

Eingabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 137/360 = 0.38$

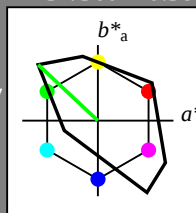
lab^*ch und lab^*nch

D65: Buntton L

LCH*Ma: 84 108 137

olv*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LABb 95.41 0.0 0.0

relative CIELAB lab*

lab*lab 1.0 0.0 0.0
lab*lab 1.0 0.0 0.0
lab*lab 1.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 1.0 0.0 0.0
lab*lab 1.0 0.0 0.0
lab*lab 1.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 76.07 0.0 0.0

relative CIELAB lab*

lab*lab 0.75 0.0 0.0
lab*lab 0.75 0.0 0.0
lab*lab 0.75 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.75 0.0 0.0
lab*lab 0.75 0.0 0.0
lab*lab 0.75 0.0 0.0

standard and adapted CIELAB

LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 56.72 0.0 0.0

relative CIELAB lab*

lab*lab 0.5 0.0 0.0
lab*lab 0.5 0.0 0.0
lab*lab 0.5 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.5 0.0 0.0
lab*lab 0.5 0.0 0.0
lab*lab 0.5 0.0 0.0

standard and adapted CIELAB

LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 37.37 0.0 0.0

relative CIELAB lab*

lab*lab 0.25 0.0 0.0
lab*lab 0.25 0.0 0.0
lab*lab 0.25 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.25 0.0 0.0
lab*lab 0.25 0.0 0.0
lab*lab 0.25 0.0 0.0

standard and adapted CIELAB

LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.03 0.0 0.0

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

TLS18; adaptierte CIELAB-Daten

	$L^*=L_a$	a^*	b^*	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

%Regularität

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)

olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)

standard and adapted CIELAB

LAB*LAB 89.7 -39.48 36.96
LAB*LABa 89.7 -39.48 36.96
LAB*LABb 89.7 -39.48 36.96

relative CIELAB lab*

lab*lab 0.926 -0.364 0.342
lab*lab 0.926 -0.364 0.342
lab*lab 0.926 -0.364 0.342

relative Natural Colour (NC)

lab*lab 0.926 -0.364 0.342
lab*lab 0.926 -0.364 0.342
lab*lab 0.926 -0.364 0.342

standard and adapted CIELAB

LAB*LAB 70.36 -39.48 36.97
LAB*LABa 70.36 -39.48 36.97
LAB*LABb 70.36 -39.48 36.97

relative CIELAB lab*

lab*lab 0.889 -0.546 0.512
lab*lab 0.889 -0.546 0.512
lab*lab 0.889 -0.546 0.512

relative Natural Colour (NC)

lab*lab 0.889 -0.546 0.512
lab*lab 0.889 -0.546 0.512
lab*lab 0.889 -0.546 0.512

standard and adapted CIELAB

LAB*LAB 50.0 54.1 136.89
LAB*LABa 50.0 54.1 136.89
LAB*LABb 50.0 54.1 136.89

relative CIELAB lab*

lab*lab 0.639 -0.546 0.512
lab*lab 0.639 -0.546 0.512
lab*lab 0.639 -0.546 0.512

relative Natural Colour (NC)

lab*lab 0.639 -0.546 0.512
lab*lab 0.639 -0.546 0.512
lab*lab 0.639 -0.546 0.512

standard and adapted CIELAB

LAB*LAB 31.01 -39.48 36.96
LAB*LABa 31.01 -39.48 36.96
LAB*LABb 31.01 -39.48 36.96

relative CIELAB lab*

lab*lab 0.426 -0.364 0.342
lab*lab 0.426 -0.364 0.342
lab*lab 0.426 -0.364 0.342

relative Natural Colour (NC)

lab*lab 0.426 -0.364 0.342
lab*lab 0.426 -0.364 0.342
lab*lab 0.426 -0.364 0.342

standard and adapted CIELAB

LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.03 0.0 0.0

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 0.01 0.01
LAB*LABa 0.01 0.01
LAB*LABb 0.01 0.01

relative CIELAB lab*

lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0
lab*lab 0.0 0.0 0.0

Eingabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 196/360 = 0.546$

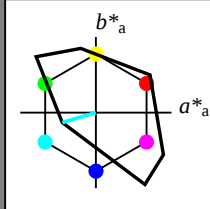
lab^*ch und lab^*nch

D65: Buntton C

LCH*Ma: 87 46 196

olv*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit t^*



%Umfang

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*ce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.75 0.0 0.0
lab*ce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*ce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.75 0.75 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*ce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

$n^* = 1.0$

TLS18; adaptierte CIELAB-Daten

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

%Regularität

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 91.27 -22.2 -6.55
LAB*LAB 91.27 -22.2 -6.55
LAB*LAB 91.27 -22.2 -6.55
LAB*LAB 91.27 -22.2 -6.55

relative CIELAB lab*
lab*lab 0.946 -0.478 -0.141
lab*ch 0.75 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.946 -0.44 -0.235
lab*ce 0.75 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 71.93 -22.2 -6.55
LAB*LAB 71.93 -22.2 -6.55
LAB*LAB 71.93 -22.2 -6.55
LAB*LAB 71.93 -22.2 -6.55

relative CIELAB lab*
lab*lab 0.67 -0.718 -0.211
lab*ch 0.375 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.67 -0.66 -0.353
lab*ce 0.25 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 52.58 -22.2 -6.55
LAB*LAB 52.58 -22.2 -6.55
LAB*LAB 52.58 -22.2 -6.55
LAB*LAB 52.58 -22.2 -6.55

relative CIELAB lab*
lab*lab 0.447 -0.478 -0.141
lab*ch 0.25 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.447 -0.44 -0.235
lab*ce 0.25 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 35.29 -11.09 -3.27
LAB*LAB 35.29 -11.09 -3.27
LAB*LAB 35.29 -11.09 -3.27
LAB*LAB 35.29 -11.09 -3.27

relative CIELAB lab*
lab*lab 0.223 -0.239 -0.07
lab*ch 0.125 0.25 0.546
lab*nch 0.0 0.25 0.546
relative Natural Colour (NC)
lab*tr 0.223 -0.219 -0.117
lab*ce 0.125 0.25 0.578
lab*nce 0.0 0.25 0.578

