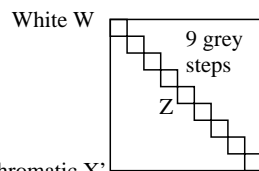


Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.
The colour steps are
separate in the upper figure part and
ajacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

White W
Chromatic X'
X' = C, V, M

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for
separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes
in one of the following cases; for example see Annex (X):

Is there a continuous colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-130-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF>

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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:.....

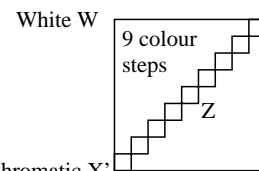
Special remarks:Special remarks, e. g. output of Landscape (L)

Part 3

OE880-7N-130-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.
The colour steps are separate in the
upper figure part and ajacent
ajacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

White W
Chromatic X'
X' = C, V, M

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for
separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes
in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X'
for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X'
for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-130-1

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
or with test charts using colour points according to Ishihara
or tested with, please specify:

underline Yes/No

underline Yes/unknown

underline Yes/unknown

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.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/OE88/OE88F1P2.PDF>

picture A7-130-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-130-2

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 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

OE881-7N-130-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_P=1.0$; $g_N=1.0$

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

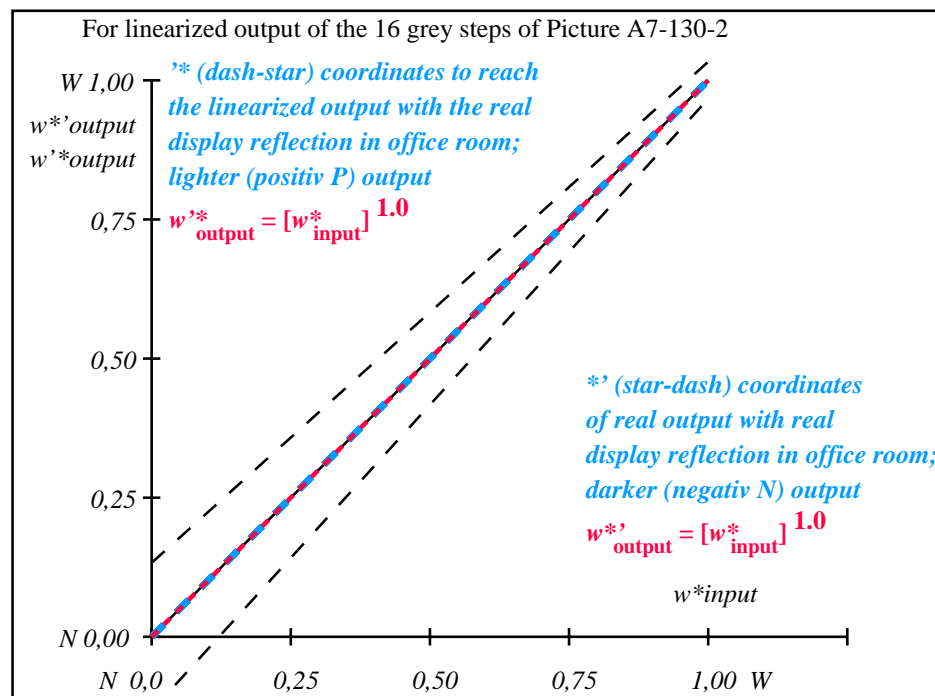
Start output S1
Specification according to
ISO/IEC 15775 Annex G
and DIN 33866-1 Annex G

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

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

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

OE880-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE881-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

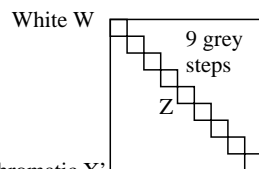
L^*/Y_{intended} (absolute)	0.0/0.0	6.4/0.7	12.7/1.5	19.1/2.8	25.4/4.6	31.8/7.0	38.2/10.2	44.5/14.2	50.9/19.2	57.2/25.2	63.6/32.3	70.0/40.7	76.3/50.4	82.7/61.6	89.0/74.3	95.4/88.6
$w^* w^* w^*$ setrgb $g_P=1.0$ No. and Hex code	00;F	01;E	02;D	03;C	04;B	05;A	06;9	07;8	08;7	09;6	10;5	11;4	12;3	13;2	14;1	15;0
$w^* = l^*$ CIELAB, r (relative)	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^*_{intended} w^*_{out}	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

OE880-7N, Picture A7-130-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:0,31$; Y_N range 0,0 to <0,46 output 130-2: $g_P=1.0$; $g_N=1.0$

Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

White W
Chromatic X'
X' = C, V, M

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes in one of the following cases; for example see Annex (X):

Is there a continuous colour change for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-131-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF>

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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:.....

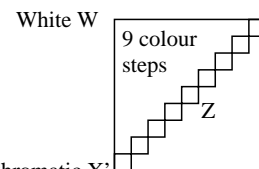
Special remarks:Special remarks, e. g. output of Landscape (L)

Part 3

OE880-7N-131-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

White W
Chromatic X'
X' = C, V, M

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X' for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X' for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-131-1

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
or with test charts using colour points according to Ishihara
or tested with, please specify:

underline Yes/No

underline Yes/unknown

underline Yes/unknown

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

underline Yes/No

Picture A7-131-2: 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/OE88/OE88F1P2.PDF>

picture A7-131-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-131-2

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 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

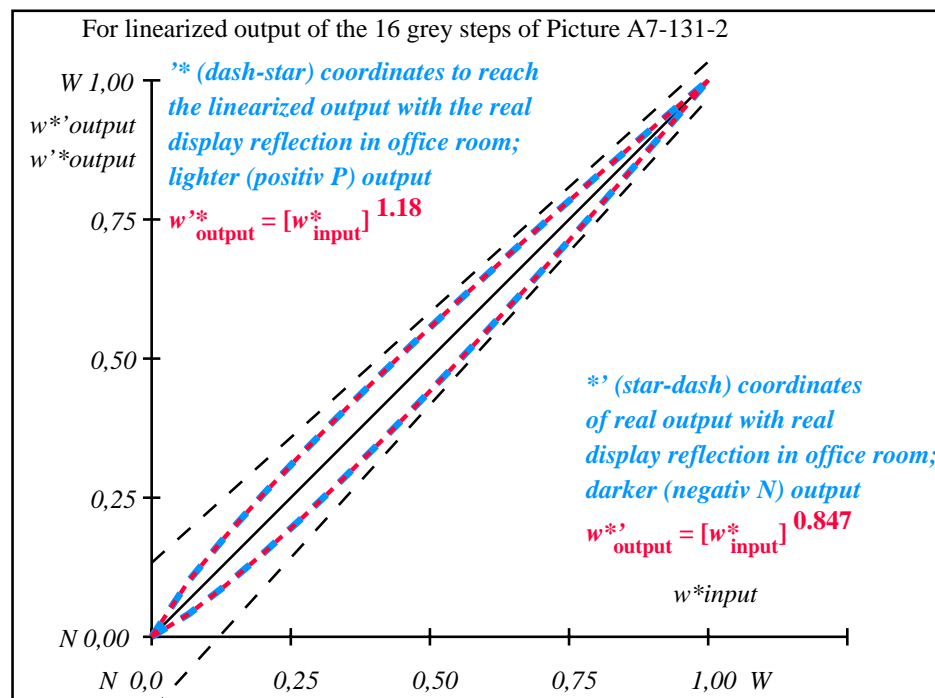
OE881-7N-131-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_P=1.0$; $g_N=1.08$

