

Equal 9 step grey scaling between $L^*_{0aN}=17.9$ and $L^*_{0aW}=95.9$, $Y_{0ref}=2.5$, normalisation white W

$L^*_{0aN}=17.9$, $L^*_{0aU}=56.9$, $L^*_{0aW}=96.0$, $Y_{0aN}=2.5$, $Y_{0aU}=24.9$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=36.0$

$L^*_{taN}=26.3$, $L^*_{taU}=58.6$, $L^*_{taW}=96.0$, $Y_{taN}=4.9$, $Y_{taU}=26.6$, $Y_{taW}=90.0$, $C_{taY}=Y_{taW}:Y_{taN}=18.5$

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

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

$g^*_5=78$, $g^*_9=72$

$g^*_5=97$, $g^*_9=97$

$L^*_{CIE LAB}$	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	96.0		1.0	90.0	1.0	96.0	
	● 8	86.2	0.875	68.5	0.754	86.5	9.5	0.864	69.0	0.877	87.4	8.6
	● 7	76.5	0.75	50.7	0.55	77.1	9.4	0.729	51.7	0.752	78.7	8.7
75	● 6	66.7	0.625	36.3	0.386	67.8	9.3	0.595	37.7	0.627	70.0	8.7
	● 5	56.9	0.5	24.9	0.256	58.6	9.2	0.464	26.6	0.5	61.2	8.8
50	● 4	47.2	0.375	16.2	0.156	49.7	8.9	0.335	18.2	0.374	52.4	8.8
	● 3	37.4	0.25	9.8	0.083	41.1	8.6	0.212	11.9	0.247	43.6	8.8
25	● 2	27.7	0.125	5.3	0.032	33.2	7.9	0.098	7.6	0.124	35.0	8.6
	● 1	17.9	0.0	2.5	0.0	26.3	6.8	0.0	4.9	0.0	26.3	8.6

$\Delta L^*_{0a}=9.7$

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

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