

Eingabe: Farbmétrisches Fernseh-Licht-System TLS70

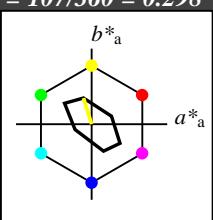
für Bunton  $h^* = lab^*h = 107/360 = 0.298$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton Y

LCH\*Ma: 94 36 107

olv\*Ma: 1.0 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\*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)

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

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 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 -

$n^* = 1,0$

TLS70; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	76.43	26.27	10.57	28.32	22
Y <sub>Ma</sub>	93.93	-10.76	34.63	36.27	107
L <sub>Ma</sub>	89.32	-35.8	27.64	45.24	142
C <sub>Ma</sub>	90.93	-21.95	-7.07	23.07	198
V <sub>Ma</sub>	72.1	15.76	-35.63	38.97	294
M <sub>Ma</sub>	78.5	37.52	-25.23	45.22	326
N <sub>Ma</sub>	69.7	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

%Umfang

$u^*_{rel} = 16$

%Regularität

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

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

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\*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)

olv3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olv4\* 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 0.971 -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)

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

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 -0.329 0.944  
lab\*tch 0.5 1.0 0.304  
lab\*ncE 0.0 1.0 j21g

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 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 0.471 -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

$n^* = 0,00$

V

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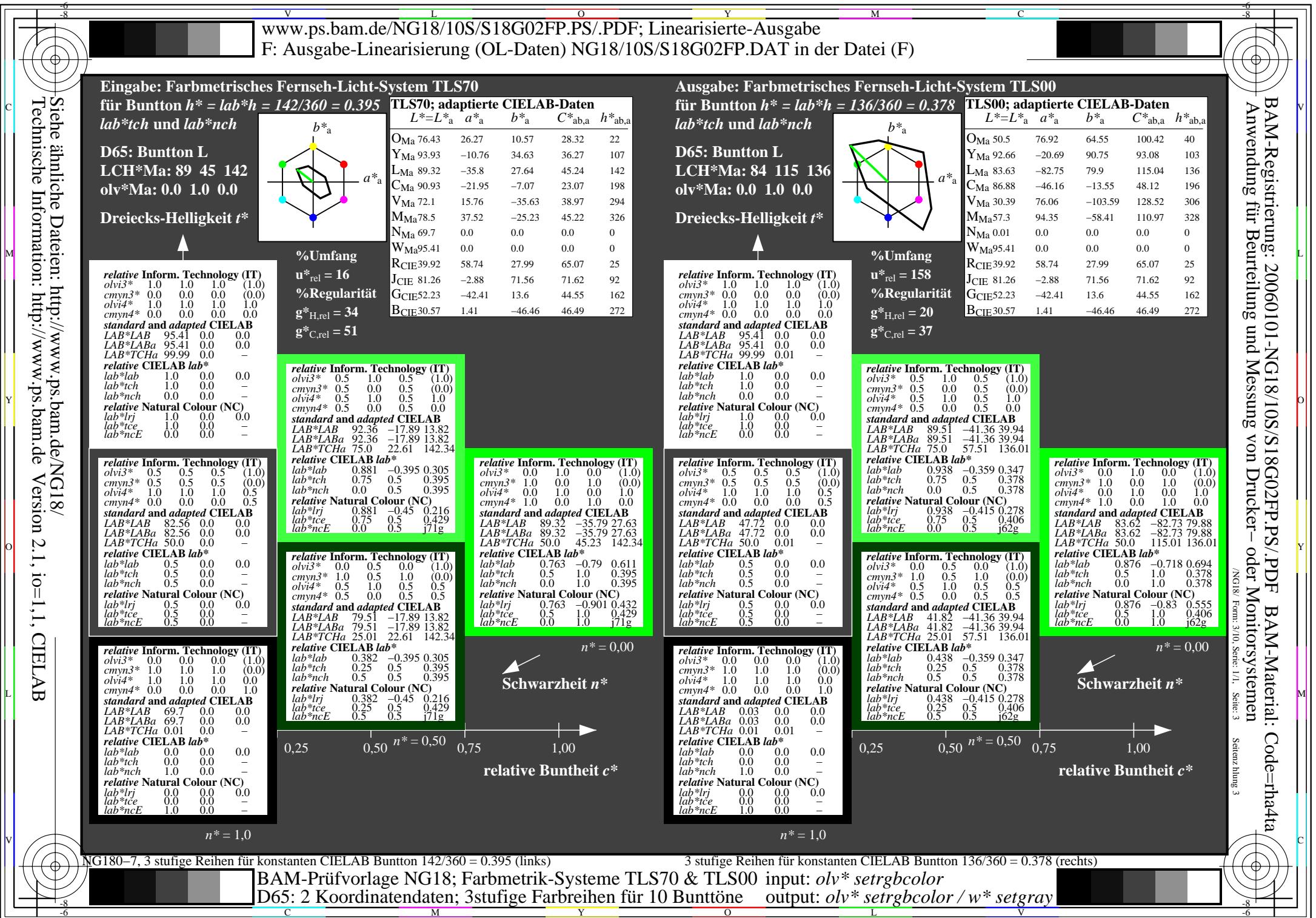
M

