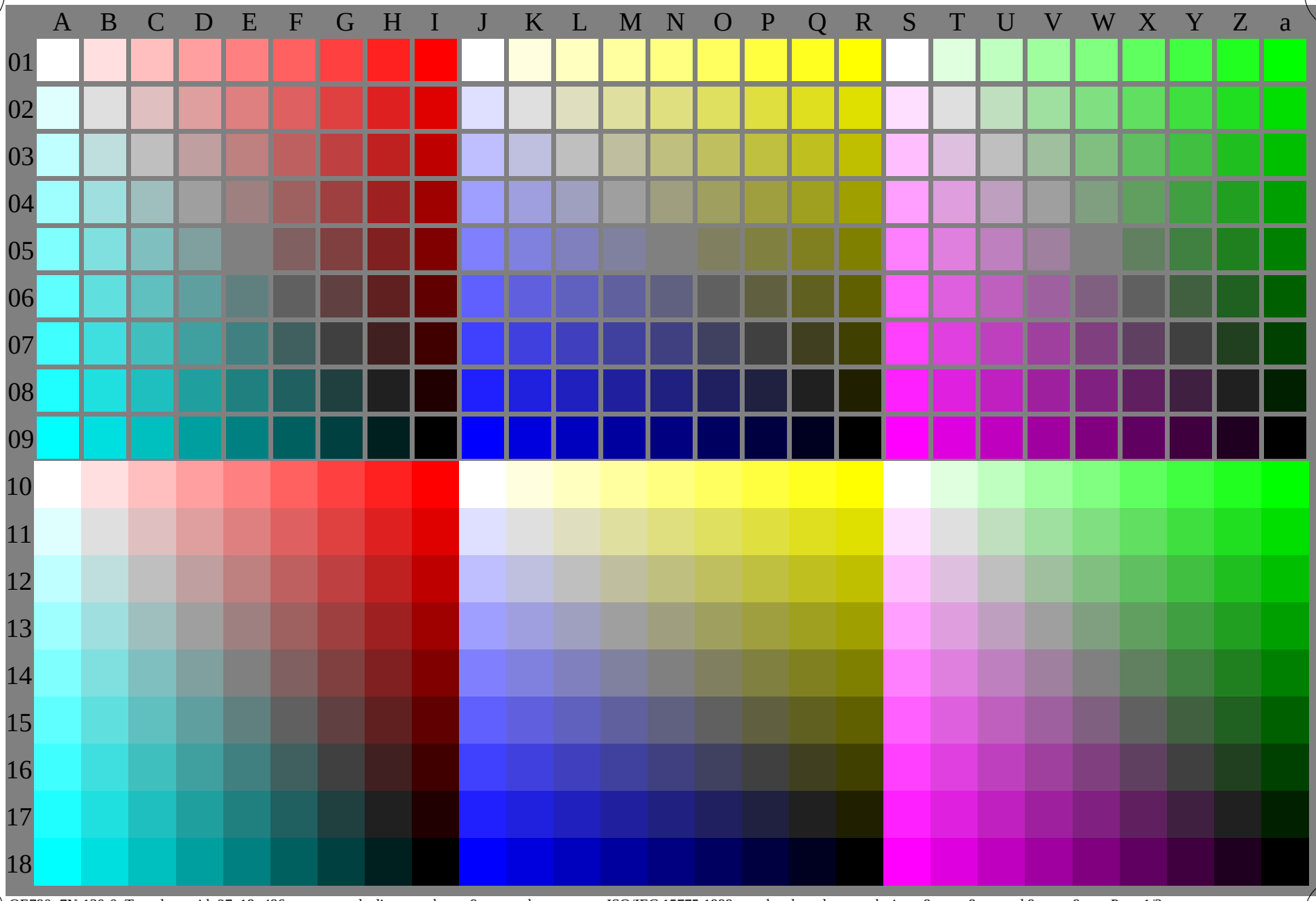


OE790−7N-130-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

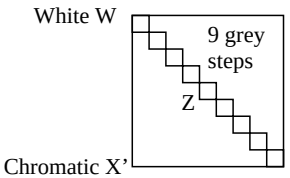
input: *cmy0 (−>cmy0*d) setcmyk*
output 130-0: g_P=1.0; g_N=1.0

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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

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



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.

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

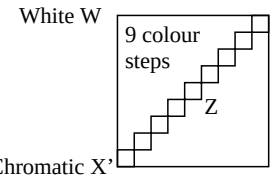
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'−X.

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 OE791−3N-130-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-130-1

Documentation of assessor colour vision properties for visual assessment

The assessor has **normal** colour vision according to one test: **underline Yes/No**
either according to DIN 6160:1996 with Anomaloskop of *Nagel* **underline Yes/unknown**
or with test charts using colour points according to *Ishihara* **underline Yes/unknown**
or tested with, please specify: ..... **underline Yes/unknown**

For visual evaluation of the display (monitor, data projector) output

Office workplace illumination is daylight (clouded/north sky) **underline Yes/No**
PDF file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-130-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-130-1

OE79: Form A test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing (Yes/No-decision)

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 130-1: g_P=1.0; g_N=1.0

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			ΔE*
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
2	6.36	0.0	0.0	0.07	6.36	0.0	0.0	0.0	0.0	0.0	0.01
3	12.72	0.0	0.0	0.13	12.72	0.0	0.0	0.0	0.0	0.0	0.01
4	19.08	0.0	0.0	0.2	19.08	0.0	0.0	0.0	0.0	0.0	0.01
5	25.44	0.0	0.0	0.27	25.44	0.0	0.0	0.0	0.0	0.0	0.01
6	31.8	0.0	0.0	0.33	31.8	0.0	0.0	0.0	0.0	0.0	0.01
7	38.16	0.0	0.0	0.4	38.16	0.0	0.0	0.0	0.0	0.0	0.01
8	44.52	0.0	0.0	0.47	44.52	0.0	0.0	0.0	0.0	0.0	0.01
9	50.89	0.0	0.0	0.53	50.89	0.0	0.0	0.0	0.0	0.0	0.01
10	57.25	0.0	0.0	0.6	57.25	0.0	0.0	0.0	0.0	0.0	0.01
11	63.61	0.0	0.0	0.67	63.61	0.0	0.0	0.0	0.0	0.0	0.01
12	69.97	0.0	0.0	0.73	69.97	0.0	0.0	0.0	0.0	0.0	0.01
13	76.33	0.0	0.0	0.8	76.33	0.0	0.0	0.0	0.0	0.0	0.01
14	82.69	0.0	0.0	0.87	82.69	0.0	0.0	0.0	0.0	0.0	0.01
15	89.05	0.0	0.0	0.93	89.05	0.0	0.0	0.0	0.0	0.0	0.01
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
18	23.85	0.0	0.0	0.25	23.85	0.0	0.0	0.0	0.0	0.0	0.01
19	47.71	0.0	0.0	0.5	47.71	0.0	0.0	0.0	0.0	0.0	0.01
20	71.56	0.0	0.0	0.75	71.56	0.0	0.0	0.0	0.0	0.0	0.01
21	95.41	0.0	0.0	1.0	95.41	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

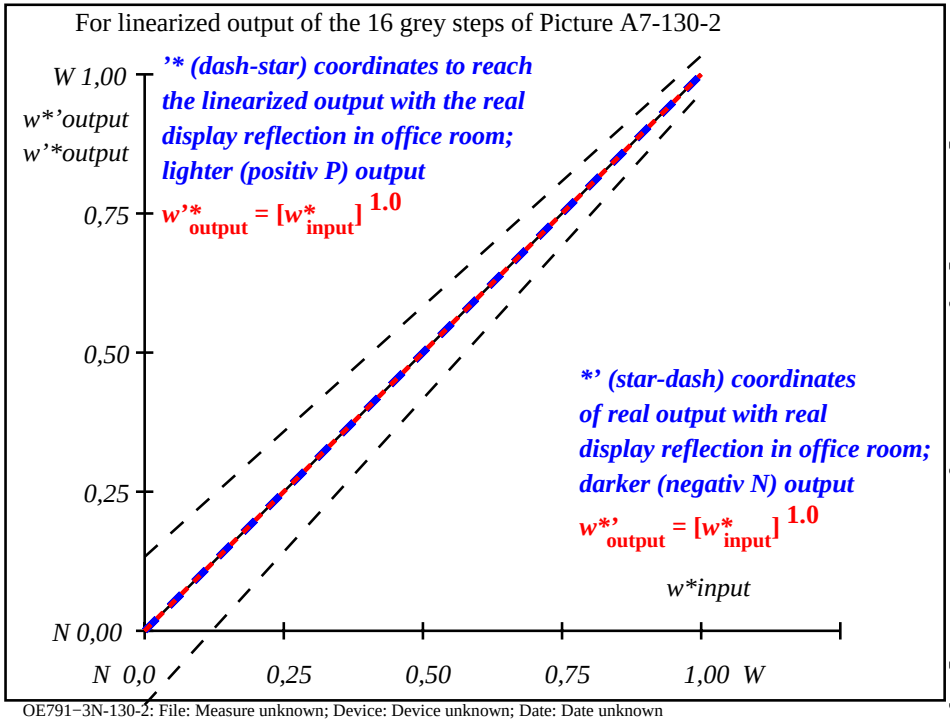
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **0.0**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **0.0**

