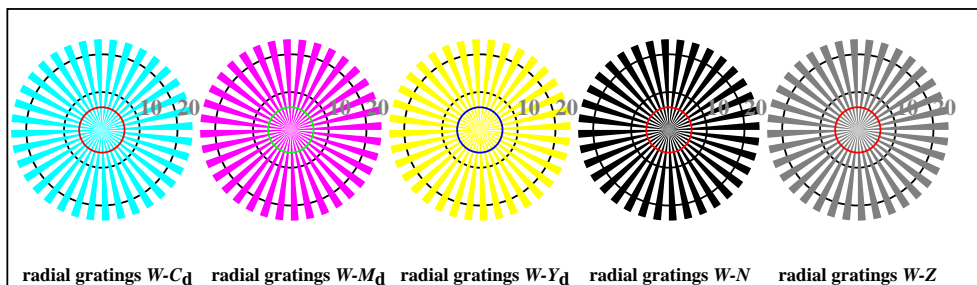


see similar files: <http://farbe.li.tu-berlin.de/AE29/AE29.HTM>
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE.HTM>

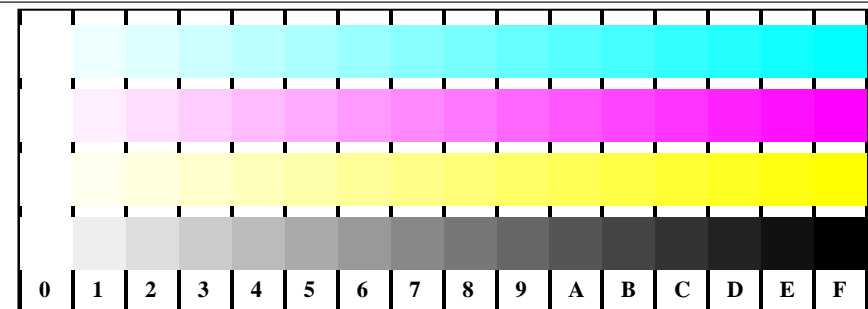


AE290-5, Picture B2Wdd: radial gratings W- C_d ; W- M_d ; W- Y_d ; W- N ; PS operator: **rgb->rgb_{dd} setrgbcolor**

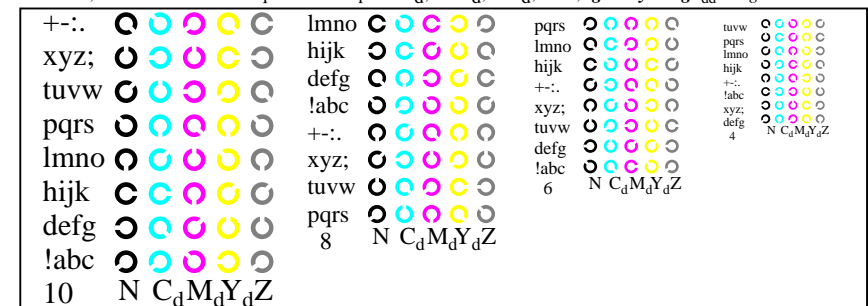


AE290-7, Picture B3Wdd: 14 CIE-test colours and 2 + 16 grey steps (sf); **rgb/cmy0->rgb_{dd} setrgbcolor**

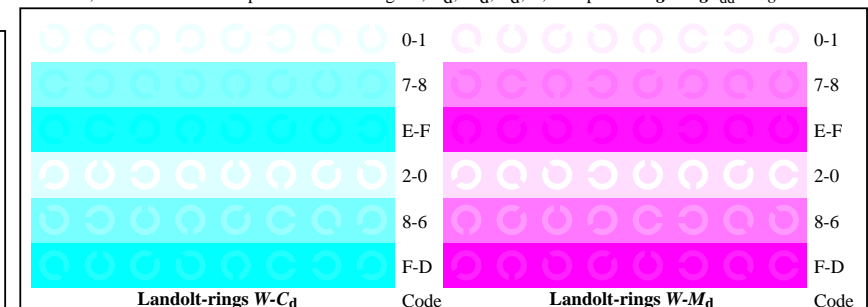
Test chart AE29 according to test chart 2 of ISO/IEC 15775
chromatic test chart CMYK



