

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator 000n* setcmykcolor

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator w* setgray

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator nnn0* setcmykcolor

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator www* setrgbcolor

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

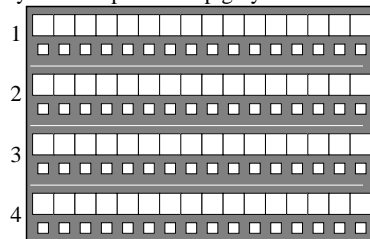
Test chart 1 according to DIN 33872-3, Page 1/2
Equality; Discriminability with 4 colour definitions, ORS18a

input: 000n/w/cmy0/rgb (mixed)
output: no change compared to input

De130-7

Equality of grey series by four grey definitions (Yes/No decision)

Layout example: 16 step grey series with four grey definitions



Black N 16 steps White W

There are two basic colours on each page:
Black N and White W in mean grey background.
There are adjacent (upper row)
and separate grey samples (lower row).
This gives eight grey series.
In each column the four adjacent greys
should be equal.
The four grey series are defined by four
different PS-operators.

This test uses only the four upper adjacent grey series N-W.

For the upper grey series and in each column the four greys should be equal for all the 16 steps.

Are in each column the four greys for all the 16 steps equal? underline: Yes/No

Only in case of "No":

Is row no. 3 most different compared to all others? underline: Yes/No

Are the series no. 1, no. 2, and no. 4 equal? underline: Yes/No

Only in case of "No":

Are the rows no. 2 and no. 4 equal? underline: Yes/No

Remarks, e. g. other equality:

.....

Part 1

De131-1

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

PDF-File: either www.ps.bam.de/De13/10L/L13e00NP.PDF underline Yes/No

or www.ps.bam.de/De13/10P/P13e00NP.PDF or underline Yes/No

PS-File: either www.ps.bam.de/De13/10L/L13e00NA.PS or underline Yes/No

or www.ps.bam.de/De13/10P/P13e00NA.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 (L/P)13e00NP.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 (L/P)13e00NA.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, e. g. output of Landscape (L) file L13e00NA.PS was cutted,
Portrait (P) file P13e00NA.PS was used:

.....

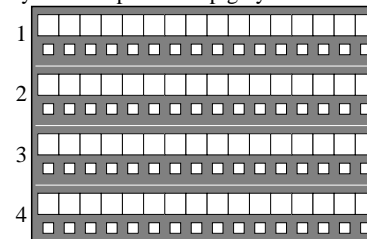
.....

Part 3

De130-5

Discriminability of 16 step grey series by four grey definitions (Yes/No decision)

Layout example: 16 step grey series with four grey definitions



Black N 16 steps, 15 differences White W

There are two basic colours on each page:
Black N and White W in mean grey background.
There are adjacent (upper row)
and separate grey samples (lower row).
This gives eight grey series.
The adjacent and separated are identical.
Separated greys are less distinguishable.
Any grey colour is defined by four different
PS-operators in four rows

All the 16 steps of the eight series N-W should be distinguishable

Are all 15 grey differences of the eight rows distinguishable? underline: Yes/No

Only in case of "No":

Test of adjacent grey samples (four upper rows):

Are the 15 grey differences of the four series distinguishable? underline: Yes/No

Only in case of "No":

Are the 15 grey differences of series no. 1 distinguishable? underline: Yes/No

Are the 15 grey differences of series no. 2 distinguishable? underline: Yes/No

Are the 15 grey differences of series no. 3 distinguishable? underline: Yes/No

Are the 15 grey differences of series no. 4 distinguishable? underline: Yes/No

Remarks:

Part 2

De131-3

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

Only for display (monitor, data projector) output:

Office workplace illumination is daylight (clouded/north sky) underline Yes/No

PDF-file output with www.ps.bam.de/De13/10L/L13e00NP.PDF underline Yes/No

Comparison of contrast range of 16 steps F to 0 with test chart no. 3 of DIN 33866-1:2000

give contrast range: (>F:0) (F:0) (E:0) (D:0) (C:0) (A:0) (9:0) (7:0) (5:0) (3:0) (<3:0)

Remark: In daylighted offices the contrast range is in many cases:

on paper between: >F:0 (highly glossy), F:0 (silk glossy) and E:0 (matte)

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: either www.ps.bam.de/De11/10L/L11e00NP.PDF underline Yes/No

or www.ps.bam.de/De11/10P/P11e00NP.PDF or underline Yes/No

PS-File: either www.ps.bam.de/De11/10L/L11e00NA.PS or underline Yes/No

or www.ps.bam.de/De11/10P/P11e00NA.PS 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

