

Eingabe: Farbmétrisches Reflexions-System NCS11

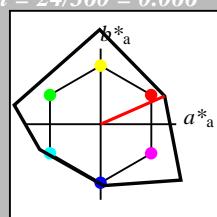
für Bunton $h^* = lab^*h = 24/360 = 0.066$
 lab^*tch und lab^*nch

D65: Bunton R

LCH*Ma: 47 92 24

olv*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

relative Inform. Technology (IT)

$olvi3^* 1.0 1.0 1.0 (1.0)$

$cmy3^* 0.0 0.0 0.0 (0.0)$

$olvi4^* 1.0 1.0 1.0 1.0$

$cmy4^* 0.0 0.0 0.0 0.0$

standard and adapted CIELAB

$LAB^*LAB 95.41 0.0 -0.01$

$LAB^*LABa 95.41 0.0 0.0$

$LAB^*TCh 99.99 0.01 -$

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)

$lab^*lrij 1.0 0.0 0.0$

$lab^*ice 1.0 0.0 -$

$lab^*nCE 0.0 0.0 -$

relative Inform. Technology (IT)

$olvi3^* 0.5 0.5 0.5 (1.0)$

$cmy3^* 0.5 0.5 0.5 (0.0)$

$olvi4^* 1.0 1.0 1.0 0.5$

$cmy4^* 0.0 0.0 0.0 0.5$

standard and adapted CIELAB

$LAB^*LAB 53.21 0.04 0.0$

$LAB^*LABa 53.21 0.0 0.0$

$LAB^*TCh 50.0 0.01 -$

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)

$lab^*lrij 0.5 0.0 0.0$

$lab^*ice 0.5 0.0 -$

$lab^*nCE 0.5 0.0 -$

relative Inform. Technology (IT)

$olvi3^* 0.0 0.0 0.0 (1.0)$

$cmy3^* 1.0 1.0 1.0 (0.0)$

$olvi4^* 1.0 1.0 1.0 0.0$

$cmy4^* 0.0 0.0 0.0 1.0$

standard and adapted CIELAB

$LAB^*LAB 11.01 0.07 0.01$

$LAB^*LABa 11.01 0.0 0.0$

$LAB^*TCh 0.01 0.01 -$

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)

$lab^*lrij 0.0 0.0 0.0$

$lab^*ice 0.0 0.0 -$

$lab^*nCE 1.0 0.0 -$

$n^* = 1,0$

$n^* = 0,50$

$n^* = 0,00$

relative Buntheit c^*

Schwarzheit n^*

Ausgabe: Farbmétrisches Reflexions-System NCS11

für Bunton $h^* = lab^*h = 24/360 = 0.066$

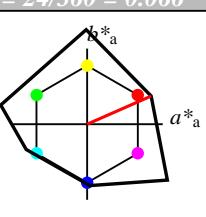
lab^*tch und lab^*nch

D65: Bunton R

LCH*Ma: 47 92 24

olv*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 149$

%Regularität

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relative Inform. Technology (IT)

$olvi3^* 1.0 1.0 1.0 (1.0)$

$cmy3^* 0.0 0.0 0.0 (0.0)$

$olvi4^* 1.0 1.0 1.0 1.0$

$cmy4^* 0.0 0.0 0.0 0.0$

standard and adapted CIELAB

$LAB^*LAB 95.41 0.0 -0.01$

$LAB^*LABa 95.41 0.0 0.0$

$LAB^*TCh 99.99 0.01 -$

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)

$lab^*lrij 1.0 0.0 0.0$

$lab^*ice 1.0 0.0 -$

$lab^*nCE 0.0 0.0 -$

relative Inform. Technology (IT)

$olvi3^* 0.5 0.5 0.5 (1.0)$

$cmy3^* 0.5 0.5 0.5 (0.0)$

$olvi4^* 1.0 1.0 1.0 0.5$

$cmy4^* 0.0 0.0 0.0 0.5$

standard and adapted CIELAB

$LAB^*LAB 47.15 84.68 37.26$

$LAB^*LABa 47.15 84.63 37.24$

$LAB^*TCh 50.0 0.01 -$

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)

$lab^*lrij 0.428 1.0 -0.023$

$lab^*ice 0.5 1.0 0.996$

$lab^*nCE 0.0 1.0 b98r$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit c^*

Schwarzheit n^*

NCS11; adaptierte CIELAB-Daten

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

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)

