

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

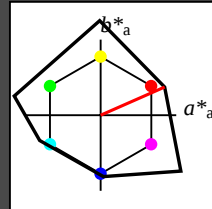
$lab^*tch$  und  $lab^*nch$

D65: Buntton R

LCH\*Ma: 47 92 24

olv\*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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  
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LAB\*LABa 11.01 0.0 0.0  
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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 -

Schwarzheit  $n^*$

relative Buntheit  $c^*$

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

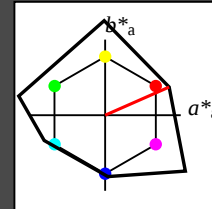
$lab^*tch$  und  $lab^*nch$

D65: Buntton R

LCH\*Ma: 47 92 24

olv\*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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

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lab\*tch 0.0 0.0 -  
lab\*nch 1.0 0.0 -

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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

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

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LAB\*LABa 71.27 42.31 18.62  
LAB\*TCHa 75.0 46.23 23.75

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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)  
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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)  
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olvi4\* 1.0 0.5 0.5 0.5  
cmyn4\* 0.0 0.5 0.5 0.5

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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  
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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 -

Schwarzheit  $n^*$

relative Buntheit  $c^*$

UG19-7, 3 stufige Reihen für konstanten CIELAB Buntton 24/360 = 0.066 (links)

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

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11aput: *cmv0\* setcmvcolor*

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

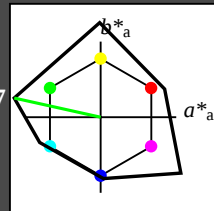


### Eingabe: Farbmimetrisches Reflexions-System NCS11

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

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\*nh 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\*nh 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\*nh 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\*nh 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\*nh 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 Buntheit  $c^*$

$n^* = 0.00$

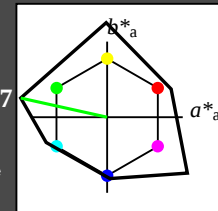
Schwarzheit  $n^*$

### Ausgabe: Farbmimetrisches Reflexions-System NCS11

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

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  
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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\*nh 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\*nh 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  
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relative CIELAB lab\*  
lab\*lab 0.0 0.0 0.0  
lab\*tch 0.0 0.0 -  
lab\*nh 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  $n^*$

UG19-7, 3 stufige Reihen für konstanten CIELAB Buntton 167/360 = 0.465 (links)

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

BAM-Prüfvorlage UG19; Farbmimetrik-Systeme NCS11a & NCS11aput:  $cmv0^* setcmykcolor$

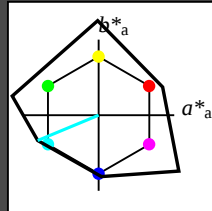
D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttonenput:  $olv^* setrgbcolor / w^* setgray$

### Eingabe: Farbmétrisches 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          |
| G50B <sub>Ma</sub>             | 59.47         | -80.6   | -33.45  | 87.28        | 203          |
| B <sub>Ma</sub>                | 49.01         | 3.65    | -81.19  | 81.28        | 273          |
| B50R <sub>Ma</sub>             | 44.06         | 106.09  | -73.93  | 129.32       | 325          |
| N <sub>Ma</sub>                | 10.99         | 0.0     | 0.0     | 0.0          | 0            |
| W <sub>Ma</sub>                | 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 g36b

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

standard and adapted CIELAB  
LAB\*LAB 35.23 -40.23 -16.7  
LAB\*LABa 35.23 -40.29 -16.72  
LAB\*TCHa 25.01 43.63 202.54

relative CIELAB lab\*  
lab\*lab 0.287 -0.461 -0.191  
lab\*tch 0.25 0.5 0.563  
lab\*nch 0.5 0.5 0.563

relative Natural Colour (NC)  
lab\*lrj 0.287 -0.418 -0.272  
lab\*tce 0.25 0.5 0.592  
lab\*nce 0.5 0.5 g36b

relative Buntheit  $c^*$

$n^* = 0,00$

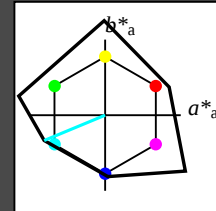
Schwarzheit  $n^*$

### Ausgabe: Farbmétrisches 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 -

$n^* = 1,0$

relative Buntheit  $c^*$

$n^* = 0,00$

Schwarzheit  $n^*$

UG19-7, 3 stufige Reihen für konstanten CIELAB Buntton 203/360 = 0.563 (links)

