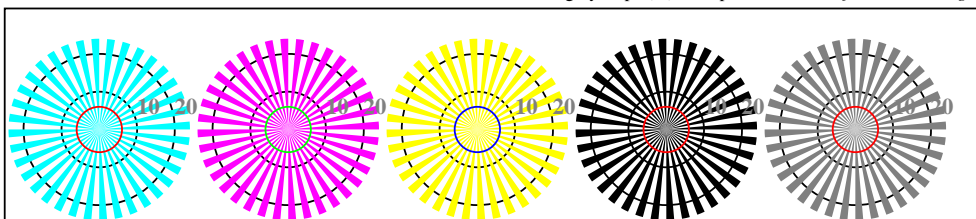


see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS;
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE.HTM>



AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage

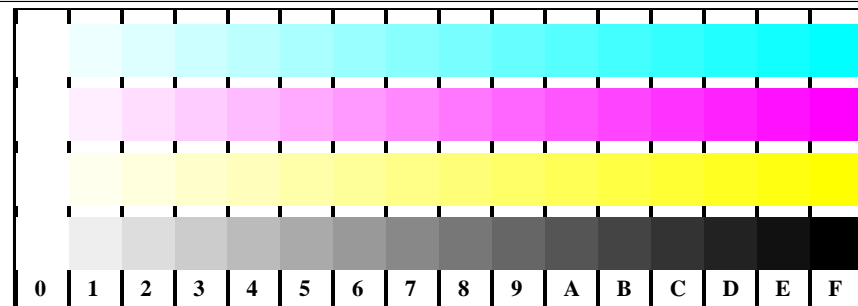
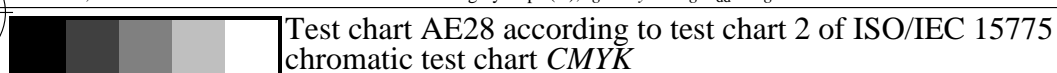


radial gratings W-C_d radial gratings W-M_d radial gratings W-Y_d radial gratings W-N radial gratings W-Z

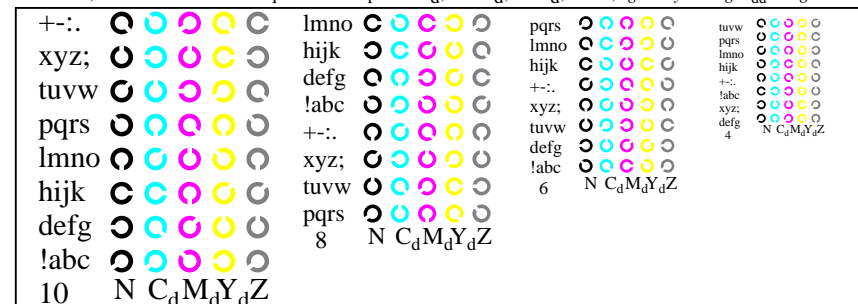
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



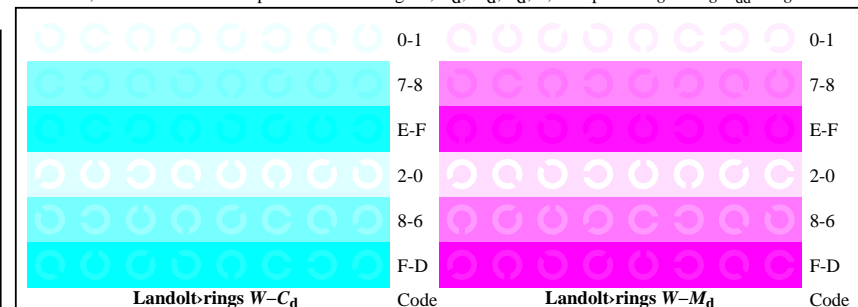
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



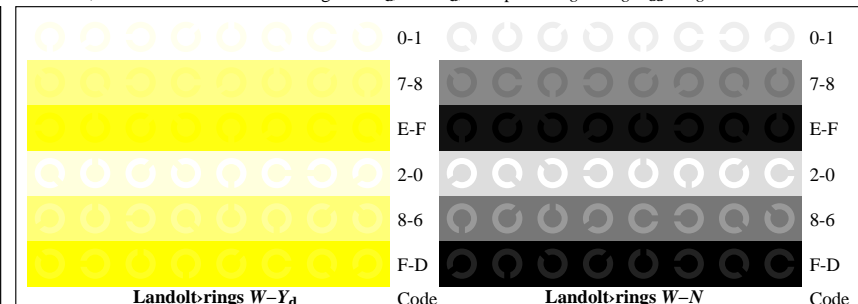
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-Y_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*

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

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th4ta

Test for the visual linearized output of pictures B1Wdd to B3Wdd

Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd

Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**

Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":

.....

.....

.....

.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd

	$W-C_d$	$W-M_d$	$W-Y_d$	$W-N$	$W-Z$
Is the resolution diameter < 6 mm?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Test with magnifying glass (6x), Resolution diameter:	..... mm	..... mm	..... mm	..... mm	..... mm

Test of the 14 CIE-test colours according to picture B3Wdd

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 B3Wdd

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 AE280-3dd: 01001

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

PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY8_1.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY8_1.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 AE28F0PX_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 device output with PS-file AE28F0PX_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: Special remarks, e. g. output of Landscape (L)

.....
.....
.....

part 3 AE280-7N*dd-01001

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: *rgb/cmy0/000n/w set...*
chromatic test chart *CMYK* output: *->rgb_{dd} setrgbcolor*

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 B4Wdd

$W-C_d$ White – Cyanblue: Are all the 16 steps distinguishable? **Yes/No**

If No: How many steps can be distinguished? of the given 16 steps Steps

$W-M_d$ White – Magentared: Are all the 16 steps distinguishable? **Yes/No**

If No: How many steps can be distinguished? of the given 16 steps Steps

$W-Y_d$ White – Yellow: Are all the 16 steps distinguishable? **Yes/No**

If No: How many steps can be distinguished? of the given 16 steps Steps

$W-N$ White – Black: Are all the 16 steps distinguishable? **Yes/No**

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 B5Wdd

Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?

Relative size	Letters	Ring N	Ring C_d	Ring M_d	Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd

Is the recognition frequency of the Landolt-rings > 50% (min. 5 of 8 at least)?

Colour row $W-C_d$	Colour row $W-M_d$	Colour row $W-Y_d$	Colour row $W-N$
background – ring	background – ring	background – ring	background – ring
0 – 1	0 – 1	0 – 1	0 – 1
7 – 8	7 – 8	7 – 8	7 – 8
E – F	E – F	E – F	E – F
2 – 0	2 – 0	2 – 0	2 – 0
8 – 6	8 – 6	8 – 6	8 – 6
F – D	F – D	F – D	F – D

part 2 AE281-3Ndd: 01001

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/AE28/AE28F0PX_CY8_3.PDF

underline Yes/No

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY8_3.PS

underline Yes/No

Picture A7dd contrast range: (>F:0) (F: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 range

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/AE28/AE28F0PX_CY8_3.PDF

picture A7dd

underline Yes/No

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY8_3.PS

picture A7dd

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

AE281-7dd: 01001

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print

TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 3/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=thata4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*
1	0,00	0,00	0,00	0,00	0,00
2	6,36	0,00	0,06	6,36	0,00
3	12,72	0,00	0,13	12,72	0,00
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

Start output S1
Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G

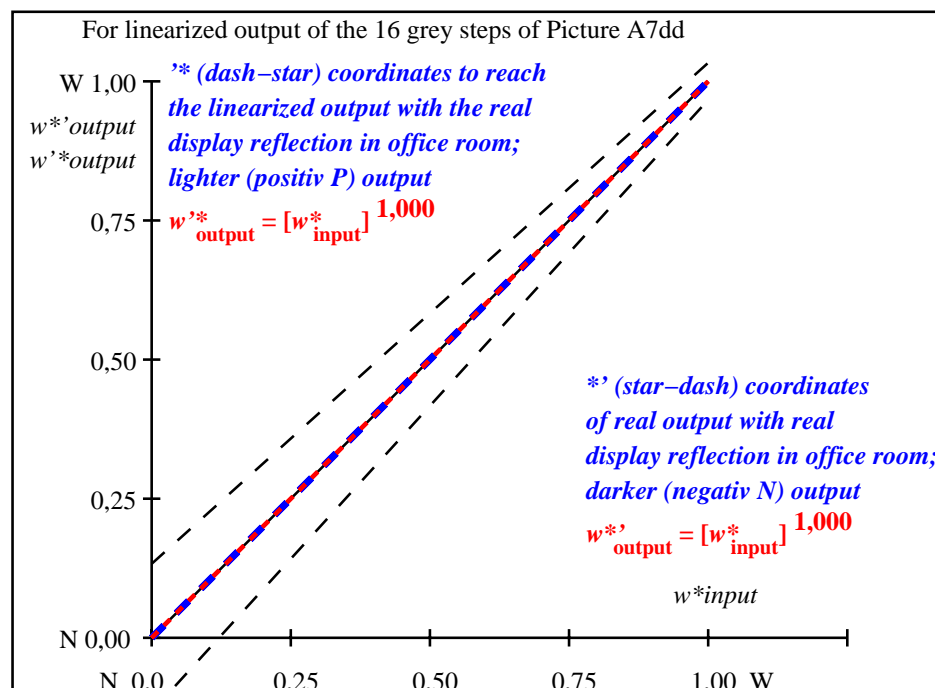
Mean lightness difference (16 steps)
 $\Delta E^*_{CIELAB} = 0,0$

Mean lightness difference (5 steps)
 $\Delta L^*_{CIELAB} = 0,0$

Mean colour reproduction index: $R^*_{ab,m} = 99,9$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01002



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01002

$L^*/Y_{intended}$ (absolute)	0.0/0.0	6.4/0.7	12.7/1.5	19.1/2.8	25.4/4.6	31.8/7.0	38.2/10.2	44.5/14.2	50.9/19.2	57.2/25.2	63.6/32.3	70.0/40.7	76.3/50.4	82.7/61.6	89.0/74.3	95.4/88.6
$000n^*$ setcmyk gp=1.0 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)	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
$w^*_{intended}$ w^*_{out}	0,000 0,0	0,067 0,067	0,133 0,133	0,200 0,2	0,267 0,267	0,333 0,333	0,400 0,4	0,467 0,467	0,533 0,533	0,600 0,6	0,667 0,667	0,733 0,733	0,800 0,8	0,867 0,867	0,933 0,933	1,000 1,0

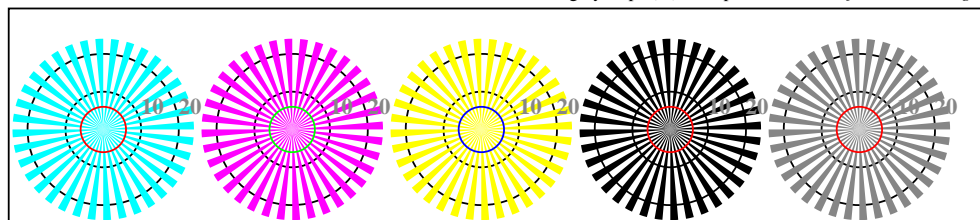
AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 000n*setcmykcolor

