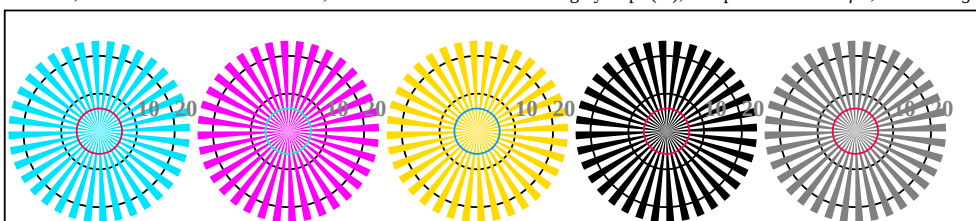


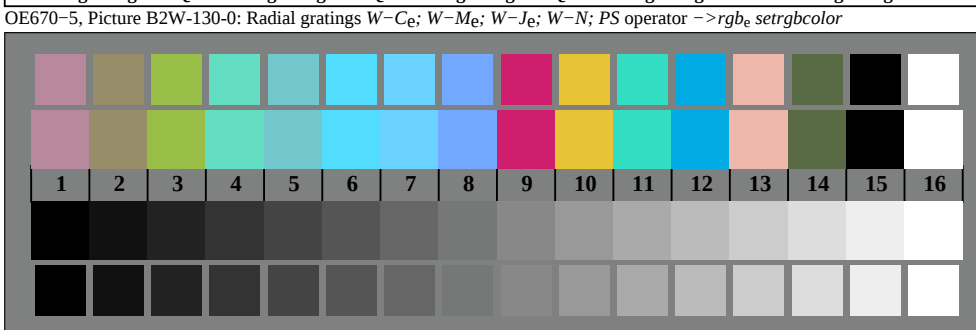
<http://130.149.60.45/~farbmatrik/OE67/OE67L0NA.TXT> /.PS; linearized output, Page 1/3  
F: Output Linearization (OL) data OE67/OE67L0NA.TXT /.PS in File (F)



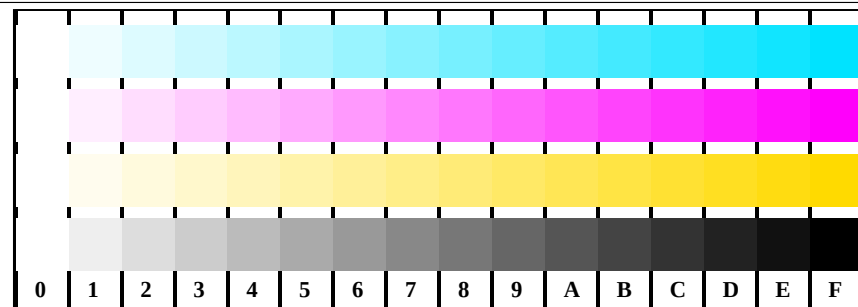
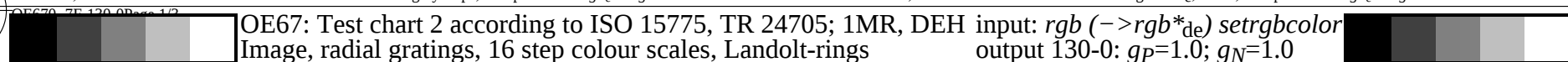
OE670-7, Picture B1-130-0: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 *colorimage*



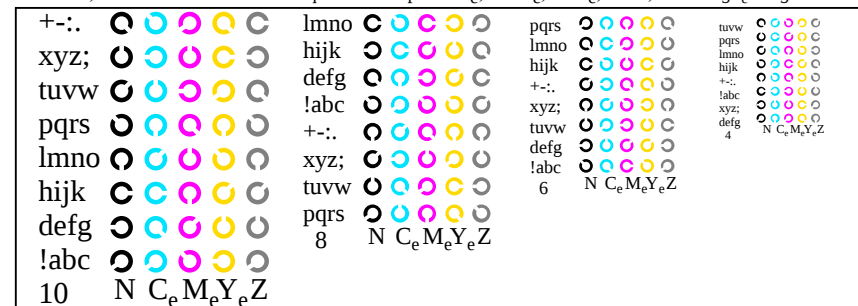
OE670-5, Picture B2W-130-0: Radial gratings W-C<sub>e</sub>; W-M<sub>e</sub>; W-J<sub>e</sub>; W-N; PS operator  $\rightarrow \text{rgb}_e \text{ setrgbcolor}$



