

Equal 9 step grey scaling between $L^*_{0aN}=18$ & $L^*_{0aW}=135.1$, $Y_{0ref}=1$, normalisation white W

$L^*_{0aN}=18.3$, $L^*_{0aU}=76.7$, $L^*_{0aW}=135.1$, $Y_{0aN}=2.0$, $Y_{0aU}=54.3$, $Y_{0aW}=200.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=100.0$
 $L^*_{taN}=21.8$, $L^*_{taU}=77.1$, $L^*_{taW}=135.1$, $Y_{taN}=3.0$, $Y_{taU}=55.0$, $Y_{taW}=200.0$, $C_{taY}=Y_{taW}:Y_{taN}=67.0$

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 $Y \geq 0,39 = 100/255$, $Y_n=100$
 $g^*_5=99$, $g^*_9=99$ $g^*_5=92$, $g^*_9=88$ $g^*_5=85$, $g^*_9=82$

n0. i	$L^*_{TUBsRGB,W}$ intended output				real output					linearized output	
	L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.11}$	L^*_{la}	ΔL^*_{la}
9	135.1	1.0	200.0	1.0	135.1		1.0	200.0	1.0	135.1	
8	120.5	0.875	153.7	0.766	120.6	14.5	0.872	153.9	0.884	121.9	13.2
7	105.9	0.75	114.1	0.566	106.1	14.5	0.744	114.6	0.766	108.6	13.3
6	91.3	0.625	81.1	0.399	91.6	14.5	0.616	81.7	0.646	95.0	13.5
5	76.7	0.5	54.3	0.264	77.1	14.4	0.488	55.0	0.525	81.2	13.8
4	62.1	0.375	33.4	0.158	62.8	14.4	0.362	34.2	0.4	67.1	14.1
3	47.5	0.25	18.0	0.081	48.5	14.2	0.236	18.9	0.273	52.7	14.5
2	32.9	0.125	7.7	0.029	34.6	13.9	0.113	8.7	0.141	37.7	14.9
1	18.3	0.0	2.0	0.0	21.8	12.8	0.0	3.0	0.0	21.8	15.9

$\Delta L^*_{0a}=14.6$ (i=1,2,...,8)

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