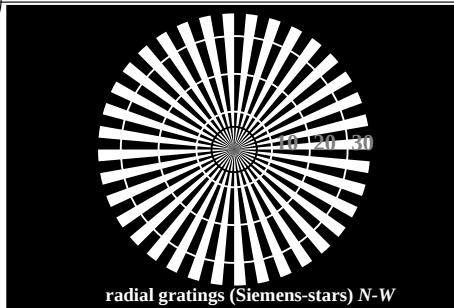
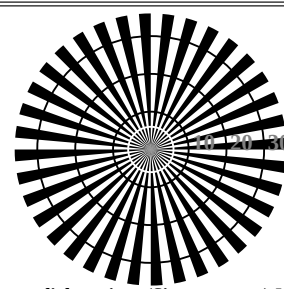


see similar files: <http://farbe.li.tu-berlin.de/AE06/AE06L0NP.PDF> /.PS  
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE.HTM>

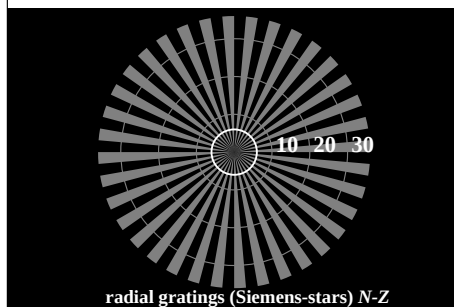
TUB Registration: 20190301-AE06/AE06L0NP.PDF /.PS  
application for measurement or viewing of display and print output  
TUB material: code=rha4ta



