

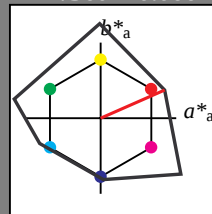
### Eingabe: Farbmimetrisches Reflexions-System NCS11

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

$lab^*ch$  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

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

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

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

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| 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 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 0.996

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 0.996

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 -

$n^* = 0.50$

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 0.996

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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1.0$

relative Buntheit  $c^*$

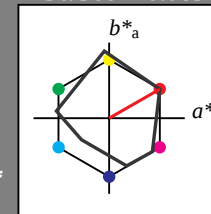
### Ausgabe: Farbmimetrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 30/360 = 0.083$

$lab^*ch$  und  $lab^*nch$

D65: Buntton R  
LCH\*Ma: 50 77 30  
olv\*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 72.52 32.93 22.4  
LAB\*LABa 72.52 33.47 19.18  
LAB\*TCHa 75.0 38.58 29.82

relative CIELAB lab\*  
lab\*lab 0.704 0.434 0.249  
lab\*tch 0.75 0.5 0.083  
lab\*nch 0.0 0.5 0.083

relative Natural Colour (NC)  
lab\*lrj 0.704 0.496 0.06  
lab\*tce 0.75 0.5 0.019  
lab\*nce 0.0 0.5 0.019

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 33.82 33.67 19.79  
LAB\*LABa 33.82 33.47 19.18  
LAB\*TCHa 25.01 38.58 29.82

relative CIELAB lab\*  
lab\*lab 0.204 0.434 0.249  
lab\*tch 0.25 0.5 0.083  
lab\*nch 0.5 0.5 0.083

relative Natural Colour (NC)  
lab\*lrj 0.204 0.496 0.06  
lab\*tce 0.25 0.5 0.019  
lab\*nce 0.5 0.5 0.019

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 -

$n^* = 0.00$

relative Buntheit  $c^*$

### MRS18; adaptierte CIELAB-Daten

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| RMa    | 49.63         | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7          | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11         | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03         | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65         | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94         | 57.17   | -44.26  | 72.31        | 322          |
| NMa    | 18.01         | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41         | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92         | 58.66   | 26.98   | 64.56        | 25           |
| JCIE   | 81.26         | -2.17   | 67.76   | 67.79        | 92           |
| GCIE   | 52.23         | -42.26  | 11.75   | 43.87        | 164          |
| BCIE   | 30.57         | 1.15    | -46.84  | 46.87        | 271          |

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 72.52 32.93 22.4  
LAB\*LABa 72.52 33.47 19.18  
LAB\*TCHa 75.0 38.58 29.82

relative CIELAB lab\*  
lab\*lab 0.704 0.434 0.249  
lab\*tch 0.75 0.5 0.083  
lab\*nch 0.0 0.5 0.083

relative Natural Colour (NC)  
lab\*lrj 0.704 0.496 0.06  
lab\*tce 0.75 0.5 0.019  
lab\*nce 0.0 0.5 0.019

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 33.82 33.67 19.79  
LAB\*LABa 33.82 33.47 19.18  
LAB\*TCHa 25.01 38.58 29.82

relative CIELAB lab\*  
lab\*lab 0.204 0.434 0.249  
lab\*tch 0.25 0.5 0.083  
lab\*nch 0.5 0.5 0.083

relative Natural Colour (NC)  
lab\*lrj 0.204 0.496 0.06  
lab\*tce 0.25 0.5 0.019  
lab\*nce 0.5 0.5 0.019

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 -

$n^* = 0.00$

relative Buntheit  $c^*$

Siehe ähnliche Dateien: <http://www.ps.bam.de/UG18/>  
Technische Information: <http://www.ps.bam.de> Version 2.1, io=0.0

BAM-Registrierung: 20060101-UG18/10S/S18G00NP.PS/.PDF BAM-Material: Code=rha4ta  
Anwendung für Beurteilung und Messung von Drucker- oder Monitorssystemen  
/UG18/ Form: 1/10, Serie: 1/1, Seite: 1  
Seitenzahl 1

UG180-7, 3 stufige Reihen für konstanten CIELAB Buntton 24/360 = 0.066 (links)

3 stufige Reihen für konstanten CIELAB Buntton 30/360 = 0.083 (rechts)

BAM-Prüfvorlage UG18; Farbmimetrische Systeme NCS11a & MRS18

D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttonen

Input: no change compared to input

### Eingabe: Farbmatisches Reflexions-System NCS11

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

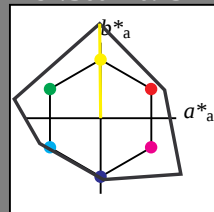
$lab^*ch$  und  $lab^*nch$

D65: Buntton J

LCH\*Ma: 91 125 91

olv\*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| 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 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 0.243

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 0.243

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 -

$n^* = 0.50$

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 0.243

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 1.0 1.0

standard and adapted CIELAB  
LAB\*LAB 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1.0$

relative Buntheit  $c^*$

$n^* = 0.00$

Schwarzheit  $n^*$

### Ausgabe: Farbmatisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 94/360 = 0.261$

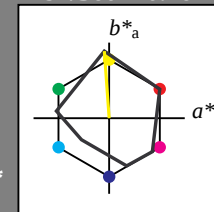
$lab^*ch$  und  $lab^*nch$

D65: Buntton J

LCH\*Ma: 91 89 94

olv\*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 0.5 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 54.35 -3.37 46.36  
LAB\*LABa 54.35 -3.17 44.37  
LAB\*TCHa 25.01 44.48 94.1

relative CIELAB lab\*  
lab\*lab 0.47 -0.035 0.499  
lab\*tch 0.25 0.5 0.261  
lab\*nch 0.5 0.5 0.261

relative Natural Colour (NC)  
lab\*lrj 0.47 -0.023 0.499  
lab\*tce 0.25 0.5 0.258  
lab\*nce 0.5 0.5 0.258