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

OE790−3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-130-2



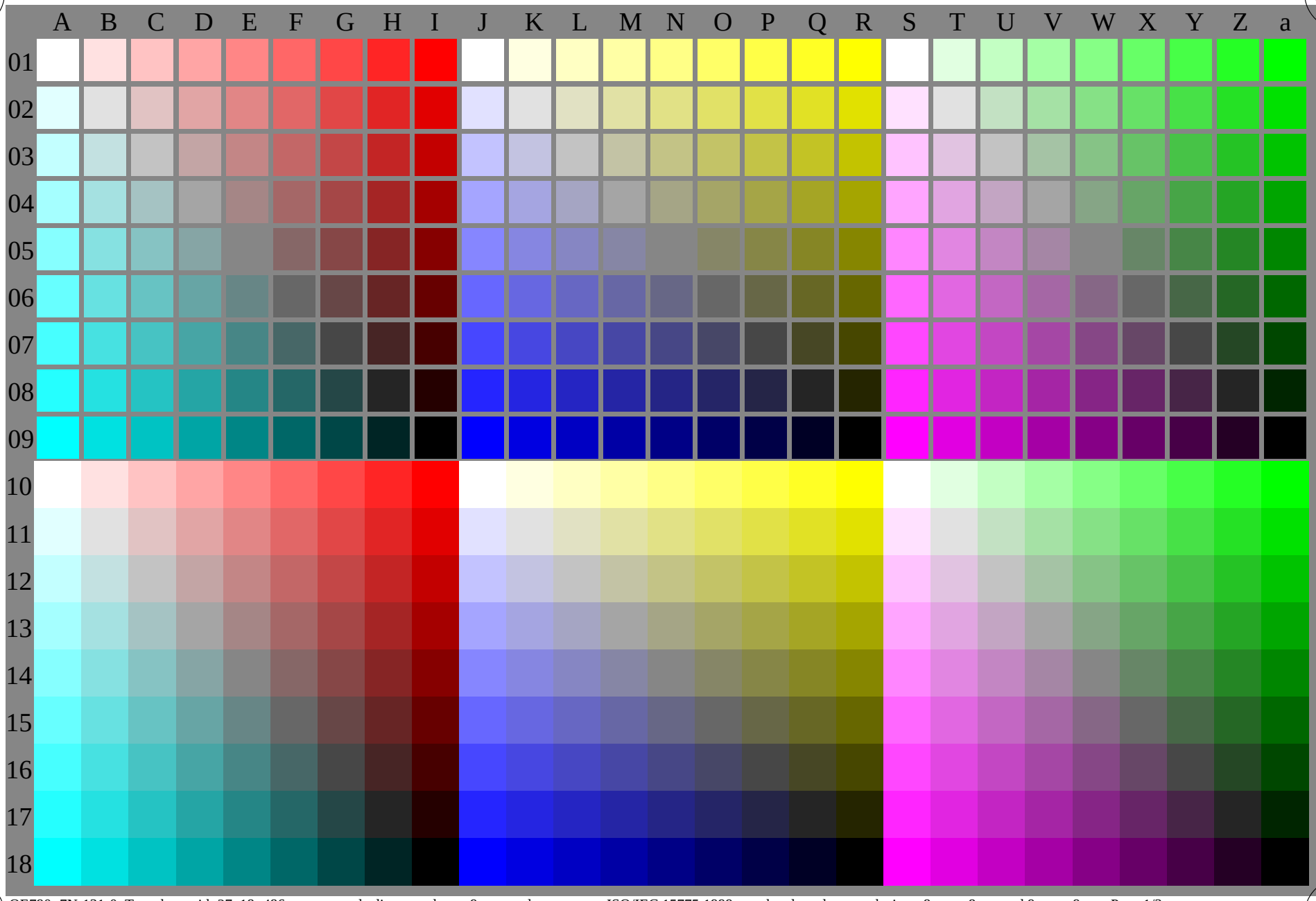
OE791−3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (absolute)	0.0/0.0	6.4/0.7	12.7/1.5	19.1/2.8	25.4/4.6	31.8/7.0	38.2/10.2	44.5/14.2	50.9/19.2	57.2/25.2	63.6/32.3	70.0/40.7	76.3/50.4	82.7/61.6	89.0/74.3	95.4/88.6
w* w* w* setrgb g_P=1.0																
No. and Hex code	00;F	01;E	02;D	03;C	04;B	05;A	06;9	07;8	08;7	09;6	10;5	11;4	12;3	13;2	14;1	15;0
$w^*=l^*_{CIELAB, r}$ (relative)																
$w^*_{intended}$	0,000	0,067	0,133	0,200	0,267	0,333	0,400	0,467	0,533	0,600	0,667	0,733	0,800	0,867	0,933	1,000
w^*_{out}	0.0	0.067	0.133	0.2	0.267	0.333	0.4	0.467	0.533	0.6	0.667	0.733	0.8	0.867	0.933	1.0

OE790−7N, Picture A7-130-2: 16 visual equidistant *L**-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing *Y* contrast Y_W:Y_N=88,9:0,31; Y_N range 0,0 to <0,46

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 130-2: 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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

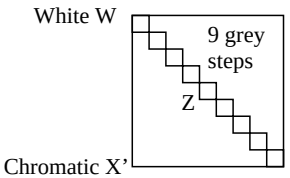
OE790−7N-131-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 131-0: g_P=0.92; 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



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.

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

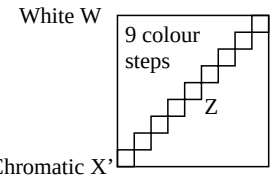
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps. Mean grey Z is the mean step of X'−X.

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 OE791−3N-131-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-131-1

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/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-131-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-131-1

OE79: Form A test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing (Yes/No-decision)

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 131-1: g_P=0.92; g_N=1.0

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			ΔE*
1	5.69	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	0.08	13.02	0.0	0.0	1.35	0.0	0.0	1.35
3	17.65	0.0	0.0	0.16	19.6	0.0	0.0	1.95	0.0	0.0	1.95
4	23.63	0.0	0.0	0.23	25.94	0.0	0.0	2.3	0.0	0.0	2.3
5	29.62	0.0	0.0	0.29	32.11	0.0	0.0	2.49	0.0	0.0	2.49
6	35.6	0.0	0.0	0.36	38.17	0.0	0.0	2.57	0.0	0.0	2.57
7	41.58	0.0	0.0	0.43	44.13	0.0	0.0	2.55	0.0	0.0	2.55
8	47.56	0.0	0.0	0.49	50.02	0.0	0.0	2.46	0.0	0.0	2.46
9	53.54	0.0	0.0	0.56	55.85	0.0	0.0	2.31	0.0	0.0	2.31
10	59.52	0.0	0.0	0.62	61.62	0.0	0.0	2.1	0.0	0.0	2.1
11	65.5	0.0	0.0	0.69	67.35	0.0	0.0	1.85	0.0	0.0	1.85
12	71.48	0.0	0.0	0.75	73.03	0.0	0.0	1.55	0.0	0.0	1.55
13	77.47	0.0	0.0	0.81	78.68	0.0	0.0	1.21	0.0	0.0	1.21
14	83.45	0.0	0.0	0.88	84.29	0.0	0.0	0.84	0.0	0.0	0.84
15	89.43	0.0	0.0	0.94	89.86	0.0	0.0	0.43	0.0	0.0	0.43
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	5.69	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	0.28	30.58	0.0	0.0	2.46	0.0	0.0	2.46
19	50.55	0.0	0.0	0.53	52.94	0.0	0.0	2.39	0.0	0.0	2.39
20	72.98	0.0	0.0	0.77	74.45	0.0	0.0	1.47	0.0	0.0	1.47
21	95.41	0.0	0.0	1.0	95.41	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

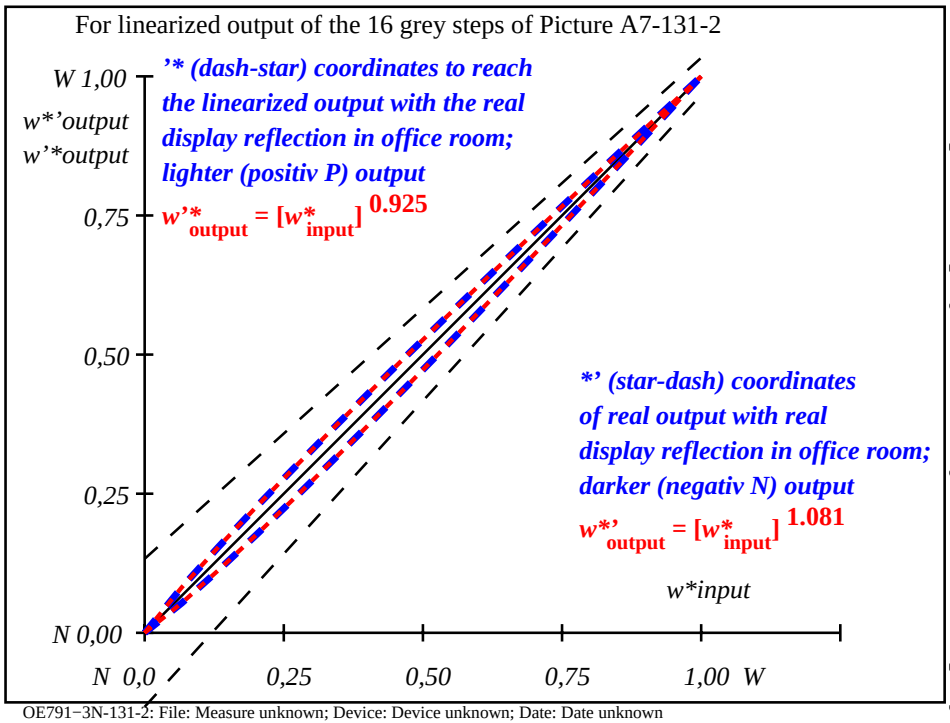
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = 1.6