$olvi3^* 1.0 1.0 1.0 (1.0)$

$cmy3^* 0.0 0.0 0.0 (0.0)$

$olvi4^* 1.0 1.0 1.0 1.0$

$cmy4^* 0.0 0.0 0.0 0.0$

standard and adapted CIELAB

$LAB^*LAB 95.41 0.0 -0.01$

$LAB^*LABa 95.41 0.0 0.0$

$LAB^*TCh 99.99 0.01 -$

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)

$lab^*lrij 1.0 0.0 0.0$

$lab^*ice 1.0 0.0 -$

$lab^*nCE 0.0 0.0 -$

relative Inform. Technology (IT)

$olvi3^* 0.5 0.5 0.5 (1.0)$

$cmy3^* 0.5 0.5 0.5 (0.0)$

$olvi4^* 1.0 1.0 1.0 0.5$

$cmy4^* 0.0 0.0 0.0 0.5$

standard and adapted CIELAB

$LAB^*LAB 47.15 84.68 37.26$

$LAB^*LABa 47.15 84.63 37.24$

$LAB^*TCh 50.0 0.01 -$

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)

$lab^*lrij 0.428 1.0 -0.023$

$lab^*ice 0.5 1.0 0.996$

$lab^*nCE 0.0 1.0 b98r$

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit c^*

Schwarzheit n^*

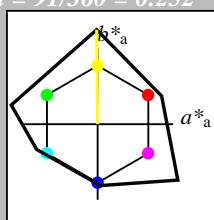
$n^* = 1,0$

UG190-7, 3 stufige Reihen für konstanten CIELAB Bunton 24/360 = 0.066 (links)

3 stufige Reihen für konstanten CIELAB Bunton 24/360 = 0.066 (rechts)

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11b Input: $cmy0^* setcmykcolor$
 D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne Output: $olv^* setrgbcolor / w^* setgray$

Eingabe: Farbmétrisches Reflexions-System NCS11
 für Bunton $h^* = lab^*h = 91/360 = 0.252$
 lab^*tch und lab^*nch



D65: Bunton J

LCH*Ma: 91 125 91

olv*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv3* 1.0 1.0 1.0 (1.0)

cmy3* 0.0 0.0 0.0 (0.0)

olv4* 1.0 1.0 1.0 1.0

cmy4* 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)

olv3* 0.5 0.5 0.5 (1.0)

cmy3* 0.5 0.5 0.5 (0.0)

olv4* 1.0 1.0 1.0 0.5

cmy4* 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)

olv3* 0.0 0.0 0.0 (1.0)

cmy3* 1.0 1.0 1.0 (0.0)

olv4* 1.0 1.0 1.0 0.0

cmy4* 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 -

$n^* = 1,0$

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)

olv3* 1.0 1.0 1.0 (1.0)

cmy3* 0.0 0.0 0.0 (0.0)

olv4* 1.0 1.0 1.0 1.0

cmy4* 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)

olv3* 0.5 0.5 0.5 (1.0)

cmy3* 0.5 0.5 0.5 (0.0)

olv4* 1.0 1.0 1.0 0.5

cmy4* 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 -

$n^* = 0,00$

Schwarzheit n^*

$n^* = 0,50$

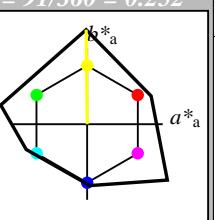
$n^* = 1,00$

relative Buntheit c^*

Ausgabe: Farbmétrisches Reflexions-System NCS11

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

lab^*tch und lab^*nch



D65: Bunton J

LCH*Ma: 91 125 91

olv*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv3* 1.0 1.0 1.0 (1.0)

cmy3* 0.0 0.0 0.0 (0.0)

olv4* 1.0 1.0 1.0 1.0

cmy4* 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)

olv3* 0.5 0.5 0.5 (1.0)

cmy3* 0.5 0.5 0.5 (0.0)

olv4* 1.0 1.0 1.0 0.5

cmy4* 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 -

$n^* = 1,00$

Schwarzheit n^*

NCS11; adaptierte CIELAB-Daten

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



D65: Bunton J

LCH*Ma: 91 125 91

olv*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv3* 1.0 1.0 1.0 (1.0)

cmy3* 0.0 0.0 0.0 (0.0)

olv4* 1.0 1.0 1.0 1.0

cmy4* 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)

olv3* 0.5 0.5 0.5 (1.0)

cmy3* 0.5 0.5 0.5 (0.0)

olv4* 1.0 1.0 1.0 0.5

cmy4* 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 -

$n^* = 1,00$

Schwarzheit n^*

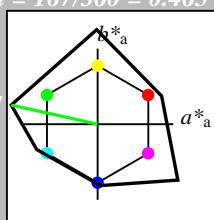
UG190-7, 3 stufige Reihen für konstanten CIELAB Bunton 91/360 = 0.252 (links)

