

**Equal 9 step grey scaling between  $L^*_{0aN}=22.3$  and  $L^*_{0aW}=96.0$ ,  $Y_{0ref}=3.6$ , normalisation: white W**

$L^*_{0aN}=22.3$ ,  $L^*_{0aU}=59.1$ ,  $L^*_{0aW}=96.0$ ,  $Y_{0aN}=3.6$ ,  $Y_{0aU}=27.2$ ,  $Y_{0aW}=90.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=25.0$

$L^*_{tN}=31.6$ ,  $L^*_{taU}=61.3$ ,  $L^*_{taW}=96.0$ ,  $Y_{taN}=6.9$ ,  $Y_{taU}=29.6$ ,  $Y_{taW}=90.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=13.0$

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

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$

$L^*$	n0. i	$g^*_5=99, g^*_9=99$ intended output				$g^*_5=77, g^*_9=71$ real output				$g^*_5=98, g^*_9=97$ linearized output		
		$L^*_{0a}$	$L^*_{0r}$	$Y_{0a}$	$Y_{0r}$	$L^*_{ta}$	$\Delta L^*_{ta}$	$L^*_{tr}$	$Y_{ta}$	$(L^*_{tr})^{1/1.12}$	$L^*_{la}$	$\Delta L^*_{la}$
100	9	96.0	1.0	90.0	1.0	96.0		1.0	90.0	1.0	96.0	
	8	86.8	0.875	69.6	0.763	87.2	8.8	0.863	70.4	0.877	88.0	7.9
	7	77.6	0.75	52.5	0.566	78.4	8.7	0.727	53.9	0.752	80.0	8.0
75	6	68.4	0.625	38.5	0.403	69.8	8.6	0.593	40.4	0.627	72.0	8.1
	5	59.1	0.5	27.2	0.273	61.3	8.5	0.461	29.6	0.501	63.9	8.1
	4	49.9	0.375	18.4	0.171	53.1	8.2	0.333	21.1	0.375	55.8	8.1
50	3	40.7	0.25	11.7	0.094	45.2	7.8	0.211	14.7	0.249	47.7	7.9
	2	31.5	0.125	6.9	0.038	38.0	7.3	0.098	10.1	0.126	39.8	8.1
25	1	22.3	0.0	3.6	0.0	31.6	6.3	0.0	6.9	0.0	31.6	

$\Delta L^*_{ta}=9.2$  (i=1,2,...,9)

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