

# Equal 9 step grey scaling between $L^*_{0aN}=14.4$ and $L^*_{0aW}=125.1$ , $Y_{0ref}=3.6$ , normalisation white W

$L^*_{0aN}=14.4$ ,  $L^*_{0aU}=69.7$ ,  $L^*_{0aW}=125.1$ ,  $Y_{0aN}=1.8$ ,  $Y_{0aU}=40.4$ ,  $Y_{0aW}=180.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=99.9$

$L^*_{taN}=27.6$ ,  $L^*_{taU}=71.6$ ,  $L^*_{taW}=125.1$ ,  $Y_{taN}=5.3$ ,  $Y_{taU}=43.1$ ,  $Y_{taW}=180.0$ ,  $C_{taY}=Y_{taW}:Y_{taN}=34.0$

**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  $Y \geq 0.882$ ,  $Y_n=100$

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

$g^*_5=71$ ,  $g^*_9=61$

$g^*_5=94$ ,  $g^*_9=91$

$L^*_{CIE LAB}$  n0. i **intended output** **real output** **linearized output**  
 $L^*_{0a}$   $L^*_{0r}$   $Y_{0a}$   $Y_{0r}$   $L^*_{ta}$   $\Delta L^*_{ta}$   $L^*_{tr}$   $Y_{ta}$   $(L^*_{tr})^{1/1.15}$   $L^*_{la}$   $\Delta L^*_{la}$