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	5.69 0.0 0.0	0.0 0.0 0.0	5.69 0.0 0.0	0.0 0.0 0.0	0.01
2	11.67 0.0 0.0	0.04 0.0 0.0	9.36 0.0 0.0	-2.3 0.0 0.0	2.31
3	17.65 0.0 0.0	0.09 0.0 0.0	14.01 0.0 0.0	-3.63 0.0 0.0	3.64
4	23.63 0.0 0.0	0.15 0.0 0.0	19.12 0.0 0.0	-4.5 0.0 0.0	4.51
5	29.62 0.0 0.0	0.21 0.0 0.0	24.55 0.0 0.0	-5.06 0.0 0.0	5.07
6	35.6 0.0 0.0	0.27 0.0 0.0	30.23 0.0 0.0	-5.36 0.0 0.0	5.37
7	41.58 0.0 0.0	0.34 0.0 0.0	36.12 0.0 0.0	-5.45 0.0 0.0	5.46
8	47.56 0.0 0.0	0.41 0.0 0.0	42.19 0.0 0.0	-5.36 0.0 0.0	5.37
9	53.54 0.0 0.0	0.48 0.0 0.0	48.42 0.0 0.0	-5.11 0.0 0.0	5.12
10	59.52 0.0 0.0	0.55 0.0 0.0	54.79 0.0 0.0	-4.72 0.0 0.0	4.73
11	65.5 0.0 0.0	0.62 0.0 0.0	61.29 0.0 0.0	-4.2 0.0 0.0	4.21
12	71.48 0.0 0.0	0.69 0.0 0.0	67.91 0.0 0.0	-3.56 0.0 0.0	3.57
13	77.47 0.0 0.0	0.77 0.0 0.0	74.64 0.0 0.0	-2.82 0.0 0.0	2.83
14	83.45 0.0 0.0	0.84 0.0 0.0	81.47 0.0 0.0	-1.97 0.0 0.0	1.98
15	89.43 0.0 0.0	0.92 0.0 0.0	88.4 0.0 0.0	-1.02 0.0 0.0	1.03
16	95.41 0.0 0.0	1.0 0.0 0.0	95.41 0.0 0.0	0.0 0.0 0.0	0.01
17	5.69 0.0 0.0	0.0 0.0 0.0	5.69 0.0 0.0	0.0 0.0 0.0	0.01
18	28.12 0.0 0.0	0.19 0.0 0.0	23.17 0.0 0.0	-4.94 0.0 0.0	4.95
19	50.55 0.0 0.0	0.44 0.0 0.0	45.29 0.0 0.0	-5.25 0.0 0.0	5.26
20	72.98 0.0 0.0	0.71 0.0 0.0	69.58 0.0 0.0	-3.39 0.0 0.0	3.4
21	95.41 0.0 0.0	1.0 0.0 0.0	95.41 0.0 0.0	0.0 0.0 0.0	0.01
Mean lightness difference (16 steps)					ΔE* _{CIELAB} = 3.4
Mean lightness difference (5 steps)					ΔL* _{CIELAB} = 2.7
Mean colour reproduction index:					R* _{ab,m} = 85

OE880-3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

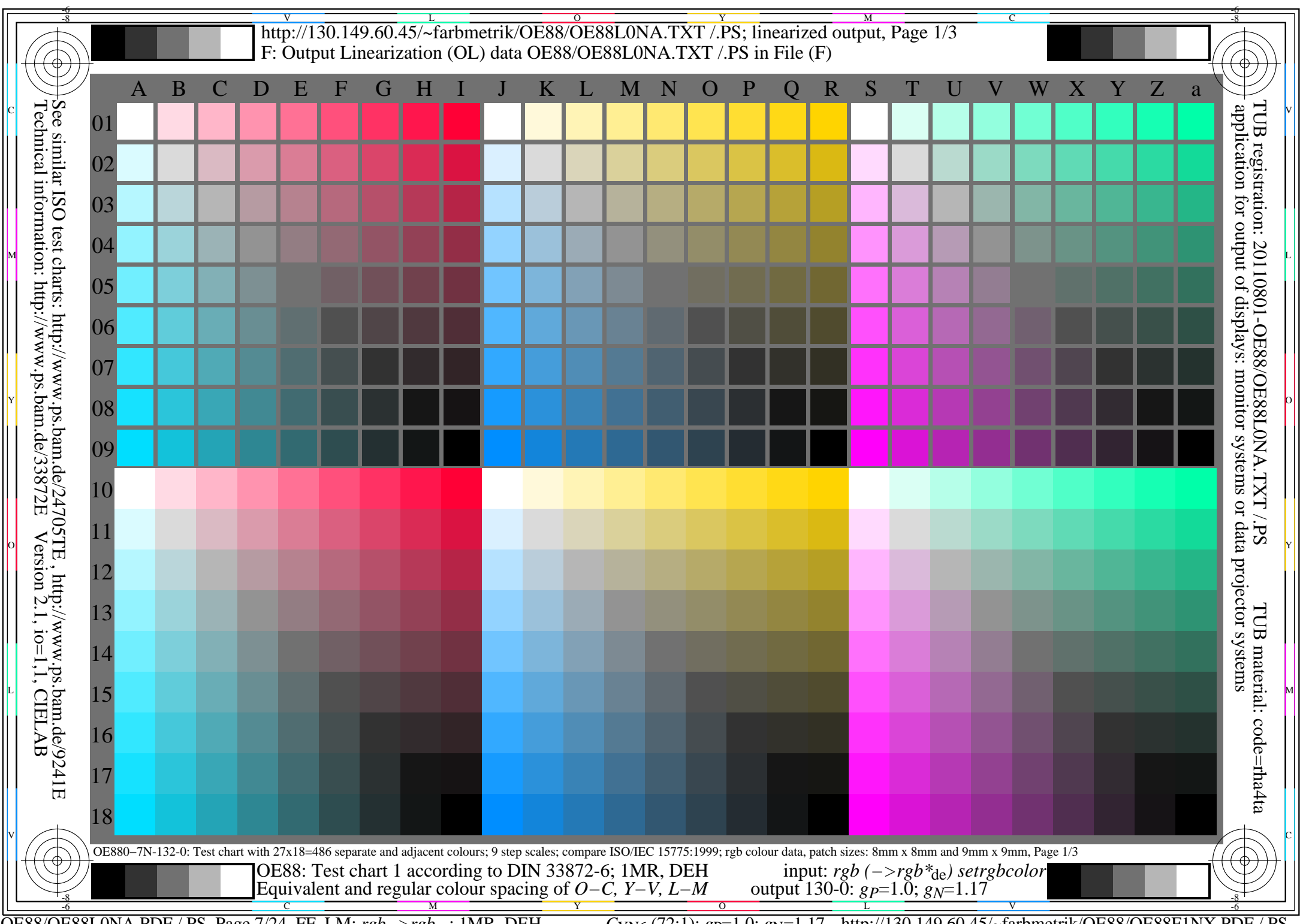


OE881-3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (absolute)	5.7/0.6	11.7/1.4	17.7/2.4	23.6/4.0	29.6/6.1	35.6/8.8	41.6/12.2	47.6/16.5	53.5/21.5	59.5/27.6	65.5/34.7	71.5/42.9	77.5/52.3	83.4/63.0	89.4/75.1	95.4/88.6
$w^* w^* w^*$ setrgb $g_N=1.18$ 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	0.041	0.093	0.15	0.211	0.273	0.339	0.407	0.476	0.547	0.62	0.693	0.769	0.845	0.921	1.0

OE880-7N, Picture A7-131-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:0,62$; Y_N range 0,46 to <0,93 output 130-2: $g_P=1,0$; $g_N=1,08$



http://130.149.60.45/~farbmetrik/OE88/OE88L0NA.TXT /.PS; linearized output, Page 1/3
F: Output Linearization (OL) data OE88/OE88L0NA.TXT /.PS in File (F)

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

TUB registration: 20110801-OE88/OE88L0NA.TXT /.PS
application for output of displays: monitor systems or data projector systems
TUB material: code=rha4ta

OE880-7N-132-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; rgb colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

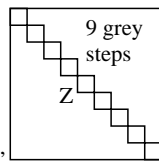
OE88: Test chart 1 according to DIN 33872-6; 1MR, DEH
Equivalent and regular colour spacing of O-C, Y-V, L-M

input: $rgb \rightarrow rgb^*_{de}$ *setrgbcolor*
output 130-0: $g_P=1.0$; $g_N=1.17$

Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps

White W



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.

The colour steps are
separate in the upper figure part and
ajacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

Chromatic X'
X' = C, V, M

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for
separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes
in one of the following cases; for example see Annex (X):

Is there a continuous colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-132-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF>

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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)

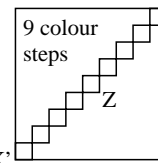
Part 3

OE880-7N-132-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps

White W



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.

