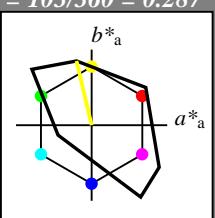


Eingabe: Farbmétrisches Fernseh-Licht-System TLS18

für Bunton  $h^* = lab^*h = 103/360 = 0.287$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton Y  
LCH\*Ma: 93 87 103  
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 0.01 -

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\* 1.0 1.0 1.0 0.5

cmyn4\* 0.0 0.0 0.0 0.5

standard and adapted CIELAB

LAB\*LAB 56.72 0.0 0.0  
LAB\*LABa 56.72 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)

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 18.03 0.0 0.0  
LAB\*LABa 18.03 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 -

$n^* = 1,0$

TLS18; adaptierte CIELAB-Daten

$L^* = L^*_a \quad a^*_a \quad b^*_a \quad C^*_{ab,a} \quad h^*_{ab,a}$

O <sub>Ma</sub> 52.76	71.63	49.88	87.29	35
Y <sub>Ma</sub> 92.74	-20.02	84.97	87.3	103
L <sub>Ma</sub> 84.0	-78.98	73.94	108.2	137
S <sub>Ma</sub> 87.14	-44.41	-13.11	46.32	196
V <sub>Ma</sub> 35.47	64.92	-95.06	115.12	304
M <sub>Ma</sub> 59.01	89.33	-55.67	105.26	328
N <sub>Ma</sub> 18.01	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

%Umfang

$u^*_{rel} = 118$

%Regularität

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

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

relative Inform. Technology (IT)

olv3\* 1.0 1.0 0.5 (1.0)

cmyn3\* 0.0 0.0 0.5 (0.0)

olv4\* 1.0 1.0 1.0 1.0

cmyn4\* 0.0 0.0 0.5 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 0.983 -0.114 0.487

lab\*tch 0.75 0.5 0.287

lab\*nch 0.0 0.5 0.287

relative Natural Colour (NC)

lab\*lrj 0.983 -0.121 0.485

lab\*tce 0.75 0.5 0.289

lab\*nCE 0.0 0.5 j15g

standard and adapted CIELAB

LAB\*LAB 92.73 -20.02 84.95

LAB\*LABa 92.73 -20.02 84.95

LAB\*TChA 50.0 0.01 -

relative CIELAB lab\*

lab\*lab 0.965 -0.228 0.973

lab\*tch 0.5 1.0 0.287

lab\*nch 0.0 1.0 0.287

relative Natural Colour (NC)

lab\*lrj 0.965 -0.243 0.97

lab\*tce 0.5 1.0 0.289

lab\*nCE 0.0 1.0 j15g

standard and adapted CIELAB

LAB\*LAB 55.38 -10.0 42.48

LAB\*LABa 55.38 -10.0 42.48

LAB\*TChA 25.01 43.64 103.26

relative CIELAB lab\*

lab\*lab 0.483 -0.114 0.487

lab\*tch 0.25 0.5 0.287

lab\*nch 0.5 0.5 0.287

relative Natural Colour (NC)

lab\*lrj 0.483 -0.121 0.485

lab\*tce 0.25 0.5 0.289

lab\*nCE 0.5 0.5 j15g

standard and adapted CIELAB

LAB\*LAB 18.03 0.0 0.0

LAB\*LABa 18.03 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 -

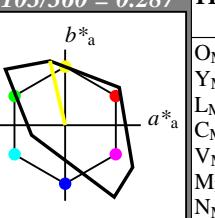
$n^* = 0,00$

Ausgabe: Farbmétrisches Fernseh-Licht-System TLS18

für Bunton  $h^* = lab^*h = 103/360 = 0.287$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton Y  
LCH\*Ma: 93 87 103  
olv\*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 118$

%Regularität

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

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

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\* 1.0 1.0 1.0 0.5

cmyn4\* 0.0 0.0 0.5 0.0

standard and adapted CIELAB

LAB\*LAB 56.72 0.0 0.0

LAB\*LABa 56.72 0.0 0.0

LAB\*TChA 50.0 0.01 -

relative CIELAB lab\*

lab\*lab 0.965 -0.121 0.485

lab\*tch 0.75 0.5 0.289

lab\*nch 0.0 0.5 0.289

relative Natural Colour (NC)

lab\*lrj 0.965 -0.243 0.97

lab\*tce 0.5 1.0 0.289

lab\*nCE 0.0 1.0 j15g

standard and adapted CIELAB

LAB\*LAB 55.38 -10.0 42.48

LAB\*LABa 55.38 -10.0 42.48

LAB\*TChA 25.01 43.64 103.26

relative CIELAB lab\*

lab\*lab 0.483 -0.114 0.487

lab\*tch 0.25 0.5 0.287

lab\*nch 0.5 0.5 0.287

relative Natural Colour (NC)

