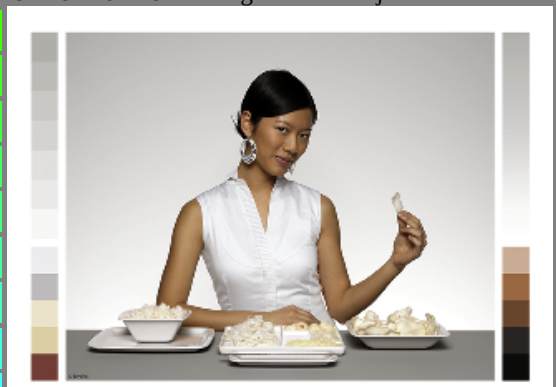
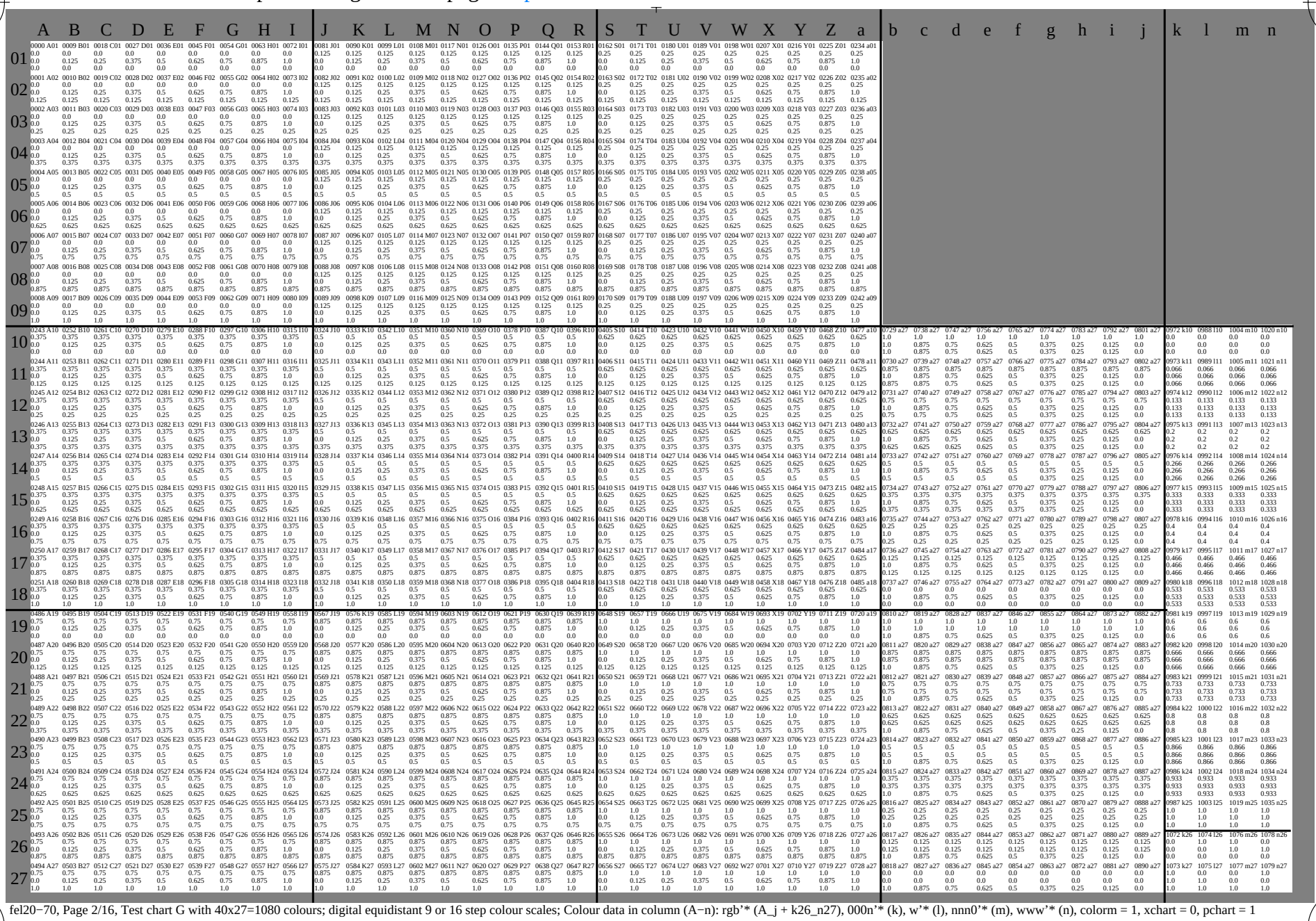


fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suess; *PS operators settransfer, 3 colorimage*

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 0, pchart = 0

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH 000n/w/cmy0/rgb
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0 −>rgb*$_d$, 130-0:



fel20−70, Page 2/16, Test chart G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_j + k26_n27), 000n'* (k), w'* (l), nnn0'* (m), www'* (n), colorm = 1, xchart = 0, pchart = 1

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 130-1:

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
2	6.36	0.0	0.0	0.07	6.36	0.0	0.0	0.0	0.0	0.0	0.01
3	12.72	0.0	0.0	0.13	12.72	0.0	0.0	0.0	0.0	0.0	0.01
4	19.08	0.0	0.0	0.2	19.08	0.0	0.0	0.0	0.0	0.0	0.01
5	25.44	0.0	0.0	0.27	25.44	0.0	0.0	0.0	0.0	0.0	0.01
6	31.8	0.0	0.0	0.33	31.8	0.0	0.0	0.0	0.0	0.0	0.01
7	38.16	0.0	0.0	0.4	38.16	0.0	0.0	0.0	0.0	0.0	0.01
8	44.52	0.0	0.0	0.47	44.52	0.0	0.0	0.0	0.0	0.0	0.01
9	50.89	0.0	0.0	0.53	50.89	0.0	0.0	0.0	0.0	0.0	0.01
10	57.25	0.0	0.0	0.6	57.25	0.0	0.0	0.0	0.0	0.0	0.01
11	63.61	0.0	0.0	0.67	63.61	0.0	0.0	0.0	0.0	0.0	0.01
12	69.97	0.0	0.0	0.73	69.97	0.0	0.0	0.0	0.0	0.0	0.01
13	76.33	0.0	0.0	0.8	76.33	0.0	0.0	0.0	0.0	0.0	0.01
14	82.69	0.0	0.0	0.87	82.69	0.0	0.0	0.0	0.0	0.0	0.01
15	89.05	0.0	0.0	0.93	89.05	0.0	0.0	0.0	0.0	0.0	0.01
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01
18	23.85	0.0	0.0	0.25	23.85	0.0	0.0	0.0	0.0	0.0	0.01
19	47.71	0.0	0.0	0.5	47.71	0.0	0.0	0.0	0.0	0.0	0.01
20	71.56	0.0	0.0	0.75	71.56	0.0	0.0	0.0	0.0	0.0	0.01
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

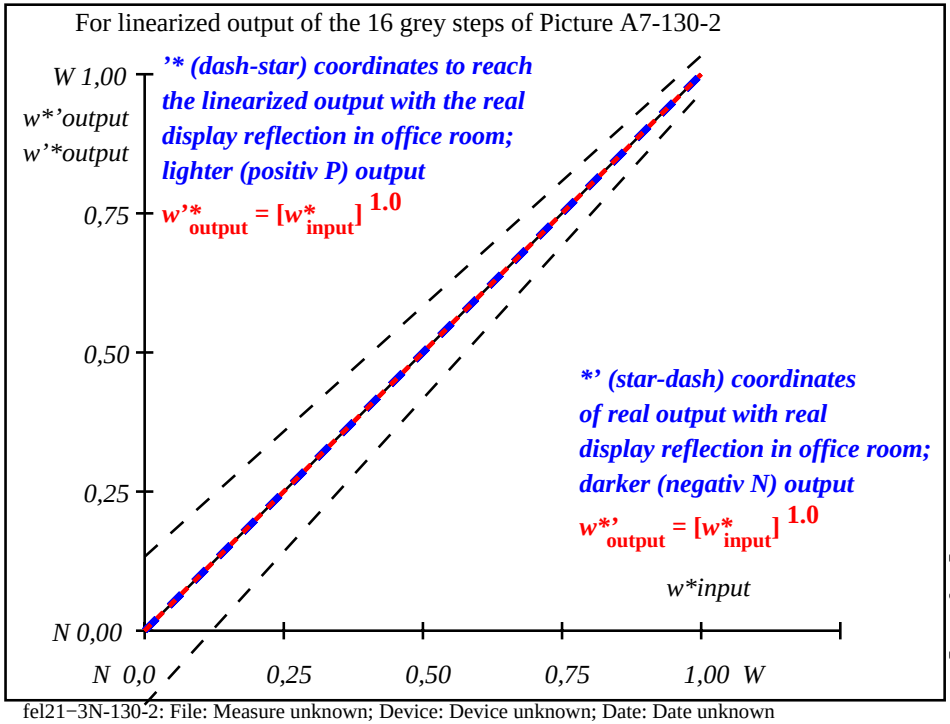
Start output S1
Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G

Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **0.0**

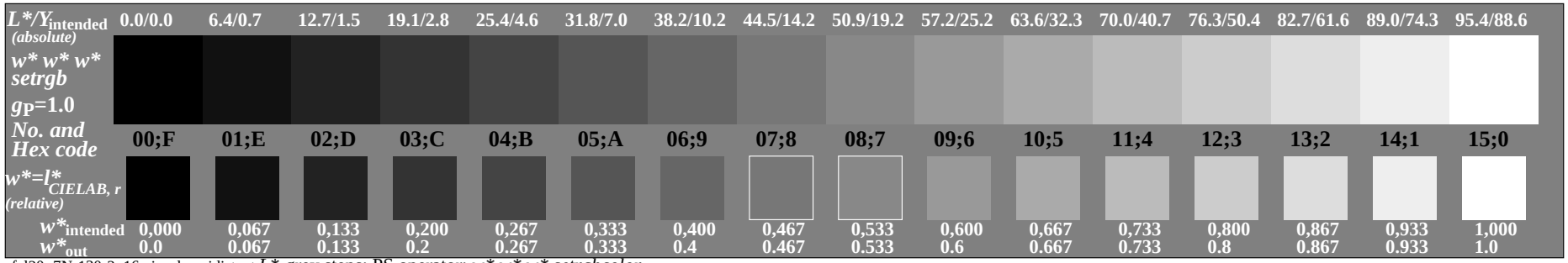
Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **0.0**

