5	1.0	1.0	1.0
cmyn4*	0.5	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	91.14	-23.07	-6.77
LAB*LABa	91.14	-23.07	-6.77
LAB*TCHa	75.0	24.06	196.37

relative CIELAB lab*

lab*lab	0.955	-0.479	-0.14
lab*tch	0.75	0.5	0.545
lab*nch	0.0	0.5	0.545

relative Natural Colour (NC)

lab*lrj	0.955	-0.44	-0.234
lab*tce	0.75	0.5	0.578
lab*nce	0.0	0.5	g31b

relative Inform. Technology (IT)

olvi3*	0.0	1.0	1.0	(1.0)
cmyn3*	1.0	0.0	0.0	(0.0)
olvi4*	0.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	86.87	-46.15	-13.55
LAB*LABa	86.87	-46.15	-13.55
LAB*TCHa	50.0	48.11	196.37

relative CIELAB lab*

lab*lab	0.911	-0.958	-0.281
lab*tch	0.5	1.0	0.545
lab*nch	0.0	1.0	0.545

relative Natural Colour (NC)

lab*lrj	0.911	-0.881	-0.469
lab*tce	0.5	1.0	0.578
lab*nce	0.0	1.0	g31b

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.5	(1.0)
cmyn3*	1.0	0.5	0.5	(0.0)
olvi4*	0.5	1.0	1.0	0.5
cmyn4*	0.5	0.0	0.0	0.5

standard and adapted CIELAB

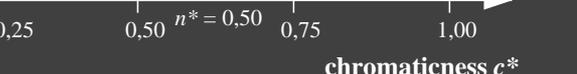
LAB*LAB	43.45	-23.07	-6.77
LAB*LABa	43.45	-23.07	-6.77
LAB*TCHa	25.01	24.06	196.37

relative CIELAB lab*

lab*lab	0.455	-0.479	-0.14
lab*tch	0.25	0.5	0.545
lab*nch	0.5	0.5	0.545

relative Natural Colour (NC)

lab*lrj	0.455	-0.44	-0.234
lab*tce	0.25	0.5	0.578
lab*nce	0.5	0.5	g31b



relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

NE180-7, 3 step scales for constant CIELAB hue 198/360 = 0.55 (left)

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

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

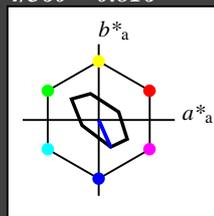
input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	1.0	(1.0)
cmyn3*	0.5	0.5	0.0	(0.0)
olvi4*	0.5	0.5	1.0	1.0
cmyn4*	0.5	0.5	0.0	0.0

standard and adapted CIELAB

LAB*LAB	83.75	7.88	-17.81
LAB*LABa	83.75	7.88	-17.81
LAB*TCHa	75.0	19.48	293.86

relative CIELAB lab*

lab*lab	0.547	0.202	-0.456
lab*tch	0.75	0.5	0.816
lab*nch	0.0	0.5	0.816

relative Natural Colour (NC)

lab*lrj	0.547	0.15	-0.476
lab*tce	0.75	0.5	0.799
lab*nce	0.0	0.5	b19r

standard and adapted CIELAB

LAB*LAB	72.1	15.76	-35.62
LAB*LABa	72.1	15.76	-35.62
LAB*TCHa	50.0	38.96	293.86

relative CIELAB lab*

lab*lab	0.093	0.404	-0.913
lab*tch	0.5	1.0	0.816
lab*nch	0.0	1.0	0.816

relative Natural Colour (NC)

lab*lrj	0.093	0.301	-0.953
lab*tce	0.5	1.0	0.799
lab*nce	0.0	1.0	b19r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.5	(1.0)
cmyn3*	1.0	1.0	0.5	(0.0)
olvi4*	0.5	0.5	1.0	0.5
cmyn4*	0.5	0.5	0.0	0.5

standard and adapted CIELAB

LAB*LAB	70.9	7.88	-17.81
LAB*LABa	70.9	7.88	-17.81
LAB*TCHa	25.01	19.48	293.86

relative CIELAB lab*

lab*lab	0.047	0.202	-0.456
lab*tch	0.25	0.5	0.816
lab*nch	0.5	0.5	0.816

relative Natural Colour (NC)

lab*lrj	0.047	0.15	-0.476
lab*tce	0.25	0.5	0.799
lab*nce	0.5	0.5	b19r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	69.7	0.0	0.0
LAB*LABa	69.7	0.0	0.0
LAB*TCHa	0.01	0.0	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 0,00$

