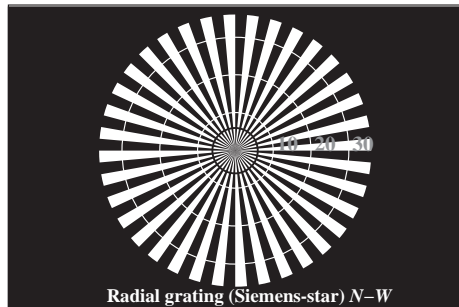
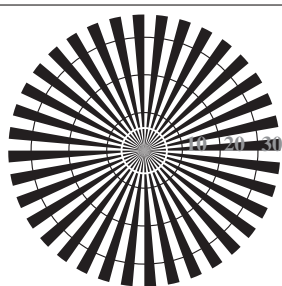


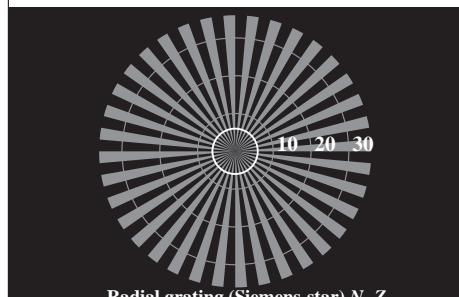
See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1



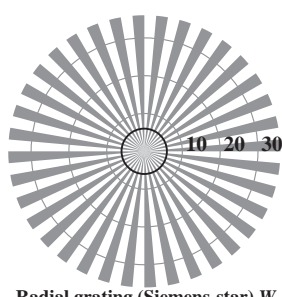
Radial grating (Siemens-star) N-W



Radial grating (Siemens-star) W-N

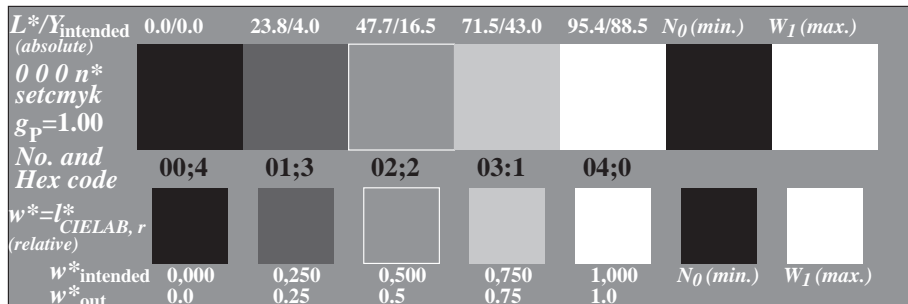


Radial grating (Siemens-star) N-Z

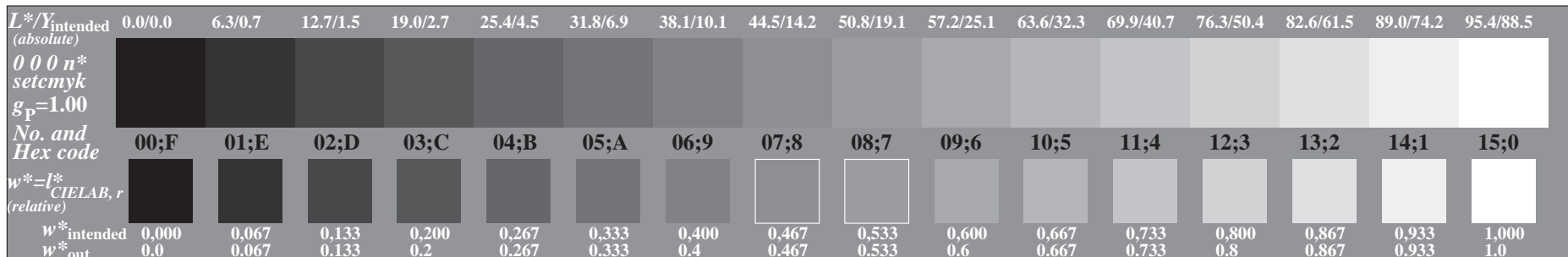


Radial grating (Siemens-star) W-Z

OE540-3N, Picture A1-000-0: Radial grating N-W, W-N, N-Z, W-Z; PS operator: 0 0 0 n* setcmykcolor

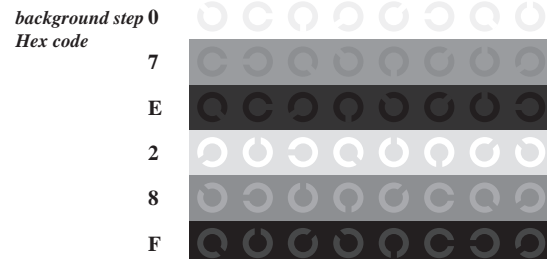


OE540-5N, Picture A2-000-0: 5 equidistant L^* -grey steps+ N_0 + W_1 ; PS operator: 0 0 0 n* setcmykcolor