lab\*lrj 0.483 -0.121 0.485

lab\*tce 0.25 0.5 0.289

lab\*nCE 0.5 0.5 j15g

standard and adapted CIELAB

LAB\*LAB 18.03 0.0 0.0

LAB\*LABa 18.03 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 -

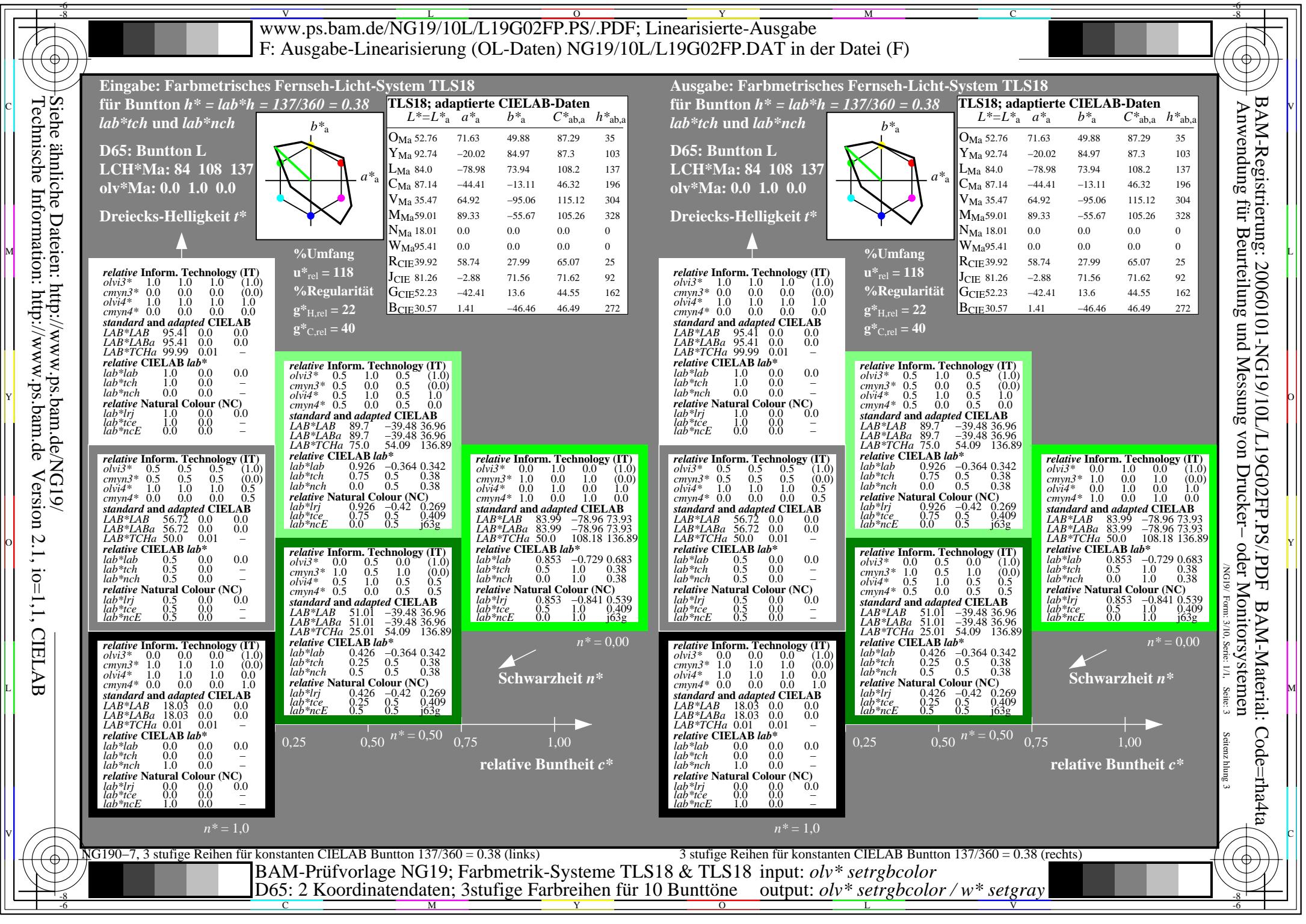
$n^* = 0,00$

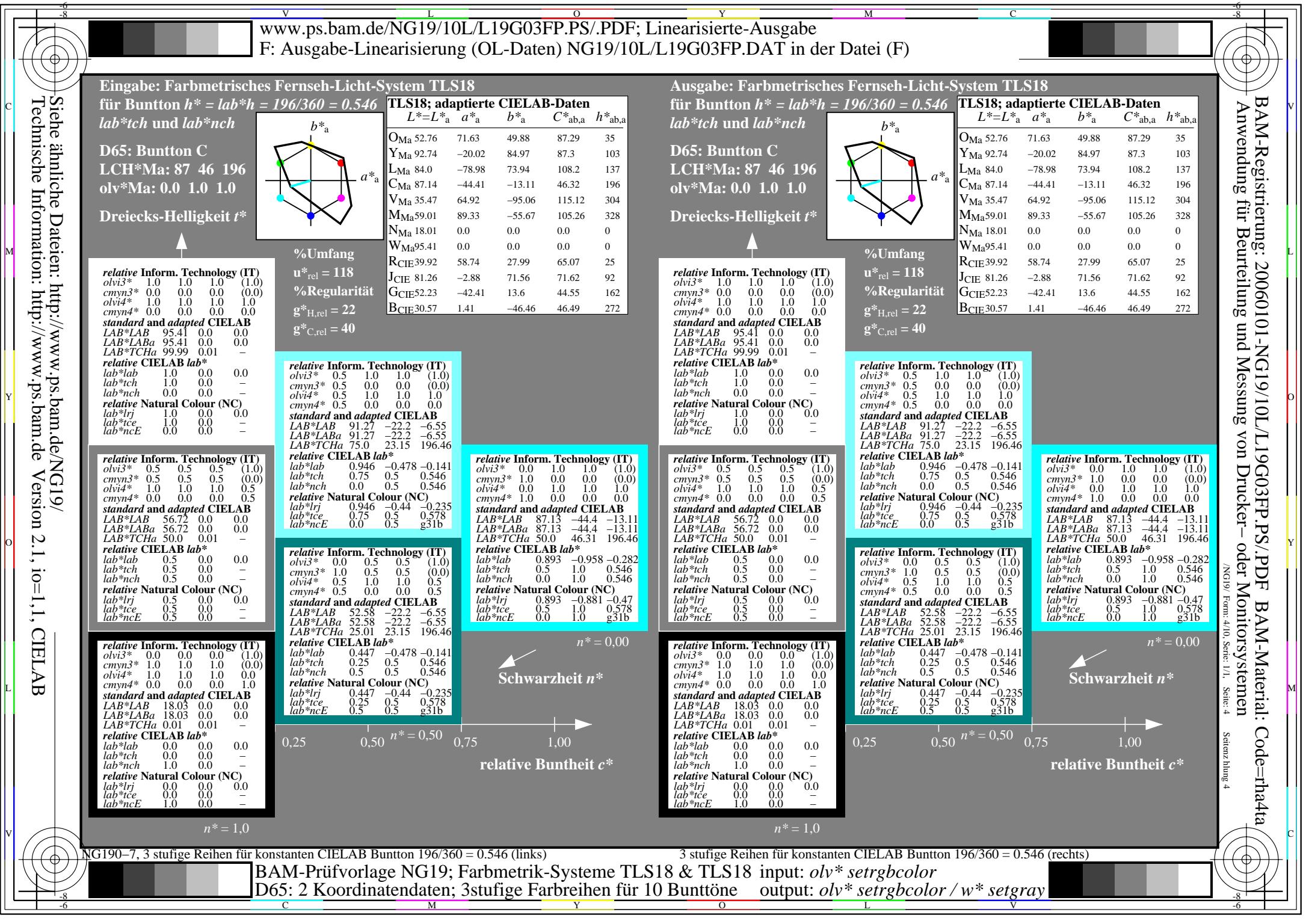
NG190-7, 3 stufige Reihen für konstanten CIELAB Bunnton 103/360 = 0.287 (links)