Mean colour reproduction index: $R^*_{ab,m}$ = **100**

fel20−3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

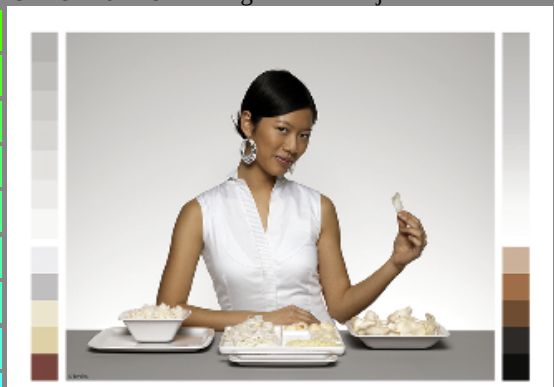


fel21−3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



fel20−7N-130-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

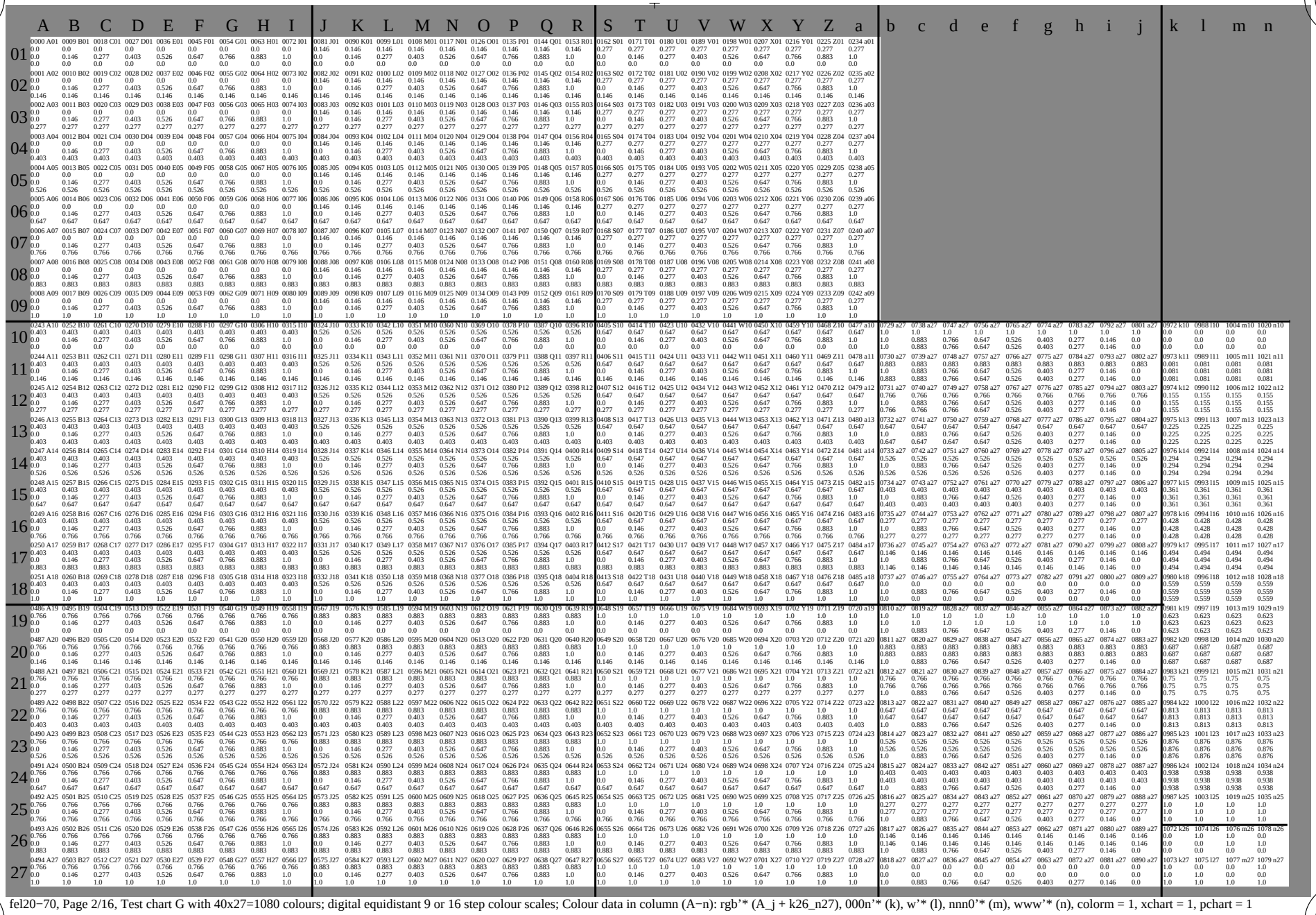
TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:0,31; Y_N range 0,0 to <0,46, L-HDR; γ_R=1,0 −>rgb*$_d$, 130-2:



fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suess; *PS operators settransfer, 3 colorimage*

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 1, pchart = 0

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH 000n/w/cmy0/rgb
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0 −>rgb*$_d$, 131-0:



TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 131-1:

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	5.69	0.0	0.0	0.0	5.69	0.0	0.0	0.0	0.0	0.0	0.01
2	11.67	0.0	0.0	0.1	14.73	0.0	0.0	3.06	0.0	0.0	3.06
3	17.65	0.0	0.0	0.18	21.96	0.0	0.0	4.3	0.0	0.0	4.3
4	23.63	0.0	0.0	0.26	28.63	0.0	0.0	4.99	0.0	0.0	4.99
5	29.62	0.0	0.0	0.33	34.96	0.0	0.0	5.34	0.0	0.0	5.34
6	35.6	0.0	0.0	0.39	41.05	0.0	0.0	5.46	0.0	0.0	5.46
7	41.58	0.0	0.0	0.46	46.96	0.0	0.0	5.38	0.0	0.0	5.38
8	47.56	0.0	0.0	0.52	52.72	0.0	0.0	5.16	0.0	0.0	5.16
9	53.54	0.0	0.0	0.59	58.36	0.0	0.0	4.82	0.0	0.0	4.82
10	59.52	0.0	0.0	0.65	63.88	0.0	0.0	4.36	0.0	0.0	4.36
11	65.5	0.0	0.0	0.71	69.32	0.0	0.0	3.82	0.0	0.0	3.82
12	71.48	0.0	0.0	0.77	74.67	0.0	0.0	3.19	0.0	0.0	3.19
13	77.47	0.0	0.0	0.83	79.95	0.0	0.0	2.49	0.0	0.0	2.49
14	83.45	0.0	0.0	0.89	85.16	0.0	0.0	1.72	0.0	0.0	1.72
15	89.43	0.0	0.0	0.94	90.31	0.0	0.0	0.89	0.0	0.0	0.89
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	5.69	0.0	0.0	0.0	5.69	0.0	0.0	0.0	0.0	0.0	0.01
18	28.12	0.0	0.0	0.31	33.4	0.0	0.0	5.28	0.0	0.0	5.28
19	50.55	0.0	0.0	0.56	55.55	0.0	0.0	5.0	0.0	0.0	5.0
20	72.98	0.0	0.0	0.78	76.0	0.0	0.0	3.02	0.0	0.0	3.02
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

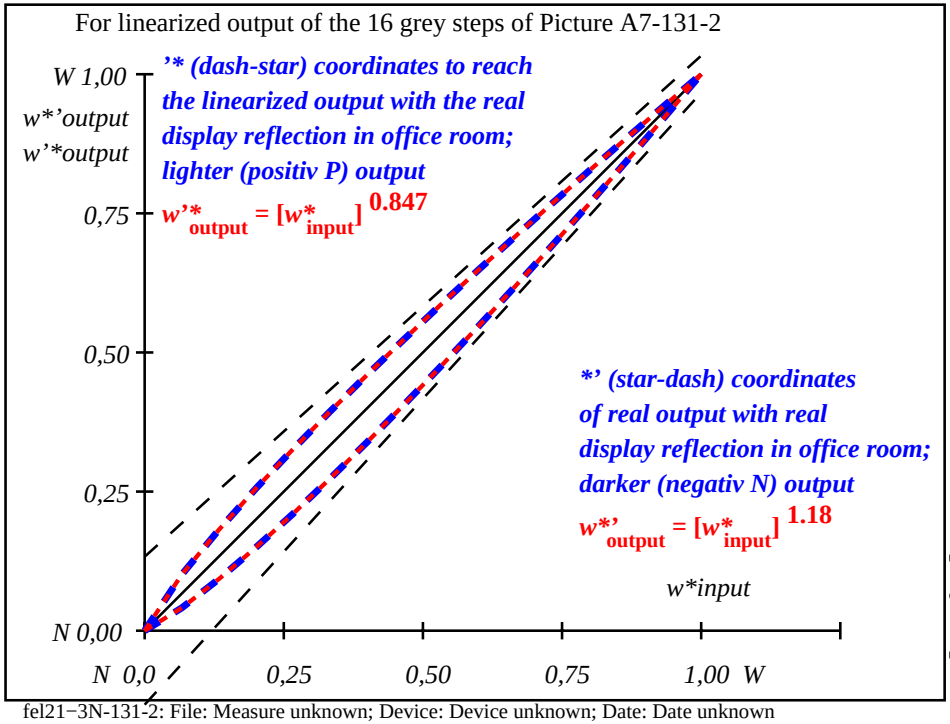
Start output S1
Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G

Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **3.4**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **2.7**

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

fel20−3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

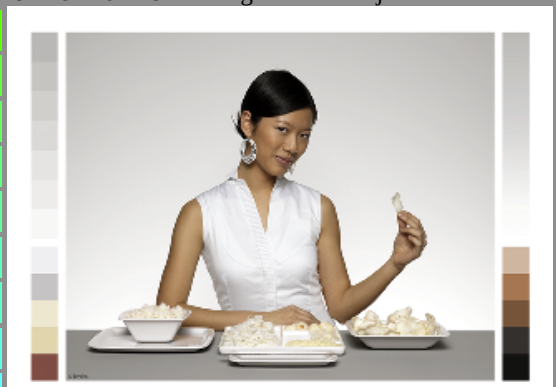


fel21−3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (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
w* w* w* setrgb g_P=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
$w^*=l^*_{CIELAB, r}$ (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

fel20−7N-131-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:0,62; Y_N range 0,46 to <0,93, L-HDR; γ_R=1,0 −>rgb*$_d$, 131-2:



fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suessl; *PS operators settransfer, 3 colorimage*