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olv4* 0.25 0.25 0.25 (1.0)
cmyn4* 0.75 0.25 0.25 (0.0)
standard and adapted CIELAB
LAB*LAB 89.2 -33.3 -9.83
LAB*LAB 89.2 -33.3 -9.83
LAB*LAB 89.2 -33.3 -9.83
LAB*LAB 89.2 -33.3 -9.83

relative CIELAB lab*
lab*lab 0.92 -0.96 -0.353
lab*ch 0.625 0.75 0.578
lab*nch 0.0 0.75 0.578
relative Natural Colour (NC)
lab*tr 0.92 -0.96 -0.353
lab*ce 0.625 0.75 0.578
lab*nce 0.0 0.75 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 87.13 -44.4 -13.11
LAB*LAB 87.13 -44.4 -13.11
LAB*LAB 87.13 -44.4 -13.11
LAB*LAB 87.13 -44.4 -13.11

relative CIELAB lab*
lab*lab 0.93 -0.958 -0.282
lab*ch 0.5 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.93 -0.881 -0.47
lab*ce 0.5 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 50.0 46.31 196.46
LAB*LAB 50.0 46.31 196.46
LAB*LAB 50.0 46.31 196.46
LAB*LAB 50.0 46.31 196.46

relative CIELAB lab*
lab*lab 0.67 -0.718 -0.211
lab*ch 0.375 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.67 -0.66 -0.353
lab*ce 0.25 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0

$n^* = 0.00$

Ausgabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 196/360 = 0.546$

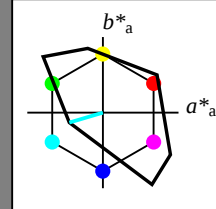
lab^*ch und lab^*nch

D65: Buntton C

LCH*Ma: 87 46 196

olv*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit t^*



%Umfang

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ch 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*ce 1.0 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0

relative CIELAB lab*
lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.75 0.0 0.0
lab*ce 0.75 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (0.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0

relative CIELAB lab*
lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.5 0.0 0.0
lab*ce 0.5 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olv4* 1.0 1.0 1.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.25 0.0 0.0
lab*ce 0.25 0.0 0.0
lab*nce 0.0 0.0 0.0

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 1.0 0.0 0.0 (1.0)
cmyn4* 0.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nch 1.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ce 0.0 0.0 0.0
lab*nce 1.0 0.0 0.0

$n^* = 1.0$

TLS18; adaptierte CIELAB-Daten

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

%Regularität

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 91.27 -22.2 -6.55
LAB*LAB 91.27 -22.2 -6.55
LAB*LAB 91.27 -22.2 -6.55
LAB*LAB 91.27 -22.2 -6.55

relative CIELAB lab*
lab*lab 0.946 -0.478 -0.141
lab*ch 0.75 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.946 -0.44 -0.235
lab*ce 0.75 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.25 0.25 0.25 (1.0)
cmyn3* 0.75 0.25 0.25 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)
standard and adapted CIELAB
LAB*LAB 71.93 -22.2 -6.55
LAB*LAB 71.93 -22.2 -6.55
LAB*LAB 71.93 -22.2 -6.55
LAB*LAB 71.93 -22.2 -6.55

relative CIELAB lab*
lab*lab 0.67 -0.718 -0.211
lab*ch 0.375 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.67 -0.66 -0.353
lab*ce 0.25 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 52.58 -22.2 -6.55
LAB*LAB 52.58 -22.2 -6.55
LAB*LAB 52.58 -22.2 -6.55
LAB*LAB 52.58 -22.2 -6.55

relative CIELAB lab*
lab*lab 0.447 -0.478 -0.141
lab*ch 0.25 0.5 0.546
lab*nch 0.0 0.5 0.546
relative Natural Colour (NC)
lab*tr 0.447 -0.44 -0.235
lab*ce 0.25 0.5 0.578
lab*nce 0.0 0.5 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 35.29 -11.09 -3.27
LAB*LAB 35.29 -11.09 -3.27
LAB*LAB 35.29 -11.09 -3.27
LAB*LAB 35.29 -11.09 -3.27

relative CIELAB lab*
lab*lab 0.223 -0.239 -0.07
lab*ch 0.125 0.25 0.546
lab*nch 0.0 0.25 0.546
relative Natural Colour (NC)
lab*tr 0.223 -0.219 -0.117
lab*ce 0.125 0.25 0.578
lab*nce 0.0 0.25 0.578

$n^* = 0.50$

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 89.2 -33.3 -9.83
LAB*LAB 89.2 -33.3 -9.83
LAB*LAB 89.2 -33.3 -9.83
LAB*LAB 89.2 -33.3 -9.83

relative CIELAB lab*
lab*lab 0.92 -0.96 -0.353
lab*ch 0.625 0.75 0.578
lab*nch 0.0 0.75 0.578
relative Natural Colour (NC)
lab*tr 0.92 -0.96 -0.353
lab*ce 0.625 0.75 0.578
lab*nce 0.0 0.75 0.578

relative Inform. Technology (IT)
olv3* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 0.0 0.0 (0.0)
olv4* 0.0 0.0 0.0 (1.0)
cmyn4* 1.0 0.0 0.0 (0.0)
standard and adapted CIELAB
LAB*LAB 87.13 -44.4 -13.11
LAB*LAB 87.13 -44.4 -13.11
LAB*LAB 87.13 -44.4 -13.11
LAB*LAB 87.13 -44.4 -13.11