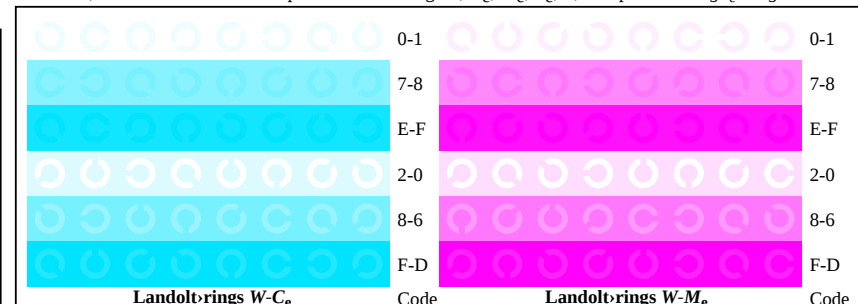
OE670-7, Picture B3W-130-0: 14 CIE-test colours and 2 + 16 grey steps; PS operator  $\rightarrow \text{rgb}_e \text{ setrgbcolor}$



OE671-1, Picture B4W-L-130-0: 16 equidistant steps W-C<sub>e</sub>; W-M<sub>e</sub>; W-J<sub>e</sub>; W-N; PS:  $\rightarrow \text{rgb}_e \text{ setrgbcolor}$



OE671-3, Picture B5W-130-0: Script and Landolt-rings N; C<sub>e</sub>; M<sub>e</sub>; Y<sub>e</sub>; Z; PS operator  $\rightarrow \text{rgb}_e \text{ setrgbcolor}$



OE671-5, Picture B6W-L-130-0: Landolt-rings W-C<sub>e</sub>; W-M<sub>e</sub>; PS operator  $\rightarrow \text{rgb}_e \text{ setrgbcolor}$



OE671-7, Picture B7W-L-130-0: Landolt-rings W-J<sub>e</sub>; W-N; PS operator  $\rightarrow \text{rgb}_e \text{ setrgbcolor}$

**Test for the visual linearized output of Pictures B1W-130-0 to B7W-130-0**  
**Output test with the computer display ( ) or the external display ( )** please mark by (x)!

**Test of the (flower) image according to picture B1W-130-0**  
 Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**  
 Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":  
 .....  
 .....  
 .....

**Test of the resolution of radial gratings  $W-C_d$ ,  $W-M_d$ ,  $W-Y_d$  according to picture B2W-130-0**

|                                                       | $W-C_d$  | $W-M_d$  | $W-Y_d$  | $W-N$    | $W-Z$    |
|-------------------------------------------------------|----------|----------|----------|----------|----------|
| Is the resolution diameter < 6 mm?                    | Yes/No   | Yes/No   | Yes/No   | Yes/No   | Yes/No   |
| Test with magnifying glass (6x), Resolution diameter: | ..... mm | ..... mm | ..... mm | ..... mm | ..... mm |

**Test of the 14 CIE-test colours according to picture B3W-130-0**  
 Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**  
 If Yes: How many colours have clear differences? of the given 14 steps: ..... **Steps**

**Test of 16 visual equidistant  $L^*$ -grey steps according to picture B3W-130-0**  
 Are the 16 steps on the upper rows distinguishable? **Yes/No**  
 If No: How many steps can be distinguished? of the given 16 steps: ..... **Steps**

Part 1 OE670-3N-130-1

**Documentation of file format, hardware and software for this test:**  
**PDF-File:** <http://130.149.60.45/farbmetrik/OE67/OE67L0NP.PDF> **underline Yes/No**  
**PS-File:** <http://130.149.60.45/farbmetrik/OE67/OE67L0NA.PS> **or underline Yes/No**

**Used computer operating system:**  
 either one of Windows/Mac/Unix/other and version:.....

**This evaluation is for the device output:** **underline monitor/data projector/printer**  
 Device model, driver and version:.....