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 2, pchart = 0

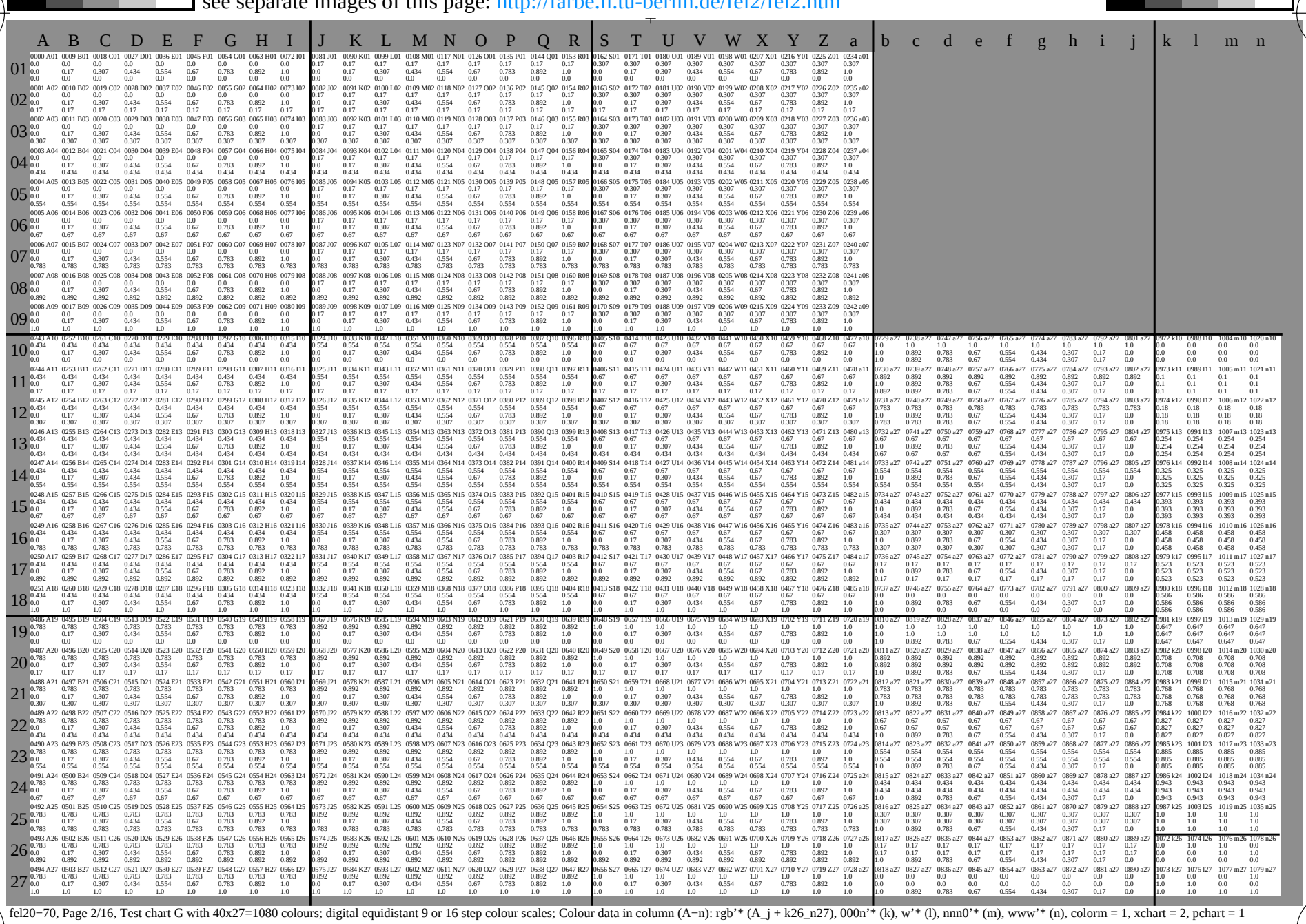
TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH 000n/w/cmy0/rgb
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0 −>rgb*$_d$, 132-0:

http://farbe.li.tu-berlin.de/fel2/fel2l0fa.txt /.ps; only vector graphic VG;
see separate images of this page: http://farbe.li.tu-berlin.de/fel2/fel2.htm

see similar files of the whole serie: http://farbe.li.tu-berlin.de/fels.htm
technical information: http://farbe.li.tu-berlin.de/A/33872E.html
or http://standards.iso.org/iso/9241/306/ed-2/index.html

TUB registration: 20240301-fel2/fel2l0fa.txt /.ps
application for evaluation and measurement of display or print output

TUB material: code=rha4ta



fel20−70, Page 2/16, Test chart G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_j + k26_n27), 000n'* (k), w'* (l), nnn0'* (m), www'* (n), colorm = 1, xchart = 2, pchart = 1

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 132-1:

see similar files of the whole serie: http://farbe.li.tu-berlin.de/fels.htm
technical information: http://farbe.li.tu-berlin.de/A/33872E.html
or http://standards.iso.org/iso/9241/306/ed-2/index.html

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	10.99	0.0	0.0	0.0	10.99	0.0	0.0	0.0	0.0	0.0	0.01
2	16.62	0.0	0.0	0.14	22.52	0.0	0.0	5.9	0.0	0.0	5.9
3	22.25	0.0	0.0	0.23	30.18	0.0	0.0	7.93	0.0	0.0	7.93
4	27.88	0.0	0.0	0.31	36.84	0.0	0.0	8.97	0.0	0.0	8.97
5	33.5	0.0	0.0	0.38	42.93	0.0	0.0	9.43	0.0	0.0	9.43
6	39.13	0.0	0.0	0.45	48.63	0.0	0.0	9.5	0.0	0.0	9.5
7	44.76	0.0	0.0	0.51	54.03	0.0	0.0	9.27	0.0	0.0	9.27
8	50.39	0.0	0.0	0.57	59.19	0.0	0.0	8.81	0.0	0.0	8.81
9	56.02	0.0	0.0	0.63	64.17	0.0	0.0	8.15	0.0	0.0	8.15
10	61.64	0.0	0.0	0.69	68.98	0.0	0.0	7.33	0.0	0.0	7.33
11	67.27	0.0	0.0	0.74	73.65	0.0	0.0	6.38	0.0	0.0	6.38
12	72.9	0.0	0.0	0.8	78.2	0.0	0.0	5.3	0.0	0.0	5.3
13	78.53	0.0	0.0	0.85	82.64	0.0	0.0	4.11	0.0	0.0	4.11
14	84.15	0.0	0.0	0.9	86.98	0.0	0.0	2.82	0.0	0.0	2.82
15	89.78	0.0	0.0	0.95	91.23	0.0	0.0	1.45	0.0	0.0	1.45
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	10.99	0.0	0.0	0.0	10.99	0.0	0.0	0.0	0.0	0.0	0.01
18	32.1	0.0	0.0	0.36	41.45	0.0	0.0	9.36	0.0	0.0	9.36
19	53.2	0.0	0.0	0.6	61.7	0.0	0.0	8.5	0.0	0.0	8.5
20	74.31	0.0	0.0	0.81	79.32	0.0	0.0	5.01	0.0	0.0	5.01
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

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

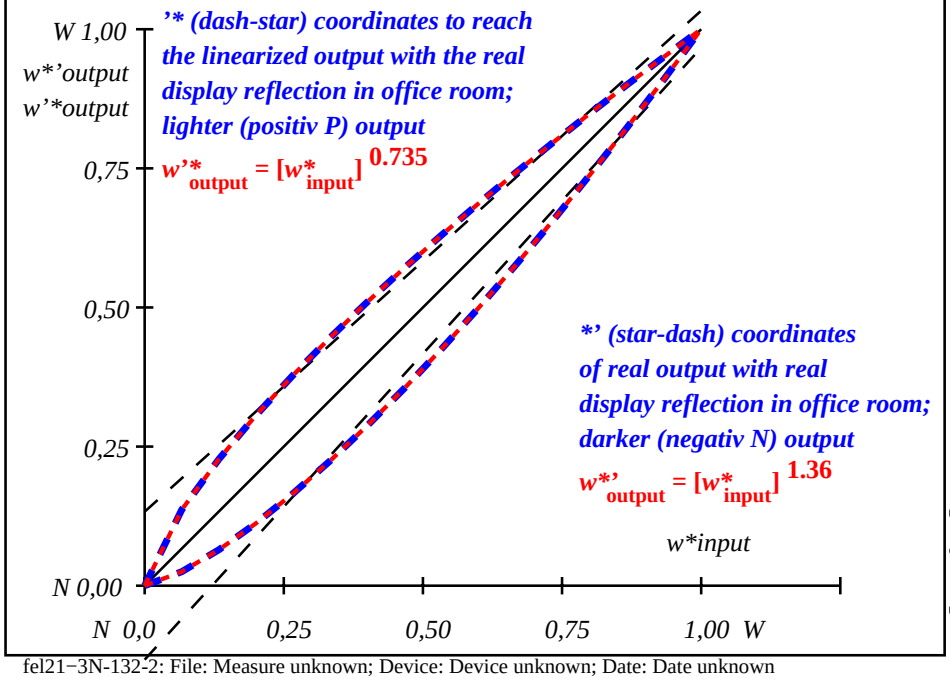
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **6.0**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **4.6**

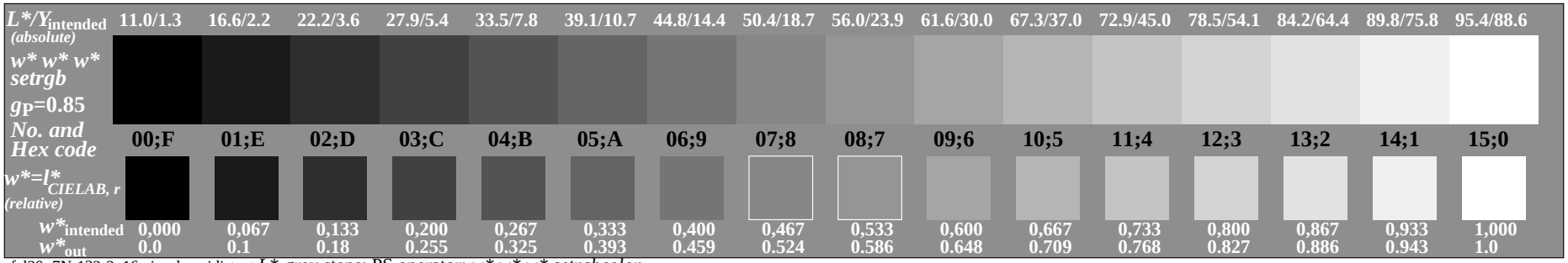
Mean colour reproduction index: $R^*_{ab,m}$ = **74**

fel20−3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-132-2



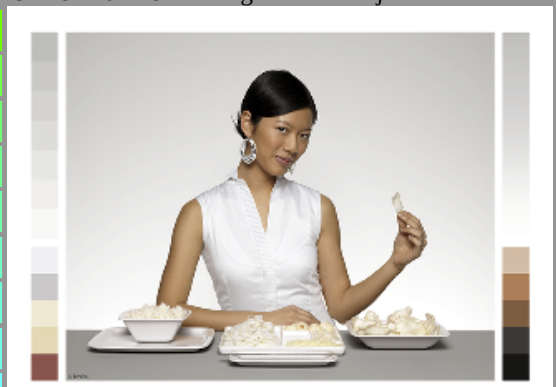
fel21−3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