relative CIELAB lab*
lab*lab 0.93 -0.958 -0.282
lab*ch 0.5 0.5 0.546
lab*nch 0.0

Eingabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 304/360 = 0.845$

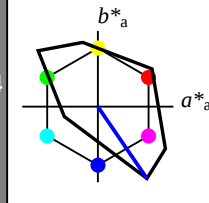
lab^*tch und lab^*nch

D65: Buntton V

LCH*Ma: 35 115 304

olv*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 118$

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	1.0	1.0
olv4*	0.25	0.25	0.25	0.0	0.0
olv5*	0.0	0.0	0.0	0.0	0.0
olv6*	0.0	0.0	0.0	0.0	0.0
olv7*	0.0	0.0	0.0	0.0	0.0
olv8*	0.0	0.0	0.0	0.0	0.0
olv9*	0.0	0.0	0.0	0.0	0.0
olv10*	0.0	0.0	0.0	0.0	0.0
olv11*	0.0	0.0	0.0	0.0	0.0
olv12*	0.0	0.0	0.0	0.0	0.0
olv13*	0.0	0.0	0.0	0.0	0.0
olv14*	0.0	0.0	0.0	0.0	0.0
olv15*	0.0	0.0	0.0	0.0	0.0
olv16*	0.0	0.0	0.0	0.0	0.0
olv17*	0.0	0.0	0.0	0.0	0.0
olv18*	0.0	0.0	0.0	0.0	0.0
olv19*	0.0	0.0	0.0	0.0	0.0
olv20*	0.0	0.0	0.0	0.0	0.0
olv21*	0.0	0.0	0.0	0.0	0.0
olv22*	0.0	0.0	0.0	0.0	0.0
olv23*	0.0	0.0	0.0	0.0	0.0
olv24*	0.0	0.0	0.0	0.0	0.0
olv25*	0.0	0.0	0.0	0.0	0.0
olv26*	0.0	0.0	0.0	0.0	0.0
olv27*	0.0	0.0	0.0	0.0	0.0
olv28*	0.0	0.0	0.0	0.0	0.0
olv29*	0.0	0.0	0.0	0.0	0.0
olv30*	0.0	0.0	0.0	0.0	0.0
olv31*	0.0	0.0	0.0	0.0	0.0
olv32*	0.0	0.0	0.0	0.0	0.0
olv33*	0.0	0.0	0.0	0.0	0.0
olv34*	0.0	0.0	0.0	0.0	0.0
olv35*	0.0	0.0	0.0	0.0	0.0
olv36*	0.0	0.0	0.0	0.0	0.0
olv37*	0.0	0.0	0.0	0.0	0.0
olv38*	0.0	0.0	0.0	0.0	0.0
olv39*	0.0	0.0	0.0	0.0	0.0
olv40*	0.0	0.0	0.0	0.0	0.0
olv41*	0.0	0.0	0.0	0.0	0.0
olv42*	0.0	0.0	0.0	0.0	0.0
olv43*	0.0	0.0	0.0	0.0	0.0
olv44*	0.0	0.0	0.0	0.0	0.0
olv45*	0.0	0.0	0.0	0.0	0.0
olv46*	0.0	0.0	0.0	0.0	0.0
olv47*	0.0	0.0	0.0	0.0	0.0
olv48*	0.0	0.0	0.0	0.0	0.0
olv49*	0.0	0.0	0.0	0.0	0.0
olv50*	0.0	0.0	0.0	0.0	0.0
olv51*	0.0	0.0	0.0	0.0	0.0
olv52*	0.0	0.0	0.0	0.0	0.0
olv53*	0.0	0.0	0.0	0.0	0.0
olv54*	0.0	0.0	0.0	0.0	0.0
olv55*	0.0	0.0	0.0	0.0	0.0
olv56*	0.0	0.0	0.0	0.0	0.0
olv57*	0.0	0.0	0.0	0.0	0.0
olv58*	0.0	0.0	0.0	0.0	0.0
olv59*	0.0	0.0	0.0	0.0	0.0
olv60*	0.0	0.0	0.0	0.0	0.0
olv61*	0.0	0.0	0.0	0.0	0.0
olv62*	0.0	0.0	0.0	0.0	0.0
olv63*	0.0	0.0	0.0	0.0	0.0
olv64*	0.0	0.0	0.0	0.0	0.0
olv65*	0.0	0.0	0.0	0.0	0.0
olv66*	0.0	0.0	0.0	0.0	0.0
olv67*	0.0	0.0	0.0	0.0	0.0
olv68*	0.0	0.0	0.0	0.0	0.0
olv69*	0.0	0.0	0.0	0.0	0.0
olv70*	0.0	0.0	0.0	0.0	0.0
olv71*	0.0	0.0	0.0	0.0	0.0
olv72*	0.0	0.0	0.0	0.0	0.0
olv73*	0.0	0.0	0.0	0.0	0.0
olv74*	0.0	0.0	0.0	0.0	0.0
olv75*	0.0	0.0	0.0	0.0	0.0
olv76*	0.0	0.0	0.0	0.0	0.0
olv77*	0.0	0.0	0.0	0.0	0.0
olv78*	0.0	0.0	0.0	0.0	0.0
olv79*	0.0	0.0	0.0	0.0	0.0
olv80*	0.0	0.0	0.0	0.0	0.0
olv81*	0.0	0.0	0.0	0.0	0.0
olv82*	0.0	0.0	0.0	0.0	0.0
olv83*	0.0	0.0	0.0	0.0	0.0
olv84*	0.0	0.0	0.0	0.0	0.0
olv85*	0.0	0.0	0.0	0.0	0.0
olv86*	0.0	0.0	0.0	0.0	0.0
olv87*	0.0	0.0	0.0	0.0	0.0
olv88*	0.0	0.0	0.0	0.0	0.0
olv89*	0.0	0.0	0.0	0.0	0.0
olv90*	0.0	0.0	0.0	0.0	0.0
olv91*	0.0	0.0	0.0	0.0	0.0
olv92*	0.0	0.0	0.0	0.0	0.0
olv93*	0.0	0.0	0.0	0.0	0.0
olv94*	0.0	0.0	0.0	0.0	0.0
olv95*	0.0	0.0	0.0	0.0	0.0
olv96*	0.0	0.0	0.0	0.0	0.0
olv97*	0.0	0.0	0.0	0.0	0.0
olv98*	0.0	0.0	0.0	0.0	0.0
olv99*	0.0	0.0	0.0	0.0	0.0
olv100*	0.0	0.0	0.0	0.0	0.0