$n^* = 0.00$

relative Buntheit  $c^*$

$n^* = 1.0$

Schwarzheit  $n^*$

### MRS18; adaptierte CIELAB-Daten

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| RMa    | 49.63         | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7          | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11         | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03         | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65         | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94         | 57.17   | -44.26  | 72.31        | 322          |
| NMa    | 18.01         | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41         | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92         | 58.66   | 26.98   | 64.56        | 25           |
| JCIE   | 81.26         | -2.17   | 67.76   | 67.79        | 92           |
| GCIE   | 52.23         | -42.26  | 11.75   | 43.87        | 164          |
| BCIE   | 30.57         | 1.15    | -46.84  | 46.87        | 271          |

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 93.05 -4.11 48.97  
LAB\*LABa 93.05 -3.17 44.37  
LAB\*TCHa 75.0 44.48 94.1

relative CIELAB lab\*  
lab\*lab 0.969 -0.035 0.499  
lab\*tch 0.75 0.5 0.261  
lab\*nch 0.0 0.5 0.261

relative Natural Colour (NC)  
lab\*lrj 0.969 -0.023 0.499  
lab\*tce 0.75 0.5 0.258  
lab\*nce 0.0 0.5 0.258

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 54.35 -3.37 46.36  
LAB\*LABa 54.35 -3.17 44.37  
LAB\*TCHa 25.01 44.48 94.1

relative CIELAB lab\*  
lab\*lab 0.47 -0.035 0.499  
lab\*tch 0.25 0.5 0.261  
lab\*nch 0.5 0.5 0.261

relative Natural Colour (NC)  
lab\*lrj 0.47 -0.023 0.499  
lab\*tce 0.25 0.5 0.258  
lab\*nce 0.5 0.5 0.258

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 1.0 1.0

standard and adapted CIELAB  
LAB\*LAB 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1.0$

relative Buntheit  $c^*$

$n^* = 0.00$

Schwarzheit  $n^*$

Siehe ähnliche Dateien: <http://www.ps.bam.de/UG18/>  
Technische Information: <http://www.ps.bam.de> Version 2.1, io=0.0

BAM-Registrierung: 20060101-UG18/10S/S18G01NP.PS/.PDF BAM-Material: Code=rha4ta  
Anwendung für Beurteilung und Messung von Drucker- oder Monitorssystemen  
/UG18/ Form: 2/10, Serie: 1/1, Seite: 2  
Seitenzahl 2

UG180-7, 3 stufige Reihen für konstanten CIELAB Buntton 91/360 = 0.252 (links)

3 stufige Reihen für konstanten CIELAB Buntton 94/360 = 0.261 (rechts)

BAM-Prüfvorlage UG18; Farbmatrik-Systeme NCS11a & MRS18 Input: `cmY0* setcmykcolor`

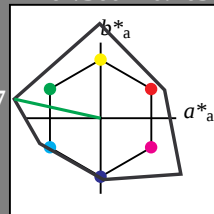
D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttonen Input: `no change compared to input`

### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 167/360 = 0.465$   
 $lab^*ch$  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

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

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

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 | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------------------|-------------|---------|---------|--------------|--------------|
| 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\* 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 0.465

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 0.465

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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\* 0.0 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 0,00$

Schwarzheit  $n^*$

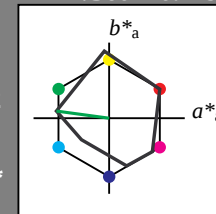
relative Buntheit  $c^*$

### Ausgabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 172/360 = 0.479$   
 $lab^*ch$  und  $lab^*nch$

D65: Buntton G  
LCH\*Ma: 52 70 172  
olv\*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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\* 0.0 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 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 73.75 -35.42 8.02  
LAB\*LABa 73.75 -34.85 4.72  
LAB\*TCHa 75.0 35.18 172.29

relative CIELAB lab\*  
lab\*lab 0.72 -0.494 0.067  
lab\*tch 0.75 0.5 0.479  
lab\*nch 0.0 0.5 0.479

relative Natural Colour (NC)  
lab\*lrj 0.72 -0.496 -0.056  
lab\*tce 0.75 0.5 0.518  
lab\*nce 0.0 0.5 0.479

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 35.06 -34.67 5.41  
LAB\*LABa 35.06 -34.85 4.72  
LAB\*TCHa 25.01 35.18 172.29

relative CIELAB lab\*  
lab\*lab 0.22 -0.494 0.067  
lab\*tch 0.25 0.5 0.479  
lab\*nch 0.5 0.5 0.479

relative Natural Colour (NC)  
lab\*lrj 0.22 -0.496 -0.056  
lab\*tce 0.25 0.5 0.518  
lab\*nce 0.5 0.5 0.479

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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\* 0.0 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

| MRS18; adaptierte CIELAB-Daten | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------------------|-------------|---------|---------|--------------|--------------|
| RMa                            | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa                            | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa                            | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa                         | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa                            | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa                         | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| NMa                            | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa                            | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE                           | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE                           | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE                           | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE                           | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