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

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11aput:  $cmv0^* setcmykcolor$

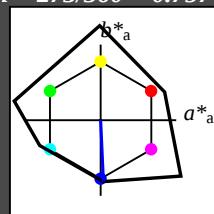
D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöneput:  $olv^* setrgbcolor / w^* setgray$

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 0.752

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 0.752

relative Buntheit  $c^*$

relative Buntheit  $c^*$

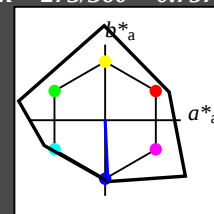
$n^* = 0.50$

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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\* 0.5 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 0.752

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 0.752

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 Buntheit  $c^*$

relative Buntheit  $c^*$

$n^* = 0.50$

UG19-7, 3 stufige Reihen für konstanten CIELAB Buntton 273/360 = 0.757 (links)

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

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11aput:  $cmv0^* setcmykcolor$

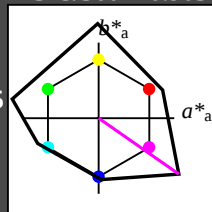
D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttöneinput:  $olv^* setrgbcolor / w^* setgray$

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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  $n^*$

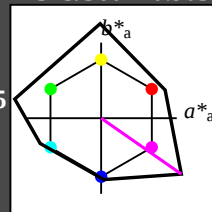
relative Buntheit  $c^*$

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

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 -

$n^* = 1,0$

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 -

$n^* = 0,00$

| 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 -

$n^* = 1,0$

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 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 -

$n^* = 0,00$

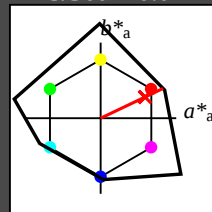
### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 -

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

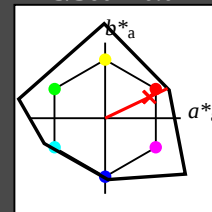
### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 -

$n^* = 1.0$

3 stufige Reihen für konstanten CIELAB Buntton 25/360 = 0.071 (rechts)

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11aput:  $cmv0^* setcmykcolor$

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

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 -

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

UG19-7, 3 stufige Reihen für konstanten CIELAB Buntton 25/360 = 0.071 (links)

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11aput:  $cmv0^* setcmykcolor$

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

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 -

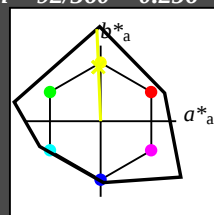
relative Natural Colour (NC)  
lab\*lrj 0.0 0.0 0.0  
lab\*tce 0.0 0.0 -  
lab\*nce 1.0 0.0 -

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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 r99j

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 100g

$n^* = 0,50$

relative Inform. Technology (IT)  
olvi3\* 0.967 1.0 0.0 (1.0)  
cmyn3\* 0.033 0.0 1.0 (0.0)  
olvi4\* 0.968 1.0 0.0 1.0  
cmyn4\* 0.032 0.0 1.0 0.0

standard and adapted CIELAB  
LAB\*LAB 90.45 -4.92 121.77  
LAB\*LABa 90.45 -4.93 121.77  
LAB\*TCHa 50.0 121.87 92.32

relative CIELAB lab\*  
lab\*lab 0.941 -0.04 0.999  
lab\*tch 0.5 1.0 0.256  
lab\*nch 0.0 1.0 0.256

relative Natural Colour (NC)  
lab\*lrj 0.941 0.0 1.0  
lab\*tce 0.5 1.0 0.25  
lab\*nce 0.0 1.0 r99j