relative Inform. Technology (IT)

olv3*	0.75	0.75	0.75	1.0	1.0
olv4*	0.25	0.25	0.25	0.0	0.0
olv5*	0.0	0.0	0.0	0.0	0.0
olv6*	0.0	0.0	0.0	0.0	0.0
olv7*	0.0	0.0	0.0	0.0	0.0
olv8*	0.0	0.0	0.0	0.0	0.0
olv9*	0.0	0.0	0.0	0.0	0.0
olv10*	0.0	0.0	0.0	0.0	0.0
olv11*	0.0	0.0	0.0	0.0	0.0
olv12*	0.0	0.0	0.0	0.0	0.0
olv13*	0.0	0.0	0.0	0.0	0.0
olv14*	0.0	0.0	0.0	0.0	0.0
olv15*	0.0	0.0	0.0	0.0	0.0
olv16*	0.0	0.0	0.0	0.0	0.0
olv17*	0.0	0.0	0.0	0.0	0.0
olv18*	0.0	0.0	0.0	0.0	0.0
olv19*	0.0	0.0	0.0	0.0	0.0
olv20*	0.0	0.0	0.0	0.0	0.0
olv21*	0.0	0.0	0.0	0.0	0.0
olv22*	0.0	0.0	0.0	0.0	0.0
olv23*	0.0	0.0	0.0	0.0	0.0
olv24*	0.0	0.0	0.0	0.0	0.0
olv25*	0.0	0.0	0.0	0.0	0.0
olv26*	0.0	0.0	0.0	0.0	0.0
olv27*	0.0	0.0	0.0	0.0	0.0
olv28*	0.0	0.0	0.0	0.0	0.0
olv29*	0.0	0.0	0.0	0.0	0.0
olv30*	0.0	0.0	0.0	0.0	0.0
olv31*	0.0	0.0	0.0	0.0	0.0
olv32*	0.0	0.0	0.0	0.0	0.0
olv33*	0.0	0.0	0.0	0.0	0.0
olv34*	0.0	0.0	0.0	0.0	0.0
olv35*	0.0	0.0	0.0	0.0	0.0
olv36*	0.0	0.0	0.0	0.0	0.0
olv37*	0.0	0.0	0.0	0.0	0.0
olv38*	0.0	0.0	0.0	0.0	0.0
olv39*	0.0	0.0	0.0	0.0	0.0
olv40*	0.0	0.0	0.0	0.0	0.0
olv41*	0.0	0.0	0.0	0.0	0.0
olv42*	0.0	0.0	0.0	0.0	0.0
olv43*	0.0	0.0	0.0	0.0	0.0
olv44*	0.0	0.0	0.0	0.0	0.0
olv45*	0.0	0.0	0.0	0.0	0.0
olv46*	0.0	0.0	0.0	0.0	0.0
olv47*	0.0	0.0	0.0	0.0	0.0
olv48*	0.0	0.0	0.0	0.0	0.0
olv49*	0.0	0.0	0.0	0.0	0.0
olv50*	0.0	0.0	0.0	0.0	0.0
olv51*	0.0	0.0	0.0	0.0	0.0
olv52*	0.0	0.0	0.0	0.0	0.0
olv53*	0.0	0.0	0.0	0.0	0.0
olv54*	0.0	0.0	0.0	0.0	0.0
olv55*	0.0	0.0	0.0	0.0	0.0
olv56*	0.0	0.0	0.0	0.0	0.0
olv57*	0.0	0.0	0.0	0.0	0.0
olv58*	0.0	0.0	0.0	0.0	0.0
olv59*	0.0	0.0	0.0	0.0	0.0
olv60*	0.0	0.0	0.0	0.0	0.0
olv61*	0.0	0.0	0.0	0.0	0.0
olv62*	0.0	0.0	0.0	0.0	0.0
olv63*	0.0	0.0	0.0	0.0	0.0
olv64*	0.0	0.0	0.0	0.0	0.0
olv65*	0.0	0.0	0.0	0.0	0.0
olv66*	0.0	0.0	0.0	0.0	0.0
olv67*	0.0	0.0	0.0	0.0	0.0
olv68*	0.0	0.0	0.0	0.0	0.0
olv69*	0.0	0.0	0.0	0.0	0.0
olv70*	0.0	0.0	0.0	0.0	0.0
olv71*	0.0	0.0	0.0	0.0	0.0
olv72*	0.0	0.0	0.0	0.0	0.0
olv73*	0.0	0.0	0.0	0.0	0.0
olv74*	0.0	0.0	0.0	0.0	0.0
olv75*	0.0	0.0	0.0	0.0	0.0
olv76*	0.0	0.0	0.0	0.0	0.0
olv77*	0.0	0.0	0.0	0.0	0.0
olv78*	0.0	0.0	0.0	0.0	0.0
olv79*	0.0	0.0	0.0	0.0	0.0
olv80*	0.0	0.0	0.0	0.0	0.0
olv81*	0.0	0.0	0.0	0.0	0.0
olv82*	0.0	0.0	0.0	0.0	0.0
olv83*	0.0	0.0	0.0	0.0	0.0
olv84*	0.0	0.0	0.0	0.0	0.0
olv85*	0.0	0.0	0.0	0.0	0.0
olv86*	0.0	0.0	0.0	0.0	0.0
olv87*	0.0	0.0	0.0	0.0	0.0
olv88*	0.0	0.0	0.0	0.0	0.0
olv89*	0.0	0.0	0.0	0.0	0.0
olv90*	0.0	0.0	0.0	0.0	0.0
olv91*	0.0	0.0	0.0	0.0	0.0
olv92*	0.0	0.0	0.0	0.0	0.0
olv93*	0.0	0.0	0.0	0.0	0.0
olv94*	0.0	0.0	0.0	0.0	0.0
olv95*	0.0	0.0	0.0	0.0	0.0
olv96*	0.0	0.0	0.0	0.0	0.0
olv97*	0.0	0.0	0.0	0.0	0.0
olv98*	0.0	0.0	0.0	0.0	0.0
olv99*	0.0	0.0	0.0	0.0	0.0
olv100*	0.0	0.0	0.0	0.0	0.0