**Device output with PDF/PS-file:** **underline PDF/PS-file**  
**For device output with PDF-file OE67L0NP.PDF:**  
 either PDF-file transfer "download, copy" to PDF device.....  
 or with computer system interpretation by "Display-PDF":.....  
 or with software e. g. Adobe-Reader/-Acrobat and version:.....  
 or with software e. g. Ghostscript and version:.....

**For device output with PS-file OE67L0NA.PS:**  
 either PS-file transfer "download, copy" to PS device.....  
 or with computer system interpretation by "Display-PS":.....  
 or with software e. g. Ghostscript and version:.....  
 or with software e. g. Mac-Yap and version:.....

Special remarks: Special remarks, e. g. output of Landscape (L)  
 .....  
 .....  
 .....

Part 3 OE670-7N-130-1

**Test of 16 visually equally spaced steps of the colour rows  $W-C_d$ ,  $W-M_d$ ,  $W-Y_d$  and  $W-N$  according to picture B4W-130-0**

|                                                                   | $W-C_d$ White - Cyanblue: | $W-M_d$ White - Magentared: | $W-Y_d$ White - Yellow: | $W-N$ White - Black: |
|-------------------------------------------------------------------|---------------------------|-----------------------------|-------------------------|----------------------|
| Are all the 16 steps distinguishable?                             | Yes/No                    | Yes/No                      | Yes/No                  | Yes/No               |
| If No: How many steps can be distinguished? of the given 16 steps | ..... Steps               | ..... Steps                 | ..... Steps             | ..... Steps          |

**Test of characters and Landolt-rings in four sizes according to picture B5W-130-0**  
 Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?

| Relative size | Letters | Ring N | Ring $C_d$ | Ring $M_d$ | Ring $Y_d$ |
|---------------|---------|--------|------------|------------|------------|
| 10            | Yes/No  | Yes/No | Yes/No     | Yes/No     | Yes/No     |
| 8             | Yes/No  | Yes/No | Yes/No     | Yes/No     | Yes/No     |
| 6             | Yes/No  | Yes/No | Yes/No     | Yes/No     | Yes/No     |
| 4             | Yes/No  | Yes/No | Yes/No     | Yes/No     | Yes/No     |

**Test of recognition frequency of Landolt-rings  $W-C_d$ ,  $W-M_d$ ,  $W-Y_d$  and  $W-N$  according to pictures B6W-130-0, and B7W-130-0**  
 Is the recognition frequency of the Landolt-rings > 50% (min. 5 of 8 at least)?

| Colour row $W-C_d$ background - ring | Colour row $W-M_d$ background - ring | Colour row $W-Y_d$ background - ring | Colour row $W-N$ background - ring |
|--------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|
| 0 - 1 Yes/No                         | 0 - 1 Yes/No                         | 0 - 1 Yes/No                         | 0 - 1 Yes/No                       |
| 7 - 8 Yes/No                         | 7 - 8 Yes/No                         | 7 - 8 Yes/No                         | 7 - 8 Yes/No                       |
| E - F Yes/No                         | E - F Yes/No                         | E - F Yes/No                         | E - F Yes/No                       |
| 2 - 0 Yes/No                         | 2 - 0 Yes/No                         | 2 - 0 Yes/No                         | 2 - 0 Yes/No                       |
| 8 - 6 Yes/No                         | 8 - 6 Yes/No                         | 8 - 6 Yes/No                         | 8 - 6 Yes/No                       |
| F - D Yes/No                         | F - D Yes/No                         | F - D Yes/No                         | F - D Yes/No                       |

Part 1 OE671-3N-130-1

**Documentation of assessor colour vision properties for visual assessment**  
 The assessor has **normal** colour vision according to one test: **underline Yes/No**  
 either according to DIN 6160:1996 with Anomaloskop of Nagel **underline Yes/unknown**  
 or with test charts using colour points according to Ishihara **underline Yes/unknown**  
 or tested with, please specify: ..... **underline Yes/unknown**