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11 input: cmy0* setcmykcolor
 D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne output: olv* setrgbcolor / w* setgray

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

UG19 Form: 2/10, Serie: 1/1, Seite: 2 Seitenanzahl: 2

Eingabe: Farbmétrisches Reflexions-System NCS11
 für Bunton $h^* = lab^*h = 167/360 = 0.465$
 lab^*tch und lab^*nch



D65: Bunton G

LCH*Ma: 63 117 167

olv*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

$olv^3* 1.0 1.0 1.0 (1.0)$
 $cmy3* 0.0 0.0 0.0 (0.0)$

$olv^4* 1.0 1.0 1.0 1.0$
 $cmy4* 0.0 0.0 0.0 0.0$

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)

$lab^*lrij 1.0 0.0 0.0$
 $lab^*ice 1.0 0.0 -$

$lab^*nCE 0.0 0.0 -$

relative Inform. Technology (IT)

$olv^3* 0.5 0.5 0.5 (1.0)$
 $cmy3* 0.5 0.5 0.5 (0.0)$

$olv^4* 1.0 1.0 1.0 0.5$
 $cmy4* 0.0 0.0 0.0 0.5$

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)

$lab^*lrij 0.5 0.0 0.0$
 $lab^*ice 0.5 0.0 -$

$lab^*nCE 0.5 0.0 -$

relative Inform. Technology (IT)

$olv^3* 0.0 0.0 0.0 (1.0)$
 $cmy3* 1.0 1.0 1.0 (0.0)$

$olv^4* 1.0 1.0 1.0 0.0$
 $cmy4* 0.0 0.0 0.0 1.0$

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)

$lab^*lrij 0.0 0.0 0.0$
 $lab^*ice 0.0 0.0 -$

$lab^*nCE 1.0 0.0 -$

$n^* = 1,0$

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
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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

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für Bunton $h^* = lab^*h = 167/360 = 0.465$

lab^*tch und lab^*nch

D65: Bunton G

LCH*Ma: 63 117 167

olv*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

$olv^3* 1.0 1.0 1.0 (1.0)$
 $cmy3* 0.0 0.0 0.0 (0.0)$

$olv^4* 1.0 1.0 1.0 1.0$
 $cmy4* 0.0 0.0 0.0 0.0$

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)

$lab^*lrij 1.0 0.0 0.0$
 $lab^*ice 1.0 0.0 -$

$lab^*nCE 0.0 0.0 -$

relative Inform. Technology (IT)

$olv^3* 0.5 0.5 0.5 (1.0)$
 $cmy3* 0.5 0.5 0.5 (0.0)$

$olv^4* 0.0 1.0 1.0 0.5$
 $cmy4* 0.0 0.0 0.0 0.5$

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*

$lab^*lab 0.617 -0.975 0.216$
 $lab^*tch 0.5 1.0 0.465$

$lab^*nch 0.0 1.0 0.465$

relative Natural Colour (NC)

$lab^*lrij 0.617 -0.996 -0.074$
 $lab^*ice 0.5 1.0 0.512$

$lab^*nCE 0.0 1.0 g04b$

relative Inform. Technology (IT)

$olv^3* 0.0 0.0 0.0 (1.0)$
 $cmy3* 1.0 1.0 1.0 (0.0)$

$olv^4* 1.0 1.0 1.0 0.0$
 $cmy4* 0.0 0.0 0.0 1.0$

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)

$lab^*lrij 0.0 0.0 0.0$
 $lab^*ice 0.0 0.0 -$

$lab^*nCE 1.0 0.0 -$

$n^* = 0,00$

Schwarzheit n^*

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit c^*

$n^* = 1,0$

UG190-7, 3 stufige Reihen für konstanten CIELAB Bunton 167/360 = 0.465 (links)

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11b Input: cmy0* setcmykcolor
 D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne Output: olv* setrgbcolor / w* setgray