The colour steps are separate in the
upper figure part and ajacent
ajacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

Chromatic X'
X' = C, V, M

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for
separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes
in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X'
for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X'
for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-132-1

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

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

underline Yes/No

Picture A7-132-2: 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/OE88/OE88F1P2.PDF>

picture A7-132-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-132-2

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 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

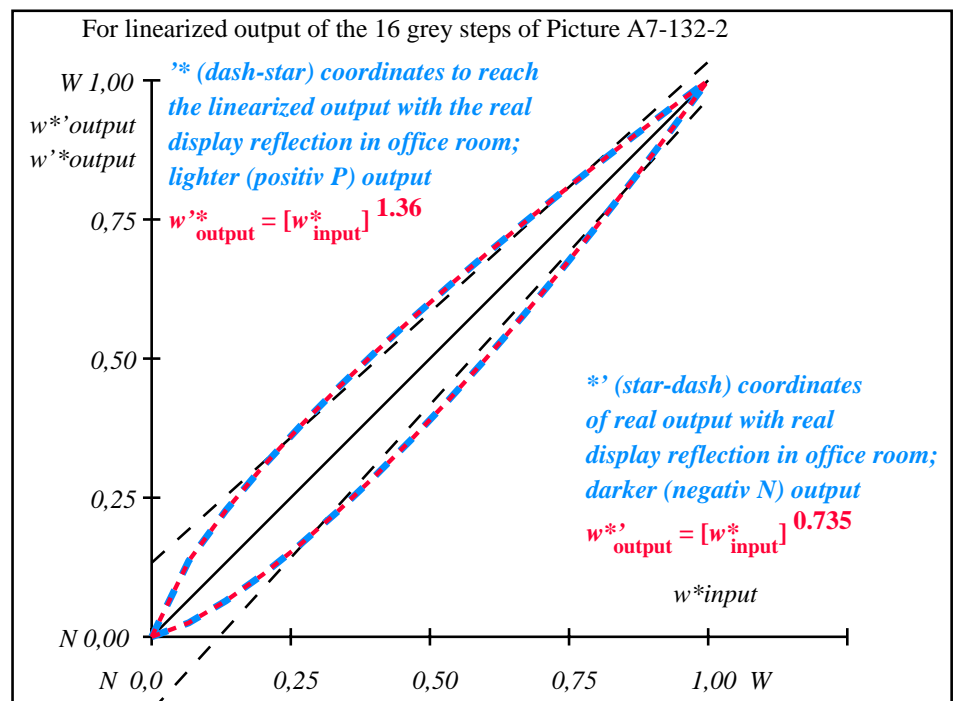
OE881-7N-132-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_P=1.0$; $g_N=1.17$

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	10.99 0.0 0.0	0.0 0.0 0.0	10.99 0.0 0.0	0.0 0.0 0.0	0.01
2	16.62 0.0 0.0	0.03 0.0 0.0	13.12 0.0 0.0	-3.49 0.0 0.0	3.5
3	22.25 0.0 0.0	0.06 0.0 0.0	16.44 0.0 0.0	-5.8 0.0 0.0	5.81
4	27.88 0.0 0.0	0.11 0.0 0.0	20.45 0.0 0.0	-7.41 0.0 0.0	7.42
5	33.5 0.0 0.0	0.17 0.0 0.0	24.98 0.0 0.0	-8.51 0.0 0.0	8.52
6	39.13 0.0 0.0	0.22 0.0 0.0	29.94 0.0 0.0	-9.18 0.0 0.0	9.19
7	44.76 0.0 0.0	0.29 0.0 0.0	35.27 0.0 0.0	-9.48 0.0 0.0	9.49
8	50.39 0.0 0.0	0.35 0.0 0.0	40.93 0.0 0.0	-9.44 0.0 0.0	9.45
9	56.02 0.0 0.0	0.43 0.0 0.0	46.9 0.0 0.0	-9.11 0.0 0.0	9.12
10	61.64 0.0 0.0	0.5 0.0 0.0	53.13 0.0 0.0	-8.5 0.0 0.0	8.51
11	67.27 0.0 0.0	0.58 0.0 0.0	59.63 0.0 0.0	-7.63 0.0 0.0	7.64
12	72.9 0.0 0.0	0.66 0.0 0.0	66.36 0.0 0.0	-6.53 0.0 0.0	6.54
13	78.53 0.0 0.0	0.74 0.0 0.0	73.31 0.0 0.0	-5.2 0.0 0.0	5.21
14	84.15 0.0 0.0	0.82 0.0 0.0	80.48 0.0 0.0	-3.66 0.0 0.0	3.67
15	89.78 0.0 0.0	0.91 0.0 0.0	87.85 0.0 0.0	-1.92 0.0 0.0	1.93
16	95.41 0.0 0.0	1.0 0.0 0.0	95.41 0.0 0.0	0.0 0.0 0.0	0.01
17	10.99 0.0 0.0	0.0 0.0 0.0	10.99 0.0 0.0	0.0 0.0 0.0	0.01
18	32.1 0.0 0.0	0.15 0.0 0.0	23.81 0.0 0.0	-8.28 0.0 0.0	8.29
19	53.2 0.0 0.0	0.39 0.0 0.0	43.88 0.0 0.0	-9.31 0.0 0.0	9.32
20	74.31 0.0 0.0	0.68 0.0 0.0	68.08 0.0 0.0	-6.22 0.0 0.0	6.23
21	95.41 0.0 0.0	1.0 0.0 0.0	95.41 0.0 0.0	0.0 0.0 0.0	0.01
Mean lightness difference (16 steps)					ΔE* _{CIELAB} = 6.0
Mean lightness difference (5 steps)					ΔL* _{CIELAB} = 4.8
Mean colour reproduction index:					R* _{ab,m} = 74

OE880-3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE881-3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (absolute)	11.0/1.3	16.6/2.2	22.2/3.6	27.9/5.4	33.5/7.8	39.1/10.7	44.8/14.4	50.4/18.7	56.0/23.9	61.6/30.0	67.3/37.0	72.9/45.0	78.5/54.1	84.2/64.4	89.8/75.8	95.4/88.6
$w^* w^* w^*$ setrgb $g_N=1.36$ 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	0.025	0.064	0.112	0.166	0.224	0.288	0.355	0.425	0.499	0.577	0.655	0.738	0.824	0.91	1.0

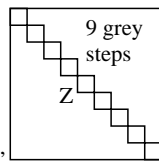
OE880-7N, Picture A7-132-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:1,25$; Y_N range 0,93 to <1,87 output 130-2: $g_P=1.0$; $g_N=1.17$

Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps

White W



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.

The colour steps are
separate in the upper figure part and
ajacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

Chromatic X'
X' = C, V, M

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for
separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes
in one of the following cases; for example see Annex (X):

Is there a continuous colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-133-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF>

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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)

.....
.....
.....

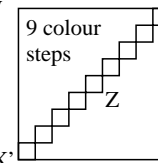
Part 3

OE880-7N-133-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps

White W



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.

The colour steps are separate in the
upper figure part and ajacent
ajacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

Chromatic X'
X' = C, V, M

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for
separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes
in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X'
for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X'
for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-133-1

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

or with test charts using colour points according to Ishihara

or tested with, please specify:

underline Yes/No

underline Yes/unknown

underline Yes/unknown

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

underline Yes/No

Picture A7-133-2: 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/OE88/OE88F1P2.PDF>

picture A7-133-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-133-2

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 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

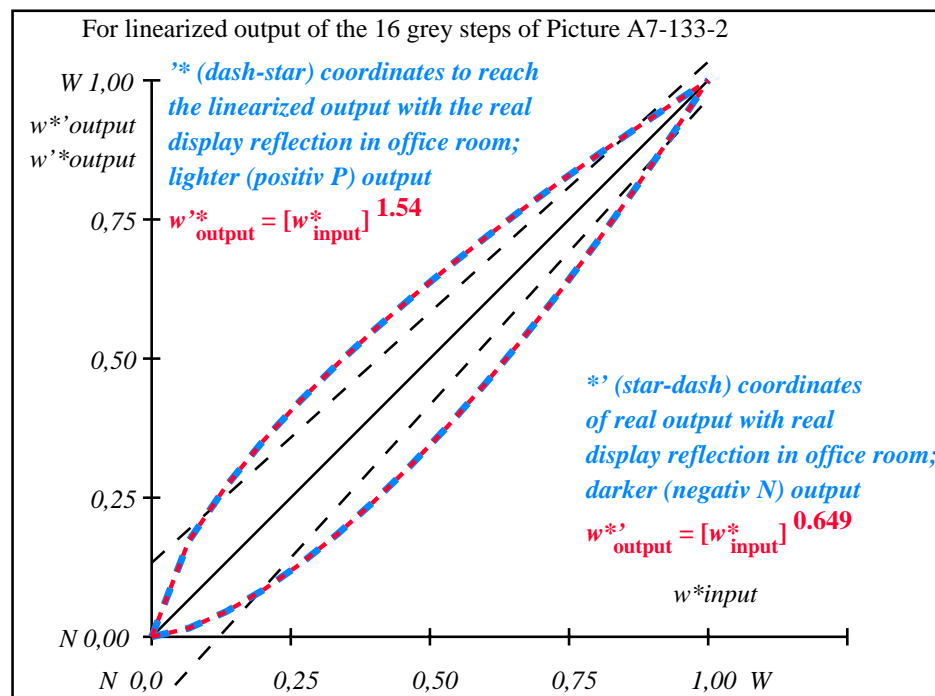
OE881-7N-133-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_p=1.0$; $g_N=1.29$

