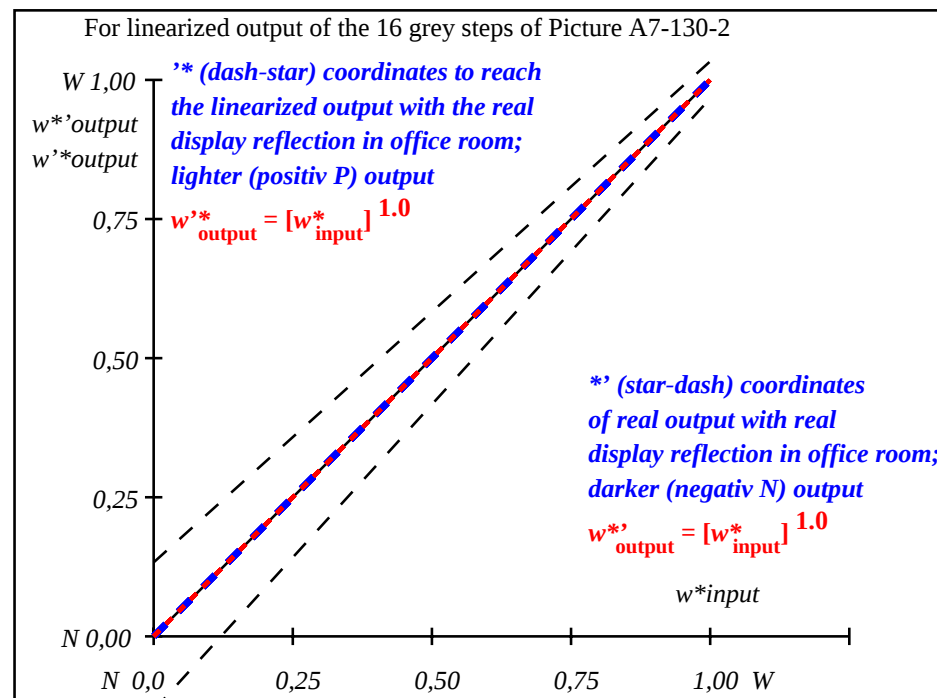


See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i                                    | LAB*ref | L*out | LAB*out | LAB*out/c-ref | $\Delta E^*$ | Start output S1                    |
|--------------------------------------|---------|-------|---------|---------------|--------------|------------------------------------|
| 1                                    | 0.0     | 0.0   | 0.0     | 0.0           | 0.0          | 0.01                               |
| 2                                    | 6.36    | 0.0   | 0.07    | 6.36          | 0.0          | 0.01                               |
| 3                                    | 12.72   | 0.0   | 0.13    | 12.72         | 0.0          | 0.01                               |
| 4                                    | 19.08   | 0.0   | 0.2     | 19.08         | 0.0          | 0.01                               |
| 5                                    | 25.44   | 0.0   | 0.27    | 25.44         | 0.0          | 0.01                               |
| 6                                    | 31.8    | 0.0   | 0.33    | 31.8          | 0.0          | 0.01                               |
| 7                                    | 38.16   | 0.0   | 0.4     | 38.16         | 0.0          | 0.01                               |
| 8                                    | 44.52   | 0.0   | 0.47    | 44.52         | 0.0          | 0.01                               |
| 9                                    | 50.89   | 0.0   | 0.53    | 50.89         | 0.0          | 0.01                               |
| 10                                   | 57.25   | 0.0   | 0.6     | 57.25         | 0.0          | 0.01                               |
| 11                                   | 63.61   | 0.0   | 0.67    | 63.61         | 0.0          | 0.01                               |
| 12                                   | 69.97   | 0.0   | 0.73    | 69.97         | 0.0          | 0.01                               |
| 13                                   | 76.33   | 0.0   | 0.8     | 76.33         | 0.0          | 0.01                               |
| 14                                   | 82.69   | 0.0   | 0.87    | 82.69         | 0.0          | 0.01                               |
| 15                                   | 89.05   | 0.0   | 0.93    | 89.05         | 0.0          | 0.01                               |
| 16                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0          | 0.01                               |
| 17                                   | 0.0     | 0.0   | 0.0     | 0.0           | 0.0          | 0.01                               |
| 18                                   | 23.85   | 0.0   | 0.25    | 23.85         | 0.0          | 0.01                               |
| 19                                   | 47.71   | 0.0   | 0.5     | 47.71         | 0.0          | 0.01                               |
| 20                                   | 71.56   | 0.0   | 0.75    | 71.56         | 0.0          | 0.01                               |
| 21                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0          | 0.01                               |
| Mean lightness difference (16 steps) |         |       |         |               |              | $\Delta E^*_{\text{CIELAB}} = 0.0$ |
| Mean lightness difference (5 steps)  |         |       |         |               |              | $\Delta L^*_{\text{CIELAB}} = 0.0$ |
| Mean colour reproduction index:      |         |       |         |               |              | $R^*_{\text{ab,m}} = 100$          |

OE510-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-130-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{\text{intended}}$<br>(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 |
|-----------------------------------------------|---------|---------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb<br>$g_P=1.0$          |         |         |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| No. and<br>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      |
| $w^* = [L^*_{\text{CIELAB}}]^r$<br>(relative) |         |         |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| $w^*_{\text{intended}}$                       | 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     |
| $w^*_{\text{out}}$                            | 0.0     | 0.067   | 0.133    | 0.2      | 0.267    | 0.333    | 0.4       | 0.467     | 0.533     | 0.6       | 0.667     | 0.733     | 0.8       | 0.867     | 0.933     | 1.0       |

OE510-7N, Picture A7-130-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^*$  setrgbcolor

OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast  $Y_W:Y_N=88,9:0,31$ ;  $Y_N$  range 0,0 to <0,46

