

Equal 9 step grey scaling between $L^*_{0aN}=-52$ & $L^*_{0aW}=52.9$, $Y_{0ref}=1$, normalisation white W

$L^*_{0aN}=-52.8$, $L^*_{0aU}=0.0$, $L^*_{0aW}=53.0$, $Y_{0aN}=3.6$, $Y_{0aU}=20.0$, $Y_{0aW}=110.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$
 $L^*_{taN}=-45.6$, $L^*_{taU}=1.2$, $L^*_{taW}=53.0$, $Y_{taN}=4.6$, $Y_{taU}=20.8$, $Y_{taW}=110.0$, $C_{taY}=Y_{taW}:Y_{taN}=23.9$

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 $Y_u=20$

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

$g^*_5=85$, $g^*_9=82$

$g^*_5=99$, $g^*_9=97$

n0. i	intended output				real output					linearized output	
	L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/1.07}$	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	39.9	13.1	0.867	72.2	0.875	40.6	12.3
7	26.5	0.75	46.9	0.407	26.9	13.0	0.735	47.5	0.75	28.3	12.3
6	13.2	0.625	30.6	0.254	14.0	12.9	0.605	31.3	0.624	15.9	12.4
5	0.0	0.5	20.0	0.154	1.2	12.7	0.476	20.8	0.499	3.5	12.4
4	-13.1	0.375	13.1	0.089	-11.1	12.5	0.349	13.9	0.374	-8.7	12.3
3	-26.4	0.25	8.5	0.046	-23.2	12.1	0.227	9.4	0.249	-21.0	12.1
2	-39.6	0.125	5.6	0.018	-34.8	11.5	0.11	6.5	0.126	-33.1	12.1
1	-52.8	0.0	3.6	0.0	-45.6	10.8	0.0	4.6	0.0	-45.6	12.5

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

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