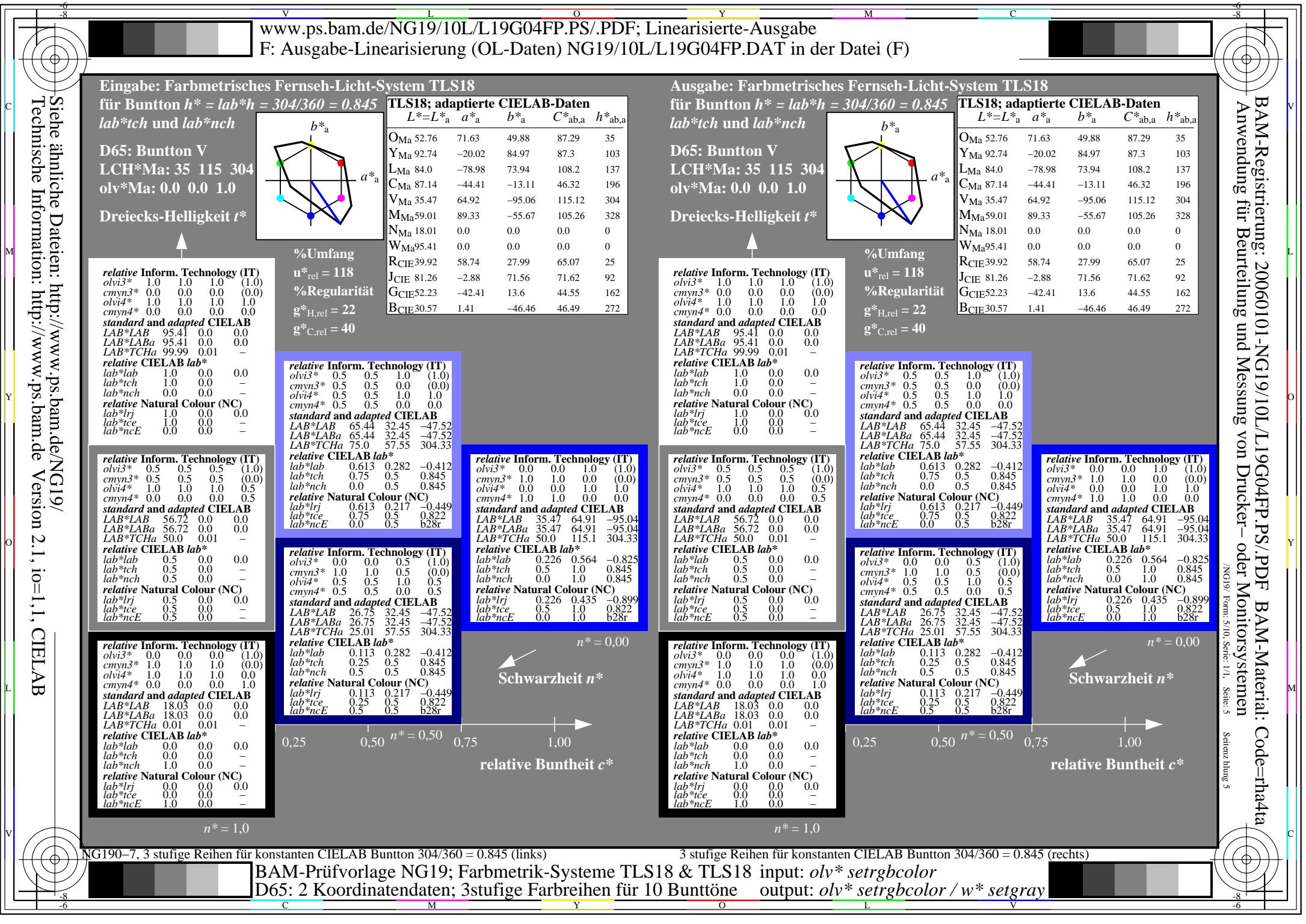
3 stufige Reihen für konstanten CIELAB Bunnton 103/360 = 0.287 (rechts)

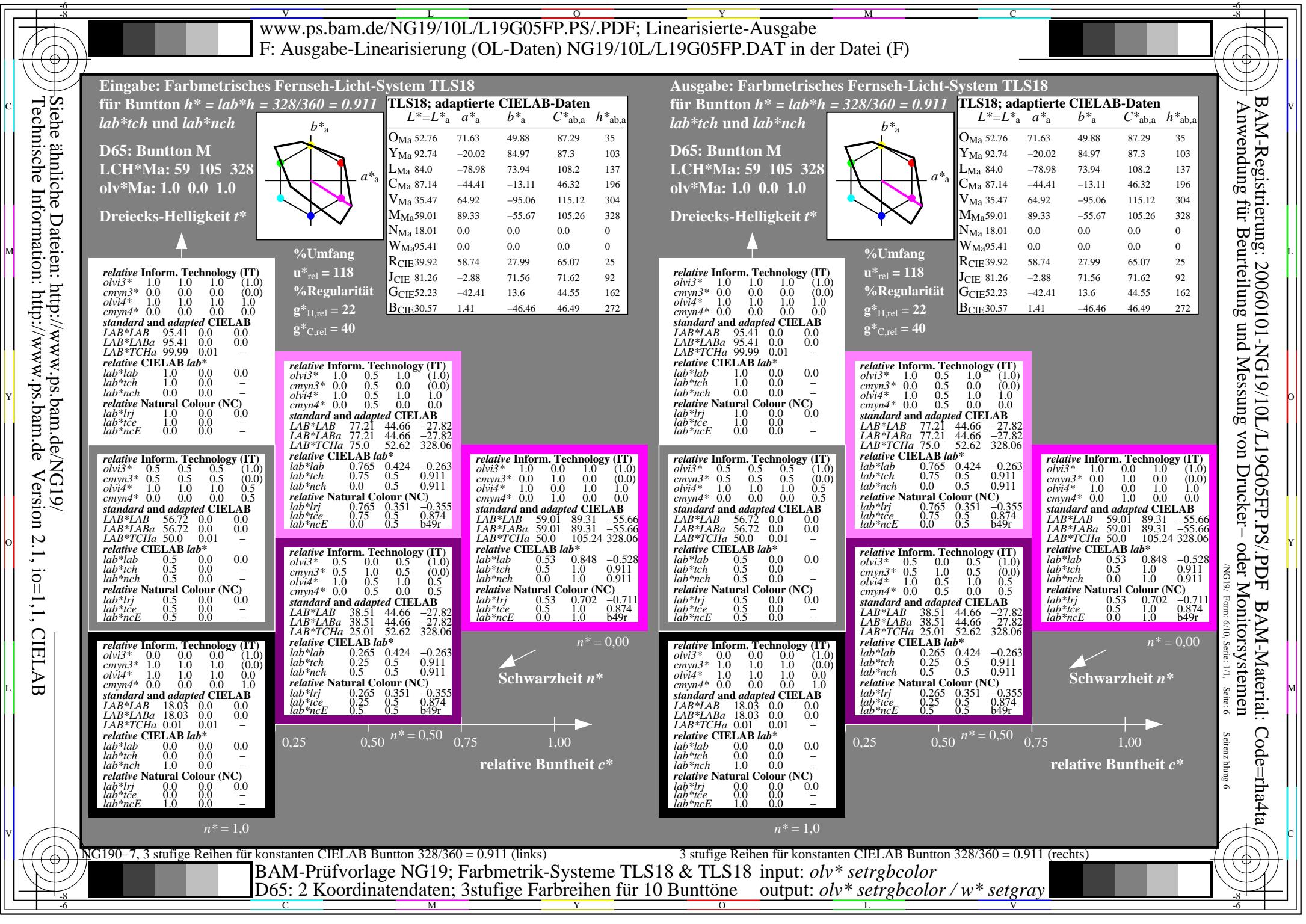
BAM-Prüfvorlage NG19; Farbmétrik-Systeme TLS18 & TLS18 input:  $olv^* setrgbcolor$