blackness n^*



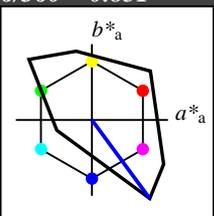
chromaticness c^*

Output: 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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	1.0	(1.0)
cmyn3*	0.5	0.5	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	62.9	38.02	-51.78
LAB*LABa	62.9	38.02	-51.78
LAB*TCHa	75.0	64.25	306.29

relative CIELAB lab*

lab*lab	0.659	0.296	-0.402
lab*tch	0.75	0.5	0.851
lab*nch	0.0	0.5	0.851

relative Natural Colour (NC)

lab*lrj	0.659	0.23	-0.443
lab*tce	0.75	0.5	0.826
lab*nce	0.0	0.5	b30r

standard and adapted CIELAB

LAB*LAB	47.72	0.0	0.0
LAB*LABa	47.72	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

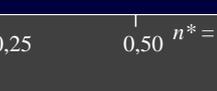
LAB*LAB	0.159	0.296	-0.402
LAB*LABa	0.25	0.5	0.851
LAB*TCHa	0.5	0.5	0.851

relative CIELAB lab*

lab*lab	0.159	0.23	-0.443
lab*tch	0.25	0.5	0.826
lab*nce	0.5	0.5	b30r

$n^* = 0,00$

blackness n^*



chromaticness c^*

$n^* = 0,00$

blackness n^*



chromaticness c^*

See for similar files: <http://www.ps.bam.de/NE18/>
 Technical information: <http://www.ps.bam.de>
 Version 2.1, io=1,1, CIELAB

BAM registration: 20060101-NE18/10S/S18E04FP.PS/.PDF BAM material: code=rh4ta
 application for evaluation and measurement of printer or monitor systems
 /NE18/ Form 5/10, Serie: 1/1, Page: 5 Page count: 5

NE180-7, 3 step scales for constant CIELAB hue 294/360 = 0.816 (left)

3 step scales for constant CIELAB hue 306/360 = 0.851 (right)

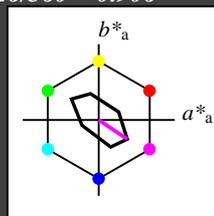
BAM-test chart NE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

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^*



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
NMa	78.5	37.52	-25.23	45.22	326
WMa	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

%Gamut
 $u^*_{rel} = 16$
 %Regularity
 $g^*_{H,rel} = 34$
 $g^*_{C,rel} = 51$

relative Inform. Technology (IT)
 $olvi3^* 1.0 1.0 1.0 (1.0)$
 $cmyn3^* 0.0 0.0 0.0 (0.0)$
 $olvi4^* 1.0 1.0 1.0 1.0$
 $cmyn4^* 0.0 0.0 0.0 0.0$

standard and adapted CIELAB
 $LAB^*LAB 95.41 0.0 0.0$
 $LAB^*LABa 95.41 0.0 0.0$
 $LAB^*TCHa 99.99 0.0 -$

relative CIELAB lab*
 $lab^*lab 1.0 0.0 0.0$
 $lab^*tch 1.0 0.0 -$
 $lab^*nch 0.0 0.0 -$

relative Natural Colour (NC)
 $lab^*lrj 1.0 0.0 0.0$
 $lab^*tce 1.0 0.0 -$
 $lab^*nce 0.0 0.0 -$

relative Inform. Technology (IT)
 $olvi3^* 0.5 0.5 0.5 (1.0)$
 $cmyn3^* 0.5 0.5 0.5 (0.0)$
 $olvi4^* 1.0 1.0 1.0 0.5$
 $cmyn4^* 0.0 0.0 0.0 0.5$

standard and adapted CIELAB
 $LAB^*LAB 82.56 0.0 0.0$
 $LAB^*LABa 82.56 0.0 0.0$
 $LAB^*TCHa 50.0 0.0 -$

relative CIELAB lab*
 $lab^*lab 0.5 0.0 0.0$
 $lab^*tch 0.5 0.0 -$
 $lab^*nch 0.5 0.0 -$

relative Natural Colour (NC)
 $lab^*lrj 0.5 0.0 0.0$
 $lab^*tce 0.5 0.0 -$
 $lab^*nce 0.5 0.0 -$

relative Inform. Technology (IT)
 $olvi3^* 0.0 0.0 0.0 (1.0)$
 $cmyn3^* 1.0 1.0 1.0 (0.0)$
 $olvi4^* 1.0 1.0 1.0 0.0$
 $cmyn4^* 0.0 0.0 0.0 1.0$

standard and adapted CIELAB
 $LAB^*LAB 69.7 0.0 0.0$
 $LAB^*LABa 69.7 0.0 0.0$
 $LAB^*TCHa 0.01 0.0 -$

relative CIELAB lab*
 $lab^*lab 0.0 0.0 0.0$
 $lab^*tch 0.0 0.0 -$
 $lab^*nch 1.0 0.0 -$