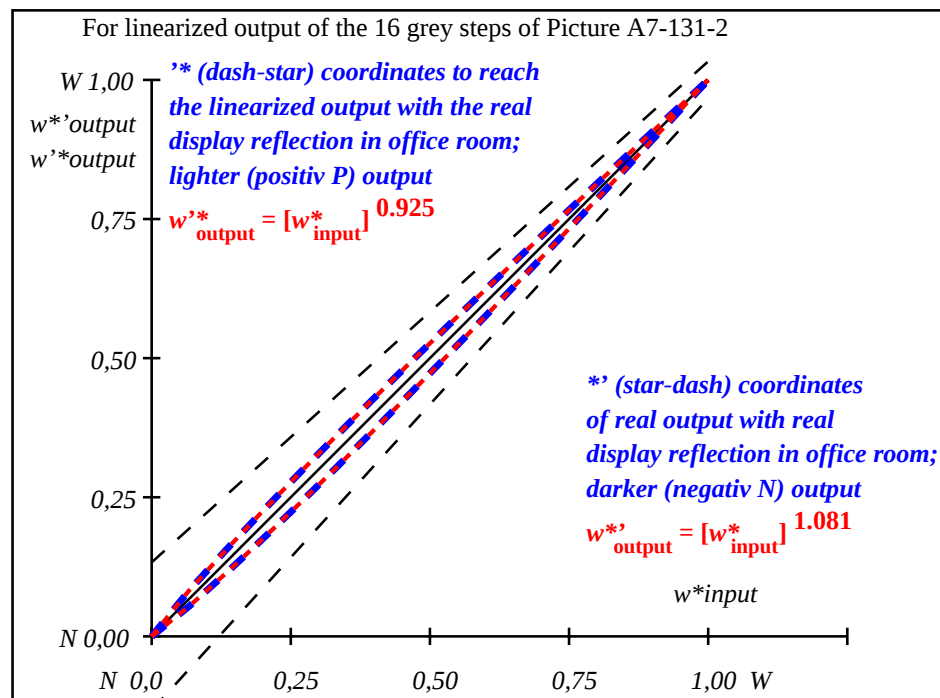
input:  $w$  ( $\rightarrow \text{rgb}^*_d$ ) setgray  
output 130-2:  $g_P=1.0$ ;  $g_N=1.0$

TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i                                    | LAB*ref | L*out | LAB*out | LAB*out/c-ref | ΔE*                         | Start output S1 |
|--------------------------------------|---------|-------|---------|---------------|-----------------------------|-----------------|
| 1                                    | 5.69    | 0.0   | 0.0     | 5.69          | 0.0                         | 0.0             |
| 2                                    | 11.67   | 0.0   | 0.05    | 10.49         | 0.0                         | -1.17           |
| 3                                    | 17.65   | 0.0   | 0.11    | 15.85         | 0.0                         | -1.79           |
| 4                                    | 23.63   | 0.0   | 0.18    | 21.44         | 0.0                         | -2.19           |
| 5                                    | 29.62   | 0.0   | 0.24    | 27.18         | 0.0                         | -2.42           |
| 6                                    | 35.6    | 0.0   | 0.3     | 33.05         | 0.0                         | -2.54           |
| 7                                    | 41.58   | 0.0   | 0.37    | 39.01         | 0.0                         | -2.56           |
| 8                                    | 47.56   | 0.0   | 0.44    | 45.05         | 0.0                         | -2.5            |
| 9                                    | 53.54   | 0.0   | 0.51    | 51.16         | 0.0                         | -2.37           |
| 10                                   | 59.52   | 0.0   | 0.58    | 57.34         | 0.0                         | -2.17           |
| 11                                   | 65.5    | 0.0   | 0.65    | 63.57         | 0.0                         | -1.92           |
| 12                                   | 71.48   | 0.0   | 0.72    | 69.85         | 0.0                         | -1.62           |
| 13                                   | 77.47   | 0.0   | 0.79    | 76.18         | 0.0                         | -1.28           |
| 14                                   | 83.45   | 0.0   | 0.86    | 82.55         | 0.0                         | -0.89           |
| 15                                   | 89.43   | 0.0   | 0.93    | 88.96         | 0.0                         | -0.46           |
| 16                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0                         | 0.0             |
| 17                                   | 5.69    | 0.0   | 0.0     | 5.69          | 0.0                         | 0.0             |
| 18                                   | 28.12   | 0.0   | 0.22    | 25.74         | 0.0                         | -2.37           |
| 19                                   | 50.55   | 0.0   | 0.47    | 48.1          | 0.0                         | -2.44           |
| 20                                   | 72.98   | 0.0   | 0.73    | 71.43         | 0.0                         | -1.54           |
| 21                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0                         | 0.0             |
| Mean lightness difference (16 steps) |         |       |         |               | ΔE* <sub>CIELAB</sub> = 1.6 |                 |
| Mean lightness difference (5 steps)  |         |       |         |               | ΔL* <sub>CIELAB</sub> = 1.3 |                 |
| Mean colour reproduction index:      |         |       |         |               | R* <sub>ab,m</sub> = 93     |                 |

OE510-3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-131-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{\text{intended}}$<br>(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 |
|-------------------------------------------|---------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb                   |         |          |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| $g_N=1.08$<br>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      |
| $w^*=L^*_{\text{CIELAB},r}$<br>(relative) |         |          |          |          |          |          |           |           |           |           |           |           |           |           |           |           |
| $w^*_{\text{intended}}$                   | 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     |
| $w^*_{\text{out}}$                        | 0.0     | 0.054    | 0.113    | 0.176    | 0.24     | 0.305    | 0.371     | 0.439     | 0.506     | 0.576     | 0.645     | 0.715     | 0.786     | 0.857     | 0.928     | 1.0       |

OE510-7N, Picture A7-131-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^*$  setrgbcolor

OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast  $Y_W:Y_N=88,9:0,62$ ;  $Y_N$  range 0,46 to <0,93

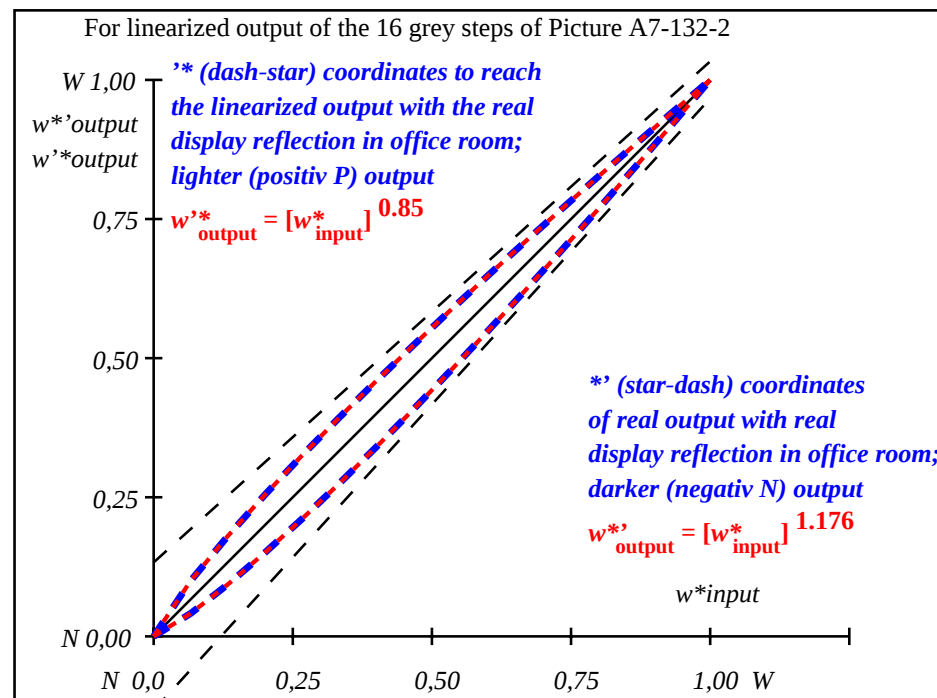
input:  $w$  ( $\rightarrow \text{rgb}^*_{\text{d}}$ ) setgray  
output 130-2:  $g_P=1.0$ ;  $g_N=1.08$

TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i                                    | LAB*ref | L*out | LAB*out | LAB*out/c-ref | ΔE*                         | Start output S1 |
|--------------------------------------|---------|-------|---------|---------------|-----------------------------|-----------------|
| 1                                    | 10.99   | 0.0   | 0.0     | 10.99         | 0.0                         | 0.0             |
| 2                                    | 16.62   | 0.0   | 0.04    | 14.48         | 0.0                         | -2.13           |
| 3                                    | 22.25   | 0.0   | 0.09    | 18.88         | 0.0                         | -3.36           |
| 4                                    | 27.88   | 0.0   | 0.15    | 23.7          | 0.0                         | -4.16           |
| 5                                    | 33.5    | 0.0   | 0.21    | 28.82         | 0.0                         | -4.67           |
| 6                                    | 39.13   | 0.0   | 0.27    | 34.17         | 0.0                         | -4.95           |
| 7                                    | 44.76   | 0.0   | 0.34    | 39.72         | 0.0                         | -5.03           |
| 8                                    | 50.39   | 0.0   | 0.41    | 45.43         | 0.0                         | -4.95           |
| 9                                    | 56.02   | 0.0   | 0.48    | 51.29         | 0.0                         | -4.72           |
| 10                                   | 61.64   | 0.0   | 0.55    | 57.28         | 0.0                         | -4.36           |
| 11                                   | 67.27   | 0.0   | 0.62    | 63.38         | 0.0                         | -3.88           |
| 12                                   | 72.9    | 0.0   | 0.69    | 69.6          | 0.0                         | -3.29           |
| 13                                   | 78.53   | 0.0   | 0.77    | 75.92         | 0.0                         | -2.6            |
| 14                                   | 84.15   | 0.0   | 0.85    | 82.33         | 0.0                         | -1.81           |
| 15                                   | 89.78   | 0.0   | 0.92    | 88.83         | 0.0                         | -0.94           |
| 16                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0                         | 0.0             |
| 17                                   | 10.99   | 0.0   | 0.0     | 10.99         | 0.0                         | 0.0             |
| 18                                   | 32.1    | 0.0   | 0.2     | 27.52         | 0.0                         | -4.57           |
| 19                                   | 53.2    | 0.0   | 0.44    | 48.34         | 0.0                         | -4.85           |
| 20                                   | 74.31   | 0.0   | 0.71    | 71.17         | 0.0                         | -3.12           |
| 21                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0                         | 0.0             |
| Mean lightness difference (16 steps) |         |       |         |               | ΔE* <sub>CIELAB</sub> = 3.2 |                 |
| Mean lightness difference (5 steps)  |         |       |         |               | ΔE* <sub>CIELAB</sub> = 2.5 |                 |
| Mean colour reproduction index:      |         |       |         |               | R* <sub>ab,m</sub> = 86     |                 |

OE510-3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-132-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{\text{intended}}$<br>(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 |
|-------------------------------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb                   |          |          |          |          |          |           |           |           |           |           |           |           |           |           |           |           |
| $g_N=1.18$<br>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      |
| $w^*=l^*_{\text{CIELAB},r}$<br>(relative) |          |          |          |          |          |           |           |           |           |           |           |           |           |           |           |           |
| $w^*_{\text{intended}}$                   | 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     |
| $w^*_{\text{out}}$                        | 0.0      | 0.042    | 0.093    | 0.151    | 0.211    | 0.274     | 0.34      | 0.408     | 0.477     | 0.548     | 0.621     | 0.694     | 0.769     | 0.845     | 0.922     | 1.0       |

OE510-7N, Picture A7-132-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^*$  setrgbcolor

OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast  $Y_W:Y_N=88,9:1,25$ ;  $Y_N$  range 0,93 to <1,87

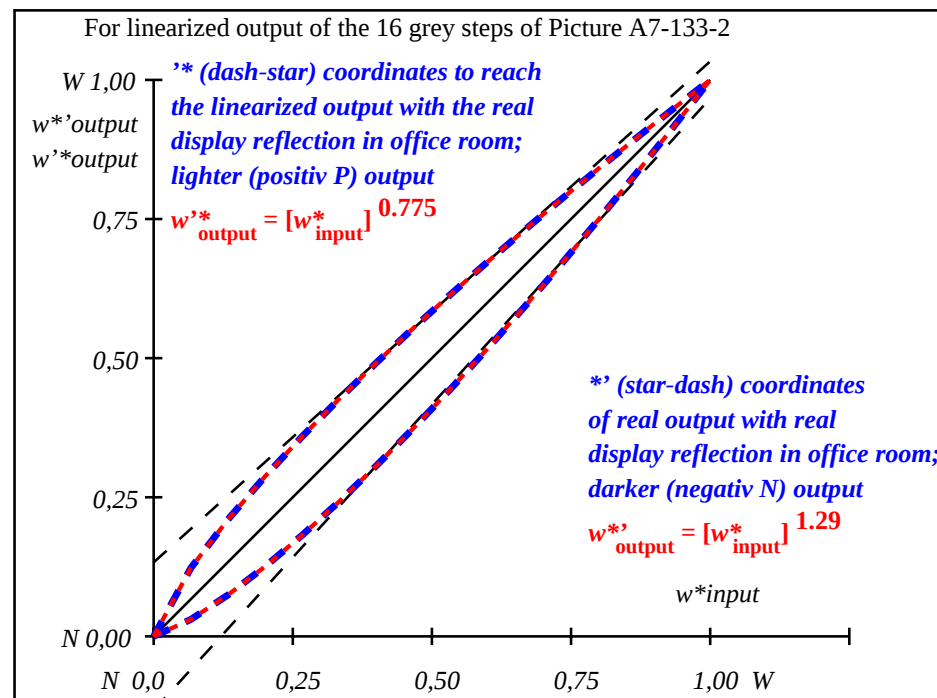
input:  $w$  ( $\rightarrow \text{rgb}^*_d$ ) setgray  
output 130-2:  $g_P=1.0$ ;  $g_N=1.17$

TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i                               | LAB*ref       | L*out              | LAB*out       | LAB*out/c-ref | ΔE*                                  | Start output S1                                                          |
|---------------------------------|---------------|--------------------|---------------|---------------|--------------------------------------|--------------------------------------------------------------------------|
| 1                               | 18.01 0.0 0.0 | 0.0 0.0 0.0        | 18.01 0.0 0.0 | 0.0 0.0 0.0   | 0.01                                 | Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G |
| 2                               | 23.17 0.0 0.0 | 0.03 20.36 0.0 0.0 | -2.8 0.0 0.0  | 2.81          |                                      |                                                                          |
| 3                               | 28.33 0.0 0.0 | 0.07 23.76 0.0 0.0 | -4.56 0.0 0.0 | 4.57          |                                      |                                                                          |
| 4                               | 33.49 0.0 0.0 | 0.13 27.71 0.0 0.0 | -5.77 0.0 0.0 | 5.78          |                                      |                                                                          |
| 5                               | 38.65 0.0 0.0 | 0.18 32.07 0.0 0.0 | -6.57 0.0 0.0 | 6.58          |                                      |                                                                          |
| 6                               | 43.81 0.0 0.0 | 0.24 36.76 0.0 0.0 | -7.04 0.0 0.0 | 7.05          |                                      |                                                                          |
| 7                               | 48.97 0.0 0.0 | 0.31 41.74 0.0 0.0 | -7.22 0.0 0.0 | 7.23          |                                      |                                                                          |
| 8                               | 54.13 0.0 0.0 | 0.37 46.96 0.0 0.0 | -7.16 0.0 0.0 | 7.17          |                                      |                                                                          |
| 9                               | 59.29 0.0 0.0 | 0.44 52.4 0.0 0.0  | -6.88 0.0 0.0 | 6.89          |                                      |                                                                          |
| 10                              | 64.45 0.0 0.0 | 0.52 58.05 0.0 0.0 | -6.39 0.0 0.0 | 6.4           |                                      |                                                                          |
| 11                              | 69.61 0.0 0.0 | 0.59 63.88 0.0 0.0 | -5.72 0.0 0.0 | 5.73          |                                      |                                                                          |
| 12                              | 74.77 0.0 0.0 | 0.67 69.88 0.0 0.0 | -4.88 0.0 0.0 | 4.89          |                                      |                                                                          |
| 13                              | 79.93 0.0 0.0 | 0.75 76.05 0.0 0.0 | -3.87 0.0 0.0 | 3.88          |                                      |                                                                          |
| 14                              | 85.09 0.0 0.0 | 0.83 82.36 0.0 0.0 | -2.72 0.0 0.0 | 2.73          |                                      |                                                                          |
| 15                              | 90.25 0.0 0.0 | 0.91 88.82 0.0 0.0 | -1.42 0.0 0.0 | 1.43          | Mean lightness difference (16 steps) |                                                                          |
| 16                              | 95.41 0.0 0.0 | 1.0 95.41 0.0 0.0  | 0.0 0.0 0.0   | 0.01          | ΔE*CIELAB = 4.6                      |                                                                          |
| 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 | 0.17 30.95 0.0 0.0 | -6.4 0.0 0.0  | 6.41          |                                      |                                                                          |
| 19                              | 56.71 0.0 0.0 | 0.41 49.66 0.0 0.0 | -7.04 0.0 0.0 | 7.05          |                                      |                                                                          |
| 20                              | 76.06 0.0 0.0 | 0.69 71.41 0.0 0.0 | -4.64 0.0 0.0 | 4.65          | Mean lightness difference (5 steps)  |                                                                          |
| 21                              | 95.41 0.0 0.0 | 1.0 95.41 0.0 0.0  | 0.0 0.0 0.0   | 0.01          | ΔL*CIELAB = 3.6                      |                                                                          |
| Mean colour reproduction index: |               |                    |               |               | R* <sub>ab,m</sub> = 80              |                                                                          |

OE510-3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-133-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{\text{intended}}$<br>(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 |
|-------------------------------------------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb                   |          |          |          |          |           |           |           |           |           |           |           |           |           |           |           |           |
| $g_N=1.29$<br>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      |
| $w^*=l^*_{\text{CIELAB},r}$<br>(relative) |          |          |          |          |           |           |           |           |           |           |           |           |           |           |           |           |
| $w^*_{\text{intended}}$                   | 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     |
| $w^*_{\text{out}}$                        | 0,0      | 0,031    | 0,074    | 0,125    | 0,182     | 0,242     | 0,307     | 0,374     | 0,444     | 0,517     | 0,593     | 0,67      | 0,75      | 0,832     | 0,914     | 1,0       |

OE510-7N, Picture A7-133-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^*$  setrgbcolor

OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast  $Y_W:Y_N=88,9:2,5$ ;  $Y_N$  range 1,87 to <3,75

input:  $w$  ( $\rightarrow \text{rgb}^*_d$ ) setgray  
output 130-2:  $g_P=1.0$ ;  $g_N=1.29$