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

Eingabe: Farbmatisches Reflexions-System NCS11

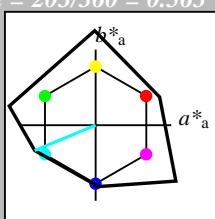
für Bunnton $h^* = lab^*h = 203/360 = 0.563$
 lab^*tch und lab^*nch

D65: Bunnton G50B

LCH*Ma: 59 87 203

olv*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 -0.01
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)
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 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)
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 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 -

$n^* = 1,0$

NCS11; adaptierte CIELAB-Daten

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

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: Farbmatisches Reflexions-System NCS11

für Bunnton $h^* = lab^*h = 203/360 = 0.563$

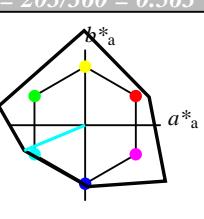
lab*tch und lab*nch

D65: Bunnton G50B

LCH*Ma: 59 87 203

olv*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 -0.01
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)
olv3* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)
olv4* 0.0 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 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

relative Inform. Technology (IT)
olv3* 0.0 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 59.47 -80.55 -33.44
LAB*LABa 59.47 -80.59 -33.44
LAB*TChA 50.0 0.01 -

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^*

NCS11; adaptierte CIELAB-Daten

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

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)
olv3* 0.0 0.5 0.5 (1.0)
cmyn3* 1.0 0.5 0.5 (0.0)
olv4* 0.5 1.0 1.0 1.0
cmyn4* 0.0 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 -0.418 -0.272
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)
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 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 0.574 -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

$n^* = 0,50$

Schwarzheit n^*

NCS11; adaptierte CIELAB-Daten

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

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)
olv3* 0.5 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 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 -0.418 -0.272
lab*tch 0.75 0.5 0.563
lab*nch 0.0 0.5 0.563

relative Natural Colour (NC)

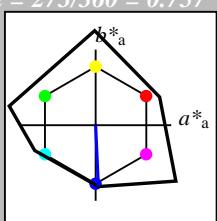
lab*lrj 0.787 -0.418 -0.272
lab*tce 0.75 0.5 0.592
lab*ncE 0.0 0.5 g36b

$n^* = 1,0$

Schwarzheit n^*

Eingabe: Farbmétrisches Reflexions-System NCS11

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



D65: Bunton B

LCH*Ma: 49 81 273

olv*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

$olv3^*$ 1.0 1.0 1.0 (1.0)
 $cmy3^*$ 0.0 0.0 0.0 (0.0)

$olv4^*$ 1.0 1.0 1.0 1.0
 $cmy4^*$ 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^*lrij 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)
 $cmy3^*$ 0.5 0.5 0.5 (0.0)

$olv4^*$ 1.0 1.0 1.0 0.5
 $cmy4^*$ 0.0 0.0 0.0 0.5

standard and adapted CIELAB

LAB^*LAB 72.21 1.85 -40.58

LAB^*LABa 72.21 1.82 -40.58

LAB^*TChA 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^*lrij 0.725 0.006 -0.499

lab^*tce 0.75 0.5 0.752

lab^*nCE 0.0 0.5 b00r

relative Inform. Technology (IT)

$olv3^*$ 0.0 0.0 0.5 (1.0)
 $cmy3^*$ 1.0 1.0 0.5 (0.0)

$olv4^*$ 0.5 0.5 1.0 0.5
 $cmy4^*$ 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^*TChA 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^*lrij 0.225 0.006 -0.499

lab^*tce 0.25 0.5 0.752

lab^*nCE 0.5 0.5 b00r

$n^* = 1,0$

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

%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

relative Inform. Technology (IT)

$olv3^*$ 1.0 1.0 1.0 (1.0)
 $cmy3^*$ 0.0 0.0 0.0 (0.0)

$olv4^*$ 1.0 1.0 1.0 1.0
 $cmy4^*$ 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^*lrij 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)
 $cmy3^*$ 0.5 0.5 0.5 (0.0)

$olv4^*$ 1.0 1.0 1.0 0.5
 $cmy4^*$ 0.0 0.0 0.0 0.5

standard and adapted CIELAB

LAB^*LAB 72.21 1.85 -40.58

LAB^*LABa 72.21 1.82 -40.58

LAB^*TChA 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^*lrij 0.725 0.006 -0.499

lab^*tce 0.75 0.5 0.752

lab^*nCE 0.0 0.5 b00r

relative Inform. Technology (IT)

$olv3^*$ 0.0 0.0 0.5 (1.0)
 $cmy3^*$ 1.0 1.0 0.5 (0.0)

$olv4^*$ 0.5 0.5 1.0 0.5
 $cmy4^*$ 0.5 0.5 0.0 0.5

standard and adapted CIELAB

LAB^*LAB 49.02 3.7 -81.16

LAB^*LABa 49.02 3.65 -81.18

LAB^*TChA 50.0 81.27 272.57

relative CIELAB lab^*

lab^*lab 0.45 0.045 -0.998

lab^*tch 0.5 0.5 0.757

lab^*nch 0.0 1.0 0.757

relative Natural Colour (NC)

lab^*lrij 0.45 0.013 -0.999

lab^*tce 0.5 1.0 0.752

lab^*nCE 0.0 1.0 b00r

relative Inform. Technology (IT)

$olv3^*$ 0.0 0.0 0.5 (1.0)
 $cmy3^*$ 1.0 1.0 0.5 (0.0)

$olv4^*$ 0.5 0.5 1.0 0.5
 $cmy4^*$ 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^*TChA 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^*lrij 0.225 0.006 -0.499

lab^*tce 0.25 0.5 0.752

lab^*nCE 0.5 0.5 b00r

relative Inform. Technology (IT)

$olv3^*$ 0.0 0.0 0.5 (1.0)
 $cmy3^*$ 1.0 1.0 0.5 (0.0)

$olv4^*$ 0.5 0.5 1.0 0.5
 $cmy4^*$ 0.5 0.5 0.0 0.5

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 0.225 0.022 -0.498

lab^*tch 0.25 0.5 0.757

lab^*nch 1.0 0.0 -

relative Natural Colour (NC)

lab^*lrij 0.0 0.0 0.0

lab^*tce 0.0 0.0 -

lab^*nCE 1.0 0.0 -

$n^* = 0,50$

$n^* = 0,50$ $n^* = 0,50$

$n^* = 1,00$ $n^* = 1,00$

$n^* = 0,25$ $n^* = 0,75$

$n^* = 0,25$ $n^* = 0,75$

$n^* = 1,0$

$n^* = 0,25$ $n^* = 0,75$

$n^* = 0,25$ $n^* = 0,75$

UG190-7, 3 stufige Reihen für konstanten CIELAB Bunnton 273/360 = 0.757 (links)

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

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11b Input: $cmy0^* setcmykcolor$

D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne Output: $olv^* setrgbcolor / w^* setgray$

Eingabe: Farbmatisches Reflexions-System NCS11

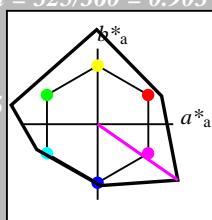
für Bunnton $h^* = lab^*h = 325/360 = 0.903$
 lab^*tch und lab^*nch

D65: Bunnton B50R

LCH*Ma: 44 129 325

olv*Ma: 1.0 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 -0.01

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)

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

olv4* 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)

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 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)

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 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 -

$n^* = 1,0$

Eingabe: Farbmatisches Reflexions-System NCS11

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

lab*tch und lab*nch

D65: Bunnton B50R

LCH*Ma: 44 129 325

olv*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit t^*

%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

Ausgabe: Farbmatisches Reflexions-System NCS11

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

lab*tch und lab*nch

D65: Bunnton 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

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

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

NCS11; adaptierte CIELAB-Daten

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

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

$n^* = 0,00$

Schwarzheit n^*

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit c^*

$n^* = 1,0$

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit c^*

$n^* = 0,00$

Schwarzheit n^*

$n^* = 1,0$

UG190-7, 3 stufige Reihen für konstanten CIELAB Bunnton 325/360 = 0.903 (links)

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

BAM-Prüfvorlage UG19; Farbmatrik-Systeme NCS11a & NCS11b
 Input: cmy0* setcmykcolor
 D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne
 Output: olv* setrgbcolor / w* setgray

BAM-Prüfvorlage UG19; Farbmatrik-Systeme NCS11a & NCS11b
 Input: cmy0* setcmykcolor
 D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne
 Output: olv* setrgbcolor / w* setgray

Eingabe: Farbmatisches Reflexions-System NCS11

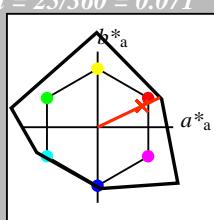
für Bunnton $h^* = lab^*h = 25/360 = 0.071$
 lab^*tch und lab^*nch

