

<http://farbe.li.tu-berlin.de/eeq2/eeq210na.txt> /.ps; only vector graphic VG; start output
 see similar files: <http://farbe.li.tu-berlin.de/eeq2/eeq2.htm>

Equal 9 step grey scaling between $L^*_{0aN}=3.6$ and $L^*_{0aW}=95.9$, $Y_{0ref}=2.5$, normalisation white W

$L^*_{0aN}=3.6$, $L^*_{0aU}=49.8$, $L^*_{0aW}=96.0$, $Y_{0aN}=0.4$, $Y_{0aU}=18.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=225.0$
 $L^*_{taN}=19.3$, $L^*_{taU}=52.1$, $L^*_{taW}=96.0$, $Y_{taN}=2.8$, $Y_{taU}=20.2$, $Y_{taW}=90.0$, $C_{taY}=Y_{taW}:Y_{taN}=31.9$

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}	ΔL^*_{ta}	L* _{tr}	Y _{ta}	$(L^*_{tr})^{1/1.24}$	L* _{la}	ΔL^*_{la}	
100	9	96.0	1.0	90.0	1.0	96.0	1.0	90.0	1.0	96.0	9.2	
	8	84.4	0.875	64.9	0.72	84.8	0.854	65.6	0.88	86.8	9.4	
75	7	72.9	0.75	45.0	0.498	73.7	0.709	46.2	0.758	77.4	9.6	
	6	61.3	0.625	29.6	0.326	62.7	0.566	31.3	0.632	67.8	9.9	
50	5	49.8	0.5	18.2	0.199	52.1	0.427	20.2	0.504	57.9	10.1	
	4	38.2	0.375	10.2	0.11	41.8	0.293	12.4	0.372	47.9	10.0	
25	3	26.7	0.25	5.0	0.051	32.4	0.171	7.3	0.241	37.8	9.5	
	2	15.2	0.125	1.9	0.017	24.7	0.07	4.3	0.117	28.3	9.0	
0	1	3.6	0.0	0.4	0.0	19.3	0.0	2.8	0.0	19.3		

$\Delta L^*_{0a}=11.5$ (i=1,2,...,8) normalisation: $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq20-3n

Equal 9 step grey scaling between $L^*_{0aN}=3.6$ and $L^*_{0aW}=95.9$, $Y_{0ref}=10.0$, normalisation white W

$L^*_{0aN}=3.6$, $L^*_{0aU}=49.8$, $L^*_{0aW}=96.0$, $Y_{0aN}=0.4$, $Y_{0aU}=18.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=225.0$
 $L^*_{taN}=36.7$, $L^*_{taU}=57.5$, $L^*_{taW}=96.0$, $Y_{taN}=9.4$, $Y_{taU}=25.4$, $Y_{taW}=90.0$, $C_{taY}=Y_{taW}:Y_{taN}=9.6$

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}	ΔL^*_{ta}	L* _{tr}	Y _{ta}	$(L^*_{tr})^{1/1.52}$	L* _{la}	ΔL^*_{la}	
100	9	96.0	1.0	90.0	1.0	96.0	1.0	90.0	1.0	96.0	7.0	
	8	84.4	0.875	64.9	0.72	85.7	0.827	67.4	0.882	89.0	7.3	
75	7	72.9	0.75	45.0	0.498	75.8	0.659	49.5	0.759	81.7	7.5	
	6	61.3	0.625	29.6	0.326	66.3	0.499	35.7	0.632	74.2	7.8	
50	5	49.8	0.5	18.2	0.199	57.5	0.351	25.4	0.501	66.4	7.8	
	4	38.2	0.375	10.2	0.11	49.7	0.22	18.2	0.369	58.5	7.6	
25	3	26.7	0.25	5.0	0.051	43.5	0.115	13.5	0.24	50.9	6.9	
	2	15.2	0.125	1.9	0.017	39.1	0.042	10.7	0.123	44.0	7.3	
0	1	3.6	0.0	0.4	0.0	36.7	0.0	9.4	0.0	36.7		

$\Delta L^*_{0a}=11.5$ (i=1,2,...,8) normalisation: $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq20-7n

Equal 9 step grey scaling between $L^*_{0aN}=3.6$ and $L^*_{0aW}=95.9$, $Y_{0ref}=20.0$, normalisation white W

