

Equal 9 step grey scaling between $L^*_{0aN}=22.3$ and $L^*_{0aW}=95.9$, $Y_{0ref}=20.0$, normalisation grey U

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

$L^*_{taN}=43.6$, $L^*_{taU}=59.1$, $L^*_{taW}=83.6$, $Y_{taN}=13.6$, $Y_{taU}=27.2$, $Y_{taW}=63.4$, $C_{taY}=Y_{taW}:Y_{taN}=4.7$

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

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

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

$g^*_5=47$, $g^*_9=40$

$g^*_5=96$, $g^*_9=87$

$L^*_{CIE LAB}$	n0. i	intended output				real output					linearized output	
		L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.35}$	L^*_{la}	ΔL^*_{la}
100	○ 9	96.0	1.0	90.0	1.0	83.6		1.0	63.4	1.0	83.6	
	● 8	86.8	0.875	69.6	0.763	77.0	6.6	0.835	51.6	0.875	78.6	5.0
	● 7	77.6	0.75	52.5	0.566	70.7	6.3	0.677	41.8	0.749	73.6	5.0
75	● 6	68.4	0.625	38.5	0.403	64.7	6.0	0.527	33.7	0.622	68.5	5.1
	● 5	59.1	0.5	27.2	0.273	59.1	5.6	0.387	27.2	0.496	63.5	5.0
	● 4	49.9	0.375	18.4	0.171	54.1	5.0	0.262	22.1	0.372	58.5	5.0
50	● 3	40.7	0.25	11.7	0.094	49.8	4.3	0.154	18.3	0.251	53.7	4.8
	● 2	31.5	0.125	6.9	0.038	46.3	3.5	0.066	15.5	0.134	49.0	4.7
25	● 1	22.3	0.0	3.6	0.0	43.6	2.6	0.0	13.6	0.0	43.6	5.3

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

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

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