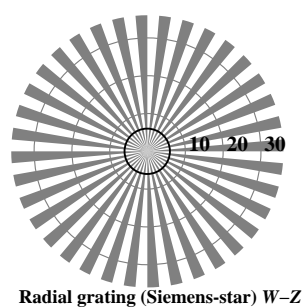


Radial grating (Siemens-star) $W-N$



Radial grating (Siemens-star) W-Z

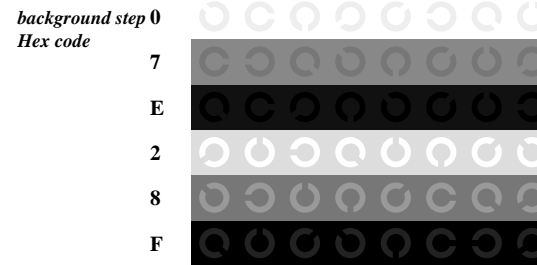
| $L^*/Y_{intended}$ (absolute) | 0.0/0.0 | 23.8/4.0 | 47.7/16.5 | 71.5/43.0 | 95.4/88.5 | N_0 (min.) | W_I (max.) |
|--|---------|----------|-----------|-----------|-----------|--------------|--------------|
| $w^* w^* w^*$ setrgb $g_P=1.0$ | | | | | | | |
| No. and Hex code | 00;4 | 01;3 | 02;2 | 03;1 | 04;0 | | |
| $w^*=l^*$ CIELAB, r (relative) | | | | | | | |
| $w^*_{intended}$ | 0,000 | 0,250 | 0,500 | 0,750 | 1,000 | N_0 (min.) | W_I (max.) |
| w^*_{out} | 0.0 | 0.25 | 0.5 | 0.75 | 1.0 | | |

OE530-5N, Picture A2-130-0: 5 equidistant L^* -grey steps+N0+W1; PS operator: $w^* w^* w^* setrgbcolor$

| $L^*Y_{intended}$ (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 |
|--|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$ <i>setrgb</i> $g_P=1.0$ | | | | | | | | | | | | | | | | |
| 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 |
| $w^*=l^*$ <i>CIELAB</i> , r (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 |

OE530-7N, Picture A3-130-0: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^* setrgbcolor$

OE53: similar ME16 according to ISO 9241-306; 1MR, DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46



code: background-ring

OE531-1N, Picture A4-130-0: Landolt-rings W-N; PS operator: $w^* w^* w^* setrgbcolor$

| | 120 | 128 | 136 | 144 | 152 | 160 | 168 | 176 | 184 | 192 | 200 | 208 | 216 | 224 | 232 | 240 | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 120 (+8) | | | | | | | | | | | | | | | | | 24 |
| 60 (+4) | | | | | | | | | | | | | | | | | 12 |
| 30 (+2) | | | | | | | | | | | | | | | | | 6 |
| 15 (+1) | | | | | | | | | | | | | | | | | 3 |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |

OE531-3N, Picture A5-130-0: Line raster under 45° (or 135°); PS operator: $w^* w^* w^* \text{setrgbcolor}$

| | 120 | 128 | 136 | 144 | 152 | 160 | 168 | 176 | 184 | 192 | 200 | 208 | 216 | 224 | 232 | 240 | |
|-------------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 120 (+8) | | | | | | | | | | | | | | | | | 240 |
| 60 (+4) | | | | | | | | | | | | | | | | | 120 |
| 30 (+2) | | | | | | | | | | | | | | | | | 60 |
| 15 (+1) | | | | | | | | | | | | | | | | | 30 |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| | line raster diameter in <i>lpi</i> | | | | | | | | | | | | | | | | |