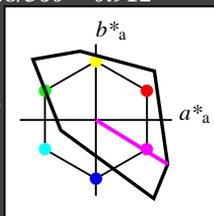
relative Natural Colour (NC)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

$n^* = 1.0$

Output: 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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
NMa	57.3	94.35	-58.41	110.97	328
WMa	0.01	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

%Gamut
 $u^*_{rel} = 158$
 %Regularity
 $g^*_{H,rel} = 20$
 $g^*_{C,rel} = 37$

relative Inform. Technology (IT)
 $olvi3^* 1.0 1.0 1.0 (1.0)$
 $cmyn3^* 0.0 0.0 0.0 (0.0)$
 $olvi4^* 1.0 1.0 1.0 1.0$
 $cmyn4^* 0.0 0.0 0.0 0.0$

standard and adapted CIELAB
 $LAB^*LAB 95.41 0.0 0.0$
 $LAB^*LABa 95.41 0.0 0.0$
 $LAB^*TCHa 99.99 0.01 -$

relative CIELAB lab*
 $lab^*lab 1.0 0.0 0.0$
 $lab^*tch 1.0 0.0 -$
 $lab^*nch 0.0 0.0 -$

relative Natural Colour (NC)
 $lab^*lrj 1.0 0.0 0.0$
 $lab^*tce 1.0 0.0 -$
 $lab^*nce 0.0 0.0 -$

relative Inform. Technology (IT)
 $olvi3^* 0.5 0.5 0.5 (1.0)$
 $cmyn3^* 0.5 0.5 0.5 (0.0)$
 $olvi4^* 1.0 1.0 1.0 0.5$
 $cmyn4^* 0.0 0.0 0.0 0.5$

standard and adapted CIELAB
 $LAB^*LAB 47.72 0.0 0.0$
 $LAB^*LABa 47.72 0.0 0.0$
 $LAB^*TCHa 50.0 0.01 -$

relative CIELAB lab*
 $lab^*lab 0.5 0.0 0.0$
 $lab^*tch 0.5 0.0 -$
 $lab^*nch 0.5 0.0 -$

relative Natural Colour (NC)
 $lab^*lrj 0.5 0.0 0.0$
 $lab^*tce 0.5 0.0 -$
 $lab^*nce 0.5 0.0 -$

relative Inform. Technology (IT)
 $olvi3^* 0.0 0.0 0.0 (1.0)$
 $cmyn3^* 1.0 1.0 1.0 (0.0)$
 $olvi4^* 1.0 1.0 1.0 0.0$
 $cmyn4^* 0.0 0.0 0.0 1.0$

standard and adapted CIELAB
 $LAB^*LAB 0.03 0.0 0.0$
 $LAB^*LABa 0.03 0.0 0.0$
 $LAB^*TCHa 0.01 0.01 -$

relative CIELAB lab*
 $lab^*lab 0.0 0.0 0.0$
 $lab^*tch 0.0 0.0 -$
 $lab^*nch 1.0 0.0 -$

relative Natural Colour (NC)
 $lab^*lrj 0.0 0.0 0.0$
 $lab^*tce 0.0 0.0 -$
 $lab^*nce 1.0 0.0 -$

$n^* = 1.0$

relative Inform. Technology (IT)
 $olvi3^* 1.0 0.5 1.0 (1.0)$
 $cmyn3^* 0.0 0.5 0.0 (0.0)$
 $olvi4^* 1.0 0.5 1.0 1.0$
 $cmyn4^* 0.0 0.5 0.0 1.0$

standard and adapted CIELAB
 $LAB^*LAB 86.95 18.76 -12.61$
 $LAB^*LABa 86.95 18.76 -12.61$
 $LAB^*TCHa 75.0 22.61 326.07$

relative CIELAB lab*
 $lab^*lab 0.671 0.415 -0.278$
 $lab^*tch 0.75 0.5 0.906$
 $lab^*nch 0.0 0.5 0.906$

relative Natural Colour (NC)
 $lab^*lrj 0.671 0.341 -0.365$
 $lab^*tce 0.75 0.5 0.869$
 $lab^*nce 0.0 0.5 0.47r$

