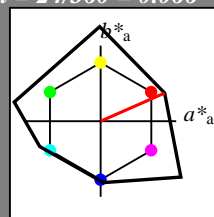


### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 24/360 = 0.066$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton R  
LCH\*Ma: 47 92 24  
olv\*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

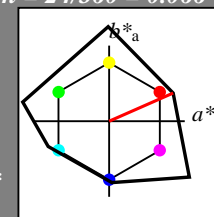
NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 24/360 = 0.066$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton R  
LCH\*Ma: 47 92 24  
olv\*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

relative Inform. Technology (IT)  
olvi3\* 1.0 1.0 1.0 (1.0)  
cmyn3\* 0.0 0.0 0.0 (0.0)  
olvi4\* 1.0 1.0 1.0 1.0  
cmyn4\* 0.0 0.0 0.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 95.41 0.0 -0.01  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.01 -  
relative CIELAB lab\*  
lab\*lab 1.0 0.0 0.0  
lab\*tch 1.0 0.0 -  
lab\*nch 0.0 0.0 -  
relative Natural Colour (NC)  
lab\*lrj 1.0 0.0 0.0  
lab\*tce 1.0 0.0 -  
lab\*nce 0.0 0.0 -

relative Inform. Technology (IT)  
olvi3\* 1.0 0.5 0.5 (1.0)  
cmyn3\* 0.0 0.5 0.5 (0.0)  
olvi4\* 1.0 0.5 0.5 1.0  
cmyn4\* 0.0 0.5 0.5 0.0  
standard and adapted CIELAB  
LAB\*LAB 71.27 42.34 18.63  
LAB\*LABa 71.27 42.31 18.62  
LAB\*TCHa 75.0 46.23 23.75  
relative CIELAB lab\*  
lab\*lab 0.714 0.458 0.201  
lab\*tch 0.75 0.5 0.066  
lab\*nch 0.0 0.5 0.066  
relative Natural Colour (NC)  
lab\*lrj 0.714 0.5 -0.011  
lab\*tce 0.75 0.5 0.996  
lab\*nce 0.0 0.5 b98r

relative Inform. Technology (IT)  
olvi3\* 1.0 0.0 0.0 (1.0)  
cmyn3\* 0.0 1.0 1.0 (0.0)  
olvi4\* 1.0 0.0 0.0 1.0  
cmyn4\* 0.0 1.0 1.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 47.15 84.68 37.26  
LAB\*LABa 47.15 84.63 37.24  
LAB\*TCHa 50.0 92.46 23.75  
relative CIELAB lab\*  
lab\*lab 0.428 0.915 0.403  
lab\*tch 0.5 1.0 0.066  
lab\*nch 0.0 1.0 0.066  
relative Natural Colour (NC)  
lab\*lrj 0.428 1.0 -0.023  
lab\*tce 0.5 1.0 0.996  
lab\*nce 0.0 1.0 b98r

relative Inform. Technology (IT)  
olvi3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olvi4\* 1.0 1.0 1.0 0.5  
cmyn4\* 0.0 0.0 0.0 0.5  
standard and adapted CIELAB  
LAB\*LAB 53.21 0.04 0.0  
LAB\*LABa 53.21 0.0 0.0  
LAB\*TCHa 50.0 0.01 -  
relative CIELAB lab\*  
lab\*lab 0.5 0.0 0.0  
lab\*tch 0.5 0.0 -  
lab\*nch 0.5 0.0 -  
relative Natural Colour (NC)  
lab\*lrj 0.5 0.0 0.0  
lab\*tce 0.5 0.0 -  
lab\*nce 0.5 0.0 -

relative Inform. Technology (IT)  
olvi3\* 0.5 0.0 0.0 (1.0)  
cmyn3\* 0.5 1.0 1.0 (0.0)  
olvi4\* 1.0 0.5 0.5 0.5  
cmyn4\* 0.0 0.5 0.5 0.5  
standard and adapted CIELAB  
LAB\*LAB 29.07 42.38 18.64  
LAB\*LABa 29.07 42.31 18.62  
LAB\*TCHa 25.01 46.23 23.75  
relative CIELAB lab\*  
lab\*lab 0.214 0.458 0.201  
lab\*tch 0.25 0.5 0.066  
lab\*nch 0.5 0.5 0.066  
relative Natural Colour (NC)  
lab\*lrj 0.214 0.5 -0.011  
lab\*tce 0.25 0.5 0.996  
lab\*nce 0.5 0.5 b98r

relative Inform. Technology (IT)  
olvi3\* 0.5 0.0 0.0 (1.0)  
cmyn3\* 0.5 1.0 1.0 (0.0)  
olvi4\* 1.0 0.5 0.5 0.5  
cmyn4\* 0.0 0.5 0.5 0.5  
standard and adapted CIELAB  
LAB\*LAB 29.07 42.38 18.64  
LAB\*LABa 29.07 42.31 18.62  
LAB\*TCHa 25.01 46.23 23.75  
relative CIELAB lab\*  
lab\*lab 0.214 0.458 0.201  
lab\*tch 0.25 0.5 0.066  
lab\*nch 0.5 0.5 0.066  
relative Natural Colour (NC)  
lab\*lrj 0.214 0.5 -0.011  
lab\*tce 0.25 0.5 0.996  
lab\*nce 0.5 0.5 b98r

relative Inform. Technology (IT)  
olvi3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olvi4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 11.01 0.07 0.01  
LAB\*LABa 11.01 0.0 0.0  
LAB\*TCHa 0.01 0.01 -  
relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 -  
lab\*nch 1.0 0.0 -  
relative Natural Colour (NC)  
lab\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

relative Inform. Technology (IT)  
olvi3\* 0.214 0.5 -0.011  
cmyn3\* 0.25 0.5 0.996  
olvi4\* 0.5 0.5 b98r  
cmyn4\* 0.5 0.5 b98r

relative Inform. Technology (IT)  
olvi3\* 0.214 0.5 -0.011  
cmyn3\* 0.25 0.5 0.996  
olvi4\* 0.5 0.5 b98r  
cmyn4\* 0.5 0.5 b98r

$n^* = 0.00$   
Schwarzheit  $n^*$   
relative Buntheit  $c^*$

$n^* = 0.00$   
Schwarzheit  $n^*$   
relative Buntheit  $c^*$

### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 91/360 = 0.252$

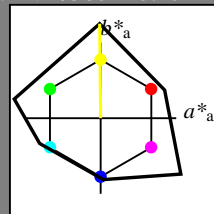
$lab^*tch$  und  $lab^*nch$

D65: Buntton J

LCH\*Ma: 91 125 91

olv\*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

### NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 91/360 = 0.252$

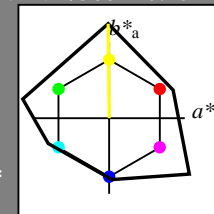
$lab^*tch$  und  $lab^*nch$

D65: Buntton J

LCH\*Ma: 91 125 91

olv\*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

### NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

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

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

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

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

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

standard and adapted CIELAB  
 $LAB^*LAB = 53.21 \ 0.04 \ 0.0$   
 $LAB^*LABa = 53.21 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$

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

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

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

standard and adapted CIELAB  
 $LAB^*LAB = 11.01 \ 0.07 \ 0.01$   
 $LAB^*LABa = 11.01 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 0.01 \ 0.01 \ -$

