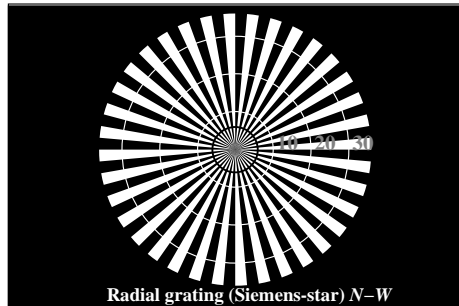


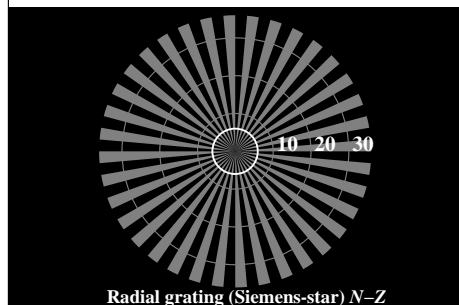
See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1



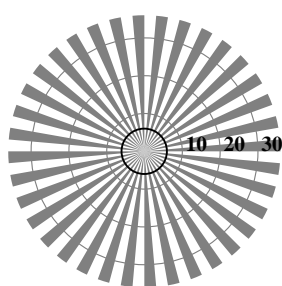
Radial grating (Siemens-star) N-W



Radial grating (Siemens-star) W-N

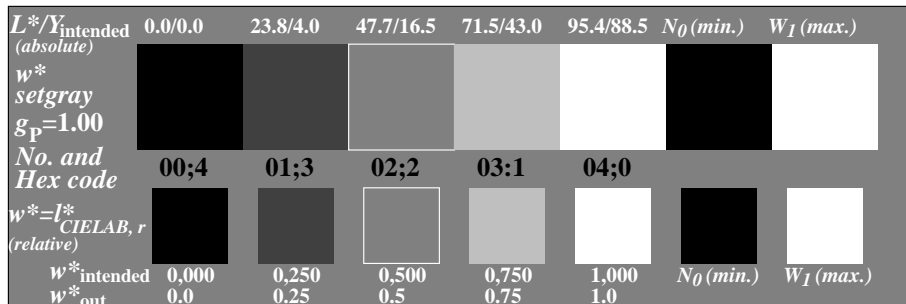


Radial grating (Siemens-star) N-Z

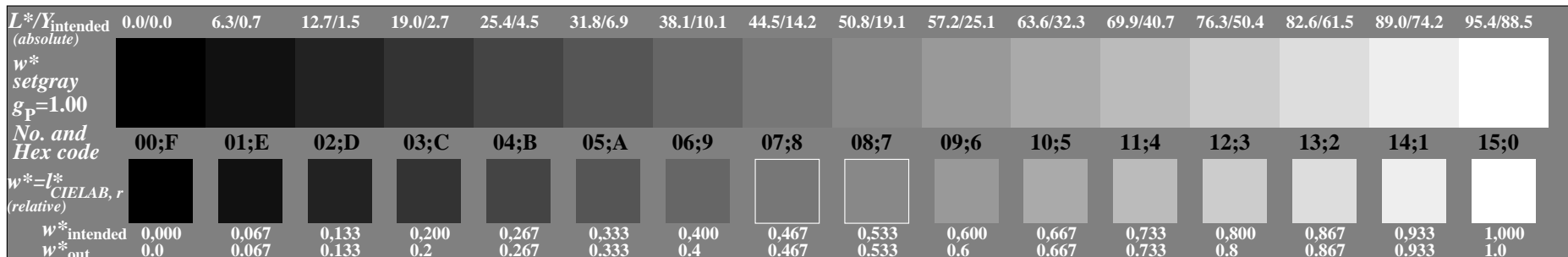


Radial grating (Siemens-star) W-Z

OE510-3N, Picture A1-010-0: Radial grating N-W, W-N, N-Z, W-Z; PS operator: w* setgray



OE510-5N, Picture A2-010-0: 5 equidistant L^* -grey steps+ N_0 + W_1 ; PS operator: w* setgray



OE510-7N, Picture A3-010-0: 16 visual equidistant L^* -grey steps; PS operator: w* setgray

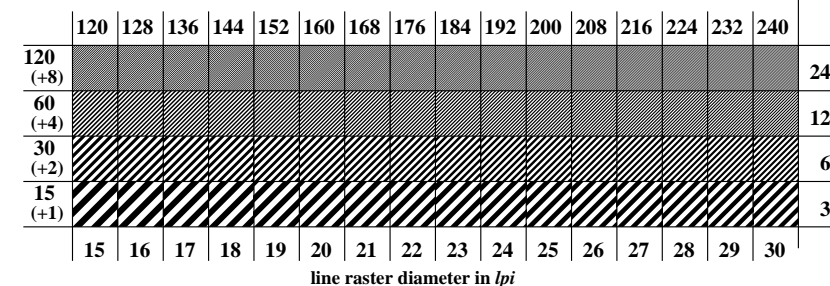
OE51: similar ME16 according to ISO 9241-306; DH
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46