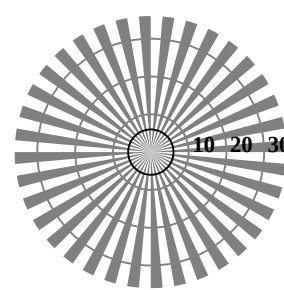
radial gratings (Siemens-stars) N-W



radial gratings (Siemens-stars) W-N

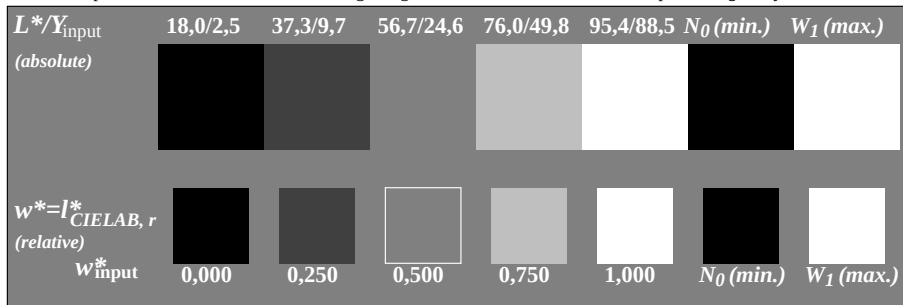


radial gratings (Siemens-stars) N-Z

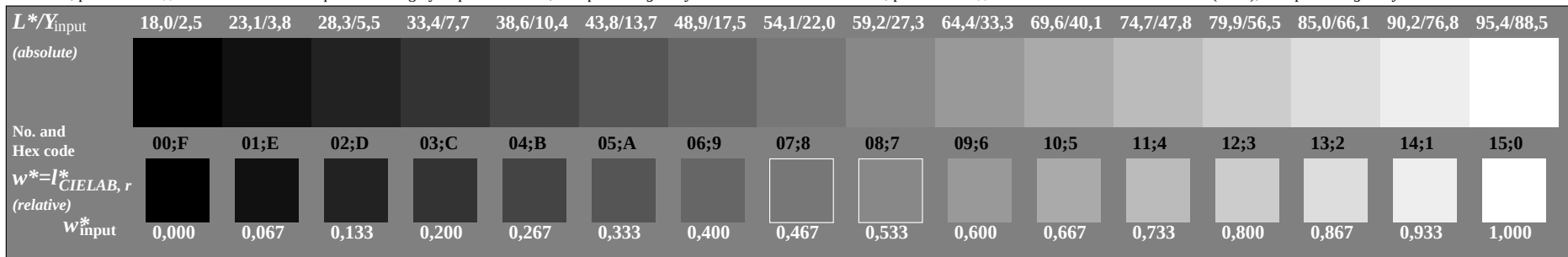


radial gratings (Siemens-stars) W-Z

AE060-3, picture A1W<sub>dd</sub>: Element A: radial gratings N-W, W-N, N-Z, and W-Z; PS operator: *rgb/cmy0/w/000n*



AE060-5, picture A2W<sub>dd</sub>: Element B: 5 visual equidistant  $L^*$ -grey steps +  $N_0$  +  $W_1$ ; PS operator: *rgb/cmy0/w/000n*



AE060-7, picture A3W<sub>dd</sub>: Element C: 16 visual equidistant  $L^*$ -grey steps; PS operator: *rgb/cmy0/w/000n*



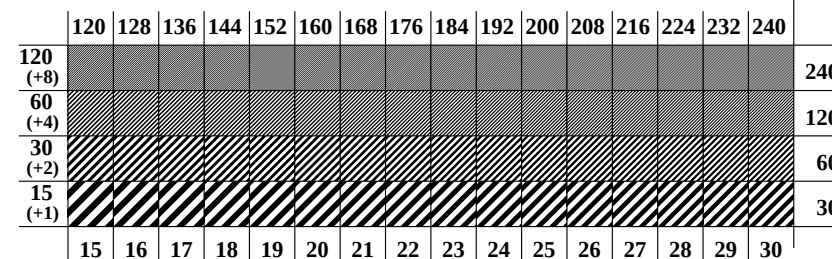
Test chart AE06 according to ISO 9241-306  
achromatic test chart N

|                 |   |   |           |     |
|-----------------|---|---|-----------|-----|
| background step | 0 | 1 | ring step | 0-1 |
| Hex code        | 7 | 8 | Hex code  | 7-8 |
| E               |   | F | E-F       |     |
| 2               |   | 0 | 2-0       |     |
| 8               |   | 6 | 8-6       |     |
| F               |   | D | F-D       |     |

Landolt-rings W-N

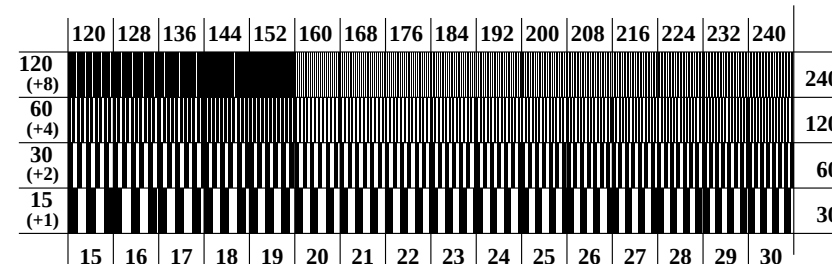
code: background - ring

AE061-1, picture A4W<sub>dd</sub>: Element D: Landolt-rings W-N; PS operator: *rgb/cmy0/w/000n*



line raster diameter in lpi

AE061-3, picture A5W<sub>dd</sub>: Element E: Line raster under 45° (or 135°); PS-operator: *rgb/cmy0/w/000n*



line raster diameter in lpi

AE061-5, picture A6W<sub>dd</sub>: Element F: Line raster under 90° (or 0°); PS-operator: *rgb/cmy0/w/000n*

input: *rgb/cmy0/000n/w set...*  
output: *->rgb<sub>dd</sub> setrgbcolor*



**Test of visual linearized output of pictures A1W<sub>dd</sub> to A3W<sub>dd</sub>** please underline **Yes/No**

**Output test with computer display ( ) or the external display ( )** please mark by (x)!

**Test of the radial grating according to picture A1W<sub>dd</sub>**

N-W-radial grating: Is the resolution diameter < 6 mm? **Yes/No**  
Test with magnifying glass (e.g. 6x) resolution diameter ..... mm