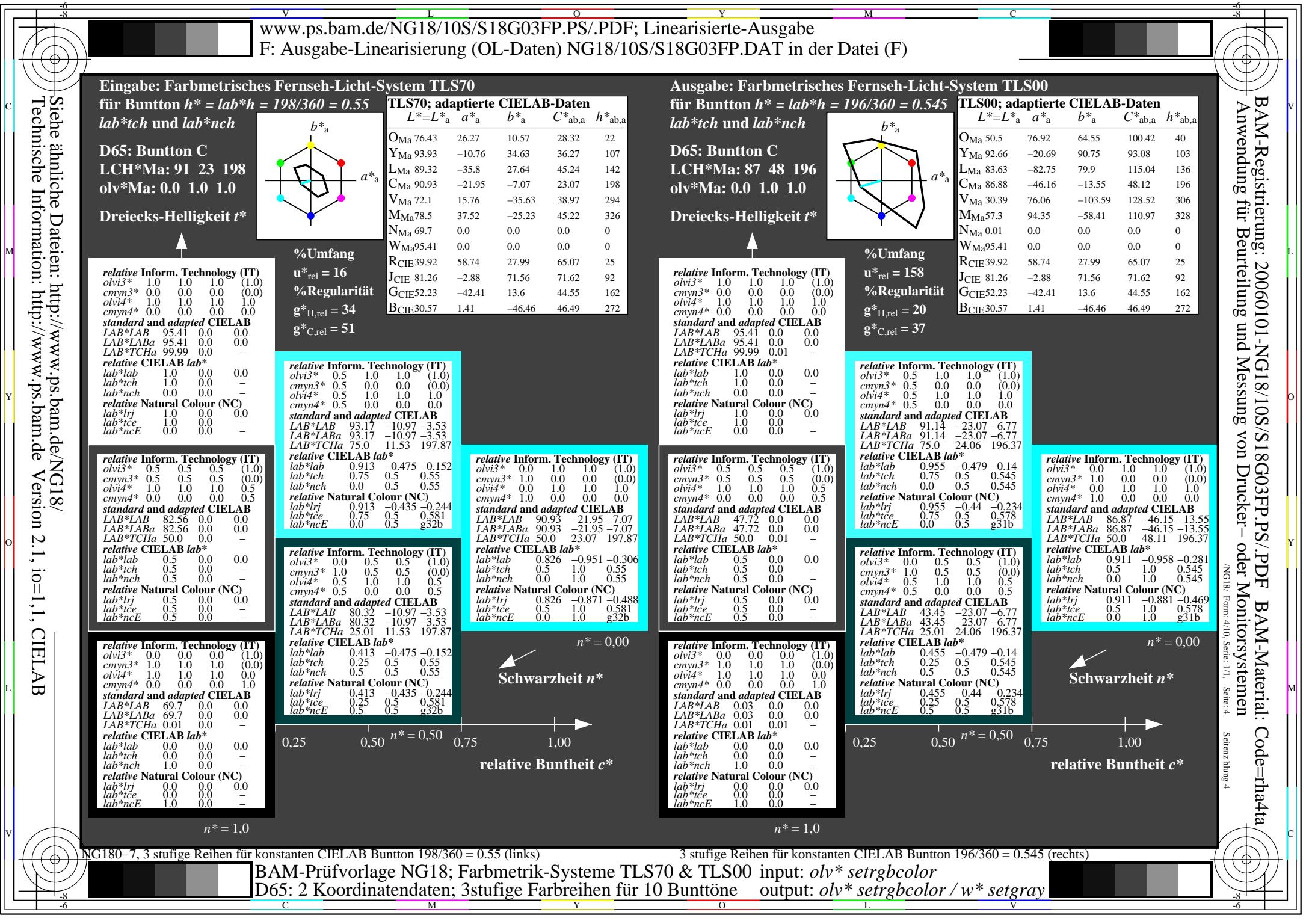
O

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### Eingabe: Farbmétrisches Fernseh-Licht-System TLS70