fel20−7N-132-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

TUB material: code=rha4ta

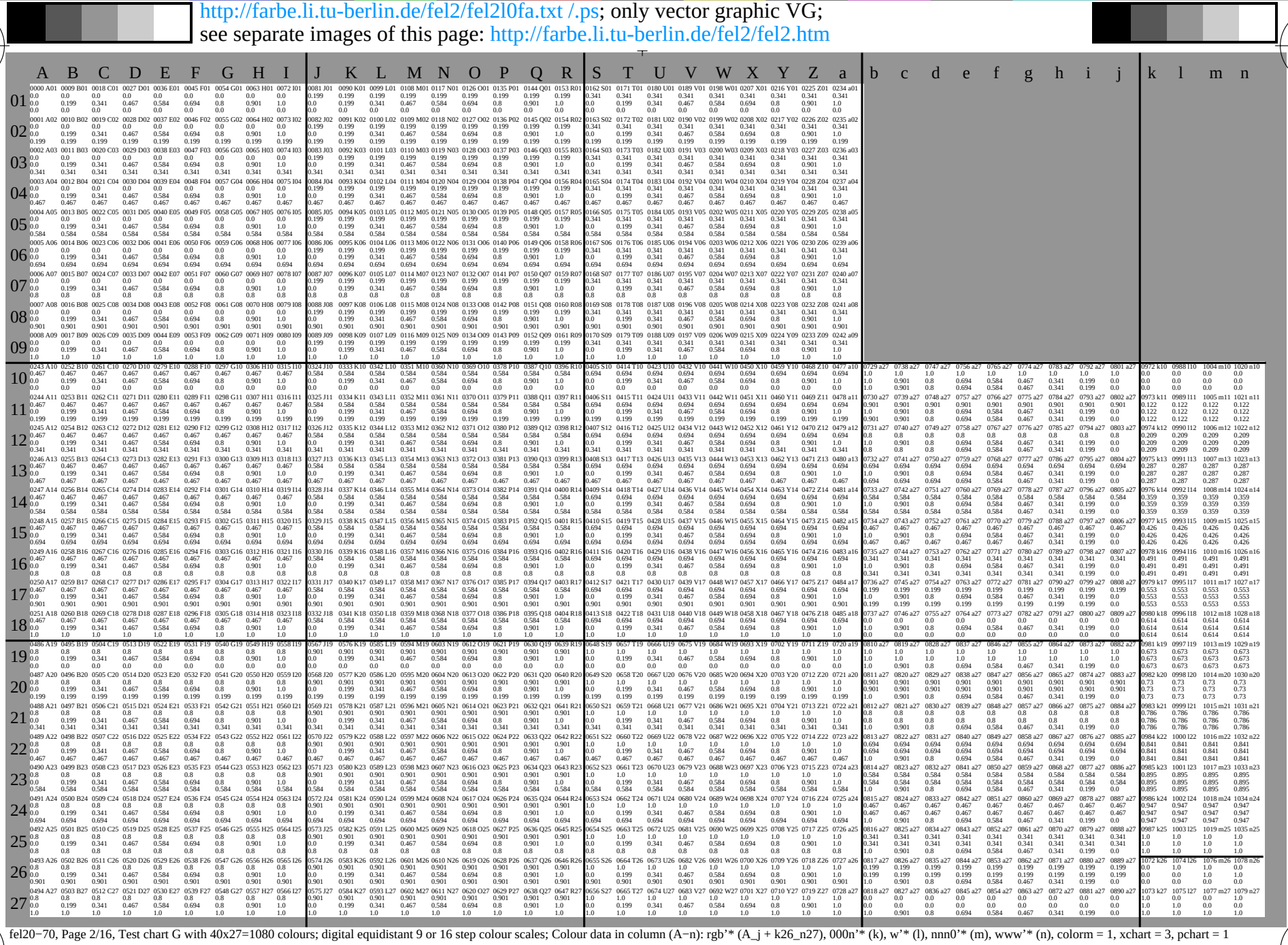
TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:1,25; Y_N range 0,93 to <1,87, L-HDR; γ_R=1,0 −>rgb*$_d$, 132-2:



fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suessl; *PS operators settransfer, 3 colorimage*

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 3, pchart = 0

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH 000n/w/cmy0/rgb
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0 −>rgb*$_d$, 133-0:



fel20−70, Page 2/16, Test chart G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_j + k26_n27), 000n'* (k), w'* (l), nnn0'* (m), www'* (n), colorm = 1, xchart = 3, pchart = 1

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	18.01	0.0	0.0	0.0	18.01	0.0	0.0	0.0	0.0	0.0	0.01
2	23.17	0.0	0.0	0.17	31.35	0.0	0.0	8.18	0.0	0.0	8.18
3	28.33	0.0	0.0	0.27	38.93	0.0	0.0	10.6	0.0	0.0	10.6
4	33.49	0.0	0.0	0.35	45.23	0.0	0.0	11.74	0.0	0.0	11.74
5	38.65	0.0	0.0	0.42	50.82	0.0	0.0	12.17	0.0	0.0	12.17
6	43.81	0.0	0.0	0.49	55.93	0.0	0.0	12.12	0.0	0.0	12.12
7	48.97	0.0	0.0	0.55	60.7	0.0	0.0	11.73	0.0	0.0	11.73
8	54.13	0.0	0.0	0.61	65.2	0.0	0.0	11.07	0.0	0.0	11.07
9	59.29	0.0	0.0	0.66	69.47	0.0	0.0	10.18	0.0	0.0	10.18
10	64.45	0.0	0.0	0.72	73.56	0.0	0.0	9.11	0.0	0.0	9.11
11	69.61	0.0	0.0	0.77	77.49	0.0	0.0	7.88	0.0	0.0	7.88
12	74.77	0.0	0.0	0.82	81.29	0.0	0.0	6.52	0.0	0.0	6.52
13	79.93	0.0	0.0	0.87	84.97	0.0	0.0	5.04	0.0	0.0	5.04
14	85.09	0.0	0.0	0.91	88.54	0.0	0.0	3.45	0.0	0.0	3.45
15	90.25	0.0	0.0	0.96	92.02	0.0	0.0	1.77	0.0	0.0	1.77
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	18.01	0.0	0.0	0.0	18.01	0.0	0.0	0.0	0.0	0.0	0.01
18	37.36	0.0	0.0	0.41	49.47	0.0	0.0	12.11	0.0	0.0	12.11
19	56.71	0.0	0.0	0.64	67.36	0.0	0.0	10.65	0.0	0.0	10.65
20	76.06	0.0	0.0	0.83	82.22	0.0	0.0	6.16	0.0	0.0	6.16
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

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

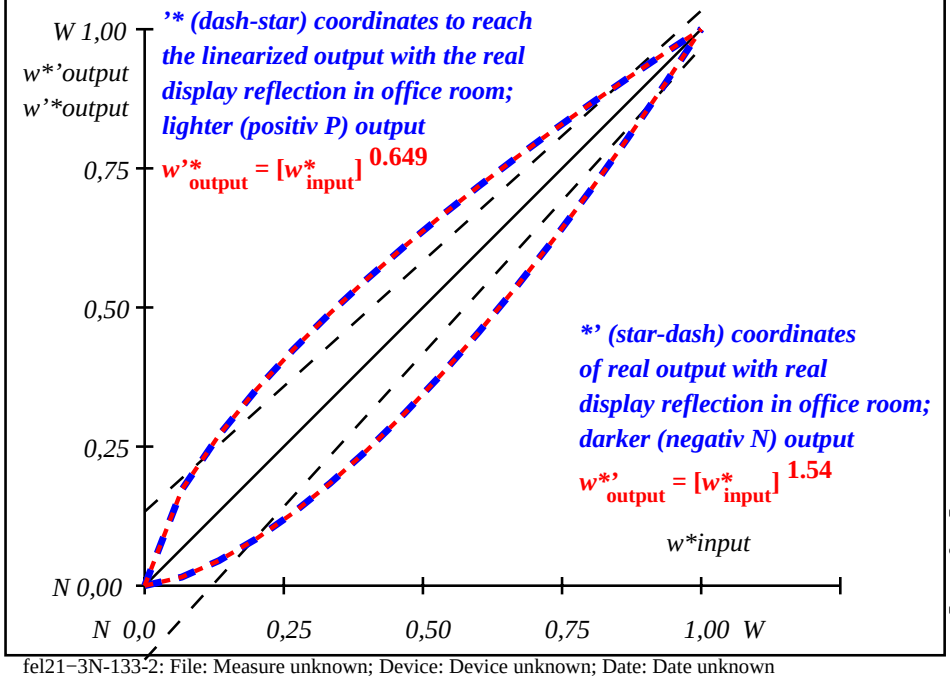
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **7.6**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **5.8**

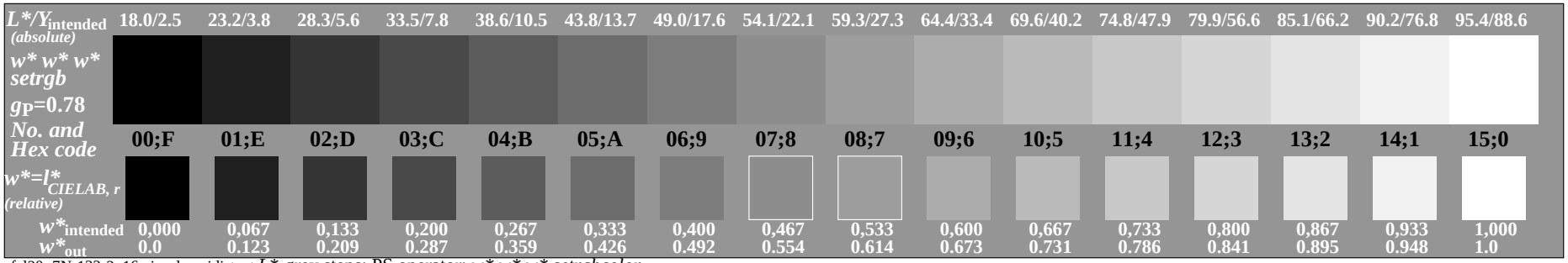
Mean colour reproduction index: $R^*_{ab,m}$ = **67**