W-N-radial grating: Is the resolution diameter < 6 mm? **Yes/No**  
Test with magnifying glass (e.g. 6x) resolution diameter ..... mm

N-Z-radial grating: Is the resolution diameter < 6 mm? **Yes/No**  
Test with magnifying glass (e.g. 6x) resolution diameter ..... mm

W-Z-radial grating: Is the resolution diameter < 6 mm? **Yes/No**  
Test with magnifying glass (e.g. 6x) resolution diameter ..... mm

**Test of 5 visual equidistant L\*-grey steps according to picture A2W<sub>dd</sub>**

Are the 5 steps on the upper rows distinguishable? **Yes/No**  
If No: How many steps can be distinguished? ..... Steps  
of the given 5 steps:

**Test of 16 visual equidistant L\*-grey steps according to picture A3W<sub>dd</sub>**

Are the 16 steps on the upper rows distinguishable? **Yes/No**  
If No: How many steps can be distinguished? ..... Steps  
of the given 16 steps:

part 1, AE060-3dd: 00301

**Documentation of file format, hardware and software for this test:**

**PDF file:** [http://farbe.li.tu-berlin.de/AE06/AE06F0PX\\_CY8\\_1.PDF](http://farbe.li.tu-berlin.de/AE06/AE06F0PX_CY8_1.PDF) **underline: Yes/No**

**PS file:** [http://farbe.li.tu-berlin.de/AE06/AE06F0PX\\_CY8\\_1.PS](http://farbe.li.tu-berlin.de/AE06/AE06F0PX_CY8_1.PS) **underline: Yes/No**

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

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

**output with PDF/PS-file:** **underline: PDF/PS file**

**For output with PDF file AE06F0PX\_CY8\_1.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 output with PS file AE06F0PX\_CY8\_1.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: e. g. output of Landscape (L)  
.....  
.....  
.....

part 3, AE060-7dd: 00301

Form A: Test chart AE06 according to ISO 9241-306  
achromatic test chart N

**Test of visual linearized output of pictures A4W<sub>dd</sub> to A6W<sub>dd</sub>** please underline **Yes/No**

**Output test with computer display ( ) or the external display ( )** please mark by (x)!

**Test of Landolt rings N-W according to picture A4W<sub>dd</sub>**

Is the recognition frequency of the Landolt rings > 50% (5 of 8 at least)?

| background - ring | Yes/No |
|-------------------|--------|
| 0 - 1             | Yes/No |
| 7 - 8             | Yes/No |
| E - F             | Yes/No |
| 2 - 0             | Yes/No |
| 8 - 6             | Yes/No |
| F - D             | Yes/No |

**Test of the radial grating under 45° according to picture A5W<sub>dd</sub>**

Can equally spaced lines be seen? **Yes/No**  
Visual testing: for radial diameter from 15 to 60 lpi ..... lpi  
Test with magnifying glass (e.g. 6x) - from 15 to

**Test of the radial grating under 90° according to picture A6W<sub>dd</sub>**

Can equally spaced lines be seen? **Yes/No**  
Visual testing: for radial diameter from 15 to 60 lpi ..... lpi  
Test with magnifying glass (e.g. 6x) - from 15 to

part 2, AE061-3dd: 00301

**Documentation of assessor colour-vision properties for visual assessment**

The assessor has **normal** colour vision according to one test:  
either according to DIN 6160:1996 with Anomaloskop of Nagel **underline: Yes/No**  
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://farbe.li.tu-berlin.de/AE06/AE06F0PX\\_CY8\\_3.PDF](http://farbe.li.tu-berlin.de/AE06/AE06F0PX_CY8_3.PDF) **underline: Yes/No**