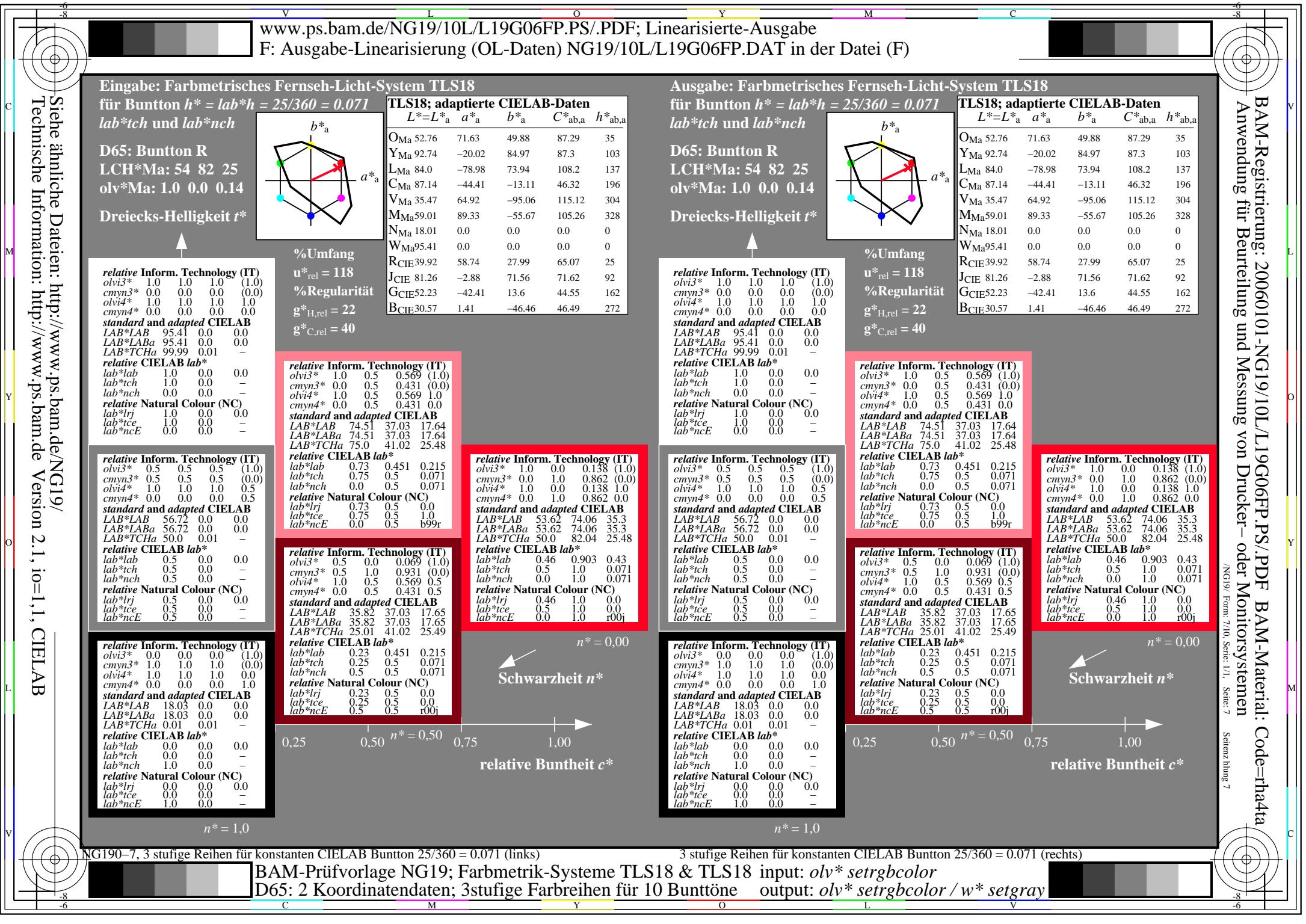
D65: 2 Koordinatendaten; 3stufige Farbreihen für 10 Bunntöne output:  $olv^* setrgbcolor / w^* setgray$