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

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

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

standard and adapted CIELAB  
 $LAB^*LAB = 93.38 \ -0.62 \ 62.5$   
 $LAB^*LABa = 93.38 \ -0.63 \ 62.5$   
 $LAB^*TCHa = 75.0 \ 62.5 \ 90.59$

relative CIELAB lab\*  
 $lab^*lab = 0.976 \ -0.004 \ 0.5$   
 $lab^*tch = 0.75 \ 0.5 \ 0.252$   
 $lab^*nch = 0.0 \ 0.5 \ 0.252$

relative Natural Colour (NC)  
 $lab^*lrj = 0.976 \ 0.02 \ 0.499$   
 $lab^*tce = 0.75 \ 0.5 \ 0.243$   
 $lab^*nce = 0.0 \ 0.5 \ r97j$

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

standard and adapted CIELAB  
 $LAB^*LAB = 51.18 \ -0.59 \ 62.51$   
 $LAB^*LABa = 51.18 \ -0.63 \ 62.5$   
 $LAB^*TCHa = 25.01 \ 62.5 \ 90.59$

relative CIELAB lab\*  
 $lab^*lab = 0.476 \ -0.004 \ 0.5$   
 $lab^*tch = 0.25 \ 0.5 \ 0.252$   
 $lab^*nch = 0.5 \ 0.5 \ 0.252$

relative Natural Colour (NC)  
 $lab^*lrj = 0.476 \ 0.02 \ 0.499$   
 $lab^*tce = 0.25 \ 0.5 \ 0.243$   
 $lab^*nce = 0.5 \ 0.5 \ r97j$

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

standard and adapted CIELAB  
 $LAB^*LAB = 91.36 \ -1.26 \ 125.0$   
 $LAB^*LABa = 91.36 \ -1.27 \ 125.0$   
 $LAB^*TCHa = 50.0 \ 125.01 \ 90.59$

relative CIELAB lab\*  
 $lab^*lab = 0.952 \ -0.009 \ 1.0$   
 $lab^*tch = 0.5 \ 1.0 \ 0.252$   
 $lab^*nch = 0.0 \ 1.0 \ 0.252$

relative Natural Colour (NC)  
 $lab^*lrj = 0.952 \ 0.041 \ 0.999$   
 $lab^*tce = 0.5 \ 1.0 \ 0.243$   
 $lab^*nce = 0.0 \ 1.0 \ r97j$

Siehe ähnliche Dateien: <http://www.ps.bam.de/TG09/>  
Technische Information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM-Registrierung: 20060101-TG09/10L/L09G01NP.PS/.PDF BAM-Material: Code=rh4ta  
Anwendung für Beurteilung und Messung von Drucker- oder Monitorsystemen  
/TG09/ Form: 2/10, Serie: 1/1, Seite: 2  
Seite: 1/1

TG090-7, 3 stufige Reihen für konstanten CIELAB Buntton 91/360 = 0.252 (links)

3 stufige Reihen für konstanten CIELAB Buntton 91/360 = 0.252 (rechts)

BAM-Prüfvorlage TG09; Farbmétrik-Systeme NCS11a & NCS11aput: olv\* setrgbcolor

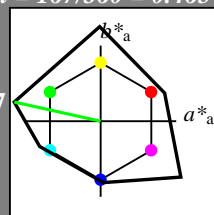
D65: 3stufige Farbreihen und Koordinaten-Daten für 10 Bunttöneoutput: no change compared to input

### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 167/360 = 0.465$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G  
LCH\*Ma: 63 117 167  
olv\*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

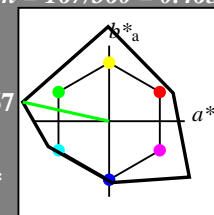
NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 167/360 = 0.465$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G  
LCH\*Ma: 63 117 167  
olv\*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

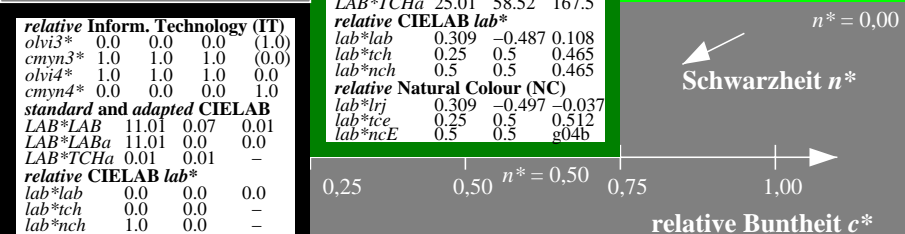
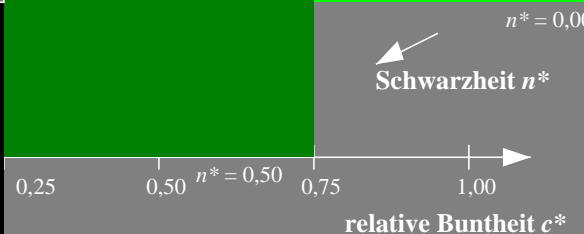
**relative Inform. Technology (IT)**  
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 95.41 \ 0.0 \ -0.01$   
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 99.99 \ 0.01 \ -$   
**relative CIELAB lab\***  
 $lab^*lab = 1.0 \ 0.0 \ 0.0$   
 $lab^*tch = 1.0 \ 0.0 \ -$   
 $lab^*nch = 0.0 \ 0.0 \ -$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$   
 $lab^*tce = 1.0 \ 0.0 \ -$   
 $lab^*nce = 0.0 \ 0.0 \ -$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.5 \ 1.0 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.0 \ 0.5 \ (0.0)$   
 $olvi4^* = 0.5 \ 1.0 \ 0.5 \ 1.0$   
 $cmyn4^* = 0.5 \ 0.0 \ 0.5 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 79.24 \ -57.1 \ 12.67$   
 $LAB^*LABa = 79.24 \ -57.12 \ 12.67$   
 $LAB^*TCHa = 75.0 \ 58.52 \ 167.5$   
**relative CIELAB lab\***  
 $lab^*lab = 0.808 \ -0.487 \ 0.108$   
 $lab^*tch = 0.75 \ 0.5 \ 0.465$   
 $lab^*nch = 0.0 \ 0.5 \ 0.465$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.808 \ -0.497 \ -0.037$   
 $lab^*tce = 0.75 \ 0.5 \ 0.512$   
 $lab^*nce = 0.0 \ 0.5 \ g04b$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.5 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.5$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 53.21 \ 0.04 \ 0.0$   
 $LAB^*LABa = 53.21 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$   
**relative CIELAB lab\***  
 $lab^*lab = 0.5 \ 0.0 \ 0.0$   
 $lab^*tch = 0.5 \ 0.0 \ -$   
 $lab^*nch = 0.5 \ 0.0 \ -$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.5 \ 0.0 \ 0.0$   
 $lab^*tce = 0.5 \ 0.0 \ -$   
 $lab^*nce = 0.5 \ 0.0 \ -$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.0 \ 0.5 \ 0.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 0.5 \ 1.0 \ (0.0)$   
 $olvi4^* = 0.5 \ 1.0 \ 0.5 \ 0.5$   
 $cmyn4^* = 0.5 \ 0.0 \ 0.5 \ 0.5$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 37.04 \ -57.07 \ 12.69$   
 $LAB^*LABa = 37.04 \ -57.12 \ 12.67$   
 $LAB^*TCHa = 25.01 \ 58.52 \ 167.5$   
**relative CIELAB lab\***  
 $lab^*lab = 0.309 \ -0.487 \ 0.108$   
 $lab^*tch = 0.25 \ 0.5 \ 0.465$   
 $lab^*nch = 0.5 \ 0.5 \ 0.465$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.309 \ -0.497 \ -0.037$   
 $lab^*tce = 0.25 \ 0.5 \ 0.512$   
 $lab^*nce = 0.5 \ 0.5 \ g04b$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.0 \ 1.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 0.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 0.0 \ 1.0 \ 0.0 \ 1.0$   
 $cmyn4^* = 1.0 \ 0.0 \ 1.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 63.07 \ -114.225 \ 35$   
 $LAB^*LABa = 63.07 \ -114.225 \ 34$   
 $LAB^*TCHa = 50.0 \ 117.04 \ 167.5$   
**relative CIELAB lab\***  
 $lab^*lab = 0.617 \ -0.975 \ 0.216$   
 $lab^*tch = 0.5 \ 1.0 \ 0.465$   
 $lab^*nch = 0.0 \ 1.0 \ 0.465$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.617 \ -0.996 \ -0.074$   
 $lab^*tce = 0.5 \ 1.0 \ 0.512$   
 $lab^*nce = 0.0 \ 1.0 \ g04b$