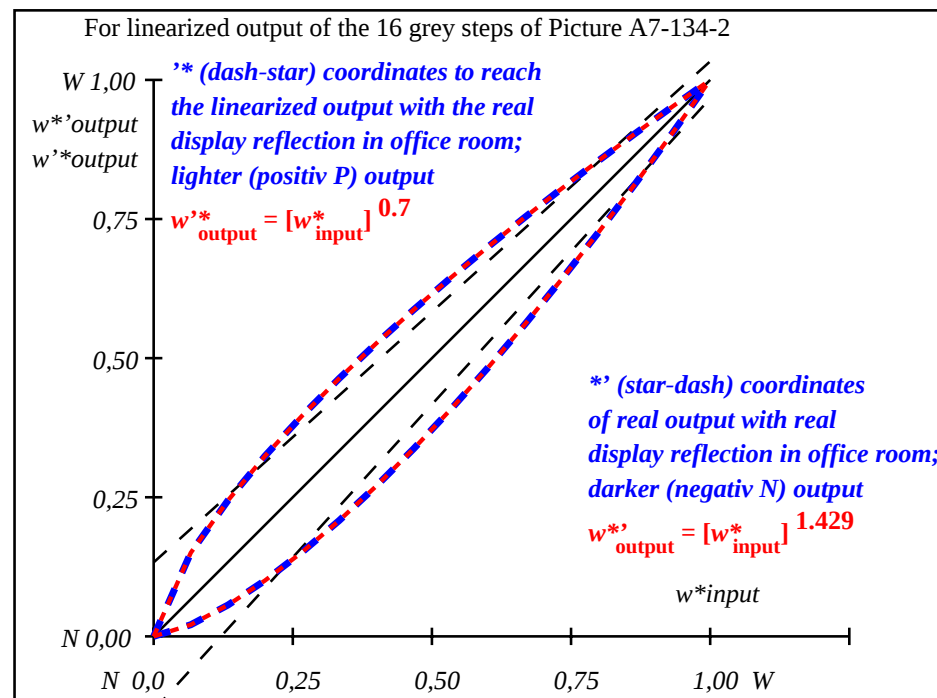
TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta

| i                                    | LAB*ref | L*out | LAB*out | LAB*out/c-ref | ΔE*                     | Start output S1 |
|--------------------------------------|---------|-------|---------|---------------|-------------------------|-----------------|
| 1                                    | 26.85   | 0.0   | 0.0     | 26.85         | 0.0                     | 0.0             |
| 2                                    | 31.42   | 0.0   | 0.02    | 28.28         | 0.0                     | -3.13           |
| 3                                    | 35.99   | 0.0   | 0.06    | 30.7          | 0.0                     | -5.28           |
| 4                                    | 40.56   | 0.0   | 0.1     | 33.73         | 0.0                     | -6.82           |
| 5                                    | 45.13   | 0.0   | 0.15    | 37.22         | 0.0                     | -7.9            |
| 6                                    | 49.7    | 0.0   | 0.21    | 41.12         | 0.0                     | -8.57           |
| 7                                    | 54.27   | 0.0   | 0.27    | 45.37         | 0.0                     | -8.9            |
| 8                                    | 58.84   | 0.0   | 0.34    | 49.93         | 0.0                     | -8.91           |
| 9                                    | 63.41   | 0.0   | 0.41    | 54.78         | 0.0                     | -8.63           |
| 10                                   | 67.99   | 0.0   | 0.48    | 59.9          | 0.0                     | -8.08           |
| 11                                   | 72.56   | 0.0   | 0.56    | 65.27         | 0.0                     | -7.28           |
| 12                                   | 77.13   | 0.0   | 0.64    | 70.87         | 0.0                     | -6.25           |
| 13                                   | 81.7    | 0.0   | 0.73    | 76.7          | 0.0                     | -4.99           |
| 14                                   | 86.27   | 0.0   | 0.82    | 82.73         | 0.0                     | -3.52           |
| 15                                   | 90.84   | 0.0   | 0.91    | 88.97         | 0.0                     | -1.85           |
| 16                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0                     | 0.0             |
| 17                                   | 26.85   | 0.0   | 0.0     | 26.85         | 0.0                     | 0.0             |
| 18                                   | 43.99   | 0.0   | 0.14    | 36.31         | 0.0                     | -7.67           |
| 19                                   | 61.13   | 0.0   | 0.37    | 52.32         | 0.0                     | -8.8            |
| 20                                   | 78.27   | 0.0   | 0.66    | 72.31         | 0.0                     | -5.95           |
| 21                                   | 95.41   | 0.0   | 1.0     | 95.41         | 0.0                     | 0.0             |
| Mean lightness difference (16 steps) |         |       |         |               | ΔE*CIELAB = 5.6         |                 |
| Mean lightness difference (5 steps)  |         |       |         |               | ΔL*CIELAB = 4.5         |                 |
| Mean colour reproduction index:      |         |       |         |               | R* <sub>ab,m</sub> = 75 |                 |

OE510-3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-134-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{\text{intended}}$<br>(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 |
|-------------------------------------------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb                   |          |          |          |           |           |           |           |           |           |           |           |           |           |           |           |           |
| $g_N=1.43$<br>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      |
| $w^*=L^*_{\text{CIELAB},r}$<br>(relative) |          |          |          |           |           |           |           |           |           |           |           |           |           |           |           |           |
| $w^*_{\text{intended}}$                   | 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     |
| $w^*_{\text{out}}$                        | 0.0      | 0.021    | 0.056    | 0.1       | 0.152     | 0.208     | 0.27      | 0.337     | 0.407     | 0.482     | 0.561     | 0.642     | 0.727     | 0.816     | 0.906     | 1.0       |

OE510-7N, Picture A7-134-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^*$  setrgbcolor

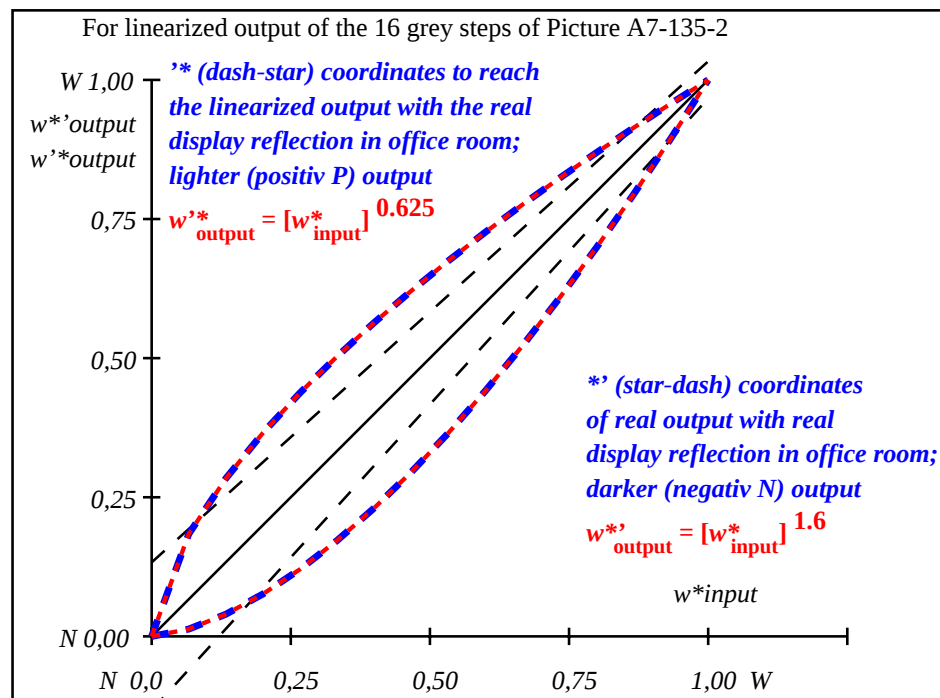
OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast  $Y_W:Y_N=88,9:5$ ;  $Y_N$  range 3,75 to <7,5

input:  $w$  ( $\rightarrow \text{rgb}^*_{\text{d}}$ ) setgray  
output 130-2:  $g_P=1.0$ ;  $g_N=1.42$

