

Equal 9 step grey scaling between $L^*_{0aN}=30$ & $L^*_{0aW}=80.1$, $Y_{0ref}=4$, normalisation white W

$L^*_{0aN}=30.8, L^*_{0aU}=55.5, L^*_{0aW}=80.1, Y_{0aN}=6.7, Y_{0aU}=25.7, Y_{0aW}=60.0, C_{0aY}=Y_{0aW}:Y_{0aN}=9.0$
 $L^*_{taN}=36.8, L^*_{taU}=57.4, L^*_{taW}=80.1, Y_{taN}=10.0, Y_{taU}=27.9, Y_{taW}=60.0, C_{taY}=Y_{taW}:Y_{taN}=6.0$

Regularity index according to ISO/IEC 15775:2022, annex G for 5 and 9 steps
 $g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}], L^*_{TUBsRGB,W} = 100 [Y/Y_n]^{1/\ln(10)}$ with $Y \geq 0,39 = 100/255, Y_n=100$
 $g^*_5 = 99, g^*_9 = 99$ $g^*_5 = 86, g^*_9 = 83$ $g^*_5 = 87, g^*_9 = 82$

intended output					real output					linearized output		
n0. i	L*0a	L*0r	Y0a	Y0r	L*ta	ΔL^*_{ta}	L*tr	Yta	$(L^*tr)^{1/1.13}$	L*la	ΔL^*_{la}	
9	80.1	1.0	60.0	1.0	80.1		1.0	60.0	1.0	80.1		
8	73.9	0.875	49.9	0.811	74.3	5.7	0.867	50.5	0.882	75.0	5.1	
7	67.8	0.75	40.8	0.641	68.6	5.7	0.735	42.0	0.762	69.8	5.2	
6	61.6	0.625	32.8	0.49	63.0	5.6	0.605	34.5	0.642	64.6	5.2	
5	55.5	0.5	25.7	0.358	57.4	5.6	0.477	27.9	0.52	59.3	5.3	
4	49.3	0.375	19.6	0.243	52.0	5.4	0.351	22.2	0.397	54.0	5.3	
3	43.2	0.25	14.4	0.146	46.7	5.3	0.228	17.3	0.271	48.5	5.4	
2	37.0	0.125	10.1	0.065	41.6	5.1	0.11	13.2	0.143	43.0	5.5	
1	30.8	0.0	6.7	0.0	36.8	4.8	0.0	10.0	0.0	36.8	6.2	

$\Delta L^*_{0a}=6.1$ (i=1,2,...,8) normalisation: $Y_{taiW}=Y_{0aW} \frac{Y_{0ai}+Y_{0ref}}{Y_{0aW}+Y_{0ref}}$