fel20−3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-133-2

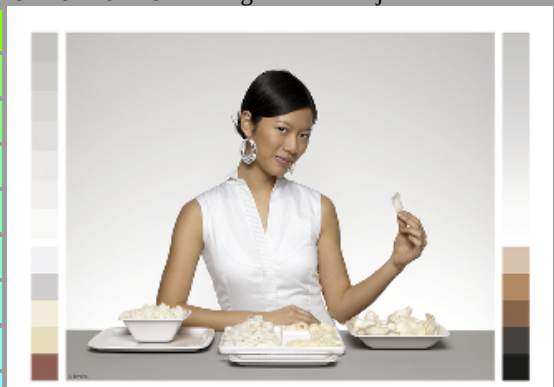


fel21−3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



fel20−7N-133-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

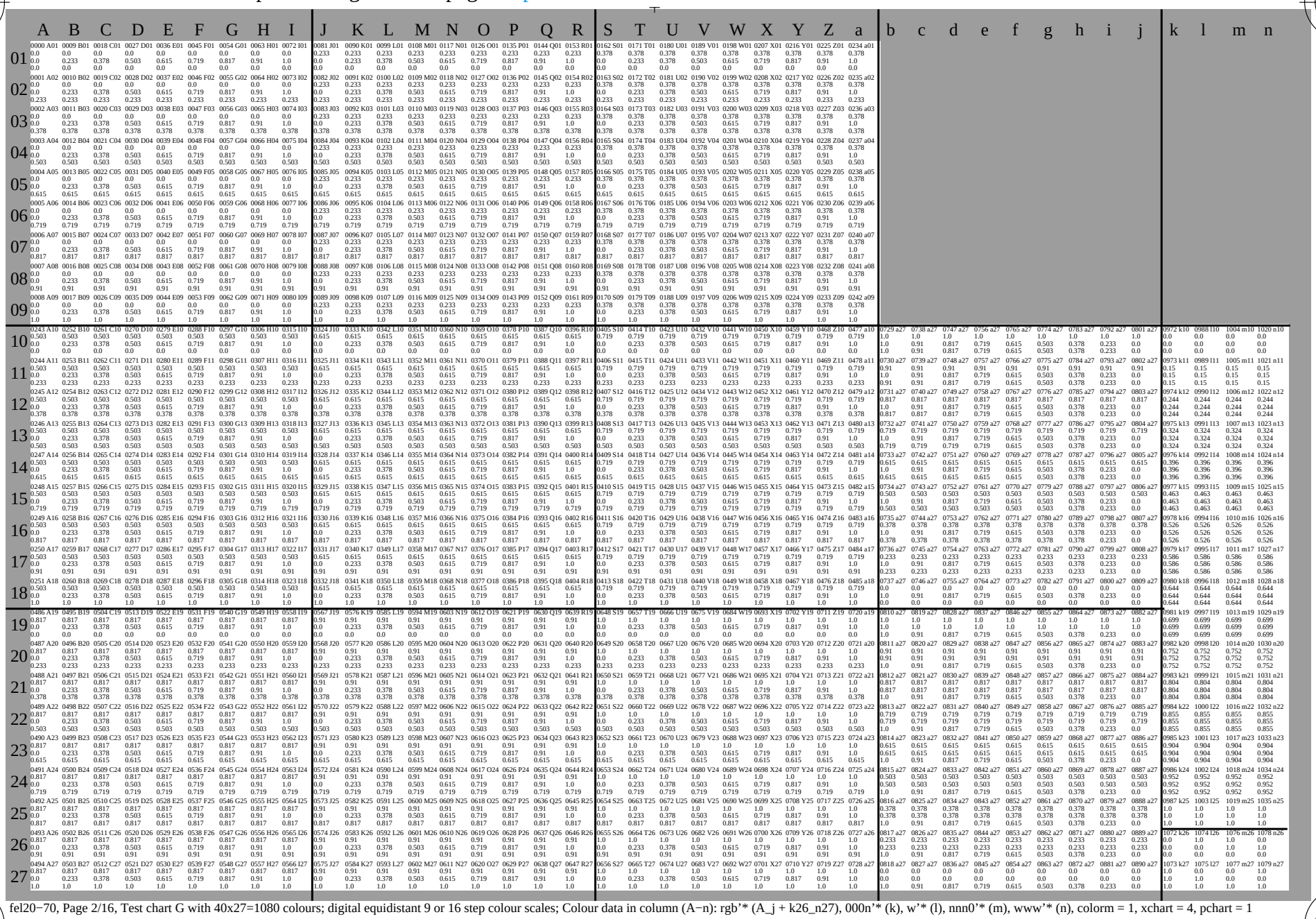
TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:2,5; Y_N range 1,87 to <3,75, L-HDR; γ_R=1,0 −>rgb*$_d$, 133-2:



fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suessl; *PS* operators *settransfer, 3 colorimage*

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 4, pchart = 0

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH 000n/w/cmy0/rgb
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0 −>rgb*$_d$, 134-0:



fel20−70, Page 2/16, Test chart G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_j + k26_n27), 000n'* (k), w'* (l), nnn0'* (m), www'* (n), colorm = 1, xchart = 4, pchart = 1

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 134-1:

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	26.85	0.0	0.0	0.0	26.85	0.0	0.0	0.0	0.0	0.0	0.01
2	31.42	0.0	0.0	0.21	41.05	0.0	0.0	9.63	0.0	0.0	9.63
3	35.99	0.0	0.0	0.31	48.1	0.0	0.0	12.11	0.0	0.0	12.11
4	40.56	0.0	0.0	0.39	53.75	0.0	0.0	13.18	0.0	0.0	13.18
5	45.13	0.0	0.0	0.46	58.64	0.0	0.0	13.51	0.0	0.0	13.51
6	49.7	0.0	0.0	0.53	63.05	0.0	0.0	13.34	0.0	0.0	13.34
7	54.27	0.0	0.0	0.59	67.09	0.0	0.0	12.82	0.0	0.0	12.82
8	58.84	0.0	0.0	0.64	70.87	0.0	0.0	12.02	0.0	0.0	12.02
9	63.41	0.0	0.0	0.69	74.42	0.0	0.0	11.01	0.0	0.0	11.01
10	67.99	0.0	0.0	0.74	77.79	0.0	0.0	9.81	0.0	0.0	9.81
11	72.56	0.0	0.0	0.79	81.01	0.0	0.0	8.46	0.0	0.0	8.46
12	77.13	0.0	0.0	0.84	84.1	0.0	0.0	6.97	0.0	0.0	6.97
13	81.7	0.0	0.0	0.88	87.07	0.0	0.0	5.37	0.0	0.0	5.37
14	86.27	0.0	0.0	0.92	89.94	0.0	0.0	3.67	0.0	0.0	3.67
15	90.84	0.0	0.0	0.96	92.71	0.0	0.0	1.88	0.0	0.0	1.88
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	26.85	0.0	0.0	0.0	26.85	0.0	0.0	0.0	0.0	0.0	0.01
18	43.99	0.0	0.0	0.45	57.47	0.0	0.0	13.48	0.0	0.0	13.48
19	61.13	0.0	0.0	0.67	72.67	0.0	0.0	11.54	0.0	0.0	11.54
20	78.27	0.0	0.0	0.85	84.85	0.0	0.0	6.58	0.0	0.0	6.58
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

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

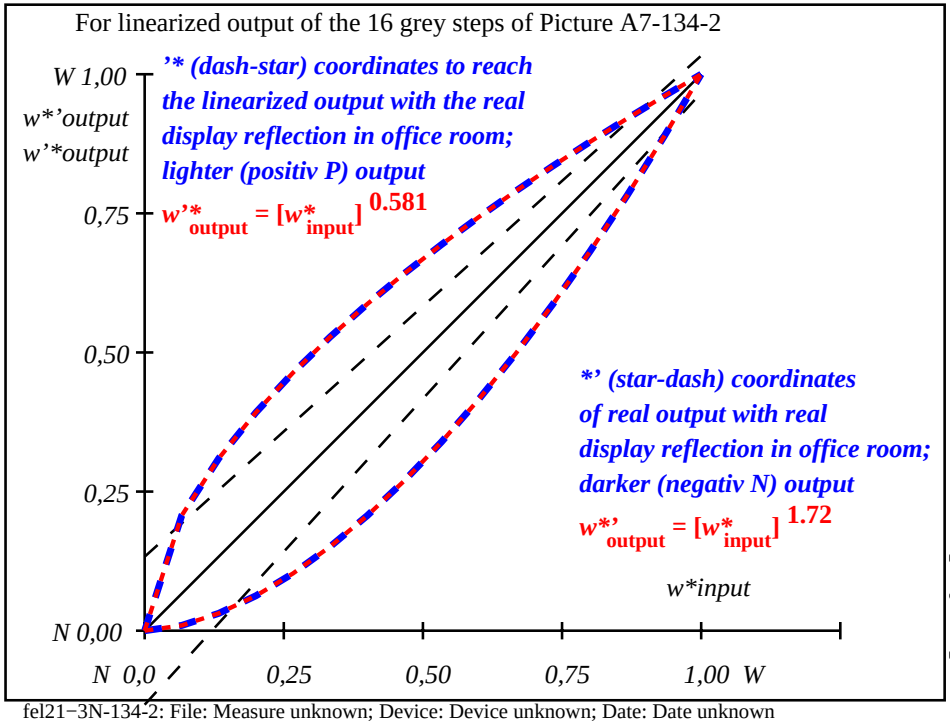
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **8.4**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **6.3**

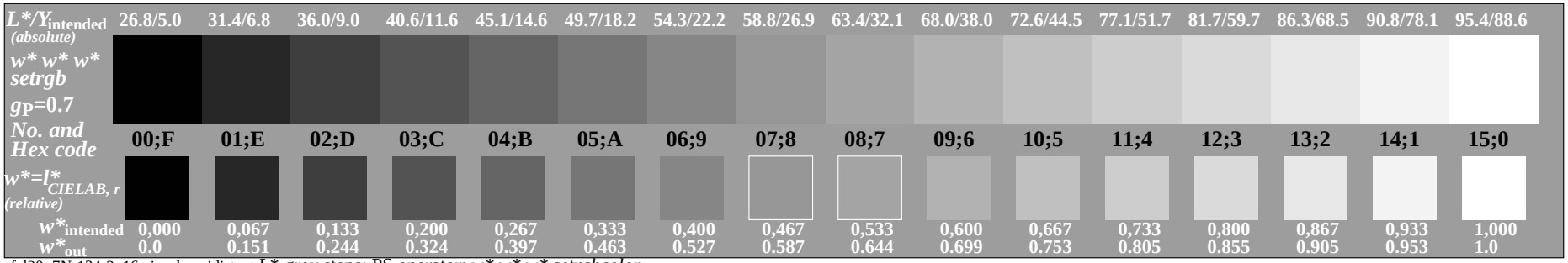
Mean colour reproduction index: $R^*_{ab,m}$ = **64**

fel20−3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-134-2

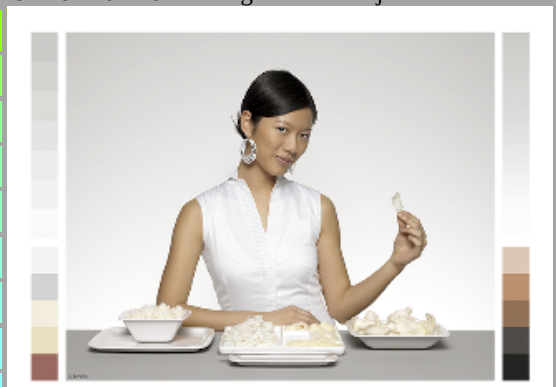


fel21−3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



fel20−7N-134-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:5; Y_N range 3,75 to <7,5, L-HDR; γ_R=1,0 −>rgb*$_d$, 134-2:



fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suessl; *PS* operators *settransfer, 3 colorimage*

see similar files of the whole serie: http://farbe.li.tu-berlin.de/fels.htm
technical information: http://farbe.li.tu-berlin.de/A/33872E.html
or http://standards.iso.org/iso/9241/306/ed-2/index.html

