

Equal 9 step grey scaling between $L^*_{0aN}=-55$ & $L^*_{0aW}=55.6$, $Y_{0ref}=4$, normalisation white W

$L^*_{0aN}=-55.6$, $L^*_{0aU}=0.0$, $L^*_{0aW}=55.7$, $Y_{0aN}=3.3$, $Y_{0aU}=20.0$, $Y_{0aW}=120.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=36.0$
 $L^*_{taN}=-32.1$, $L^*_{taU}=4.6$, $L^*_{taW}=55.7$, $Y_{taN}=7.1$, $Y_{taU}=23.2$, $Y_{taW}=120.0$, $C_{taY}=Y_{taW}:Y_{taN}=16.9$

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

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$, $L^*_{TUBLOG,Ua} = 50 / \log(5) [\log(Y/Y_u)]$ with $Y_u=20$

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

$g^*_5=59$, $g^*_9=53$

$g^*_5=97$, $g^*_9=89$

n0. i	intended output				real output					linearized output	
	L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.24}$	L^*_{la}	ΔL^*_{la}
9	55.7	1.0	120.0	1.0	55.7		1.0	120.0	1.0	55.7	
8	41.7	0.875	76.7	0.628	42.3	13.3	0.848	78.1	0.876	44.7	10.9
7	27.8	0.75	49.0	0.391	29.2	13.1	0.699	51.3	0.75	33.7	11.0
6	13.9	0.625	31.3	0.24	16.6	12.6	0.556	34.1	0.623	22.5	11.1
5	0.0	0.5	20.0	0.143	4.6	12.0	0.419	23.2	0.497	11.4	11.1
4	-13.8	0.375	12.8	0.081	-6.4	11.1	0.293	16.2	0.372	0.5	11.0
3	-27.8	0.25	8.1	0.041	-16.4	10.0	0.179	11.8	0.25	-10.1	10.7
2	-41.7	0.125	5.2	0.016	-25.0	8.6	0.081	8.9	0.132	-20.5	10.4
1	-55.6	0.0	3.3	0.0	-32.1	7.1	0.0	7.1	0.0	-32.1	11.6

$\Delta L^*_{0a}=13.9$ (i=1,2,...,8)

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