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 73.75 -35.42 8.02  
LAB\*LABa 73.75 -34.85 4.72  
LAB\*TCHa 75.0 35.18 172.29

relative CIELAB lab\*  
lab\*lab 0.72 -0.494 0.067  
lab\*tch 0.75 0.5 0.479  
lab\*nch 0.0 0.5 0.479

relative Natural Colour (NC)  
lab\*lrj 0.72 -0.496 -0.056  
lab\*tce 0.75 0.5 0.518  
lab\*nce 0.0 0.5 0.479

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 35.06 -34.67 5.41  
LAB\*LABa 35.06 -34.85 4.72  
LAB\*TCHa 25.01 35.18 172.29

relative CIELAB lab\*  
lab\*lab 0.22 -0.494 0.067  
lab\*tch 0.25 0.5 0.479  
lab\*nch 0.5 0.5 0.479

relative Natural Colour (NC)  
lab\*lrj 0.22 -0.496 -0.056  
lab\*tce 0.25 0.5 0.518  
lab\*nce 0.5 0.5 0.479

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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\* 0.0 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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\* 0.0 1.0 0.0 (1.0)  
cmyn3\* 0.0 0.0 1.0 (0.0)  
olvi4\* 0.0 1.0 0.0 1.0  
cmyn4\* 1.0 0.0 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 52.11 -69.86 11.28  
LAB\*LABa 52.11 -69.71 9.44  
LAB\*TCHa 50.0 70.36 172.29

relative CIELAB lab\*  
lab\*lab 0.441 -0.99 0.134  
lab\*tch 0.5 1.0 0.479  
lab\*nch 0.0 1.0 0.479

relative Natural Colour (NC)  
lab\*lrj 0.441 -0.992 -0.114  
lab\*tce 0.5 1.0 0.518  
lab\*nce 0.0 1.0 0.479

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 35.06 -34.67 5.41  
LAB\*LABa 35.06 -34.85 4.72  
LAB\*TCHa 25.01 35.18 172.29

relative CIELAB lab\*  
lab\*lab 0.22 -0.494 0.067  
lab\*tch 0.25 0.5 0.479  
lab\*nch 0.5 0.5 0.479

relative Natural Colour (NC)  
lab\*lrj 0.22 -0.496 -0.056  
lab\*tce 0.25 0.5 0.518  
lab\*nce 0.5 0.5 0.479

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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\* 0.0 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

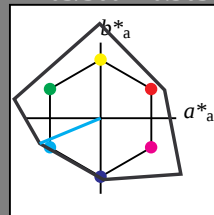
standard and adapted CIELAB  
LAB\*LAB 18.02 0.5 -0.46  
LAB\*LABa 18.02 0.0 0.0  
LAB\*TCHa 0.01 0.01 -

### Eingabe: Farbmatisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 203/360 = 0.563$   
 $lab^*ch$  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

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

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

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 | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------------------|-------------|---------|---------|--------------|--------------|
| 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\* 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 0.366

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 0.366

$n^* = 0,50$

Schwarzheit  $n^*$

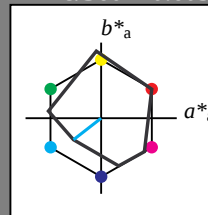
relative Buntheit  $c^*$

### Ausgabe: Farbmatisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 218/360 = 0.605$   
 $lab^*ch$  und  $lab^*nch$

D65: Buntton G50B  
LCH\*Ma: 45 46 218  
olv\*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1,0$

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 70.21 -18.77 -11.17  
LAB\*LABa 70.21 -18.27 -14.23  
LAB\*TCHa 75.0 23.17 217.91

relative CIELAB lab\*  
lab\*lab 0.674 -0.393 -0.306  
lab\*tch 0.75 0.5 0.605  
lab\*nch 0.0 0.5 0.605

relative Natural Colour (NC)  
lab\*lrj 0.674 -0.353 -0.352  
lab\*tce 0.75 0.5 0.625  
lab\*nce 0.0 0.5 0.496

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 31.52 -18.03 -13.78  
LAB\*LABa 31.52 -18.27 -14.23  
LAB\*TCHa 25.01 23.17 217.91

relative CIELAB lab\*  
lab\*lab 0.175 -0.393 -0.306  
lab\*tch 0.25 0.5 0.605  
lab\*nch 0.5 0.5 0.605

relative Natural Colour (NC)  
lab\*lrj 0.175 -0.353 -0.352  
lab\*tce 0.25 0.5 0.625  
lab\*nce 0.5 0.5 0.496

$n^* = 0,50$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

| MRS18; adaptierte CIELAB-Daten | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------------------|-------------|---------|---------|--------------|--------------|
| RMa                            | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa                            | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa                            | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa                         | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa                            | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa                         | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| NMa                            | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa                            | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE                           | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE                           | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE                           | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE                           | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

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 70.21 -18.77 -11.17  
LAB\*LABa 70.21 -18.27 -14.23  
LAB\*TCHa 75.0 23.17 217.91

relative CIELAB lab\*  
lab\*lab 0.674 -0.393 -0.306  
lab\*tch 0.75 0.5 0.605  
lab\*nch 0.0 0.5 0.605

relative Natural Colour (NC)  
lab\*lrj 0.674 -0.353 -0.352  
lab\*tce 0.75 0.5 0.625  
lab\*nce 0.0 0.5 0.496