In-out: Test chart AE28 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

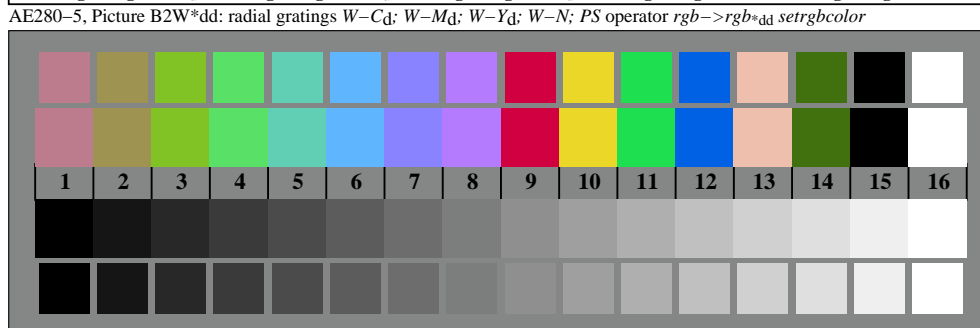
input: $rgb/cmy0/000n/w$ set...
output: $->rgb_{dd}$ setrgbcolor



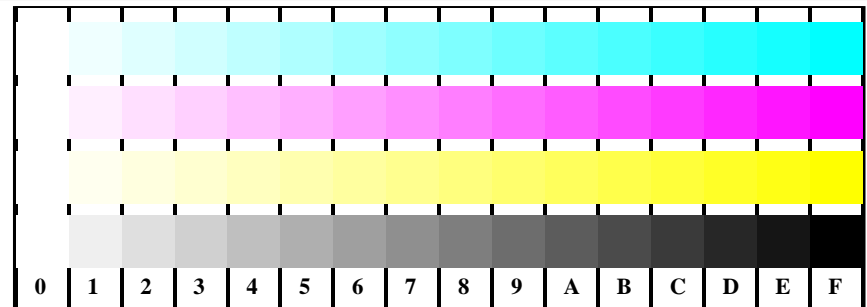
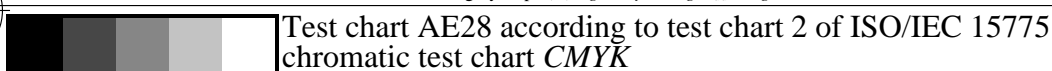
AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage



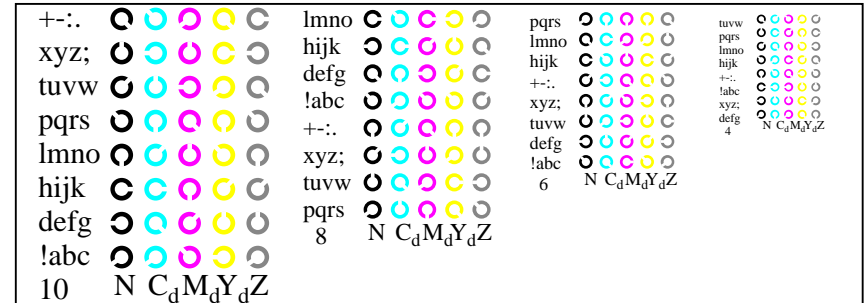
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



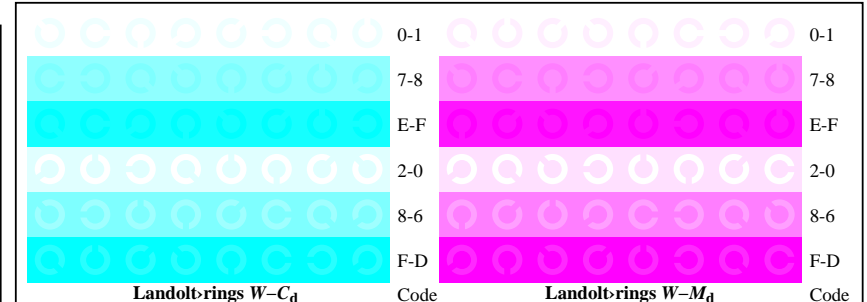
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



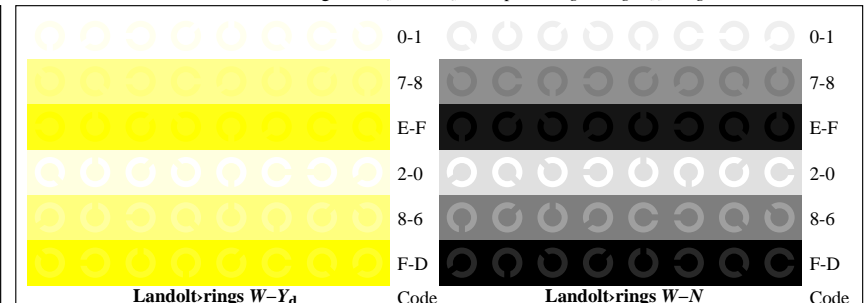
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-J_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*

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

Test for the visual linearized output of pictures B1Wdd to B3Wdd
Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd
Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**
Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":
.....
.....
.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd
Is the resolution diameter < 6 mm? **Yes/No**
Test with magnifying glass (6x),
Resolution diameter: mm mm mm mm mm

Test of the 14 CIE-test colours according to picture B3Wdd
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 B3Wdd
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 AE280-3dd: 01011

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

PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY7_1.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY7_1.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 AE28F0PX_CY7_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 device output with PS-file AE28F0PX_CY7_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:Special remarks, e. g. output of Landscape (L)
.....
.....
.....

part 3 AE280-7N*dd:01011

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: *rgb/cmy0/000n/w set...*
chromatic test chart *CMYK* output: *->rgb_{dd} setrgbcolor*

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 B4Wdd
 $W-C_d$ White – Cyanblue: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-M_d$ White – Magentared: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-Y_d$ White – Yellow: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-N$ White – Black: Are all the 16 steps distinguishable? **Yes/No**
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 B5Wdd
Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?

Relative size	Letters	Ring N	Ring C_d	Ring M_d	Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd
Is the recognition frequency of the Landolt-rings > 50% (min. 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 AE281-3Ndd: 01011

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/AE28/AE28F0PX_CY7_3.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY7_3.PS **underline Yes/No**

Picture A7dd contrast range: (>F:0) (F: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 range**

*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/AE28/AE28F0PX_CY7_3.PDF

picture A7dd **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY7_3.PS

picture A7dd **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 AE281-7dd: 01011

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print

TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 6/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=thata4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*
1	5,69	0,00	0,00	0,00	0,01
2	11,67	0,00	0,10	14,73	0,00
3	17,65	0,00	0,18	21,95	0,00
4	23,63	0,00	0,25	28,62	0,00
5	29,61	0,00	0,32	34,96	0,00
6	35,59	0,00	0,39	41,05	0,00
7	41,57	0,00	0,46	46,96	0,00
8	47,55	0,00	0,52	52,72	0,00
9	53,54	0,00	0,58	58,35	0,00
10	59,52	0,00	0,64	63,88	0,00
11	65,50	0,00	0,70	69,31	0,00
12	71,48	0,00	0,76	74,67	0,00
13	77,46	0,00	0,82	79,95	0,00
14	83,44	0,00	0,88	85,16	0,00
15	89,42	0,00	0,94	90,31	0,00
16	95,41	0,00	1,00	95,41	0,00
17	5,69	0,00	0,00	5,69	0,00
18	28,12	0,00	0,30	33,40	0,00
19	50,55	0,00	0,55	55,55	0,00
20	72,98	0,00	0,78	75,99	0,00
21	95,41	0,00	1,00	95,41	0,00

Start output S1
Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G

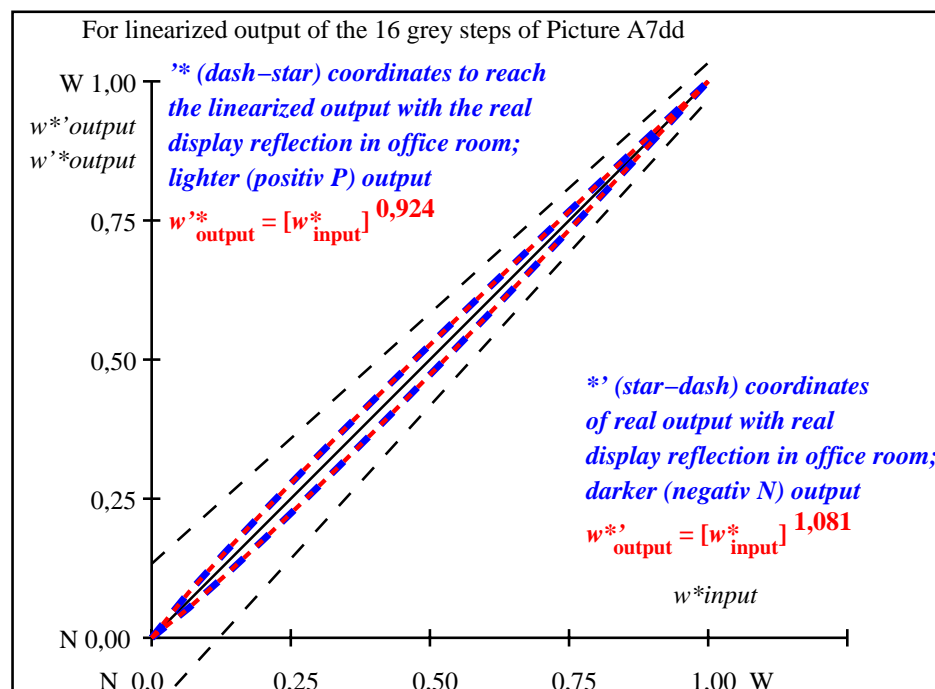
Mean lightness difference (16 steps)
 $\Delta E^*_{\text{CIELAB}} = 3,4$

Mean lightness difference (5 steps)
 $\Delta L^*_{\text{CIELAB}} = 2,6$

Mean colour reproduction index: $R^*_{\text{ab,m}} = 85,0$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01012



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01012

L^*/Y_{intended} (absolute)	5.7/0.6	11.7/1.4	17.7/2.4	23.6/4.0	29.6/6.1	35.6/8.8	41.6/12.2	47.6/16.5	53.5/21.5	59.5/27.6	65.5/34.7	71.5/42.9	77.5/52.3	83.4/63.0	89.4/75.1	95.4/88.6
0 0 0 n*																
setcmyk																
gp=0.92																
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
$w^* = l^*_{\text{CIELAB}, r}$ (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^*_{out}	0,0	0,082	0,155	0,226	0,295	0,362	0,428	0,494	0,559	0,623	0,688	0,75	0,814	0,876	0,938	1,0

AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

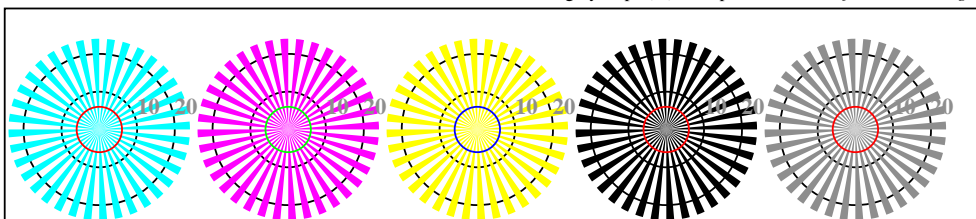
In-out: Test chart AE28 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast $Y_W:Y_N=88,9:0,62$; Y_N -range 0,46 to <0,93

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

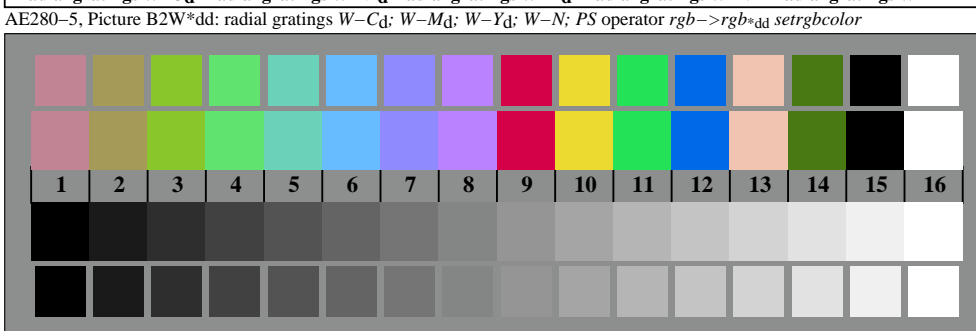
see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS;
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE.HTM>