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = 1.3

Mean colour reproduction index: $R^*_{ab,m}$ = 93

OE790−3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-131-2



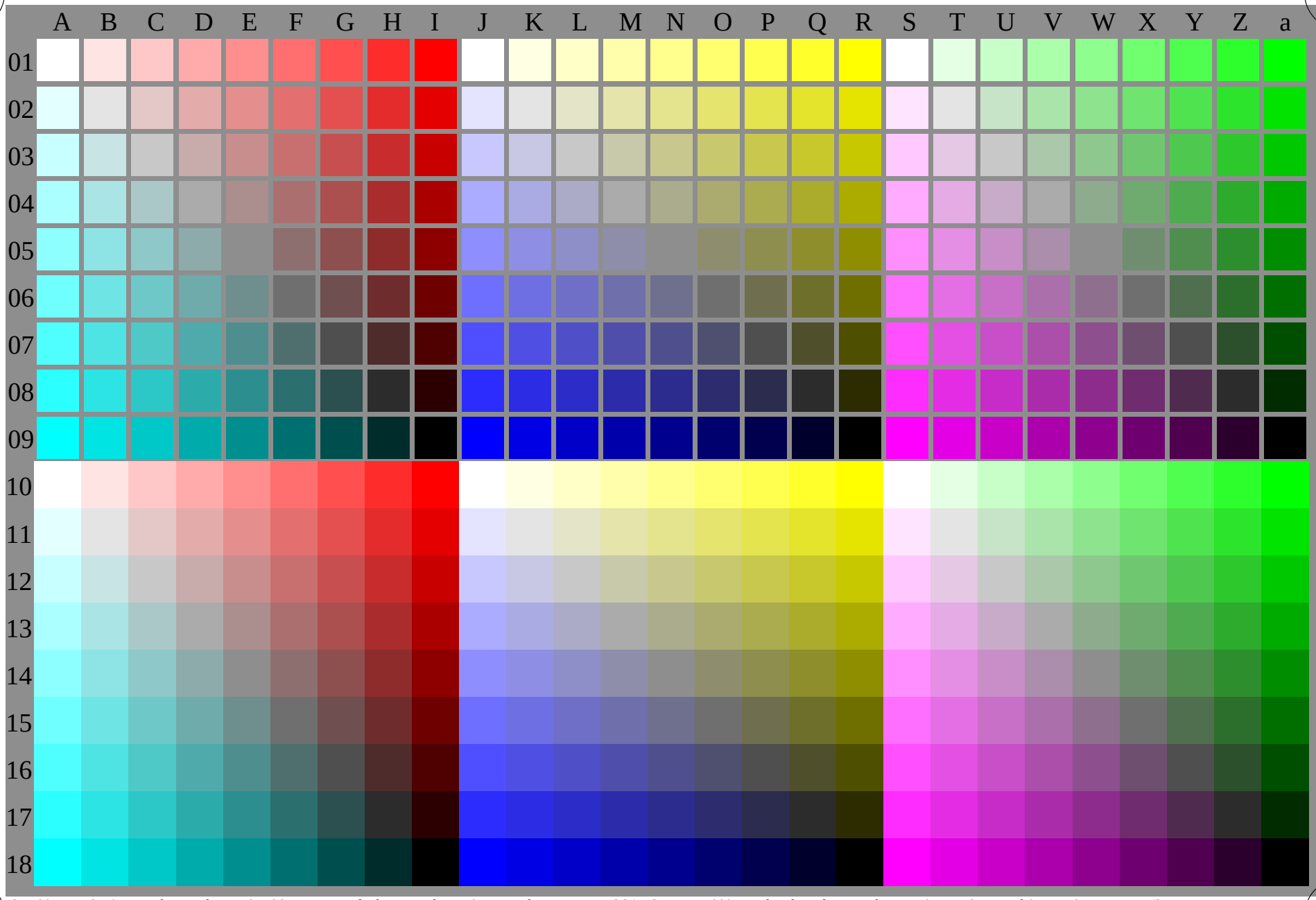
OE791−3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (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_P=0.92																
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	0.082	0.155	0.226	0.295	0.362	0.428	0.494	0.559	0.623	0.688	0.75	0.814	0.876	0.938	1.0

OE790−7N, Picture A7-131-2: 16 visual equidistant *L**-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing *Y* contrast Y_W:Y_N=88,9:0,62; Y_N range 0,46 to <0,93

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 131-2: g_P=0.92; g_N=1.0



OE790−7N-132-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

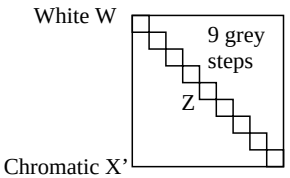
input: *cmy0 (−>cmy0*d) setcmyk*
output 132-0: g_P=0.85; g_N=1.0

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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

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



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.

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

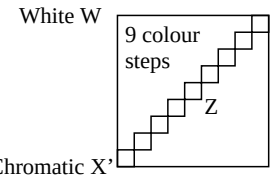
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'−X.

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 OE791−3N-132-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-132-1

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/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-132-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-132-1

OE79: Form A test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing (Yes/No-decision)

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 132-1: g_P=0.85; g_N=1.0

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			ΔE*
1	10.99	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	0.1	19.44	0.0	0.0	2.82	0.0	0.0	2.82
3	22.25	0.0	0.0	0.18	26.22	0.0	0.0	3.97	0.0	0.0	3.97
4	27.88	0.0	0.0	0.25	32.49	0.0	0.0	4.61	0.0	0.0	4.61
5	33.5	0.0	0.0	0.33	38.44	0.0	0.0	4.94	0.0	0.0	4.94
6	39.13	0.0	0.0	0.39	44.17	0.0	0.0	5.04	0.0	0.0	5.04
7	44.76	0.0	0.0	0.46	49.73	0.0	0.0	4.98	0.0	0.0	4.98
8	50.39	0.0	0.0	0.52	55.16	0.0	0.0	4.77	0.0	0.0	4.77
9	56.02	0.0	0.0	0.59	60.47	0.0	0.0	4.45	0.0	0.0	4.45
10	61.64	0.0	0.0	0.65	65.68	0.0	0.0	4.03	0.0	0.0	4.03
11	67.27	0.0	0.0	0.71	70.8	0.0	0.0	3.53	0.0	0.0	3.53
12	72.9	0.0	0.0	0.77	75.85	0.0	0.0	2.95	0.0	0.0	2.95
13	78.53	0.0	0.0	0.83	80.83	0.0	0.0	2.3	0.0	0.0	2.3
14	84.15	0.0	0.0	0.89	85.74	0.0	0.0	1.59	0.0	0.0	1.59
15	89.78	0.0	0.0	0.94	90.6	0.0	0.0	0.82	0.0	0.0	0.82
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	10.99	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	0.31	36.98	0.0	0.0	4.88	0.0	0.0	4.88
19	53.2	0.0	0.0	0.55	57.83	0.0	0.0	4.62	0.0	0.0	4.62
20	74.31	0.0	0.0	0.78	77.1	0.0	0.0	2.79	0.0	0.0	2.79
21	95.41	0.0	0.0	1.0	95.41	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

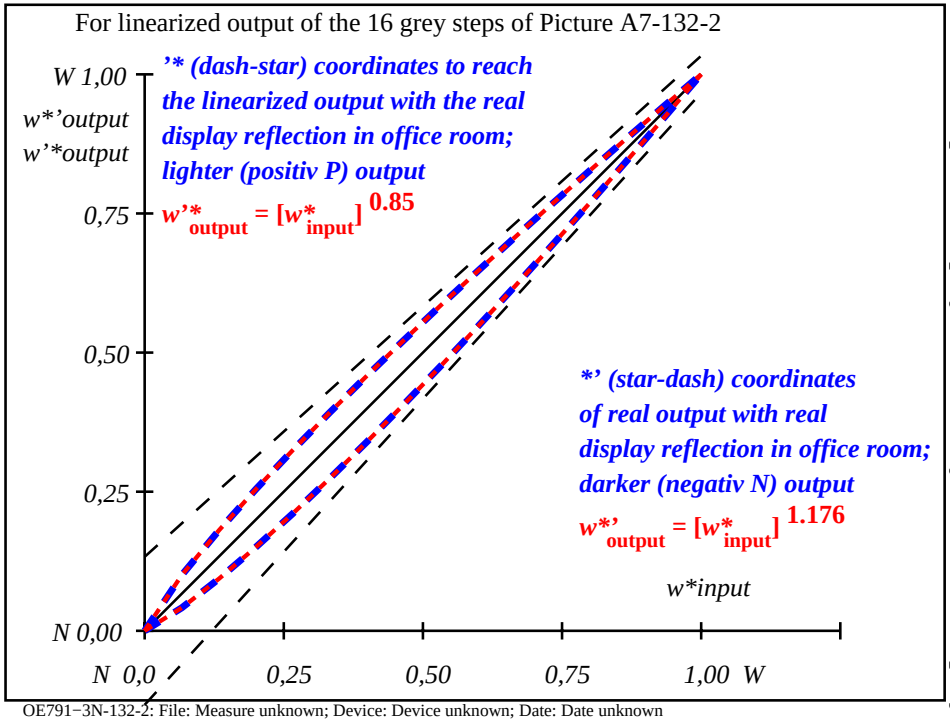
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **3.2**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **2.5**

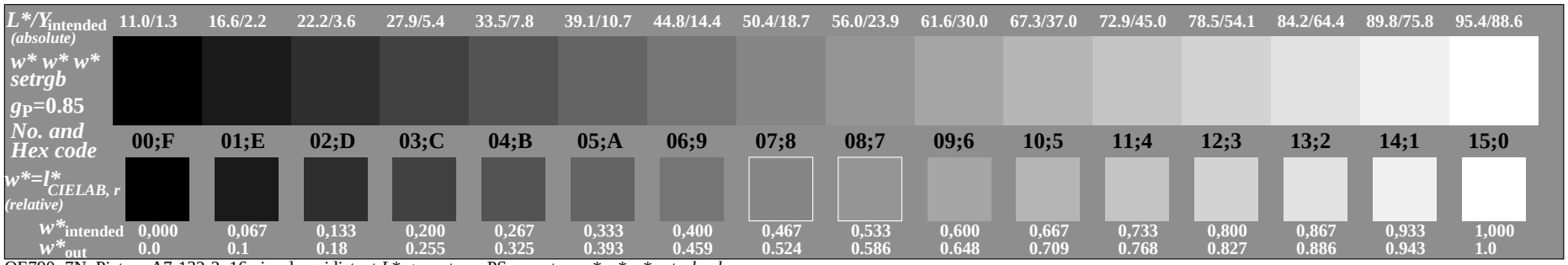
Mean colour reproduction index: $R^*_{ab,m}$ = **86**

