

<http://farbe.li.tu-berlin.de/eeq6/eeq6l0na.txt> /.ps; only vector graphic VG; start output  
 see similar files: <http://farbe.li.tu-berlin.de/eeq6/eeq6.htm>

Equal 9 step grey scaling between  $L^*_{0aN}=14.4$  and  $L^*_{0aW}=95.9$ ,  $Y_{0ref}=2.5$ , normalisation white W

$L^*_{0aN}=14.4$ ,  $L^*_{0aU}=55.2$ ,  $L^*_{0aW}=96.0$ ,  $Y_{0aN}=1.8$ ,  $Y_{0aU}=23.1$ ,  $Y_{0aW}=90.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=50.0$   
 $L^*_{taN}=24.3$ ,  $L^*_{taU}=57.0$ ,  $L^*_{taW}=96.0$ ,  $Y_{taN}=4.2$ ,  $Y_{taU}=24.9$ ,  $Y_{taW}=90.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=21.5$

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB} = 116 [Y/Y_n]^{1/3} - 16$  with  $Y \geq 0.882$ ,  $Y_n=100$

$L^*_{CIELAB}$ n0.i	intended output				real output				linearized output			
	$L^*_{0a}$	$L^*_{0r}$	$Y_{0a}$	$Y_{0r}$	$L^*_{ta}$	$\Delta L^*_{ta}$	$L^*_{tr}$	$Y_{ta}$	$(L^*_{tr})^{1/1.13}$	$L^*_{la}$	$\Delta L^*_{la}$	
9	96.0	1.0	90.0	1.0	96.0	9.9	1.0	90.0	1.0	96.0	8.8	
8	85.8	0.875	67.6	0.746	86.1	9.8	0.862	68.2	0.877	87.2	8.9	
7	75.6	0.75	49.2	0.538	76.3	9.7	0.725	50.3	0.753	78.3	9.0	
6	65.4	0.625	34.5	0.371	66.6	9.5	0.589	36.0	0.628	69.3	9.1	
5	55.2	0.5	23.1	0.242	57.0	9.3	0.456	24.9	0.501	60.2	9.1	
4	45.0	0.375	14.5	0.144	47.7	8.8	0.327	16.6	0.373	51.1	9.1	
3	34.8	0.25	8.4	0.075	38.9	8.0	0.204	10.6	0.246	41.9	8.9	
2	24.6	0.125	4.3	0.028	30.9	6.6	0.092	6.6	0.122	33.1	8.8	
1	14.4	0.0	1.8	0.0	24.3	0.0	0.0	4.2	0.0	24.3	0.0	

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) normalisation:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq60-3n

Equal 9 step grey scaling between  $L^*_{0aN}=14.4$  and  $L^*_{0aW}=95.9$ ,  $Y_{0ref}=20.0$ , normalisation white W

$L^*_{0aN}=14.4$ ,  $L^*_{0aU}=55.2$ ,  $L^*_{0aW}=96.0$ ,  $Y_{0aN}=1.8$ ,  $Y_{0aU}=23.1$ ,  $Y_{0aW}=90.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=50.0$   
 $L^*_{taN}=49.3$ ,  $L^*_{taU}=66.0$ ,  $L^*_{taW}=96.0$ ,  $Y_{taN}=17.8$ ,  $Y_{taU}=35.3$ ,  $Y_{taW}=90.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=5.0$

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB} = 116 [Y/Y_n]^{1/3} - 16$  with  $Y \geq 0.882$ ,  $Y_n=100$

$L^*_{CIELAB}$ n0.i	intended output				real output				linearized output			
	$L^*_{0a}$	$L^*_{0r}$	$Y_{0a}$	$Y_{0r}$	$L^*_{ta}$	$\Delta L^*_{ta}$	$L^*_{tr}$	$Y_{ta}$	$(L^*_{tr})^{1/1.47}$	$L^*_{la}$	$\Delta L^*_{la}$	
9	96.0	1.0	90.0	1.0	96.0	8.2	1.0	90.0	1.0	96.0	5.7	
8	85.8	0.875	67.6	0.746	87.8	7.8	0.824	71.6	0.877	90.3	5.8	
7	75.6	0.75	49.2	0.538	80.0	7.3	0.657	56.6	0.752	84.4	5.9	
6	65.4	0.625	34.5	0.371	72.6	6.7	0.5	44.6	0.624	78.5	6.0	
5	55.2	0.5	23.1	0.242	66.0	6.0	0.357	35.3	0.497	72.5	5.9	
4	45.0	0.375	14.5	0.144	60.1	5.8	0.232	28.3	0.37	66.6	5.7	
3	34.8	0.25	8.4	0.075	55.3	4.8	0.129	23.2	0.248	60.9	5.4	
2	24.6	0.125	4.3	0.028	51.7	3.6	0.051	19.9	0.133	55.5	6.2	
1	14.4	0.0	1.8	0.0	49.3	2.4	0.0	17.8	0.0	49.3	0.0	

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) normalisation:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq61-3n

Equal 9 step grey scaling between  $L^*_{0aN}=14.4$  and  $L^*_{0aW}=95.9$ ,  $Y_{0ref}=10.0$ , normalisation white W