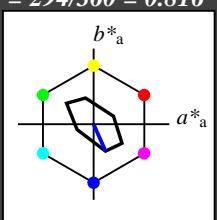
für Bunton  $h^* = lab^*h = 294/360 = 0.816$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton V

LCH\*Ma: 72 39 294

olv\*Ma: 0.0 0.0 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\*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)

olv3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)

olv4\* 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)

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 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 -

$n^* = 1,0$

### TLS70; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	76.43	26.27	10.57	28.32	22
Y <sub>Ma</sub>	93.93	-10.76	34.63	36.27	107
L <sub>Ma</sub>	89.32	-35.8	27.64	45.24	142
C <sub>Ma</sub>	90.93	-21.95	-7.07	23.07	198
V <sub>Ma</sub>	72.1	15.76	-35.63	38.97	294
M <sub>Ma</sub>	78.5	37.52	-25.23	45.22	326
N <sub>Ma</sub>	69.7	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

%Umfang

$u^*_{rel} = 16$

%Regularität

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

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

### Ausgabe: Farbmétrisches Fernseh-Licht-System TLS00

für Bunton  $h^* = lab^*h = 306/360 = 0.851$

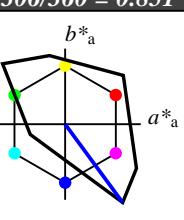
lab\*tch und lab\*nch

D65: Bunton V

LCH\*Ma: 30 129 306

olv\*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 158$

%Regularität

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

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

### TLS00; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	50.5	76.92	64.55	100.42	40
Y <sub>Ma</sub>	92.66	-20.69	90.75	93.08	103
L <sub>Ma</sub>	83.63	-82.75	79.9	115.04	136
C <sub>Ma</sub>	86.88	-46.16	-13.55	48.12	196
V <sub>Ma</sub>	30.39	76.06	-103.59	128.52	306
M <sub>Ma</sub>	57.3	94.35	-58.41	110.97	328
N <sub>Ma</sub>	0.01	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

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\*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)

olv3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)

olv4\* 0.0 0.0 1.0 0.5

cmyn4\* 1.0 1.0 0.0 0.0

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)

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 0.0

cmyn4\* 0.0 0.0 0.0 1.0

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 0.851  
lab\*nch 0.5 0.0 0.851

relative Natural Colour (NC)

lab\*lrj 0.5 0.0 0.0  
lab\*tce 0.5 0.0 0.826  
lab\*ncE 0.0 1.0 b30r

$n^* = 0,00$

3 stufige Reihen für konstanten CIELAB Bunnton 294/360 = 0.816 (links)

3 stufige Reihen für konstanten CIELAB Bunnton 306/360 = 0.851 (rechts)

BAM-Prüfvorlage NG18; Farbmétrik-Systeme TLS70 & TLS00 input:  $olv^* setrgbcolor$

D65: 2 Koordinatendaten; 3stufige Farbreihen für 10 Bunntöne output:  $olv^* setrgbcolor / w^* setgray$



