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 cmyn6*

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 blueish.***
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/blueish

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/blueish

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 cmyn6*

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

PDF file:
http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CYN8_1.PDF **underline: Yes/No**
PS file:
http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CYN8_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_CYN8_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_CYN8_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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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://farbe.li.tu-berlin.de/AE49/AE49F0PX_CYN8_3.PDF **underline: Yes/No**
PS file: http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CYN8_3.PS **underline: Yes/No**
picture $A7_{dd}$ 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_CYN8_3.PDF
picture $A7_{dd}$ **underline: Yes/No**
PS file: http://farbe.li.tu-berlin.de/AE49/AE49F0PX_CYN8_3.PS
picture $A7_{dd}$ **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 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: 01001

see similar files: http://farbe.li.tu-berlin.de/AE49/AE49.HTM
technical information: http://farbe.li.tu-berlin.de/ or http://farbe.li.tu-berlin.de/AE.HTM

TUB Registration: 20190301-AE49/AE49L0FA.TXT /.PS TUB material: code=rha4ta
application for measurement or viewing of display and print output