TG090-7, 3 stufige Reihen für konstanten CIELAB Buntton 167/360 = 0.465 (links)

3 stufige Reihen für konstanten CIELAB Buntton 167/360 = 0.465 (rechts)

BAM-Prüfvorlage TG09; Farbmétrik-Systeme NCS11a & NCS11aput:  $olv^* setrgbcolor$

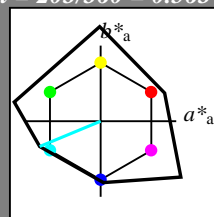
D65: 3stufige Farbreihen und Koordinaten-Daten für 10 Bunttöneoutput: *no change compared to input*

### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 203/360 = 0.563$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G50B  
LCH\*Ma: 59 87 203  
olv\*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

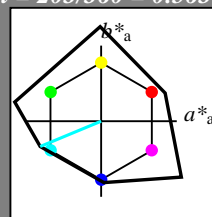
NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50Bma	59.47	-80.6	-33.45	87.28	203
Bma	49.01	3.65	-81.19	81.28	273
B50Rma	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 203/360 = 0.563$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G50B  
LCH\*Ma: 59 87 203  
olv\*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50Bma	59.47	-80.6	-33.45	87.28	203
Bma	49.01	3.65	-81.19	81.28	273
B50Rma	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

**relative Inform. Technology (IT)**  
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 95.41 \ 0.0 \ -0.01$   
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 99.99 \ 0.01 \ -$   
**relative CIELAB lab\***  
 $lab^*lab = 1.0 \ 0.0 \ 0.0$   
 $lab^*tch = 1.0 \ 0.0 \ -$   
 $lab^*nch = 0.0 \ 0.0 \ -$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$   
 $lab^*tce = 1.0 \ 0.0 \ -$   
 $lab^*nce = 0.0 \ 0.0 \ -$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.5 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 0.5 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.5 \ 0.0 \ 0.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 77.43 \ -40.26 \ -16.71$   
 $LAB^*LABa = 77.43 \ -40.29 \ -16.72$   
 $LAB^*TCHa = 75.0 \ 43.63 \ 202.54$   
**relative CIELAB lab\***  
 $lab^*lab = 0.787 \ -0.461 \ -0.191$   
 $lab^*tch = 0.75 \ 0.5 \ 0.563$   
 $lab^*nch = 0.0 \ 0.5 \ 0.563$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.787 \ -0.418 \ -0.272$   
 $lab^*tce = 0.75 \ 0.5 \ 0.592$   
 $lab^*nce = 0.0 \ 0.5 \ g36b$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.5 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.5$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 53.21 \ 0.04 \ 0.0$   
 $LAB^*LABa = 53.21 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$   
**relative CIELAB lab\***  
 $lab^*lab = 0.5 \ 0.0 \ 0.0$   
 $lab^*tch = 0.5 \ 0.0 \ -$   
 $lab^*nch = 0.5 \ 0.0 \ -$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.5 \ 0.0 \ 0.0$   
 $lab^*tce = 0.5 \ 0.0 \ -$   
 $lab^*nce = 0.5 \ 0.0 \ -$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.0 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* = 1.0 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* = 0.5 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.5 \ 0.0 \ 0.0 \ 0.5$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 35.23 \ -40.23 \ -16.7$   
 $LAB^*LABa = 35.23 \ -40.29 \ -16.72$   
 $LAB^*TCHa = 25.01 \ 43.63 \ 202.54$   
**relative CIELAB lab\***  
 $lab^*lab = 0.287 \ -0.461 \ -0.191$   
 $lab^*tch = 0.25 \ 0.5 \ 0.563$   
 $lab^*nch = 0.5 \ 0.5 \ 0.563$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.287 \ -0.418 \ -0.272$   
 $lab^*tce = 0.25 \ 0.5 \ 0.592$   
 $lab^*nce = 0.5 \ 0.5 \ g36b$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 0.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 1.0 \ 0.0 \ 0.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 59.47 \ -80.55 \ -33.44$   
 $LAB^*LABa = 59.47 \ -80.59 \ -33.44$   
 $LAB^*TCHa = 50.0 \ 87.26 \ 202.54$   
**relative CIELAB lab\***  
 $lab^*lab = 0.574 \ -0.922 \ -0.382$   
 $lab^*tch = 0.5 \ 1.0 \ 0.563$   
 $lab^*nch = 0.0 \ 1.0 \ 0.563$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.574 \ -0.836 \ -0.546$   
 $lab^*tce = 0.5 \ 1.0 \ 0.592$   
 $lab^*nce = 0.0 \ 1.0 \ g36b$

$n^* = 0.00$   
Schwarzheit  $n^*$   
relative Buntheit  $c^*$

$n^* = 0.00$   
Schwarzheit  $n^*$   
relative Buntheit  $c^*$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 1.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 11.01 \ 0.07 \ 0.01$   
 $LAB^*LABa = 11.01 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 0.01 \ 0.01 \ -$   
**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)**  
 $lab^*lrj = 0.0 \ 0.0 \ 0.0$   
 $lab^*tce = 0.0 \ 0.0 \ -$   
 $lab^*nce = 1.0 \ 0.0 \ -$

3 stufige Reihen für konstanten CIELAB Buntton 203/360 = 0.563 (rechts)

Input:  $olv^* setrgbcolor$

Output: no change compared to input

BAM-Prüfvorlage TG09; Farbmétrik-Systeme NCS11a & NCS11

D65: 3stufige Farbreihen und Koordinaten-Daten für 10 Bunttöne

Siehe ähnliche Dateien: <http://www.ps.bam.de/TG09/>  
Technische Information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM-Registrierung: 20060101-TG09/10L/L09G03NP.PS/.PDF BAM-Material: Code=rh4ta  
Anwendung für Beurteilung und Messung von Drucker- oder Monitorsystemen  
TG09 Form 4/10, Serie: 1/1, Seite: 4  
Seite 4 von 4

