

Equal 9 step grey scaling between $L^*_{0aN}=22$ & $L^*_{0aW}=108.2$, $Y_{0ref}=120$, normalisation white W

$L^*_{0aN}=22.8$, $L^*_{0aU}=65.5$, $L^*_{0aW}=108.2$, $Y_{0aN}=3.3$, $Y_{0aU}=37.8$, $Y_{0aW}=120.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=36.0$
 $L^*_{taN}=81.1$, $L^*_{taU}=90.2$, $L^*_{taW}=108.2$, $Y_{taN}=61.7$, $Y_{taU}=78.9$, $Y_{taW}=120.0$, $C_{taY}=Y_{taW}:Y_{taN}=1.9$

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 $Y \geq 0,39 = 100/255$, $Y_n=100$
 $g^*_5=99$, $g^*_9=99$ $g^*_5=33$, $g^*_9=25$ $g^*_5=47$, $g^*_9=34$

$L^*_{TUBsRGB,W}$ intended output real output linearized output

n0. i	intended output				real output					linearized output	
	L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/2.23}$	L^*_{la}	ΔL^*_{la}
9	108.2	1.0	120.0	1.0	108.2		1.0	120.0	1.0	108.2	
8	97.6	0.875	94.5	0.781	103.1	5.1	0.81	107.2	0.91	105.8	2.4
7	86.9	0.75	72.3	0.591	98.3	4.8	0.635	96.2	0.816	103.2	2.5
6	76.2	0.625	53.5	0.43	94.0	4.3	0.476	86.7	0.717	100.6	2.7
5	65.5	0.5	37.8	0.295	90.2	3.8	0.337	78.9	0.614	97.7	2.8
4	54.8	0.375	25.1	0.186	87.0	3.2	0.218	72.5	0.505	94.8	2.9
3	44.2	0.25	15.2	0.102	84.4	2.6	0.122	67.6	0.389	91.6	3.1
2	33.5	0.125	8.0	0.04	82.4	2.0	0.049	64.0	0.259	88.1	3.5
1	22.8	0.0	3.3	0.0	81.1	1.3	0.0	61.7	0.0	81.1	7.0

$\Delta L^*_{0a}=10.7$ (i=1,2,...,8)

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