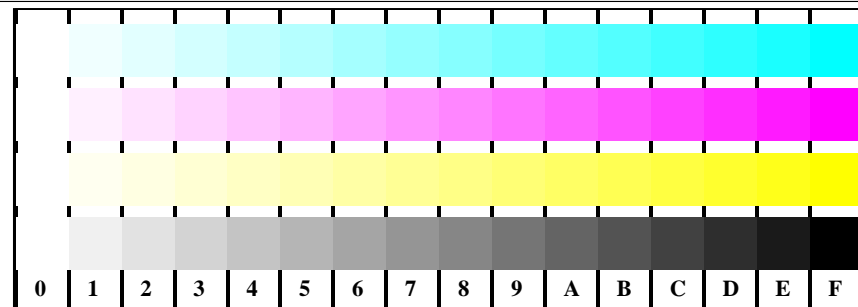
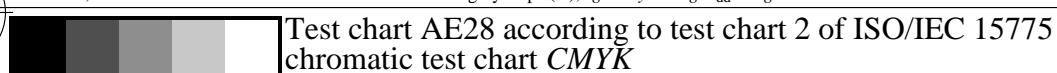
AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage



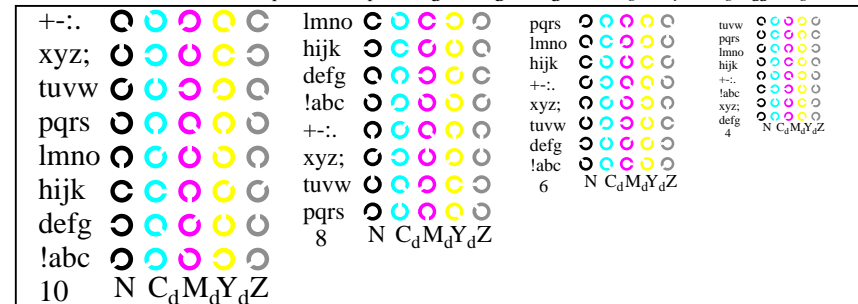
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



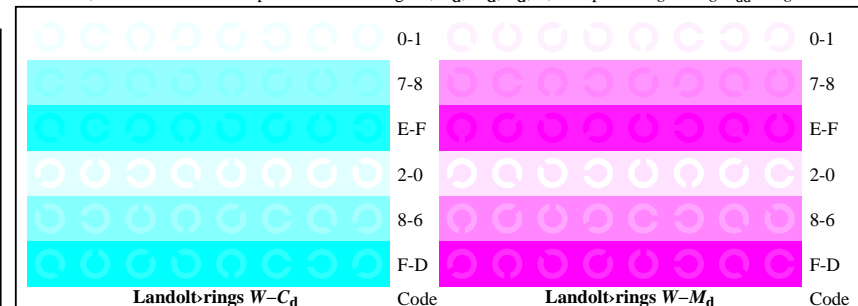
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



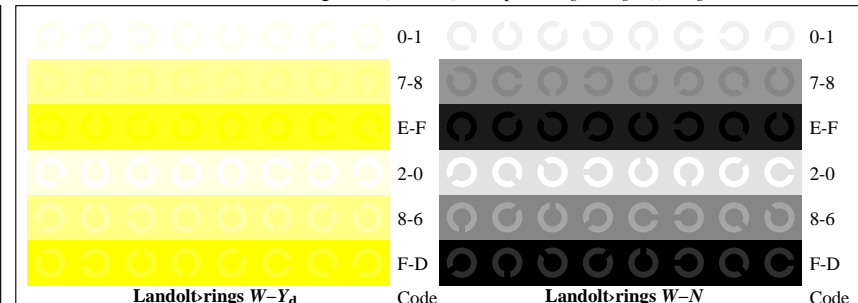
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-J_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*

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

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th4ta

Test for the visual linearized output of pictures B1Wdd to B3Wdd

Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd

Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**
Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":
.....
.....
.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd

	$W-C_d$	$W-M_d$	$W-Y_d$	$W-N$	$W-Z$
Is the resolution diameter < 6 mm?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Test with magnifying glass (6x), Resolution diameter:	..... mm	..... mm	..... mm	..... mm	..... mm

Test of the 14 CIE-test colours according to picture B3Wdd

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 B3Wdd

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 AE280-3dd: 01021

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

PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY6_1.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY6_1.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 AE28F0PX_CY6_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 device output with PS-file AE28F0PX_CY6_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: Special remarks, e. g. output of Landscape (L)
.....
.....

part 3 AE280-7N*dd-01021

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: *rgb/cmy0/000n/w set...*
chromatic test chart *CMYK* output: *->rgb_{dd} setrgbcolor*

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 B4Wdd

Colour row	Are all the 16 steps distinguishable?	Yes/No
$W-C_d$ White – Cyanblue:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-M_d$ White – Magentared:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-Y_d$ White – Yellow:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-N$ 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 B5Wdd

Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?

Relative size	Letters	Ring N	Ring C_d	Ring M_d	Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd

Is the recognition frequency of the Landolt-rings > 50% (min. 5 of 8 at least)?

Colour row $W-C_d$	Colour row $W-M_d$	Colour row $W-Y_d$	Colour row $W-N$
background – ring	background – ring	background – ring	background – ring
0 – 1	0 – 1	0 – 1	0 – 1
7 – 8	7 – 8	7 – 8	7 – 8
E – F	E – F	E – F	E – F
2 – 0	2 – 0	2 – 0	2 – 0
8 – 6	8 – 6	8 – 6	8 – 6
F – D	F – D	F – D	F – D

part 2 AE281-3Ndd: 01021

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/AE28/AE28F0PX_CY6_3.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY6_3.PS **underline Yes/No**

Picture A7dd contrast range: (>F:0) (F: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 range**

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/AE28/AE28F0PX_CY6_3.PDF

picture A7dd **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY6_3.PS

picture A7dd **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 AE281-7dd: 01021

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print

TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 9/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=thata4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*	Start output S1
1	10,99	0,00	0,00	0,00	0,00	0,01
2	16,62	0,00	0,00	0,13	22,51	0,00
3	22,24	0,00	0,00	0,22	30,17	0,00
4	27,87	0,00	0,00	0,30	36,84	0,00
5	33,50	0,00	0,00	0,37	42,93	0,00
6	39,13	0,00	0,00	0,44	48,62	0,00
7	44,75	0,00	0,00	0,50	54,02	0,00
8	50,38	0,00	0,00	0,57	59,19	0,00
9	56,01	0,00	0,00	0,62	64,16	0,00
10	61,64	0,00	0,00	0,68	68,97	0,00
11	67,27	0,00	0,00	0,74	73,64	0,00
12	72,89	0,00	0,00	0,79	78,19	0,00
13	78,52	0,00	0,00	0,84	82,63	0,00
14	84,15	0,00	0,00	0,90	86,97	0,00
15	89,78	0,00	0,00	0,95	91,23	0,00
16	95,41	0,00	0,00	1,00	95,41	0,00
17	10,99	0,00	0,00	0,00	10,99	0,00
18	32,09	0,00	0,00	0,36	41,45	0,00
19	53,20	0,00	0,00	0,60	61,70	0,00
20	74,30	0,00	0,00	0,80	79,31	0,00
21	95,41	0,00	0,00	1,00	95,41	0,00

Specification according to
ISO/IEC 15775 Annex G
and DIN 33866-1 Annex G

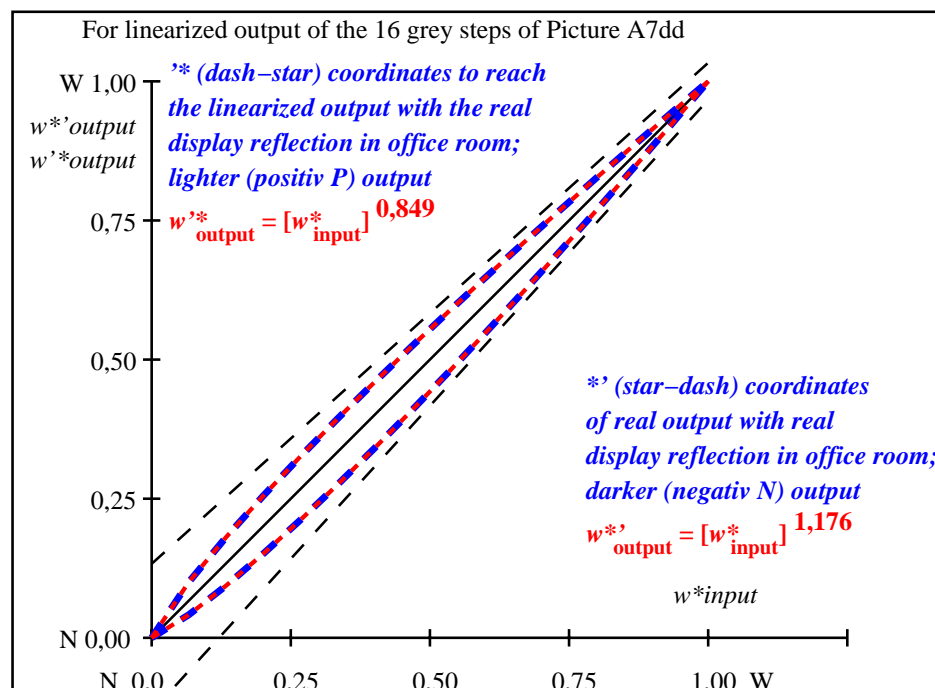
Mean lightness difference (16 steps)
 $\Delta E^*_{CIELAB} = 5,9$

Mean lightness difference (5 steps)
 $\Delta L^*_{CIELAB} = 4,5$

Mean colour reproduction index:
 $R^*_{ab,m} = 74,1$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01022



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01022

$L^*/Y_{intended}$ (absolute)	11.0/1.3	16.6/2.2	22.2/3.6	27.9/5.4	33.5/7.8	39.1/10.7	44.8/14.4	50.4/18.7	56.0/23.9	61.6/30.0	67.3/37.0	72.9/45.0	78.5/54.1	84.2/64.4	89.8/75.8	95.4/88.6
0 0 0 n*																
setcmyk																
gp=0.85																
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^*_{out}	0,0	0,1	0,18	0,255	0,325	0,393	0,459	0,524	0,586	0,648	0,709	0,768	0,827	0,886	0,943	1,0

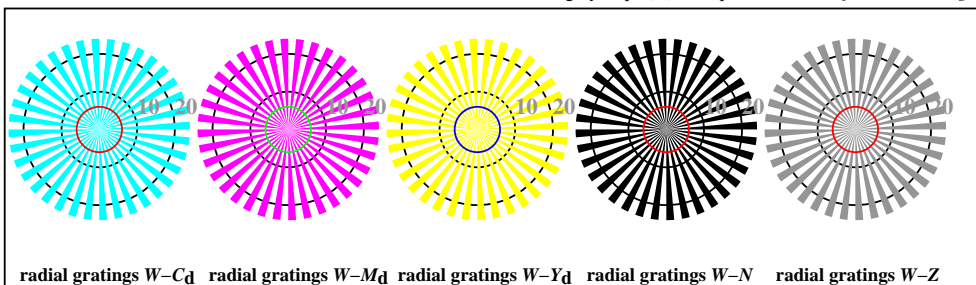
AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

In-out: Test chart AE28 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast $Y_W:Y_N=88,9:1,25$; Y_N -range 0,93 to <1,87

