

# Equal 9 step grey scaling between $L^*_{0aN}=29.4$ and $L^*_{0aW}=78.4$ , $Y_{0ref}=3.6$ , normalisation white W

$L^*_{0aN}=29.4$ ,  $L^*_{0aU}=53.9$ ,  $L^*_{0aW}=78.5$ ,  $Y_{0aN}=6.0$ ,  $Y_{0aU}=21.9$ ,  $Y_{0aW}=54.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=9.0$

$L^*_{taN}=36.0$ ,  $L^*_{taU}=56.0$ ,  $L^*_{taW}=78.5$ ,  $Y_{taN}=9.0$ ,  $Y_{taU}=23.9$ ,  $Y_{taW}=54.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=6.0$

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

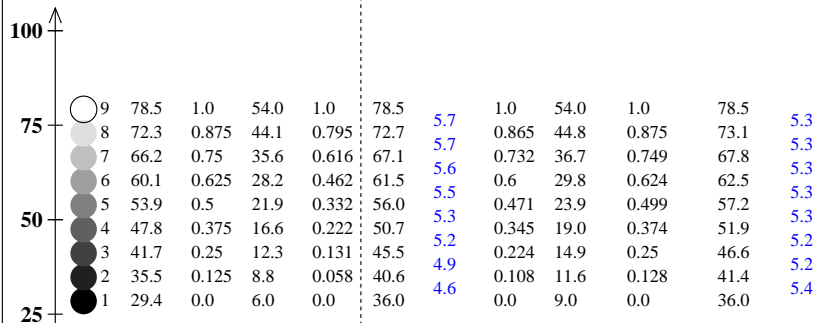
$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIE LAB} = 116 [Y/Y_n]^{1/3} - 16$  with  $Y \geq 0,882$ ,  $Y_n=100$

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

$g^*_5=83$ ,  $g^*_9=80$

$g^*_5=99$ ,  $g^*_9=96$

$L^*_{CIE LAB}$  intended output real output linearized output  
 n0. i  $L^*_{0a}$   $L^*_{0r}$   $Y_{0a}$   $Y_{0r}$   $L^*_{ta}$   $\Delta L^*_{ta}$   $L^*_{tr}$   $Y_{ta}$   $(L^*_{tr})^{1/1.08}$   $L^*_{la}$   $\Delta L^*_{la}$



0  $\Delta L^*_{0a}=6.1$

(i=1,2,...,8)

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