

# Equal 9 step grey scaling between $L^*_{0aN}=14.4$ and $L^*_{0aW}=95.9$ , $Y_{0ref}=90.0$ , normalisation grey U

$L^*_{0aN}=14.4$ ,  $L^*_{0aU}=55.2$ ,  $L^*_{0aW}=96.0$ ,  $Y_{0aN}=1.8$ ,  $Y_{0aU}=23.1$ ,  $Y_{0aW}=90.0$ ,  $C_{0aY}=Y_{0aW}:Y_{0aN}=50.0$

$L^*_{taN}=50.4$ ,  $L^*_{taU}=55.2$ ,  $L^*_{taW}=67.1$ ,  $Y_{taN}=18.8$ ,  $Y_{taU}=23.1$ ,  $Y_{taW}=36.8$ ,  $C_{taY}=Y_{taW}:Y_{taN}=2.0$

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

$g^* = 100 [\Delta L^*_{min}] / [\Delta L^*_{max}]$ ,  $L^*_{CIELAB} = 116 [Y/Y_n]^{1/3} - 16$  with  $Y \geq 0.882$ ,  $Y_n=100$

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

$g^*_5 = 22$ ,  $g^*_9 = 16$

$g^*_5 = 89$ ,  $g^*_9 = 72$

$L^*_{CIELAB}$  n0. i intended output real output linearized output  
 $L^*_{0a}$   $L^*_{0r}$   $Y_{0a}$   $Y_{0r}$   $L^*_{ta}$   $\Delta L^*_{ta}$   $L^*_{tr}$   $Y_{ta}$   $(L^*_{tr})^{1/1.75}$   $L^*_{la}$   $\Delta L^*_{la}$