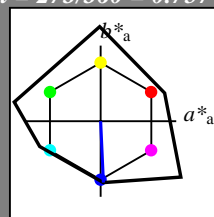


### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 273/360 = 0.757$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B  
LCH\*Ma: 49 81 273  
olv\*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

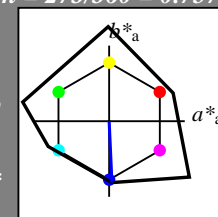
NCS11; adaptierte CIELAB-Daten	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 273/360 = 0.757$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B  
LCH\*Ma: 49 81 273  
olv\*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

relative Inform. Technology (IT)  
olvi3\* 1.0 1.0 1.0 (1.0)  
cmyn3\* 0.0 0.0 0.0 (0.0)  
olvi4\* 1.0 1.0 1.0 1.0  
cmyn4\* 0.0 0.0 0.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 95.41 0.0 -0.01  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCa 99.99 0.01 -  
relative CIELAB lab\*  
lab\*lab 1.0 0.0 0.0  
lab\*tch 1.0 0.0 -  
lab\*nch 0.0 0.0 -  
relative Natural Colour (NC)  
lab\*lrj 1.0 0.0 0.0  
lab\*tce 1.0 0.0 -  
lab\*nce 0.0 0.0 -

relative Inform. Technology (IT)  
olvi3\* 0.5 0.5 1.0 (1.0)  
cmyn3\* 0.5 0.5 0.0 (0.0)  
olvi4\* 0.5 0.5 1.0 1.0  
cmyn4\* 0.5 0.5 0.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 72.21 1.85 -40.58  
LAB\*LABa 72.21 1.82 -40.58  
LAB\*TCa 75.0 40.63 272.57  
relative CIELAB lab\*  
lab\*lab 0.725 0.022 -0.498  
lab\*tch 0.75 0.5 0.757  
lab\*nch 0.0 0.5 0.757  
relative Natural Colour (NC)  
lab\*lrj 0.725 0.006 -0.499  
lab\*tce 0.75 0.5 0.752  
lab\*nce 0.0 0.5 0.00r

relative Inform. Technology (IT)  
olvi3\* 0.0 0.0 1.0 (1.0)  
cmyn3\* 1.0 1.0 0.0 (0.0)  
olvi4\* 0.0 0.0 1.0 1.0  
cmyn4\* 1.0 1.0 0.0 0.0  
standard and adapted CIELAB  
LAB\*LAB 49.02 3.7 -81.16  
LAB\*LABa 49.02 3.65 -81.18  
LAB\*TCa 50.0 81.27 272.57  
relative CIELAB lab\*  
lab\*lab 0.45 0.045 -0.998  
lab\*tch 0.5 1.0 0.757  
lab\*nch 0.0 1.0 0.757  
relative Natural Colour (NC)  
lab\*lrj 0.45 0.013 -0.999  
lab\*tce 0.5 1.0 0.752  
lab\*nce 0.0 1.0 0.00r

relative Inform. Technology (IT)  
olvi3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olvi4\* 1.0 1.0 1.0 0.5  
cmyn4\* 0.0 0.0 0.0 0.5  
standard and adapted CIELAB  
LAB\*LAB 53.21 0.04 0.0  
LAB\*LABa 53.21 0.0 0.0  
LAB\*TCa 50.0 0.01 -  
relative CIELAB lab\*  
lab\*lab 0.5 0.0 0.0  
lab\*tch 0.5 0.0 -  
lab\*nch 0.5 0.0 -  
relative Natural Colour (NC)  
lab\*lrj 0.5 0.0 0.0  
lab\*tce 0.5 0.0 -  
lab\*nce 0.5 0.0 -

relative Inform. Technology (IT)  
olvi3\* 0.0 0.0 0.5 (1.0)  
cmyn3\* 1.0 1.0 0.5 (0.0)  
olvi4\* 0.5 0.5 1.0 0.5  
cmyn4\* 0.5 0.5 0.0 0.5  
standard and adapted CIELAB  
LAB\*LAB 30.01 1.89 -40.56  
LAB\*LABa 30.01 1.82 -40.58  
LAB\*TCa 25.01 40.63 272.57  
relative CIELAB lab\*  
lab\*lab 0.225 0.022 -0.498  
lab\*tch 0.25 0.5 0.757  
lab\*nch 0.5 0.5 0.757  
relative Natural Colour (NC)  
lab\*lrj 0.225 0.006 -0.499  
lab\*tce 0.25 0.5 0.752  
lab\*nce 0.5 0.5 0.00r

relative Inform. Technology (IT)  
olvi3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olvi4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
standard and adapted CIELAB  
LAB\*LAB 11.01 0.07 0.01  
LAB\*LABa 11.01 0.0 0.0  
LAB\*TCa 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 -

$n^* = 0.00$   
Schwarzheit  $n^*$   
relative Buntheit  $c^*$   
 $n^* = 0.50$   
 $n^* = 1.0$

$n^* = 0.00$   
Schwarzheit  $n^*$   
relative Buntheit  $c^*$   
 $n^* = 0.50$   
 $n^* = 1.0$

TG090-7, 3 stufige Reihen für konstanten CIELAB Buntton 273/360 = 0.757 (links)

3 stufige Reihen für konstanten CIELAB Buntton 273/360 = 0.757 (rechts)

BAM-Prüfvorlage TG09; Farbmétrik-Systeme NCS11a & NCS11aput: olv\* setrgbcolor

D65: 3stufige Farbreihen und Koordinaten-Daten für 10 Bunttöneoutput: no change compared to input

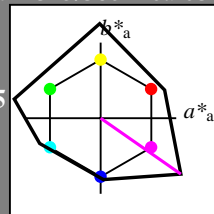
### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 325/360 = 0.903$

$lab^*tch$  und  $lab^*nch$

D65: Buntton B50R  
LCH\*Ma: 44 129 325  
olv\*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

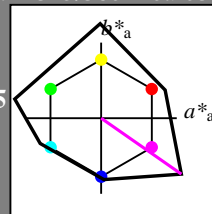
### Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 325/360 = 0.903$

$lab^*tch$  und  $lab^*nch$

D65: Buntton B50R  
LCH\*Ma: 44 129 325  
olv\*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

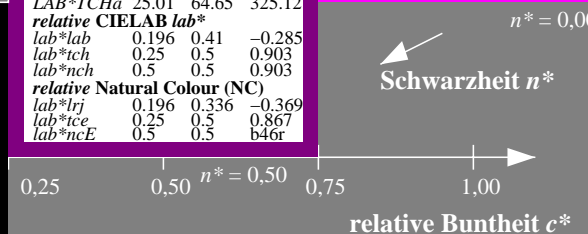
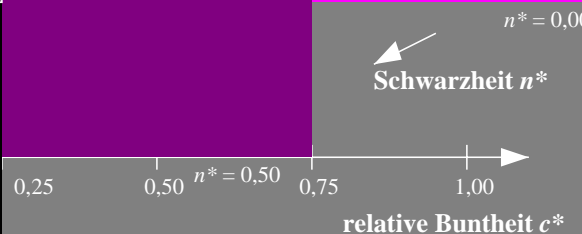
**relative Inform. Technology (IT)**  
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 95.41 \ 0.0 \ -0.01$   
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 99.99 \ 0.01 \ -$   
**relative CIELAB lab\***  
 $lab^*lab = 1.0 \ 0.0 \ 0.0$   
 $lab^*tch = 1.0 \ 0.0 \ -$   
 $lab^*nch = 0.0 \ 0.0 \ -$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$   
 $lab^*tce = 1.0 \ 0.0 \ -$   
 $lab^*nce = 0.0 \ 0.0 \ -$