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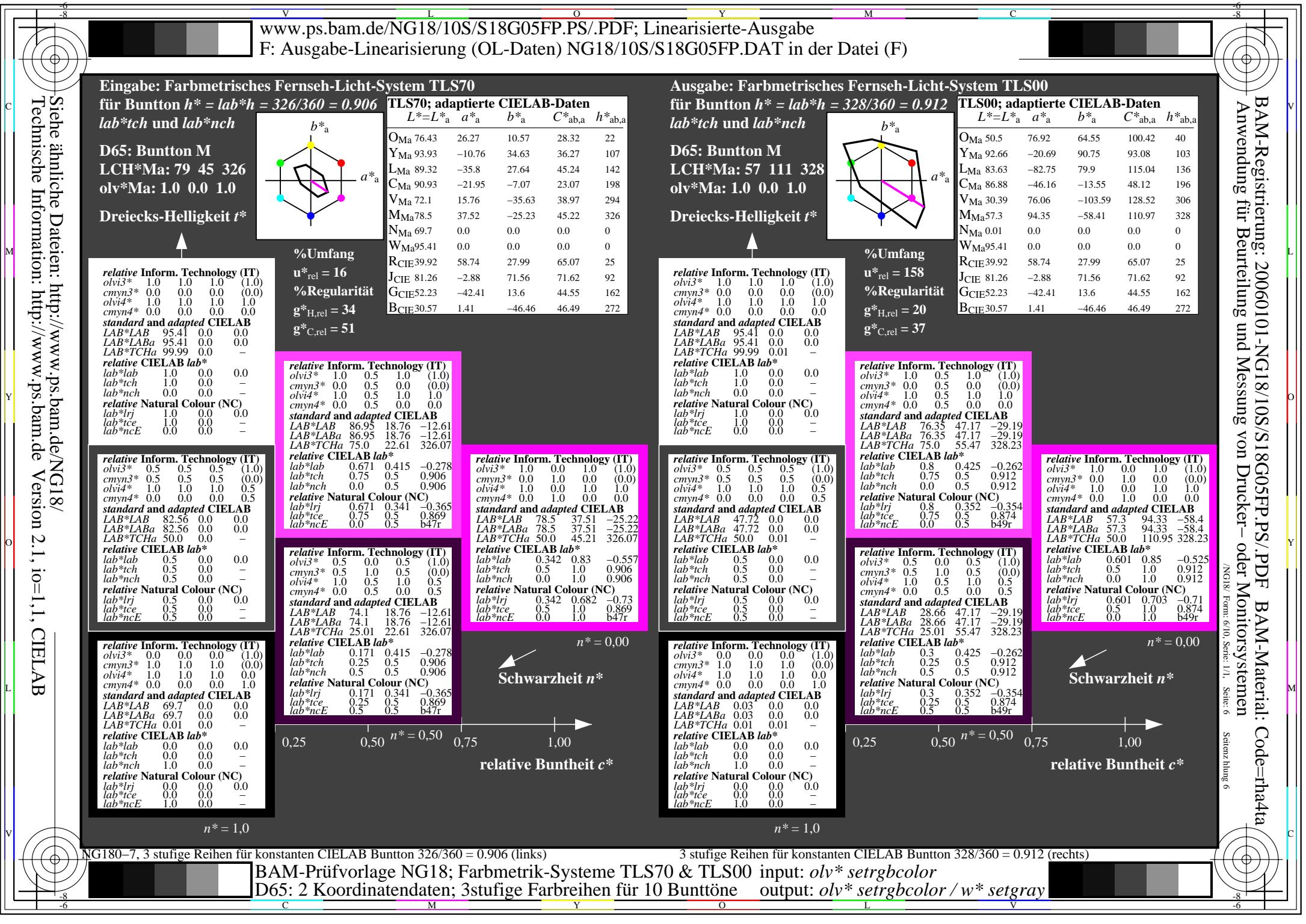
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