log ($L*_{80}/L*_{80,u}$)

HAULAB-Helligkeit $L*_{80}$ normiert für die UmgebungsHelligkeit $L*_{80,u}$

$L*/L*_{80,u}$

$L* = s(Y/Y_n)^n - d$ ($Y_n = 100, Y_u = 22, s = 134.6, n = 0.31, d = 34.6$)[1a]

$L* = r(Y/Y_u)^n - d$ (r = $s(Y_u/Y_n)^n = 79.10$, $L*_u = r - d = -44.5$) [1b]

$L*/L*_u = g(Y/Y_u)^n - h$ (g = r/(r-d) = 1.77, h = d/(r-d) = 0.77) [1c]

log [($L*/L*_u + h$) / g] = n log (Y/Y_u) = 0.31 log ($Y/22$) [1d]

ln [($L*/L*_u + h$) / g] = n ln(10) log(Y/Y_u) = 0.71 log ($Y/22$) [1e]

($L*/L*_u + h$) / g] = $e^{n \ln(10) \log (Y/Y_u)}$ = $e^{0.71 \log (Y/22)}$ [1f]

m_{nu} = n = 0.310

m_u = 0.544

0.301

Anwendungs-bereich

$Y_u = 18$

hgp90−1a