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



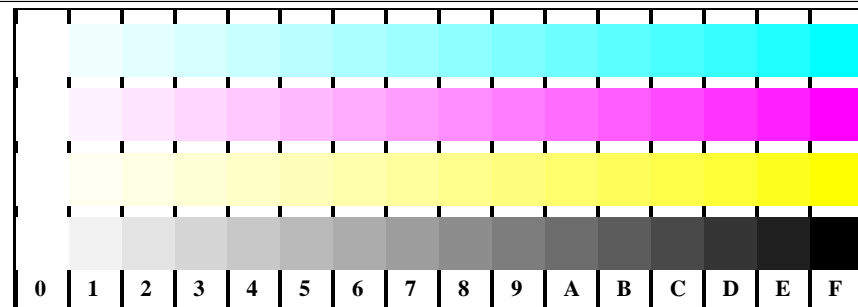
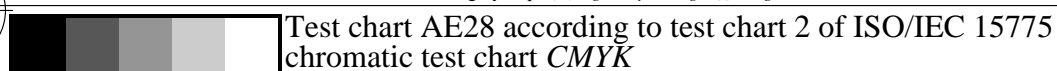
AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage



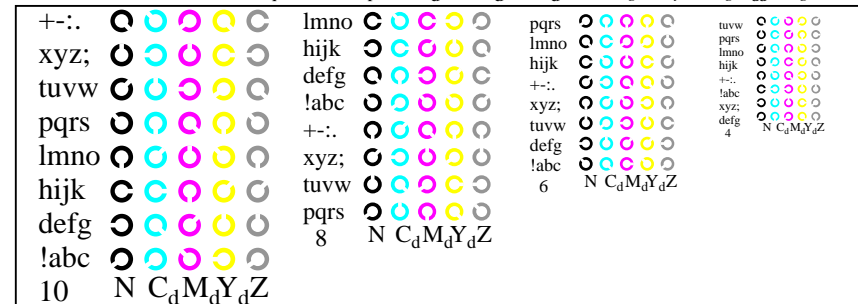
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



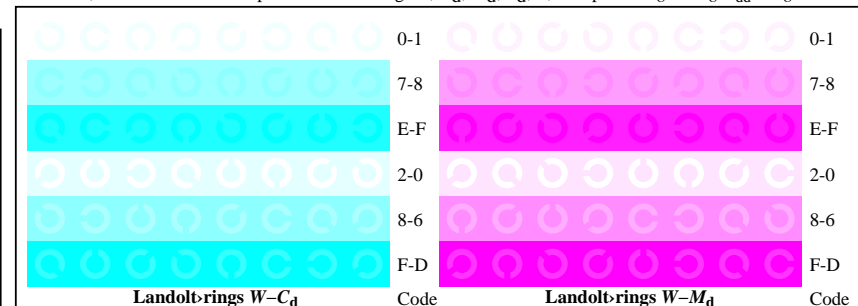
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



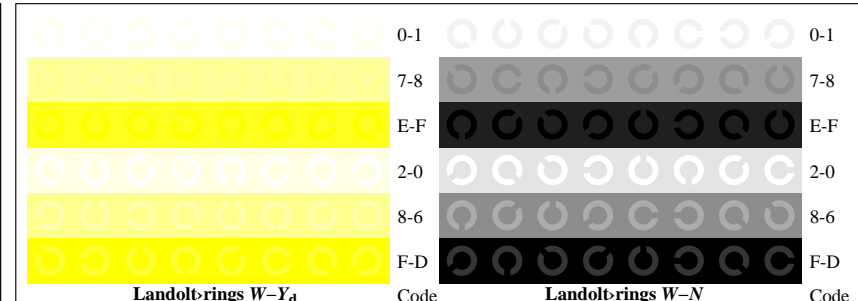
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-J_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*

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

Test for the visual linearized output of pictures B1Wdd to B3Wdd
Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd
Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**
Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":
.....
.....
.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd
Is the resolution diameter < 6 mm? $W-C_d$ $W-M_d$ $W-Y_d$ $W-N$ $W-Z$
Test with magnifying glass (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 B3Wdd
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 B3Wdd
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 AE280-3dd: 01031

Documentation of file format, hardware and software for this test:
PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY5_1.PDF **underline Yes/No**
PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY5_1.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 AE28F0PX_CY5_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 device output with PS-file AE28F0PX_CY5_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: Special remarks, e. g. output of Landscape (L)
.....
.....

part 3 AE280-7N*dd-01031

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: $rgb/cmy0/000n/w$ set...
chromatic test chart CMYK output: $->rgb_{dd}$ setrgbcolor

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 B4Wdd
 $W-C_d$ White – Cyanblue: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-M_d$ White – Magentared: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-Y_d$ White – Yellow: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-N$ White – Black: Are all the 16 steps distinguishable? **Yes/No**
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 B5Wdd
Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?
Relative size Letters Ring N Ring C_d Ring M_d Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd
Is the recognition frequency of the Landolt-rings > 50% (min. 5 of 8 at least)?
Colour row $W-C_d$ Colour row $W-M_d$ Colour row $W-Y_d$ Colour row $W-N$
background – ring background – ring background – ring 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 AE281-3Ndd: 01031

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/AE28/AE28F0PX_CY5_3.PDF **underline Yes/No**
PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY5_3.PS **underline Yes/No**
Picture A7dd contrast range: (>F:0) (F: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 range**
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/AE28/AE28F0PX_CY5_3.PDF **underline Yes/No**
picture A7dd
PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY5_3.PS **or underline Yes/No**
picture A7dd
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 AE281-7dd: 01031

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 12/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=rh4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*
1	18,00	0,00	0,00	0,00	0,01
2	23,16	0,00	0,17	31,34	0,00
3	28,32	0,00	0,27	38,92	0,00
4	33,48	0,00	0,35	45,22	0,00
5	38,64	0,00	0,42	50,81	0,00
6	43,80	0,00	0,48	55,93	0,00
7	48,96	0,00	0,55	60,70	0,00
8	54,12	0,00	0,60	65,19	0,00
9	59,28	0,00	0,66	69,46	0,00
10	64,44	0,00	0,71	73,55	0,00
11	69,60	0,00	0,76	77,49	0,00
12	74,76	0,00	0,81	81,29	0,00
13	79,92	0,00	0,86	84,96	0,00
14	85,08	0,00	0,91	88,54	0,00
15	90,24	0,00	0,95	92,01	0,00
16	95,41	0,00	1,00	95,41	0,00
17	18,00	0,00	0,00	18,00	0,00
18	37,35	0,00	0,40	49,47	0,00
19	56,70	0,00	0,63	67,35	0,00
20	76,05	0,00	0,82	82,22	0,00
21	95,41	0,00	1,00	95,41	0,00

Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G

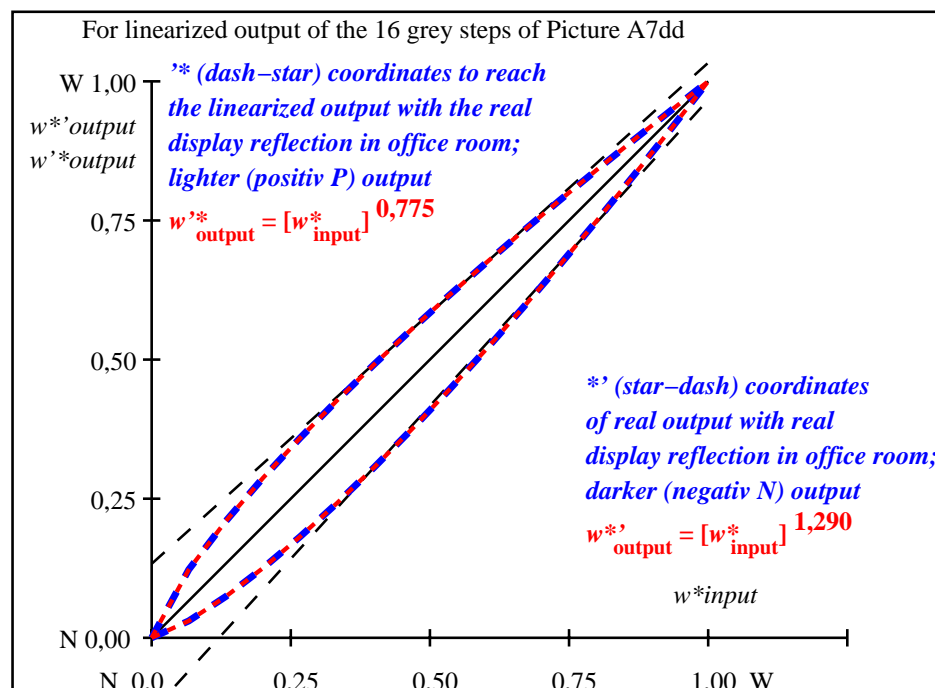
Mean lightness difference (16 steps)
 $\Delta E^*_{\text{CIELAB}} = 7,5$

Mean lightness difference (5 steps)
 $\Delta L^*_{\text{CIELAB}} = 5,7$

Mean colour reproduction index: $R^*_{\text{ab,m}} = 67,0$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01032



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01032

L^*/Y_{intended} (absolute)	18.0/2.5	23.2/3.8	28.3/5.6	33.5/7.8	38.6/10.5	43.8/13.7	49.0/17.6	54.1/22.1	59.3/27.3	64.4/33.4	69.6/40.2	74.8/47.9	79.9/56.6	85.1/66.2	90.2/76.8	95.4/88.6
0 0 0 n*																
setcmyk																
gp=0.78																
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
$w^* = l^*_{\text{CIELAB}, r}$ (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^*_{out}	0,0	0,123	0,209	0,287	0,359	0,426	0,492	0,554	0,614	0,673	0,731	0,786	0,841	0,895	0,948	1,0

AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

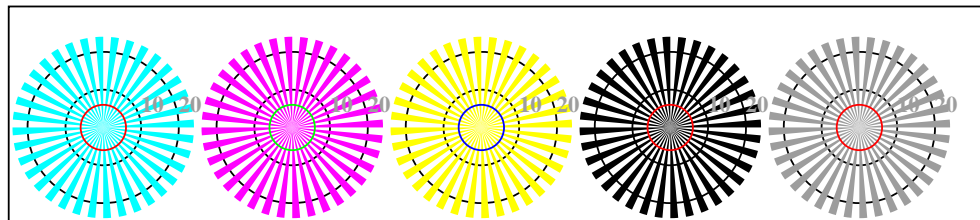
In-out: Test chart AE28 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast $Y_W:Y_N=88,9:2,5$; Y_N -range 1,87 to <3,75

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

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS;
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE.HTM>

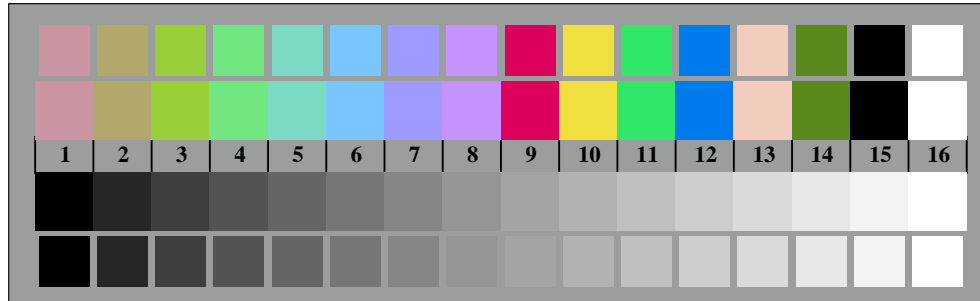


AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage

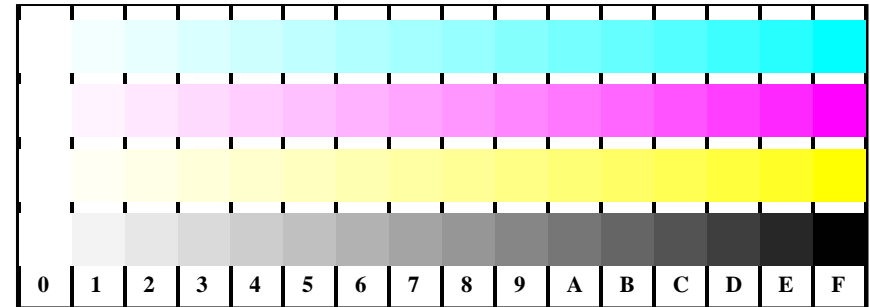
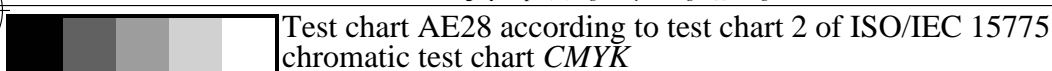


radial gratings W-C_d radial gratings W-M_d radial gratings W-Y_d radial gratings W-N radial gratings W-Z

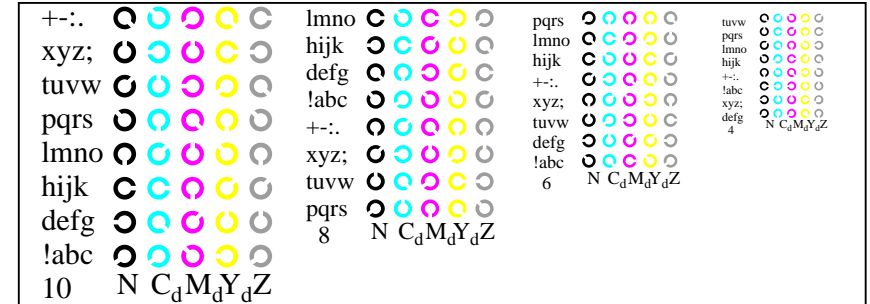
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



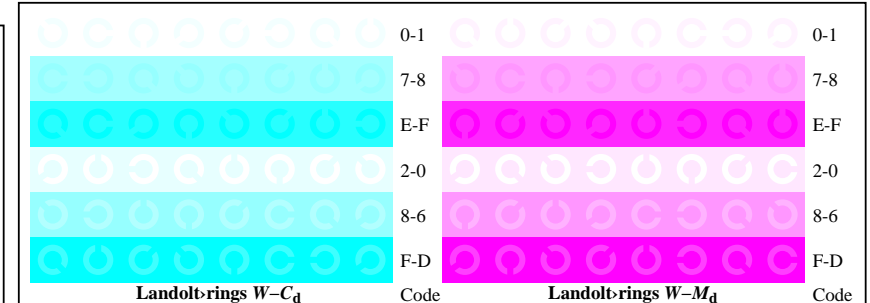
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



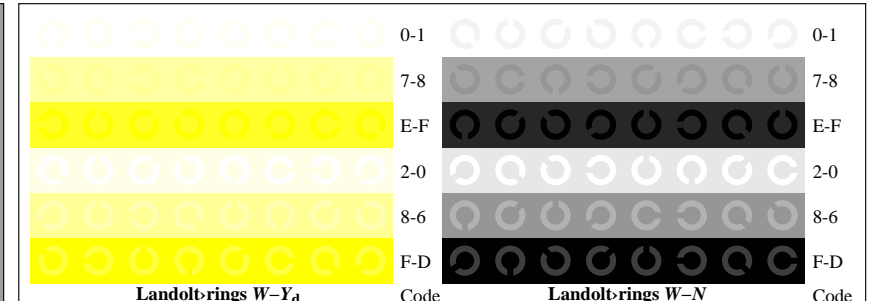
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-Y_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*

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

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th44ta

Test for the visual linearized output of pictures B1Wdd to B3Wdd

Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd

Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**
Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":
.....
.....
.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd

	$W-C_d$	$W-M_d$	$W-Y_d$	$W-N$	$W-Z$
Is the resolution diameter < 6 mm?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Test with magnifying glass (6x), Resolution diameter:	..... mm	..... mm	..... mm	..... mm	..... mm

Test of the 14 CIE-test colours according to picture B3Wdd

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 B3Wdd

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

AE280-3dd: 01041

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

PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY4_1.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY4_1.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 AE28F0PX_CY4_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 device output with PS-file AE28F0PX_CY4_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: Special remarks, e. g. output of Landscape (L)
.....
.....

part 3

AE280-7N*dd-01041

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: *rgb/cmy0/000n/w set...*
chromatic test chart *CMYK* output: *->rgb_{dd} setrgbcolor*

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 B4Wdd

Row	Test	Are all the 16 steps distinguishable?	Yes/No
$W-C_d$	White - Cyanblue:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-M_d$	White - Magentared:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-Y_d$	White - Yellow:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-N$	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 B5Wdd

Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?

Relative size	Letters	Ring N	Ring C_d	Ring M_d	Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd

Is the recognition frequency of the Landolt-rings > 50% (min. 5 of 8 at least)?

Colour row $W-C_d$	Colour row $W-M_d$	Colour row $W-Y_d$	Colour row $W-N$
background - ring	background - ring	background - ring	background - ring
0 - 1	0 - 1	0 - 1	0 - 1
7 - 8	7 - 8	7 - 8	7 - 8
E - F	E - F	E - F	E - F
2 - 0	2 - 0	2 - 0	2 - 0
8 - 6	8 - 6	8 - 6	8 - 6
F - D	F - D	F - D	F - D

part 2

AE281-3Ndd: 01041

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/AE28/AE28F0PX_CY4_3.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY4_3.PS **underline Yes/No**

Picture A7dd contrast range: (>F:0) (F: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 range**

*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/AE28/AE28F0PX_CY4_3.PDF

picture A7dd **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY4_3.PS

picture A7dd **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

AE281-7dd: 01041

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print

TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 15/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*	Start output S1
1	26,84	0,00	0,00	0,00	0,00	0,01
2	31,41	0,00	0,00	0,20	41,04	0,00
3	35,98	0,00	0,00	0,30	48,09	0,00
4	40,56	0,00	0,00	0,39	53,74	0,00
5	45,13	0,00	0,00	0,46	58,64	0,00
6	49,70	0,00	0,00	0,52	63,04	0,00
7	54,27	0,00	0,00	0,58	67,09	0,00
8	58,84	0,00	0,00	0,64	70,86	0,00
9	63,41	0,00	0,00	0,69	74,42	0,00
10	67,98	0,00	0,00	0,74	77,79	0,00
11	72,55	0,00	0,00	0,78	81,01	0,00
12	77,12	0,00	0,00	0,83	84,09	0,00
13	81,69	0,00	0,00	0,87	87,06	0,00
14	86,26	0,00	0,00	0,92	89,93	0,00
15	90,83	0,00	0,00	0,96	92,71	0,00
16	95,41	0,00	0,00	1,00	95,41	0,00
17	26,84	0,00	0,00	0,00	26,84	0,00
18	43,98	0,00	0,00	0,44	57,47	0,00
19	61,12	0,00	0,00	0,66	72,66	0,00
20	78,26	0,00	0,00	0,84	84,85	0,00
21	95,41	0,00	0,00	1,00	95,41	0,00

Specification according to
ISO/IEC 15775 Annex G
and DIN 33866-1 Annex G

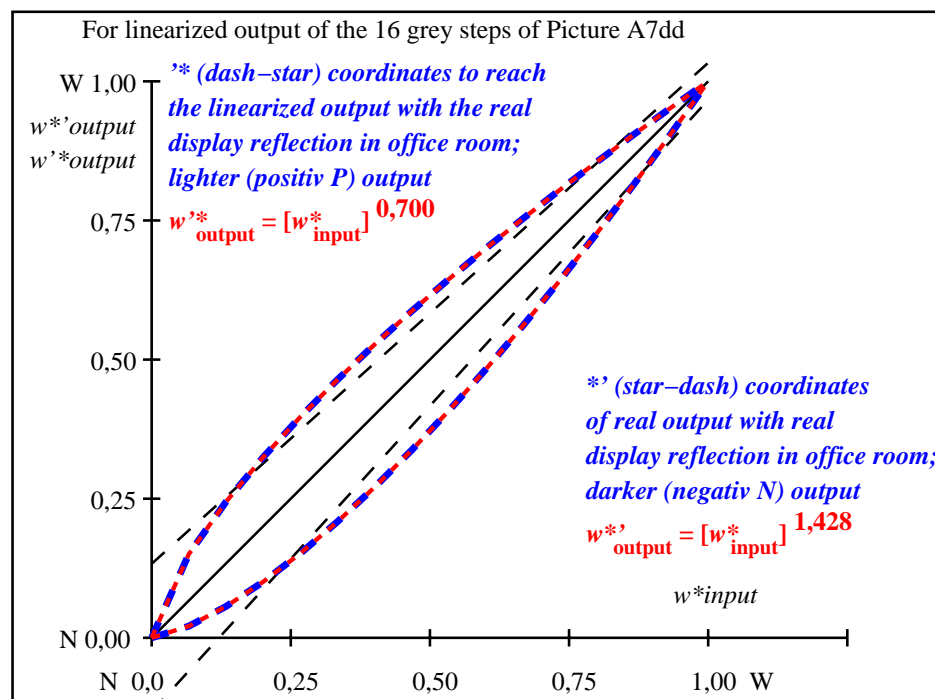
Mean lightness difference (16 steps)
 $\Delta E^*_{\text{CIELAB}} = 8,3$

Mean lightness difference (5 steps)
 $\Delta L^*_{\text{CIELAB}} = 6,3$

Mean colour reproduction index:
 $R^*_{\text{ab,m}} = 63,7$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01042



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01042

L^*/Y_{intended} (absolute)	26.8/5.0	31.4/6.8	36.0/9.0	40.6/11.6	45.1/14.6	49.7/18.2	54.3/22.2	58.8/26.9	63.4/32.1	68.0/38.0	72.6/44.5	77.1/51.7	81.7/59.7	86.3/68.5	90.8/78.1	95.4/88.6
0 0 0 n*																
setcmyk																
gp=0.7																
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
$w^* = l^*_{\text{CIELAB}, r}$ (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^*_{out}	0,0	0,151	0,244	0,324	0,397	0,463	0,527	0,587	0,644	0,699	0,753	0,805	0,855	0,905	0,953	1,0

AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

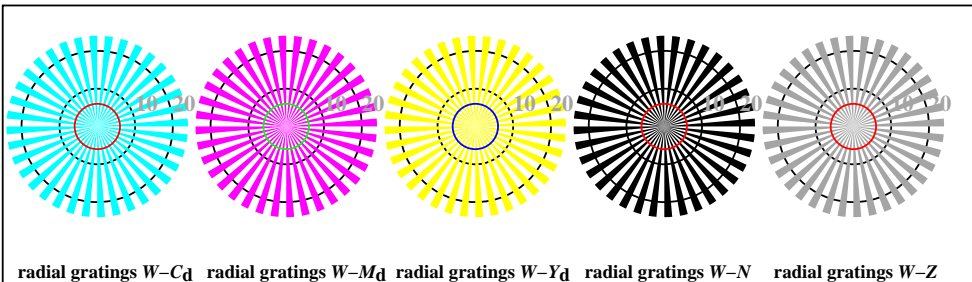
In-out: Test chart AE28 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast $Y_W:Y_N=88,9:5$; Y_N -range 3,75 to <7,5

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

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS;
technical information: <http://farbe.li.tu-berlin.de/> or <http://farbe.li.tu-berlin.de/AE.HTM>



AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage

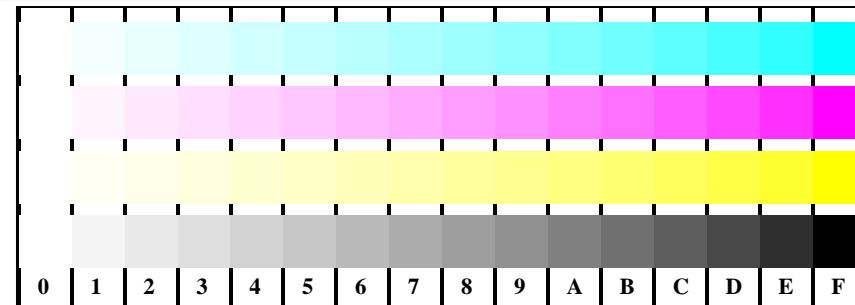
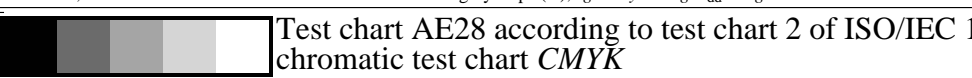


radial gratings W-C_d radial gratings W-M_d radial gratings W-Y_d radial gratings W-N radial gratings W-Z

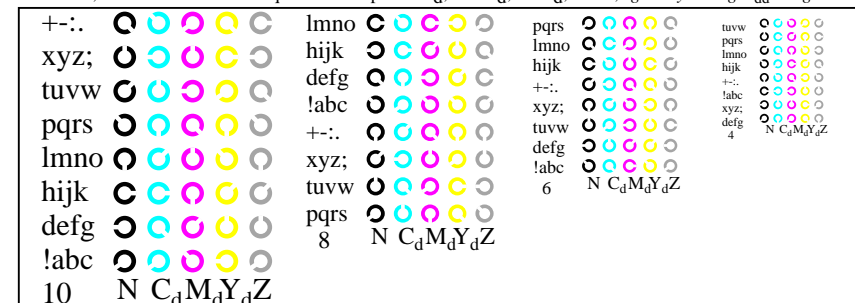
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



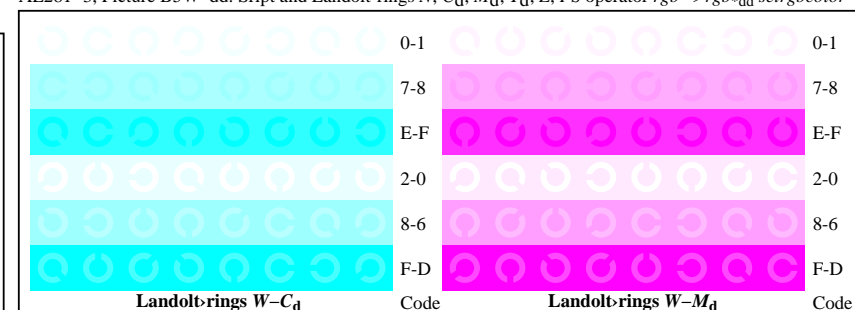
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



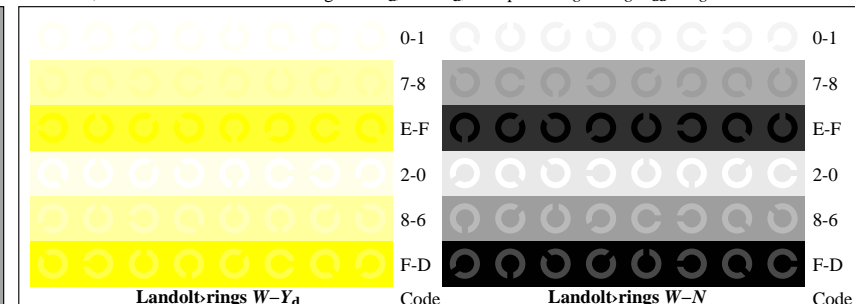
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-Y_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



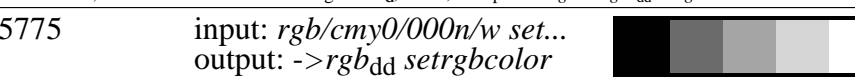
AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th44ta

Test for the visual linearized output of pictures B1Wdd to B3Wdd
Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd
Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**
Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":
.....
.....
.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd
Is the resolution diameter < 6 mm? $W-C_d$ $W-M_d$ $W-Y_d$ $W-N$ $W-Z$
Test with magnifying glass (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 B3Wdd
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 B3Wdd
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 AE280-3dd: 01051

Documentation of file format, hardware and software for this test:
PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY3_1.PDF **underline Yes/No**
PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY3_1.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 AE28F0PX_CY3_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 device output with PS-file AE28F0PX_CY3_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: Special remarks, e. g. output of Landscape (L)
.....
.....

part 3 AE280-7N*dd:01051

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: *rgb/cmy0/000n/w set...*
chromatic test chart *CMYK* output: *->rgb_{dd} setrgbcolor*

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 B4Wdd
 $W-C_d$ White – Cyanblue: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-M_d$ White – Magentared: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-Y_d$ White – Yellow: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-N$ White – Black: Are all the 16 steps distinguishable? **Yes/No**
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 B5Wdd
Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?
Relative size Letters Ring N Ring C_d Ring M_d Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd
Is the recognition frequency of the Landolt-rings > 50% (min. 5 of 8 at least)?
Colour row $W-C_d$ Colour row $W-M_d$ Colour row $W-Y_d$ Colour row $W-N$
background – ring background – ring background – ring 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 AE281-3Ndd: 01051

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/AE28/AE28F0PX_CY3_3.PDF **underline Yes/No**
PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY3_3.PS **underline Yes/No**
Picture A7dd contrast range: (>F:0) (F: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 range**
*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/AE28/AE28F0PX_CY3_3.PDF **underline Yes/No**
picture A7dd
PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY3_3.PS **or underline Yes/No**
picture A7dd
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 AE281-7dd: 01051

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 18/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=thata4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*	Start output S1
1	37,98	0,00	0,00	37,98	0,00	0,00
2	41,81	0,00	0,00	41,81	0,00	0,00
3	45,64	0,00	0,00	45,64	0,00	0,00
4	49,47	0,00	0,00	49,47	0,00	0,00
5	53,29	0,00	0,00	53,29	0,00	0,00
6	57,12	0,00	0,00	57,12	0,00	0,00
7	60,95	0,00	0,00	60,95	0,00	0,00
8	64,78	0,00	0,00	64,78	0,00	0,00
9	68,61	0,00	0,00	68,61	0,00	0,00
10	72,44	0,00	0,00	72,44	0,00	0,00
11	76,26	0,00	0,00	76,26	0,00	0,00
12	80,09	0,00	0,00	80,09	0,00	0,00
13	83,92	0,00	0,00	83,92	0,00	0,00
14	87,75	0,00	0,00	87,75	0,00	0,00
15	91,58	0,00	0,00	91,58	0,00	0,00
16	95,41	0,00	0,00	95,41	0,00	0,00
17	37,98	0,00	0,00	37,98	0,00	0,00
18	52,34	0,00	0,00	52,34	0,00	0,00
19	66,69	0,00	0,00	66,69	0,00	0,00
20	81,05	0,00	0,00	81,05	0,00	0,00
21	95,41	0,00	0,00	95,41	0,00	0,00

Specification according to
ISO/IEC 15775 Annex G
and DIN 33866-1 Annex G

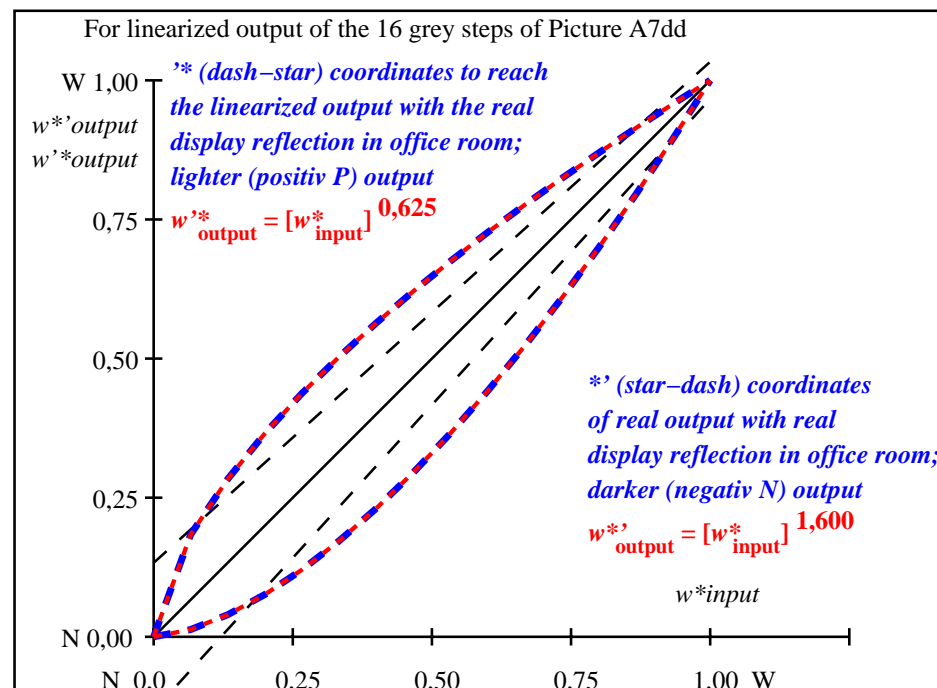
Mean lightness difference (16 steps)
 $\Delta E^*_{\text{CIELAB}} = 8,1$

Mean lightness difference (5 steps)
 $\Delta L^*_{\text{CIELAB}} = 6,1$

Mean colour reproduction index:
 $R^*_{\text{ab,m}} = 64,5$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01052



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01052

L^*/Y_{intended} (absolute)	38.0/10.1	41.8/12.4	45.6/15.0	49.5/18.0	53.3/21.3	57.1/25.1	61.0/29.2	64.8/33.8	68.6/38.8	72.4/44.3	76.3/50.3	80.1/56.9	83.9/63.9	87.8/71.6	91.6/79.8	95.4/88.6
0 0 0 n*																
setcmyk																
gp=0.63																
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
$w^* = l^*_{\text{CIELAB}, r}$ (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^*_{out}	0,0	0,185	0,283	0,366	0,438	0,503	0,564	0,621	0,675	0,727	0,776	0,824	0,87	0,915	0,958	1,0

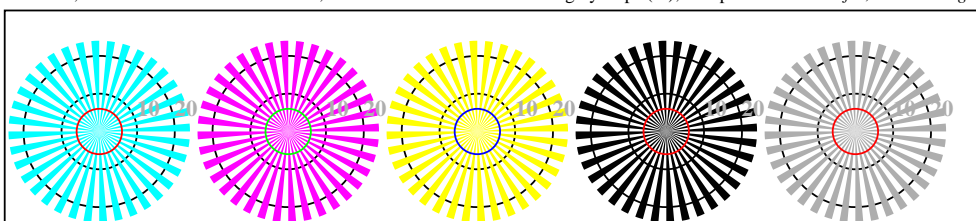
AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

In-out: Test chart AE28 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast $Y_W:Y_N=88,9:10$; Y_N -range 7,5 to <15