**relative Inform. Technology (IT)**  
 $olvi3^* = 1.0 \ 0.5 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.5 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 0.5 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.5 \ 0.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 69.73 \ 53.06 \ -36.95$   
 $LAB^*LABa = 69.73 \ 53.03 \ -36.95$   
 $LAB^*TCHa = 75.0 \ 64.65 \ 325.12$   
**relative CIELAB lab\***  
 $lab^*lab = 0.696 \ 0.41 \ -0.285$   
 $lab^*tch = 0.75 \ 0.5 \ 0.903$   
 $lab^*nch = 0.0 \ 0.5 \ 0.903$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.696 \ 0.336 \ -0.369$   
 $lab^*tce = 0.75 \ 0.5 \ 0.867$   
 $lab^*nce = 0.0 \ 0.5 \ b46r$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.5 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.5$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 53.21 \ 0.04 \ 0.0$   
 $LAB^*LABa = 53.21 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$   
**relative CIELAB lab\***  
 $lab^*lab = 0.5 \ 0.0 \ 0.0$   
 $lab^*tch = 0.5 \ 0.0 \ -$   
 $lab^*nch = 0.5 \ 0.0 \ -$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.5 \ 0.0 \ 0.0$   
 $lab^*tce = 0.5 \ 0.0 \ -$   
 $lab^*nce = 0.5 \ 0.0 \ -$

**relative Inform. Technology (IT)**  
 $olvi3^* = 0.5 \ 0.0 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 1.0 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 0.5 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.5 \ 0.0 \ 0.5$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 27.53 \ 53.1 \ -36.94$   
 $LAB^*LABa = 27.53 \ 53.03 \ -36.95$   
 $LAB^*TCHa = 25.01 \ 64.65 \ 325.12$   
**relative CIELAB lab\***  
 $lab^*lab = 0.196 \ 0.41 \ -0.285$   
 $lab^*tch = 0.25 \ 0.5 \ 0.903$   
 $lab^*nch = 0.5 \ 0.5 \ 0.903$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.196 \ 0.336 \ -0.369$   
 $lab^*tce = 0.25 \ 0.5 \ 0.867$   
 $lab^*nce = 0.5 \ 0.5 \ b46r$

**relative Inform. Technology (IT)**  
 $olvi3^* = 1.0 \ 0.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 1.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 0.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 1.0 \ 0.0 \ 0.0$   
**standard and adapted CIELAB**  
 $LAB^*LAB = 44.06 \ 106.12 \ -73.91$   
 $LAB^*LABa = 44.06 \ 106.07 \ -73.92$   
 $LAB^*TCHa = 50.0 \ 129.29 \ 325.12$   
**relative CIELAB lab\***  
 $lab^*lab = 0.392 \ 0.82 \ -0.571$   
 $lab^*tch = 0.5 \ 1.0 \ 0.903$   
 $lab^*nch = 0.0 \ 1.0 \ 0.903$   
**relative Natural Colour (NC)**  
 $lab^*lrj = 0.392 \ 0.673 \ -0.739$   
 $lab^*tce = 0.5 \ 1.0 \ 0.867$   
 $lab^*nce = 0.0 \ 1.0 \ b46r$



TG090-7, 3 stufige Reihen für konstanten CIELAB Buntton 325/360 = 0.903 (links)

3 stufige Reihen für konstanten CIELAB Buntton 325/360 = 0.903 (rechts)

BAM-Prüfvorlage TG09; Farbmétrik-Systeme NCS11a & NCS11aput:  $olv^* setrgbcolor$

D65: 3stufige Farbreihen und Koordinaten-Daten für 10 Bunttöneoutput: *no change compared to input*

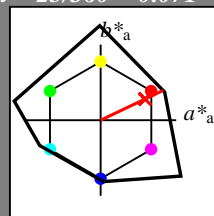
### Eingabe: Farbmétrisches Reflexions-System NCS11

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

$lab^*tch$  und  $lab^*nch$

D65: Buntton R  
LCH\*Ma: 48 91 25  
olv\*Ma: 1.0 0.02 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

### NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

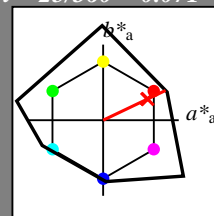
### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

$lab^*tch$  und  $lab^*nch$

D65: Buntton R  
LCH\*Ma: 48 91 25  
olv\*Ma: 1.0 0.02 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

### NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

relative Inform. Technology (IT)  
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 95.41 \ 0.0 \ -0.01$   
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 99.99 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 1.0 \ 0.0 \ 0.0$   
 $lab^*tch = 1.0 \ 0.0 \ -$   
 $lab^*nch = 0.0 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$   
 $lab^*tce = 1.0 \ 0.0 \ -$   
 $lab^*nce = 0.0 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.5 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.5$   
standard and adapted CIELAB  
 $LAB^*LAB = 53.21 \ 0.04 \ 0.0$   
 $LAB^*LABa = 53.21 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.5 \ 0.0 \ 0.0$   
 $lab^*tch = 0.5 \ 0.0 \ -$   
 $lab^*nch = 0.5 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.5 \ 0.0 \ 0.0$   
 $lab^*tce = 0.5 \ 0.0 \ -$   
 $lab^*nce = 0.5 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 1.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 11.01 \ 0.07 \ 0.01$   
 $LAB^*LABa = 11.01 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 0.01 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.0 \ 0.0 \ 0.0$   
 $lab^*tch = 0.0 \ 0.0 \ -$   
 $lab^*nch = 1.0 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.0 \ 0.0 \ 0.0$   
 $lab^*tce = 0.0 \ 0.0 \ -$   
 $lab^*nce = 1.0 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 1.0 \ 0.512 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.488 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 0.512 \ 0.5 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.488 \ 0.5 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 71.81 \ 41.31 \ 19.68$   
 $LAB^*LABa = 71.81 \ 41.28 \ 19.68$   
 $LAB^*TCHa = 75.0 \ 45.73 \ 25.49$

relative CIELAB lab\*  
 $lab^*lab = 0.72 \ 0.451 \ 0.215$   
 $lab^*tch = 0.75 \ 0.5 \ 0.071$   
 $lab^*nch = 0.0 \ 0.5 \ 0.071$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.72 \ 0.5 \ 0.0$   
 $lab^*tce = 0.75 \ 0.5 \ 0.0$   
 $lab^*nce = 0.0 \ 0.5 \ r00j$

relative Inform. Technology (IT)  
 $olvi3^* = 0.5 \ 0.012 \ 0.0 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.988 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 0.512 \ 0.5 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.488 \ 0.5 \ 0.5$   
standard and adapted CIELAB  
 $LAB^*LAB = 29.6 \ 41.35 \ 19.69$   
 $LAB^*LABa = 29.6 \ 41.29 \ 19.67$   
 $LAB^*TCHa = 25.01 \ 45.73 \ 25.47$

relative CIELAB lab\*  
 $lab^*lab = 0.22 \ 0.451 \ 0.215$   
 $lab^*tch = 0.25 \ 0.5 \ 0.071$   
 $lab^*nch = 0.5 \ 0.5 \ 0.071$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.22 \ 0.5 \ 0.0$   
 $lab^*tce = 0.25 \ 0.5 \ 1.0$   
 $lab^*nce = 0.5 \ 0.5 \ b99r$

relative Inform. Technology (IT)  
 $olvi3^* = 1.0 \ 0.024 \ 0.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.976 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 0.024 \ 0.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.976 \ 1.0 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 48.21 \ 82.61 \ 39.36$   
 $LAB^*LABa = 48.21 \ 82.57 \ 39.35$   
 $LAB^*TCHa = 50.0 \ 91.46 \ 25.48$