TUB registration: 20240301-fel2/fel2l0fa.txt /.ps
application for evaluation and measurement of display or print output

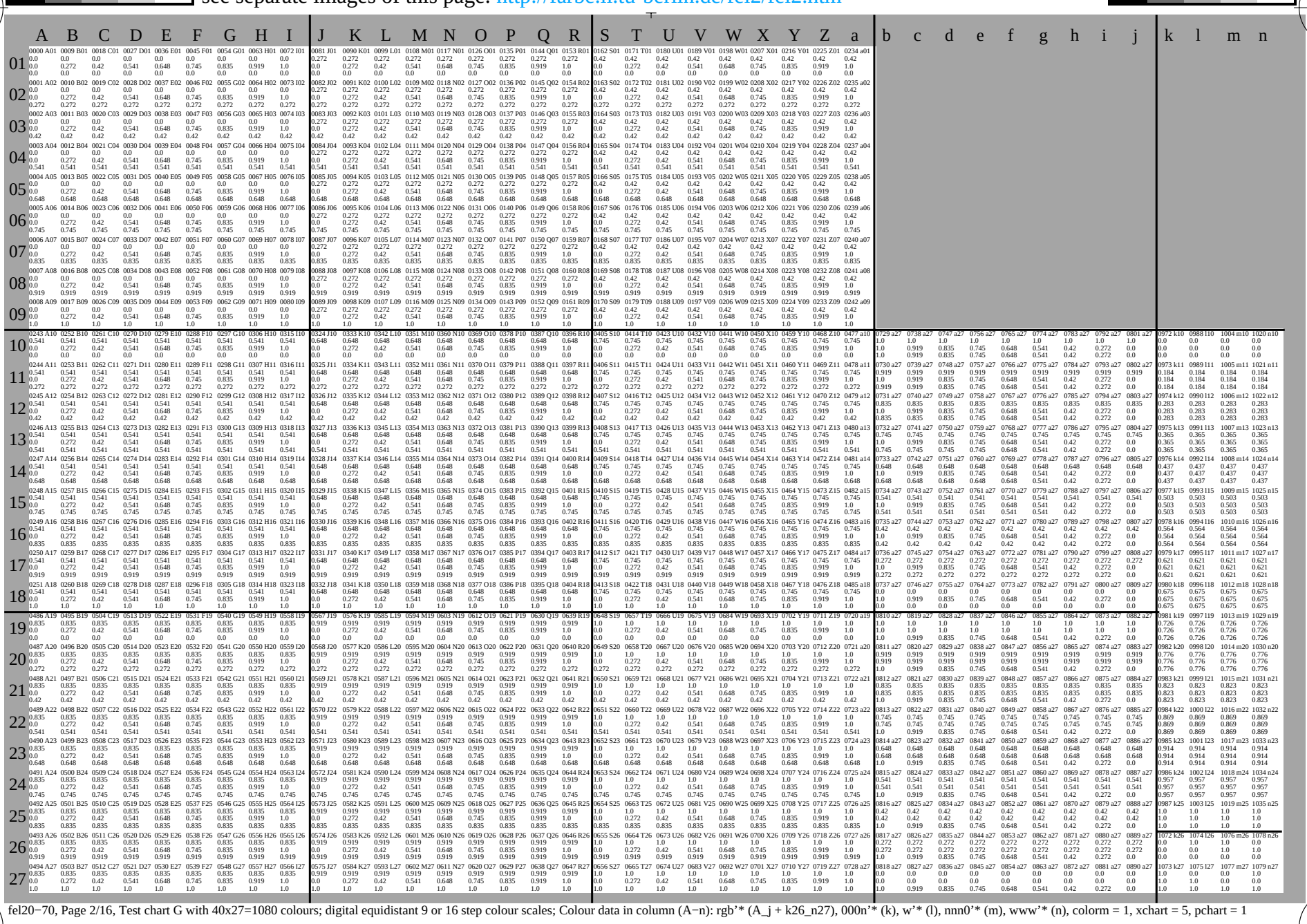
TUB material: code=rha4ta

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 5, pchart = 0

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 135-0:

1−1350



fel20−70, Page 2/16, Test chart G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_j + k26_n27), 000n'* (k), w'* (l), nnn0'* (m), www'* (n), colorm = 1, xchart = 5, pchart = 1

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 135-1:

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	37.99	0.0	0.0	0.0	37.99	0.0	0.0	0.0	0.0	0.0	0.01
2	41.81	0.0	0.0	0.24	51.79	0.0	0.0	9.98	0.0	0.0	9.98
3	45.64	0.0	0.0	0.35	57.87	0.0	0.0	12.23	0.0	0.0	12.23
4	49.47	0.0	0.0	0.43	62.6	0.0	0.0	13.13	0.0	0.0	13.13
5	53.3	0.0	0.0	0.5	66.63	0.0	0.0	13.33	0.0	0.0	13.33
6	57.13	0.0	0.0	0.56	70.19	0.0	0.0	13.07	0.0	0.0	13.07
7	60.96	0.0	0.0	0.62	73.44	0.0	0.0	12.48	0.0	0.0	12.48
8	64.78	0.0	0.0	0.67	76.44	0.0	0.0	11.65	0.0	0.0	11.65
9	68.61	0.0	0.0	0.72	79.23	0.0	0.0	10.62	0.0	0.0	10.62
10	72.44	0.0	0.0	0.76	81.87	0.0	0.0	9.43	0.0	0.0	9.43
11	76.27	0.0	0.0	0.81	84.37	0.0	0.0	8.11	0.0	0.0	8.11
12	80.1	0.0	0.0	0.85	86.76	0.0	0.0	6.66	0.0	0.0	6.66
13	83.93	0.0	0.0	0.89	89.05	0.0	0.0	5.12	0.0	0.0	5.12
14	87.75	0.0	0.0	0.93	91.24	0.0	0.0	3.49	0.0	0.0	3.49
15	91.58	0.0	0.0	0.96	93.36	0.0	0.0	1.78	0.0	0.0	1.78
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	37.99	0.0	0.0	0.0	37.99	0.0	0.0	0.0	0.0	0.0	0.01
18	52.34	0.0	0.0	0.48	65.67	0.0	0.0	13.33	0.0	0.0	13.33
19	66.7	0.0	0.0	0.69	77.86	0.0	0.0	11.16	0.0	0.0	11.16
20	81.05	0.0	0.0	0.86	87.34	0.0	0.0	6.29	0.0	0.0	6.29
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

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

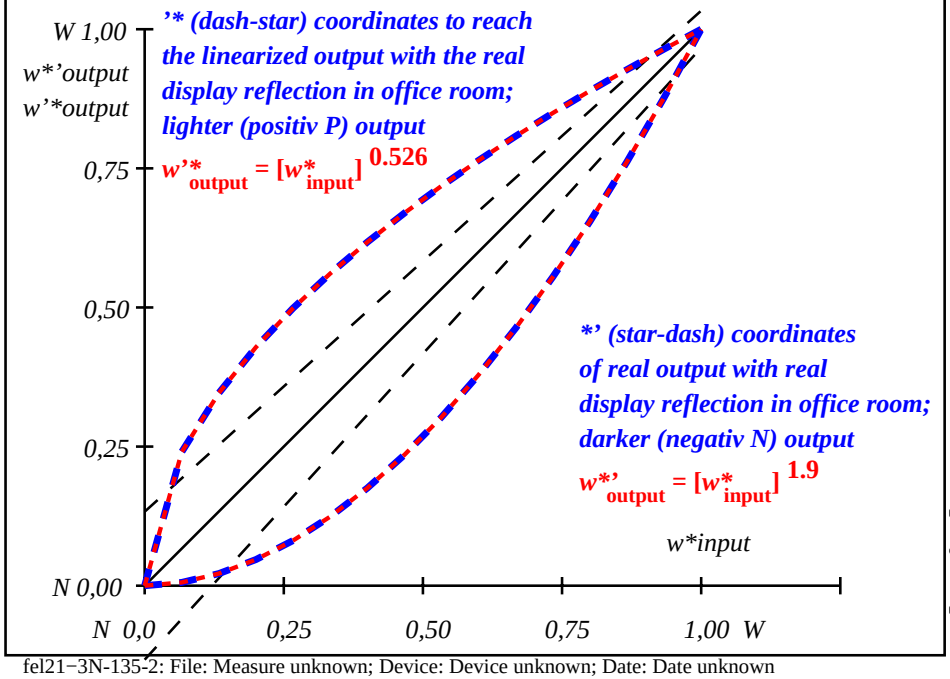
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **8.2**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **6.2**