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



AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage

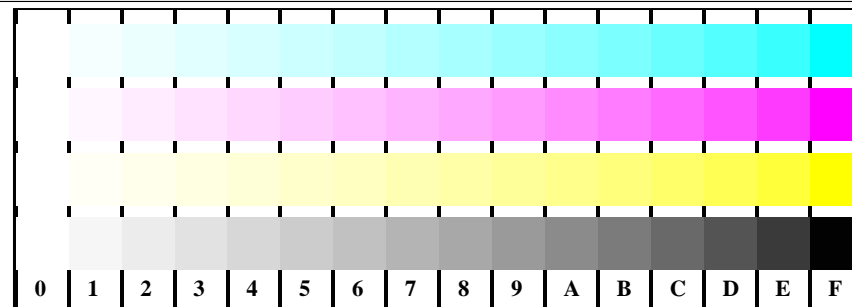
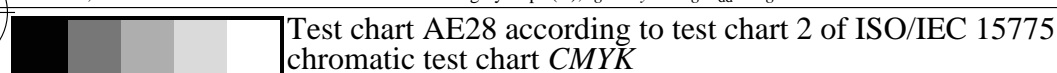


radial gratings W-C_d radial gratings W-M_d radial gratings W-Y_d radial gratings W-N radial gratings W-Z

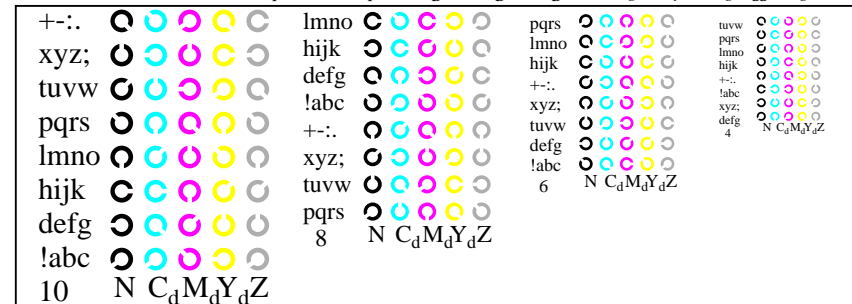
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



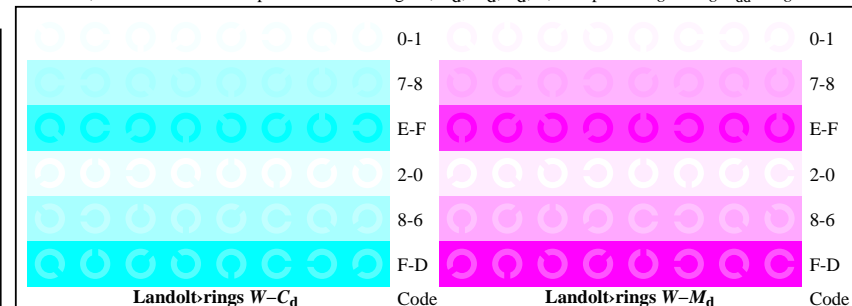
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



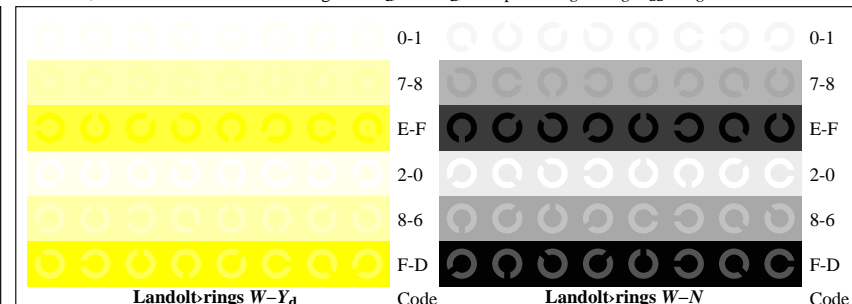
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-J_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*

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

Test for the visual linearized output of pictures B1Wdd to B3Wdd

Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd

Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**
Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":
.....
.....
.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd

	$W-C_d$	$W-M_d$	$W-Y_d$	$W-N$	$W-Z$
Is the resolution diameter < 6 mm?	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Test with magnifying glass (6x), Resolution diameter:	..... mm	..... mm	..... mm	..... mm	..... mm

Test of the 14 CIE-test colours according to picture B3Wdd

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 B3Wdd

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

AE280-3dd: 01061

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

PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY2_1.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY2_1.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 AE28F0PX_CY2_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 device output with PS-file AE28F0PX_CY2_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: Special remarks, e. g. output of Landscape (L)
.....
.....

part 3

AE280-7N*dd-01061

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: *rgb/cmy0/000n/w set...*
chromatic test chart *CMYK* output: *->rgb_{dd} setrgbcolor*

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 B4Wdd

Colour row	Are all the 16 steps distinguishable?	Yes/No
$W-C_d$ White – Cyanblue:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-M_d$ White – Magentared:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-Y_d$ White – Yellow:	If No: How many steps can be distinguished? of the given 16 steps	..... Steps
$W-N$ 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 B5Wdd

Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?

Relative size	Letters	Ring N	Ring C_d	Ring M_d	Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd

Is the recognition frequency of the Landolt-rings > 50% (min. 5 of 8 at least)?

Colour row $W-C_d$	Colour row $W-M_d$	Colour row $W-Y_d$	Colour row $W-N$
background – ring	background – ring	background – ring	background – ring
0 – 1	0 – 1	0 – 1	0 – 1
7 – 8	7 – 8	7 – 8	7 – 8
E – F	E – F	E – F	E – F
2 – 0	2 – 0	2 – 0	2 – 0
8 – 6	8 – 6	8 – 6	8 – 6
F – D	F – D	F – D	F – D

part 2

AE281-3Ndd: 01061

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/AE28/AE28F0PX_CY2_3.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY2_3.PS **underline Yes/No**

Picture A7dd contrast range: (>F:0) (F: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 range**

*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/AE28/AE28F0PX_CY2_3.PDF

picture A7dd **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY2_3.PS

picture A7dd **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

AE281-7dd: 01061

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print

TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 21/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=th4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*	Start output S1
1	52,01	0,00	0,00	52,01	0,00	0,00
2	54,91	0,00	0,00	63,82	0,00	0,00
3	57,80	0,00	0,00	68,48	0,00	0,00
4	60,69	0,00	0,00	72,03	0,00	0,00
5	63,58	0,00	0,00	75,00	0,00	0,00
6	66,48	0,00	0,00	77,60	0,00	0,00
7	69,37	0,00	0,00	79,94	0,00	0,00
8	72,26	0,00	0,00	82,09	0,00	0,00
9	75,16	0,00	0,00	84,09	0,00	0,00
10	78,05	0,00	0,00	85,96	0,00	0,00
11	80,94	0,00	0,00	87,72	0,00	0,00
12	83,83	0,00	0,00	89,39	0,00	0,00
13	86,73	0,00	0,00	90,99	0,00	0,00
14	89,62	0,00	0,00	92,52	0,00	0,00
15	92,51	0,00	0,00	93,99	0,00	0,00
16	95,41	0,00	0,00	95,41	0,00	0,00
17	52,01	0,00	0,00	52,01	0,00	0,00
18	62,86	0,00	0,00	74,30	0,00	0,00
19	73,71	0,00	0,00	83,11	0,00	0,00
20	84,56	0,00	0,00	89,80	0,00	0,00
21	95,41	0,00	0,00	95,41	0,00	0,00

Specification according to
ISO/IEC 15775 Annex G
and DIN 33866-1 Annex G

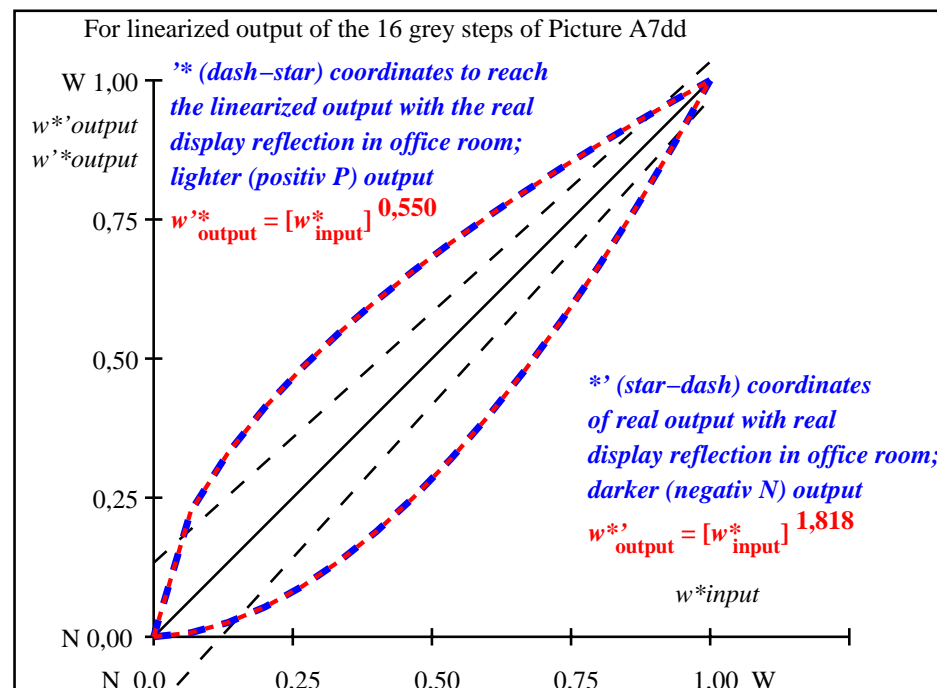
Mean lightness difference (16 steps)
 $\Delta E^*_{CIELAB} = 6,9$

Mean lightness difference (5 steps)
 $\Delta L^*_{CIELAB} = 5,2$

Mean colour reproduction index:
 $R^*_{ab,m} = 69,8$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01062



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01062

$L^*/Y_{intended}$ (absolute)	52.0/20.2	54.9/22.8	57.8/25.8	60.7/28.9	63.6/32.3	66.5/36.0	69.4/39.9	72.3/44.1	75.2/48.5	78.1/53.3	80.9/58.4	83.8/63.8	86.7/69.5	89.6/75.5	92.5/81.9	95.4/88.6
0 0 0 n*																
setcmyk																
gp=0.55																
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^*_{out}	0,0	0,226	0,33	0,413	0,484	0,546	0,604	0,658	0,707	0,755	0,8	0,843	0,885	0,925	0,963	1,0

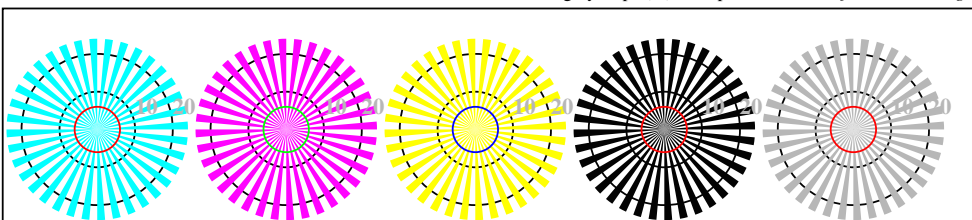
AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

In-out: Test chart AE28 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast $Y_W:Y_N=88,9:20$; Y_N -range 15 to <30

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



AE280-3, Picture B1W*dd: Flower motif, 14 CIE-test colours and 2 + 16 grey steps (nf); PS operators *settransfer*, 3 colorimage

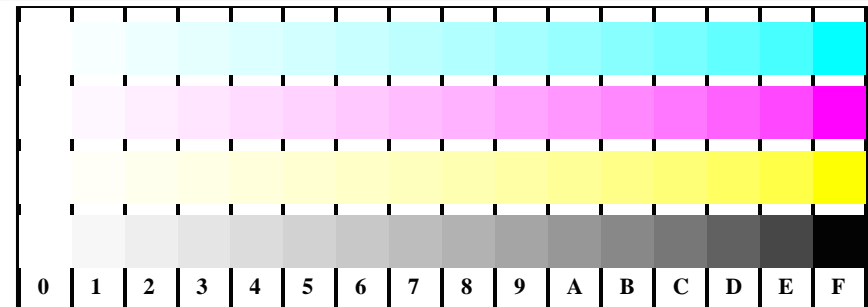
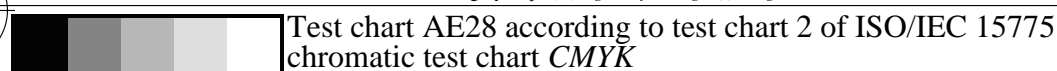


radial gratings W-C_d radial gratings W-M_d radial gratings W-Y_d radial gratings W-N radial gratings W-Z

