

Equal 9 step grey scaling between $L^*_{0aN}=22.3$ and $L^*_{0aW}=95.9$, $Y_{0ref}=10.0$, normalisation grey U

$L^*_{0aN}=22.3$, $L^*_{0aU}=59.1$, $L^*_{0aW}=96.0$, $Y_{0aN}=3.6$, $Y_{0aU}=27.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=25.0$

$L^*_{taN}=37.7$, $L^*_{taU}=59.1$, $L^*_{taW}=88.5$, $Y_{taN}=9.9$, $Y_{taU}=27.2$, $Y_{taW}=73.1$, $C_{taY}=Y_{taW}:Y_{taN}=7.3$

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 $Y \geq 0.882$, $Y_n=100$

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

$g^*_5=59$, $g^*_9=52$

$g^*_5=98$, $g^*_9=93$

$L^*_{CIE LAB}$	n0. i	intended output				real output					linearized output	
		L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.24}$	L^*_{la}	ΔL^*_{la}
100	○ 9	96.0	1.0	90.0	1.0	88.5		1.0	73.1	1.0	88.5	
	● 8	86.8	0.875	69.6	0.763	80.8	7.7	0.849	58.2	0.876	82.2	6.3
	● 7	77.6	0.75	52.5	0.566	73.3	7.5	0.701	45.7	0.751	75.9	6.3
75	● 6	68.4	0.625	38.5	0.403	66.1	7.2	0.558	35.4	0.625	69.5	6.4
	● 5	59.1	0.5	27.2	0.273	59.1	6.9	0.422	27.2	0.498	63.0	6.4
50	● 4	49.9	0.375	18.4	0.171	52.7	6.5	0.294	20.7	0.372	56.6	6.4
	● 3	40.7	0.25	11.7	0.094	46.8	5.9	0.178	15.9	0.249	50.4	6.3
	● 2	31.5	0.125	6.9	0.038	41.7	5.0	0.079	12.3	0.129	44.3	6.1
25	● 1	22.3	0.0	3.6	0.0	37.7	4.0	0.0	9.9	0.0	37.7	6.5

$\Delta L^*_{0a}=9.2$

(i=1,2,...,8)

normalisation: $Y_{taiU}=Y_{0aU} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aU}+Y_{0ref}}$