relative Inform. Technology (IT)
 $olvi3^* 0.5 0.0 0.5 (1.0)$
 $cmyn3^* 0.5 1.0 0.5 (0.0)$
 $olvi4^* 1.0 0.5 1.0 0.5$
 $cmyn4^* 0.0 0.5 0.0 0.5$

standard and adapted CIELAB
 $LAB^*LAB 74.1 18.76 -12.61$
 $LAB^*LABa 74.1 18.76 -12.61$
 $LAB^*TCHa 25.01 22.61 326.07$

relative CIELAB lab*
 $lab^*lab 0.171 0.415 -0.278$
 $lab^*tch 0.25 0.5 0.906$
 $lab^*nch 0.5 0.5 0.906$

relative Natural Colour (NC)
 $lab^*lrj 0.171 0.341 -0.365$
 $lab^*tce 0.25 0.5 0.869$
 $lab^*nce 0.5 0.5 0.47r$

$n^* = 0.00$

blackness n^*

chromaticness c^*

relative Inform. Technology (IT)
 $olvi3^* 1.0 0.5 1.0 (1.0)$
 $cmyn3^* 0.0 0.5 0.0 (0.0)$
 $olvi4^* 1.0 0.5 1.0 1.0$
 $cmyn4^* 0.0 0.5 0.0 1.0$

standard and adapted CIELAB
 $LAB^*LAB 76.35 47.17 -29.19$
 $LAB^*LABa 76.35 47.17 -29.19$
 $LAB^*TCHa 75.0 55.47 328.23$

relative CIELAB lab*
 $lab^*lab 0.8 0.425 -0.262$
 $lab^*tch 0.75 0.5 0.912$
 $lab^*nch 0.0 0.5 0.912$

relative Natural Colour (NC)
 $lab^*lrj 0.8 0.352 -0.354$
 $lab^*tce 0.75 0.5 0.874$
 $lab^*nce 0.0 0.5 0.49r$

relative Inform. Technology (IT)
 $olvi3^* 0.5 0.0 0.5 (1.0)$
 $cmyn3^* 0.5 1.0 0.5 (0.0)$
 $olvi4^* 1.0 0.5 1.0 0.5$
 $cmyn4^* 0.0 0.5 0.0 0.5$

standard and adapted CIELAB
 $LAB^*LAB 28.66 47.17 -29.19$
 $LAB^*LABa 28.66 47.17 -29.19$
 $LAB^*TCHa 25.01 55.47 328.23$

relative CIELAB lab*
 $lab^*lab 0.3 0.425 -0.262$
 $lab^*tch 0.25 0.5 0.912$
 $lab^*nch 0.5 0.5 0.912$

relative Natural Colour (NC)
 $lab^*lrj 0.3 0.352 -0.354$
 $lab^*tce 0.25 0.5 0.874$
 $lab^*nce 0.5 0.5 0.49r$

$n^* = 0.00$

blackness n^*

chromaticness c^*

NE180-7, 3 step scales for constant CIELAB hue 326/360 = 0.906 (left)

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

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

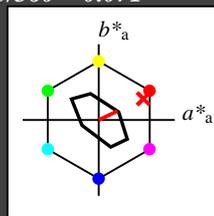
input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	82.56	0.0	0.0
LAB*LABa	82.56	0.0	0.0
LAB*TCHa	50.0	0.0	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	69.7	0.0	0.0
LAB*LABa	69.7	0.0	0.0
LAB*TCHa	0.0	0.0	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Inform. Technology (IT)

olvi3*	1.0	0.523	0.5	(1.0)
cmyn3*	0.0	0.477	0.5	(0.0)
olvi4*	1.0	0.523	0.5	1.0
cmyn4*	0.0	0.477	0.5	0.0

standard and adapted CIELAB

LAB*LAB	86.33	12.27	5.85
LAB*LABa	86.33	12.27	5.85
LAB*TCHa	75.0	13.59	25.48

relative CIELAB lab*

lab*lab	0.647	0.451	0.215
lab*tch	0.75	0.5	0.071
lab*nch	0.0	0.5	0.071

relative Natural Colour (NC)

lab*lrj	0.647	0.5	0.0
lab*tce	0.75	0.5	0.0
lab*nce	0.0	0.5	r00j

relative Inform. Technology (IT)

olvi3*	0.5	0.023	0.0	(1.0)
cmyn3*	0.5	0.977	1.0	(0.0)
olvi4*	1.0	0.523	0.5	0.5
cmyn4*	0.0	0.477	0.5	0.5