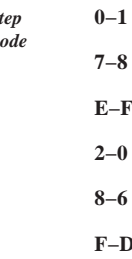


OE540-7N, Picture A3-000-0: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

OE54: similar ME16 according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88.9:0.31$; Y_N range 0,0 to <0,46

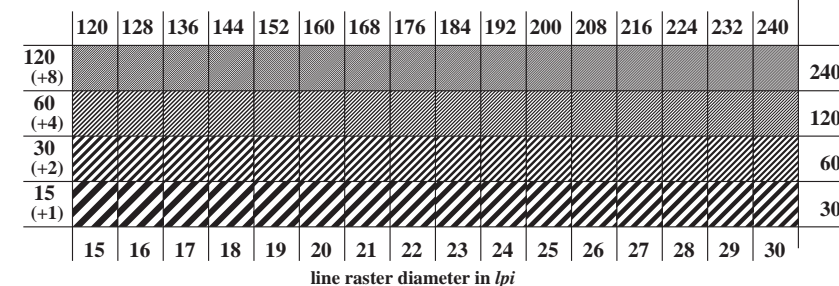


Landolt-rings W-N



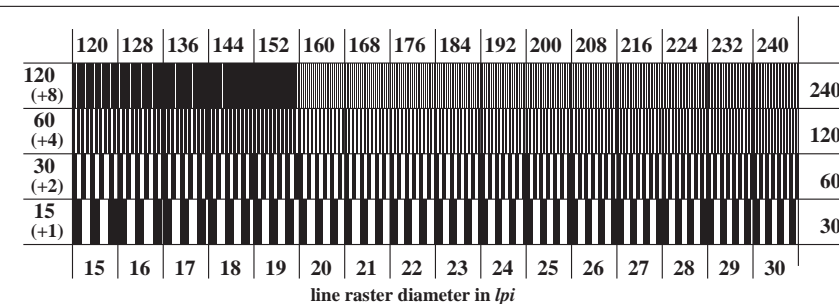
code: background-ring

OE541-1N, Picture A4-000-0: Landolt-rings W-N; PS operator: 0 0 0 n* setcmykcolor



line raster diameter in lpi

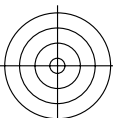
OE541-3N, Picture A5-000-0: Line raster under 45° (or 135°); PS operator: 0 0 0 n* setcmykcolor



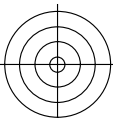
line raster diameter in lpi

OE541-5N, Picture A6-000-0: Line raster under 90° (or 0°); PS operator: 0 0 0 n* setcmykcolor

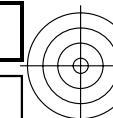
input: all (->rgb_d) setrgbcolor
output 030-0: no change



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

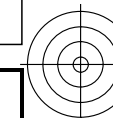


<http://130.149.60.45/~farbmetrik/OE54/OE54L0NA.TXT> /PS; start output, Page 2/12
 N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)



TUB registration: 20110801-OE54/OE54L0NA.TXT /PS
 application for output of displays: monitor systems or data projector systems

TUB material: code=rh4ta



Test for the best visual linearized output of Picture A7-000-0 Yes/No
Output test with the computer display () or the external display ()

Test of the radial grating according to picture A1-000-0

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 A2-000-0

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

Test of 16 visual equidistant L*-grey steps according to picture A3-000-0

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 OE540-3N-000-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE54/OE54L0NP.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE54/OE54L0NA.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 OE54L0NP.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 OE54L0NA.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 OE540-7N-000-1

Test for the best visual linearized output of Picture A7-000-0 Yes/No
Output test with the computer display () or the external display ()

Test of the Landolt-rings N-W according to picture A4-000-0

N-W-radial grating:
 Is the recognition frequency of the Landolt-rings > 50% (5 of 8 at least)?
 background – ring
 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 A5-000-0

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

Test of the radial grating under 90° according to picture A6-000-0

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

Part 2 OE541-3N-000-1

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/OE54/OE54F1P2.PDF> underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE54/OE54F1P2.PS> underline Yes/No

Picture A7-000-2: 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/OE54/OE54F1P2.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE54/OE54F1P2.PS> or underline Yes/No

picture A7-000-2

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 OE541-7N-000-1

OE54: Form A for test chart according to ISO 9241-306; DH
 Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