$L^*_{0aN}=14.4$ ,  $L^*_{0aU}=55.2$ ,  $L^*_{0aW}=96.0$ ,  $Y_{0aN}=1.8$ ,  $Y_{0aU}=23.1$ ,  $Y_{0aW}=90.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=50.0$   
 $L^*_{taN}=38.9$ ,  $L^*_{taU}=61.5$ ,  $L^*_{taW}=96.0$ ,  $Y_{taN}=10.6$ ,  $Y_{taU}=29.8$ ,  $Y_{taW}=90.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=8.5$

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB} = 116 [Y/Y_n]^{1/3} - 16$  with  $Y \geq 0.882$ ,  $Y_n=100$

$L^*_{CIELAB}$ n0.i	intended output				real output				linearized output			
	$L^*_{0a}$	$L^*_{0r}$	$Y_{0a}$	$Y_{0r}$	$L^*_{ta}$	$\Delta L^*_{ta}$	$L^*_{tr}$	$Y_{ta}$	$(L^*_{tr})^{1/1.33}$	$L^*_{la}$	$\Delta L^*_{la}$	
9	96.0	1.0	90.0	1.0	96.0	9.1	1.0	90.0	1.0	96.0	6.9	
8	85.8	0.875	67.6	0.746	86.9	8.8	0.841	69.8	0.878	89.0	7.1	
7	75.6	0.75	49.2	0.538	78.1	8.5	0.686	53.3	0.754	81.9	7.2	
6	65.4	0.625	34.5	0.371	69.5	8.0	0.536	40.1	0.627	74.7	7.3	
5	55.2	0.5	23.1	0.242	61.5	7.4	0.395	29.8	0.499	67.4	7.3	
4	45.0	0.375	14.5	0.144	54.1	6.4	0.266	22.1	0.371	60.1	7.1	
3	34.8	0.25	8.4	0.075	47.7	5.1	0.154	16.6	0.246	53.0	6.8	
2	24.6	0.125	4.3	0.028	42.5	3.6	0.063	12.8	0.127	46.2	7.2	
1	14.4	0.0	1.8	0.0	38.9	0.0	0.0	10.6	0.0	38.9	0.0	

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) normalisation:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq60-7n

Equal 9 step grey scaling between  $L^*_{0aN}=14.4$  and  $L^*_{0aW}=95.9$ ,  $Y_{0ref}=90.0$ , normalisation white W

$L^*_{0aN}=14.4$ ,  $L^*_{0aU}=55.2$ ,  $L^*_{0aW}=96.0$ ,  $Y_{0aN}=1.8$ ,  $Y_{0aU}=23.1$ ,  $Y_{0aW}=90.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=50.0$   
 $L^*_{taN}=73.5$ ,  $L^*_{taU}=79.9$ ,  $L^*_{taW}=96.0$ ,  $Y_{taN}=45.9$ ,  $Y_{taU}=56.6$ ,  $Y_{taW}=90.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=2.0$

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB} = 116 [Y/Y_n]^{1/3} - 16$  with  $Y \geq 0.882$ ,  $Y_n=100$

$L^*_{CIELAB}$ n0.i	intended output				real output				linearized output			
	$L^*_{0a}$	$L^*_{0r}$	$Y_{0a}$	$Y_{0r}$	$L^*_{ta}$	$\Delta L^*_{ta}$	$L^*_{tr}$	$Y_{ta}$	$(L^*_{tr})^{1/1.75}$	$L^*_{la}$	$\Delta L^*_{la}$	
9	96.0	1.0	90.0	1.0	96.0	4.8	1.0	90.0	1.0	96.0	2.9	
8	85.8	0.875	67.6	0.746	91.1	4.3	0.784	78.8	0.871	93.1	2.9	
7	75.6	0.75	49.2	0.538	86.8	3.7	0.592	69.6	0.742	90.2	2.9	
6	65.4	0.625	34.5	0.371	83.1	3.1	0.425	62.3	0.614	87.3	2.8	
5	55.2	0.5	23.1	0.242	79.9	2.5	0.286	56.6	0.49	84.5	2.7	
4	45.0	0.375	14.5	0.144	77.4	1.9	0.176	52.3	0.371	81.8	2.5	
3	34.8	0.25	8.4	0.075	75.6	1.3	0.093	49.2	0.258	79.3	2.4	
2	24.6	0.125	4.3	0.028	74.3	0.8	0.035	47.1	0.149	76.8	3.4	
1	14.4	0.0	1.8	0.0	73.5	0.0	0.0	45.9	0.0	73.5	0.0	

$\Delta L^*_{0a}=10.2$  (i=1,2,...,8) normalisation:  $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq61-7n

Test chart eqq6; Equal 9 step grey scaling for four display reflections  $Y_{ref} = 2.5, 10, 20, 90$ , and black  $L^*_{N,CIELAB}=14.4$ ,  $Y_N=1.8$  and white  $L^*_{W,CIELAB}=95.99$ ,  $Y_W=90$ , normalisation: white W

see similar files of the whole serie: <http://farbe.li.tu-berlin.de/eeq6/eeq6l0na.txt> or <http://farbe.li.tu-berlin.de/eeq6/eeq6.htm>  
 technical information: <http://farbe.li.tu-berlin.de> or <http://color.li.tu-berlin.de>

TUB registration: 20230701-eeq6/eeq6l0na.txt /.ps  
 application for evaluation and measurement of display or print output  
 TUB material: code=rh4ta