OE790−3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-132-2



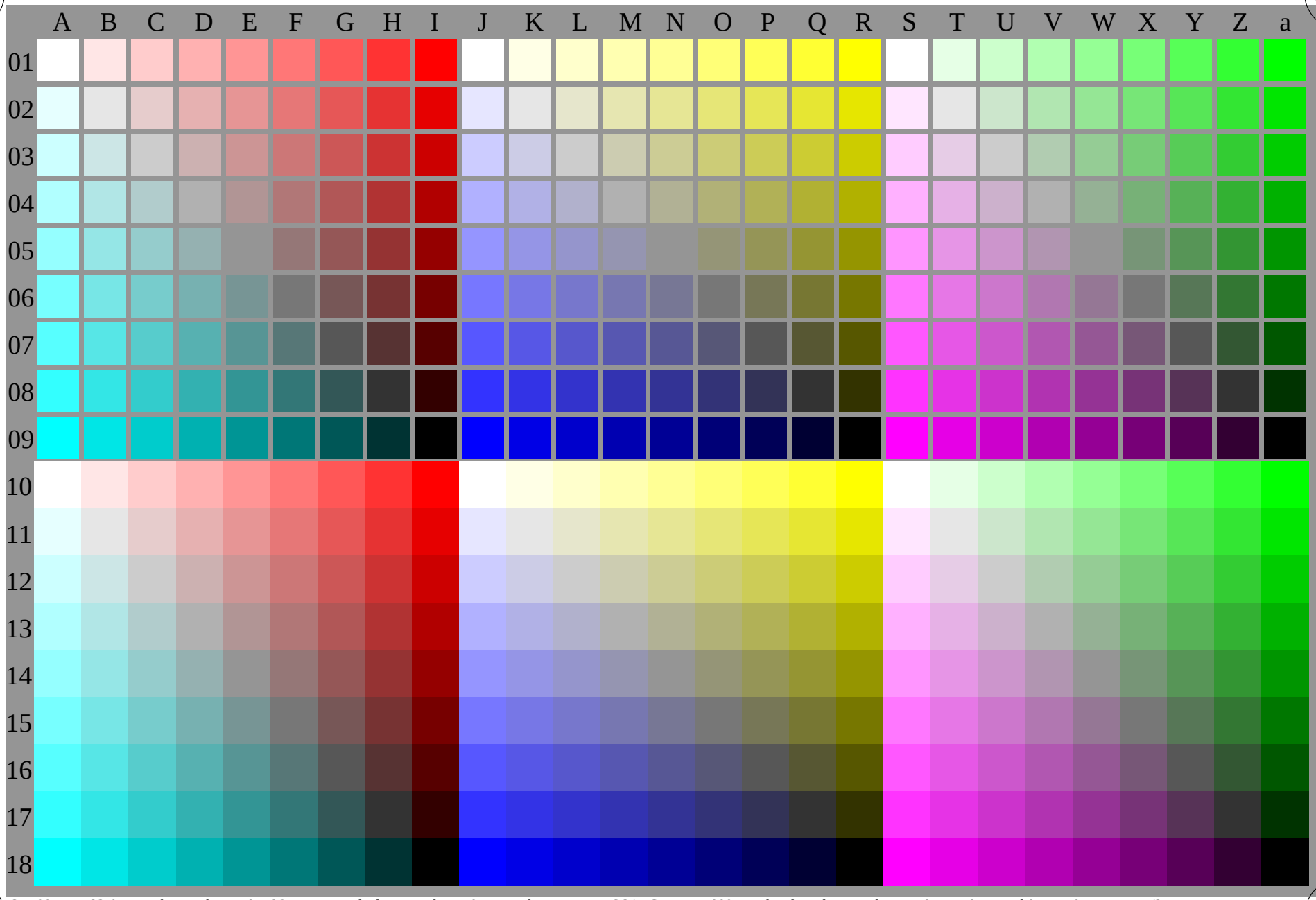
OE791−3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE790−7N, Picture A7-132-2: 16 visual equidistant *L**-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing *Y* contrast Y_W:Y_N=88,9:1,25; Y_N range 0,93 to <1,87

input: *cmy0 (−>cmy0*d) setcmyk*
output 132-2: g_P=0.85; 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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

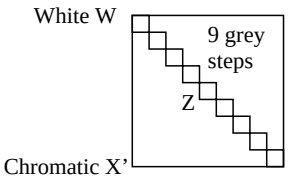
OE790−7N-133-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

input: *cmy0 (−>cmy0*d) setcmyk*
output 133-0: g_P=0.77; 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



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.

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

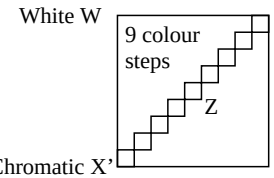
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'−X.

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 OE791−3N-133-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-133-1

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/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-133-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-133-1

OE79: Form A test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing (Yes/No-decision)

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 133-1: g_P=0.77; g_N=1.0

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	0.01
2	23.17	0.0	0.0	0.12	27.5	0.0	0.0	4.33	0.0	0.0	4.33
3	28.33	0.0	0.0	0.21	34.25	0.0	0.0	5.92	0.0	0.0	5.92
4	33.49	0.0	0.0	0.29	40.24	0.0	0.0	6.76	0.0	0.0	6.76
5	38.65	0.0	0.0	0.36	45.8	0.0	0.0	7.15	0.0	0.0	7.15
6	43.81	0.0	0.0	0.43	51.04	0.0	0.0	7.23	0.0	0.0	7.23
7	48.97	0.0	0.0	0.49	56.06	0.0	0.0	7.09	0.0	0.0	7.09
8	54.13	0.0	0.0	0.55	60.89	0.0	0.0	6.76	0.0	0.0	6.76
9	59.29	0.0	0.0	0.61	65.56	0.0	0.0	6.27	0.0	0.0	6.27
10	64.45	0.0	0.0	0.67	70.11	0.0	0.0	5.66	0.0	0.0	5.66
11	69.61	0.0	0.0	0.73	74.54	0.0	0.0	4.93	0.0	0.0	4.93
12	74.77	0.0	0.0	0.79	78.87	0.0	0.0	4.1	0.0	0.0	4.1
13	79.93	0.0	0.0	0.84	83.12	0.0	0.0	3.19	0.0	0.0	3.19
14	85.09	0.0	0.0	0.9	87.28	0.0	0.0	2.19	0.0	0.0	2.2
15	90.25	0.0	0.0	0.95	91.38	0.0	0.0	1.13	0.0	0.0	1.13
16	95.41	0.0	0.0	1.0	95.41	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	0.01
18	37.36	0.0	0.0	0.34	44.44	0.0	0.0	7.08	0.0	0.0	7.08
19	56.71	0.0	0.0	0.58	63.24	0.0	0.0	6.53	0.0	0.0	6.53
20	76.06	0.0	0.0	0.8	79.94	0.0	0.0	3.88	0.0	0.0	3.88
21	95.41	0.0	0.0	1.0	95.41	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

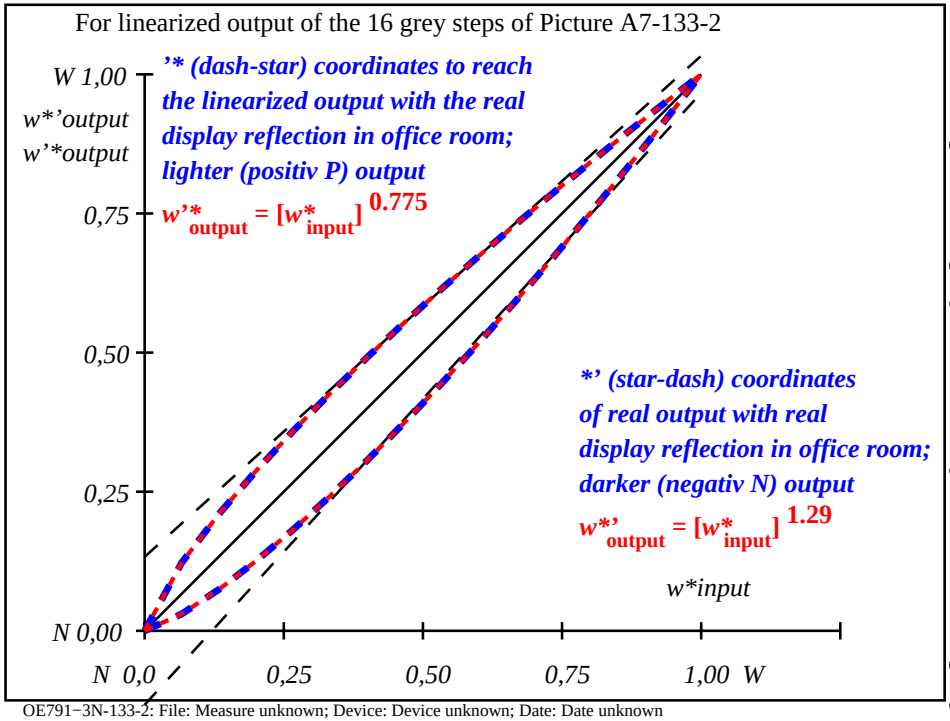
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **4.5**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **3.5**

