

Equal 9 step grey scaling between $L^*_{0aN}=-52$ & $L^*_{0aW}=52.9$, $Y_{0ref}=110$, normalisation white W

$L^*_{0aN}=-52.8$, $L^*_{0aU}=0.0$, $L^*_{0aW}=53.0$, $Y_{0aN}=3.6$, $Y_{0aU}=20.0$, $Y_{0aW}=110.0$, $C_{0aY}=Y_{0aW}:Y_{0aN}=30.2$
 $L^*_{taN}=32.4$, $L^*_{taU}=36.6$, $L^*_{taW}=53.0$, $Y_{taN}=56.8$, $Y_{taU}=65.0$, $Y_{taW}=110.0$, $C_{taY}=Y_{taW}:Y_{taN}=1.9$

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

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

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

$g^*_5=12$, $g^*_9=8$

$g^*_5=70$, $g^*_9=52$

n0. i	intended output				real output					linearized output	
	L^*_{0a}	L^*_{0r}	Y_{0a}	Y_{0r}	L^*_{ta}	ΔL^*_{ta}	L^*_{tr}	Y_{ta}	$(L^*_{tr})^{1/2.15}$	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	47.0	5.9	0.712	90.9	0.854	49.9	3.0
7	26.5	0.75	46.9	0.407	42.5	4.6	0.488	78.4	0.717	47.1	2.8
6	13.2	0.625	30.6	0.254	39.1	3.4	0.323	70.3	0.591	44.6	2.6
5	0.0	0.5	20.0	0.154	36.6	2.4	0.204	65.0	0.477	42.2	2.3
4	-13.1	0.375	13.1	0.089	34.9	1.7	0.121	61.5	0.374	40.1	2.1
3	-26.4	0.25	8.5	0.046	33.7	1.2	0.064	59.3	0.278	38.1	2.0
2	-39.6	0.125	5.6	0.018	33.0	0.8	0.025	57.8	0.182	36.2	2.0
1	-52.8	0.0	3.6	0.0	32.4	0.5	0.0	56.8	0.0	32.4	3.7

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

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