

Equal 9 step grey scaling between $L^*_{0aN}=3.6$ and $L^*_{0aW}=95.9$, $Y_{0ref}=1.8$, normalisation white W

$L^*_{0aN}=3.6$, $L^*_{0aU}=49.8$, $L^*_{0aW}=96.0$, $Y_{0aN}=0.4$, $Y_{0aU}=18.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=225.0$
 $L^*_{taN}=16.3$, $L^*_{taU}=51.4$, $L^*_{taW}=96.0$, $Y_{taN}=2.1$, $Y_{taU}=19.7$, $Y_{taW}=90.0$, $C_{taY}=Y_{taW}:Y_{taN}=41.7$

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 $Y \geq 0,882$, $Y_n=100$

$g^*_5 = 99$, $g^*_9 = 99$

$g^*_5 = 65$, $g^*_9 = 55$

$g^*_5 = 92$, $g^*_9 = 90$

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}	$(L^*_{tr})^{1/1.19}$	L^*_{la}	ΔL^*_{la}
100	○ 9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
							11.3					9.6
	● 8	84.4	0.875	64.9	0.72	84.7		0.858	65.4	0.879	86.4	
							11.2					9.8
75	● 7	72.9	0.75	45.0	0.498	73.5		0.717	45.9	0.757	76.6	
							11.1					10.0
	● 6	61.3	0.625	29.6	0.326	62.4		0.578	30.8	0.631	66.6	
							10.9					10.2
50	● 5	49.8	0.5	18.2	0.199	51.4		0.441	19.7	0.503	56.4	
							10.6					10.4
	● 4	38.2	0.375	10.2	0.11	40.9		0.309	11.8	0.373	46.0	
							9.9					10.4
25	● 3	26.7	0.25	5.0	0.051	31.0		0.185	6.6	0.242	35.6	
							8.5					9.9
	● 2	15.2	0.125	1.9	0.017	22.5		0.078	3.7	0.118	25.7	
							6.2					9.4
0	● 1	3.6	0.0	0.4	0.0	16.3		0.0	2.1	0.0	16.3	

$\Delta L^*_{0a}=11.5$ (i=1,2,...,8)

normalisation: $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$