Mean colour reproduction index: $R^*_{ab,m}$ = **80**

OE790−3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-133-2



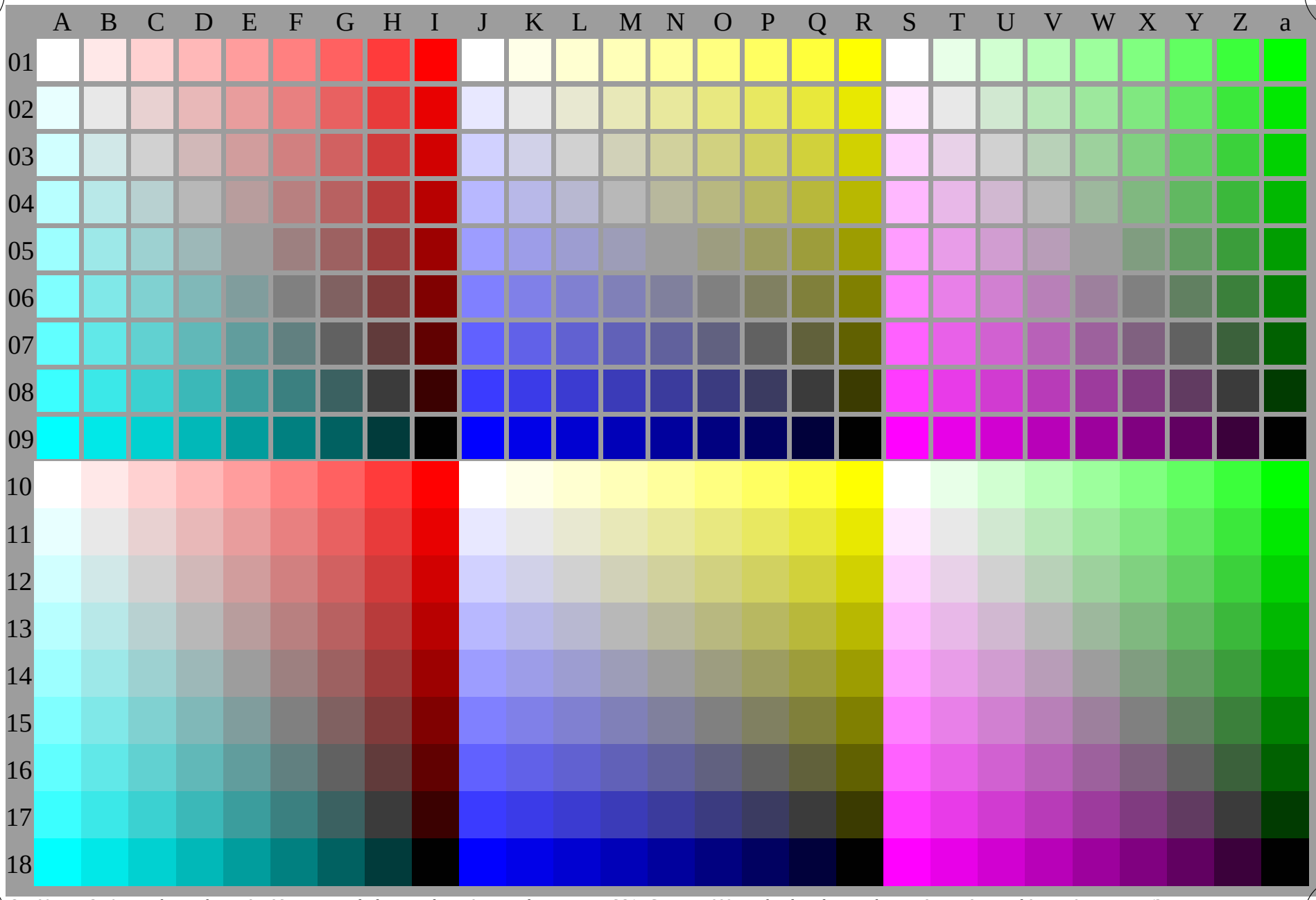
OE791−3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (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_P=0.78																
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	0.123	0.209	0.287	0.359	0.426	0.492	0.554	0.614	0.673	0.731	0.786	0.841	0.895	0.948	1.0

OE790−7N, Picture A7-133-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing Y contrast Y_W:Y_N=88,9:2,5; Y_N range 1,87 to <3,75

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 133-2: g_P=0.77; g_N=1.0



OE790−7N-134-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

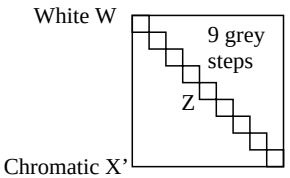
input: *cmy0 (−>cmy0*d) setcmyk*
output 134-0: g_P=0.7; g_N=1.0

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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

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



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.

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

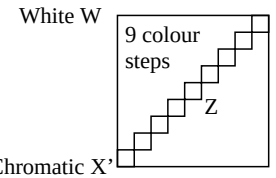
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'−X.

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 OE791−3N-134-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-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/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-134-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-134-1

OE79: Form A test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing (Yes/No-decision)

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 134-1: g_P=0.7; g_N=1.0

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	0.01
2	31.42	0.0	0.0	0.15	37.15	0.0	0.0	5.73	0.0	0.0	5.73
3	35.99	0.0	0.0	0.24	43.58	0.0	0.0	7.59	0.0	0.0	7.59
4	40.56	0.0	0.0	0.32	49.07	0.0	0.0	8.51	0.0	0.0	8.51
5	45.13	0.0	0.0	0.4	54.03	0.0	0.0	8.9	0.0	0.0	8.9
6	49.7	0.0	0.0	0.46	58.62	0.0	0.0	8.92	0.0	0.0	8.92
7	54.27	0.0	0.0	0.53	62.95	0.0	0.0	8.68	0.0	0.0	8.68
8	58.84	0.0	0.0	0.59	67.06	0.0	0.0	8.22	0.0	0.0	8.22
9	63.41	0.0	0.0	0.64	71.0	0.0	0.0	7.59	0.0	0.0	7.59
10	67.99	0.0	0.0	0.7	74.8	0.0	0.0	6.81	0.0	0.0	6.81
11	72.56	0.0	0.0	0.75	78.47	0.0	0.0	5.91	0.0	0.0	5.91
12	77.13	0.0	0.0	0.8	82.03	0.0	0.0	4.9	0.0	0.0	4.9
13	81.7	0.0	0.0	0.86	85.5	0.0	0.0	3.8	0.0	0.0	3.8
14	86.27	0.0	0.0	0.9	88.87	0.0	0.0	2.61	0.0	0.0	2.61
15	90.84	0.0	0.0	0.95	92.18	0.0	0.0	1.34	0.0	0.0	1.34
16	95.41	0.0	0.0	1.0	95.41	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	0.01
18	43.99	0.0	0.0	0.38	52.83	0.0	0.0	8.84	0.0	0.0	8.84
19	61.13	0.0	0.0	0.62	69.05	0.0	0.0	7.92	0.0	0.0	7.92
20	78.27	0.0	0.0	0.82	82.9	0.0	0.0	4.64	0.0	0.0	4.64
21	95.41	0.0	0.0	1.0	95.41	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

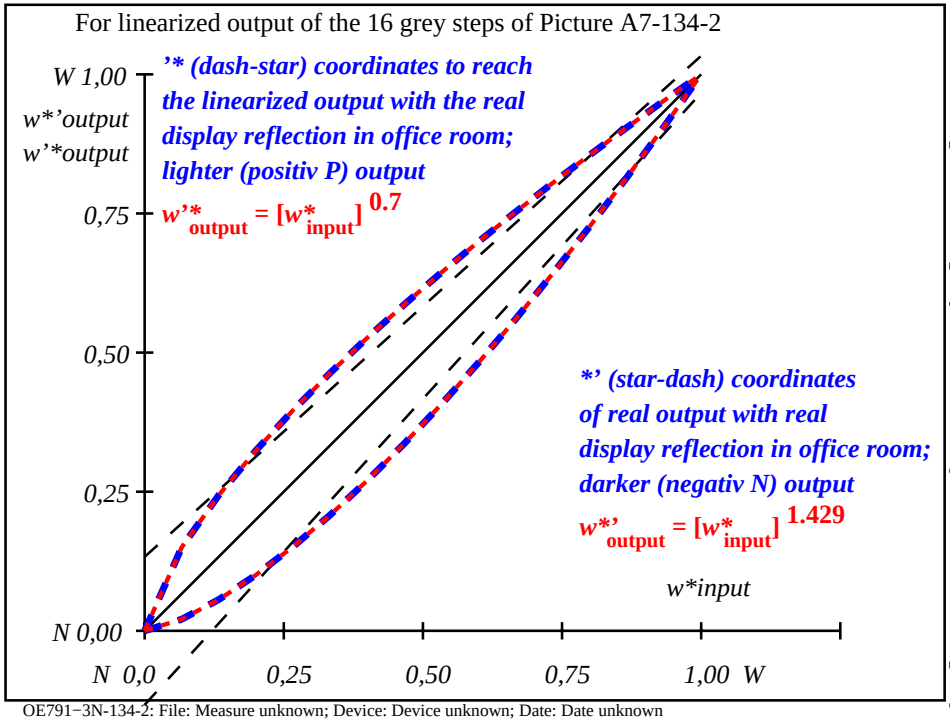
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **5.6**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **4.3**