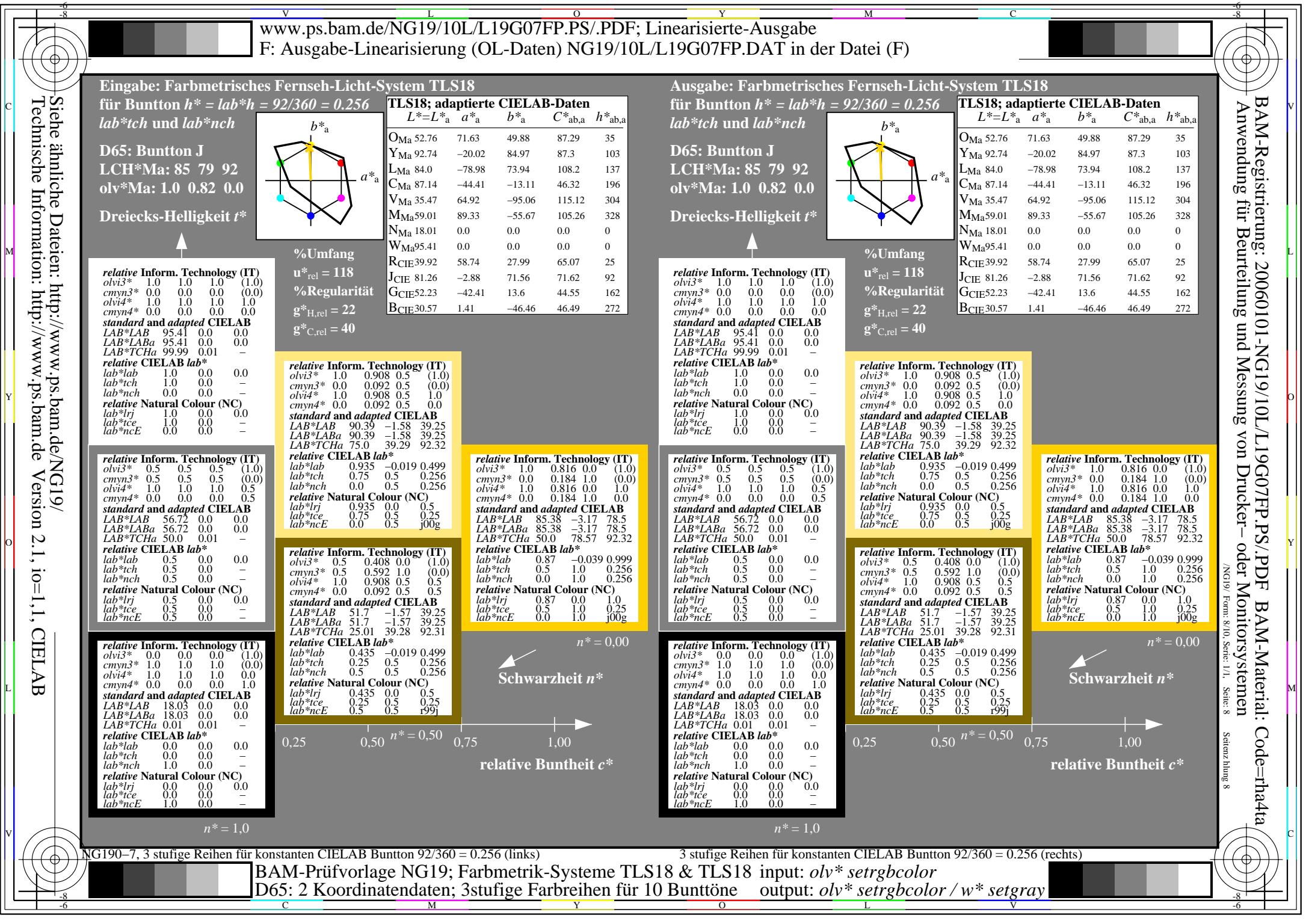


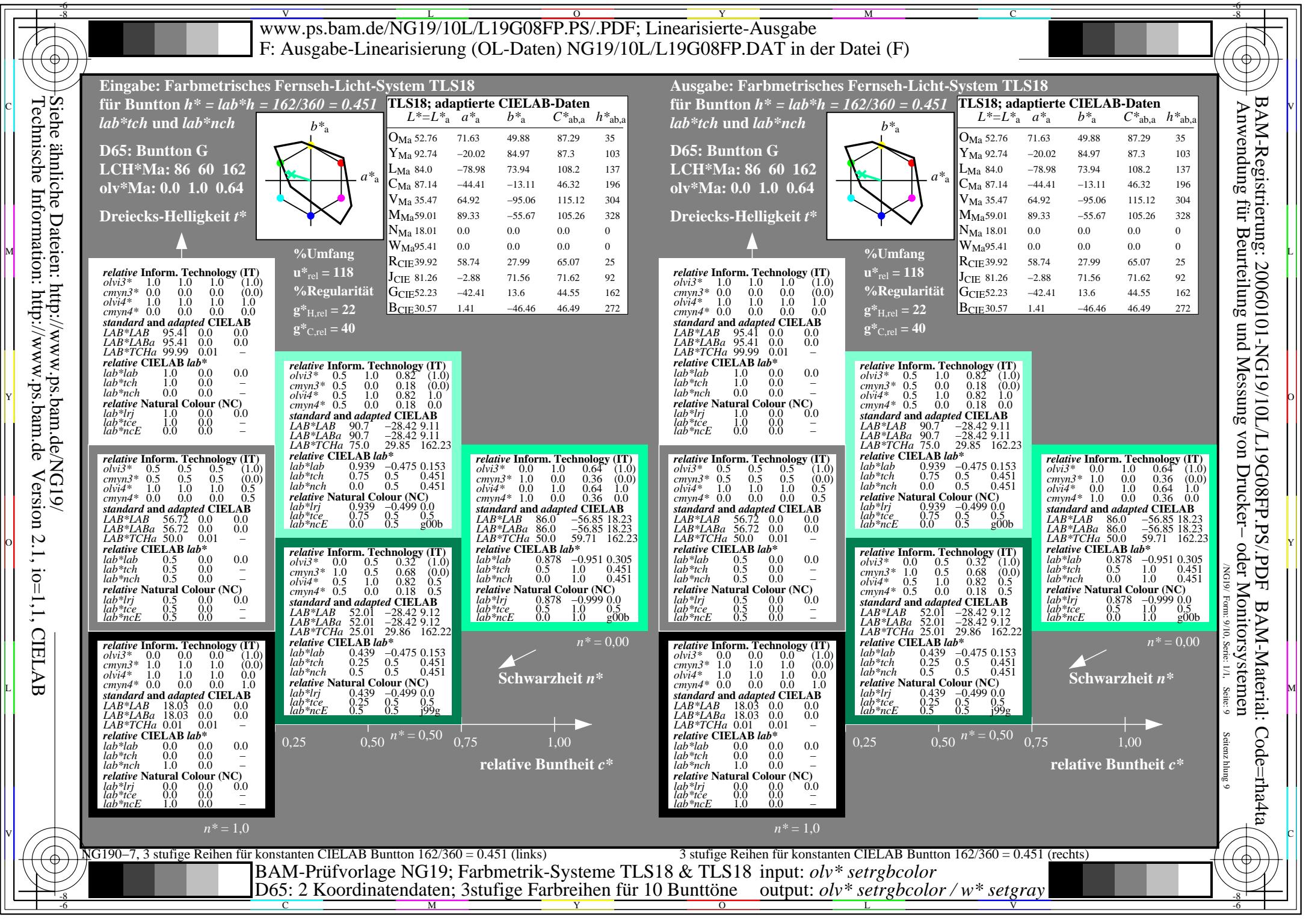














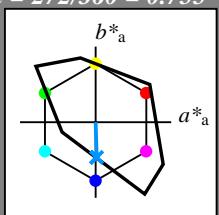
Eingabe: Farbmétrisches Fernseh-Licht-System TLS18  
für Bunton  $h^* = lab^*h = 272/360 = 0.755$   
 $lab^*tch$  und  $lab^*nch$

D65: Bunton B

LCH\*Ma: 65 48 272

olv\*Ma: 0.0 0.58 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 118$

%Regularität

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

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

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\* 1.0 1.0 1.0 0.5  
cmyn4\* 0.0 0.0 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 56.72 0.0 0.0  
LAB\*LABa 56.72 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)  
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 18.03 0.0 0.0  
LAB\*LABa 18.03 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 -

$n^* = 1,0$

TLS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_{a}$	$b^*_{a}$	$C^*_{ab,a}$	$h^*_{ab,a}$
O <sub>Ma</sub>	52.76	71.63	49.88	87.29	35
Y <sub>Ma</sub>	92.74	-20.02	84.97	87.3	103
L <sub>Ma</sub>	84.0	-78.98	73.94	108.2	137
S <sub>Ma</sub>	87.14	-44.41	-13.11	46.32	196
V <sub>Ma</sub>	35.47	64.92	-95.06	115.12	304
M <sub>Ma</sub>	59.01	89.33	-55.67	105.26	328
N <sub>Ma</sub>	18.01	0.0	0.0	0	0
W <sub>Ma</sub>	95.41	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 TLS18