standard and adapted CIELAB

LAB*LAB	73.47	12.27	5.84
LAB*LABa	73.47	12.27	5.84
LAB*TCHa	25.01	13.59	25.46

relative CIELAB lab*

lab*lab	0.147	0.451	0.215
lab*tch	0.25	0.5	0.071
lab*nch	0.5	0.5	0.071

relative Natural Colour (NC)

lab*lrj	0.147	0.5	0.0
lab*tce	0.25	0.5	1.0
lab*nce	0.5	0.5	b99r

$n^* = 0.50$

0,25

0,50

0,75

1,00

chromaticness c^*

blackness n^*

blackness n^*

0,25

0,50

0,75

1,00

chromaticness c^*

blackness n^*

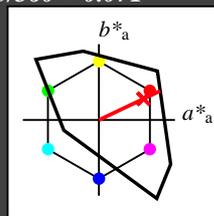
blackness n^*

Output: 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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	47.72	0.0	0.0
LAB*LABa	47.72	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

0,25

0,50

0,75

1,00

chromaticness c^*

blackness n^*

blackness n^*

0,25

0,50

0,75

1,00

chromaticness c^*

blackness n^*

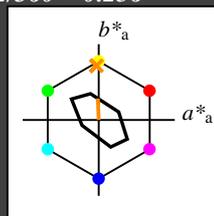
blackness n^*

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	82.56	0.0	0.0
LAB*LABa	82.56	0.0	0.0
LAB*TCHa	50.0	0.0	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	69.7	0.0	0.0
LAB*LABa	69.7	0.0	0.0
LAB*TCHa	0.0	0.0	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

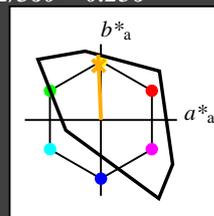
$n^* = 1.0$

Output: 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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	47.72	0.0	0.0
LAB*LABa	47.72	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Inform. Technology (IT)

olvi3*	1.0	0.87	0.5	(1.0)
cmyn3*	0.0	0.13	0.5	(0.0)
olvi4*	1.0	0.87	0.5	1.0
cmyn4*	0.0	0.13	0.5	0.0

standard and adapted CIELAB

LAB*LAB	92.4	-0.57	14.19
LAB*LABa	92.4	-0.57	14.19
LAB*TCHa	75.0	14.2	92.32

relative CIELAB lab*

lab*lab	0.883	-0.019	0.499
lab*tch	0.75	0.5	0.256
lab*nch	0.0	0.5	0.256

relative Natural Colour (NC)

lab*lrj	0.883	0.0	0.5
lab*tce	0.75	0.5	0.25
lab*nce	0.0	0.5	0.0

relative Inform. Technology (IT)

olvi3*	0.5	0.37	0.0	(1.0)
cmyn3*	0.5	0.63	1.0	(0.0)
olvi4*	1.0	0.87	0.5	0.5
cmyn4*	0.0	0.13	0.5	0.5

standard and adapted CIELAB

LAB*LAB	79.54	-0.56	14.19
LAB*LABa	79.54	-0.56	14.19
LAB*TCHa	25.01	14.2	92.31

relative CIELAB lab*

lab*lab	0.383	-0.019	0.499
lab*tch	0.25	0.5	0.256
lab*nch	0.5	0.5	0.256

relative Natural Colour (NC)

lab*lrj	0.383	0.0	0.5
lab*tce	0.25	0.5	0.25
lab*nce	0.5	0.5	0.0

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

relative Inform. Technology (IT)

olvi3*	1.0	0.74	0.0	(1.0)
cmyn3*	0.0	0.26	1.0	(0.0)
olvi4*	1.0	0.74	0.0	1.0
cmyn4*	0.0	0.26	1.0	0.0

standard and adapted CIELAB

LAB*LAB	89.38	-1.14	28.37
LAB*LABa	89.38	-1.14	28.37
LAB*TCHa	50.0	28.4	92.32

relative CIELAB lab*

lab*lab	0.766	-0.039	0.999
lab*tch	0.5	1.0	0.256
lab*nch	0.0	1.0	0.256

relative Natural Colour (NC)

lab*lrj	0.766	0.0	1.0
lab*tce	0.5	1.0	0.25
lab*nce	0.0	1.0	0.0

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	42.62	-1.73	43.05
LAB*LABa	42.62	-1.73	43.05
LAB*TCHa	25.01	43.09	92.31

relative CIELAB lab*

lab*lab	0.447	-0.019	0.499
lab*tch	0.25	0.5	0.256
lab*nch	0.5	0.5	0.256

relative Natural Colour (NC)