Mean colour reproduction index: $R^*_{ab,m}$ = **76**

OE790−3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-134-2



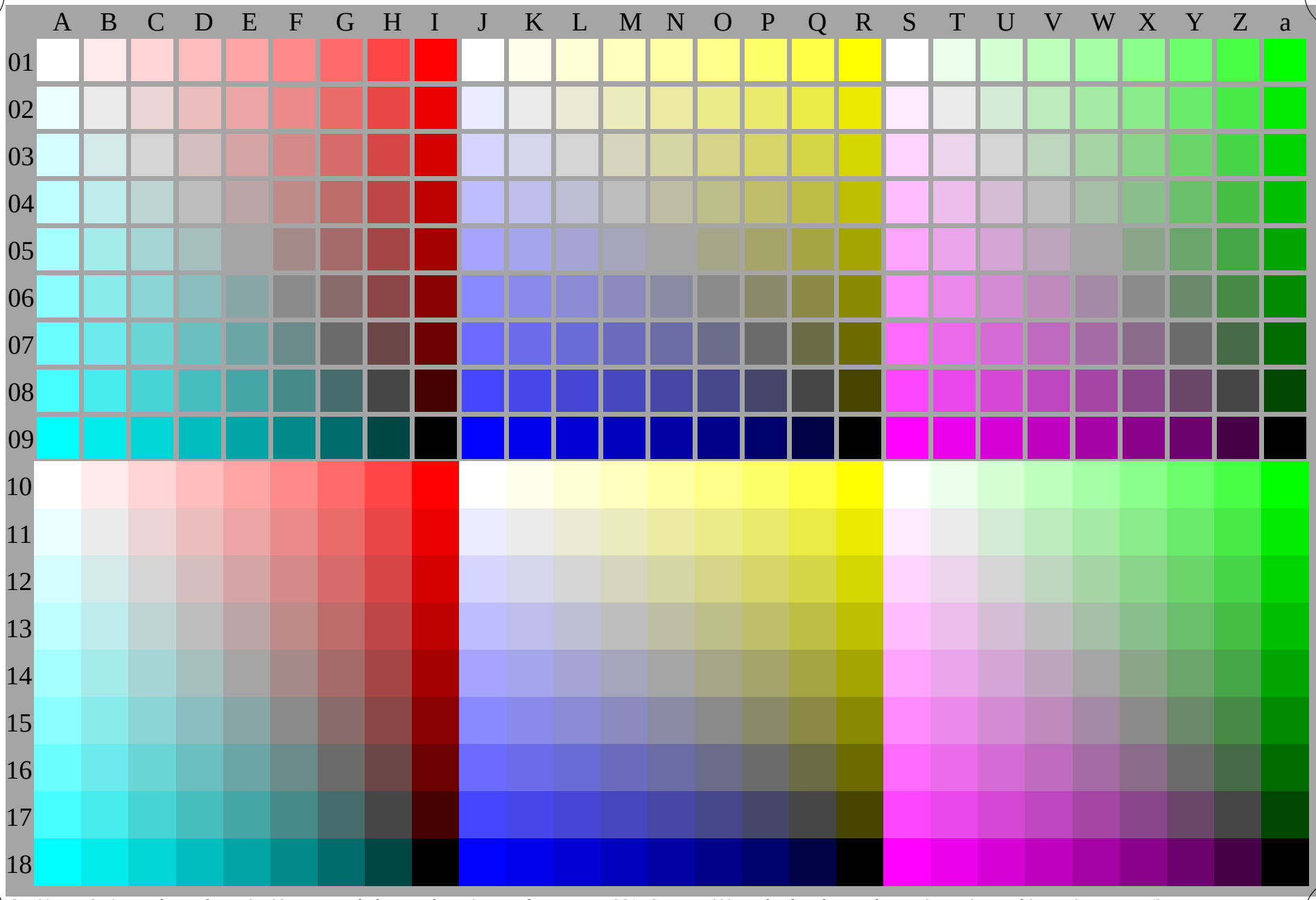
OE791−3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (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_P=0.7																
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	0.151	0.244	0.324	0.397	0.463	0.527	0.587	0.644	0.699	0.753	0.805	0.855	0.905	0.953	1.0

OE790−7N, Picture A7-134-2: 16 visual equidistant *L**-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing *Y* contrast Y_W:Y_N=88,9:5; Y_N range 3,75 to <7,5

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 134-2: g_P=0.7; 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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

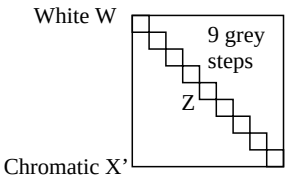
OE790−7N-135-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 135-0: g_P=0.62; 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



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.

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

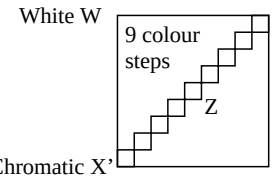
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'−X.

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 OE791−3N-135-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-135-1

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/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-135-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-135-1

OE79: Form A test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing (Yes/No-decision)

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 135-1: g_P=0.62; g_N=1.0

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			ΔE*
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	0.18	48.55	0.0	0.0	6.74	0.0	0.0	6.74
3	45.64	0.0	0.0	0.28	54.29	0.0	0.0	8.64	0.0	0.0	8.64
4	49.47	0.0	0.0	0.37	58.99	0.0	0.0	9.52	0.0	0.0	9.52
5	53.3	0.0	0.0	0.44	63.12	0.0	0.0	9.82	0.0	0.0	9.82
6	57.13	0.0	0.0	0.5	66.89	0.0	0.0	9.76	0.0	0.0	9.76
7	60.96	0.0	0.0	0.56	70.37	0.0	0.0	9.42	0.0	0.0	9.42
8	64.78	0.0	0.0	0.62	73.65	0.0	0.0	8.87	0.0	0.0	8.87
9	68.61	0.0	0.0	0.68	76.75	0.0	0.0	8.14	0.0	0.0	8.14
10	72.44	0.0	0.0	0.73	79.71	0.0	0.0	7.27	0.0	0.0	7.27
11	76.27	0.0	0.0	0.78	82.56	0.0	0.0	6.29	0.0	0.0	6.29
12	80.1	0.0	0.0	0.82	85.29	0.0	0.0	5.19	0.0	0.0	5.19
13	83.93	0.0	0.0	0.87	87.93	0.0	0.0	4.01	0.0	0.0	4.01
14	87.75	0.0	0.0	0.91	90.5	0.0	0.0	2.74	0.0	0.0	2.74
15	91.58	0.0	0.0	0.96	92.99	0.0	0.0	1.4	0.0	0.0	1.4
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	0.42	62.13	0.0	0.0	9.79	0.0	0.0	9.79
19	66.7	0.0	0.0	0.65	75.22	0.0	0.0	8.52	0.0	0.0	8.52
20	81.05	0.0	0.0	0.84	85.96	0.0	0.0	4.91	0.0	0.0	4.91
21	95.41	0.0	0.0	1.0	95.41	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

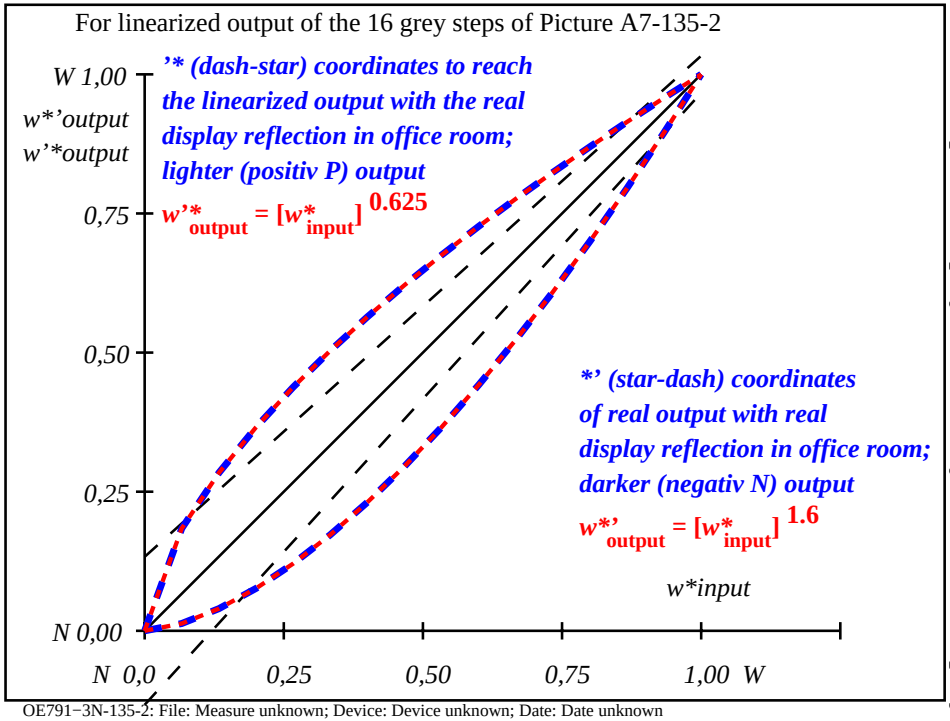
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = 6.1