relative Inform. Technology (IT)				
olv3*	0.25	0.25	0.75	(1.0)
olv3*	0.75	0.75	0.25	(0.0)
olv4*	0.5	0.5	1.0	0.75
olv4*	0.5	0.5	0.5	0.25
standard and adapted CIELAB				
LAB*LAB	46.05	32.46	-46.73	47.53
LAB*LAB	46.09	32.46	-46.33	47.53
LAB*TCiHa	50.0	57.56	304.33	304.33
relative CIELAB lab*				
lab*lab	0.363	0.282	-0.412	0.282
lab*tcH	0.5	0.5	0.845	0.845
lab*tcH	0.25	0.25	0.5	0.5
relative Natural Colour (NC)				
lab*lrj	0.363	0.218	-0.449	0.218
lab*tcE	0.5	0.5	0.822	0.822
lab*ncE	0.25	0.5	0.5	0.25

Eingabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 328/360 = 0.911$

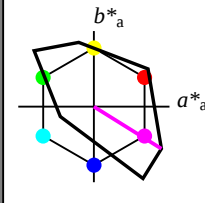
lab^*ich und lab^*nch

D65: Buntton M

LCH*Ma: 59 105 328

olv*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 118$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ich 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*ice 1.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0

relative CIELAB lab*
lab*lab 0.882 0.125 -0.131
lab*ich 0.875 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.882 0.125 -0.131
lab*ice 0.875 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 66.96 22.32 -13.9
LAB*LAB 66.96 22.32 -13.9
LAB*LAB 66.96 22.32 -13.9
LAB*LAB 66.96 22.32 -13.9

relative CIELAB lab*
lab*lab 0.75 0.25 0.75 (1.0)
lab*ich 0.75 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.75 0.25 0.911
lab*ice 0.75 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0

relative CIELAB lab*
lab*lab 0.625 0.375 0.874
lab*ich 0.625 0.375 0.874
lab*nch 0.0 0.375 0.874
relative Natural Colour (NC)
lab*tr 0.625 0.375 0.874
lab*ice 0.625 0.375 0.874
lab*nice 0.0 0.375 0.874

standard and adapted CIELAB
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (1.0)
lab*ich 0.5 0.5 0.911
lab*nch 0.0 0.5 0.911
relative Natural Colour (NC)
lab*tr 0.5 0.5 0.911
lab*ice 0.5 0.5 0.911
lab*nice 0.0 0.5 0.911

standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0

relative CIELAB lab*
lab*lab 0.382 0.212 -0.131
lab*ich 0.375 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.382 0.212 -0.131
lab*ice 0.375 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (1.0)
lab*ich 0.25 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.911
lab*ice 0.25 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.132 0.212 -0.131
lab*ich 0.125 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.132 0.212 -0.131
lab*ice 0.125 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

TLS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

%Regularität

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)

olv3* 1.0 0.5 1.0 (1.0)
cmyn3* 0.0 0.5 0.5 (0.0)
olv4* 1.0 0.5 1.0 (1.0)
cmyn4* 0.0 0.5 0.5 (0.0)

standard and adapted CIELAB
LAB*LAB 77.21 44.66 -27.82
LAB*LAB 77.21 44.66 -27.82
LAB*LAB 77.21 44.66 -27.82
LAB*LAB 77.21 44.66 -27.82

relative CIELAB lab*
lab*lab 0.765 0.235 -0.263
lab*ich 0.765 0.235 0.911
lab*nch 0.0 0.235 0.911
relative Natural Colour (NC)
lab*tr 0.765 0.235 -0.263
lab*ice 0.765 0.235 0.911
lab*nice 0.0 0.235 0.911

standard and adapted CIELAB
LAB*LAB 68.11 66.99 -41.74
LAB*LAB 68.11 66.99 -41.74
LAB*LAB 68.11 66.99 -41.74
LAB*LAB 68.11 66.99 -41.74

relative CIELAB lab*
lab*lab 0.625 0.375 0.874
lab*ich 0.625 0.375 0.874
lab*nch 0.0 0.375 0.874
relative Natural Colour (NC)
lab*tr 0.625 0.375 0.874
lab*ice 0.625 0.375 0.874
lab*nice 0.0 0.375 0.874

standard and adapted CIELAB
LAB*LAB 59.01 89.31 -55.66
LAB*LAB 59.01 89.31 -55.66
LAB*LAB 59.01 89.31 -55.66
LAB*LAB 59.01 89.31 -55.66

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (1.0)
lab*ich 0.5 0.5 0.911
lab*nch 0.0 0.5 0.911
relative Natural Colour (NC)
lab*tr 0.5 0.5 0.911
lab*ice 0.5 0.5 0.911
lab*nice 0.0 0.5 0.911

standard and adapted CIELAB
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74

relative CIELAB lab*
lab*lab 0.382 0.212 -0.131
lab*ich 0.375 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.382 0.212 -0.131
lab*ice 0.375 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (1.0)
lab*ich 0.25 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.911
lab*ice 0.25 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9

relative CIELAB lab*
lab*lab 0.132 0.212 -0.131
lab*ich 0.125 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.132 0.212 -0.131
lab*ice 0.125 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

Ausgabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 328/360 = 0.911$

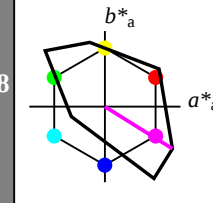
lab^*tch und lab^*nch

D65: Buntton M

LCH*Ma: 59 105 328

olv*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 118$

relative Inform. Technology (IT)
olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0
LAB*LAB 95.41 0.0 0.0

relative CIELAB lab*
lab*lab 1.0 0.0 0.0
lab*ich 1.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 1.0 0.0 0.0
lab*ice 1.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0
LAB*LAB 76.07 0.0 0.0

relative CIELAB lab*
lab*lab 0.882 0.125 -0.131
lab*ich 0.875 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.882 0.125 -0.131
lab*ice 0.875 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 66.96 22.32 -13.9
LAB*LAB 66.96 22.32 -13.9
LAB*LAB 66.96 22.32 -13.9
LAB*LAB 66.96 22.32 -13.9

relative CIELAB lab*
lab*lab 0.75 0.25 0.75 (1.0)
lab*ich 0.75 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.75 0.25 0.911
lab*ice 0.75 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0
LAB*LAB 56.72 0.0 0.0

relative CIELAB lab*
lab*lab 0.625 0.375 0.874
lab*ich 0.625 0.375 0.874
lab*nch 0.0 0.375 0.874
relative Natural Colour (NC)
lab*tr 0.625 0.375 0.874
lab*ice 0.625 0.375 0.874
lab*nice 0.0 0.375 0.874

standard and adapted CIELAB
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74
LAB*LAB 46.11 66.99 -41.74

relative CIELAB lab*
lab*lab 0.5 0.5 0.5 (1.0)
lab*ich 0.5 0.5 0.911
lab*nch 0.0 0.5 0.911
relative Natural Colour (NC)
lab*tr 0.5 0.5 0.911
lab*ice 0.5 0.5 0.911
lab*nice 0.0 0.5 0.911

standard and adapted CIELAB
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0
LAB*LAB 37.37 0.0 0.0

relative CIELAB lab*
lab*lab 0.382 0.212 -0.131
lab*ich 0.375 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.382 0.212 -0.131
lab*ice 0.375 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9
LAB*LAB 28.26 22.32 -13.9

relative CIELAB lab*
lab*lab 0.25 0.25 0.25 (1.0)
lab*ich 0.25 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.25 0.25 0.911
lab*ice 0.25 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0
LAB*LAB 18.03 0.0 0.0

relative CIELAB lab*
lab*lab 0.132 0.212 -0.131
lab*ich 0.125 0.25 0.911
lab*nch 0.0 0.25 0.911
relative Natural Colour (NC)
lab*tr 0.132 0.212 -0.131
lab*ice 0.125 0.25 0.911
lab*nice 0.0 0.25 0.911

standard and adapted CIELAB
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0
LAB*LAB 10.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

standard and adapted CIELAB
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0
LAB*LAB 0.0 0.0 0.0

relative CIELAB lab*
lab*lab 0.0 0.0 0.0
lab*ich 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0
relative Natural Colour (NC)
lab*tr 0.0 0.0 0.0
lab*ice 0.0 0.0 0.0
lab*nice 0.0 0.0 0.0

NG590-7, 5 stufige Reihen für konstanten CIELAB Buntton 328/360 = 0.911 (links)

5 stufige Reihen für konstanten CIELAB Buntton 328/360 = 0.911 (rechts)

BAM-Prüfvorlage NG59; Farbmetrik-Systeme TLS18 & TLS18 input: $olv^*setrgbcolor$

D65: 2 Koordinatendaten; 5stufige Farbreihen für 10 Bunttöne

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

Eingabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab \cdot h = 25/360 = 0.071$

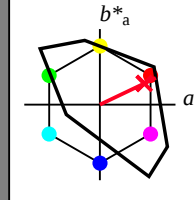
$lab \cdot tch$ und $lab \cdot nch$

D65: Buntton R

LCH*Ma: 54 82 25

olv*Ma: 1.0 0.0 0.14

Dreiecks-Helligkeit t^*



$u_{rel} = 118$

relative Inform. Technology (IT)

olv3*	1.0	1.0	1.0	(1.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	1.0	1.0	1.0	(1.0)
olv4*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

TLS18; adaptierte CIELAB-Daten

	$L^* = L^*_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

%Regularität

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

1.00

0.75

0.50

0.25

0.00

0.25

0.50

0.75

1.00

0.25

0.50

0.75

1.00

0.25

0.50

0.75

1.00

0.25

0.50

0.75

1.00

relative Inform. Technology (IT)

olv3*	1.0	0.5	0.5	(1.0)
olv3*	0.0	0.5	0.5	(0.0)
olv4*	1.0	0.5	0.5	(1.0)
olv4*	0.0	0.5	0.5	(0.0)
olv4*	0.0	0.5	0.5	(0.0)
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Inform. Technology (IT)

olv3*	1.0	0.5	0.5	(1.0)
olv3*	0.0	0.5	0.5	(0.0)
olv4*	1.0	0.5	0.5	(1.0)
olv4*	0.0	0.5	0.5	(0.0)
olv4*	0.0	0.5	0.5	(0.0)
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

Ausgabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab \cdot h = 25/360 = 0.071$

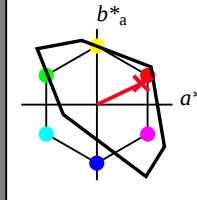
$lab \cdot tch$ und $lab \cdot nch$

D65: Buntton R

LCH*Ma: 54 82 25

olv*Ma: 1.0 0.0 0.14

Dreiecks-Helligkeit t^*



$u_{rel} = 118$

relative Inform. Technology (IT)

olv3*	1.0	1.0	1.0	(1.0)
olv3*	0.0	0.0	0.0	(0.0)
olv4*	1.0	1.0	1.0	(1.0)
olv4*	0.0	0.0	0.0	(0.0)
olv4*	0.0	0.0	0.0	(0.0)
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

standard and adapted CIELAB

LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	
LAB*Lab	95.41	0.0	0.0	

relative CIELAB lab*

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Natural Colour (NC)

lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	
lab*lab	0.865	0.226	0.107	

relative Inform. Technology (IT)

olvi3*	0.25	0.0	0.035	(1.0)
cmyn3*	0.75	1.0	0.965	(0.0)
olvi4*	1.0	0.75	0.785	0.25
cmyn4*	0.0	0.25	0.215	0.75

standard and adapted CIELAB

LAB*LAB	26.92	18.51	8.83
LAB*LAB	26.92	19.51	9.83

BAM-Registrierung: 20060101-NG59/10/L59G07FP.PS/.PDF BAM-Material: Code=rha4ta
Anwendung für Beurteilung und Messung von Drucker- oder Monitorsystemen
/NG59/ Form: 8/10, Serie: 1/1, Seite: 8 Seitenzahl: 8

Eingabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 272/360 = 0.755$

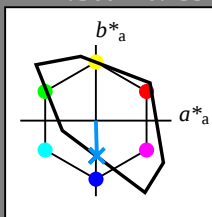
lab^*ch und lab^*nch

D65: Buntton B

LCH*Ma: 65 48 272

olv*Ma: 0.0 0.58 1.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LABb 95.41 0.0 0.0

relative CIELAB lab*

lab*lab 1.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
lab*lr 0.0 0.0 0.0
lab*ncl 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 76.07 0.0 0.0

relative CIELAB lab*

lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 0.0
lab*nch 0.75 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.75 0.0 0.0
lab*lr 0.75 0.0 0.0
lab*ncl 0.75 0.0 0.0

standard and adapted CIELAB

LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 56.72 0.0 0.0

relative CIELAB lab*

lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 0.0
lab*nch 0.5 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0
lab*lr 0.5 0.0 0.0
lab*ncl 0.5 0.0 0.0

standard and adapted CIELAB

LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 37.37 0.0 0.0

relative CIELAB lab*

lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 0.0
lab*nch 0.25 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.25 0.0 0.0
lab*lr 0.25 0.0 0.0
lab*ncl 0.25 0.0 0.0

standard and adapted CIELAB

LAB*LAB 18.03 0.0 0.0
LAB*LABa 18.03 0.0 0.0
LAB*LABb 18.03 0.0 0.0

TLS18; adaptierte CIELAB-Daten

	$L^*=L_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

%Umfang

$u^*_{rel} = 118$

relative Inform. Technology (IT)

olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 0.75 0.75 0.75 (1.0)
cmyn4* 0.25 0.25 0.25 (0.0)

standard and adapted CIELAB

LAB*LAB 87.92 0.35 -11.85
LAB*LABa 87.92 0.35 -11.85
LAB*LABb 87.92 0.35 -11.85

relative CIELAB lab*

lab*lab 0.903 0.007 -0.249
lab*ch 0.875 0.25 0.755
lab*nch 0.0 0.25 0.755

relative Natural Colour (NC)

lab*lrj 0.903 0.0 -0.249
lab*lr 0.875 0.25 0.755
lab*ncl 0.0 0.25 0.755

standard and adapted CIELAB

LAB*LAB 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 80.44 0.71 -23.73

relative CIELAB lab*

lab*lab 0.807 0.015 -0.499
lab*ch 0.75 0.5 0.755
lab*nch 0.0 0.5 0.755

relative Natural Colour (NC)

lab*lrj 0.807 0.0 -0.499
lab*lr 0.75 0.5 0.755
lab*ncl 0.0 0.5 0.755

standard and adapted CIELAB

LAB*LAB 72.95 1.07 -35.61
LAB*LABa 72.95 1.07 -35.61
LAB*LABb 72.95 1.07 -35.61

relative CIELAB lab*

lab*lab 0.71 0.023 -0.749
lab*ch 0.625 0.75 0.755
lab*nch 0.0 0.75 0.755

relative Natural Colour (NC)

lab*lrj 0.71 0.0 -0.749
lab*lr 0.625 0.75 0.755
lab*ncl 0.0 0.75 0.755

standard and adapted CIELAB

LAB*LAB 61.09 0.72 -23.74
LAB*LABa 61.09 0.72 -23.74
LAB*LABb 61.09 0.72 -23.74

%Regularität

$g^*_{H,rel} = 22$

$g^*_{C,rel} = 40$

relative Inform. Technology (IT)

olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.5 0.5 0.5 (1.0)
cmyn4* 0.5 0.5 0.5 (0.0)

standard and adapted CIELAB

LAB*LAB 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 80.44 0.71 -23.73

relative CIELAB lab*

lab*lab 0.5 0.5 0.5 (1.0)
lab*ch 0.5 0.5 0.5 (1.0)
lab*nch 0.5 0.5 0.5 (1.0)

relative Natural Colour (NC)

lab*lrj 0.5 0.5 0.5 (1.0)
lab*lr 0.5 0.5 0.5 (1.0)
lab*ncl 0.5 0.5 0.5 (1.0)

standard and adapted CIELAB

LAB*LAB 65.47 1.44 -47.47
LAB*LABa 65.47 1.44 -47.47
LAB*LABb 65.47 1.44 -47.47

relative CIELAB lab*

lab*lab 0.5 0.5 0.5 (1.0)
lab*ch 0.5 0.5 0.5 (1.0)
lab*nch 0.5 0.5 0.5 (1.0)

relative Natural Colour (NC)

lab*lrj 0.5 0.5 0.5 (1.0)
lab*lr 0.5 0.5 0.5 (1.0)
lab*ncl 0.5 0.5 0.5 (1.0)

standard and adapted CIELAB

LAB*LAB 50.0 47.5 271.74
LAB*LABa 50.0 47.5 271.74
LAB*LABb 50.0 47.5 271.74

relative CIELAB lab*

lab*lab 0.5 0.5 0.5 (1.0)
lab*ch 0.5 0.5 0.5 (1.0)
lab*nch 0.5 0.5 0.5 (1.0)

relative Natural Colour (NC)

lab*lrj 0.5 0.5 0.5 (1.0)
lab*lr 0.5 0.5 0.5 (1.0)
lab*ncl 0.5 0.5 0.5 (1.0)