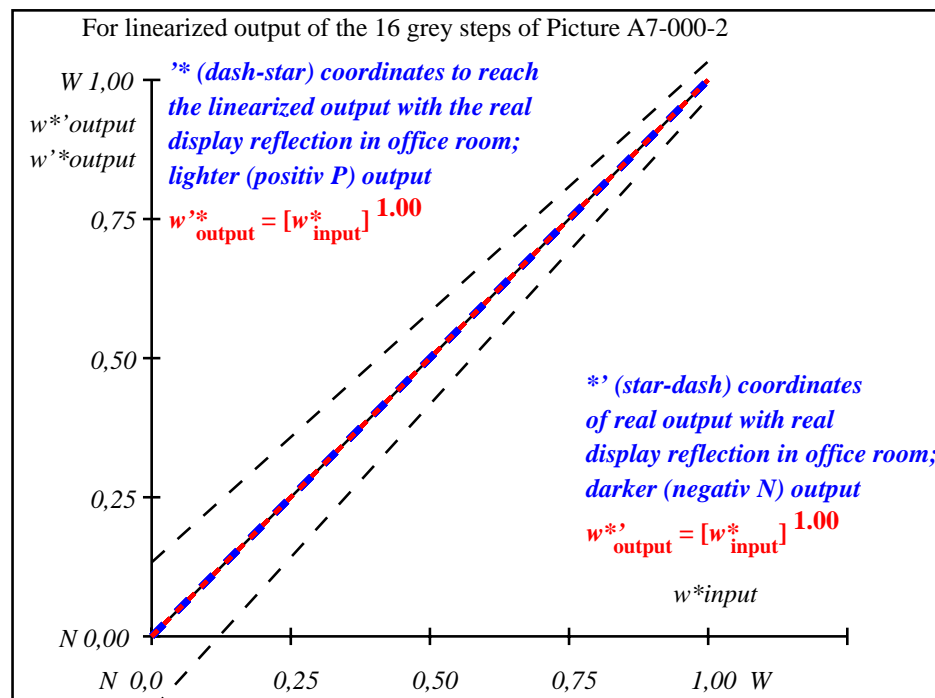
input: all (→rgb*d) setrgbcolor
 output 030-1: no change



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

| 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 |

OE540-3N-000-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE541-3N-000-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

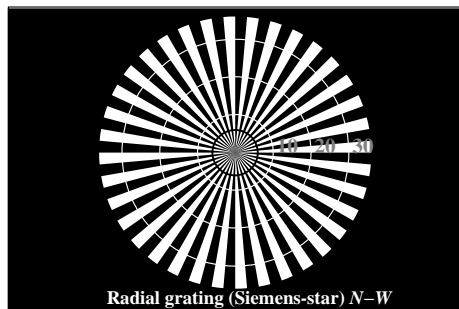
| L*/Y _{intended} (absolute) | 0.0/0.0 | 6.4/0.7 | 12.7/1.5 | 19.1/2.8 | 25.4/4.6 | 31.8/7.0 | 38.2/10.2 | 44.5/14.2 | 50.9/19.2 | 57.2/25.2 | 63.6/32.3 | 70.0/40.7 | 76.3/50.4 | 82.7/61.6 | 89.0/74.3 | 95.4/88.6 |
|--|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0 0 0 n* setcmk gp=1.00 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*=[*] 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 |

OE540-7N, Picture A7-000-2: 16 visual equidistant L*-grey steps; PS operator: 0 0 0 n* setcmkcolor

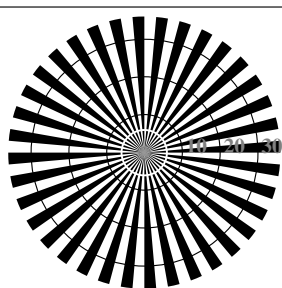
OE54: In-output relation according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

input: all ($\rightarrow rgb_d$) setrgbcolor
output 030-2: no change

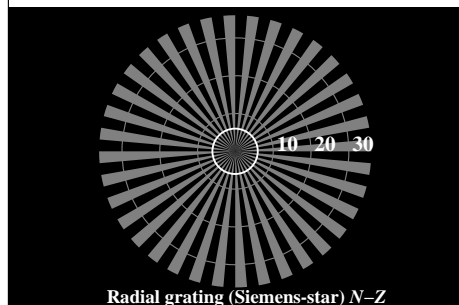
See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1