OE531-5N, Picture A6-130-0: Line raster under 90° (or 0°); PS operator: $w^* w^* w^* setrgbcolor$

input: $rgb \rightarrow rgb^*_d$ $setrgbcolor$
output 130-0: $g_P=1.0$; $g_N=1.0$

| | | |
|--|--------------------------------------|-------------|
| Test for the best visual linearized output of Picture A7-130-0 | | Yes/No |
| Output test with the computer display () or the external display () | | |
| Test of the radial grating according to picture A1-130-0 | | |
| N-W-radial grating: | Is the resolution diameter < 6 mm? | Yes/No |
| | Test with magnifying glass (e.g. 6x) | mm |
| | resolution diameter | Yes/No |
| W-N-radial grating: | Is the resolution diameter < 6 mm? | Yes/No |
| | Test with magnifying glass (e.g. 6x) | mm |
| | resolution diameter | Yes/No |
| N-Z-radial grating: | Is the resolution diameter < 6 mm? | Yes/No |
| | Test with magnifying glass (e.g. 6x) | mm |
| | resolution diameter | Yes/No |
| W-Z-radial grating: | Is the resolution diameter < 6 mm? | Yes/No |
| | Test with magnifying glass (e.g. 6x) | mm |
| | resolution diameter | mm |
| Test of 5 visual equidistant L*-grey steps according to picture A2-130-0 | | |
| 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: | | Steps |
| Test of 16 visual equidistant L*-grey steps according to picture A3-130-0 | | |
| 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: | | Steps |

Part 1 OE530-3N-130-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE53/OE53L0NP.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE53/OE53L0NA.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 OE53L0NP.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 OE53L0NA.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 OE530-7N-130-1

OE53: Form A for test chart according to ISO 9241-306; 1MR, DH input: $rgb(->rgb^*_d)$ setrgbcolor
Viewing Y contrast $Y_W: Y_N=88,9:0,31$; Y_N range 0,0 to <0,46 output 130-1: $g_P=1.0$; $g_N=1.0$

| | | |
|--|-------------------|--------|
| Test for the best visual linearized output of Picture A7-130-0 | | Yes/No |
| Output test with the computer display () or the external display () | | |
| Test of the Landolt-rings N-W according to picture A4-130-0 | | |
| N-W-radial grating: | | |
| 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 A5-130-0 | | |
| Can equally spaced lines be seen? | | |
| Visual testing: for radial diameter from 15 to 60 lpi | | |
| Test with a magnifying glass (e.g. 6x): - from 15 lpi: to lpi | | |
| Test of the radial grating under 90° according to picture A6-130-0 | | |
| Can equally spaced lines be seen? | | |
| Visual testing: for radial diameter from 15 to 60 lpi | | |
| Test with a magnifying glass (e.g. 6x): - from 15 lpi: to lpi | | |

Part 2 OE531-3N-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/OE53/OE53F1P2.PDF> underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE53/OE53F1P2.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/OE53/OE53F1P2.PDF> underline Yes/No

Picture A7-130-2

PS-File: <http://130.149.60.45/farbmetrik/OE53/OE53F1P2.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:

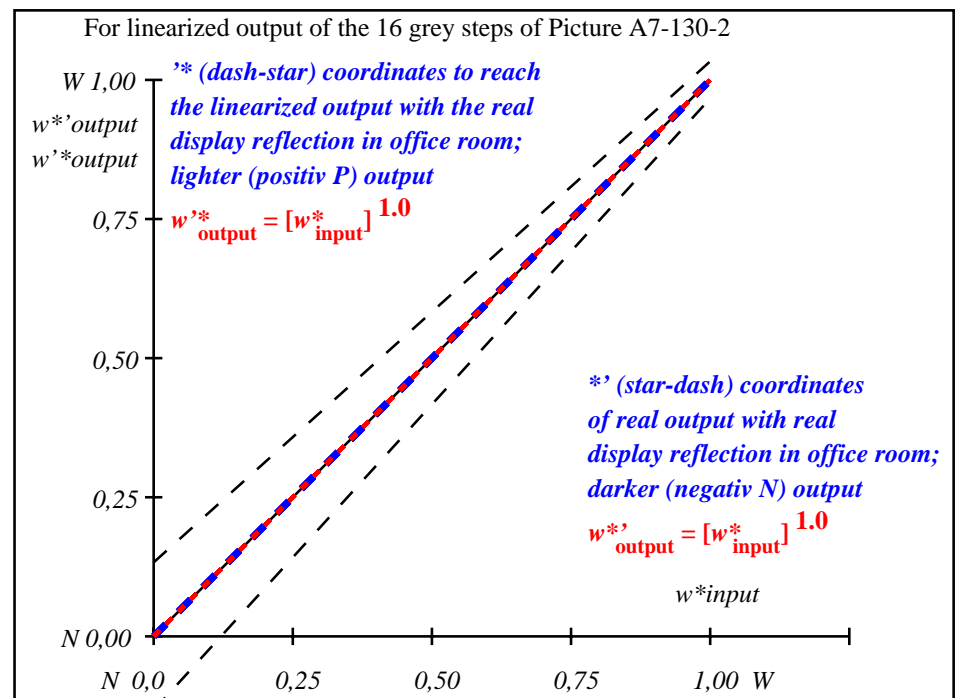
Colorimetric specification with PS file for colours in the columns A to T
Exchange of CIELAB data in file www.ps.bam.de/De17/10L/L17e00NP.PS and transfer
of the PS-file L17e00NP.PS in PDF-file L17e00NP.PDF underline Yes/No
If No, please describe other method:

Part 4 OE531-7N-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* | Start output S1 |
|--------------------------------------|---------|-------|---------|---------------|-------------------------|-----------------|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.01 |
| 2 | 6.36 | 0.0 | 0.07 | 6.36 | 0.0 | 0.01 |
| 3 | 12.72 | 0.0 | 0.13 | 12.72 | 0.0 | 0.01 |
| 4 | 19.08 | 0.0 | 0.2 | 19.08 | 0.0 | 0.01 |
| 5 | 25.44 | 0.0 | 0.27 | 25.44 | 0.0 | 0.01 |
| 6 | 31.8 | 0.0 | 0.33 | 31.8 | 0.0 | 0.01 |
| 7 | 38.16 | 0.0 | 0.4 | 38.16 | 0.0 | 0.01 |
| 8 | 44.52 | 0.0 | 0.47 | 44.52 | 0.0 | 0.01 |
| 9 | 50.89 | 0.0 | 0.53 | 50.89 | 0.0 | 0.01 |
| 10 | 57.25 | 0.0 | 0.6 | 57.25 | 0.0 | 0.01 |
| 11 | 63.61 | 0.0 | 0.67 | 63.61 | 0.0 | 0.01 |
| 12 | 69.97 | 0.0 | 0.73 | 69.97 | 0.0 | 0.01 |
| 13 | 76.33 | 0.0 | 0.8 | 76.33 | 0.0 | 0.01 |
| 14 | 82.69 | 0.0 | 0.87 | 82.69 | 0.0 | 0.01 |
| 15 | 89.05 | 0.0 | 0.93 | 89.05 | 0.0 | 0.01 |
| 16 | 95.41 | 0.0 | 1.0 | 95.41 | 0.0 | 0.01 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.01 |
| 18 | 23.85 | 0.0 | 0.25 | 23.85 | 0.0 | 0.01 |
| 19 | 47.71 | 0.0 | 0.5 | 47.71 | 0.0 | 0.01 |
| 20 | 71.56 | 0.0 | 0.75 | 71.56 | 0.0 | 0.01 |
| 21 | 95.41 | 0.0 | 1.0 | 95.41 | 0.0 | 0.01 |
| Mean lightness difference (16 steps) | | | | | ΔE* _{CIELAB} = | 0.0 |
| Mean lightness difference (5 steps) | | | | | ΔE* _{CIELAB} = | 0.0 |
| Mean colour reproduction index: | | | | | R* _{ab,m} = | 100 |

OE530-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE531-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y_{intended}$ (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 |
|--|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$ setrgb g _p =1.0 | | | | | | | | | | | | | | | | |
| 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 |
| $w^* = [L^*_{CIELAB}, r]$ (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 |

OE530-7N, Picture A7-130-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

OE53: In-output relation according to ISO 9241-306; 1MR, DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

input: $rgb \rightarrow rgb_d$ setrgbcolor
output 130-2: $g_p=1.0$; $g_N=1.0$

TUB registration: 20110801-OE53/OE53L0NA.TXT /.PS
application for output of displays: monitor systems or data projector systems
TUB material: code=thata