standard and adapted CIELAB

LAB*LAB 50.0 47.5 271.74
LAB*LABa 50.0 47.5 271.74
LAB*LABb 50.0 47.5 271.74

Ausgabe: Farbmetrisches Fernseh-Licht-System TLS18

für Buntton $h^* = lab^*h = 272/360 = 0.755$

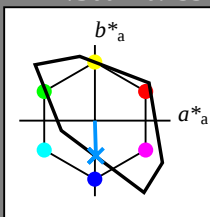
lab^*ch und lab^*nch

D65: Buntton B

LCH*Ma: 65 48 272

olv*Ma: 0.0 0.58 1.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv3* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)
olv4* 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*LABb 95.41 0.0 0.0

relative CIELAB lab*

lab*lab 1.0 0.0 0.0
lab*ch 0.0 0.0 0.0
lab*nch 0.0 0.0 0.0

relative Natural Colour (NC)

lab*lrj 1.0 0.0 0.0
lab*lr 0.0 0.0 0.0
lab*ncl 0.0 0.0 0.0

standard and adapted CIELAB

LAB*LAB 76.07 0.0 0.0
LAB*LABa 76.07 0.0 0.0
LAB*LABb 76.07 0.0 0.0

relative CIELAB lab*

lab*lab 0.75 0.0 0.0
lab*ch 0.75 0.0 0.0
lab*nch 0.75 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.75 0.0 0.0
lab*lr 0.75 0.0 0.0
lab*ncl 0.75 0.0 0.0

standard and adapted CIELAB

LAB*LAB 56.72 0.0 0.0
LAB*LABa 56.72 0.0 0.0
LAB*LABb 56.72 0.0 0.0

relative CIELAB lab*

lab*lab 0.5 0.0 0.0
lab*ch 0.5 0.0 0.0
lab*nch 0.5 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.5 0.0 0.0
lab*lr 0.5 0.0 0.0
lab*ncl 0.5 0.0 0.0

standard and adapted CIELAB

LAB*LAB 37.37 0.0 0.0
LAB*LABa 37.37 0.0 0.0
LAB*LABb 37.37 0.0 0.0

relative CIELAB lab*

lab*lab 0.25 0.0 0.0
lab*ch 0.25 0.0 0.0
lab*nch 0.25 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.25 0.0 0.0
lab*lr 0.25 0.0 0.0
lab*ncl 0.25 0.0 0.0

%Umfang

$u^*_{rel} = 118$

relative Inform. Technology (IT)

olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 0.75 0.75 0.75 (1.0)
cmyn4* 0.25 0.25 0.25 (0.0)

standard and adapted CIELAB

LAB*LAB 87.92 0.35 -11.85
LAB*LABa 87.92 0.35 -11.85
LAB*LABb 87.92 0.35 -11.85

relative CIELAB lab*

lab*lab 0.903 0.007 -0.249
lab*ch 0.875 0.25 0.755
lab*nch 0.0 0.25 0.755

relative Natural Colour (NC)

lab*lrj 0.903 0.0 -0.249
lab*lr 0.875 0.25 0.755
lab*ncl 0.0 0.25 0.755

standard and adapted CIELAB

LAB*LAB 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 80.44 0.71 -23.73

relative CIELAB lab*

lab*lab 0.807 0.015 -0.499
lab*ch 0.75 0.5 0.755
lab*nch 0.0 0.5 0.755

relative Natural Colour (NC)

lab*lrj 0.807 0.0 -0.499
lab*lr 0.75 0.5 0.755
lab*ncl 0.0 0.5 0.755

standard and adapted CIELAB

LAB*LAB 72.95 1.07 -35.61
LAB*LABa 72.95 1.07 -35.61
LAB*LABb 72.95 1.07 -35.61

relative CIELAB lab*

lab*lab 0.71 0.023 -0.749
lab*ch 0.625 0.75 0.755
lab*nch 0.0 0.75 0.755

relative Natural Colour (NC)

lab*lrj 0.71 0.0 -0.749
lab*lr 0.625 0.75 0.755
lab*ncl 0.0 0.75 0.755

standard and adapted CIELAB

LAB*LAB 61.09 0.72 -23.74
LAB*LABa 61.09 0.72 -23.74
LAB*LABb 61.09 0.72 -23.74

TLS18; adaptierte CIELAB-Daten

	$L^*=L_a$	a^*_a	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
O _{Ma}	52.76	71.63	49.88	87.29	35
Y _{Ma}	92.74	-20.02	84.97	87.3	103
L _{Ma}	84.0	-78.98	73.94	108.2	137
C _{Ma}	87.14	-44.41	-13.11	46.32	196
V _{Ma}	35.47	64.92	-95.06	115.12	304
M _{Ma}	59.01	89.33	-55.67	105.26	328
N _{Ma}	18.01	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

%Umfang

$u^*_{rel} = 118$

relative Inform. Technology (IT)

olv3* 0.75 0.75 0.75 (1.0)
cmyn3* 0.25 0.25 0.25 (0.0)
olv4* 0.75 0.75 0.75 (1.0)
cmyn4* 0.25 0.25 0.25 (0.0)

standard and adapted CIELAB

LAB*LAB 87.92 0.35 -11.85
LAB*LABa 87.92 0.35 -11.85
LAB*LABb 87.92 0.35 -11.85

relative CIELAB lab*

lab*lab 0.903 0.007 -0.249
lab*ch 0.875 0.25 0.755
lab*nch 0.0 0.25 0.755

relative Natural Colour (NC)

lab*lrj 0.903 0.0 -0.249
lab*lr 0.875 0.25 0.755
lab*ncl 0.0 0.25 0.755

standard and adapted CIELAB

LAB*LAB 80.44 0.71 -23.73
LAB*LABa 80.44 0.71 -23.73
LAB*LABb 80.44 0.71 -23.73

relative CIELAB lab*

lab*lab 0.807 0.015 -0.499
lab*ch 0.75 0.5 0.755
lab*nch 0.0 0.5 0.755

relative Natural Colour (NC)

lab*lrj 0.807 0.0 -0.499
lab*lr 0.75 0.5 0.755
lab*ncl 0.0 0.5 0.755

standard and adapted CIELAB

LAB*LAB 72.95 1.07 -35.61
LAB*LABa 72.95 1.07 -35.61
LAB*LABb 72.95 1.07 -35.61

relative CIEL