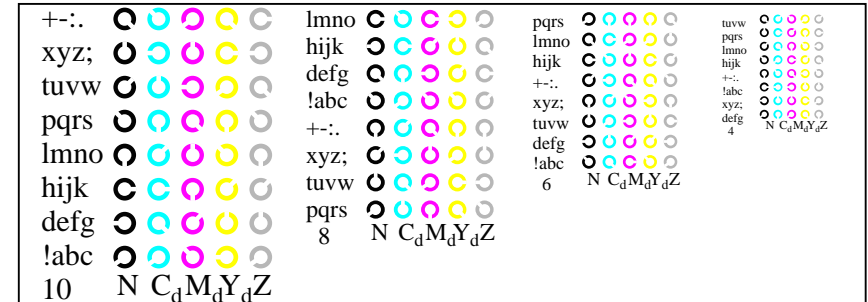
AE280-5, Picture B2W*dd: radial gratings W-C_d; W-M_d; W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



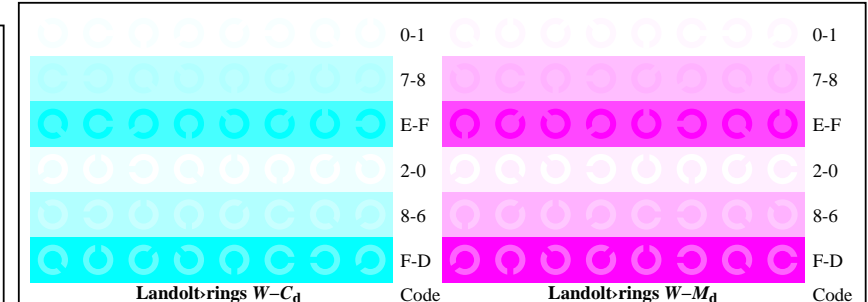
AE280-7, Picture B3W*dd: 14 CIE-test colours and 2 + 16 grey steps (sf); *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



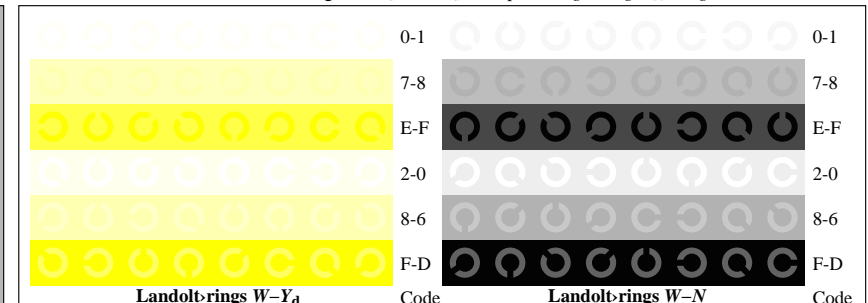
AE281-1, Picture B4W*dd: 16 equidistant steps W-C_d; W-M_d; W-J_d; W-N; *rgb/cmy0*->*rgb**_{dd} *setrgbcolor*



AE281-3, Picture B5W*dd: Sript and Landolt-rings N; C_d; M_d; Y_d; Z; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-5, Picture B6W*dd: Landolt-rings W-C_d; W-M_d; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*



AE281-7, Picture B7W*dd: Landolt-rings W-Y_d; W-N; PS operator *rgb*->*rgb**_{dd} *setrgbcolor*

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

Test for the visual linearized output of pictures B1Wdd to B3Wdd
Output test with the computer display () or the external display () please mark by (x)!

Test of the (flower) image according to picture B1Wdd
Are clear (immediately conspicuous) differences recognized between reproduction and test chart? **Yes/No**
Subjective remarks about the colour reproduction of the (flower) image, the CIE-test colours and the 16 grey steps within the image, for example "less contrast":
.....
.....
.....

Test of the resolution of radial gratings $W-C_d$, $W-M_d$, $W-Y_d$ according to picture B2Wdd
Is the resolution diameter < 6 mm? $W-C_d$ $W-M_d$ $W-Y_d$ $W-N$ $W-Z$
Test with magnifying glass (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 B3Wdd
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 B3Wdd
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 AE280-3dd: 01071

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

PDF file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY1_1.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY1_1.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 AE28F0PX_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 device output with PS-file AE28F0PX_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: Special remarks, e. g. output of Landscape (L)
.....
.....

part 3 AE280-7N*dd:01071

Form A: Test chart AE28 according to test chart 2 of ISO/IEC 15775 input: $rgb/cmy0/000n/w$ set...
chromatic test chart $CMYK$ output: $->rgb_{dd}$ set $rgbcolor$

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 B4Wdd
 $W-C_d$ White – Cyanblue: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-M_d$ White – Magentared: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-Y_d$ White – Yellow: Are all the 16 steps distinguishable? **Yes/No**
If No: How many steps can be distinguished? of the given 16 steps Steps
 $W-N$ White – Black: Are all the 16 steps distinguishable? **Yes/No**
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 B5Wdd
Is the recognition frequency > 50% for letters (17 from 32 at least) and for Landolt-rings (minimum 5 of 8)?

Relative size	Letters	Ring N	Ring C_d	Ring M_d	Ring 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 recognition frequency of Landolt-rings $W-C_d$, $W-M_d$, $W-Y_d$, and $W-N$ according to pictures B6Wdd, and B7Wdd
Is the recognition frequency of the Landolt-rings > 50% (min. 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 AE281-3Ndd: 01071

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/AE28/AE28F0PX_CY1_3.PDF **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY1_3.PS **underline Yes/No**

Picture A7dd contrast range: (>F:0) (F: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 range**

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/AE28/AE28F0PX_CY1_3.PDF

picture A7dd **underline Yes/No**

PS file: http://farbe.li.tu-berlin.de/AE28/AE28F0PX_CY1_3.PS

picture A7dd **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 AE281-7dd: 01071

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print

TUB material: code=th4ta

see similar files: <http://farbe.li.tu-berlin.de/AE28/AE28F0PX.PDF> / .PS; 3D-linearization, page 24/24
technical information: <http://farbe.li.tu-berlin.de/AE28/AE28LF0PX.PDF> / .PS in file (F)

TUB Registration: 20191001-AE28/AE28L0FA.TXT /.PS
application for measurement or viewing of the output on display and print
TUB material: code=thata4ta

i	LAB*ref	l*out	LAB*out	LAB*out-ref	ΔE*	Start output S1
1	69,69	0,00	0,00	69,69	0,00	0,00
2	71,41	0,00	0,30	77,45	0,00	0,00
3	73,12	0,00	0,41	80,23	0,00	0,00
4	74,83	0,00	0,49	82,31	0,00	0,00
5	76,55	0,00	0,55	84,02	0,00	0,00
6	78,26	0,00	0,61	85,51	0,00	0,00
7	79,98	0,00	0,66	86,83	0,00	0,00
8	81,69	0,00	0,71	88,04	0,00	0,00
9	83,41	0,00	0,75	89,16	0,00	0,00
10	85,12	0,00	0,79	90,20	0,00	0,00
11	86,83	0,00	0,83	91,18	0,00	0,00
12	88,55	0,00	0,87	92,11	0,00	0,00
13	90,26	0,00	0,90	92,99	0,00	0,00
14	91,98	0,00	0,93	93,83	0,00	0,00
15	93,69	0,00	0,96	94,63	0,00	0,00
16	95,41	0,00	1,00	95,41	0,00	0,00
17	69,69	0,00	0,00	69,69	0,00	0,00
18	76,12	0,00	0,54	83,62	0,00	0,00
19	82,55	0,00	0,73	88,61	0,00	0,00
20	88,98	0,00	0,88	92,33	0,00	0,00
21	95,41	0,00	1,00	95,41	0,00	0,00

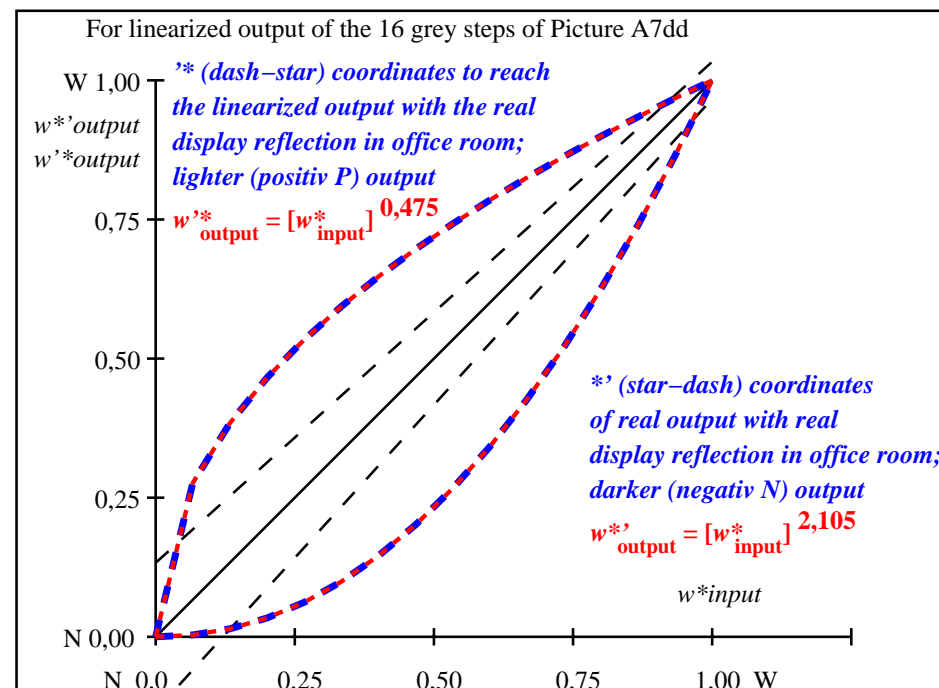
Mean lightness difference (16 steps)
 $\Delta E^*_{\text{CIELAB}} = 4,5$

Mean lightness difference (5 steps)
 $\Delta L^*_{\text{CIELAB}} = 3,3$

Mean colour reproduction index: $R^*_{ab,m} = 80,3$

part 1; Measure: unknown; Device: unknown; Date: unknown

AE280-3dd: 01072



part 2; Measure: unknown; Device: unknown; Date: unknown

AE281-3dd: 01072

L^*/Y_{intended} (absolute)	69.7/40.3	71.4/42.8	73.1/45.4	74.8/48.0	76.6/50.8	78.3/53.7	80.0/56.6	81.7/59.7	83.4/62.9	85.1/66.3	86.8/69.7	88.6/73.2	90.3/76.9	92.0/80.7	93.7/84.6	95.4/88.6
0 0 0 n*																
setcmyk																
gp=0.48																
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
$w^* = l^*$ (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^*_{out}	0,0	0,277	0,384	0,466	0,534	0,593	0,647	0,697	0,742	0,785	0,825	0,863	0,899	0,934	0,968	1,0

AE280-7N, Picture A7*dd: 16 visual equidistant L^* -grey steps; PS operator: 0 0 0 n* setcmykcolor

In-out: Test chart AE28 according to test chart 2 of ISO/IEC 15775
Viewing Y contrast $Y_W:Y_N=88,9:40$; Y_N -range 30 to <60

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