

Equal 9 step grey scaling between $L^*_{0aN}=18.2$ and $L^*_{0aW}=109.2$, $Y_{0ref}=126.0$, normalisation white

$L^*_{0aN}=18.2$, $L^*_{0aU}=63.8$, $L^*_{0aW}=109.3$, $Y_{0aN}=2.6$, $Y_{0aU}=32.5$, $Y_{0aW}=126.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=49.0$
 $L^*_{taN}=84.1$, $L^*_{taU}=91.3$, $L^*_{taW}=109.3$, $Y_{taN}=64.3$, $Y_{taU}=79.2$, $Y_{taW}=126.0$, $C_{taY}=Y_{taW}:Y_{taN}=1.9$

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 $Y \geq 0,882$, $Y_n=100$

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

$g^*_5=22$, $g^*_9=16$

$g^*_5=89$, $g^*_9=73$

$L^*_{CIE LAB}$	n0. i	intended output				real output				linearized output		
		L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.75}$	L^*_{la}	ΔL^*_{la}
	9	109.3	1.0	126.0	1.0	109.3		1.0	126.0	1.0	109.3	
100	8	97.9	0.875	94.7	0.746	103.9	5.4	0.785	110.3	0.87	106.0	3.2
	7	86.5	0.75	69.0	0.538	99.0	4.8	0.593	97.5	0.741	102.8	3.2
75	6	75.1	0.625	48.5	0.372	94.8	4.2	0.426	87.2	0.614	99.6	3.2
	5	63.8	0.5	32.5	0.242	91.3	3.5	0.287	79.2	0.49	96.4	3.1
50	4	52.4	0.375	20.5	0.145	88.6	2.8	0.177	73.2	0.371	93.4	3.0
	3	41.0	0.25	11.9	0.075	86.5	2.1	0.093	68.9	0.258	90.6	2.8
25	2	29.6	0.125	6.1	0.028	85.0	1.4	0.036	66.0	0.149	87.9	2.7
	1	18.2	0.0	2.6	0.0	84.1	0.9	0.0	64.3	0.0	84.1	3.7

$\Delta L^*_{0a}=11.4$ (i=1,2,...,8)

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