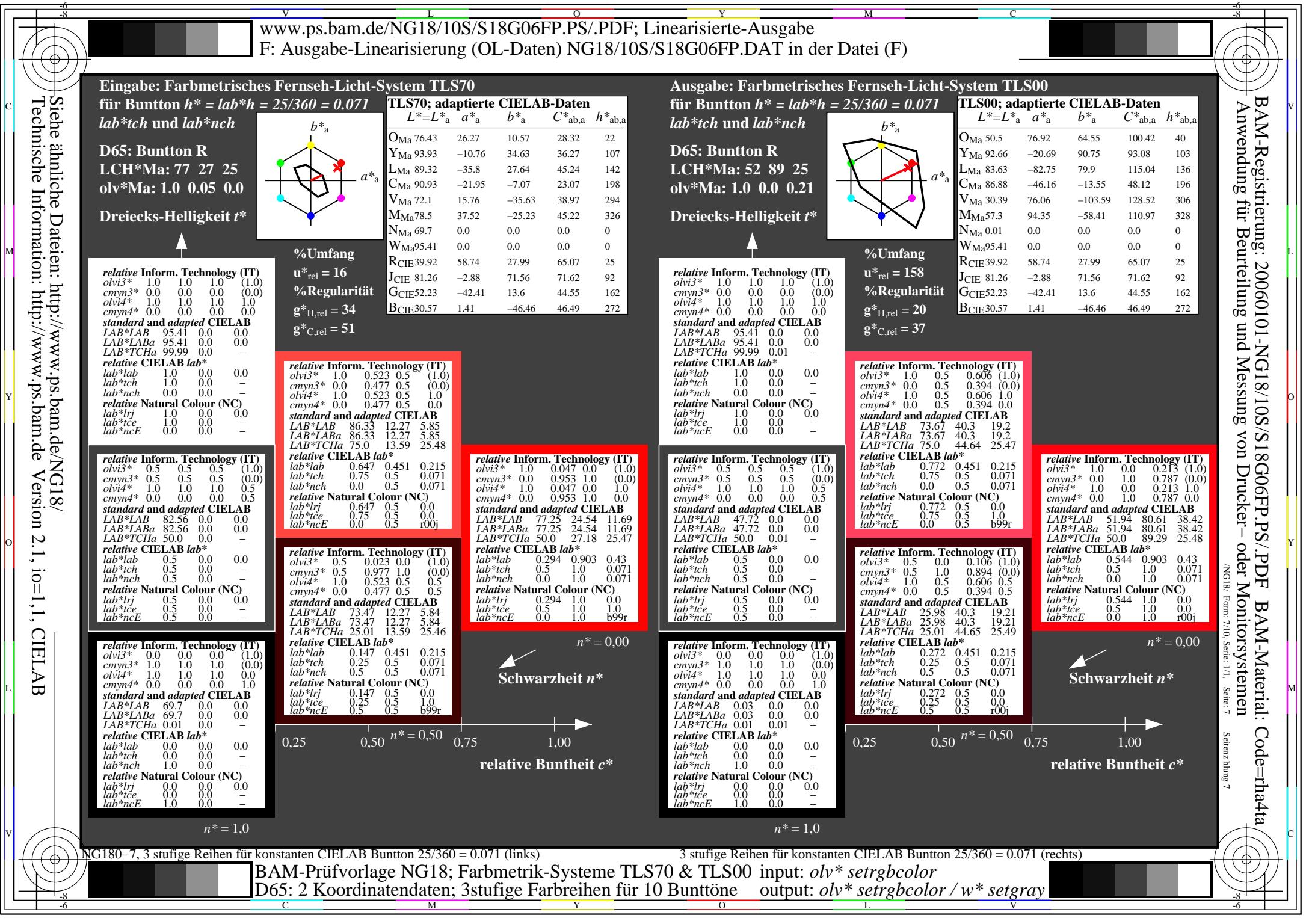
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### Eingabe: Farbmétrisches Fernseh-Licht-System TLS70