De131-5

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator 000n* setcmykcolor

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator w* setgray

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator nnn0* setcmykcolor

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

Use of the PS operator www* setrgbcOLOR

$L^* / Y+Yr$	18,0/ 2,5	23,1/ 3,8	28,2/ 5,5	33,3/ 7,7	38,5/10,3	43,6/13,6	48,8/17,4	54,0/21,9	59,1/27,2	64,3/33,2	69,5/40,0	74,7/47,8	79,8/56,5	85,0/66,1	90,2/76,8	95,4/88,6
(absolute)																
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
$l^*_{CIELAB, r}$ (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

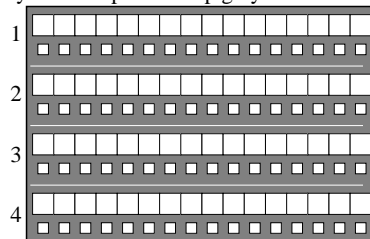
Test chart 1 according to DIN 33872-3, Page 1/2
Equality; Discriminability with 4 colour definitions, ORS18a

input: 000n/w/cmy0/rgb (mixed)
output: no change compared to input

De130-7

Equality of grey series by four grey definitions (Yes/No decision)

Layout example: 16 step grey series with four grey definitions



There are two basic colours on each page:
Black N and White W in mean grey background.
There are adjacent (upper row)
and separate grey samples (lower row).
This gives eight grey series.
In each column the four adjacent greys
should be equal.
The four grey series are defined by four
different PS-operators.

Black N 16 steps White W

This test uses only the four upper adjacent grey series N-W.

For the upper grey series and in each column the four greys should be equal for all the 16 steps.

Are in each column the four greys for all the 16 steps equal? underline: Yes/No

Only in case of "No":

Is row no. 3 most different compared to all others ? underline: Yes/No

Are the series no. 1, no. 2, and no. 4 equal? underline: Yes/No

Only in case of "No":

Are the rows no. 2 and no. 4 equal ? underline: Yes/No

Remarks, e. g. other equality:

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Part 1

De131-1

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

PDF-File: either www.ps.bam.de/De13/10L/L13e00NP.PDF underline Yes/No
or www.ps.bam.de/De13/10P/P13e00NP.PDF or underline Yes/No

PS-File: either www.ps.bam.de/De13/10L/L13e00NA.PS or underline Yes/No
or www.ps.bam.de/De13/10P/P13e00NA.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 (L/P)13e00NP.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 (L/P)13e00NA.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, e. g. output of Landscape (L) file L13e00NA.PS was cutted,
Portrait (P) file P13e00NA.PS was used:

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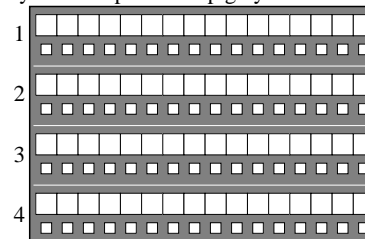
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Part 3

De130-5

Discriminability of 16 step grey series by four grey definitions (Yes/No decision)

Layout example: 16 step grey series with four grey definitions



Black N 16 steps, 15 differences White W

There are two basic colours on each page:
Black N and White W in mean grey background.
There are adjacent (upper row)
and separate grey samples (lower row).
This gives eight grey series.
The adjacent and separated are identical.
Separated greys are less distinguishable.
Any grey colour is defined by four different
PS-operators in four rows

All the 16 steps of the eight series N-W should be distinguishable

Are all 15 grey differences of the eight rows distinguishable? underline: Yes/No

Only in case of "No":

Test of adjacent grey samples (four upper rows):

Are the 15 grey differences of the four series distinguishable? underline: Yes/No

Only in case of "No":

Are the 15 grey differences of series no. 1 distinguishable? underline: Yes/No

Are the 15 grey differences of series no. 2 distinguishable? underline: Yes/No

Are the 15 grey differences of series no. 3 distinguishable? underline: Yes/No

Are the 15 grey differences of series no. 4 distinguishable? underline: Yes/No

Remarks:

Part 2

De131-3

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

Only for display (monitor, data projector) output:

Office workplace illumination is daylight (clouded/north sky) underline Yes/No

PDF-file output with www.ps.bam.de/De13/10L/L13e00NP.PDF underline Yes/No

Comparison of contrast range of 16 steps F to 0 with test chart no. 3 of DIN 33866-1:2000
give contrast range: (>F:0) (F:0) (E:0) (D:0) (C:0) (A:0) (9:0) (7:0) (5:0) (3:0) (<3:0)

Remark: In daylighted offices the contrast range is in many cases:

on paper between: >F:0 (highly glossy), F:0 (silk glossy) and E:0 (matte)

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: either www.ps.bam.de/De11/10L/L11e00NP.PDF underline Yes/No

or www.ps.bam.de/De11/10P/P11e00NP.PDF or underline Yes/No

PS-File: either www.ps.bam.de/De11/10L/L11e00NA.PS or underline Yes/No

or www.ps.bam.de/De11/10P/P11e00NA.PS 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

De131-5