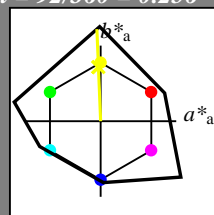
relative CIELAB lab\*  
 $lab^*lab = 0.441 \ 0.903 \ 0.43$   
 $lab^*tch = 0.5 \ 1.0 \ 0.071$   
 $lab^*nch = 0.0 \ 1.0 \ 0.071$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.441 \ 1.0 \ 0.0$   
 $lab^*tce = 0.5 \ 1.0 \ 1.0$   
 $lab^*nce = 0.0 \ 1.0 \ b99r$

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

D65: Buntton J  
LCH\*Ma: 90 122 92  
olv\*Ma: 0.97 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

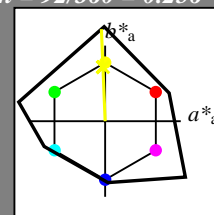
NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

D65: Buntton J  
LCH\*Ma: 90 122 92  
olv\*Ma: 0.97 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

**relative Inform. Technology (IT)**  
olvi3\* 1.0 1.0 1.0 (1.0)  
cmyn3\* 0.0 0.0 0.0 (0.0)  
olvi4\* 1.0 1.0 1.0 1.0  
cmyn4\* 0.0 0.0 0.0 0.0  
**standard and adapted CIELAB**  
LAB\*LAB 95.41 0.0 -0.01  
LAB\*LABa 95.41 0.0 0.0  
LAB\*TCHa 99.99 0.01 -  
**relative CIELAB lab\***  
lab\*lab 1.0 0.0 0.0  
lab\*tch 1.0 0.0 -  
lab\*nch 0.0 0.0 -  
**relative Natural Colour (NC)**  
lab\*lrj 1.0 0.0 0.0  
lab\*tce 1.0 0.0 -  
lab\*nce 0.0 0.0 -

**relative Inform. Technology (IT)**  
olvi3\* 0.984 1.0 0.5 (1.0)  
cmyn3\* 0.016 0.0 0.5 (0.0)  
olvi4\* 0.984 1.0 0.5 1.0  
cmyn4\* 0.016 0.0 0.5 0.0  
**standard and adapted CIELAB**  
LAB\*LAB 92.92 -2.44 60.89  
LAB\*LABa 92.92 -2.46 60.89  
LAB\*TCHa 75.0 60.94 92.32  
**relative CIELAB lab\***  
lab\*lab 0.971 -0.019 0.499  
lab\*tch 0.75 0.5 0.256  
lab\*nch 0.0 0.5 0.256  
**relative Natural Colour (NC)**  
lab\*lrj 0.971 0.0 0.5  
lab\*tce 0.75 0.5 0.25  
lab\*nce 0.0 0.5 r99j

**relative Inform. Technology (IT)**  
olvi3\* 0.967 1.0 0.0 (1.0)  
cmyn3\* 0.033 0.0 1.0 (0.0)  
olvi4\* 0.968 1.0 0.0 1.0  
cmyn4\* 0.032 0.0 1.0 0.0  
**standard and adapted CIELAB**  
LAB\*LAB 90.45 -4.92 121.77  
LAB\*LABa 90.45 -4.93 121.77  
LAB\*TCHa 50.0 121.87 92.32  
**relative CIELAB lab\***  
lab\*lab 0.941 -0.04 0.999  
lab\*tch 0.5 1.0 0.256  
lab\*nch 0.0 1.0 0.256  
**relative Natural Colour (NC)**  
lab\*lrj 0.941 0.0 1.0  
lab\*tce 0.5 1.0 0.25  
lab\*nce 0.0 1.0 r99j

**relative Inform. Technology (IT)**  
olvi3\* 0.5 0.5 0.5 (1.0)  
cmyn3\* 0.5 0.5 0.5 (0.0)  
olvi4\* 1.0 1.0 1.0 0.5  
cmyn4\* 0.0 0.0 0.0 0.5  
**standard and adapted CIELAB**  
LAB\*LAB 53.21 0.04 0.0  
LAB\*LABa 53.21 0.0 0.0  
LAB\*TCHa 50.0 0.01 -  
**relative CIELAB lab\***  
lab\*lab 0.5 0.0 0.0  
lab\*tch 0.5 0.0 -  
lab\*nch 0.5 0.0 -  
**relative Natural Colour (NC)**  
lab\*lrj 0.5 0.0 0.0  
lab\*tce 0.5 0.0 -  
lab\*nce 0.5 0.0 -

**relative Inform. Technology (IT)**  
olvi3\* 0.484 0.5 0.0 (1.0)  
cmyn3\* 0.516 0.5 1.0 (0.0)  
olvi4\* 0.984 1.0 0.5 0.5  
cmyn4\* 0.016 0.0 0.5 0.5  
**standard and adapted CIELAB**  
LAB\*LAB 50.72 -2.42 60.89  
LAB\*LABa 50.72 -2.47 60.88  
LAB\*TCHa 25.01 60.93 92.33  
**relative CIELAB lab\***  
lab\*lab 0.471 -0.019 0.499  
lab\*tch 0.25 0.5 0.256  
lab\*nch 0.5 0.5 0.256  
**relative Natural Colour (NC)**  
lab\*lrj 0.471 0.0 0.5  
lab\*tce 0.25 0.5 0.25  
lab\*nce 0.5 0.5 r00g

**relative Inform. Technology (IT)**  
olvi3\* 0.471 0.5 0.0 (1.0)  
cmyn3\* 0.25 0.5 1.0 (0.0)  
olvi4\* 0.984 1.0 0.5 0.5  
cmyn4\* 0.016 0.0 0.5 0.5  
**standard and adapted CIELAB**  
LAB\*LAB 50.72 -2.42 60.89  
LAB\*LABa 50.72 -2.47 60.88  
LAB\*TCHa 25.01 60.93 92.33  
**relative CIELAB lab\***  
lab\*lab 0.471 -0.019 0.499  
lab\*tch 0.25 0.5 0.256  
lab\*nch 0.5 0.5 0.256  
**relative Natural Colour (NC)**  
lab\*lrj 0.471 0.0 0.5  
lab\*tce 0.25 0.5 0.25  
lab\*nce 0.5 0.5 r00g

**relative Inform. Technology (IT)**  
olvi3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 1.0 (0.0)  
olvi4\* 1.0 1.0 1.0 0.0  
cmyn4\* 0.0 0.0 0.0 1.0  
**standard and adapted CIELAB**  
LAB\*LAB 11.01 0.07 0.01  
LAB\*LABa 11.01 0.0 0.0  
LAB\*TCHa 0.01 0.01 -  
**relative CIELAB lab\***  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 -  
lab\*nch 1.0 0.0 -  
**relative Natural Colour (NC)**  
lab\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