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i                               | LAB*ref       | L*out              | LAB*out       | LAB*out/c-ref | ΔE*                                  | Start output S1                                                          |
|---------------------------------|---------------|--------------------|---------------|---------------|--------------------------------------|--------------------------------------------------------------------------|
| 1                               | 37.99 0.0 0.0 | 0.0 0.0 0.0        | 37.99 0.0 0.0 | 0.0 0.0 0.0   | 0.01                                 | Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G |
| 2                               | 41.81 0.0 0.0 | 0.01 38.74 0.0 0.0 | -3.06 0.0 0.0 | 3.07          |                                      |                                                                          |
| 3                               | 45.64 0.0 0.0 | 0.04 40.27 0.0 0.0 | -5.36 0.0 0.0 | 5.37          |                                      |                                                                          |
| 4                               | 49.47 0.0 0.0 | 0.08 42.36 0.0 0.0 | -7.1 0.0 0.0  | 7.11          |                                      |                                                                          |
| 5                               | 53.3 0.0 0.0  | 0.12 44.91 0.0 0.0 | -8.37 0.0 0.0 | 8.38          |                                      |                                                                          |
| 6                               | 57.13 0.0 0.0 | 0.17 47.89 0.0 0.0 | -9.23 0.0 0.0 | 9.24          |                                      |                                                                          |
| 7                               | 60.96 0.0 0.0 | 0.23 51.24 0.0 0.0 | -9.7 0.0 0.0  | 9.71          |                                      |                                                                          |
| 8                               | 64.78 0.0 0.0 | 0.3 54.95 0.0 0.0  | -9.82 0.0 0.0 | 9.83          |                                      |                                                                          |
| 9                               | 68.61 0.0 0.0 | 0.37 58.99 0.0 0.0 | -9.61 0.0 0.0 | 9.62          |                                      |                                                                          |
| 10                              | 72.44 0.0 0.0 | 0.44 63.34 0.0 0.0 | -9.09 0.0 0.0 | 9.1           |                                      |                                                                          |
| 11                              | 76.27 0.0 0.0 | 0.52 68.0 0.0 0.0  | -8.26 0.0 0.0 | 8.27          |                                      |                                                                          |
| 12                              | 80.1 0.0 0.0  | 0.61 72.95 0.0 0.0 | -7.14 0.0 0.0 | 7.15          |                                      |                                                                          |
| 13                              | 83.93 0.0 0.0 | 0.7 78.17 0.0 0.0  | -5.75 0.0 0.0 | 5.76          |                                      |                                                                          |
| 14                              | 87.75 0.0 0.0 | 0.8 83.66 0.0 0.0  | -4.08 0.0 0.0 | 4.09          |                                      |                                                                          |
| 15                              | 91.58 0.0 0.0 | 0.9 89.41 0.0 0.0  | -2.16 0.0 0.0 | 2.17          | Mean lightness difference (16 steps) |                                                                          |
| 16                              | 95.41 0.0 0.0 | 1.0 95.41 0.0 0.0  | 0.0 0.0 0.0   | 0.01          | ΔE*CIELAB = 6.2                      |                                                                          |
| 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 | 0.11 44.23 0.0 0.0 | -8.1 0.0 0.0  | 8.11          |                                      |                                                                          |
| 19                              | 66.7 0.0 0.0  | 0.33 56.93 0.0 0.0 | -9.76 0.0 0.0 | 9.77          |                                      |                                                                          |
| 20                              | 81.05 0.0 0.0 | 0.63 74.23 0.0 0.0 | -6.82 0.0 0.0 | 6.83          | Mean lightness difference (5 steps)  |                                                                          |
| 21                              | 95.41 0.0 0.0 | 1.0 95.41 0.0 0.0  | 0.0 0.0 0.0   | 0.01          | ΔL*CIELAB = 4.9                      |                                                                          |
| Mean colour reproduction index: |               |                    |               |               | R* <sub>ab,m</sub> = 73              |                                                                          |

OE510-3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-135-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{\text{intended}}$<br>(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 |
|-------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb<br>$g_N=1.6$<br>No. and<br>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      |
| $w^*=l^*_{\text{CIELAB},r}$<br>(relative)                   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| $w^*_{\text{intended}}$                                     | 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     |
| $w^*_{\text{out}}$                                          | 0.0       | 0.013     | 0.04      | 0.076     | 0.121     | 0.172     | 0.231     | 0.296     | 0.365     | 0.442     | 0.523     | 0.608     | 0.7       | 0.796     | 0.895     | 1.0       |

OE510-7N, Picture A7-135-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^* \text{setrgbcolor}$

OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast  $Y_W:Y_N=88,9:10$ ;  $Y_N$  range 7,5 to <15