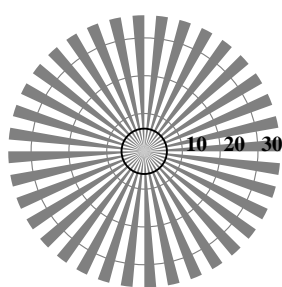
Radial grating (Siemens-star) N-W



Radial grating (Siemens-star) W-N

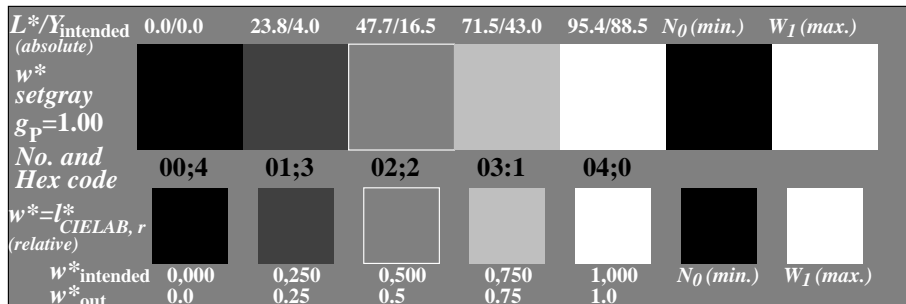


Radial grating (Siemens-star) N-Z

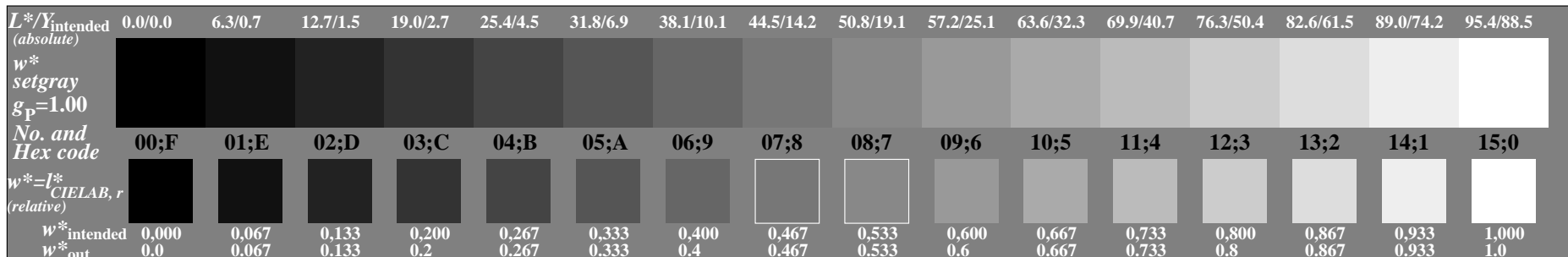


Radial grating (Siemens-star) W-Z

OE540-3N, Picture A1-010-3: Radial grating N-W, W-N, N-Z, W-Z; PS operator: w* setgray

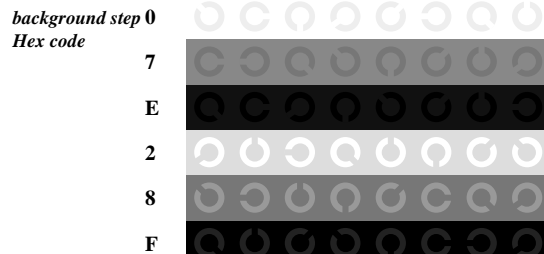


OE540-5N, Picture A2-010-3: 5 equidistant L*-grey steps+N0+W1; PS operator: w* setgray



OE540-7N, Picture A3-010-3: 16 visual equidistant L*-grey steps; PS operator: w* setgray

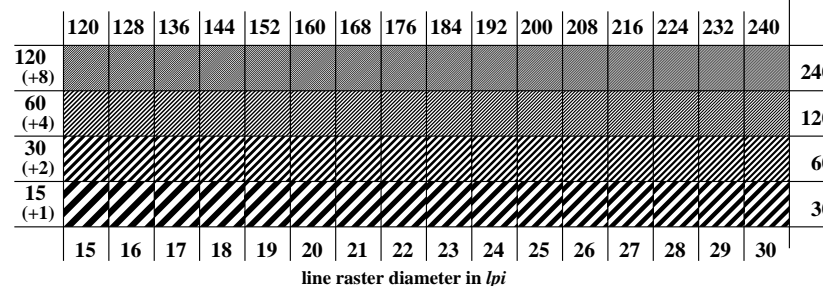
OE54: similar ME16 according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46



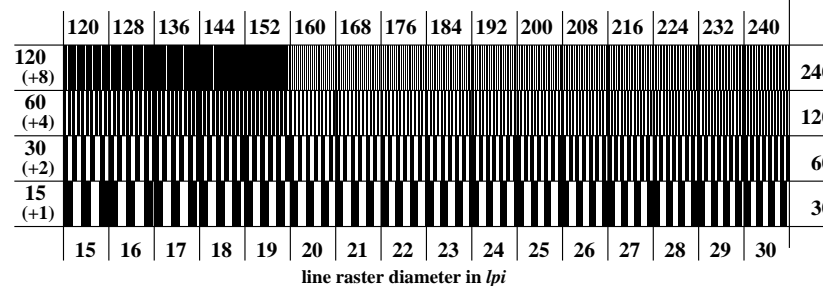
Landolt-rings W-N

code: background-ring

OE541-1N, Picture A4-010-3: Landolt-rings W-N; PS operator: w* setgray



OE541-3N, Picture A5-010-3: Line raster under 45° (or 135°); PS operator: w* setgray