lab*lrj	0.447	0.0	0.5
lab*tce	0.25	0.5	0.25
lab*nce	0.5	0.5	0.0

$n^* = 0.00$

blackness n^*

chromaticness c^*

relative Inform. Technology (IT)

olvi3*	1.0	0.912	0.5	(1.0)
cmyn3*	0.0	0.088	0.5	(0.0)
olvi4*	1.0	0.912	0.5	1.0
cmyn4*	0.0	0.088	0.5	0.0

standard and adapted CIELAB

LAB*LAB	90.31	-1.74	43.06
LAB*LABa	90.31	-1.74	43.06
LAB*TCHa	75.0	43.09	92.32

relative CIELAB lab*

lab*lab	0.947	-0.019	0.499
lab*tch	0.75	0.5	0.256
lab*nch	0.0	0.5	0.256

relative Natural Colour (NC)

lab*lrj	0.947	0.0	0.5
lab*tce	0.75	0.5	0.25
lab*nce	0.0	0.5	0.0

relative Inform. Technology (IT)

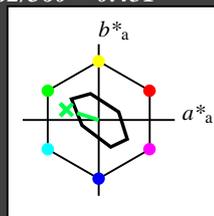
olvi3*	0.5	0.412	0.0	(1.0)
cmyn3*	0.5	0.588	1.0	(0.0

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	1.0	0.767	(1.0)
cmyn3*	0.5	0.0	0.233	(0.0)
olvi4*	0.5	1.0	0.767	1.0
cmyn4*	0.5	0.0	0.233	0.0

standard and adapted CIELAB

LAB*LAB	92.79	-14.2	4.55
LAB*LABa	92.79	-14.2	4.55
LAB*TCHa	75.0	14.92	162.23

relative CIELAB lab*

lab*lab	0.898	-0.475	0.153
lab*tch	0.75	0.5	0.451
lab*nch	0.0	0.5	0.451

relative Natural Colour (NC)

lab*lrj	0.898	-0.499	0.0
lab*tce	0.75	0.5	0.5
lab*nce	0.0	0.5	g00b

relative Inform. Technology (IT)

olvi3*	0.0	1.0	0.534	(1.0)
cmyn3*	1.0	0.0	0.466	(0.0)
olvi4*	1.0	1.0	0.534	1.0
cmyn4*	1.0	0.0	0.466	0.0

standard and adapted CIELAB

LAB*LAB	90.18	-28.4	9.11
LAB*LABa	90.18	-28.4	9.11
LAB*TCHa	50.0	29.84	162.22

relative CIELAB lab*

lab*lab	0.796	-0.951	0.305
lab*tch	0.5	1.0	0.451
lab*nch	0.0	1.0	0.451

relative Natural Colour (NC)

lab*lrj	0.796	-0.999	0.0
lab*tce	0.5	1.0	0.5
lab*nce	0.0	1.0	g00b

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.267	(1.0)
cmyn3*	1.0	0.5	0.733	(0.0)
olvi4*	0.5	1.0	0.767	0.5
cmyn4*	0.5	0.0	0.233	0.5

standard and adapted CIELAB

LAB*LAB	79.94	-14.2	4.56
LAB*LABa	79.94	-14.2	4.56
LAB*TCHa	25.01	14.92	162.22

relative CIELAB lab*

lab*lab	0.398	-0.475	0.153
lab*tch	0.25	0.5	0.451
lab*nch	0.5	0.5	0.451

relative Natural Colour (NC)

lab*lrj	0.398	-0.499	0.0
lab*tce	0.25	0.5	0.5
lab*nce	0.5	0.5	199g

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	69.7	0.0	0.0
LAB*LABa	69.7	0.0	0.0
LAB*TCHa	0.01	0.0	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 0,00$
blackness n^*

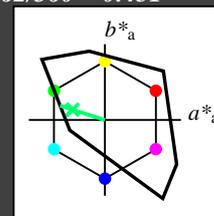
chromaticness c^*

Output: 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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	1.0	0.826	(1.0)
cmyn3*	0.5	0.0	0.174	(0.0)
olvi4*	0.5	1.0	0.827	1.0
cmyn4*	0.5	0.0	0.173	0.0

standard and adapted CIELAB

LAB*LAB	90.57	-29.42	9.43
LAB*LABa	90.57	-29.42	9.43
LAB*TCHa	75.0	30.9	162.23

relative CIELAB lab*

lab*lab	0.949	-0.475	0.153
lab*tch	0.75	0.5	0.451
lab*nch	0.0	0.5	0.451

relative Natural Colour (NC)