**relative Inform. Technology (IT)**  
olvi3\* 0.471 0.5 0.0 (1.0)  
cmyn3\* 0.25 0.5 1.0 (0.0)  
olvi4\* 0.984 1.0 0.5 0.5  
cmyn4\* 0.016 0.0 0.5 0.5  
**standard and adapted CIELAB**  
LAB\*LAB 50.72 -2.42 60.89  
LAB\*LABa 50.72 -2.47 60.88  
LAB\*TCHa 25.01 60.93 92.33  
**relative CIELAB lab\***  
lab\*lab 0.471 -0.019 0.499  
lab\*tch 0.25 0.5 0.256  
lab\*nch 0.5 0.5 0.256  
**relative Natural Colour (NC)**  
lab\*lrj 0.471 0.0 0.5  
lab\*tce 0.25 0.5 0.25  
lab\*nce 0.5 0.5 r00g

**relative Inform. Technology (IT)**  
olvi3\* 0.471 0.5 0.0 (1.0)  
cmyn3\* 0.25 0.5 1.0 (0.0)  
olvi4\* 0.984 1.0 0.5 0.5  
cmyn4\* 0.016 0.0 0.5 0.5  
**standard and adapted CIELAB**  
LAB\*LAB 50.72 -2.42 60.89  
LAB\*LABa 50.72 -2.47 60.88  
LAB\*TCHa 25.01 60.93 92.33  
**relative CIELAB lab\***  
lab\*lab 0.471 -0.019 0.499  
lab\*tch 0.25 0.5 0.256  
lab\*nch 0.5 0.5 0.256  
**relative Natural Colour (NC)**  
lab\*lrj 0.471 0.0 0.5  
lab\*tce 0.25 0.5 0.25  
lab\*nce 0.5 0.5 r00g

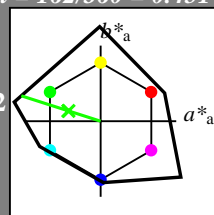


### Eingabe: Farbmétrisches Reflexions-System NCS11

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

D65: Buntton G  
LCH\*Ma: 65 110 162  
olv\*Ma: 0.08 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

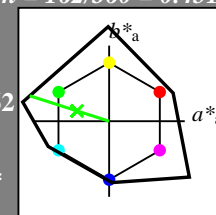
NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

D65: Buntton G  
LCH\*Ma: 65 110 162  
olv\*Ma: 0.08 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

relative Inform. Technology (IT)  
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 95.41 \ 0.0 \ -0.01$   
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 99.99 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 1.0 \ 0.0 \ 0.0$   
 $lab^*tch = 1.0 \ 0.0 \ -$   
 $lab^*nch = 0.0 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$   
 $lab^*tce = 1.0 \ 0.0 \ -$   
 $lab^*nce = 0.0 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.5 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.5$   
standard and adapted CIELAB  
 $LAB^*LAB = 53.21 \ 0.04 \ 0.0$   
 $LAB^*LABa = 53.21 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.5 \ 0.0 \ 0.0$   
 $lab^*tch = 0.5 \ 0.0 \ -$   
 $lab^*nch = 0.5 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.5 \ 0.0 \ 0.0$   
 $lab^*tce = 0.5 \ 0.0 \ -$   
 $lab^*nce = 0.5 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 1.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 11.01 \ 0.07 \ 0.01$   
 $LAB^*LABa = 11.01 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 0.01 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.0 \ 0.0 \ 0.0$   
 $lab^*tch = 0.0 \ 0.0 \ -$   
 $lab^*nch = 1.0 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.0 \ 0.0 \ 0.0$   
 $lab^*tce = 0.0 \ 0.0 \ -$   
 $lab^*nce = 1.0 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.541 \ 1.0 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.459 \ 0.0 \ 0.5 \ (0.0)$   
 $olvi4^* = 0.541 \ 1.0 \ 0.5 \ 1.0$   
 $cmyn4^* = 0.459 \ 0.0 \ 0.5 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 80.4 \ -52.43 \ 16.79$   
 $LAB^*LABa = 80.4 \ -52.45 \ 16.79$   
 $LAB^*TCHa = 75.0 \ 55.08 \ 162.25$

relative CIELAB lab\*  
 $lab^*lab = 0.822 \ -0.475 \ 0.152$   
 $lab^*tch = 0.75 \ 0.5 \ 0.451$   
 $lab^*nch = 0.0 \ 0.5 \ 0.451$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.822 \ -0.499 \ 0.0$   
 $lab^*tce = 0.75 \ 0.5 \ 0.5$   
 $lab^*nce = 0.0 \ 0.5 \ g00b$

relative Inform. Technology (IT)  
 $olvi3^* = 0.041 \ 0.5 \ 0.0 \ (1.0)$   
 $cmyn3^* = 0.959 \ 0.5 \ 1.0 \ (0.0)$   
 $olvi4^* = 0.541 \ 1.0 \ 0.5 \ 0.5$   
 $cmyn4^* = 0.459 \ 0.0 \ 0.5 \ 0.5$   
standard and adapted CIELAB  
 $LAB^*LAB = 38.2 \ -52.41 \ 16.8$   
 $LAB^*LABa = 38.2 \ -52.46 \ 16.78$   
 $LAB^*TCHa = 25.01 \ 55.09 \ 162.27$

relative CIELAB lab\*  
 $lab^*lab = 0.322 \ -0.475 \ 0.152$   
 $lab^*tch = 0.25 \ 0.5 \ 0.451$   
 $lab^*nch = 0.5 \ 0.5 \ 0.451$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.322 \ -0.499 \ 0.0$   
 $lab^*tce = 0.25 \ 0.5 \ 0.5$   
 $lab^*nce = 0.5 \ 0.5 \ g00b$

relative Inform. Technology (IT)  
 $olvi3^* = 0.083 \ 1.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 0.917 \ 0.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 0.083 \ 1.0 \ 0.0 \ 1.0$   
 $cmyn4^* = 0.917 \ 0.0 \ 1.0 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 65.41 \ -104.893 \ 58$   
 $LAB^*LABa = 65.41 \ -104.923 \ 57$   
 $LAB^*TCHa = 50.0 \ 110.17 \ 162.26$

relative CIELAB lab\*  
 $lab^*lab = 0.645 \ -0.951 \ 0.305$   
 $lab^*tch = 0.5 \ 1.0 \ 0.451$   
 $lab^*nch = 0.0 \ 1.0 \ 0.451$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.645 \ -0.999 \ 0.0$   
 $lab^*tce = 0.5 \ 1.0 \ 0.5$   
 $lab^*nce = 0.0 \ 1.0 \ g00b$

Siehe ähnliche Dateien: <http://www.ps.bam.de/TG09/>  
Technische Information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM-Registrierung: 20060101-TG09/10L/L09G08NP.PS/.PDF BAM-Material: Code=rh4ta  
Anwendung für Beurteilung und Messung von Drucker- oder Monitorsystemen  
/TG09/ Form 9/10, Serie: 1/1, Seite: 9  
Seite 9

TG090-7, 3 stufige Reihen für konstanten CIELAB Buntton 162/360 = 0.451 (links)