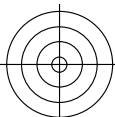


OE541-5N, Picture A6-010-3: Line raster under 90° (or 0°); PS operator: w* setgray

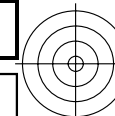
input: all (->rgb*d) setrgbcolor
output 030-3: no change

TUB registration: 20110801-OE54/OE54L0NA.TXT /.PS
application for output of displays: monitor systems or data projector systems

TUB material: code=rh4ta



N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)

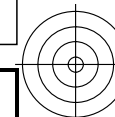


TUB material: code=rha4ta
ctor systems

2024.1.D1 7.15, Page 5/12, NO 1

17). $g_P=1.0$, $g_N=1.0$, <http://150.149.00.4>

input: *all (->rgb*_d) setrgbcolor*
output 030-4: no change

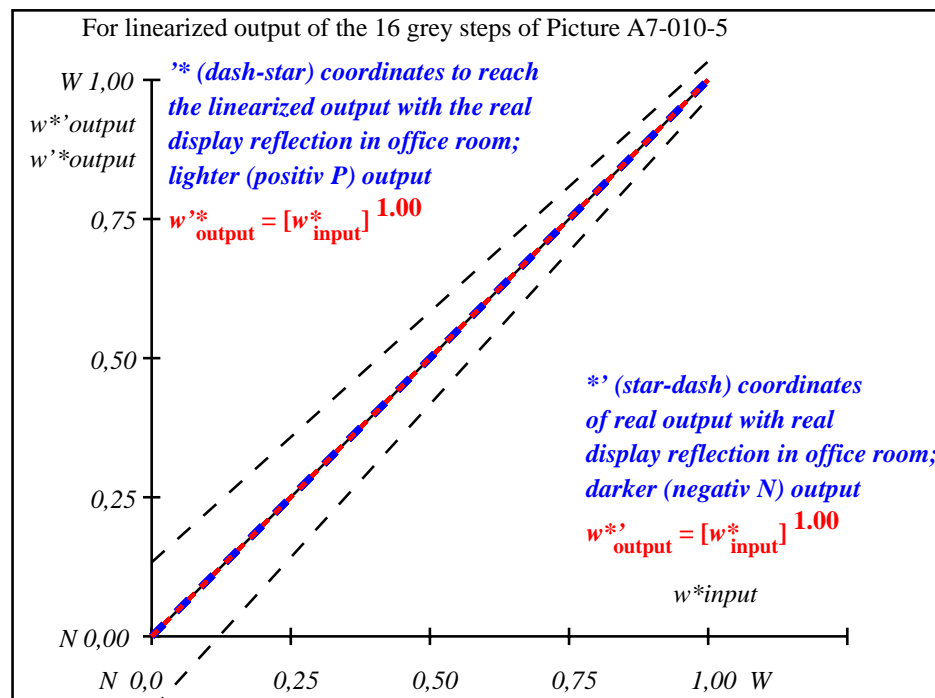


Cy8 (288:1): $g_P=1.0$; $g_N=1.0$; <http://130.149.60.45/~farbmetrik/OE54/OE54F0AX.PDF> /.PS

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

| 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 |

OE540-3N-010-5: File: Measure unknown; Device: Device unknown; Date: Date unknown



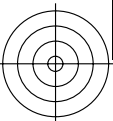
OE541-3N-010-5: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{intended}$ (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^* setgray $g_p=1.00$ 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 |

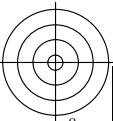
OE540-7N, Picture A7-010-5: 16 visual equidistant L^* -grey steps; PS operator: w^* setgray

OE54: In-output relation according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

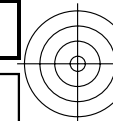
input: all ($\rightarrow rgb_d$) setrgbcolor
output 030-5: no change



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



<http://130.149.60.45/~farbmetrik/OE54/OE54L0NA.TXT> /PS; start output, Page 8/12
 N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)



TUB registration: 20110801-OE54/OE54L0NA.TXT /PS
 application for output of displays: monitor systems or data projector systems

TUB material: code=rh4ta



Test for the best visual linearized output of Picture A7-020-0 Yes/No
Output test with the computer display () or the external display ()

