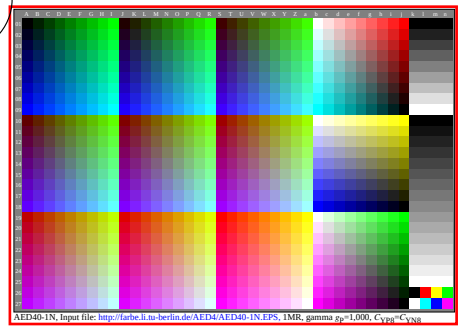
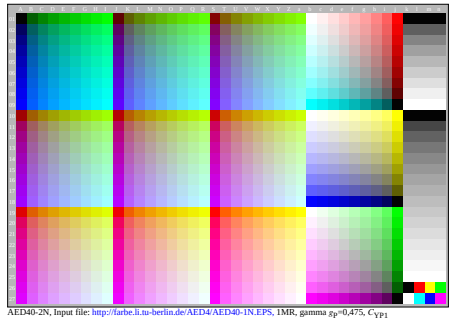
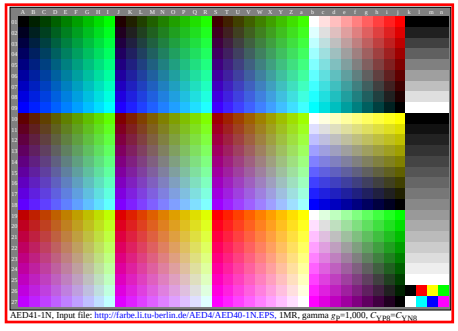
see similar files: http://farbe.li.tu-berlin.de/AED4/AED4.HTM
technical information: http://farbe.li.tu-berlin.de or http://130.149.60.45/~farbmetrik

TUB registration: 20200201-AED4/AED4L0NA.TXT /.PS
application for evaluation and measurement of display or print output
TUB material: code=rha4ta


AED40-1N, Input file: http://farbe.li.tu-berlin.de/AED4/AED40-1N.EPS, 1MR, gamma g_P=1,000, C_{YP8}=C_{YN8}


AED40-2N, Input file: http://farbe.li.tu-berlin.de/AED4/AED40-1N.EPS, 1MR, gamma g_P=0,475, C_{YP1}


AED41-1N, Input file: http://farbe.li.tu-berlin.de/AED4/AED40-1N.EPS, 1MR, gamma g_P=1,000, C_{YP8}=C_{YN8}

VG –> VG ←

Original VG with standard gamma g_P=1,000

File	graphic	ISO step	gamma g_P
AED41−1N	PG	C_{YP8}=C_{YN8}	1,000

Application: luminance contrast of sRGB displays:

Y_W : Y_N = 90 : 0,31 = 288 : 1 according to ISO 9241-306.

(contrast without display reflection of room light)

AED41-2N

↑ VG –> VG

Original VG with standard gamma g_P=1,000

File	graphic	ISO step	gamma g_P
AED40−1N	VG	C_{YP8}=C_{YN8}	1,000

Application: luminance contrast of sRGB displays:

Y_W : Y_N = 90 : 0,31 = 288 : 1 according to ISO 9241-306.

(contrast without display reflection of room light)

AED40-3N

↑ VG –> VG

Change of original VG with gamma g_P=0,475

File	graphic	ISO step	gamma g_P
AED40−2N	PG	C_{YP1}=C_{YN15}	0,475

Application: Low luminance contrast of projectors:

Y_W : Y_N = 90 : 40 = 2,15 : 1 according to ISO 9241-306.

AED40-4N

Output test of colour devices at the work places

The visual colours change by the software and:
on displays with the reflection of the room light.
in print with the printer driver and the workflow.

The luminance contrast ratio between White W and Black N determine, if the 9 gray steps between N and W appear equally spaced.
Equal spacing shall apear for the intended device output:
on displays for the output within the broken red rectangle.
in print for the output within the continuous red rectangle.

If this is NOT the case, then determine visually with the next page the ISO-contrast step which gives the intended result.
You may ask the device manufacturer for software solutions.
You may change the PDF-file gamma to produce the intended result.
Different gamma-change methods in VG or PG graphics are available.