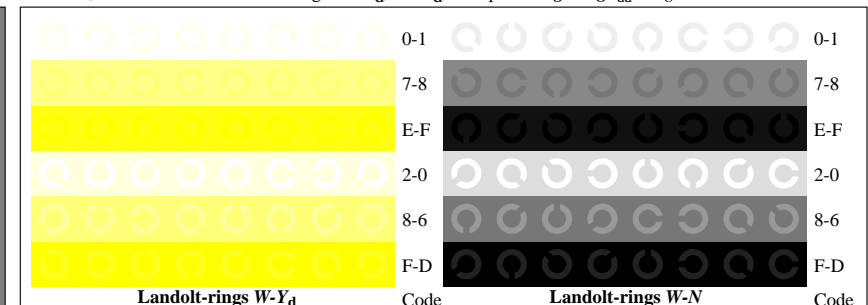
AE291-1, Picture B4Wdd: 16 equidistant steps W- C_d ; W- M_d ; W- Y_d ; W- N ; **rgb/cmy0->rgb_{dd} setrgbcolor**



AE291-3, Picture B5Wdd: Sript and Landolt-rings N; C_d ; M_d ; Y_d ; Z; PS operator: **rgb->rgb_{dd} setrgbcolor**



AE291-5, Picture B6Wdd: Landolt-rings W- C_d ; W- M_d ; PS operator: **rgb->rgb_{dd} setrgbcolor**



AE291-7, Picture B7Wdd: Landolt-rings W- Y_d ; W- N ; PS operator: **rgb->rgb_{dd} setrgbcolor**

input: **rgb/cmy0/000n/w set...**
output: **->rgb_{dd} setrgbcolor**

Test of visual linearized output of pictures B2W_{dd} to B3W_{dd} please underline Yes/No
Output test with computer display () or the external display () please mark by (x)!

Test of the resolution of radial gratings W-C_d, W-M_d, W-Y_d according to picture B2W_{dd}
Is the resolution diameter < 6 mm? W-C_d W-M_d W-Y_d W-N W-Z
Test with magnifying glass (e.g. 6x) Yes/No Yes/No Yes/No Yes/No Yes/No
resolution diameter mm mm mm mm mm

Test of the 14 CIE-test colours according to picture B3W_{dd}
Are clear (immediately conspicuous) differences recognized between reproduction and test chart? Yes/No
If Yes: How many colours have clear differences? of the given 14 steps: Steps

Test of 16 visual equidistant L*-grey steps according to picture B3W_{dd}
Are the 16 steps on the upper rows distinguishable? Yes/No
If No: How many steps can be distinguished? of the given 16 steps: Steps

part 1, AE290-3dd: 00301

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

PDF file: http://farbe.li.tu-berlin.de/AE29/AE29F0PX_CY8_1.PDF underline: Yes/No
PS file: http://farbe.li.tu-berlin.de/AE29/AE29F0PX_CY8_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 AE29F0PX_CY8_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 AE29F0PX_CY8_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)

part 3, AE290-7dd: 00301

Test of 16 visually equally spaced steps of the colour rows W-C_d, W-M_d, W-Y_d, and W-N according to picture B4W_{dd}

W-C _d	Are all the 16 steps distinguishable?		Yes/No
White - Cyanblue:	If No: How many steps can be distinguished?	of the given 16 steps: Steps
W-M _d	Are all the 16 steps distinguishable?		Yes/No
White - Magentared:	If No: How many steps can be distinguished?	of the given 16 steps: Steps
W-Y _d	Are all the 16 steps distinguishable?		Yes/No
White - Yellow:	If No: How many steps can be distinguished?	of the given 16 steps: Steps
W-N	Are all the 16 steps distinguishable?		Yes/No
White - Black:	If No: How many steps can be distinguished?	of the given 16 steps: Steps

Test of characters and Landolt-rings in four sizes according to picture B5W_{dd}
Is the recognition > 50% for letters (17 of 32 at least)? , and for Landolt-rings (minimum 5 of 8)?

Relative size	Letters	Rings N	Rings C _d	Rings M _d	Rings Y _d
10	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
8	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
6	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
4	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

Test of the recognition frequency of the Landolt rings W-C_d, W-M_d, W-Y_d, and W-N according to picture B6W_{dd} and B7W_{dd}
Is the recognition frequency of the Landolt rings > 50% (5 of 8 at least)?