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 31.52 -18.03 -13.78  
LAB\*LABa 31.52 -18.27 -14.23  
LAB\*TCHa 25.01 23.17 217.91

relative CIELAB lab\*  
lab\*lab 0.175 -0.393 -0.306  
lab\*tch 0.25 0.5 0.605  
lab\*nch 0.5 0.5 0.605

relative Natural Colour (NC)  
lab\*lrj 0.175 -0.353 -0.352  
lab\*tce 0.25 0.5 0.625  
lab\*nce 0.5 0.5 0.496

$n^* = 0,50$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

BAM-Prüfvorlage UG18; Farbmatrik-Systeme NCS11a & MRS18; Input:  $cmY0^* setcmykcolor$

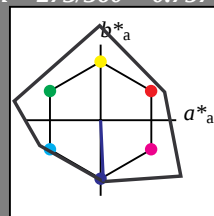
D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttonen; Output: no change compared to input

### Eingabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 273/360 = 0.757$   
 $lab^*ch$  und  $lab^*nh$

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------------------------------|---------------|---------|---------|--------------|--------------|
| 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\* 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\*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\*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 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\*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\*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 0.0 (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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

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

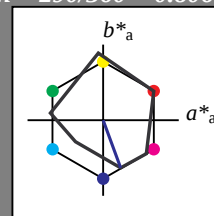
relative Buntheit  $c^*$

### Ausgabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 290/360 = 0.806$   
 $lab^*ch$  und  $lab^*nh$

D65: Buntton B  
LCH\*Ma: 37 67 290  
olv\*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 0.0 (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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1,0$

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 66.03 11.17 -28.74  
LAB\*LABa 66.03 11.59 -31.51  
LAB\*TCHa 75.0 33.59 290.19

relative CIELAB lab\*  
lab\*lab 0.62 0.173 -0.468  
lab\*tch 0.75 0.5 0.806  
lab\*nch 0.0 0.5 0.806

relative Natural Colour (NC)  
lab\*lrj 0.62 0.129 -0.482  
lab\*tce 0.75 0.5 0.791  
lab\*nce 0.0 0.5 0.16r

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 27.34 11.92 -31.35  
LAB\*LABa 27.34 11.59 -31.51  
LAB\*TCHa 25.01 33.59 290.19

relative CIELAB lab\*  
lab\*lab 0.12 0.173 -0.468  
lab\*tch 0.25 0.5 0.806  
lab\*nch 0.5 0.5 0.806

relative Natural Colour (NC)  
lab\*lrj 0.12 0.129 -0.482  
lab\*tce 0.25 0.5 0.791  
lab\*nce 0.5 0.5 0.16r

relative Inform. Technology (IT)  
olvi3\* 0.0 0.0 0.0 (1.0)  
cmyn3\* 1.0 1.0 0.0 (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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

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

relative Buntheit  $c^*$

UG180-7, 3 stufige Reihen für konstanten CIELAB Buntton 273/360 = 0.757 (links)

3 stufige Reihen für konstanten CIELAB Buntton 290/360 = 0.806 (rechts)

BAM-Prüfvorlage UG18; Farbmétrik-Systeme NCS11a & MRS18

D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne

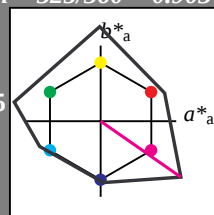
Input: `cmY0* setcmYcolor`  
Output: `no change compared to input`

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

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

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 |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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 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 0.867

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 0.867

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 -

$n^* = 0,00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

$n^* = 0,50$

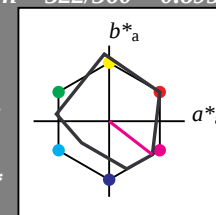
$n^* = 1,0$

### Ausgabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 322/360 = 0.895$   
 $lab^*ch$  und  $lab^*nch$

D65: Buntton B50R  
LCH\*Ma: 35 72 322  
olv\*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1,0$

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 65.17 28.18 -19.4  
LAB\*LABa 65.17 28.58 -22.12  
LAB\*TCHa 75.0 36.15 322.25

relative CIELAB lab\*  
lab\*lab 0.609 0.395 -0.305  
lab\*tch 0.75 0.5 0.895  
lab\*nch 0.0 0.5 0.895

relative Natural Colour (NC)  
lab\*lrj 0.609 0.324 -0.38  
lab\*tce 0.75 0.5 0.862  
lab\*nce 0.0 0.5 0.862

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 26.48 28.92 -22.01  
LAB\*LABa 26.48 28.58 -22.12  
LAB\*TCHa 25.01 36.15 322.25

relative CIELAB lab\*  
lab\*lab 0.109 0.395 -0.305  
lab\*tch 0.25 0.5 0.895  
lab\*nch 0.5 0.5 0.895

relative Natural Colour (NC)  
lab\*lrj 0.109 0.324 -0.38  
lab\*tce 0.25 0.5 0.862  
lab\*nce 0.5 0.5 0.862

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 -

$n^* = 0,00$

| MRS18; adaptierte CIELAB-Daten |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| RMa                            | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa                            | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa                            | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa                         | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa                            | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa                         | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| NMa                            | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa                            | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE                           | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE                           | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE                           | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE                           | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