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

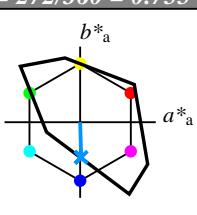
lab\*tch und lab\*nch

D65: Bunton B

LCH\*Ma: 65 48 272

olv\*Ma: 0.0 0.58 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 118$

%Regularität

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

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

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\* 0.0 0.581 1.0 (1.0)  
cmyn3\* 1.0 0.419 0.0 (0.0)  
olv4\* 0.0 0.581 1.0 1.0  
cmyn4\* 1.0 0.419 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 65.47 1.44 -47.47  
LAB\*LABa 65.47 1.44 -47.47  
LAB\*TChA 50.0 47.5 271.74

relative CIELAB lab\*  
lab\*lab 0.613 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 0.613 0.0 -0.999  
lab\*tce 0.5 1.0 0.75  
lab\*nCE 0.0 1.0 g99b

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 56.72 0.0 0.0  
LAB\*LABa 56.72 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)  
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 18.03 0.0 0.0  
LAB\*LABa 18.03 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)  
olv3\* 0.5 0.21 0.0 (1.0)  
cmyn3\* 0.5 0.21 0.0 (0.0)  
olv4\* 0.5 0.21 0.0 1.0  
cmyn4\* 0.5 0.21 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 80.44 0.71 -23.73  
LAB\*LABa 80.44 0.71 -23.73  
LAB\*TChA 75.0 23.75 271.72

relative CIELAB lab\*  
lab\*lab 0.807 0.0 0.0  
lab\*tch 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\*tce 0.75 0.5 0.75  
lab\*nCE 0.0 0.5 g99b

relative Inform. Technology (IT)  
olv3\* 0.0 0.419 0.0 (1.0)  
cmyn3\* 0.0 0.419 0.0 (0.0)  
olv4\* 0.0 0.419 0.0 0.5  
cmyn4\* 0.0 0.419 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 56.72 0.0 0.0  
LAB\*LABa 56.72 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)  
olv3\* 0.0 0.29 0.5 (1.0)  
cmyn3\* 1.0 0.71 0.5 (0.0)  
olv4\* 0.5 0.79 1.0 0.5  
cmyn4\* 0.5 0.21 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 41.74 0.72 -23.74  
LAB\*LABa 41.74 0.72 -23.74  
LAB\*TChA 25.01 23.76 271.75

relative CIELAB lab\*  
lab\*lab 0.307 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 0.307 0.0 -0.499  
lab\*tce 0.25 0.5 0.75  
lab\*nCE 0.5 0.5 b00r

relative Inform. Technology (IT)  
olv3\* 0.0 0.581 1.0 (1.0)  
cmyn3\* 1.0 0.419 0.0 (0.0)  
olv4\* 0.0 0.581 1.0 1.0  
cmyn4\* 1.0 0.419 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 65.47 1.44 -47.47  
LAB\*LABa 65.47 1.44 -47.47  
LAB\*TChA 50.0 47.5 271.74

relative CIELAB lab\*  
lab\*lab 0.613 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 0.613 0.0 -0.999  
lab\*tce 0.5 1.0 0.75  
lab\*nCE 0.0 1.0 g99b

relative Inform. Technology (IT)  
olv3\* 0.0 0.29 0.5 (1.0)  
cmyn3\* 1.0 0.71 0.5 (0.0)  
olv4\* 0.5 0.79 1.0 0.5  
cmyn4\* 0.5 0.21 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 41.74 0.72 -23.74  
LAB\*LABa 41.74 0.72 -23.74  
LAB\*TChA 25.01 23.76 271.75

relative CIELAB lab\*  
lab\*lab 0.307 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 0.307 0.0 -0.499  
lab\*tce 0.25 0.5 0.75  
lab\*nCE 0.5 0.5 b00r

$n^* = 0,00$

Schwarzheit  $n^*$

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit  $c^*$

$n^* = 1,0$

$n^* = 1,0$

$n^* = 0,00$

Schwarzheit  $n^*$

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit  $c^*$

NG190-7, 3 stufige Reihen für konstanten CIELAB Bunnton 272/360 = 0.755 (links)

3 stufige Reihen für konstanten CIELAB Bunnton 272/360 = 0.755 (rechts)

BAM-Prüfvorlage NG19; Farbmétrik-Systeme TLS18 & TLS18 input:  $olv^* setrgbcolor$

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

Technische Information: http://www.ps.bam.de Version 2.1, io=11, CIELAB