3 stufige Reihen für konstanten CIELAB Buntton 162/360 = 0.451 (rechts)

BAM-Prüfvorlage TG09; Farbmétrik-Systeme NCS11a & NCS11aput: olv\* setrgbcolor

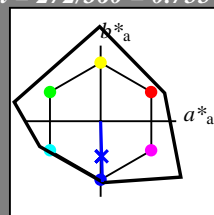
D65: 3stufige Farbreihen und Koordinaten-Daten für 10 Bunttöneoutput: no change compared to input

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

D65: Buntton B  
LCH\*Ma: 49 80 272  
olv\*Ma: 0.0 0.02 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

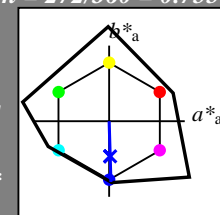
NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

D65: Buntton B  
LCH\*Ma: 49 80 272  
olv\*Ma: 0.0 0.02 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang  
 $u^*_{rel} = 149$   
%Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

NCS11; adaptierte CIELAB-Daten					
	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

relative Inform. Technology (IT)  
 $olvi3^* = 1.0 \ 1.0 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.0 \ 0.0 \ 0.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 95.41 \ 0.0 \ -0.01$   
 $LAB^*LABa = 95.41 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 99.99 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 1.0 \ 0.0 \ 0.0$   
 $lab^*tch = 1.0 \ 0.0 \ -$   
 $lab^*nch = 0.0 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 1.0 \ 0.0 \ 0.0$   
 $lab^*tce = 1.0 \ 0.0 \ -$   
 $lab^*nce = 0.0 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.5 \ 0.5 \ 0.5 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.5 \ 0.5 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 0.5$   
standard and adapted CIELAB  
 $LAB^*LAB = 53.21 \ 0.04 \ 0.0$   
 $LAB^*LABa = 53.21 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 50.0 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.5 \ 0.0 \ 0.0$   
 $lab^*tch = 0.5 \ 0.0 \ -$   
 $lab^*nch = 0.5 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.5 \ 0.0 \ 0.0$   
 $lab^*tce = 0.5 \ 0.0 \ -$   
 $lab^*nce = 0.5 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.0 \ 0.0 \ 0.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 1.0 \ 1.0 \ (0.0)$   
 $olvi4^* = 1.0 \ 1.0 \ 1.0 \ 0.0$   
 $cmyn4^* = 0.0 \ 0.0 \ 0.0 \ 1.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 11.01 \ 0.07 \ 0.01$   
 $LAB^*LABa = 11.01 \ 0.0 \ 0.0$   
 $LAB^*TCHa = 0.01 \ 0.01 \ -$

relative CIELAB lab\*  
 $lab^*lab = 0.0 \ 0.0 \ 0.0$   
 $lab^*tch = 0.0 \ 0.0 \ -$   
 $lab^*nch = 1.0 \ 0.0 \ -$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.0 \ 0.0 \ 0.0$   
 $lab^*tce = 0.0 \ 0.0 \ -$   
 $lab^*nce = 1.0 \ 0.0 \ -$

relative Inform. Technology (IT)  
 $olvi3^* = 0.5 \ 0.508 \ 1.0 \ (1.0)$   
 $cmyn3^* = 0.5 \ 0.492 \ 0.0 \ (0.0)$   
 $olvi4^* = 0.5 \ 0.508 \ 1.0 \ 1.0$   
 $cmyn4^* = 0.5 \ 0.492 \ 0.0 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 72.29 \ 1.2 \ -40.21$   
 $LAB^*LABa = 72.29 \ 1.17 \ -40.21$   
 $LAB^*TCHa = 75.0 \ 40.24 \ 271.66$

relative CIELAB lab\*  
 $lab^*lab = 0.726 \ 0.014 \ -0.499$   
 $lab^*tch = 0.75 \ 0.5 \ 0.755$   
 $lab^*nch = 0.0 \ 0.5 \ 0.755$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.726 \ 0.0 \ -0.499$   
 $lab^*tce = 0.75 \ 0.5 \ 0.75$   
 $lab^*nce = 0.0 \ 0.5 \ g99b$

relative Inform. Technology (IT)  
 $olvi3^* = 0.0 \ 0.008 \ 0.5 \ (1.0)$   
 $cmyn3^* = 1.0 \ 0.992 \ 0.5 \ (0.0)$   
 $olvi4^* = 0.5 \ 0.508 \ 1.0 \ 0.5$   
 $cmyn4^* = 0.5 \ 0.492 \ 0.0 \ 0.5$   
standard and adapted CIELAB  
 $LAB^*LAB = 30.09 \ 1.24 \ -40.2$   
 $LAB^*LABa = 30.09 \ 1.18 \ -40.21$   
 $LAB^*TCHa = 25.01 \ 40.24 \ 271.67$

relative CIELAB lab\*  
 $lab^*lab = 0.226 \ 0.015 \ -0.499$   
 $lab^*tch = 0.25 \ 0.5 \ 0.755$   
 $lab^*nch = 0.5 \ 0.5 \ 0.755$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.226 \ 0.0 \ -0.499$   
 $lab^*tce = 0.25 \ 0.5 \ 0.75$   
 $lab^*nce = 0.5 \ 0.5 \ b00r$

relative Inform. Technology (IT)  
 $olvi3^* = 0.0 \ 0.016 \ 1.0 \ (1.0)$   
 $cmyn3^* = 1.0 \ 0.984 \ 0.0 \ (0.0)$   
 $olvi4^* = 0.0 \ 0.016 \ 1.0 \ 1.0$   
 $cmyn4^* = 1.0 \ 0.984 \ 0.0 \ 0.0$   
standard and adapted CIELAB  
 $LAB^*LAB = 49.18 \ 2.39 \ -80.42$   
 $LAB^*LABa = 49.18 \ 2.34 \ -80.43$   
 $LAB^*TCHa = 50.0 \ 80.48 \ 271.67$

relative CIELAB lab\*  
 $lab^*lab = 0.452 \ 0.029 \ -0.998$   
 $lab^*tch = 0.5 \ 1.0 \ 0.755$   
 $lab^*nch = 0.0 \ 1.0 \ 0.755$   
relative Natural Colour (NC)  
 $lab^*lrj = 0.452 \ 0.0 \ -0.999$   
 $lab^*tce = 0.5 \ 1.0 \ 0.75$   
 $lab^*nce = 0.0 \ 1.0 \ b00r$

Siehe ähnliche Dateien: <http://www.ps.bam.de/TG09/>  
Technische Information: <http://www.ps.bam.de> Version 2.1, io=1,1

BAM-Registrierung: 20060101-TG09/10L/L09G09NP.PS/.PDF BAM-Material: Code=rh4ta  
Anwendung für Beurteilung und Messung von Drucker- oder Monitorsystemen  
/TG09/ Form: 10/10 Serie: 1/1, Seite: 10  
Seite 10

TG090-7, 3 stufige Reihen für konstanten CIELAB Buntton 272/360 = 0.755 (links)

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

BAM-Prüfvorlage TG09; Farbmétrik-Systeme NCS11a & NCS11aput:  $olv^* setrgbcolor$

D65: 3stufige Farbreihen und Koordinaten-Daten für 10 Bunttöneoutput: no change compared to input