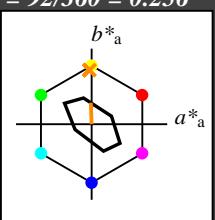
für Bunton  $h^* = lab^*h = 92/360 = 0.256$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton J

LCH\*Ma: 89 28 92

olv\*Ma: 1.0 0.74 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\*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)  
olv3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olv4\* 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)  
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 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 -

$n^* = 1,0$

### TLS70; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	76.43	26.27	10.57	28.32	22
Y <sub>Ma</sub>	93.93	-10.76	34.63	36.27	107
L <sub>Ma</sub>	89.32	-35.8	27.64	45.24	142
C <sub>Ma</sub>	90.93	-21.95	-7.07	23.07	198
V <sub>Ma</sub>	72.1	15.76	-35.63	38.97	294
M <sub>Ma</sub>	78.5	37.52	-25.23	45.22	326
N <sub>Ma</sub>	69.7	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

### Ausgabe: Farbmétrisches Fernseh-Licht-System TLS00

für Bunton  $h^* = lab^*h = 92/360 = 0.256$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton J

LCH\*Ma: 85 86 92

olv\*Ma: 1.0 0.82 0.0

Dreiecks-Helligkeit  $t^*$

### TLS00; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	50.5	76.92	64.55	100.42	40
Y <sub>Ma</sub>	92.66	-20.69	90.75	93.08	103
L <sub>Ma</sub>	83.63	-82.75	79.9	115.04	136
C <sub>Ma</sub>	86.88	-46.16	-13.55	48.12	196
V <sub>Ma</sub>	30.39	76.06	-103.59	128.52	306
M <sub>Ma</sub>	57.3	94.35	-58.41	110.97	328
N <sub>Ma</sub>	0.01	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

### Ausgabe: Farbmétrisches Fernseh-Licht-System TLS00

für Bunton  $h^* = lab^*h = 92/360 = 0.256$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton J

LCH\*Ma: 85 86 92

olv\*Ma: 1.0 0.82 0.0

Dreiecks-Helligkeit  $t^*$

### Ausgabe: Farbmétrisches Fernseh-Licht-System TLS00

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	50.5	76.92	64.55	100.42	40
Y <sub>Ma</sub>	92.66	-20.69	90.75	93.08	103
L <sub>Ma</sub>	83.63	-82.75	79.9	115.04	136
C <sub>Ma</sub>	86.88	-46.16	-13.55	48.12	196
V <sub>Ma</sub>	30.39	76.06	-103.59	128.52	306
M <sub>Ma</sub>	57.3	94.35	-58.41	110.97	328
N <sub>Ma</sub>	0.01	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

$n^* = 0,00$

Schwarzheit  $n^*$

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 0.0  
cmyn4\* 0.0 0.0 0.0 1.0

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 0.0 1.0  
lab\*tch 0.5 1.0 0.256  
lab\*nch 0.1 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 j00g

$n^* = 0,50$

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit  $c^*$

$n^* = 0,25$

$n^* = 0,75$

$n^* = 1,00$

$n^* = 0,00$

Eingabe: Farbmétrisches Fernseh-Licht-System TLS70

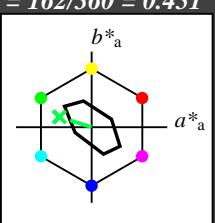
für Bunton  $h^* = lab^*h = 162/360 = 0.451$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton G

LCH\*Ma: 90 30 162

olv\*Ma: 0.0 1.0 0.53

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\*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)  
olv3\* 0.5 0.5 0.5 (1,0)  
cmyn3\* 0.5 0.5 0.5 (0,0)  
olv4\* 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)  
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 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 -

$n^* = 1,0$

TLS70; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	76.43	26.27	10.57	28.32	22
Y <sub>Ma</sub>	93.93	-10.76	34.63	36.27	107
L <sub>Ma</sub>	89.32	-35.8	27.64	45.24	142
C <sub>Ma</sub>	90.93	-21.95	-7.07	23.07	198
V <sub>Ma</sub>	72.1	15.76	-35.63	38.97	294
M <sub>Ma</sub>	78.5	37.52	-25.23	45.22	326
N <sub>Ma</sub>	69.7	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

%Umfang

$u^*_{rel} = 16$

%Regularität

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

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

Ausgabe: Farbmétrisches Fernseh-Licht-System TLS00

für Bunton  $h^* = lab^*h = 162/360 = 0.451$

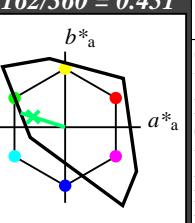
lab\*tch und lab\*nch

D65: Bunton G

LCH\*Ma: 86 62 162

olv\*Ma: 0.0 1.0 0.65

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 158$

%Regularität

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

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

TLS00; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	50.5	76.92	64.55	100.42	40
Y <sub>Ma</sub>	92.66	-20.69	90.75	93.08	103
L <sub>Ma</sub>	83.63	-82.75	79.9	115.04	136
C <sub>Ma</sub>	86.88	-46.16	-13.55	48.12	196
V <sub>Ma</sub>	30.39	76.06	-103.59	128.52	306
M <sub>Ma</sub>	57.3	94.35	-58.41	110.97	328
N <sub>Ma</sub>	0.01	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

$n^* = 0,00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

relative Inform. Technology (IT)

olv3\* 0.0 0.5 0.267 (1,0)

cmyn3\* 1.0 0.5 0.733 (0,0)

olv4\* 0.5 1.0 0.767 0.5

cmyn4\* 0.5 0.0 0.233 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 0.898 -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)