**PS file:** [http://farbe.li.tu-berlin.de/AE06/AE06F0PX\\_CY8\\_3.PS](http://farbe.li.tu-berlin.de/AE06/AE06F0PX_CY8_3.PS) **underline: Yes/No**

**picture A7<sub>dd</sub> 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: Yes/No**  
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://farbe.li.tu-berlin.de/AE06/AE06F0PX\\_CY8\\_3.PDF](http://farbe.li.tu-berlin.de/AE06/AE06F0PX_CY8_3.PDF) **underline: Yes/No**

**PS file:** [http://farbe.li.tu-berlin.de/AE06/AE06F0PX\\_CY8\\_3.PS](http://farbe.li.tu-berlin.de/AE06/AE06F0PX_CY8_3.PS) **underline: Yes/No**

**picture A7<sub>dd</sub>** **underline: Yes/No**  
**picture A7<sub>dd</sub>** **or underline: Yes/No**

**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 for 17 step colours of** <http://farbe.li.tu-berlin.de/OE70/OE70L1NP.PDF>  
Exchange of CIELAB data in file <http://farbe.li.tu-berlin.de/AE82/AE82L0NP.TXT> and transfer  
of the PS file AE82L0NP.PS (= .TXT) to the PDF-file AE82L0NP.PDF **underline: Yes/No**  
If No, please describe other method: .....

part 4, AE061-7dd: 00301

input: *rgb/cmy0/000n/w set...*  
output: *->rgb<sub>dd</sub> setrgbcolor*

see similar files: <http://farbe.li.tu-berlin.de/AE06/AE06L0NP.PDF> / .PS  
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE.HTM>

TUB Registration: 20190301-AE06/AE06L0NP.PDF /.PS  
application for measurement or viewing of display and print output  
TUB material: code=rha4ta

| i  | LAB* <sub>ref</sub> | L* <sub>out</sub> | LAB* <sub>out</sub> | LAB* <sub>out-ref</sub> | ΔE*  |
|----|---------------------|-------------------|---------------------|-------------------------|------|
| 1  | 0,00                | 0,00              | 0,00                | 0,00                    | 0,01 |
| 2  | 6,36                | 0,00              | 0,00                | 0,00                    | 0,01 |
| 3  | 12,72               | 0,00              | 0,13                | 0,00                    | 0,01 |
| 4  | 19,08               | 0,00              | 0,20                | 0,00                    | 0,01 |
| 5  | 25,44               | 0,00              | 0,26                | 0,00                    | 0,01 |
| 6  | 31,80               | 0,00              | 0,33                | 0,00                    | 0,01 |
| 7  | 38,16               | 0,00              | 0,40                | 0,00                    | 0,01 |
| 8  | 44,52               | 0,00              | 0,46                | 0,00                    | 0,01 |
| 9  | 50,88               | 0,00              | 0,53                | 0,00                    | 0,01 |
| 10 | 57,24               | 0,00              | 0,60                | 0,00                    | 0,01 |
| 11 | 63,60               | 0,00              | 0,66                | 0,00                    | 0,01 |
| 12 | 69,96               | 0,00              | 0,73                | 0,00                    | 0,01 |
| 13 | 76,32               | 0,00              | 0,80                | 0,00                    | 0,01 |
| 14 | 82,68               | 0,00              | 0,86                | 0,00                    | 0,01 |
| 15 | 89,04               | 0,00              | 0,93                | 0,00                    | 0,01 |
| 16 | 95,41               | 0,00              | 1,00                | 0,00                    | 0,01 |
| 17 | 0,00                | 0,00              | 0,00                | 0,00                    | 0,01 |
| 18 | 23,85               | 0,00              | 0,25                | 0,00                    | 0,01 |
| 19 | 47,70               | 0,00              | 0,50                | 0,00                    | 0,01 |
| 20 | 71,55               | 0,00              | 0,75                | 0,00                    | 0,01 |
| 21 | 95,41               | 0,00              | 1,00                | 0,00                    | 0,01 |