D65: Bunnton R

LCH*Ma: 48 91 25

olv*Ma: 1.0 0.02 0.0

Dreiecks-Helligkeit t^*



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 -

$n^* = 1,0$

NCS11; adaptierte CIELAB-Daten

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

	RMa	JMa	GMa	G50BMa	BMa	B50RMa	NMa	WMa	RCIE	JCIE	GCIE	BCIE
L^*	47.15	84.64	37.25	92.48	24							
a^*		-1.27	125.03	125.03	91							
b^*		-114.28	25.35	117.06	167							
$C^*_{ab,a}$			-80.6	-33.45	87.28	203						
$h^*_{ab,a}$												

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 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* 0.0 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 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 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 0.75 1.0 1.0

lab*ncE 0.0 1.0 b99r

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 0.22 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 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 0.441 0.903 0.43

lab*tch 0.75 0.5 0.071

lab*nch 0.0 1.0 0.071

relative Natural Colour (NC)

lab*lrj 0.441 1.0 0.0

lab*tce 0.75 1.0 1.0

lab*ncE 0.5 0.5 b99r

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 0.441 0.903 0.43

lab*tch 0.75 0.5 0.071

lab*nch 0.0 1.0 0.071

relative Natural Colour (NC)

lab*lrj 0.441 1.0 0.0

lab*tce 0.75 1.0 1.0

lab*ncE 0.5 0.5 b99r

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 0.22 0.451 0.215

lab*tch 0.25 0.5 0.071

lab*nch 1.0 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.22 0.5 0.0

lab*tce 0.25 0.5 1.0

lab*ncE 1.0 0.0 0.0

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 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 0.22 0.451 0.215

lab*tch 0.25 0.5 0.071

lab*nch 1.0 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.22 0.5 0.0

lab*tce 0.25 0.5 1.0

lab*ncE 1.0 0.0 0.0

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 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 0.22 0.451 0.215

lab*tch 0.25 0.5 0.071

lab*nch 1.0 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.22 0.5 0.0

lab*tce 0.25 0.5 1.0

lab*ncE 1.0 0.0 0.0

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 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 0.22 0.451 0.215

lab*tch 0.25 0.5 0.071

lab*nch 1.0 0.0 0.0

relative Natural Colour (NC)

lab*lrj 0.22 0.5 0.0

lab*tce 0.25 0.5 1.0

lab*ncE 1.0 0.0 0.0

relative

Eingabe: Farbmétrisches Reflexions-System NCS11

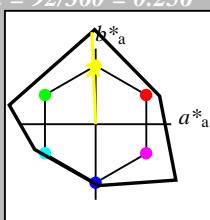
für Bunton $h^* = lab^*h = 92/360 = 0.256$
 lab^*tch und lab^*nch

D65: Bunton J

LCH*Ma: 90 122 92

olv*Ma: 0.97 1.0 0.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

relative Inform. Technology (IT)

$olv^3* 1.0 1.0 1.0 (1.0)$

$cmy3* 0.0 0.0 0.0 (0.0)$

$olv^4* 1.0 1.0 1.0 1.0$

$cmy4* 0.0 0.0 0.0 0.0$

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)

$lab^*lrj 1.0 0.0 0.0$

$lab^*ice 1.0 0.0 -$

$lab^*nCE 0.0 0.0 -$

relative Inform. Technology (IT)

$olv^3* 0.5 0.5 0.5 (1.0)$

$cmy3* 0.5 0.5 0.5 (0.0)$

$olv^4* 1.0 1.0 1.0 0.5$

cmy4* 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)

$lab^*lrj 0.5 0.0 0.0$

$lab^*ice 0.5 0.0 -$

$lab^*nCE 0.5 0.0 -$

relative Inform. Technology (IT)

$olv^3* 0.0 0.0 0.0 (1.0)$

$cmy3* 1.0 1.0 1.0 (0.0)$

$olv^4* 1.0 1.0 1.0 0.0$

cmy4* 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)