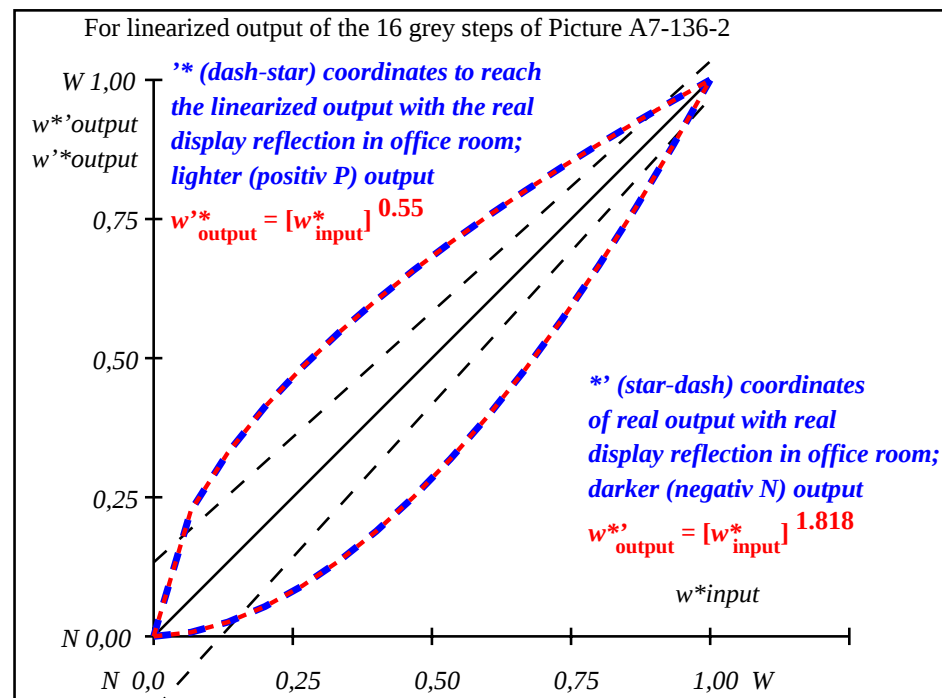
input:  $w (->rgb^*_d) \text{setgray}$   
output 130-2:  $g_P=1.0$ ;  $g_N=1.6$

TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i                               | LAB*ref       | L*out              | LAB*out       | LAB*out/c-ref | ΔE*                                  | Start output S1                                                          |
|---------------------------------|---------------|--------------------|---------------|---------------|--------------------------------------|--------------------------------------------------------------------------|
| 1                               | 52.02 0.0 0.0 | 0.0 0.0 0.0        | 52.02 0.0 0.0 | 0.0 0.0 0.0   | 0.01                                 | Specification according to ISO/IEC 15775 Annex G and DIN 33866-1 Annex G |
| 2                               | 54.91 0.0 0.0 | 0.01 52.33 0.0 0.0 | -2.57 0.0 0.0 | 2.58          |                                      |                                                                          |
| 3                               | 57.8 0.0 0.0  | 0.03 53.13 0.0 0.0 | -4.66 0.0 0.0 | 4.67          |                                      |                                                                          |
| 4                               | 60.7 0.0 0.0  | 0.05 54.34 0.0 0.0 | -6.34 0.0 0.0 | 6.35          |                                      |                                                                          |
| 5                               | 63.59 0.0 0.0 | 0.09 55.94 0.0 0.0 | -7.64 0.0 0.0 | 7.65          |                                      |                                                                          |
| 6                               | 66.48 0.0 0.0 | 0.14 57.9 0.0 0.0  | -8.57 0.0 0.0 | 8.58          |                                      |                                                                          |
| 7                               | 69.37 0.0 0.0 | 0.19 60.22 0.0 0.0 | -9.15 0.0 0.0 | 9.16          |                                      |                                                                          |
| 8                               | 72.27 0.0 0.0 | 0.25 62.87 0.0 0.0 | -9.39 0.0 0.0 | 9.4           |                                      |                                                                          |
| 9                               | 75.16 0.0 0.0 | 0.32 65.85 0.0 0.0 | -9.3 0.0 0.0  | 9.31          |                                      |                                                                          |
| 10                              | 78.05 0.0 0.0 | 0.4 69.16 0.0 0.0  | -8.88 0.0 0.0 | 8.89          |                                      |                                                                          |
| 11                              | 80.95 0.0 0.0 | 0.48 72.78 0.0 0.0 | -8.16 0.0 0.0 | 8.17          |                                      |                                                                          |
| 12                              | 83.84 0.0 0.0 | 0.57 76.71 0.0 0.0 | -7.12 0.0 0.0 | 7.13          |                                      |                                                                          |
| 13                              | 86.73 0.0 0.0 | 0.67 80.94 0.0 0.0 | -5.78 0.0 0.0 | 5.79          |                                      |                                                                          |
| 14                              | 89.62 0.0 0.0 | 0.77 85.47 0.0 0.0 | -4.15 0.0 0.0 | 4.16          |                                      |                                                                          |
| 15                              | 92.52 0.0 0.0 | 0.88 90.29 0.0 0.0 | -2.21 0.0 0.0 | 2.22          | Mean lightness difference (16 steps) |                                                                          |
| 16                              | 95.41 0.0 0.0 | 1.0 95.41 0.0 0.0  | 0.0 0.0 0.0   | 0.01          | ΔE*CIELAB = 5.9                      |                                                                          |
| 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 | 0.08 55.51 0.0 0.0 | -7.35 0.0 0.0 | 7.36          |                                      |                                                                          |
| 19                              | 73.71 0.0 0.0 | 0.28 64.32 0.0 0.0 | -9.38 0.0 0.0 | 9.39          |                                      |                                                                          |
| 20                              | 84.56 0.0 0.0 | 0.59 77.74 0.0 0.0 | -6.82 0.0 0.0 | 6.83          | Mean lightness difference (5 steps)  |                                                                          |
| 21                              | 95.41 0.0 0.0 | 1.0 95.41 0.0 0.0  | 0.0 0.0 0.0   | 0.01          | ΔL*CIELAB = 4.7                      |                                                                          |
| Mean colour reproduction index: |               |                    |               |               | R* <sub>ab,m</sub> = 74              |                                                                          |

OE510-3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-136-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| L*/Y <sub>intended</sub><br>(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*<br>setrgb                          |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| g <sub>N</sub> =1.82<br>No. and<br>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*<br>CIELAB, r<br>(relative)            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| w* <sub>intended</sub>                      | 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* <sub>out</sub>                           | 0,000     | 0,007     | 0,026     | 0,054     | 0,091     | 0,135     | 0,189     | 0,25      | 0,319     | 0,395     | 0,479     | 0,569     | 0,666     | 0,771     | 0,882     | 1,0       |

OE510-7N, Picture A7-136-2: 16 visual equidistant L\*-grey steps; PS operator: w\* w\* w\* setrgbcolor

OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast Y<sub>W</sub>:Y<sub>N</sub>=88,9:20; Y<sub>N</sub> range 15 to <30