lab*lrj	0.949	-0.499	0.0
lab*tce	0.75	0.5	0.5
lab*nce	0.0	0.5	g00b

relative Inform. Technology (IT)

olvi3*	0.0	1.0	0.653	(1.0)
cmyn3*	1.0	0.0	0.347	(0.0)
olvi4*	0.0	1.0	0.653	1.0
cmyn4*	1.0	0.0	0.347	0.0

standard and adapted CIELAB

LAB*LAB	85.74	-58.84	18.87
LAB*LABa	85.74	-58.84	18.87
LAB*TCHa	50.0	61.8	162.23

relative CIELAB lab*

lab*lab	0.899	-0.951	0.305
lab*tch	0.5	1.0	0.451
lab*nch	0.0	1.0	0.451

relative Natural Colour (NC)

lab*lrj	0.899	-0.999	0.0
lab*tce	0.5	1.0	0.5
lab*nce	0.0	1.0	g00b

relative Inform. Technology (IT)

olvi3*	0.0	0.5	0.326	(1.0)
cmyn3*	1.0	0.5	0.674	(0.0)
olvi4*	0.5	1.0	0.826	0.5
cmyn4*	0.5	0.0	0.174	0.5

standard and adapted CIELAB

LAB*LAB	42.88	-29.42	9.44
LAB*LABa	42.88	-29.42	9.44
LAB*TCHa	25.01	30.91	162.22

relative CIELAB lab*

lab*lab	0.449	-0.475	0.153
lab*tch	0.25	0.5	0.451
lab*nch	0.5	0.5	0.451

relative Natural Colour (NC)

lab*lrj	0.449	-0.499	0.0
lab*tce	0.25	0.5	0.5
lab*nce	0.5	0.5	199g

$n^* = 0,00$
blackness n^*

chromaticness c^*

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1,0$

See for similar files: <http://www.ps.bam.de/NE18/>
 Technical information: <http://www.ps.bam.de>
 Version 2.1, io=1,1, CIELAB

BAM registration: 20060101-NE18/10S/S18E08FP.PS/.PDF BAM material: code=rh4ta
 application for evaluation and measurement of printer or monitor systems
 /NE18/ Form 9/10, Serie: 1/1, Page: 9 Page count: 9

NE180-7, 3 step scales for constant CIELAB hue 162/360 = 0.451 (left)

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

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

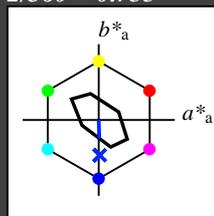
input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$

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^*



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

%Gamut

$u^*_{rel} = 16$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.0	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.699	1.0	(1.0)
cmyn3*	0.5	0.301	0.0	(0.0)
olvi4*	0.5	0.699	1.0	1.0
cmyn4*	0.5	0.301	0.0	0.0

standard and adapted CIELAB

LAB*LAB	87.5	0.37	-12.12
LAB*LABa	87.5	0.37	-12.12
LAB*TCHa	75.0	12.13	271.73

relative CIELAB lab*

lab*lab	0.693	0.015	-0.499
lab*tch	0.75	0.5	0.755
lab*nch	0.0	0.5	0.755

relative Natural Colour (NC)

lab*lrj	0.693	0.0	-0.499
lab*tce	0.75	0.5	0.75
lab*nce	0.0	0.5	g99b

relative Inform. Technology (IT)

olvi3*	0.0	0.398	1.0	(1.0)
cmyn3*	1.0	0.602	0.0	(0.0)
olvi4*	1.0	0.398	1.0	1.0
cmyn4*	1.0	0.602	0.0	0.0

standard and adapted CIELAB

LAB*LAB	79.6	0.74	-24.25
LAB*LABa	79.6	0.74	-24.25
LAB*TCHa	50.0	24.27	271.74

relative CIELAB lab*

lab*lab	0.385	0.03	-0.998
lab*tch	0.5	1.0	0.755
lab*nch	0.0	1.0	0.755

relative Natural Colour (NC)

lab*lrj	0.385	0.0	-0.999
lab*tce	0.5	1.0	0.75
lab*nce	0.0	1.0	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.199	0.5	(1.0)
cmyn3*	1.0	0.801	0.5	(0.0)
olvi4*	0.5	0.699	1.0	0.5
cmyn4*	0.5	0.301	0.0	0.5