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	18.01 0.0 0.0	0.0 18.01 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
2	23.17 0.0 0.0	0.02 19.2 0.0	0.0 0.0 0.0	-3.95 0.0 0.0	3.96
3	28.33 0.0 0.0	0.04 21.49 0.0	0.0 0.0 0.0	-6.83 0.0 0.0	6.84
4	33.49 0.0 0.0	0.08 24.5 0.0	0.0 0.0 0.0	-8.98 0.0 0.0	8.99
5	38.65 0.0 0.0	0.13 28.12 0.0	0.0 0.0 0.0	-10.52 0.0 0.0	10.53
6	43.81 0.0 0.0	0.18 32.26 0.0	0.0 0.0 0.0	-11.53 0.0 0.0	11.54
7	48.97 0.0 0.0	0.24 36.89 0.0	0.0 0.0 0.0	-12.07 0.0 0.0	12.08
8	54.13 0.0 0.0	0.31 41.94 0.0	0.0 0.0 0.0	-12.18 0.0 0.0	12.19
9	59.29 0.0 0.0	0.38 47.41 0.0	0.0 0.0 0.0	-11.87 0.0 0.0	11.88
10	64.45 0.0 0.0	0.46 53.25 0.0	0.0 0.0 0.0	-11.19 0.0 0.0	11.2
11	69.61 0.0 0.0	0.54 59.46 0.0	0.0 0.0 0.0	-10.14 0.0 0.0	10.15
12	74.77 0.0 0.0	0.62 66.02 0.0	0.0 0.0 0.0	-8.74 0.0 0.0	8.75
13	79.93 0.0 0.0	0.71 72.9 0.0	0.0 0.0 0.0	-7.02 0.0 0.0	7.03
14	85.09 0.0 0.0	0.8 80.1 0.0	0.0 0.0 0.0	-4.98 0.0 0.0	4.99
15	90.25 0.0 0.0	0.9 87.61 0.0	0.0 0.0 0.0	-2.63 0.0 0.0	2.64
16	95.41 0.0 0.0	1.0 95.41 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
17	18.01 0.0 0.0	0.0 18.01 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
18	37.36 0.0 0.0	0.12 27.16 0.0	0.0 0.0 0.0	-10.19 0.0 0.0	10.2
19	56.71 0.0 0.0	0.34 44.63 0.0	0.0 0.0 0.0	-12.07 0.0 0.0	12.08
20	76.06 0.0 0.0	0.64 67.71 0.0	0.0 0.0 0.0	-8.34 0.0 0.0	8.35
21	95.41 0.0 0.0	1.0 95.41 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
Mean lightness difference (16 steps)					$\Delta E^*_{\text{CIELAB}} = 7.7$
Mean lightness difference (5 steps)					$\Delta L^*_{\text{CIELAB}} = 6.1$
Mean colour reproduction index:					$R^*_{\text{ab,m}} = 66$

OE880-3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE881-3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

L^*/Y_{intended} (absolute)	18.0/2.5	23.2/3.8	28.3/5.6	33.5/7.8	38.6/10.5	43.8/13.7	49.0/17.6	54.1/22.1	59.3/27.3	64.4/33.4	69.6/40.2	74.8/47.9	79.9/56.6	85.1/66.2	90.2/76.8	95.4/88.6
$w^* w^* w^*$ setrgb $g_N=1.54$ 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
$w^*=l^*_{\text{CIELAB},r}$ (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	0,016	0,045	0,084	0,131	0,184	0,244	0,31	0,379	0,455	0,536	0,62	0,709	0,803	0,899	1,0

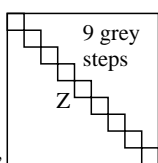
OE880-7N, Picture A7-133-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^*_{\text{de}}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:2,5$; Y_N range 1,87 to <3,75 output 130-2: $g_P=1,0$; $g_N=1,29$

Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps

White W



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.

The colour steps are
separate in the upper figure part and
ajacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

Chromatic X'
X' = C, V, M

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for
separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes
in one of the following cases; for example see Annex (X):

Is there a continuous colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change
for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-134-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF>

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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)

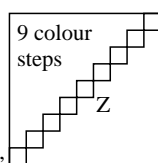
Part 3

OE880-7N-134-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps

White W



Chromatic X
X = O, Y, L

There are three opposite hue planes
O-C, Y-V, and L-M.

The colour steps are separate in the
upper figure part and ajacent
ajacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

Chromatic X'
X' = C, V, M

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for
separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes
in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X'
for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X'
for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-134-1

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

underline Yes/No

Picture A7-134-2: 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/OE88/OE88F1P2.PDF>

picture A7-134-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-134-2

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 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

OE881-7N-134-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_P=1.0$; $g_N=1.42$

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	26.85 0.0 0.0	0.0 26.85 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
2	31.42 0.0 0.0	0.01 27.5 0.0	0.0 -3.91 0.0	0.0 0.0 0.0	3.92
3	35.99 0.0 0.0	0.03 28.99 0.0	0.0 -6.99 0.0	0.0 0.0 0.0	7.0
4	40.56 0.0 0.0	0.06 31.15 0.0	0.0 -9.4 0.0	0.0 0.0 0.0	9.41
5	45.13 0.0 0.0	0.1 33.91 0.0	0.0 -11.21 0.0	0.0 0.0 0.0	11.22
6	49.7 0.0 0.0	0.15 37.21 0.0	0.0 -12.48 0.0	0.0 0.0 0.0	12.49
7	54.27 0.0 0.0	0.21 41.03 0.0	0.0 -13.24 0.0	0.0 0.0 0.0	13.25
8	58.84 0.0 0.0	0.27 45.33 0.0	0.0 -13.5 0.0	0.0 0.0 0.0	13.51
9	63.41 0.0 0.0	0.34 50.1 0.0	0.0 -13.3 0.0	0.0 0.0 0.0	13.31
10	67.99 0.0 0.0	0.42 55.33 0.0	0.0 -12.65 0.0	0.0 0.0 0.0	12.66
11	72.56 0.0 0.0	0.5 60.98 0.0	0.0 -11.56 0.0	0.0 0.0 0.0	11.57
12	77.13 0.0 0.0	0.59 67.06 0.0	0.0 -10.05 0.0	0.0 0.0 0.0	10.06
13	81.7 0.0 0.0	0.68 73.56 0.0	0.0 -8.13 0.0	0.0 0.0 0.0	8.14
14	86.27 0.0 0.0	0.78 80.45 0.0	0.0 -5.81 0.0	0.0 0.0 0.0	5.82
15	90.84 0.0 0.0	0.89 87.74 0.0	0.0 -3.09 0.0	0.0 0.0 0.0	3.1
16	95.41 0.0 0.0	1.0 95.41 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
17	26.85 0.0 0.0	0.0 26.85 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
18	43.99 0.0 0.0	0.09 33.17 0.0	0.0 -10.81 0.0	0.0 0.0 0.0	10.82
19	61.13 0.0 0.0	0.3 47.66 0.0	0.0 -13.46 0.0	0.0 0.0 0.0	13.47
20	78.27 0.0 0.0	0.61 68.65 0.0	0.0 -9.61 0.0	0.0 0.0 0.0	9.62
21	95.41 0.0 0.0	1.0 95.41 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01