AED41-3N

Ergonomics of human-system interaction ISO 9241-306:2018

Part 306: Field assessment methods for electronic visual displays
For test charts see
http://standards.iso.org/iso/9241/306/ed-2/index.html

For similar ISO-test charts in A4 size see
http://standards.iso.org/iso/9241/306/ed-2/AE49/AE49.HTM

For similar ISO-test charts with output questions see
http://standards.iso.org/iso/9241/306/ed-2/AE49/AE49F0PX.PDF

For similar ISO/IEC-test charts according to ISO/IEC 15775,

and ISO/IEC TR 24705 see
http://farbe.li.tu-berlin.de/A/24705TE.html

For the relation and links to many other standards see
http://farbe.li.tu-berlin.de/EE68/EE68L0NP.PDF

AED41-4N

VG –> VG →

Change of original VG with gamma g_P=0,775

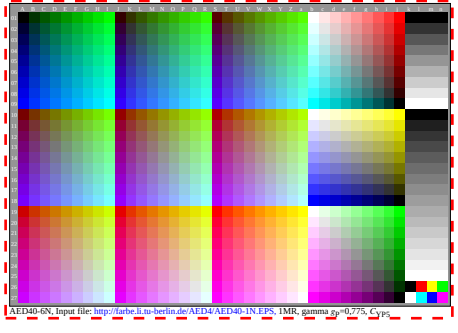
File	graphic	ISO step	gamma g_P
AED40−6N	PG	C_{YP5}=C_{YN11}	0,775

Application: office luminance contrast of displays:

Y_W : Y_N = 90 : 2,5 = 36 : 1 according to ISO 9241-306.

(contrast of offset paper according to ISO/IEC 15775)

AED40-5N


AED40-6N, Input file: http://farbe.li.tu-berlin.de/AED4/AED40-1N.EPS, 1MR, gamma g_P=0,775, C_{YP5}

***PDF*- and *PS*-test files for relative colour image reproduction according to DIN 33872-1 to -6:2010**

These DIN-test charts serve for the colorimetric specification, and the visual assessment of the display and print output.

For free download of the test charts see
http://farbe.li.tu-berlin.de/A/33872E.html

For similar DIN-test charts according to DIN 33866-1 to -5:2000 see
http://farbe.li.tu-berlin.de/A/DE13/DE13.HTM

For more test charts, standards and applications see
http://farbe.li.tu-berlin.de/A/INFOALAE.html

AED41-5N

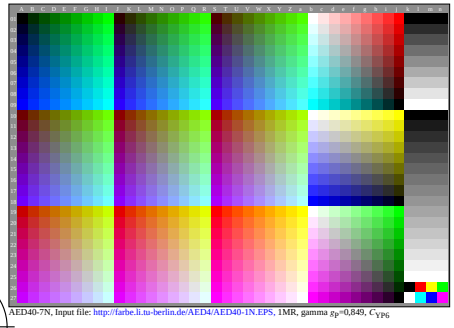
Ergonomic and colorimetric colour image reproduction

For the ergonomic and colorimetric colour image reproduction see *Richter, Klaus (2016),* Output linearization method OLM16 for displays, printers, and offset, 61 pages, 1,4MB.
http://farbe.li.tu-berlin.de/OUTLIN16_01.PDF
(Content similar to CIE R8-09:2015, free download for CIE-members.)

For a list of publications of *Klaus Richter* see
http://farbe.li.tu-berlin.de/XY91FEN.html

For basic information in 6 languages (EN, GE, FR, IT, SP, NO): *Klaus Richter (2015),* Colour, colour vision, and elementary colours in colour information technology, 86 pages, 2,2 MB, see
http://standards.iso.org/iso/9241/306/ed-2/ES15.PDF

AED41-6N


AED40-7N, Input file: http://farbe.li.tu-berlin.de/AED4/AED40-1N.EPS, 1MR, gamma g_P=0,849, C_{YP6}

VG –> VG ←

Change original VG with gamma g_P=0,850

File	graphic	ISO step	gamma g_P
AED40−7N	PG	C_{YP6}=C_{YN10}	0,850

Application: mean luminance contrast of displays:

Y_W : Y_N = 90 : 1,25 = 72 : 1 according to ISO 9241-306.

(contrast higher offset paper according to ISO/IEC 15775)

AED40-8N

VG –> VG →

Change original VG with gamma g_P=2,105

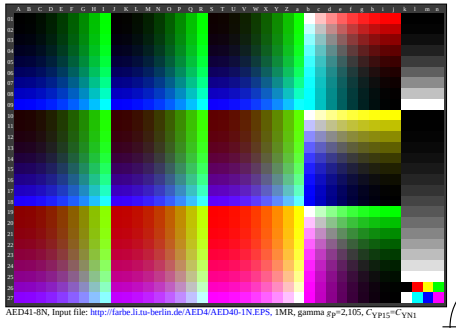
File	graphic	ISO step	gamma g_P
AED41−8N	PG	C_{YP15}=C_{YN1}	2,105

Application: extrem luminance contrast of displays:

Y_W : Y_N=90:0,002=36864:1 according to ISO 9241-306.

(extrem high contrast not known by the visual system)

AED41-7N


AED41-8N, Input file: http://farbe.li.tu-berlin.de/AED4/AED40-1N.EPS, 1MR, gamma g_P=2,105, C_{YP15}=C_{YN1}