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

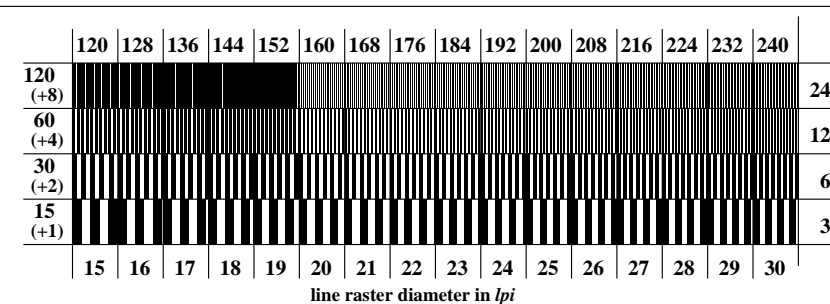
Landolt-rings W-N

code: background-ring

OE511-1N, Picture A4-010-0: Landolt-rings W-N; PS operator: w* setgray



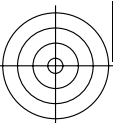
OE511-3N, Picture A5-010-0: Line raster under 45° (or 135°); PS operator: w* setgray



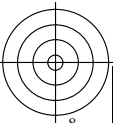
OE511-5N, Picture A6-010-0: Line raster under 90° (or 0°); PS operator: w* setgray

input: w (->rgb*_d) setgray
output 010-0: no change

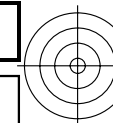
TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS
application for output of displays: monitor systems or data projector systems
TUB material: code=rh4ta



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

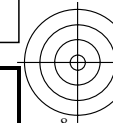


<http://130.149.60.45/~farbmetrik/OE51/OE51L0NA.TXT> /PS; start output, Page 2/3
 N: No Output Linearization (OL) data in File (F), Startup (S) or Device (D)



TUB registration: 20110801-OE51/OE51L0NA.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 A7-010-0 Yes/No
Output test with the computer display () or the external display ()

Test of the radial grating according to picture A1-010-0

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 A2-010-0

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 A3-010-0

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 OE510-3N-010-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE51/OE51L0NP.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE51/OE51L0NA.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 OE51L0NP.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 OE51L0NA.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 OE510-7N-010-1



OE51: 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

Test for the best visual linearized output of Picture A7-010-0 Yes/No
Output test with the computer display () or the external display ()

Test of the Landolt-rings N-W according to picture A4-010-0

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 A5-010-0

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 A6-010-0

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 OE511-3N-010-1

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/OE51/OE51F1P2.PDF> underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE51/OE51F1P2.PS> underline Yes/No

Picture A7-010-2: 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/OE51/OE51F1P2.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE51/OE51F1P2.PS> or underline Yes/No

picture A7-010-2

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 OE511-7N-010-1

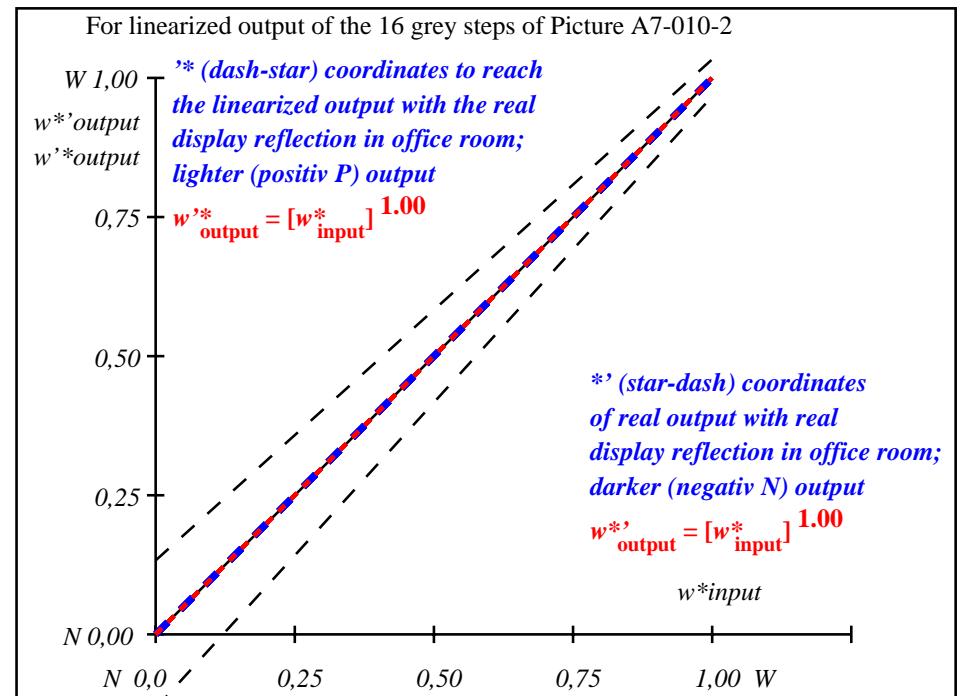


input: w (->rgb*d) setgray
 output 010-1: no change

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

OE510-3N-010-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-010-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y^*_{\text{intended}}$ (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^*_{intended} w^*_{out}	0.000 0.0	0.067 0.067	0.133 0.133	0.200 0.2	0.267 0.267	0.333 0.333	0.400 0.4	0.467 0.467	0.533 0.533	0.600 0.6	0.667 0.667	0.733 0.733	0.800 0.8	0.867 0.867	0.933 0.933	1.000 1.0

OE510-7N, Picture A7-010-2: 16 visual equidistant L^* -grey steps; PS operator: w^*_{setgray}

OE51: 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: w ($\rightarrow rgb^*_d$) w^*_{setgray}
output 010-2: no change

TUB registration: 20110801-OE51/OE51L0NA.TXT /PS
application for output of displays: monitor systems or data projector systems
TUB material: code=rh4ta