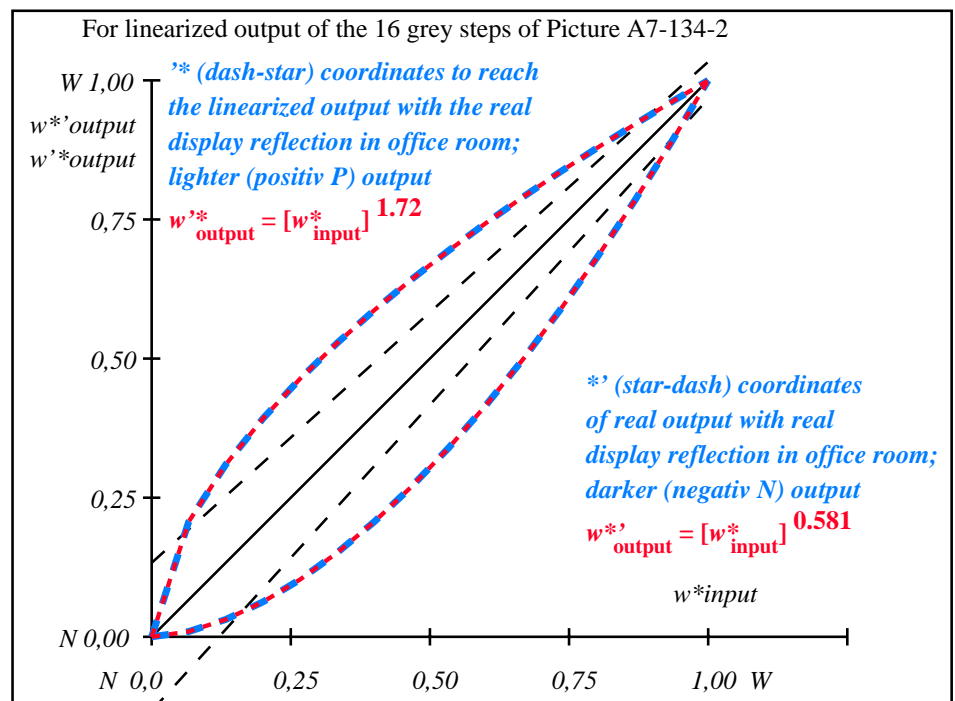
Start output S1
Specification according to
ISO/IEC 15775 Annex G
and DIN 33866-1 Annex G

Mean lightness difference (16 steps)
 $\Delta E^*_{\text{CIELAB}} = 8.5$

Mean lightness difference (5 steps)
 $\Delta L^*_{\text{CIELAB}} = 6.8$

Mean colour reproduction index: $R^*_{ab,m} = 63$

OE880-3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

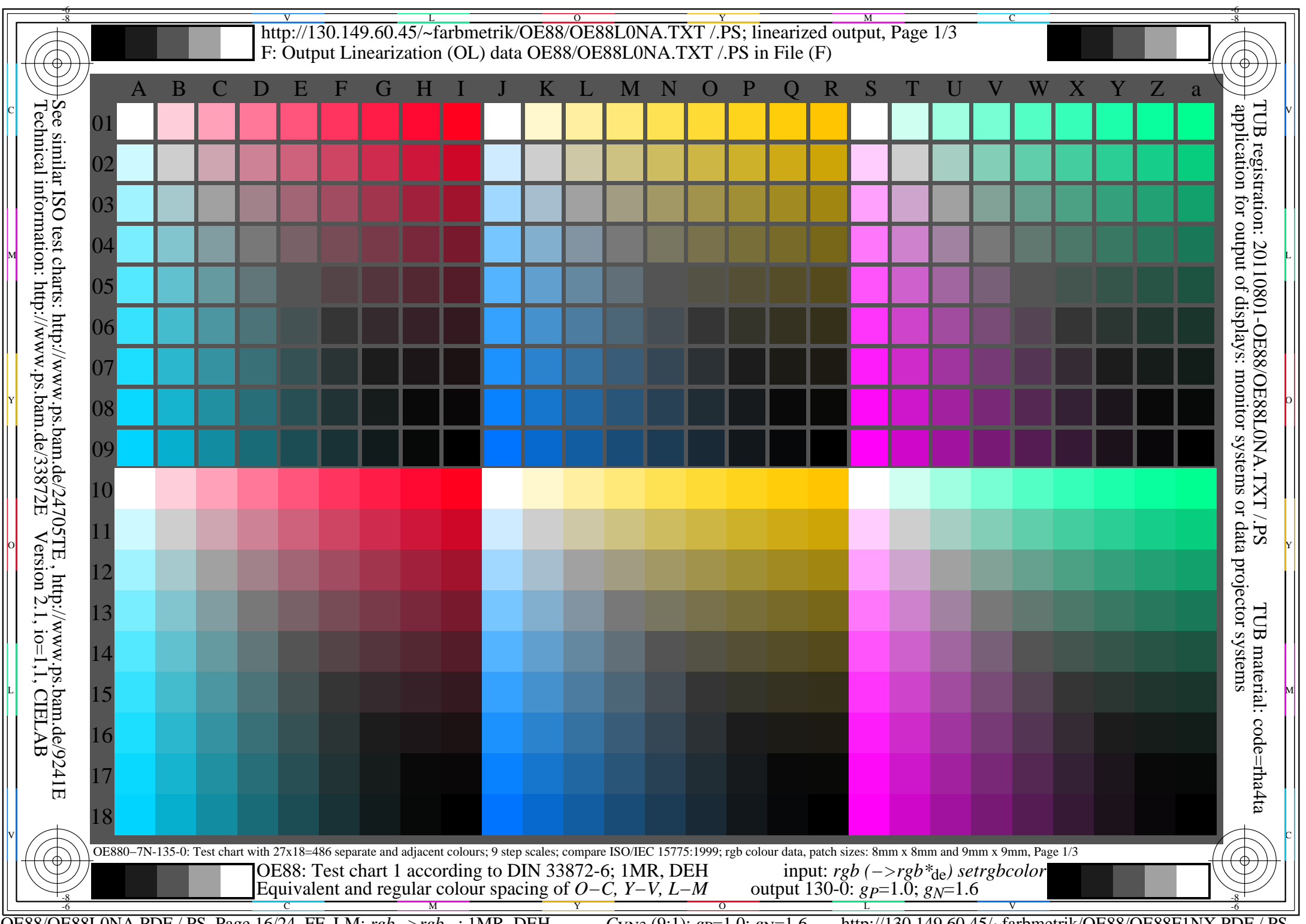


OE881-3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

L^*/Y_{intended} (absolute)	26.8/5.0	31.4/6.8	36.0/9.0	40.6/11.6	45.1/14.6	49.7/18.2	54.3/22.2	58.8/26.9	63.4/32.1	68.0/38.0	72.6/44.5	77.1/51.7	81.7/59.7	86.3/68.5	90.8/78.1	95.4/88.6
$w^* w^* w^*$ setrgb $g_N=1.72$ 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
$w^*=l^*_{\text{CIELAB},r}$ (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	0.01	0.031	0.063	0.103	0.151	0.207	0.27	0.339	0.415	0.498	0.586	0.681	0.782	0.888	1.0

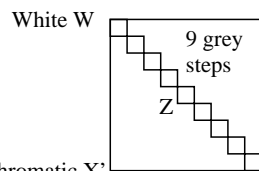
OE880-7N, Picture A7-134-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*_{\text{setrgbcolor}}$

OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:5$; Y_N range 3,75 to <7,5 output 130-2: $g_P=1.0$; $g_N=1.42$



Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes in one of the following cases; for example see Annex (X):

Is there a continuous colour change for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-135-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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:.....