standard and adapted CIELAB

LAB*LAB	74.65	0.37	-12.12
LAB*LABa	74.65	0.37	-12.12
LAB*TCHa	25.01	12.14	271.75

relative CIELAB lab*

lab*lab	0.193	0.015	-0.499
lab*tch	0.25	0.5	0.755
lab*nch	0.5	0.5	0.755

relative Natural Colour (NC)

lab*lrj	0.193	0.0	-0.499
lab*tce	0.25	0.5	0.75
lab*nce	0.5	0.5	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	69.7	0.0	0.0
LAB*LABa	69.7	0.0	0.0
LAB*TCHa	0.01	0.0	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 0,00$

blackness n^*

chromaticness c^*

$n^* = 0,50$

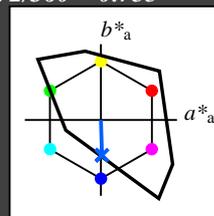
$n^* = 1,0$

Output: 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 t^*



TLS00; adapted (a) CIELAB data

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
OMa	50.5	76.92	64.55	100.42	40
YMa	92.66	-20.69	90.75	93.08	103
LMa	83.63	-82.75	79.9	115.04	136
CMa	86.88	-46.16	-13.55	48.12	196
VMa	30.39	76.06	-103.59	128.52	306
MMa	57.3	94.35	-58.41	110.97	328
NMa	0.01	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

%Gamut

$u^*_{rel} = 158$

%Regularity

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

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

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	0.0
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.805	1.0	(1.0)
cmyn3*	0.5	0.195	0.0	(0.0)
olvi4*	0.5	0.805	1.0	1.0
cmyn4*	0.5	0.195	0.0	0.0

standard and adapted CIELAB

LAB*LAB	80.13	0.73	-24.31
LAB*LABa	80.13	0.73	-24.31
LAB*TCHa	75.0	24.33	271.72

relative CIELAB lab*

lab*lab	0.84	0.015	-0.499
lab*tch	0.75	0.5	0.755
lab*nch	0.0	0.5	0.755

relative Natural Colour (NC)

lab*lrj	0.84	0.0	-0.499
lab*tce	0.75	0.5	0.75
lab*nce	0.0	0.5	g99b

relative Inform. Technology (IT)

olvi3*	0.0	0.61	1.0	(1.0)
cmyn3*	1.0	0.39	0.0	(0.0)
olvi4*	0.0	0.61	1.0	1.0
cmyn4*	1.0	0.39	0.0	0.0

standard and adapted CIELAB

LAB*LAB	64.86	1.47	-48.64
LAB*LABa	64.86	1.47	-48.64
LAB*TCHa	50.0	48.67	271.74

relative CIELAB lab*

lab*lab	0.68	0.03	-0.998
lab*tch	0.5	1.0	0.755
lab*nch	0.0	1.0	0.755

relative Natural Colour (NC)

lab*lrj	0.68	0.0	-0.999
lab*tce	0.5	1.0	0.75
lab*nce	0.0	1.0	g99b

$n^* = 0,00$

blackness n^*

chromaticness c^*

$n^* = 0,50$

$n^* = 1,0$

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	47.72	0.0	0.0
LAB*LABa	47.72	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.305	0.5	(1.0)
cmyn3*	1.0	0.695	0.5	(0.0)
olvi4*	0.5	0.805	1.0	0.5
cmyn4*	0.5	0.195	0.0	0.5

standard and adapted CIELAB

LAB*LAB	32.44	0.74	-24.32
LAB*LABa	32.44	0.74	-24.32
LAB*TCHa	25.01	24.34	271.75

relative CIELAB lab*

lab*lab	0.34	0.015	-0.499
lab*tch	0.25	0.5	0.755
lab*nch	0.5	0.5	0.755

relative Natural Colour (NC)

lab*lrj	0.34	0.0	-0.499
lab*tce	0.25	0.5	0.75
lab*nce	0.5	0.5	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	0.03	0.0	0.0
LAB*LABa	0.03	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1,0$

See for similar files: <http://www.ps.bam.de/NE18/>
 Technical information: <http://www.ps.bam.de>
 Version 2.1, io=1,1, CIELAB

BAM registration: 20060101-NE18/10S/S18E09FP.PS/.PDF BAM material: code=rh4da
 application for evaluation and measurement of printer or monitor systems
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NE180-7, 3 step scales for constant CIELAB hue 272/360 = 0.755 (left)

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

BAM-test chart NE18; Colorimetric systems TLS70 & TLS00
 D65: 2 coordinate data of 3 step colour scales for 10 hues

input: $olv^* setrgbcolor$
 output: $olv^* setrgbcolor / w^* setgray$