**For visual evaluation of the display (monitor, data projector) output**  
 Office workplace illumination is daylight (clouded/north sky) **underline Yes/No**  
**PDF file:** <http://130.149.60.45/farbmetrik/OE67/OE67F1P2.PDF> **underline Yes/No**  
**PS file:** <http://130.149.60.45/farbmetrik/OE67/OE67F1P2.PS> **underline Yes/No**  
**Picture A7-130-2: contrast range:** (>F:0) (F:0) (E:0) (D:0) (C:0) (A:0) (9:0) (7:0) (5:0) (3:0) (<3:0)  
 compare standard print output according to ISO/IEC 15775 with range F:0 **underline range**  
 Remark: In daylighted offices the contrast range is in many cases:  
 on display between: >F:0 and E:0 (monitor), D:0 and 3:0 (data projector)

**Only for optional colorimetric specification with PDF/PS file output**  
**PDF-File:** <http://130.149.60.45/farbmetrik/OE67/OE67F1P2.PDF> **underline Yes/No**  
**PS-File:** <http://130.149.60.45/farbmetrik/OE67/OE67F1P2.PS> **or underline Yes/No**  
**picture A7-130-2**

**colour measurement and specification for:**  
 CIE standard illuminant D65, 2 degree observer, CIE 45/0 geometry: **underline Yes/No**  
 If No, please give other parameters: .....

**Colorimetric specification with PS file for colours in the columns A to T**  
 Exchange of CIELAB data in file [www.ps.bam.de/De17/10L/L17e00NP.PS](http://www.ps.bam.de/De17/10L/L17e00NP.PS) and transfer  
 of the PS-file L17e00NP.PS in PDF-file L17e00NP.PDF **underline Yes/No**  
 If No, please describe other method: .....

Part 4 OE671-7N-130-1

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i  | LAB*ref | L*out | LAB*out | LAB*out/c-ref | ΔE*  |
|----|---------|-------|---------|---------------|------|
| 1  | 0.0     | 0.0   | 0.0     | 0.0           | 0.01 |
| 2  | 6.36    | 0.0   | 0.07    | 6.36          | 0.01 |
| 3  | 12.72   | 0.0   | 0.13    | 12.72         | 0.01 |
| 4  | 19.08   | 0.0   | 0.2     | 19.08         | 0.01 |
| 5  | 25.44   | 0.0   | 0.27    | 25.44         | 0.01 |
| 6  | 31.8    | 0.0   | 0.33    | 31.8          | 0.01 |
| 7  | 38.16   | 0.0   | 0.4     | 38.16         | 0.01 |
| 8  | 44.52   | 0.0   | 0.47    | 44.52         | 0.01 |
| 9  | 50.89   | 0.0   | 0.53    | 50.89         | 0.01 |
| 10 | 57.25   | 0.0   | 0.6     | 57.25         | 0.01 |
| 11 | 63.61   | 0.0   | 0.67    | 63.61         | 0.01 |
| 12 | 69.97   | 0.0   | 0.73    | 69.97         | 0.01 |
| 13 | 76.33   | 0.0   | 0.8     | 76.33         | 0.01 |
| 14 | 82.69   | 0.0   | 0.87    | 82.69         | 0.01 |
| 15 | 89.05   | 0.0   | 0.93    | 89.05         | 0.01 |
| 16 | 95.41   | 0.0   | 1.0     | 95.41         | 0.01 |
| 17 | 0.0     | 0.0   | 0.0     | 0.0           | 0.01 |
| 18 | 23.85   | 0.0   | 0.25    | 23.85         | 0.01 |
| 19 | 47.71   | 0.0   | 0.5     | 47.71         | 0.01 |
| 20 | 71.56   | 0.0   | 0.75    | 71.56         | 0.01 |
| 21 | 95.41   | 0.0   | 1.0     | 95.41         | 0.01 |

