

# Equal 9 step grey scaling between $L^*_{0aN}=-48.3$ and $L^*_{0aW}=48.3$ , $Y_{0ref}=126.0$ , normalisation white

$L^*_{0aN}=-48.3$ ,  $L^*_{0aU}=0.0$ ,  $L^*_{0aW}=48.4$ ,  $Y_{0aN}=2.6$ ,  $Y_{0aU}=18.0$ ,  $Y_{0aW}=126.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=49.0$   
 $L^*_{taN}=31.6$ ,  $L^*_{taU}=34.4$ ,  $L^*_{taW}=48.4$ ,  $Y_{taN}=64.3$ ,  $Y_{taU}=72.0$ ,  $Y_{taW}=126.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=2.0$

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

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{TUBJND1} = 40 / \log(5) [\log ( Y/Y_u )]$  with  $Y_u=18$

$g^*_5 = 100$ ,  $g^*_9 = 100$

$g^*_5 = 8$ ,  $g^*_9 = 5$

$g^*_5 = 67$ ,  $g^*_9 = 49$

$L^*_{TUBJND1}$	n0. i	intended output				real output				$(L^*_{tr})^{1/2.39}$	linearized output	
		$L^*_{0a}$	$L^*_{0r}$	$Y_{0a}$	$Y_{0r}$	$L^*_{ta}$	$\Delta L^*_{ta}$	$L^*_{tr}$	$Y_{ta}$		$L^*_{la}$	$\Delta L^*_{la}$
50	9	48.4	1.0	126.0	1.0	48.4		1.0	126.0	1.0	48.4	
	8						5.3					2.5
	7						3.9	0.682	101.7	0.852	45.9	2.3
25	6						2.8	0.446	86.8	0.713	43.6	2.1
	5						1.9	0.28	77.6	0.587	41.5	1.9
0	4						1.2	0.168	72.0	0.474	39.6	1.7
	3						0.8	0.095	68.5	0.373	37.9	1.5
-25	2						0.5	0.048	66.4	0.281	36.3	1.5
	1						0.3	0.018	65.1	0.188	34.8	3.1
-50	1							0.0	64.3	0.0	31.6	

$\Delta L^*_{0a}=12.1$  (i=1,2,...,8)

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