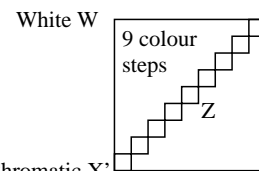
Special remarks:Special remarks, e. g. output of Landscape (L)

Part 3

OE880-7N-135-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

Chromatic X'
X' = C, V, M

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X' for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X' for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-135-1

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
or with test charts using colour points according to Ishihara
or tested with, please specify:

underline Yes/No

underline Yes/unknown

underline Yes/unknown

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

underline Yes/No

Picture A7-135-2: 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/OE88/OE88F1P2.PDF>

picture A7-135-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-135-2

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 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

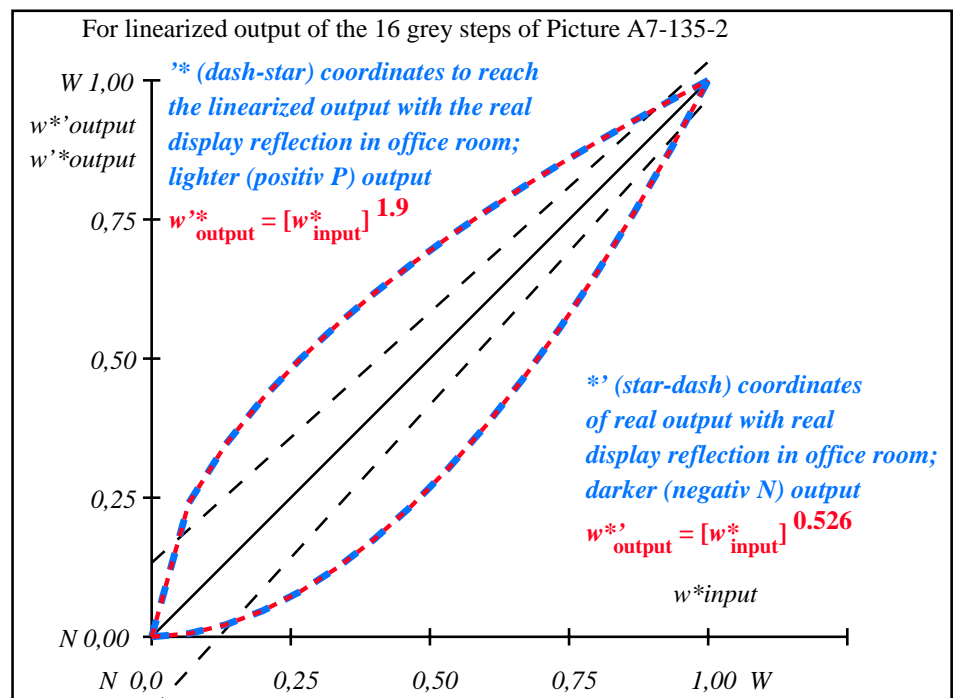
OE881-7N-135-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_p=1.0$; $g_N=1.6$

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 Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G
1	37.99	0.0	0.0	0.0	37.99	0.0	0.0	0.0	0.0	0.0	0.01	
2	41.81	0.0	0.0	0.01	38.32	0.0	0.0	-3.48	0.0	0.0	3.49	
3	45.64	0.0	0.0	0.02	39.23	0.0	0.0	-6.4	0.0	0.0	6.41	
4	49.47	0.0	0.0	0.05	40.68	0.0	0.0	-8.78	0.0	0.0	8.79	
5	53.3	0.0	0.0	0.08	42.65	0.0	0.0	-10.64	0.0	0.0	10.65	
6	57.13	0.0	0.0	0.12	45.11	0.0	0.0	-12.01	0.0	0.0	12.02	
7	60.96	0.0	0.0	0.18	48.06	0.0	0.0	-12.89	0.0	0.0	12.9	
8	64.78	0.0	0.0	0.24	51.48	0.0	0.0	-13.29	0.0	0.0	13.3	
9	68.61	0.0	0.0	0.3	55.38	0.0	0.0	-13.22	0.0	0.0	13.23	
10	72.44	0.0	0.0	0.38	59.74	0.0	0.0	-12.69	0.0	0.0	12.7	
11	76.27	0.0	0.0	0.46	64.56	0.0	0.0	-11.69	0.0	0.0	11.7	
12	80.1	0.0	0.0	0.55	69.84	0.0	0.0	-10.25	0.0	0.0	10.26	
13	83.93	0.0	0.0	0.65	75.57	0.0	0.0	-8.35	0.0	0.0	8.36	
14	87.75	0.0	0.0	0.76	81.74	0.0	0.0	-6.0	0.0	0.0	6.01	
15	91.58	0.0	0.0	0.88	88.35	0.0	0.0	-3.22	0.0	0.0	3.23	
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01	
17	37.99	0.0	0.0	0.0	37.99	0.0	0.0	0.0	0.0	0.0	0.01	
18	52.34	0.0	0.0	0.07	42.11	0.0	0.0	-10.22	0.0	0.0	10.23	
19	66.7	0.0	0.0	0.27	53.37	0.0	0.0	-13.32	0.0	0.0	13.33	
20	81.05	0.0	0.0	0.58	71.23	0.0	0.0	-9.81	0.0	0.0	9.82	
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01	
Mean colour reproduction index:											R* _{ab,m} = 64	

OE880-3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE881-3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^{*}/Y_{intended}$ (absolute)	38.0/10.1	41.8/12.4	45.6/15.0	49.5/18.0	53.3/21.3	57.1/25.1	61.0/29.2	64.8/33.8	68.6/38.8	72.4/44.3	76.3/50.3	80.1/56.9	83.9/63.9	87.8/71.6	91.6/79.8	95.4/88.6
$w^{*} w^{*} w^{*}$ setrgb $g_N=1.9$																
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	0.006	0.022	0.047	0.081	0.124	0.175	0.235	0.303	0.379	0.463	0.554	0.654	0.762	0.877	1.0

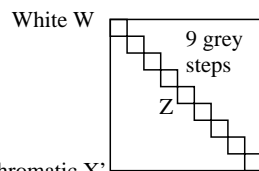
OE880-7N, Picture A7-135-2: 16 visual equidistant L^{*} -grey steps; PS operator: $w^{*} w^{*} w^{*}$ setrgbcolor

OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^{*}_{de}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:10$; Y_N range 7,5 to <15 output 130-2: $g_P=1.0$; $g_N=1.6$

TUB registration: 20110801-OE88/OE88L0NA.TXT /.PS
application for output of displays: monitor systems or data projector systems
TUB material: code=rh4ta

Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes in one of the following cases; for example see Annex (X):

Is there a continuous colour change for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-136-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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:.....

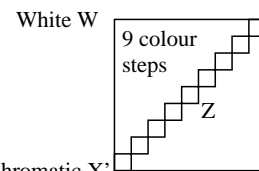
Special remarks:Special remarks, e. g. output of Landscape (L)

Part 3

OE880-7N-136-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

Chromatic X'
X' = C, V, M

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X' for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X' for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-136-1

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

or with test charts using colour points according to Ishihara

or tested with, please specify:

underline Yes/No

underline Yes/unknown

underline Yes/unknown

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

underline Yes/No

Picture A7-136-2: 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/OE88/OE88F1P2.PDF>

picture A7-136-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-136-2

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 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

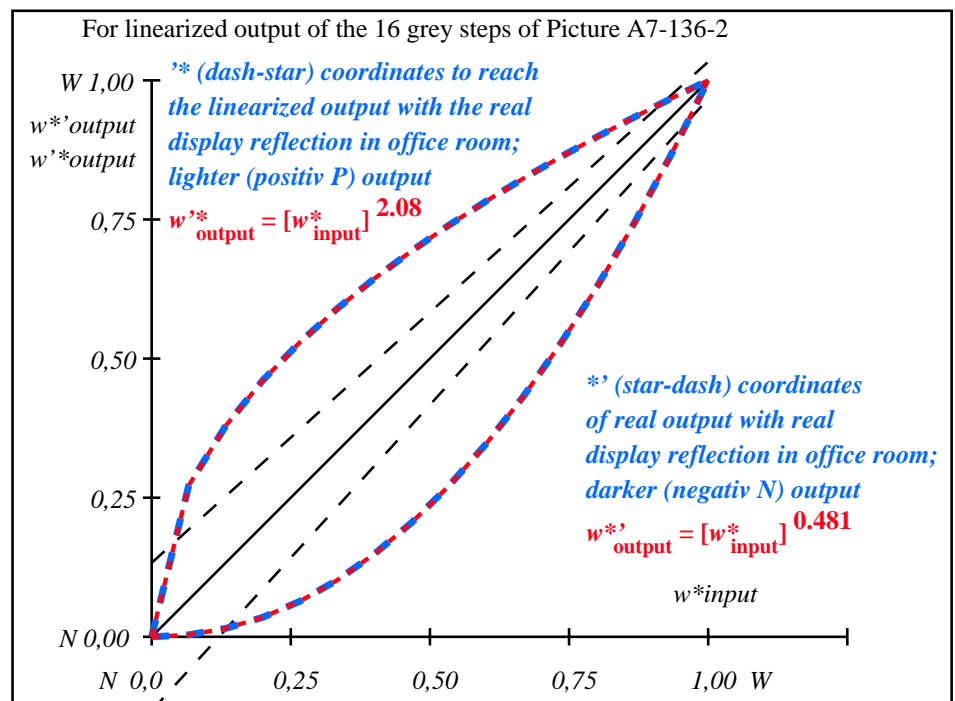
OE881-7N-136-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_p=1.0$; $g_N=1.81$

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	52.02 0.0 0.0	0.0 52.02 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01	Specification according to
2	54.91 0.0 0.0	0.0 52.17 0.0	0.0 -2.73 0.0	0.0 0.0 0.0	2.74	ISO/IEC 15775 Annex G
3	57.8 0.0 0.0	0.02 52.67 0.0	0.0 -5.12 0.0	0.0 0.0 0.0	5.13	and DIN 33866-1 Annex G
4	60.7 0.0 0.0	0.04 53.54 0.0	0.0 -7.14 0.0	0.0 0.0 0.0	7.15	
5	63.59 0.0 0.0	0.06 54.79 0.0	0.0 -8.79 0.0	0.0 0.0 0.0	8.8	
6	66.48 0.0 0.0	0.1 56.43 0.0	0.0 -10.04 0.0	0.0 0.0 0.0	10.05	
7	69.37 0.0 0.0	0.15 58.47 0.0	0.0 -10.89 0.0	0.0 0.0 0.0	10.9	
8	72.27 0.0 0.0	0.2 60.91 0.0	0.0 -11.35 0.0	0.0 0.0 0.0	11.36	
9	75.16 0.0 0.0	0.27 63.75 0.0	0.0 -11.4 0.0	0.0 0.0 0.0	11.41	
10	78.05 0.0 0.0	0.35 67.01 0.0	0.0 -11.03 0.0	0.0 0.0 0.0	11.04	
11	80.95 0.0 0.0	0.43 70.69 0.0	0.0 -10.25 0.0	0.0 0.0 0.0	10.26	
12	83.84 0.0 0.0	0.52 74.78 0.0	0.0 -9.05 0.0	0.0 0.0 0.0	9.06	
13	86.73 0.0 0.0	0.63 79.3 0.0	0.0 -7.42 0.0	0.0 0.0 0.0	7.43	
14	89.62 0.0 0.0	0.74 84.24 0.0	0.0 -5.38 0.0	0.0 0.0 0.0	5.39	
15	92.52 0.0 0.0	0.87 89.61 0.0	0.0 -2.9 0.0	0.0 0.0 0.0	2.91	Mean lightness difference (16 steps)
16	95.41 0.0 0.0	1.0 95.41 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01	ΔE*CIELAB = 7.1
17	52.02 0.0 0.0	0.0 52.02 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01	
18	62.87 0.0 0.0	0.06 54.44 0.0	0.0 -8.41 0.0	0.0 0.0 0.0	8.42	
19	73.71 0.0 0.0	0.24 62.28 0.0	0.0 -11.42 0.0	0.0 0.0 0.0	11.43	
20	84.56 0.0 0.0	0.55 75.87 0.0	0.0 -8.68 0.0	0.0 0.0 0.0	8.69	Mean lightness difference (5 steps)
21	95.41 0.0 0.0	1.0 95.41 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01	ΔL*CIELAB = 5.7
Mean colour reproduction index:					R* _{ab,m} = 69	

OE880-3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



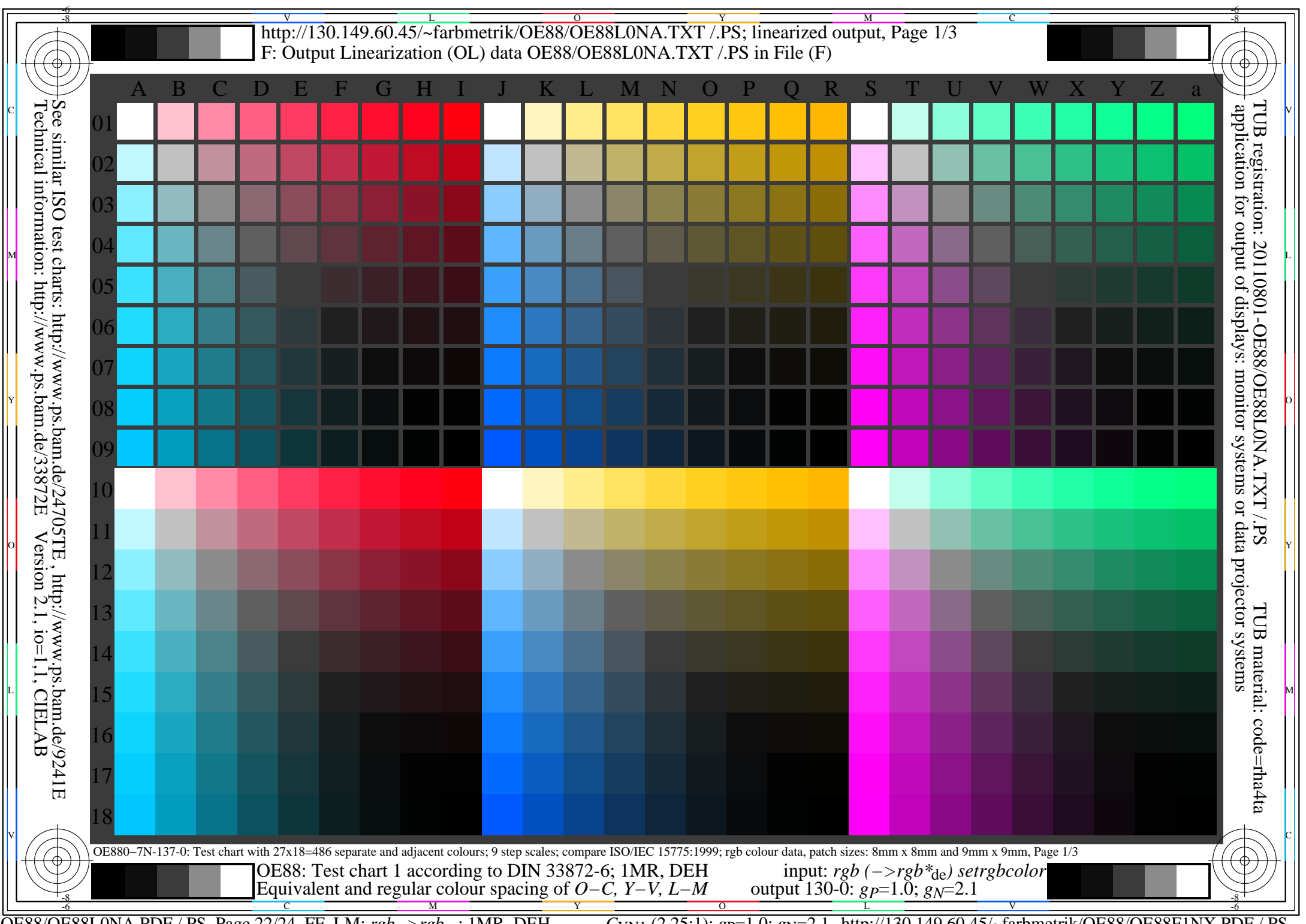
OE881-3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

L^*/Y_{intended} (absolute)	52.0/20.2	54.9/22.8	57.8/25.8	60.7/28.9	63.6/32.3	66.5/36.0	69.4/39.9	72.3/44.1	75.2/48.5	78.1/53.3	80.9/58.4	83.8/63.8	86.7/69.5	89.6/75.5	92.5/81.9	95.4/88.6
$w^* w^* w^*$ setrgb $g_N=2.08$																
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	0.004	0.015	0.035	0.064	0.102	0.149	0.205	0.27	0.346	0.431	0.524	0.629	0.743	0.866	1.0

OE880-7N, Picture A7-136-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

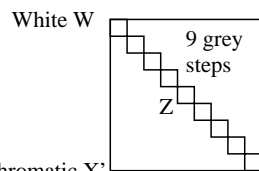
OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:20$; Y_N range 15 to <30 output 130-2: $g_P=1.0$; $g_N=1.81$

TUB registration: 20110801-OE88/OE88L0NA.TXT /.PS
application for output of displays: monitor systems or data projector systems
TUB material: code=rh4ta



Equivalent spacing for separate and adjacent colours (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 grey steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between N and W there are 9 grey steps.
Mean grey Z is the mean step of N-W.

Black N

All the stepings of the three hue planes O-L, Y-V and L-M should be equivalent for separate and adjacent colours.