Colour row W-C _d background - ring	Colour row W-M _d background - ring	Colour row W-Y _d background - ring	Colour row W-N background - ring
0 - 1 Yes/No	0 - 1 Yes/No	0 - 1 Yes/No	0 - 1 Yes/No
7 - 8 Yes/No	7 - 8 Yes/No	7 - 8 Yes/No	7 - 8 Yes/No
E - F Yes/No	E - F Yes/No	E - F Yes/No	E - F Yes/No
2 - 0 Yes/No	2 - 0 Yes/No	2 - 0 Yes/No	2 - 0 Yes/No
8 - 6 Yes/No	8 - 6 Yes/No	8 - 6 Yes/No	8 - 6 Yes/No
F - D Yes/No	F - D Yes/No	F - D Yes/No	F - D Yes/No

part 2, AE291-3Ndd: 00301

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

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/AE29/AE29F0PX_CY8_3.PDF underline: Yes/No

PS file: http://farbe.li.tu-berlin.de/AE29/AE29F0PX_CY8_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) underline: Yes/No

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/AE29/AE29F0PX_CY8_3.PDF underline: Yes/No

picture A7_{dd} underline: Yes/No

PS file: http://farbe.li.tu-berlin.de/AE29/AE29F0PX_CY8_3.PS or underline: Yes/No

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 underline: Yes/No

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

If No, please describe other method:

part 4, AE291-7dd: 00301

see similar files: <http://farbe.li.tu-berlin.de/AE29/AE29L0NP.PDF> /.PS
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE29.HTM>

TUB Registration: 20190301-AE29/AE29L0NP.PDF /.PS
application for measurement or viewing of display and print output
TUB material: code=rh4ta

i	LAB [*] _{ref}	l [*] _{out}	LAB [*] _{out}	LAB [*] _{out-ref}	ΔE [*]	Start output S1
1	0,00	0,00	0,00	0,00	0,00	Specification according to
2	6,36	0,00	0,06	6,36	0,00	ISO/IEC 15775 Annex G
3	12,72	0,00	0,13	12,72	0,00	and DIN 33866-1 Annex G
4	19,08	0,00	0,20	19,08	0,00	
5	25,44	0,00	0,26	25,44	0,00	
6	31,80	0,00	0,33	31,80	0,00	
7	38,16	0,00	0,40	38,16	0,00	
8	44,52	0,00	0,46	44,52	0,00	
9	50,88	0,00	0,53	50,88	0,00	
10	57,24	0,00	0,60	57,24	0,00	
11	63,60	0,00	0,66	63,60	0,00	
12	69,96	0,00	0,73	69,96	0,00	
13	76,32	0,00	0,80	76,32	0,00	
14	82,68	0,00	0,86	82,68	0,00	
15	89,04	0,00	0,93	89,04	0,00	
16	95,41	0,00	1,00	95,41	0,00	
17	0,00	0,00	0,00	0,00	0,00	
18	23,85	0,00	0,25	23,85	0,00	
19	47,70	0,00	0,50	47,70	0,00	
20	71,55	0,00	0,75	71,55	0,00	
21	95,41	0,00	1,00	95,41	0,00	

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} = 99,9

part 1,

AE290-3dd: 00302



part 2,

AE291-3dd: 00302

L [*] /Y _{intended} (absolute)	0,0/0,0	6,3/0,7	12,7/1,5	19,0/2,7	25,4/4,5	31,8/6,9	38,1/10,1	44,5/14,2	50,8/19,1	57,2/25,1	63,6/32,3	69,9/40,7	76,3/50,4	82,6/61,5	89,0/74,2	95,4/88,5
w [*] w [*] w [*] setrgb																
gp=1,000																
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 [*] output	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

part 3, picture A7_{dd}: 16 visual equidistant L^{*}-grey steps; PS operator: w^{*} w^{*} w^{*} setrgbcolor

AE290-7dd: 00302

In-out: Test chart AE29 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast Y_W:Y_N=88,9:0,31; Y_N-range 0,0 to <0,46

input: rgb/cmy0/000n/w set...
output: ->rgb_{dd} setrgbcolor