$L^*_{0aN}=3.6$, $L^*_{0aU}=49.8$, $L^*_{0aW}=96.0$, $Y_{0aN}=0.4$, $Y_{0aU}=18.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=225.0$
 $L^*_{taN}=47.9$, $L^*_{taU}=62.8$, $L^*_{taW}=96.0$, $Y_{taN}=16.7$, $Y_{taU}=31.3$, $Y_{taW}=90.0$, $C_{taY}=Y_{taW}:Y_{taN}=5.4$

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}	ΔL^*_{ta}	L* _{tr}	Y _{ta}	$(L^*_{tr})^{1/1.68}$	L* _{la}	ΔL^*_{la}	
100	9	96.0	1.0	90.0	1.0	96.0	1.0	90.0	1.0	96.0	5.7	
	8	84.4	0.875	64.9	0.72	86.7	0.808	69.5	0.881	90.3	6.0	
75	7	72.9	0.75	45.0	0.498	78.0	0.626	53.2	0.757	84.3	6.2	
	6	61.3	0.625	29.6	0.326	69.9	0.458	40.6	0.629	78.1	6.3	
50	5	49.8	0.5	18.2	0.199	62.8	0.309	31.3	0.498	71.8	6.2	
	4	38.2	0.375	10.2	0.11	56.8	0.186	24.7	0.368	65.6	6.0	
25	3	26.7	0.25	5.0	0.051	52.3	0.093	20.4	0.244	59.6	5.4	
	2	15.2	0.125	1.9	0.017	49.4	0.032	17.9	0.131	54.2	6.3	
0	1	3.6	0.0	0.4	0.0	47.9	0.0	16.7	0.0	47.9		

$\Delta L^*_{0a}=11.5$ (i=1,2,...,8) normalisation: $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq21-3n

Equal 9 step grey scaling between $L^*_{0aN}=3.6$ and $L^*_{0aW}=95.9$, $Y_{0ref}=90.0$, normalisation white W

$L^*_{0aN}=3.6$, $L^*_{0aU}=49.8$, $L^*_{0aW}=96.0$, $Y_{0aN}=0.4$, $Y_{0aU}=18.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=225.0$
 $L^*_{taN}=73.0$, $L^*_{taU}=78.5$, $L^*_{taW}=96.0$, $Y_{taN}=45.2$, $Y_{taU}=54.1$, $Y_{taW}=90.0$, $C_{taY}=Y_{taW}:Y_{taN}=2.0$

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}	ΔL^*_{ta}	L* _{tr}	Y _{ta}	$(L^*_{tr})^{1/2.0}$	L* _{la}	ΔL^*_{la}	
100	9	96.0	1.0	90.0	1.0	96.0	1.0	90.0	1.0	96.0	2.9	
	8	84.4	0.875	64.9	0.72	90.5	0.762	77.5	0.873	93.1	2.9	
75	7	72.9	0.75	45.0	0.498	85.8	0.554	67.5	0.745	90.1	2.9	
	6	61.3	0.625	29.6	0.326	81.7	0.379	59.8	0.616	87.2	2.9	
50	5	49.8	0.5	18.2	0.199	78.5	0.24	54.1	0.49	84.3	2.8	
	4	38.2	0.375	10.2	0.11	76.1	0.136	50.1	0.369	81.5	2.6	
25	3	26.7	0.25	5.0	0.051	74.5	0.064	47.5	0.254	78.9	2.4	
	2	15.2	0.125	1.9	0.017	73.5	0.022	46.0	0.148	76.4	3.4	
0	1	3.6	0.0	0.4	0.0	73.0	0.0	45.2	0.0	73.0		

$\Delta L^*_{0a}=11.5$ (i=1,2,...,8) normalisation: $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$

eeq21-7n

Test chart eqq2; Equal 9 step grey scaling for four display reflections $Y_{ref} = 2, 5, 10, 20, 90$, and black $L^*_{N,CIELAB}=3.61$, $Y_N=0.4$ 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/eeq2/eeq210na.txt> or <http://color.li.tu-berlin.de>

TUB registration: 20230701-eeq2/eeq210na.txt /.ps
 application for evaluation and measurement of display or print output
 TUB material: code=rh4ta