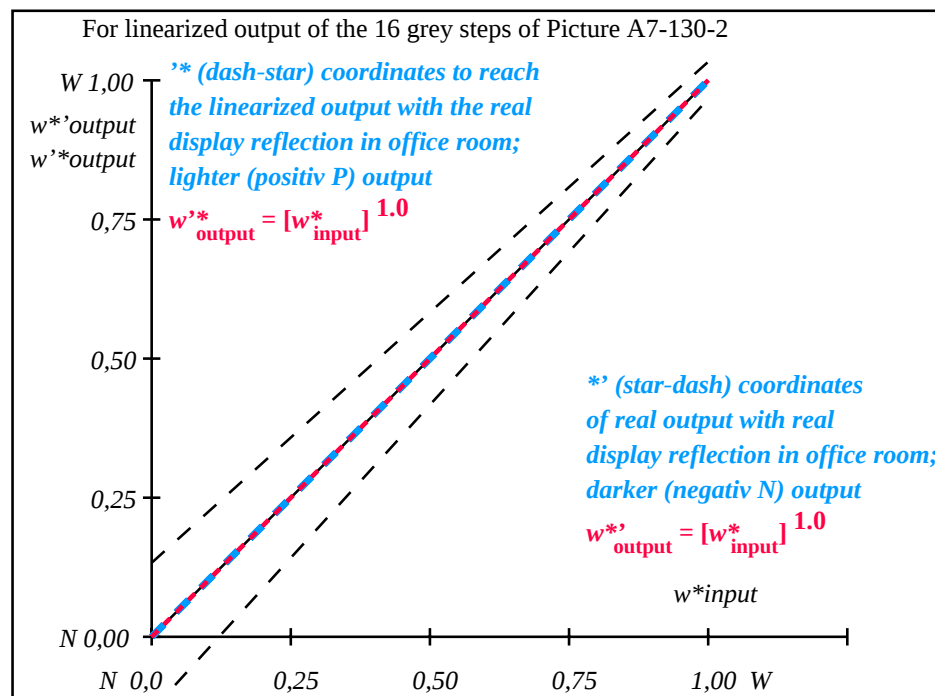
**Start output S1**  
**Specification according to**  
**ISO/IEC 15775 Annex G**  
**and DIN 33866-1 Annex G**

Mean lightness difference (16 steps)  
 $\Delta E^*_{CIELAB} = 0.0$

Mean lightness difference (5 steps)  
 $\Delta L^*_{CIELAB} = 0.0$

Mean colour reproduction index:  $R^*_{ab,m} = 100$

OE670-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE671-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y_{intended}$<br>(absolute)                            | 0.0/0.0 | 6.4/0.7 | 12.7/1.5 | 19.1/2.8 | 25.4/4.6 | 31.8/7.0 | 38.2/10.2 | 44.5/14.2 | 50.9/19.2 | 57.2/25.2 | 63.6/32.3 | 70.0/40.7 | 76.3/50.4 | 82.7/61.6 | 89.0/74.3 | 95.4/88.6 |
|-------------------------------------------------------------|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb<br>$g_P=1.0$<br>No. and<br>Hex code | 00;F    | 01;E    | 02;D     | 03;C     | 04;B     | 05;A     | 06;9      | 07;8      | 08;7      | 09;6      | 10;5      | 11;4      | 12;3      | 13;2      | 14;1      | 15;0      |
| $w^*=l^*_{CIELAB, r}$<br>(relative)                         |         |         |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| $w^*_{intended}$                                            | 0.000   | 0.067   | 0.133    | 0.200    | 0.267    | 0.333    | 0.400     | 0.467     | 0.533     | 0.600     | 0.667     | 0.733     | 0.800     | 0.867     | 0.933     | 1.000     |
| $w^*_{out}$                                                 | 0.0     | 0.067   | 0.133    | 0.2      | 0.267    | 0.333    | 0.4       | 0.467     | 0.533     | 0.6       | 0.667     | 0.733     | 0.8       | 0.867     | 0.933     | 1.0       |

OE670-7N, Picture A7-130-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^*$  setrgbcolor

OE67: In-output relation according to ISO 9241-306; 1MR, DEH  
Viewing Y contrast  $Y_W:Y_N=88,9:0,31$ ;  $Y_N$  range 0,0 to <0,46

input:  $rgb \rightarrow rgb^*_{de}$  setrgbcolor  
output 130-2:  $g_P=1.0$ ;  $g_N=1.0$

TUB registration: 20110801-OE67/OE67L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta