

Equal 9 step grey scaling between $L^*_{0aN}=23$ & $L^*_{0aW}=104.2$, $Y_{0ref}=110$, normalisation white W

$L^*_{0aN}=23.7$, $L^*_{0aU}=64.0$, $L^*_{0aW}=104.2$, $Y_{0aN}=3.6$, $Y_{0aU}=35.7$, $Y_{0aW}=110.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$
 $L^*_{taN}=78.2$, $L^*_{taU}=87.2$, $L^*_{taW}=104.2$, $Y_{taN}=56.8$, $Y_{taU}=72.9$, $Y_{taW}=110.0$, $C_{taY}=Y_{taW}:Y_{taN}=1.9$

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 $Y \geq 0,39 = 100/255$, $Y_n=100$
 $g^*_5=99$, $g^*_9=99$ $g^*_5=35$, $g^*_9=27$ $g^*_5=48$, $g^*_9=36$

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

n0. i	L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/2.15}$	L^*_{la}	ΔL^*_{la}
9	104.2	1.0	110.0	1.0	104.2		1.0	110.0	1.0	104.2	
8	94.2	0.875	87.1	0.784	99.4	4.9	0.813	98.5	0.908	101.8	2.4
7	84.1	0.75	67.1	0.597	94.8	4.5	0.64	88.5	0.812	99.3	2.5
6	74.0	0.625	50.0	0.436	90.8	4.1	0.482	80.0	0.713	96.7	2.6
5	64.0	0.5	35.7	0.302	87.2	3.6	0.343	72.9	0.608	94.0	2.7
4	53.9	0.375	24.1	0.192	84.1	3.1	0.224	67.0	0.499	91.2	2.8
3	43.8	0.25	15.0	0.107	81.5	2.5	0.127	62.5	0.383	88.2	3.0
2	33.8	0.125	8.2	0.043	79.6	1.9	0.052	59.1	0.253	84.8	3.4
1	23.7	0.0	3.6	0.0	78.2	1.3	0.0	56.8	0.0	78.2	6.6

$\Delta L^*_{0a}=10.1$ (i=1,2,...,8)

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