

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

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

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

$g^*_5 = 14$, $g^*_9 = 9$

$g^*_5 = 92$, $g^*_9 = 71$

$L^*_{CIE LAB}$	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	
	● 8	84.4	0.875	64.9	0.72	90.5	5.5	0.762	77.5	0.873	93.1	2.9
75	● 7	72.9	0.75	45.0	0.498	85.8	4.8	0.554	67.5	0.745	90.1	2.9
	● 6	61.3	0.625	29.6	0.326	81.7	4.0	0.379	59.8	0.616	87.2	2.9
50	● 5	49.8	0.5	18.2	0.199	78.5	3.2	0.24	54.1	0.49	84.3	2.9
	● 4	38.2	0.375	10.2	0.11	76.1	2.4	0.136	50.1	0.369	81.5	2.8
	● 3	26.7	0.25	5.0	0.051	74.5	1.6	0.064	47.5	0.254	78.9	2.6
25	● 2	15.2	0.125	1.9	0.017	73.5	1.0	0.022	46.0	0.148	76.4	2.4
	● 1	3.6	0.0	0.4	0.0	73.0	0.5	0.0	45.2	0.0	73.0	3.4

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

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