

Equal 9 step grey scaling between $L^*_{0aN}=3.6$ and $L^*_{0aW}=95.9$, $Y_{0ref}=0.9$, normalisation grey U

$L^*_{0aN}=3.6$, $L^*_{0aU}=49.8$, $L^*_{0aW}=96.0$, $Y_{0aN}=0.4$, $Y_{0aU}=18.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=225.0$

$L^*_{taN}=10.8$, $L^*_{taU}=49.8$, $L^*_{taW}=94.6$, $Y_{taN}=1.2$, $Y_{taU}=18.2$, $Y_{taW}=86.6$, $C_{taY}=Y_{taW}:Y_{taN}=69.9$

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

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

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

$g^*_5 = 78$, $g^*_9 = 70$

$g^*_5 = 95$, $g^*_9 = 93$

$L^*_{CIE LAB}$	n0. i	intended output				real output					linearized output	
		L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.11}$	L^*_{la}	ΔL^*_{la}
100	○ 9	96.0	1.0	90.0	1.0	94.6		1.0	86.6	1.0	94.6	
							11.3					10.2
	● 8	84.4	0.875	64.9	0.72	83.3		0.865	62.7	0.878	84.3	
							11.2					10.3
75	● 7	72.9	0.75	45.0	0.498	72.1		0.731	43.7	0.754	74.0	
							11.2					10.5
	● 6	61.3	0.625	29.6	0.326	60.9		0.598	29.1	0.629	63.5	
							11.1					10.6
50	● 5	49.8	0.5	18.2	0.199	49.8		0.465	18.2	0.502	52.9	
							10.9					10.7
	● 4	38.2	0.375	10.2	0.11	38.9		0.335	10.6	0.373	42.1	
							10.5					10.8
25	● 3	26.7	0.25	5.0	0.051	28.4		0.21	5.6	0.245	31.4	
							9.6					10.4
	● 2	15.2	0.125	1.9	0.017	18.8		0.095	2.7	0.12	20.9	
							8.0					10.1
0	● 1	3.6	0.0	0.4	0.0	10.8		0.0	1.2	0.0	10.8	

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

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