

Equal 9 step grey scaling between $L^*_{0aN}=8.1$ and $L^*_{0aW}=95.9$, $Y_{0ref}=2.5$, normalisation white W

$L^*_{0aN}=8.1$, $L^*_{0aU}=52.1$, $L^*_{0aW}=96.0$, $Y_{0aN}=0.9$, $Y_{0aU}=20.2$, $Y_{0aW}=90.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=99.9$

$L^*_{taN}=21.2$, $L^*_{taU}=54.1$, $L^*_{taW}=96.0$, $Y_{taN}=3.3$, $Y_{taU}=22.1$, $Y_{taW}=90.0$, $C_{taY}=Y_{taW}:Y_{taN}=27.2$

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

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

$g^*_5=65$, $g^*_9=55$

$g^*_5=93$, $g^*_9=91$

$L^*_{CIE LAB}$	n0. i	intended output				real output					linearized output	
		L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.19}$	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	85.0	0.875	66.0	0.731	85.3	10.6	0.857	66.7	0.879	87.0	9.0
75	7	74.0	0.75	46.7	0.515	74.8	10.6	0.716	47.9	0.756	77.8	9.2
	6	63.0	0.625	31.6	0.345	64.3	10.4	0.576	33.2	0.63	68.4	9.4
50	5	52.1	0.5	20.2	0.217	54.1	10.2	0.44	22.1	0.503	58.8	9.5
	4	41.1	0.375	11.9	0.124	44.3	9.8	0.308	14.0	0.373	49.1	9.7
25	3	30.1	0.25	6.3	0.06	35.1	9.2	0.185	8.5	0.243	39.4	9.7
	2	19.1	0.125	2.8	0.021	27.1	8.0	0.078	5.1	0.119	30.1	9.3
0	1	8.1	0.0	0.9	0.0	21.2	5.9	0.0	3.3	0.0	21.2	8.9

$\Delta L^*_{0a}=11.0$ (i=1,2,...,8)

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