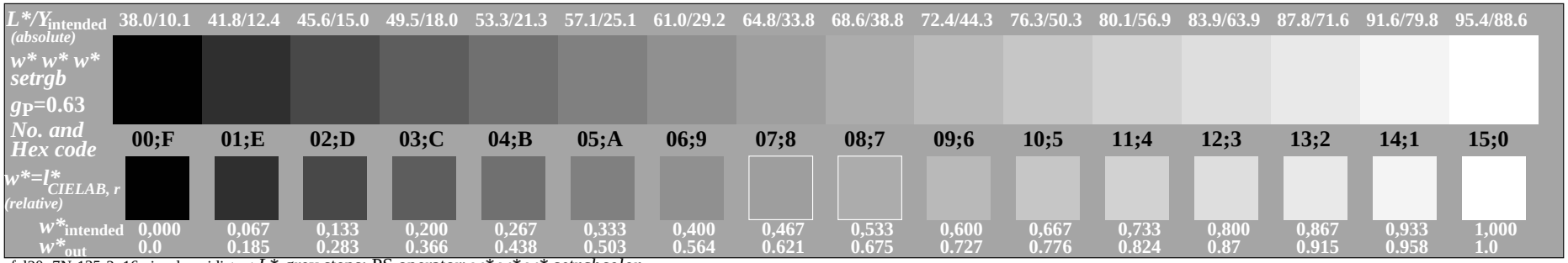
Mean colour reproduction index: $R^*_{ab,m}$ = **65**

fel20−3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-135-2



fel21−3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



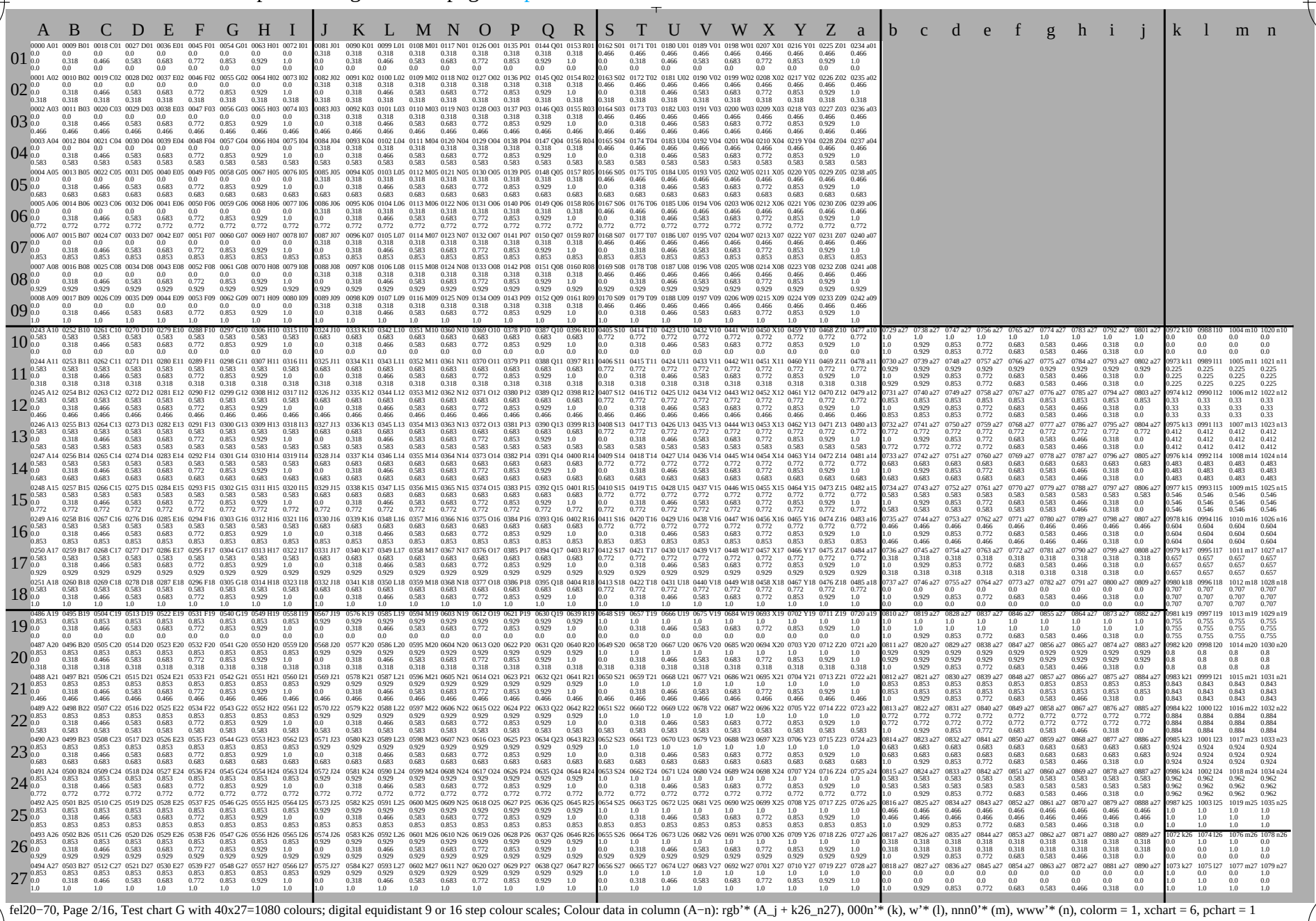
fel20−7N-135-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:10; Y_N range 7,5 to <15, L-HDR; γ_R=1,0 −>rgb*$_d$, 135-2:

fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suessl; *PS* operators *settransfer, 3 colorimage*

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 6, pchart = 0

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH 000n/w/cmy0/rgb
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0 −>rgb*$_d$, 136-0:



fel20−70, Page 2/16, Test chart G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_j + k26_n27), 000n'* (k), w'* (l), nnn0'* (m), www'* (n), colorm = 1, xchart = 6, pchart = 1

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 136-1:

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	52.02	0.0	0.0	0.0	52.02	0.0	0.0	0.0	0.0	0.0	0.01
2	54.91	0.0	0.0	0.27	63.82	0.0	0.0	8.91	0.0	0.0	8.91
3	57.8	0.0	0.0	0.38	68.49	0.0	0.0	10.69	0.0	0.0	10.69
4	60.7	0.0	0.0	0.46	72.03	0.0	0.0	11.34	0.0	0.0	11.34
5	63.59	0.0	0.0	0.53	75.0	0.0	0.0	11.41	0.0	0.0	11.41
6	66.48	0.0	0.0	0.59	77.61	0.0	0.0	11.12	0.0	0.0	11.12
7	69.37	0.0	0.0	0.64	79.95	0.0	0.0	10.57	0.0	0.0	10.57
8	72.27	0.0	0.0	0.69	82.1	0.0	0.0	9.83	0.0	0.0	9.83
9	75.16	0.0	0.0	0.74	84.09	0.0	0.0	8.93	0.0	0.0	8.93
10	78.05	0.0	0.0	0.78	85.96	0.0	0.0	7.91	0.0	0.0	7.91
11	80.95	0.0	0.0	0.82	87.72	0.0	0.0	6.78	0.0	0.0	6.78
12	83.84	0.0	0.0	0.86	89.4	0.0	0.0	5.56	0.0	0.0	5.56
13	86.73	0.0	0.0	0.9	91.0	0.0	0.0	4.26	0.0	0.0	4.26
14	89.62	0.0	0.0	0.93	92.53	0.0	0.0	2.9	0.0	0.0	2.9
15	92.52	0.0	0.0	0.97	93.99	0.0	0.0	1.48	0.0	0.0	1.48
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	52.02	0.0	0.0	0.0	52.02	0.0	0.0	0.0	0.0	0.0	0.01
18	62.87	0.0	0.0	0.51	74.3	0.0	0.0	11.43	0.0	0.0	11.43
19	73.71	0.0	0.0	0.72	83.11	0.0	0.0	9.4	0.0	0.0	9.4
20	84.56	0.0	0.0	0.87	89.81	0.0	0.0	5.24	0.0	0.0	5.24
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

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

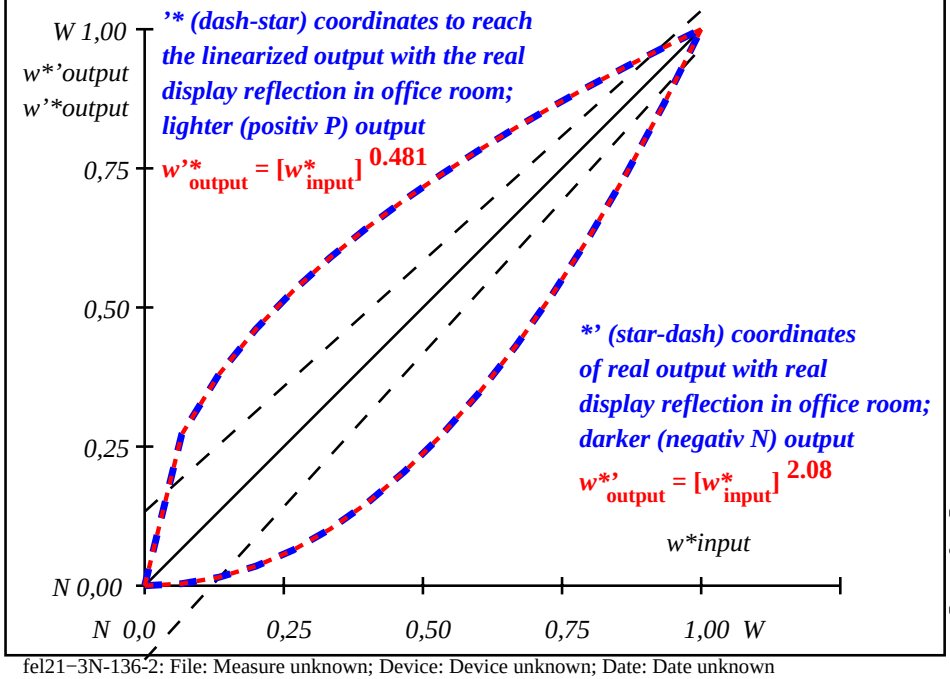
Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **7.0**

Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **5.2**

Mean colour reproduction index: $R^*_{ab,m}$ = **70**

fel20−3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

For linearized output of the 16 grey steps of Picture A7-136-2

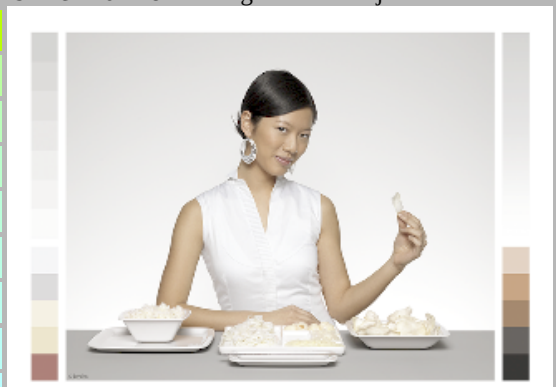


fel21−3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

$L^*/Y_{intended}$ (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
w* w* w* setrgb g_P=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

fel20−7N-136-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:20; Y_N range 15 to <30, L-HDR; γ_R=1,0 −>rgb*$_d$, 136-2:



fel20−7N, Light HDR Image, Berliner Hochschule fuer Technik, Prof. Suessl; *PS* operators *settransfer, 3 colorimage*

TUB registration: 20240301-fel2/fel2l0fa.txt /.ps
application for evaluation and measurement of display or print output