$n^* = 0,00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

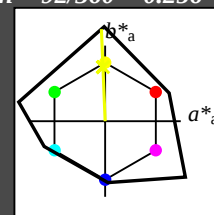
$n^* = 1,0$

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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\* 0.984 1.0 0.5 (1.0)  
cmyn3\* 0.016 0.0 0.5 (0.0)  
olvi4\* 0.984 1.0 0.5 1.0  
cmyn4\* 0.016 0.0 0.5 0.0

standard and adapted CIELAB  
LAB\*LAB 92.92 -2.44 60.89  
LAB\*LABa 92.92 -2.46 60.89  
LAB\*TCHa 75.0 60.94 92.32

relative CIELAB lab\*  
lab\*lab 0.971 -0.019 0.499  
lab\*tch 0.75 0.5 0.256  
lab\*nch 0.0 0.5 0.256

relative Natural Colour (NC)  
lab\*lrj 0.971 0.0 0.5  
lab\*tce 0.75 0.5 0.25  
lab\*nce 0.0 0.5 r99j

relative Inform. Technology (IT)  
olvi3\* 0.484 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 100g

$n^* = 0,50$

relative Buntheit  $c^*$

$n^* = 1,0$

| 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\* 0.967 1.0 0.0 (1.0)  
cmyn3\* 0.033 0.0 1.0 (0.0)  
olvi4\* 0.968 1.0 0.0 1.0  
cmyn4\* 0.032 0.0 1.0 0.0

standard and adapted CIELAB  
LAB\*LAB 90.45 -4.92 121.77  
LAB\*LABa 90.45 -4.93 121.77  
LAB\*TCHa 50.0 121.87 92.32

relative CIELAB lab\*  
lab\*lab 0.941 -0.04 0.999  
lab\*tch 0.5 1.0 0.256  
lab\*nch 0.0 1.0 0.256

relative Natural Colour (NC)  
lab\*lrj 0.941 0.0 1.0  
lab\*tce 0.5 1.0 0.25  
lab\*nce 0.0 1.0 r99j

relative Inform. Technology (IT)  
olvi3\* 0.484 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 100g

$n^* = 0,50$

relative Buntheit  $c^*$

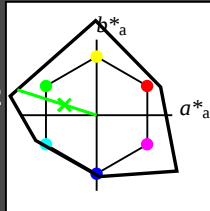
$n^* = 1,0$

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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\*nh 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\*nh 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\*nh 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\* 0.541 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\*nh 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\*nh 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 0.900b

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\*nh 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\*nh 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 -

Schwarzheit  $n^*$

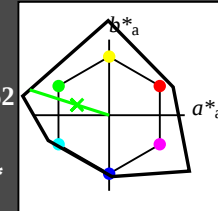
relative Buntheit  $c^*$

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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\*nh 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\*nh 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\*nh 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\*nh 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\*nh 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 0.900b

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\*nh 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\*nh 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 -

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\* 0.541 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\*nh 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\*nh 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 0.900b

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\*nh 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\*nh 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\* 0.083 1.0 0.0 (1.0)  
cmyn3\* 0.917 0.0 1.0 (0.0)  
olvi4\* 0.083 1.0 0.0 1.0  
cmyn4\* 0.917 0.0 1.0 0.0

standard and adapted CIELAB  
LAB\*LAB 65.41 -104.893.58  
LAB\*LABa 65.41 -104.923.57  
LAB\*TCHa 50.0 110.17 162.26

relative CIELAB lab\*  
lab\*lab 0.645 -0.951 0.305  
lab\*tch 0.5 1.0 0.451  
lab\*nh 0.0 1.0 0.451

relative Natural Colour (NC)  
lab\*lrj 0.645 -0.999 0.0  
lab\*tce 0.5 1.0 0.5  
lab\*nce 0.0 1.0 0.900b

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\*nh 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 0.900b

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\*nh 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\*nh 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 -

Schwarzheit  $n^*$

relative Buntheit  $c^*$

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

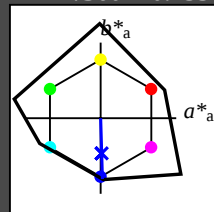
BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & N

### Eingabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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

$n^* = 0.50$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

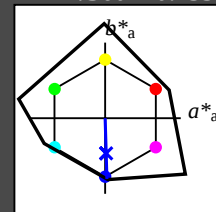
$n^* = 0.00$

### Ausgabe: Farbmétrisches Reflexions-System NCS11

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

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

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

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

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

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\* 0.5 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

$n^* = 0.50$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

$n^* = 0.00$

UG19-7, 3 stufige Reihen für konstanten CIELAB Buntton 272/360 = 0.755 (links)

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

BAM-Prüfvorlage UG19; Farbmétrik-Systeme NCS11a & NCS11aput: *cmv0\* setcmvcolor*

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