

Equal 9 step grey scaling between $L^*_{0aN}=18.2$ and $L^*_{0aW}=109.2$, $Y_{0ref}=3.6$, normalisation white W

$L^*_{0aN}=18.2$, $L^*_{0aU}=63.8$, $L^*_{0aW}=109.3$, $Y_{0aN}=2.6$, $Y_{0aU}=32.5$, $Y_{0aW}=126.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=49.0$
 $L^*_{taN}=29.4$, $L^*_{taU}=65.8$, $L^*_{taW}=109.3$, $Y_{taN}=6.0$, $Y_{taU}=35.1$, $Y_{taW}=126.0$, $C_{taY}=Y_{taW}:Y_{taN}=21.0$

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

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

$g^*_5=74$, $g^*_9=66$

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

$L^*_{CIE LAB}$	n0. i	intended output				real output				linearized output		
		L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.13}$	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	98.2	11.0	0.862	95.5	0.877	99.5	9.8
	7	86.5	0.75	69.0	0.538	87.3	10.9	0.725	70.6	0.753	89.6	9.9
75	6	75.1	0.625	48.5	0.372	76.5	10.8	0.589	50.7	0.628	79.5	10.0
	5	63.8	0.5	32.5	0.242	65.8	10.6	0.456	35.1	0.501	69.4	10.1
50	4	52.4	0.375	20.5	0.145	55.5	10.3	0.326	23.4	0.373	59.2	10.2
	3	41.0	0.25	11.9	0.075	45.7	9.8	0.204	15.0	0.246	49.1	10.1
25	2	29.6	0.125	6.1	0.028	36.8	8.9	0.092	9.4	0.122	39.2	9.9
	1	18.2	0.0	2.6	0.0	29.4	7.3	0.0	6.0	0.0	29.4	9.8

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

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