Is the spacing equivalent for separate and adjacent colours?

underline: Yes/No

Remark: The spacing is not equivalent if there is at least one Yes in one of the following cases; for example see Annex (X):

Is there a continuous colour change for adjacent colours and not for separate colours?

underline: Yes/No

Are there maxima and minima in the colour change for adjacent colours and not for separate colours?

underline: Yes/No

Remarks:.....

Part 1

OE880-3N-137-1

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

PDF-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NP.PDF> underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88L0NA.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 OE88L0NP.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 OE88L0NA.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:.....

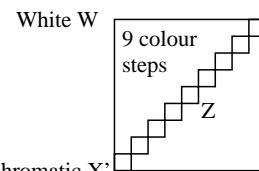
Special remarks:Special remarks, e. g. output of Landscape (L)

Part 3

OE880-7N-137-1

Regular colour spacing between colours Z-X' and Z-X (Yes/No decision)

Layout example: hue plane O-C, Y-V oder L-M mit 9 colour steps



Chromatic X
X = O, Y, L

There are three opposite hue planes O-C, Y-V, and L-M.
The colour steps are separate in the upper figure part and adjacent in the lower figure part.
Between X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'-X.

Black N

All colour steps of the three hue planes O-L, Y-V and L-M should be regular for separate and adjacent colours without large chromatic jumps at mean grey Z

Is the colour spacing regular at mean grey Z?

underline: Yes/No

Remark: The colour spacing is not regular if there is at least one Yes in one of the following cases; for example see Annex (X):

Are there colour jumps at the mean grey colour Z towards X or X' for adjacent colours?

underline: Yes/No

Are there colour jumps at the mean grey colour Z towards X or X' for separate colours

underline: Yes/No

Remarks: A colour jump has at least twice the colour change compared to the mean change.

Part 2

OE881-3N-137-1

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

or with test charts using colour points according to Ishihara

or tested with, please specify:

underline Yes/No

underline Yes/unknown

underline Yes/unknown

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/OE88/OE88F1P2.PDF>

underline Yes/No

PS file: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

underline Yes/No

Picture A7-137-2: 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/OE88/OE88F1P2.PDF>

picture A7-137-2

underline Yes/No

PS-File: <http://130.149.60.45/farbmetrik/OE88/OE88F1P2.PS>

picture A7-137-2

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 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

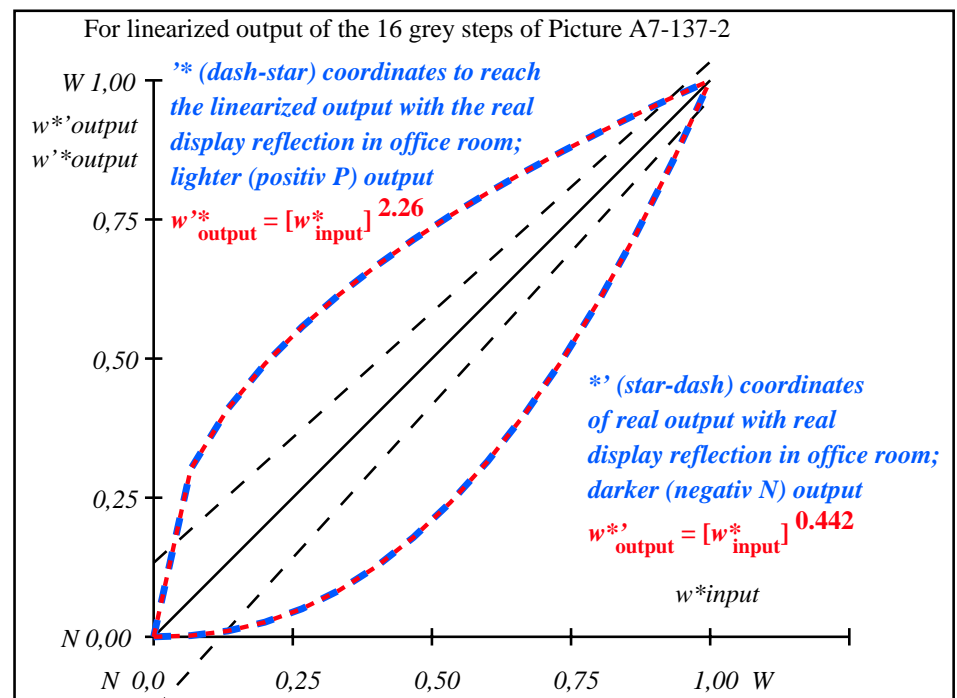
OE881-7N-137-1

OE88: Form A test chart 1 according to DIN 33872-6; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Equivalent and regular colour spacing (Yes/No-decision) output 130-1: $g_p=1.0$; $g_N=2.1$

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	69.7 0.0 0.0	69.7 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
2	71.41 0.0 0.0	69.75 0.0 0.0	-1.65 0.0 0.0	0.0 0.0 0.0	1.66
3	73.13 0.0 0.0	69.97 0.0 0.0	-3.15 0.0 0.0	0.0 0.0 0.0	3.16
4	74.84 0.0 0.0	70.37 0.0 0.0	-4.46 0.0 0.0	0.0 0.0 0.0	4.47
5	76.55 0.0 0.0	70.99 0.0 0.0	-5.55 0.0 0.0	0.0 0.0 0.0	5.56
6	78.27 0.0 0.0	71.84 0.0 0.0	-6.41 0.0 0.0	0.0 0.0 0.0	6.42
7	79.98 0.0 0.0	72.94 0.0 0.0	-7.03 0.0 0.0	0.0 0.0 0.0	7.04
8	81.7 0.0 0.0	74.29 0.0 0.0	-7.4 0.0 0.0	0.0 0.0 0.0	7.41
9	83.41 0.0 0.0	75.91 0.0 0.0	-7.49 0.0 0.0	0.0 0.0 0.0	7.5
10	85.12 0.0 0.0	77.8 0.0 0.0	-7.31 0.0 0.0	0.0 0.0 0.0	7.32
11	86.84 0.0 0.0	79.98 0.0 0.0	-6.85 0.0 0.0	0.0 0.0 0.0	6.86
12	88.55 0.0 0.0	82.45 0.0 0.0	-6.09 0.0 0.0	0.0 0.0 0.0	6.1
13	90.27 0.0 0.0	85.23 0.0 0.0	-5.03 0.0 0.0	0.0 0.0 0.0	5.04
14	91.98 0.0 0.0	88.3 0.0 0.0	-3.67 0.0 0.0	0.0 0.0 0.0	3.68
15	93.7 0.0 0.0	86.91 0.0 0.0	-1.99 0.0 0.0	0.0 0.0 0.0	2.0
16	95.41 0.0 0.0	95.41 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
17	69.7 0.0 0.0	69.7 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
18	76.13 0.0 0.0	70.82 0.0 0.0	-5.3 0.0 0.0	0.0 0.0 0.0	5.31
19	82.55 0.0 0.0	75.07 0.0 0.0	-7.48 0.0 0.0	0.0 0.0 0.0	7.49
20	88.98 0.0 0.0	83.12 0.0 0.0	-5.85 0.0 0.0	0.0 0.0 0.0	5.86
21	95.41 0.0 0.0	95.41 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.01
Mean lightness difference (16 steps)					ΔE* _{CIELAB} = 4.6
Mean lightness difference (5 steps)					ΔL* _{CIELAB} = 3.7
Mean colour reproduction index:					R* _{ab,m} = 80

OE880-3N-137-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE881-3N-137-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

L^*/Y_{intended} (absolute)	69.7/40.3	71.4/42.8	73.1/45.4	74.8/48.0	76.6/50.8	78.3/53.7	80.0/56.6	81.7/59.7	83.4/62.9	85.1/66.3	86.8/69.7	88.6/73.2	90.3/76.9	92.0/80.7	93.7/84.6	95.4/88.6
$w^* w^* w^*$ setrgb $g_N=2.26$ 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
$w^*=l^*_{\text{CIELAB},r}$ (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	0.002	0.01	0.026	0.051	0.083	0.126	0.179	0.241	0.315	0.4	0.496	0.604	0.724	0.855	1.0

OE880-7N, Picture A7-137-2: 16 visual equidistant L^* -grey steps; PS operator: $w^* w^* w^*$ setrgbcolor

OE88: In-output relation according to ISO 9241-306; 1MR, DEH input: $rgb \rightarrow rgb^*_{de}$ setrgbcolor
Viewing Y contrast $Y_W:Y_N=88,9:40$; Y_N range 30 to <60 output 130-2: $g_P=1.0$; $g_N=2.1$