Test of the radial grating according to picture A1-020-0

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 A2-020-0

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

Test of 16 visual equidistant L*-grey steps according to picture A3-020-0

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 OE540-3N-020-7

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

PDF-File: <http://130.149.60.45/farbmetrik/OE54/OE54L0NP.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE54/OE54L0NA.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 OE54L0NP.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 OE54L0NA.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 OE540-7N-020-7

Test for the best visual linearized output of Picture A7-020-0 Yes/No
Output test with the computer display () or the external display ()

Test of the Landolt-rings N-W according to picture A4-020-0

N-W-radial grating:
 Is the recognition frequency of the Landolt-rings > 50% (5 of 8 at least)?
 background - ring
 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 A5-020-0

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

Test of the radial grating under 90° according to picture A6-020-0

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

Part 2 OE541-3N-020-7

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/OE54/OE54F1P2.PDF> underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE54/OE54F1P2.PS> underline Yes/No

Picture A7-020-2: 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/OE54/OE54F1P2.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE54/OE54F1P2.PS> or underline Yes/No

picture A7-020-2

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 OE541-7N-020-7

OE54: Form A for test chart according to ISO 9241-306; DH
 Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

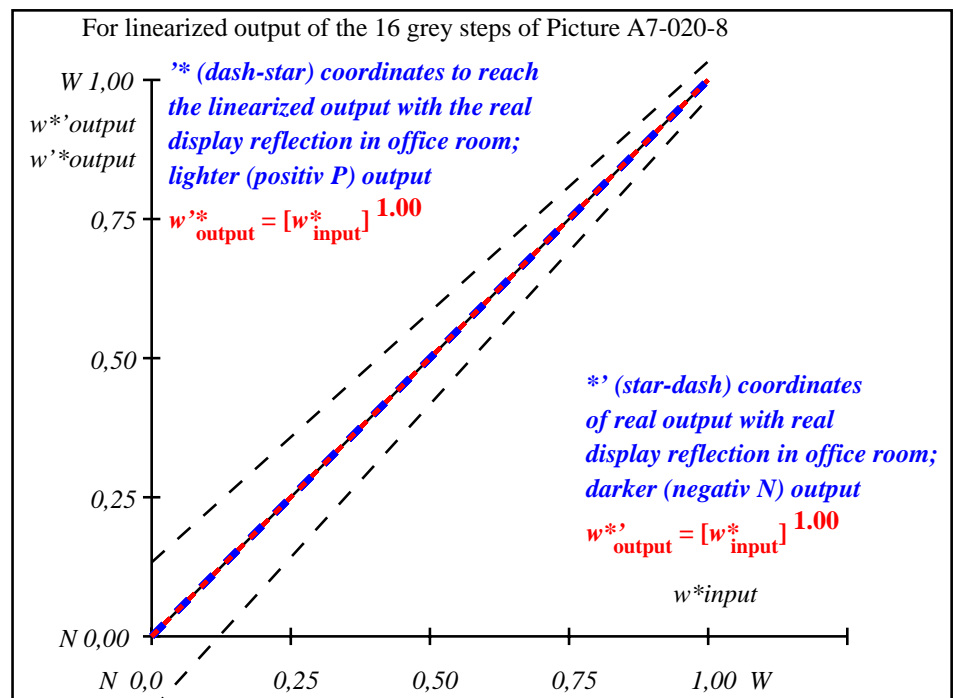
input: all (->rgb*d) setrgbcolor
 output 030-7: no change



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

| 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 |

OE540-3N-020-8: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE541-3N-020-8: File: Measure unknown; Device: Device unknown; Date: Date unknown

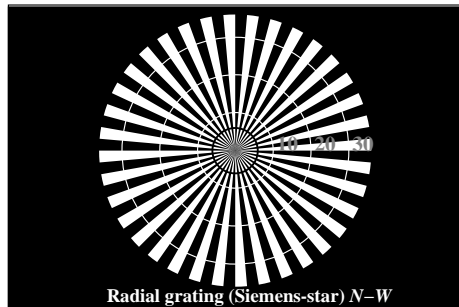
| $L^*/Y^*_{intended}$ (absolute) | 0.0/0.0 | 6.4/0.7 | 12.7/1.5 | 19.1/2.8 | 25.4/4.6 | 31.8/7.0 | 38.2/10.2 | 44.5/14.2 | 50.9/19.2 | 57.2/25.2 | 63.6/32.3 | 70.0/40.7 | 76.3/50.4 | 82.7/61.6 | 89.0/74.3 | 95.4/88.6 |
|---|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $n^* n^* n^* 0$ setcmk g _p =1.00 | | | | | | | | | | | | | | | | |
| 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 |

OE540-7N, Picture A7-020-8: 16 visual equidistant L^* -grey steps; PS operator: $n^* n^* n^* 0$ setcmkcolor