$lab^*lrj 0.0 0.0 0.0$

$lab^*ice 0.0 0.0 -$

$lab^*nCE 1.0 0.0 -$

$n^* = 1,0$

$n^* = 0,50$

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

$n^* = 0,50$
relative Buntheit c^*

Ausgabe: Farbmétrisches Reflexions-System NCS11

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

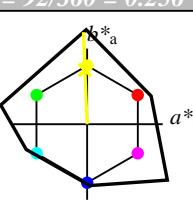
lab^*tch und lab^*nch

D65: Bunton J

LCH*Ma: 90 122 92

olv*Ma: 0.97 1.0 0.0

Dreiecks-Helligkeit t^*



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

relative Inform. Technology (IT)

$olv^3* 1.0 1.0 1.0 (1.0)$

$cmy3* 0.0 0.0 0.0 (0.0)$

$olv^4* 1.0 1.0 1.0 1.0$

$cmy4* 0.0 0.0 0.0 0.0$

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)

$lab^*lrj 1.0 0.0 0.0$

$lab^*ice 1.0 0.0 -$

$lab^*nCE 0.0 0.0 -$

relative Inform. Technology (IT)

$olv^3* 0.984 1.0 0.5 (1.0)$

$cmy3* 0.016 0.0 0.5 (0.0)$

$olv^4* 0.984 1.0 0.5 1.0$

$cmy4* 0.016 0.0 0.5 0.0$

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)

$lab^*lrj 0.971 0.0 0.5$

$lab^*ice 0.75 0.5 0.25$

$lab^*nCE 0.0 0.5 r99j$

relative Inform. Technology (IT)

$olv^3* 0.967 1.0 0.0 (1.0)$

$cmy3* 0.033 0.0 1.0 (0.0)$

$olv^4* 0.968 1.0 0.5 1.0$

$cmy4* 0.032 0.0 1.0 0.0$

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)

$lab^*lrj 0.971 0.0 0.5$

$lab^*ice 0.75 0.5 0.25$

$lab^*nCE 0.0 0.5 r99j$

relative Inform. Technology (IT)

$olv^3* 0.941 1.0 0.0 (1.0)$

$cmy3* 0.516 0.5 1.0 (0.0)$

$olv^4* 0.984 1.0 0.5 0.5$

$cmy4* 0.016 0.0 0.5 0.5$

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*

$lab^*lab 0.516 0.5 0.256$

$lab^*tch 0.5 0.0 0.256$

$lab^*nch 0.5 0.0 0.256$

relative Natural Colour (NC)

$lab^*lrj 0.516 0.5 0.25$

$lab^*ice 0.5 0.0 0.25$

$lab^*nCE 0.5 0.0 r00g$

$n^* = 0,00$

Schwarzheit n^*

$n^* = 0,50$

relative Buntheit c^*

$n^* = 1,00$

$n^* = 0,00$

Schwarzheit n^*

$n^* = 0,50$

relative Buntheit c^*

$n^* = 1,00$

$n^* = 1,0$

$n^* = 0,50$

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

$n^* = 0,50$
relative Buntheit c^*

$n^* = 1,0$

$n^* = 0,50$

relative Buntheit n^*

$n^* = 1,00$

UG190-7, 3 stufige Reihen für konstanten CIELAB Bunton 92/360 = 0.256 (links)

3 stufige Reihen für konstanten CIELAB Bunton 92/360 = 0.256 (rechts)

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11b Input: cmy0* setcmykcolor

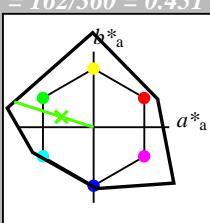
D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne Output: olv* setrgbcolor / w* setgray

Siehe ähnliche Dateien: <http://www.ps.bam.de> UG19/

Technische Information: <http://www.ps.bam.de> Version 2.1, io=0,1, CIEXYZ

Eingabe: Farbmétrisches Reflexions-System NCS11

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



D65: Bunton G

LCH*Ma: 65 110 162

olv*Ma: 0.08 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 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)

olv13* 0.5 0.5 0.5 (1.0)
cmyn3* 0.5 0.5 0.5 (0.0)

olv14* 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)

olv13* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)

olv14* 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 -

$n^* = 1,0$

NCS11; adaptierte CIELAB-Daten

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

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

%Umfang

olv*rel = 149

%Regularität

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

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

relative Inform. Technology (IT)

olv13* 0.541 1.0 0.5 (1.0)
cmyn3* 0.459 0.0 0.5 (0.0)

olv14* 0.541 1.0 0.5 1.0
cmyn4* 0.459 0.0 0.5 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 0.822 -0.499 0.0

lab*tce 0.75 0.5 0.5

lab*ncE 0.0 0.5 j99g

relative Inform. Technology (IT)

olv13* 0.083 1.0 0.0 (1.0)
cmyn3* 0.917 0.0 1.0 (0.0)

olv14* 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

relative Inform. Technology (IT)

olv13* 0.491 1.0 0.5 (1.0)
cmyn3* 0.959 0.5 1.0 (0.0)

olv14* 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)

olv13* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)

olv14* 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 -

$n^* = 0,00$

$n^* = 0,50$

$n^* = 1,00$

relative Buntheit c^*

$n^* = 0,50$

$n^* = 1,00$

Schwarzheit n^*

Ausgabe: Farbmétrisches Reflexions-System NCS11

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

D65: Bunton G

LCH*Ma: 65 110 162

olv*Ma: 0.08 1.0 0.0

Dreiecks-Helligkeit t^*



relative Inform. Technology (IT)

olv13* 1.0 1.0 1.0 (1.0)
cmyn3* 0.0 0.0 0.0 (0.0)

olv14* 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)

olv13* 0.541 1.0 0.5 (1.0)
cmyn3* 0.459 0.0 0.5 (0.0)

olv14* 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 j99g

relative Inform. Technology (IT)

olv13* 0.917 0.0 1.0 (1.0)
cmyn3* 0.192 1.0 0.0 (0.0)

olv14* 0.083 1.0 0.0 1.0
cmyn4* 0.917 0.0 1.0 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 0.645 -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

relative Inform. Technology (IT)

olv13* 0.0 0.0 0.0 (1.0)
cmyn3* 1.0 1.0 1.0 (0.0)

olv14* 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 -

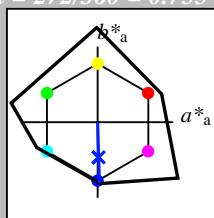
lab*ncE 1.0 0.0 -

$n^* = 1,0$

$n^* = 0,00$

Eingabe: Farbmétrisches Reflexions-System NCS11

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



D65: Bunton B

LCH*Ma: 49 80 272

olv*Ma: 0.0 0.02 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 -0.01
LAB*LABa 95.41 0.0 0.0
LAB*TChA 99.99 0.01 -

relative CIELAB lab^*

lab*tlab 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 53.21 0.04 0.0
LAB*LABa 53.21 0.0 0.0
LAB*TChA 50.0 0.01 -

relative CIELAB lab^*

lab*tlab 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* 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*tlab 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)

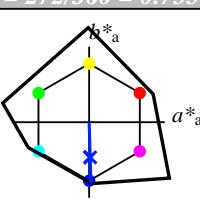
lab*lrj 0.226 0.0 -0.499
lab*tce 0.25 0.5 0.75
lab*ncE 0.5 0.5 b00r

$n^* = 1,0$

0,25 0,50 $n^* = 0,50$ 0,75 1,00
relative Buntheit c^*

Ausgabe: Farbmétrisches Reflexions-System NCS11

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



D65: Bunton B

LCH*Ma: 49 80 272

olv*Ma: 0.0 0.02 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 -0.01
LAB*LABa 95.41 0.0 0.0
LAB*TChA 99.99 0.01 -

relative CIELAB lab^*

lab*tlab 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 0.492 0.0 (0.0)
olv4* 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*tlab 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)

olv3* 0.0 0.016 1.0 (1.0)
cmyn3* 0.5 0.492 0.0 (0.0)
olv4* 0.0 0.016 1.0 0.5
cmyn4* 0.5 0.492 0.0 0.0

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*tlab 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

$n^* = 1,0$

0,25 0,50 $n^* = 0,50$ 0,75 1,00
relative Buntheit c^*

relative Inform. Technology (IT)

olv3* 0.0 0.016 1.0 (1.0)
cmyn3* 1.0 0.984 0.0 (0.0)
olv4* 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*tlab 0.452 0.029 -0.999
lab*tch 0.5 0.5 0.755
lab*nch 0.0 0.5 0.755

relative Natural Colour (NC)

lab*lrj 0.452 0.0 -0.999
lab*tce 0.5 0.5 0.75
lab*ncE 0.0 0.5 g99b

relative Inform. Technology (IT)

olv3* 0.0 0.008 0.5 (1.0)
cmyn3* 1.0 0.992 0.5 (0.0)
olv4* 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*tlab 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

$n^* = 1,0$

0,25 0,50 $n^* = 0,50$ 0,75 1,00
relative Buntheit c^*

