

Equal 9 step grey scaling between $L^*_{0aN}=29.4$ and $L^*_{0aW}=78.4$, $Y_{0ref}=54.0$, normalisation grey U

$L^*_{0aN}=29.4, L^*_{0aU}=53.9, L^*_{0aW}=78.5, Y_{0aN}=6.0, Y_{0aU}=21.9, Y_{0aW}=54.0, C_{0aY}=Y_{0aW}:Y_{0aN}=9.0$

$L^*_{taN}=48.7, L^*_{taU}=53.9, L^*_{taW}=62.7, Y_{taN}=17.3, Y_{taU}=21.9, Y_{taW}=31.2, C_{taY}=Y_{taW}:Y_{taN}=1.8$

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

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

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

$g^*_5=45, g^*_9=39$

$g^*_5=89, g^*_9=78$

L^*_{CIELAB}	intended output			Y_{0r}	real output			linearized output			
	n0. i	L^*_{0a}	L^*_{0r}	Y_{0a}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.38}$	L^*_{la}	ΔL^*_{la}
9	78.5	1.0	54.0	1.0	62.7	2.5	1.0	31.2	1.0	62.7	1.8
8	72.3	0.875	44.1	0.795	60.2	2.3	0.824	28.3	0.868	60.8	1.8
7	66.2	0.75	35.6	0.616	57.9	2.1	0.66	25.9	0.74	59.0	1.7
6	60.1	0.625	28.2	0.462	55.8	1.9	0.511	23.7	0.614	57.3	1.7
5	53.9	0.5	21.9	0.332	53.9	1.6	0.377	21.9	0.492	55.5	1.6
4	47.8	0.375	16.6	0.222	52.3	1.4	0.258	20.4	0.374	53.9	1.6
3	41.7	0.25	12.3	0.131	50.8	1.2	0.156	19.1	0.259	52.3	1.6
2	35.5	0.125	8.8	0.058	49.6	1.0	0.07	18.1	0.145	50.7	1.6
1	29.4	0.0	6.0	0.0	48.7		0.0	17.3	0.0	48.7	2.0