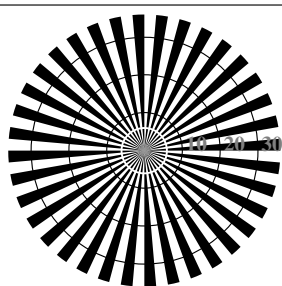
OE54: In-output relation according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

input: all ($\rightarrow rgb_d$) setrgbcolor
output 030-8: no change

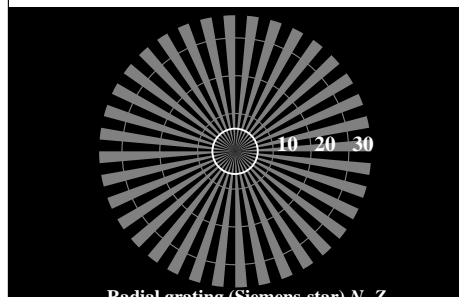
See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1



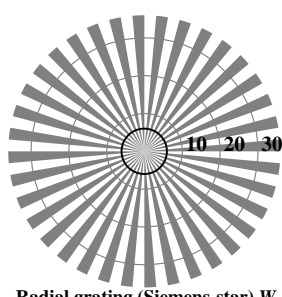
Radial grating (Siemens-star) N-W



Radial grating (Siemens-star) W-N

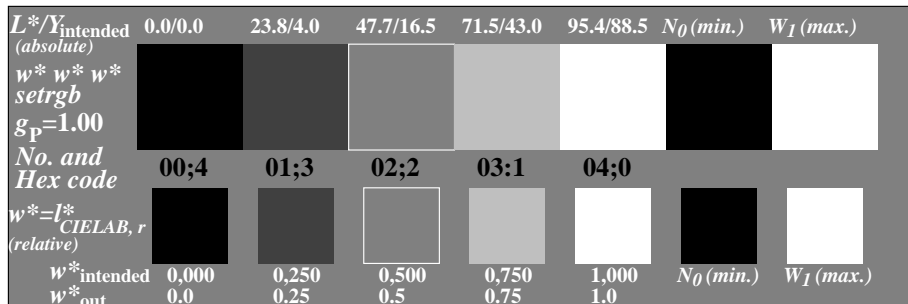


Radial grating (Siemens-star) N-Z

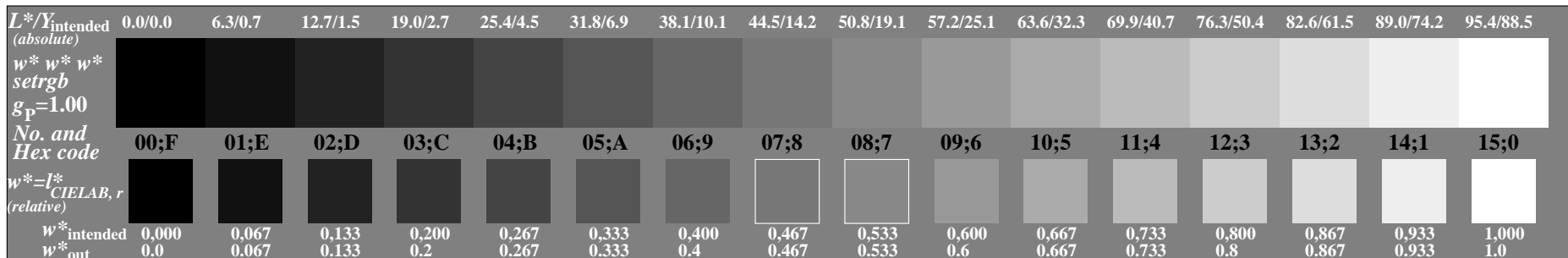


Radial grating (Siemens-star) W-Z

OE540-3N, Picture A1-030-9: Radial grating N-W, W-N, N-Z, W-Z; PS operator: $w^* w^* w^* \text{setrgbcolor}$

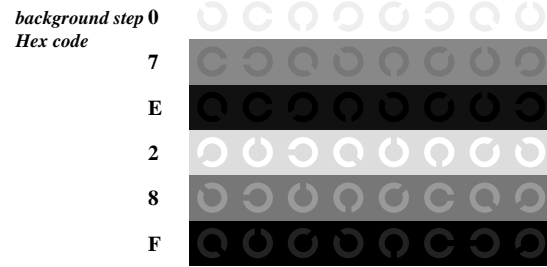


OE540-5N, Picture A2-030-9: 5 equidistant L^* -grey steps+ N_0 + W_1 ; PS operator: $w^* w^* w^* \text{setrgbcolor}$



OE540-7N, Picture A3-030-9: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^* \text{setrgbcolor}$