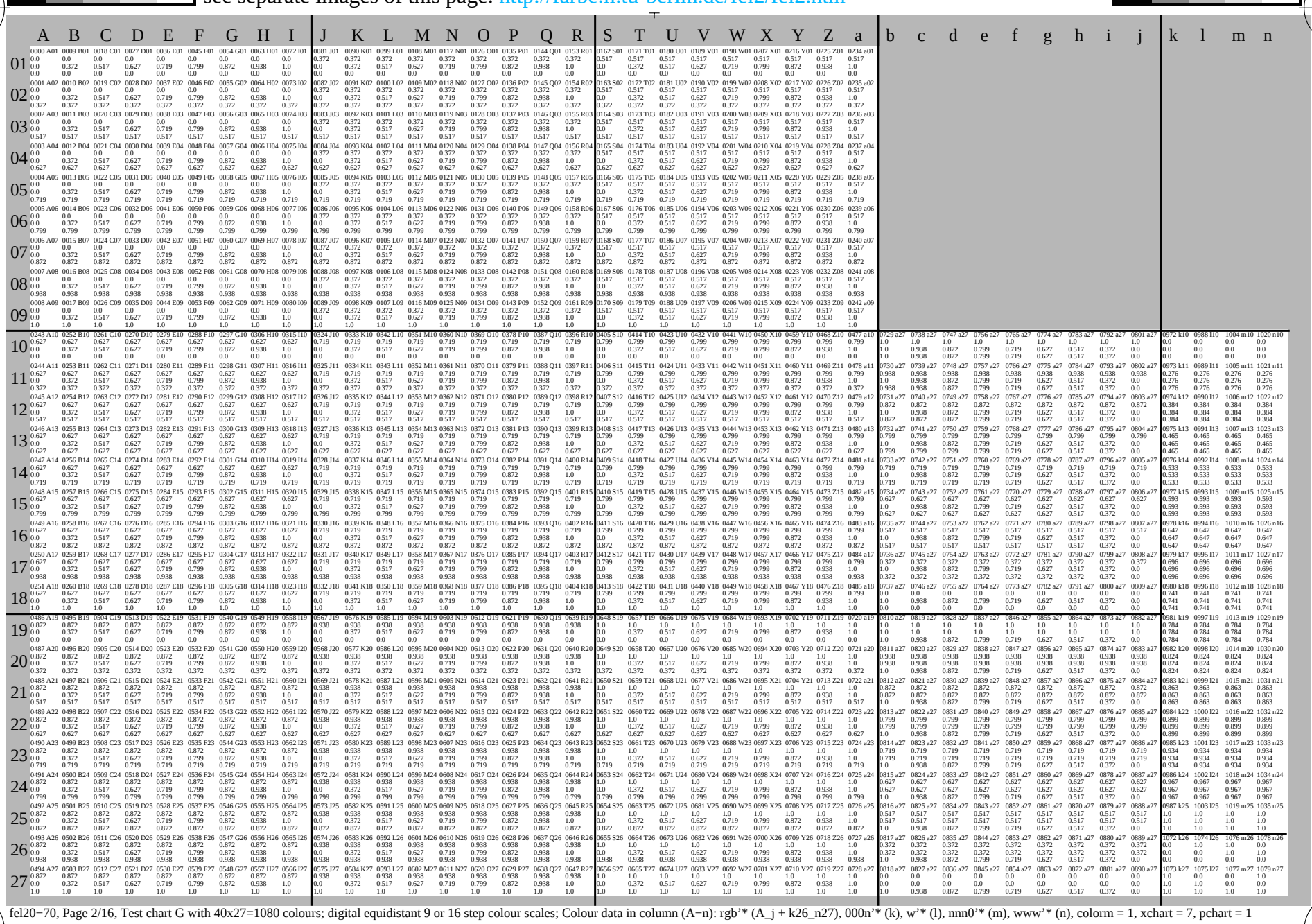
TUB material: code=rha4ta

see similar files of the whole serie: http://farbe.li.tu-berlin.de/fels.htm
technical information: http://farbe.li.tu-berlin.de/A/33872E.html
or http://standards.iso.org/iso/9241/306/ed-2/index.html

fel20−7N, Page 1/16, Test chart 2G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_n), colorm = 1, xchart = 7, pchart = 0

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH 000n/w/cmy0/rgb
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0 −>rgb*$_d$, 137-0:

1−1370



fel20−70, Page 2/16, Test chart G with 40x27=1080 colours; digital equidistant 9 or 16 step colour scales; Colour data in column (A−n): rgb'* (A_j + k26_n27), 000n'* (k), w'* (l), nnn0'* (m), www'* (n), colorm = 1, xchart = 7, pchart = 1

TUB-test chart fel2; fel2: Test chart uh_d10 with 40x27=1080 colours; 1MR, DH
Digital equidistant 9 or 16 step colour scales, L-HDR; γ_R=1,0

000n/w/cmy0/rgb
−>rgb*$_d$, 137-1:

i	LAB*ref			l*out	LAB*out			LAB*out/c−ref			Δ E*
1	69.7	0.0	0.0	0.0	69.7	0.0	0.0	0.0	0.0	0.0	0.01
2	71.41	0.0	0.0	0.3	77.46	0.0	0.0	6.04	0.0	0.0	6.04
3	73.13	0.0	0.0	0.41	80.24	0.0	0.0	7.11	0.0	0.0	7.11
4	74.84	0.0	0.0	0.49	82.31	0.0	0.0	7.47	0.0	0.0	7.47
5	76.55	0.0	0.0	0.56	84.02	0.0	0.0	7.47	0.0	0.0	7.47
6	78.27	0.0	0.0	0.62	85.51	0.0	0.0	7.24	0.0	0.0	7.24
7	79.98	0.0	0.0	0.67	86.84	0.0	0.0	6.86	0.0	0.0	6.86
8	81.7	0.0	0.0	0.71	88.05	0.0	0.0	6.35	0.0	0.0	6.35
9	83.41	0.0	0.0	0.76	89.17	0.0	0.0	5.76	0.0	0.0	5.76
10	85.12	0.0	0.0	0.8	90.21	0.0	0.0	5.08	0.0	0.0	5.08
11	86.84	0.0	0.0	0.84	91.19	0.0	0.0	4.35	0.0	0.0	4.35
12	88.55	0.0	0.0	0.87	92.11	0.0	0.0	3.56	0.0	0.0	3.56
13	90.27	0.0	0.0	0.91	92.99	0.0	0.0	2.73	0.0	0.0	2.73
14	91.98	0.0	0.0	0.94	93.83	0.0	0.0	1.85	0.0	0.0	1.85
15	93.7	0.0	0.0	0.97	94.64	0.0	0.0	0.94	0.0	0.0	0.94
16	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01
17	69.7	0.0	0.0	0.0	69.7	0.0	0.0	0.0	0.0	0.0	0.01
18	76.13	0.0	0.0	0.54	83.62	0.0	0.0	7.5	0.0	0.0	7.5
19	82.55	0.0	0.0	0.74	88.62	0.0	0.0	6.06	0.0	0.0	6.06
20	88.98	0.0	0.0	0.88	92.34	0.0	0.0	3.35	0.0	0.0	3.35
21	95.41	0.0	0.0	1.0	95.41	0.0	0.0	0.0	0.0	0.0	0.01

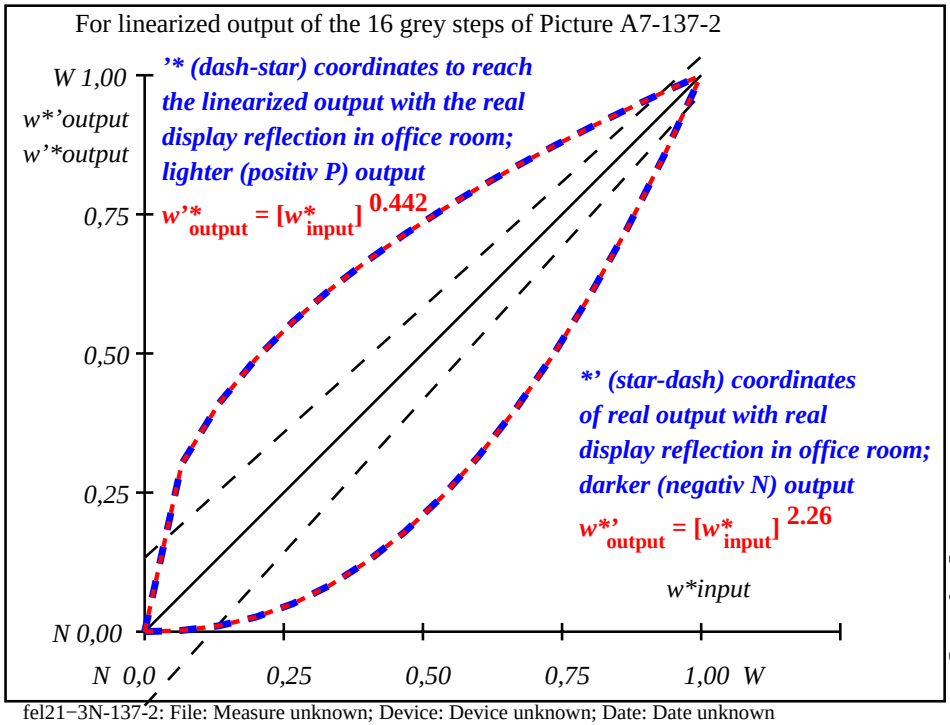
Start output S1
Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G

Mean lightness difference (16 steps)
ΔE^*_{CIELAB} = **4.6**

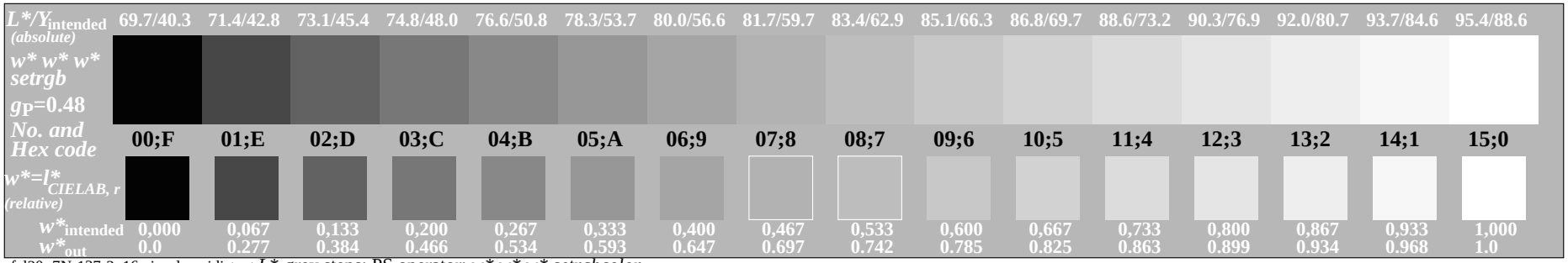
Mean lightness difference (5 steps)
ΔL^*_{CIELAB} = **3.4**

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

fel20−3N-137-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



fel21−3N-137-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



fel20−7N-137-2: 16 visual equidistant L^*-grey steps; PS operator: *w* w* w* setrgbcolor*

TUB material: code=rha4ta

TUB-test chart fel2; fel2: In-output relation according to ISO 9241-306; 1MR, DH 000n/w/cmy0/rgb
Viewing Y contrast Y_W:Y_N=88,9:40; Y_N range 30 to <60, L-HDR; γ_R=1,0 −>rgb*d, 137-2: