

Equal 9 step grey scaling between $L^*_{0aN}=-52$ & $L^*_{0aW}=52.9$, $Y_{0ref}=4$, normalisation white W

$L^*_{0aN}=-52.8$, $L^*_{0aU}=0.0$, $L^*_{0aW}=53.0$, $Y_{0aN}=3.6$, $Y_{0aU}=20.0$, $Y_{0aW}=110.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$
 $L^*_{taN}=-30.9$, $L^*_{taU}=4.6$, $L^*_{taW}=53.0$, $Y_{taN}=7.4$, $Y_{taU}=23.2$, $Y_{taW}=110.0$, $C_{taY}=Y_{taW}:Y_{taN}=14.9$

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 $Y_u=20$

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

$g^*_5=61$, $g^*_9=55$

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

n0. i	intended output				real output					linearized output	
	L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.23}$	L^*_{la}	ΔL^*_{la}
9	53.0	1.0	110.0	1.0	53.0		1.0	110.0	1.0	53.0	
8	39.7	0.875	71.8	0.641	40.3	12.7	0.849	73.2	0.875	42.5	10.5
7	26.5	0.75	46.9	0.407	27.9	12.4	0.702	49.1	0.749	31.9	10.6
6	13.2	0.625	30.6	0.254	15.9	12.0	0.559	33.4	0.623	21.3	10.6
5	0.0	0.5	20.0	0.154	4.6	11.4	0.424	23.2	0.497	10.7	10.6
4	-13.1	0.375	13.1	0.089	-5.9	10.6	0.297	16.5	0.372	0.3	10.4
3	-26.4	0.25	8.5	0.046	-15.5	9.6	0.183	12.1	0.251	-9.8	10.2
2	-39.6	0.125	5.6	0.018	-23.9	8.4	0.083	9.2	0.132	-19.8	10.0
1	-52.8	0.0	3.6	0.0	-30.9	7.0	0.0	7.4	0.0	-30.9	11.1

$\Delta L^*_{0a}=13.2$ (i=1,2,...,8)

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