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 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 0.398 -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 0.99g

relative Inform. Technology (IT)

olv3\* 1.0 1.0 1.0 (0,0)

cmyn3\* 0.0 0.0 0.0 1.0

olv4\* 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 0.398 -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 0.99g

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 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 0.398 -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 0.99g

relative Inform. Technology (IT)

olv3\* 1.0 1.0 1.0 (0,0)

cmyn3\* 0.0 0.0 0.0 1.0

olv4\* 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 0.398 -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 0.99g

relative Inform. Technology (IT)

olv3\* 1.0 1.0 1.0 (0,0)

cmyn3\* 0.0 0.0 0.0 1.0

olv4\* 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 0.398 -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 0.99g

relative Inform. Technology (IT)

olv3\* 1.0 1.0 1.0 (0,0)

cmyn3\* 0.0 0.0 0.0 1.0

olv4\* 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 0.398 -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



### Eingabe: Farbmétrisches Fernseh-Licht-System TLS70

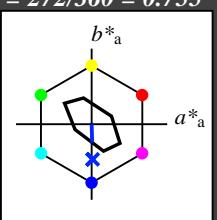
für Bunton  $h^* = lab^*h = 272/360 = 0.755$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton B

LCH\*Ma: 80 24 272

olv\*Ma: 0.0 0.4 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\*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)

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

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 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 -

$n^* = 1,0$

### TLS70; adaptierte CIELAB-Daten

	$L^* = L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	76.43	26.27	10.57	28.32	22
Y <sub>Ma</sub>	93.93	-10.76	34.63	36.27	107
L <sub>Ma</sub>	89.32	-35.8	27.64	45.24	142
C <sub>Ma</sub>	90.93	-21.95	-7.07	23.07	198
V <sub>Ma</sub>	72.1	15.76	-35.63	38.97	294
M <sub>Ma</sub>	78.5	37.52	-25.23	45.22	326
N <sub>Ma</sub>	69.7	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

%Umfang

$u^*_{rel} = 16$

%Regularität

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

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

### Ausgabe: Farbmétrisches Fernseh-Licht-System TLS00

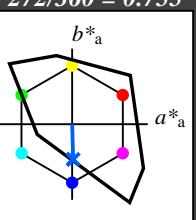
für Bunton  $h^* = lab^*h = 272/360 = 0.755$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton B

LCH\*Ma: 65 49 272

olv\*Ma: 0.0 0.61 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 158$

%Regularität

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

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

	$L^* = L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	50.5	76.92	64.55	100.42	40
Y <sub>Ma</sub>	92.66	-20.69	90.75	93.08	103
L <sub>Ma</sub>	83.63	-82.75	79.9	115.04	136
C <sub>Ma</sub>	86.88	-46.16	-13.55	48.12	196
V <sub>Ma</sub>	30.39	76.06	-103.59	128.52	306
M <sub>Ma</sub>	57.3	94.35	-58.41	110.97	328
N <sub>Ma</sub>	0.01	0.0	0.0	0.0	0
W <sub>Ma</sub>	95.41	0.0	0.0	0.0	0
R <sub>CIE</sub>	39.92	58.74	27.99	65.07	25
J <sub>CIE</sub>	81.26	-2.88	71.56	71.62	92
G <sub>CIE</sub>	52.23	-42.41	13.6	44.55	162
B <sub>CIE</sub>	30.57	1.41	-46.46	46.49	272

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\*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)

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

olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.602 0.0 (0.0)  
olv4\* 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 0.385 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

$n^* = 0,00$

relative Inform. Technology (IT)

olv3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 0.695 0.5 (0.0)  
olv4\* 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

$n^* = 1,00$

relative Inform. Technology (IT)

olv3\* 0.0 0.305 0.5 (1.0)  
cmyn3\* 1.0 0.695 0.5 (0.0)  
olv4\* 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

$n^* = 0,00$

relative Inform. Technology (IT)

olv3\* 0.0 0.39 0.0 (0.0)  
cmyn3\* 1.0 0.61 1.0 1.0  
olv4\* 0.0 0.39 0.0 0.0  
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 -0.999  
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

$n^* = 1,00$

$n^* = 0,50$

relative Buntheit  $c^*$

$n^* = 1,00$

$n^* = 1,00$

relative Buntheit  $c^*$

$n^* = 0,50$

relative Buntheit  $c^*$

$n^* = 0,50$