

see similar files: [http://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_1.PDF](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_1.PDF)  
technical information: <http://farbe.li.tu-berlin.de/> or [http://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_1.PDF](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_1.PDF)

<http://farbe.li.tu-berlin.de/AE49/AE49F0PX.PDF> /.PS; 3D-linearization, page 23/24  
F: 3D-linearization AE49/AE49LF0PX.PDF /.PS in file (F)



#### Discriminability of chromatic colours

Remarks: This test uses many colour scales of 9 steps

Hue plane Red - Cyan blue (rows 01 to 09, column b to j)

#### Discriminability of 81 chromatic colours

Are all the 81 colours different?

Yes/No

Only in case of "No": How many are different? Of the 81 are ..... different

Hue plane Yellow - Blue (rows 10 to 18, column b to j)

#### Discriminability of 81 chromatic colours

Are all the 81 colours different?

Yes/No

Only in case of "No": How many are different? Of the 81 are ..... different

Hue plane Green - Magenta red (rows 19 to 27, column b to j)

#### Discriminability of 81 chromatic colours

Are all the 81 colours different?

Yes/No

Only in case of "No": How many are different? Of the 81 are ..... different

Result: Of the 243 (=3x81) colours are ..... different

Artifacts, please describe if visible:

Remarks about the creation and content of the PDF files:

Sometimes "colour smoothing" is a default setting.  
In this case the 9 steps are often not visible and may be counted as one step.

Sometimes "optimizing the PDF output for the web" is a default setting.  
For example this setting may reduce the 1080 colours on a page to 256 colours.

AE490-71 Part of test chart AE49 with 1080 colours; 9 or 16 step colour scales; data in column (b-n): rgb

1-100110-L0 cmy6\*

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

##### PDF file:

[http://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_1.PDF](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_1.PDF)

underline: Yes/No

##### PS file:

[http://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_1.PS](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_1.PS)

underline: Yes/No

##### Used computer operating system:

either one of Windows/Mac/Unix/other and version:.....

##### This evaluation is for the output:

underline: monitor/data projector/printer

Device model, driver and version:.....

##### output with PDF/PS-file:

underline: PDF/PS file

##### For output with PDF file AE49F0PX\_CY1\_1.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 output with PS file AE49F0PX\_CY1\_1.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)

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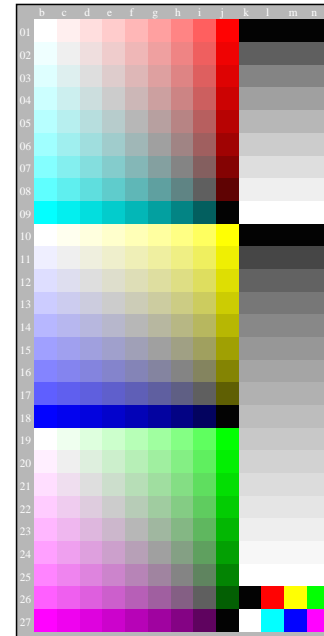
.....

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Form A: Test chart AE49 similar to test chart 1 of DIN 33872-6  
1080 standard colours; Test chart similar to DIN 33872-6



#### Agreement with elementary colours

Remarks: This test uses many colour scales of 9 steps

Red  $R_e$  and Green  $G_e$  are defined by the visual criteria: *neither yellowish nor bluish*.  
Yellow  $Y_e$  and Blue  $B_e$  are defined by the visual criteria: *neither reddish nor greenish*.

Hue plane Red - Cyan blue (rows 01 to 09, column b to j)

#### Agreement with elementary colours

Is the colour at the position (j,01) the elementary colour Red  $R_e$ ?

Yes/No

Only in case of "No": The colour at this position appears:

yellowish/bluish

Hue plane Yellow - Blue  $B_e$  (rows 10 to 18, column b to j)

#### Agreement with elementary colours

Is the colour at the position (j,10) the elementary colour Yellow  $Y_e$ ?

Yes/No

Only in case of "No": The colour at this position appears:

reddish/greenish

Is the colour at the position (b,18) the elementary colour Blue  $B_e$ ?

Yes/No

Only in case of "No": The colour at this position appears:

reddish/greenish

Hue plane Green - Magenta red (rows 19 to 27, column b to j)

#### Agreement with elementary colours

Is the colour at the position (j,19) the elementary colour Green  $G_e$ ?

Yes/No

Only in case of "No": The colour at this position appears:

yellowish/bluish

Result: Of the 4 elementary colours (e. g. 3) are ..... acceptable as elementary colours.

#### Discriminability of 9 and 16 grey steps

Discriminability of 9 steps (rows 01 to 09, column k to n)

Are the 9 steps distinguishable?

Yes/No

If No: How many can be distinguished? of 9 greys ..... are distinguishable.

Discriminability of 16 steps (rows 10 to 27, column k to n)

Are the 16 steps distinguishable?

Yes/No

If No: How many can be distinguished? of 16 greys ..... are distinguishable.

Artifacts, please describe if visible:

Remarks about the creation and content of the PDF files:

Sometimes "colour smoothing" is a default setting.

In this case the 9 steps are often not visible and may be counted as one step.

Sometimes "optimizing the PDF output for the web" is a default setting.

For example this setting may reduce the 1080 colours on a page to 256 colours.

AE490-71 Part of test chart AE49 with 1080 colours; 9 or 16 step colour scales; data in column (b-n): rgb

1-100110-L0 cmy6\*

#### 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://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_3.PDF](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_3.PDF)

underline: Yes/No

PS file: [http://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_3.PS](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_3.PS)

underline: Yes/No

picture A7dd 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: Yes/No

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://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_3.PDF](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_3.PDF)

underline: Yes/No

picture A7dd

underline: Yes/No

PS file: [http://farbe.li.tu-berlin.de/AE49/AE49F0PX\\_CY1\\_3.PS](http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CY1_3.PS)

underline: Yes/No

picture A7dd

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 for 17 step colours of <http://farbe.li.tu-berlin.de/OE70/OE70L1NP.PDF>

Exchange of CIELAB data in file <http://farbe.li.tu-berlin.de/AE82/AE82L0NP.TXT> and transfer

of the PS file AE82L0NP.PS (= .TXT) to the PDF-file AE82L0NP.PDF

underline: Yes/No

If No, please describe other method: .....

part 4,

AE491-7dd: 01071

input:  $rgb/cmy0/000n/w$  set...  
output:  $\rightarrow rgb_{dd}$  setrgbcolor



TUB Registration: 20190301-AE49/AE49L0FA.TXT /.PS  
application for measurement or viewing of display and print output

TUB material: code=th4ta