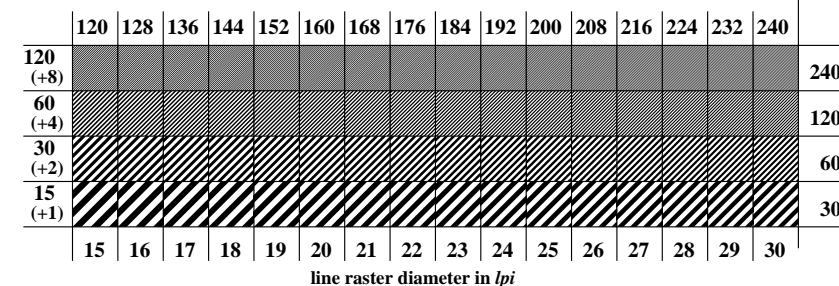
OE54: similar ME16 according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46



Landolt-rings W-N

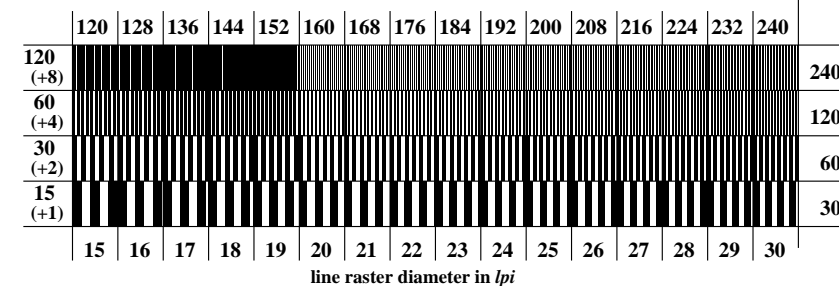
code: background-ring

OE541-1N, Picture A4-030-9: Landolt-rings W-N; PS operator: $w^* w^* w^* \text{setrgbcolor}$



line raster diameter in lpi

OE541-3N, Picture A5-030-9: Line raster under 45° (or 135°); PS operator: $w^* w^* w^* \text{setrgbcolor}$



line raster diameter in lpi

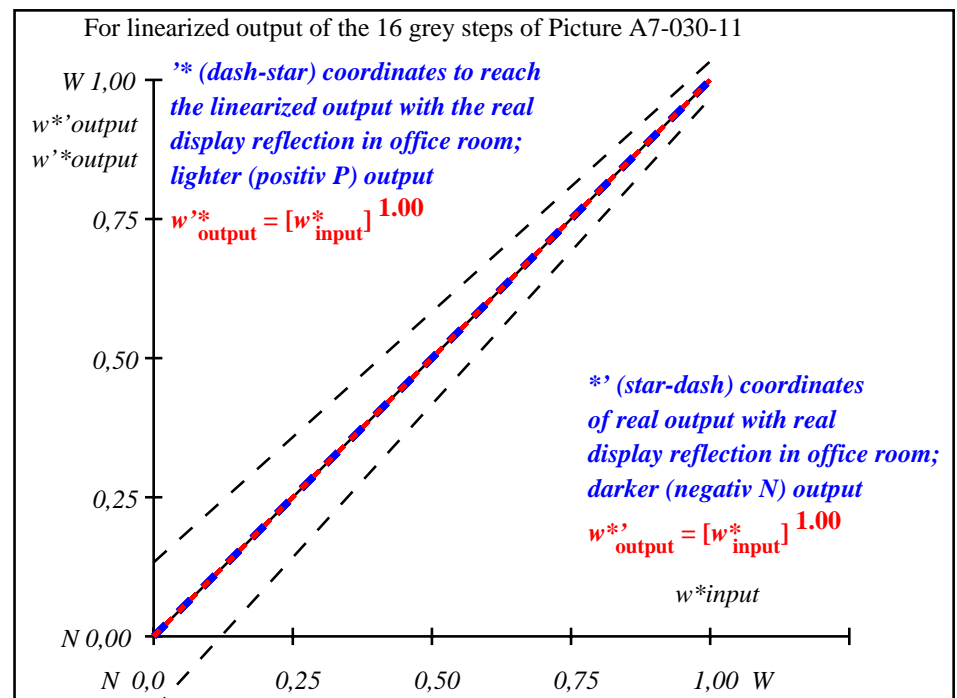
OE541-5N, Picture A6-030-9: Line raster under 90° (or 0°); PS operator: $w^* w^* w^* \text{setrgbcolor}$

input: all ($\rightarrow \text{rgb}_d$) setrgbcolor
output 030-9: no change

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

| 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 | |

OE540-3N-030-11: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE541-3N-030-11: 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 gp=1.00 | | | | | | | | | | | | | | | | |
| 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 |

OE540-7N, Picture A7-030-11: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

OE54: In-output relation according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

input: all ($\rightarrow rgb_d$) setrgbcolor
output 030-11: no change