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = 4.6

Mean colour reproduction index: $R^*_{ab,m}$ = 73

OE790−3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-135-2



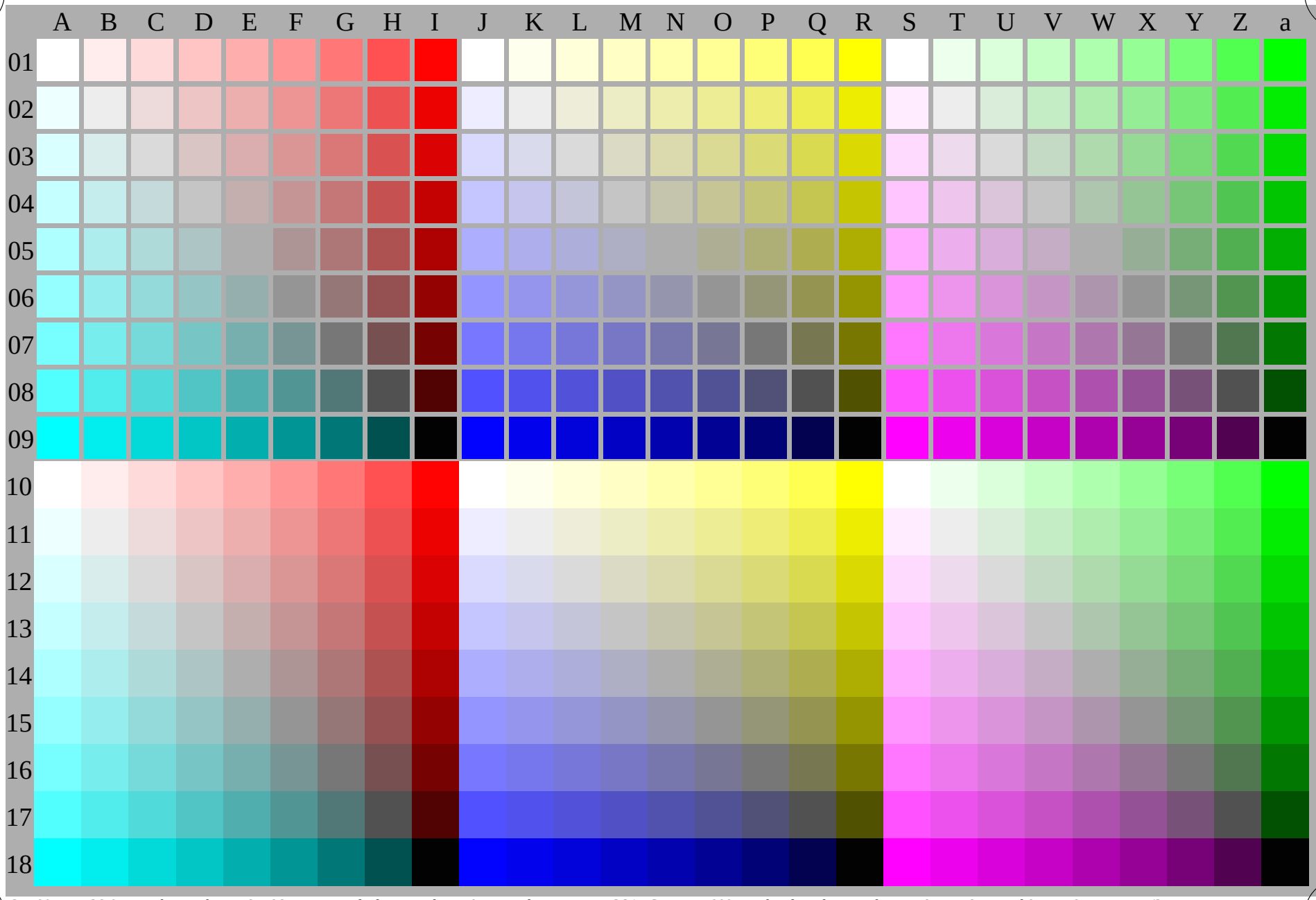
OE791−3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (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_P=0.63																
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	0.185	0.283	0.366	0.438	0.503	0.564	0.621	0.675	0.727	0.776	0.824	0.87	0.915	0.958	1.0

OE790−7N, Picture A7-135-2: 16 visual equidistant *L**-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing *Y* contrast Y_W:Y_N=88,9:10; Y_N range 7,5 to <15

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 135-2: g_P=0.62; 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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

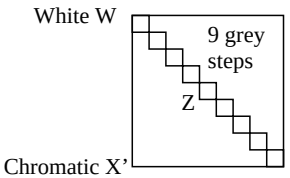
OE790−7N-136-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 136-0: g_P=0.55; 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



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.

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

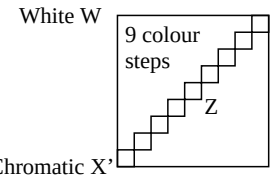
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'−X.

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 OE791−3N-136-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-136-1

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/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-136-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-136-1

OE79: Form A test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing (Yes/No-decision)

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 136-1: g_P=0.55; g_N=1.0

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			ΔE*
1	52.02	0.0	0.0	0.0	52.02	0.0	0.0	0.0	0.0	0.0	0.01
2	54.91	0.0	0.0	0.23	61.8	0.0	0.0	6.89	0.0	0.0	6.89
3	57.8	0.0	0.0	0.33	66.34	0.0	0.0	8.54	0.0	0.0	8.54
4	60.7	0.0	0.0	0.41	69.92	0.0	0.0	9.23	0.0	0.0	9.23
5	63.59	0.0	0.0	0.48	72.99	0.0	0.0	9.4	0.0	0.0	9.4
6	66.48	0.0	0.0	0.55	75.73	0.0	0.0	9.25	0.0	0.0	9.25
7	69.37	0.0	0.0	0.6	78.23	0.0	0.0	8.86	0.0	0.0	8.86
8	72.27	0.0	0.0	0.66	80.55	0.0	0.0	8.28	0.0	0.0	8.28
9	75.16	0.0	0.0	0.71	82.73	0.0	0.0	7.57	0.0	0.0	7.57
10	78.05	0.0	0.0	0.76	84.78	0.0	0.0	6.73	0.0	0.0	6.73
11	80.95	0.0	0.0	0.8	86.74	0.0	0.0	5.79	0.0	0.0	5.79
12	83.84	0.0	0.0	0.84	88.6	0.0	0.0	4.77	0.0	0.0	4.77
13	86.73	0.0	0.0	0.88	90.4	0.0	0.0	3.67	0.0	0.0	3.67
14	89.62	0.0	0.0	0.92	92.13	0.0	0.0	2.5	0.0	0.0	2.5
15	92.52	0.0	0.0	0.96	93.79	0.0	0.0	1.28	0.0	0.0	1.28
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	52.02	0.0	0.0	0.0	52.02	0.0	0.0	0.0	0.0	0.0	0.01
18	62.87	0.0	0.0	0.47	72.26	0.0	0.0	9.4	0.0	0.0	9.4
19	73.71	0.0	0.0	0.68	81.66	0.0	0.0	7.94	0.0	0.0	7.94
20	84.56	0.0	0.0	0.85	89.06	0.0	0.0	4.5	0.0	0.0	4.5
21	95.41	0.0	0.0	1.0	95.41	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

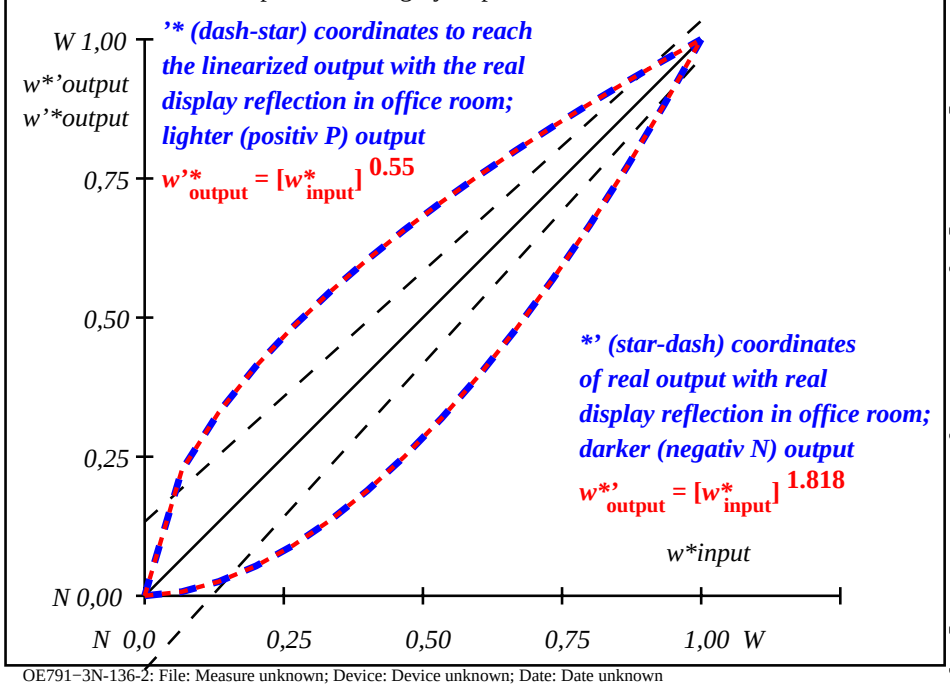
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **5.8**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **4.4**

Mean colour reproduction index: $R^*_{ab,m}$ = **75**

OE790−3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-136-2



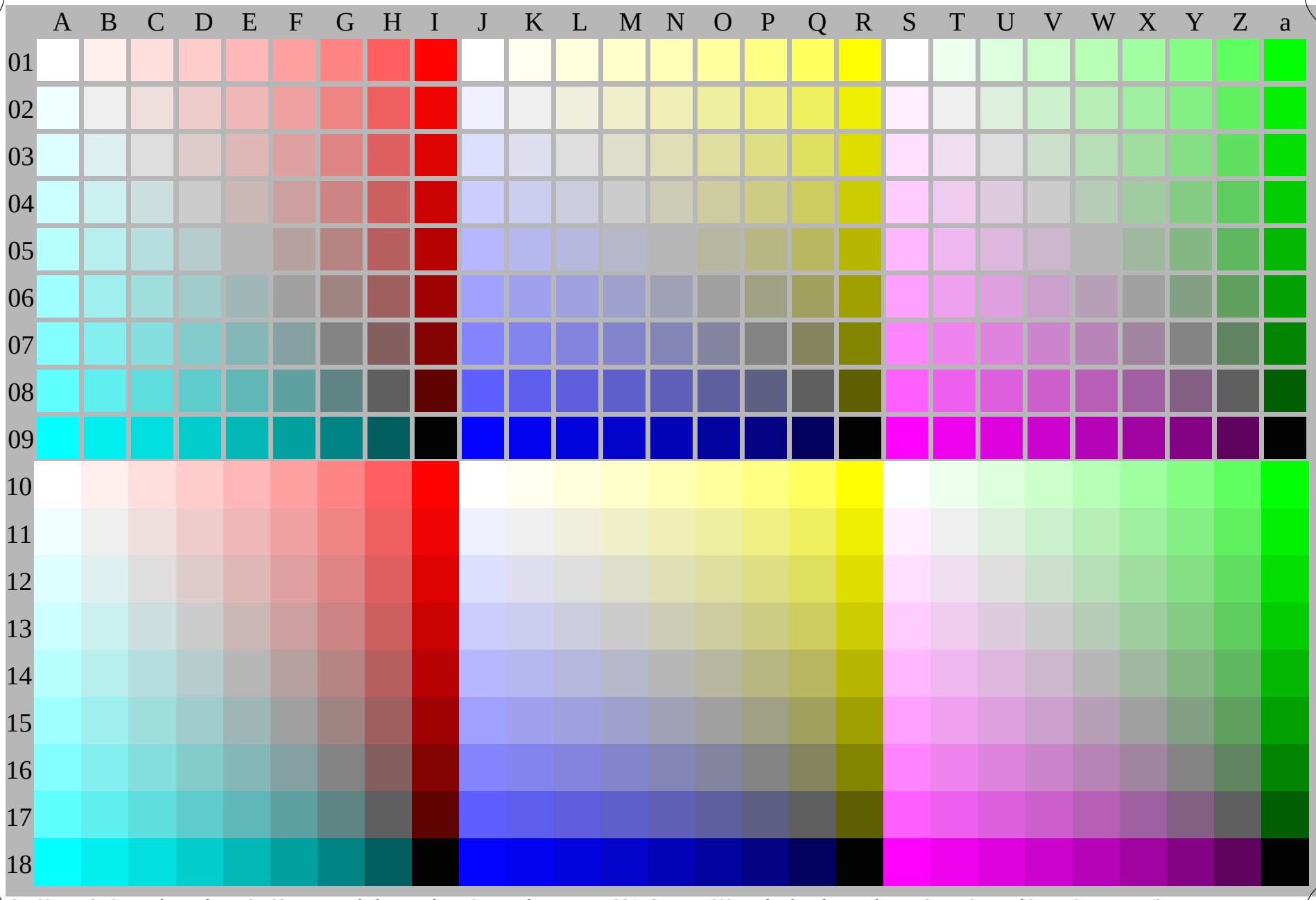
OE791−3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (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_P=0.55																
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	0.226	0.33	0.413	0.484	0.546	0.604	0.658	0.707	0.755	0.8	0.843	0.885	0.925	0.963	1.0

OE790−7N, Picture A7-136-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing Y contrast Y_W:Y_N=88,9:20; Y_N range 15 to <30

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 136-2: g_P=0.55; g_N=1.0



OE790−7N-137-0: Test chart with 27x18=486 separate and adjacent colours; 9 step scales; compare ISO/IEC 15775:1999; cmyk colour data, patch sizes: 8mm x 8mm and 9mm x 9mm, Page 1/3

OE79: Test chart 2 according to DIN 33872-6; 1MR, DH
Equivalent and regular colour spacing of *O−C*, *Y−V*, *L−M*

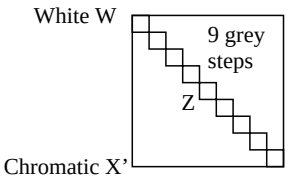
input: *cmy0 (−>cmy0*d) setcmyk*
output 137-0: g_P=0.47; g_N=1.0

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

TUB registration: 20110801-OE79/OE79L0NA.TXT /.PS TUB material: code=rha4ta
application for output of displays: monitor systems or data projector systems

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



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.

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

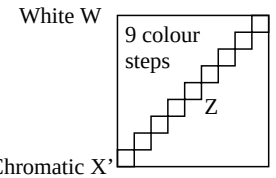
Are there maxima and minima in the colour change for adjacent colours and not for separate colours? underline: Yes/No

Remarks:.....

Part 1 OE790−3N-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



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 X' and X there are 9 colour steps.
Mean grey Z is the mean step of X'−X.

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 OE791−3N-137-1

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

PDF-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NP.PDF **underline Yes/No**

PS-File: http://130.149.60.45/farbmetrik/OE79/OE79L0NA.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 OE79L0NP.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 OE79L0NA.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 OE790−7N-137-1

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/OE79/OE79F1P2.PDF **underline Yes/No**
PS file: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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/OE79/OE79F1P2.PDF
picture A7-137-2 **underline Yes/No**
PS-File: http://130.149.60.45/farbmetrik/OE79/OE79F1P2.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 OE791−7N-137-1

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			ΔE*
1	69.7	0.0	0.0	0.0	69.7	0.0	0.0	0.0	0.0	0.0	0.01
2	71.41	0.0	0.0	0.28	76.8	0.0	0.0	5.39	0.0	0.0	5.39
3	73.13	0.0	0.0	0.38	79.57	0.0	0.0	6.45	0.0	0.0	6.45
4	74.84	0.0	0.0	0.47	81.67	0.0	0.0	6.83	0.0	0.0	6.83
5	76.55	0.0	0.0	0.53	83.42	0.0	0.0	6.87	0.0	0.0	6.87
6	78.27	0.0	0.0	0.59	84.96	0.0	0.0	6.69	0.0	0.0	6.69
7	79.98	0.0	0.0	0.65	86.34	0.0	0.0	6.35	0.0	0.0	6.35
8	81.7	0.0	0.0	0.7	87.6	0.0	0.0	5.9	0.0	0.0	5.9
9	83.41	0.0	0.0	0.74	88.77	0.0	0.0	5.36	0.0	0.0	5.36
10	85.12	0.0	0.0	0.78	89.87	0.0	0.0	4.75	0.0	0.0	4.75
11	86.84	0.0	0.0	0.82	90.91	0.0	0.0	4.07	0.0	0.0	4.07
12	88.55	0.0	0.0	0.86	91.89	0.0	0.0	3.33	0.0	0.0	3.33
13	90.27	0.0	0.0	0.9	92.82	0.0	0.0	2.56	0.0	0.0	2.56
14	91.98	0.0	0.0	0.93	93.72	0.0	0.0	1.74	0.0	0.0	1.74
15	93.7	0.0	0.0	0.97	94.58	0.0	0.0	0.89	0.0	0.0	0.89
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	69.7	0.0	0.0	0.0	69.7	0.0	0.0	0.0	0.0	0.0	0.01
18	76.13	0.0	0.0	0.52	83.01	0.0	0.0	6.88	0.0	0.0	6.88
19	82.55	0.0	0.0	0.72	88.2	0.0	0.0	5.64	0.0	0.0	5.64
20	88.98	0.0	0.0	0.87	92.13	0.0	0.0	3.14	0.0	0.0	3.14
21	95.41	0.0	0.0	1.0	95.41	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

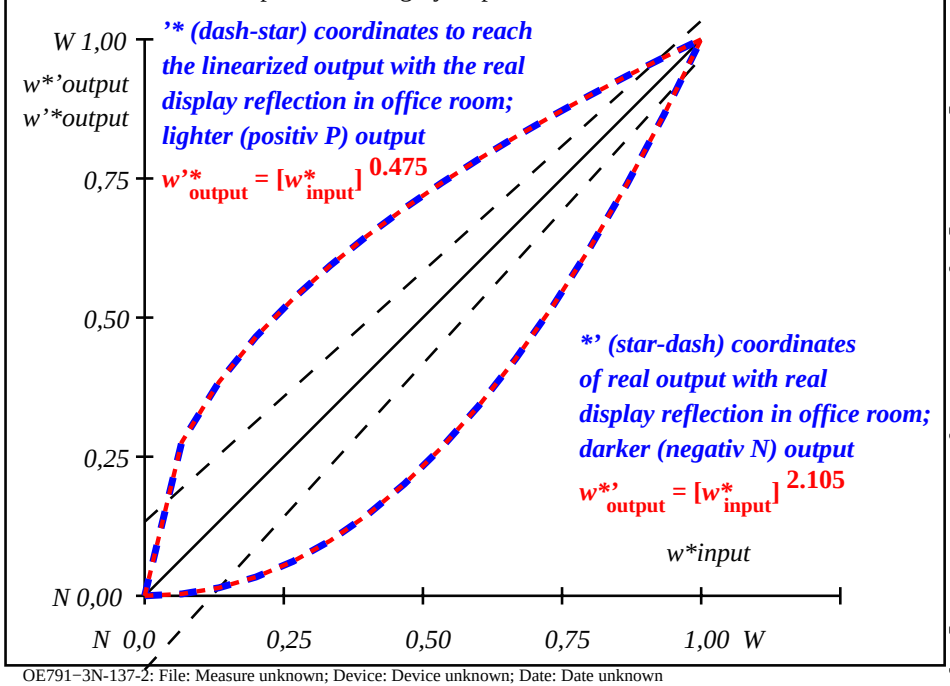
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **4.2**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **3.1**

Mean colour reproduction index: $R^*_{ab,m}$ = **82**

OE790−3N-137-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-137-2



OE791−3N-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_P=0.48																
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	0.277	0.384	0.466	0.534	0.593	0.647	0.697	0.742	0.785	0.825	0.863	0.899	0.934	0.968	1.0

OE790−7N, Picture A7-137-2: 16 visual equidistant *L**-grey steps; PS operator: *w* w* w* setrgbcolor*

OE79: In-output relation according to ISO 9241-306; 1MR, DH
Viewing *Y* contrast Y_W:Y_N=88,9:40; Y_N range 30 to <60

input: *cmy0 (−>cmy0*$_d$) setcmyk*
output 137-2: g_P=0.47; g_N=1.0