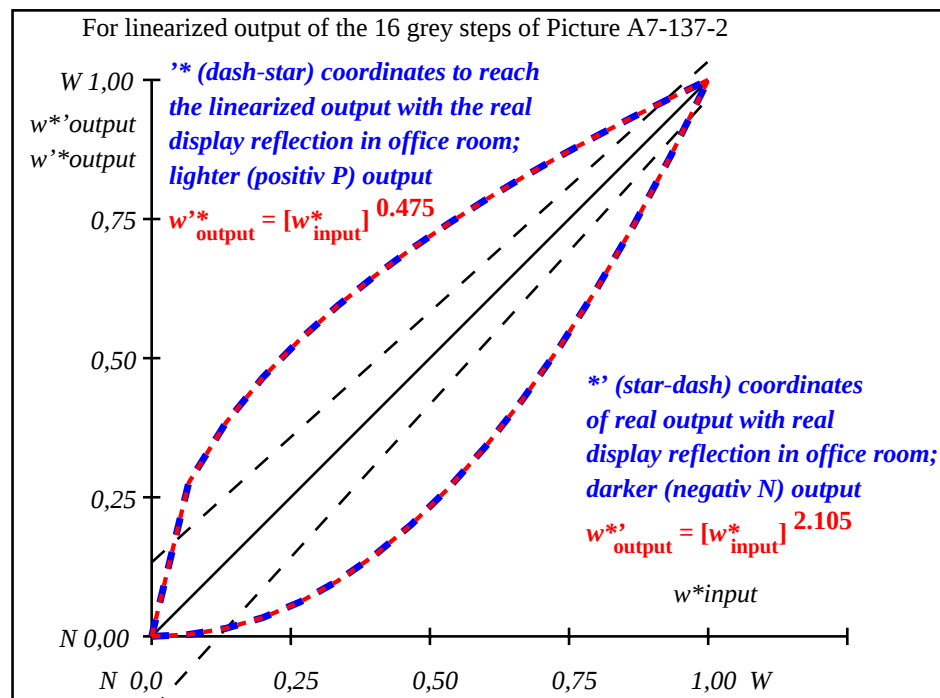
input: w (->rgb\*d) setgray  
output 130-2: g<sub>P</sub>=1.0; g<sub>N</sub>=1.81

TUB registration: 20110801-OE51/OE51L0NA.TXT /.PS  
application for output of displays: monitor systems or data projector systems  
TUB material: code=rh4ta

See similar ISO test charts: <http://www.ps.bam.de/24705TE>, <http://www.ps.bam.de/9241E>  
Technical information: <http://www.ps.bam.de/33872E> Version 2.1, io=1,1, CIELAB

| i                               | LAB*ref | L*out | LAB*out | LAB*out/c-ref | $\Delta E^*$             | Start output S1                      |
|---------------------------------|---------|-------|---------|---------------|--------------------------|--------------------------------------|
| 1                               | 69.7    | 0.0   | 69.7    | 0.0           | 0.01                     | Specification according to           |
| 2                               | 71.41   | 0.0   | 69.78   | -1.62         | 1.63                     | ISO/IEC 15775 Annex G                |
| 3                               | 73.13   | 0.0   | 70.07   | -3.05         | 3.06                     | and DIN 33866-1 Annex G              |
| 4                               | 74.84   | 0.0   | 70.57   | -4.26         | 4.27                     |                                      |
| 5                               | 76.55   | 0.0   | 71.29   | -5.26         | 5.27                     |                                      |
| 6                               | 78.27   | 0.0   | 72.24   | -6.02         | 6.03                     |                                      |
| 7                               | 79.98   | 0.0   | 73.43   | -6.54         | 6.55                     |                                      |
| 8                               | 81.7    | 0.0   | 74.86   | -6.82         | 6.83                     |                                      |
| 9                               | 83.41   | 0.0   | 76.54   | -6.86         | 6.87                     |                                      |
| 10                              | 85.12   | 0.0   | 78.47   | -6.65         | 6.66                     |                                      |
| 11                              | 86.84   | 0.0   | 80.65   | -6.18         | 6.19                     |                                      |
| 12                              | 88.55   | 0.0   | 83.08   | -5.46         | 5.47                     |                                      |
| 13                              | 90.27   | 0.0   | 85.77   | -4.49         | 4.5                      |                                      |
| 14                              | 91.98   | 0.0   | 88.72   | -3.25         | 3.26                     |                                      |
| 15                              | 93.7    | 0.0   | 91.93   | -1.75         | 1.76                     | Mean lightness difference (16 steps) |
| 16                              | 95.41   | 0.0   | 95.41   | 0.0           | 0.01                     | $\Delta E^*_{\text{CIELAB}} = 4.3$   |
| 17                              | 69.7    | 0.0   | 69.7    | 0.0           | 0.01                     |                                      |
| 18                              | 76.13   | 0.0   | 71.09   | -5.03         | 5.04                     |                                      |
| 19                              | 82.55   | 0.0   | 75.67   | -6.87         | 6.88                     |                                      |
| 20                              | 88.98   | 0.0   | 83.73   | -5.24         | 5.25                     | Mean lightness difference (5 steps)  |
| 21                              | 95.41   | 0.0   | 95.41   | 0.0           | 0.01                     | $\Delta L^*_{\text{CIELAB}} = 3.4$   |
| Mean colour reproduction index: |         |       |         |               | $R^*_{\text{ab,m}} = 81$ |                                      |

OE510-3N-137-2: File: Measure unknown; Device: Device unknown; Date: Date unknown



OE511-3N-137-2: File: Measure unknown; Device: Device unknown; Date: Date unknown

| $L^*/Y^*_{\text{intended}}$<br>(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 |
|----------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| $w^* w^* w^*$<br>setrgb                      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| $g_N=2.11$<br>No. and<br>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      |
| $w^* = L^*_{\text{CIELAB}, r}$<br>(relative) |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| $w^*_{\text{intended}}$                      | 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     |
| $w^*_{\text{out}}$                           | 0.0       | 0.003     | 0.014     | 0.034     | 0.062     | 0.099     | 0.145     | 0.201     | 0.266     | 0.341     | 0.426     | 0.52      | 0.625     | 0.74      | 0.864     | 1.0       |

OE510-7N, Picture A7-137-2: 16 visual equidistant  $L^*$ -grey steps; PS operator:  $w^* w^* w^* \text{setrgbcolor}$

OE51: In-output relation according to ISO 9241-306; 1MR, DH  
Viewing Y contrast  $Y_W:Y_N=88,9:40$ ;  $Y_N$  range 30 to <60

input:  $w (-> \text{rgb}^*_d) \text{setgray}$   
output 130-2:  $g_P=1.0$ ;  $g_N=2.1$