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 65.17 28.18 -19.4  
LAB\*LABa 65.17 28.58 -22.12  
LAB\*TCHa 75.0 36.15 322.25

relative CIELAB lab\*  
lab\*lab 0.609 0.395 -0.305  
lab\*tch 0.75 0.5 0.895  
lab\*nch 0.0 0.5 0.895

relative Natural Colour (NC)  
lab\*lrj 0.609 0.324 -0.38  
lab\*tce 0.75 0.5 0.862  
lab\*nce 0.0 0.5 0.862

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 26.48 28.92 -22.01  
LAB\*LABa 26.48 28.58 -22.12  
LAB\*TCHa 25.01 36.15 322.25

relative CIELAB lab\*  
lab\*lab 0.109 0.395 -0.305  
lab\*tch 0.25 0.5 0.895  
lab\*nch 0.5 0.5 0.895

relative Natural Colour (NC)  
lab\*lrj 0.109 0.324 -0.38  
lab\*tce 0.25 0.5 0.862  
lab\*nce 0.5 0.5 0.862

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 -

$n^* = 0,00$

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 34.95 57.34 -43.57  
LAB\*LABa 34.95 57.16 -44.25  
LAB\*TCHa 50.0 72.29 322.25

relative CIELAB lab\*  
lab\*lab 0.219 0.791 -0.611  
lab\*tch 0.5 1.0 0.895  
lab\*nch 0.0 1.0 0.895

relative Natural Colour (NC)  
lab\*lrj 0.219 0.648 -0.76  
lab\*tce 0.5 1.0 0.862  
lab\*nce 0.0 1.0 0.862

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 26.48 28.92 -22.01  
LAB\*LABa 26.48 28.58 -22.12  
LAB\*TCHa 25.01 36.15 322.25

relative CIELAB lab\*  
lab\*lab 0.109 0.395 -0.305  
lab\*tch 0.25 0.5 0.895  
lab\*nch 0.5 0.5 0.895

relative Natural Colour (NC)  
lab\*lrj 0.109 0.324 -0.38  
lab\*tce 0.25 0.5 0.862  
lab\*nce 0.5 0.5 0.862

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 -

$n^* = 0,00$

Siehe ähnliche Dateien: <http://www.ps.bam.de/UG18/>  
Technische Information: <http://www.ps.bam.de> Version 2.1, io=0,0

BAM-Registrierung: 20060101-UG18/10S/S18G05NP.PS/.PDF BAM-Material: Code=rha4ta  
Anwendung für Beurteilung und Messung von Drucker- oder Monitorssystemen  
/UG18/ Form: 6/10, Serie: 1/1, Seite: 6  
Seitenzahl 6

UG180-7, 3 stufige Reihen für konstanten CIELAB Buntton 325/360 = 0.903 (links)

3 stufige Reihen für konstanten CIELAB Buntton 322/360 = 0.895 (rechts)

BAM-Prüfvorlage UG18; Farbmétrik-Systeme NCS11a & MRS18

D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttonen

Input: no change compared to input

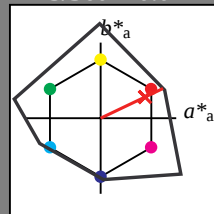
### Eingabe: Farbmétrisches Reflexions-System NCS11

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

$lab^*ch$  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

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

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

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

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| 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 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 0.071

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 0.0  
lab\*nce 0.5 0.5 0.071

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\* 0.0 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 0.024 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 0.071

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

standard and adapted CIELAB  
LAB\*LAB 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

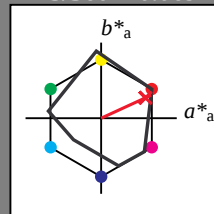
### Ausgabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 25/360 = 0.069$

$lab^*ch$  und  $lab^*nch$

D65: Buntton R  
LCH\*Ma: 48 73 25  
olv\*Ma: 1.0 0.0 0.1

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 0.0 0.0  
LAB\*TCHa 50.0 0.01 -

relative CIELAB lab\*  
lab\*lab 0.695 0.454 0.209  
lab\*tch 0.75 0.5 0.069  
lab\*nch 0.0 0.5 0.069

relative Natural Colour (NC)  
lab\*lrj 0.695 0.5 0.0  
lab\*tce 0.75 0.5 1.0  
lab\*nce 0.0 0.5 0.069

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

standard and adapted CIELAB  
LAB\*LAB 33.11 33.21 15.74  
LAB\*LABa 33.11 33.0 15.18  
LAB\*TCHa 25.01 36.33 24.71

relative CIELAB lab\*  
lab\*lab 0.195 0.454 0.209  
lab\*tch 0.25 0.5 0.069  
lab\*nch 0.5 0.5 0.069

relative Natural Colour (NC)  
lab\*lrj 0.195 0.5 0.0  
lab\*tce 0.25 0.5 0.0  
lab\*nce 0.5 0.5 0.069

$n^* = 1.0$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

### MRS18; adaptierte CIELAB-Daten

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| RMa    | 49.63         | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7          | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11         | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03         | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65         | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94         | 57.17   | -44.26  | 72.31        | 322          |
| NMa    | 18.01         | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41         | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92         | 58.66   | 26.98   | 64.56        | 25           |
| JCIE   | 81.26         | -2.17   | 67.76   | 67.79        | 92           |
| GCIE   | 52.23         | -42.26  | 11.75   | 43.87        | 164          |
| BCIE   | 30.57         | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)  
olvi3\* 1.0 0.5 0.548 (1.0)  
cmyn3\* 0.0 0.5 0.452 (0.0)  
olvi4\* 1.0 0.5 0.549 1.0  
cmyn4\* 0.0 0.5 0.451 0.0

standard and adapted CIELAB  
LAB\*LAB 71.8 32.47 18.34  
LAB\*LABa 71.8 33.0 15.17  
LAB\*TCHa 75.0 36.32 24.7

relative CIELAB lab\*  
lab\*lab 0.695 0.454 0.209  
lab\*tch 0.75 0.5 0.069  
lab\*nch 0.0 0.5 0.069

relative Natural Colour (NC)  
lab\*lrj 0.695 0.5 0.0  
lab\*tce 0.75 0.5 1.0  
lab\*nce 0.0 0.5 0.069

relative Inform. Technology (IT)  
olvi3\* 0.5 0.0 0.048 (1.0)  
cmyn3\* 0.5 1.0 0.952 (0.0)  
olvi4\* 1.0 0.5 0.548 0.5  
cmyn4\* 0.0 0.5 0.452 0.5

standard and adapted CIELAB  
LAB\*LAB 33.11 33.21 15.74  
LAB\*LABa 33.11 33.0 15.18  
LAB\*TCHa 25.01 36.33 24.71

relative CIELAB lab\*  
lab\*lab 0.195 0.454 0.209  
lab\*tch 0.25 0.5 0.069  
lab\*nch 0.5 0.5 0.069

relative Natural Colour (NC)  
lab\*lrj 0.195 0.5 0.0  
lab\*tce 0.25 0.5 0.0  
lab\*nce 0.5 0.5 0.069

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\* 0.0 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 0.0 0.097 (1.0)  
cmyn3\* 0.0 1.0 0.903 (0.0)  
olvi4\* 1.0 0.0 0.097 1.0  
cmyn4\* 0.0 1.0 0.903 0.0

standard and adapted CIELAB  
LAB\*LAB 48.21 65.92 31.93  
LAB\*LABa 48.21 66.0 30.36  
LAB\*TCHa 50.0 72.65 24.7

relative CIELAB lab\*  
lab\*lab 0.39 0.908 0.418  
lab\*tch 0.5 1.0 0.069  
lab\*nch 0.0 1.0 0.069

relative Natural Colour (NC)  
lab\*lrj 0.39 1.0 0.0  
lab\*tce 0.5 1.0 0.0  
lab\*nce 0.0 1.0 0.069

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

relative Buntheit  $c^*$

0.25 0.50  $n^* = 0.50$  0.75 1.00

### Eingabe: Farbmatisches Reflexions-System NCS11

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

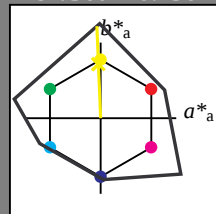
$lab^*ch$  und  $lab^*nch$

D65: Buntton J

LCH\*Ma: 90 122 92

olv\*Ma: 0.97 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| 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\* 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 0.25

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 0.25

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 -

$n^* = 0,00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

### Ausgabe: Farbmatisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 92/360 = 0.255$

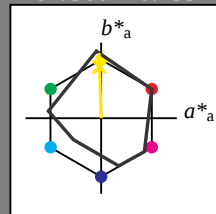
$lab^*ch$  und  $lab^*nch$

D65: Buntton J

LCH\*Ma: 89 86 92

olv\*Ma: 1.0 0.95 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1,0$

### MRS18; adaptierte CIELAB-Daten

|        | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
|--------|---------------|---------|---------|--------------|--------------|
| RMa    | 49.63         | 66.96   | 38.37   | 77.18        | 30           |
| JMa    | 90.7          | -6.36   | 88.75   | 88.98        | 94           |
| GMa    | 52.11         | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa | 45.03         | -36.57  | -28.47  | 46.36        | 218          |
| BMa    | 36.65         | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa | 34.94         | 57.17   | -44.26  | 72.31        | 322          |
| NMa    | 18.01         | 0.0     | 0.0     | 0.0          | 0            |
| WMa    | 95.41         | 0.0     | 0.0     | 0.0          | 0            |
| RCIE   | 39.92         | 58.66   | 26.98   | 64.56        | 25           |
| JCIE   | 81.26         | -2.17   | 67.76   | 67.79        | 92           |
| GCIE   | 52.23         | -42.26  | 11.75   | 43.87        | 164          |
| BCIE   | 30.57         | 1.15    | -46.84  | 46.87        | 271          |

relative Inform. Technology (IT)  
olvi3\* 1.0 0.976 0.5 (1.0)  
cmyn3\* 0.0 0.024 0.5 (0.0)  
olvi4\* 1.0 0.976 0.5 1.0  
cmyn4\* 0.0 0.024 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 92.04 -2.3 47.67  
LAB\*LABa 92.04 -1.39 43.14  
LAB\*TCHa 75.0 43.16 91.85

relative CIELAB lab\*  
lab\*lab 0.957 -0.015 0.5  
lab\*tch 0.75 0.5 0.255  
lab\*nch 0.0 0.5 0.255

relative Natural Colour (NC)  
lab\*lrj 0.957 0.0 0.5  
lab\*tce 0.75 0.5 0.25  
lab\*nce 0.0 0.5 0.25

relative Inform. Technology (IT)  
olvi3\* 0.5 0.476 0.0 (1.0)  
cmyn3\* 0.5 0.524 1.0 (0.0)  
olvi4\* 1.0 0.976 0.5 0.5  
cmyn4\* 0.0 0.024 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 53.35 -1.55 45.05  
LAB\*LABa 53.35 -1.38 43.13  
LAB\*TCHa 25.01 43.16 91.84

relative CIELAB lab\*  
lab\*lab 0.457 -0.015 0.5  
lab\*tch 0.25 0.5 0.255  
lab\*nch 0.5 0.5 0.255

relative Natural Colour (NC)  
lab\*lrj 0.457 0.0 0.5  
lab\*tce 0.25 0.5 0.25  
lab\*nce 0.5 0.5 0.25

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 -

$n^* = 0,00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

UG180-7, 3 stufige Reihen für konstanten CIELAB Buntton 92/360 = 0.256 (links)

3 stufige Reihen für konstanten CIELAB Buntton 92/360 = 0.255 (rechts)

BAM-Prüfvorlage UG18; Farbmatrik-Systeme NCS11a & MRS18

D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttonen

Input:  $cmY0^* setcmykcolor$

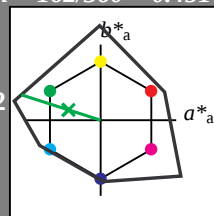
Output: no change compared to input

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



| 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)  
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 -

$n^* = 1.0$

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 0.99g

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 0.99g

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 0.00$

Schwarzheit  $n^*$

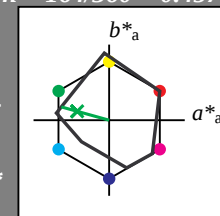
relative Buntheit  $c^*$

### Ausgabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 164/360 = 0.457$   
 $lab^*ch$  und  $lab^*nch$

D65: Buntton G  
LCH\*Ma: 56 66 164  
olv\*Ma: 0.1 1.0 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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1.0$

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)  
olvi3\* 0.551 1.0 0.5 (1.0)  
cmyn3\* 0.449 0.0 0.5 (0.0)  
olvi4\* 0.551 1.0 0.5 1.0  
cmyn4\* 0.449 0.0 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 75.74 -32.2 12.22  
LAB\*LABa 75.74 -31.6 8.79  
LAB\*TCHa 75.0 32.81 164.46

relative CIELAB lab\*  
lab\*lab 0.746 -0.481 0.134  
lab\*tch 0.75 0.5 0.457  
lab\*nch 0.0 0.5 0.457

relative Natural Colour (NC)  
lab\*lrj 0.746 -0.499 0.0  
lab\*tce 0.75 0.5 0.5  
lab\*nce 0.0 0.5 0.99g

relative Inform. Technology (IT)  
olvi3\* 0.051 0.5 0.0 (1.0)  
cmyn3\* 0.949 0.5 1.0 (0.0)  
olvi4\* 0.551 1.0 0.5 0.5  
cmyn4\* 0.449 0.0 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 37.04 -31.47 9.6  
LAB\*LABa 37.04 -31.6 8.78  
LAB\*TCHa 25.01 32.81 164.47

relative CIELAB lab\*  
lab\*lab 0.246 -0.481 0.134  
lab\*tch 0.25 0.5 0.457  
lab\*nch 0.5 0.5 0.457

relative Natural Colour (NC)  
lab\*lrj 0.246 -0.499 0.0  
lab\*tce 0.25 0.5 0.5  
lab\*nce 0.5 0.5 0.99g

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

| MRS18; adaptierte CIELAB-Daten |             |         |         |              |              |
|--------------------------------|-------------|---------|---------|--------------|--------------|
|                                | $L^*=L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| RMa                            | 49.63       | 66.96   | 38.37   | 77.18        | 30           |
| JMa                            | 90.7        | -6.36   | 88.75   | 88.98        | 94           |
| GMa                            | 52.11       | -69.73  | 9.44    | 70.37        | 172          |
| G50BMa                         | 45.03       | -36.57  | -28.47  | 46.36        | 218          |
| BMa                            | 36.65       | 23.19   | -63.05  | 67.18        | 290          |
| B50RMa                         | 34.94       | 57.17   | -44.26  | 72.31        | 322          |
| NMa                            | 18.01       | 0.0     | 0.0     | 0.0          | 0            |
| WMa                            | 95.41       | 0.0     | 0.0     | 0.0          | 0            |
| RCIE                           | 39.92       | 58.66   | 26.98   | 64.56        | 25           |
| JCIE                           | 81.26       | -2.17   | 67.76   | 67.79        | 92           |
| GCIE                           | 52.23       | -42.26  | 11.75   | 43.87        | 164          |
| BCIE                           | 30.57       | 1.15    | -46.84  | 46.87        | 271          |

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)  
olvi3\* 0.551 1.0 0.5 (1.0)  
cmyn3\* 0.449 0.0 0.5 (0.0)  
olvi4\* 0.551 1.0 0.5 1.0  
cmyn4\* 0.449 0.0 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 75.74 -32.2 12.22  
LAB\*LABa 75.74 -31.6 8.79  
LAB\*TCHa 75.0 32.81 164.46

relative CIELAB lab\*  
lab\*lab 0.746 -0.481 0.134  
lab\*tch 0.75 0.5 0.457  
lab\*nch 0.0 0.5 0.457

relative Natural Colour (NC)  
lab\*lrj 0.746 -0.499 0.0  
lab\*tce 0.75 0.5 0.5  
lab\*nce 0.0 0.5 0.99g

relative Inform. Technology (IT)  
olvi3\* 0.051 0.5 0.0 (1.0)  
cmyn3\* 0.949 0.5 1.0 (0.0)  
olvi4\* 0.551 1.0 0.5 0.5  
cmyn4\* 0.449 0.0 0.5 0.5

standard and adapted CIELAB  
LAB\*LAB 37.04 -31.47 9.6  
LAB\*LABa 37.04 -31.6 8.78  
LAB\*TCHa 25.01 32.81 164.47

relative CIELAB lab\*  
lab\*lab 0.246 -0.481 0.134  
lab\*tch 0.25 0.5 0.457  
lab\*nch 0.5 0.5 0.457

relative Natural Colour (NC)  
lab\*lrj 0.246 -0.499 0.0  
lab\*tce 0.25 0.5 0.5  
lab\*nce 0.5 0.5 0.99g

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

UG180-7, 3 stufige Reihen für konstanten CIELAB Buntton 162/360 = 0.451 (links)

3 stufige Reihen für konstanten CIELAB Buntton 164/360 = 0.457 (rechts)

BAM-Prüfvorlage UG18; Farbmétrik-Systeme NCS11a & MRS18; Input:  $cmY0^* setcmykcolor$

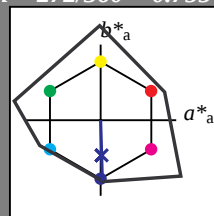
D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne; Output: no change compared to input

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 |               |         |         |              |              |
|--------------------------------|---------------|---------|---------|--------------|--------------|
|                                | $L^* = L^*_a$ | $a^*_a$ | $b^*_a$ | $C^*_{ab,a}$ | $h^*_{ab,a}$ |
| 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\* 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 0.755

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 0.755

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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 0,00$

Schwarzheit  $n^*$

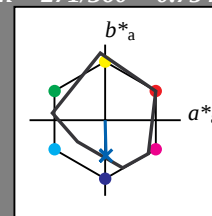
relative Buntheit  $c^*$

### Ausgabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 271/360 = 0.754$   
 $lab^*ch$  und  $lab^*nh$

D65: Buntton B  
LCH\*Ma: 40 50 271  
olv\*Ma: 0.0 0.37 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

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 -0.97 4.75  
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 56.71 -0.23 2.14  
LAB\*LABa 56.71 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 18.02 0.5 -0.46  
LAB\*LABa 18.02 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 -

$n^* = 1,0$

relative Inform. Technology (IT)  
olvi3\* 0.5 0.684 1.0 (1.0)  
cmyn3\* 0.5 0.316 0.0 (0.0)  
olvi4\* 0.5 0.684 1.0 1.0  
cmyn4\* 0.5 0.316 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 67.57 0.17 -22.28  
LAB\*LABa 67.57 0.61 -25.16  
LAB\*TCHa 75.0 25.18 271.4

relative CIELAB lab\*  
lab\*lab 0.64 0.012 -0.499  
lab\*tch 0.75 0.5 0.754  
lab\*nch 0.0 0.5 0.754

relative Natural Colour (NC)  
lab\*lrj 0.64 0.0 -0.499  
lab\*tce 0.75 0.5 0.75  
lab\*nce 0.0 0.5 0.755

relative Inform. Technology (IT)  
olvi3\* 0.0 0.184 0.5 (1.0)  
cmyn3\* 1.0 0.816 0.5 (0.0)  
olvi4\* 0.5 0.684 1.0 0.5  
cmyn4\* 0.5 0.316 0.0 0.5

standard and adapted CIELAB  
LAB\*LAB 28.87 0.92 -24.9  
LAB\*LABa 28.87 0.62 -25.16  
LAB\*TCHa 25.01 25.18 271.41

relative CIELAB lab\*  
lab\*lab 0.14 0.012 -0.499  
lab\*tch 0.25 0.5 0.754  
lab\*nch 0.5 0.5 0.754

relative Natural Colour (NC)  
lab\*lrj 0.14 0.0 -0.499  
lab\*tce 0.25 0.5 0.75  
lab\*nce 0.5 0.5 0.755

relative Inform. Technology (IT)  
olvi3\* 0.0 0.367 1.0 (1.0)  
cmyn3\* 1.0 0.633 0.0 (0.0)  
olvi4\* 0.0 0.367 1.0 1.0  
cmyn4\* 1.0 0.633 0.0 0.0

standard and adapted CIELAB  
LAB\*LAB 39.73 1.32 -49.33  
LAB\*LABa 39.73 1.23 -50.34  
LAB\*TCHa 50.0 50.36 271.41

relative CIELAB lab\*  
lab\*lab 0.281 0.025 -0.998  
lab\*tch 0.5 1.0 0.754  
lab\*nch 0.0 1.0 0.754

relative Natural Colour (NC)  
lab\*lrj 0.281 0.0 -0.999  
lab\*tce 0.5 1.0 0.75  
lab\*nce 0.0 1.0 0.755

$n^* = 0,00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

UG180-7, 3 stufige Reihen für konstanten CIELAB Buntton 272/360 = 0.755 (links)

3 stufige Reihen für konstanten CIELAB Buntton 271/360 = 0.754 (rechts)

BAM-Prüfvorlage UG18; Farbmétrik-Systeme NCS11a & MRS18

D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöne

Input: `cmY0* setcmYcolor`  
Output: `no change compared to input`