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

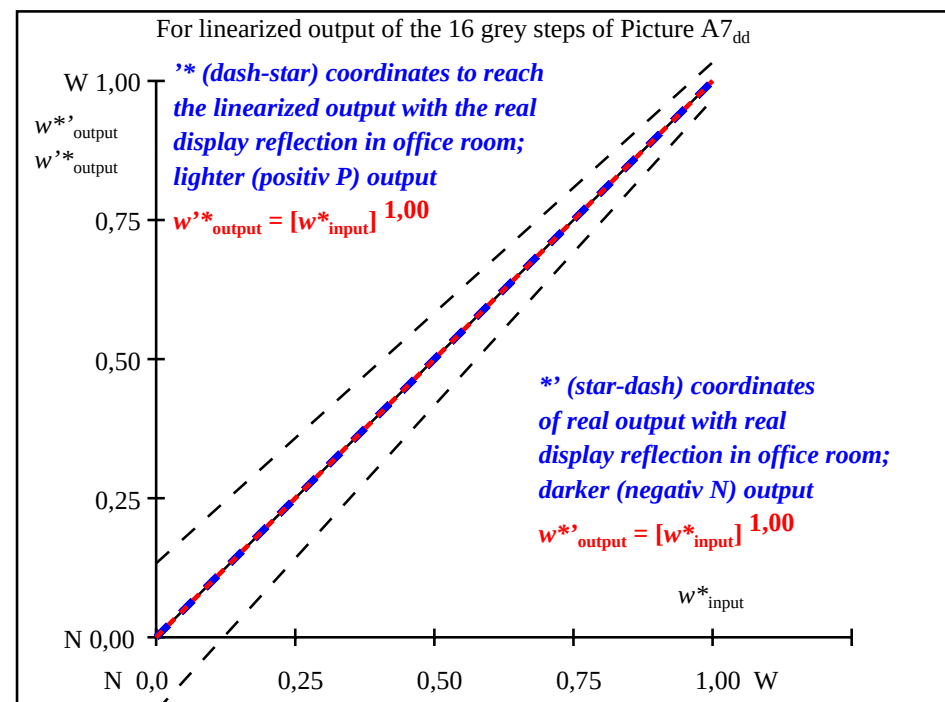
Mean lightness difference (16 steps)  
 $\Delta E^*_{\text{CIELAB}} = 0,0$

Mean lightness difference (5 steps)  
 $\Delta L^*_{\text{CIELAB}} = 0,0$

Mean colour reproduction index:  $R^*_{\text{ab,m}} = 99,9$

part 1,

AE060-3dd: 00302



part 2,

AE061-3dd: 00302

| L*/Y <sub>intended</sub> (absolute)    | 0,0/0,0 | 6,3/0,7 | 12,7/1,5 | 19,0/2,7 | 25,4/4,5 | 31,8/6,9 | 38,1/10,1 | 44,5/14,2 | 50,8/19,1 | 57,2/25,1 | 63,6/32,3 | 69,9/40,7 | 76,3/50,4 | 82,6/61,5 | 89,0/74,2 | 95,4/88,5 |
|----------------------------------------|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| w* w* w* setrgb                        |         |         |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| g <sub>p</sub> =1,000                  |         |         |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| No. and 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* <sub>CIELAB</sub> , r (relative) |         |         |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| w* <sub>intended</sub>                 | 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* <sub>output</sub>                   | 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     |

part 3, picture A7<sub>dd</sub>: 16 visual equidistant L\*-grey steps; PS operator: w\* w\* w\* setrgbcolor

AE060-7dd: 00302

In-out: Test chart AE06 according to ISO 9241-306  
Viewing Y contrast  $Y_W:Y_N=88,9:0,31$ ;  $Y_N$ -range 0,0 to <0,46

input: rgb/cmy0/000n/w set...  
output: ->rgb<sub>dd</sub> setrgbcolor