log (ΔY/ΔY_u)   HAULAB tristimulus value difference
ΔY/ΔY_u   ΔY normalized to ΔY_u

$L^* = s (Y/Y_n)^n - d$ ($Y_n = 100$, $Y_u = 19$, s=134,6, n=0,31, d=30,7) [1a]

$L^* = r (Y/Y_n)^n - d$ (r = s $(Y_u/Y_n)^n = 79,10$, $L^*_u = r-d = 48,3$) [1b]

$dY = [Y_n / (n s)] (Y/Y_n)^{1-n}$ [2c]

$dY_u = [Y_n / (n s)] (Y_u/Y_n)^{1-n} = 1,4083$ [2d]

$dY/dY_u = (Y/Y_u)^{1-n}$ [2e]

$\log(dY/dY_u) = (1-n) \log(Y/Y_u)$ [2f]

0,976

$m_{nu} = 1 - n = 0,690$

$m_u = 0,655$

0,494

0,012

−0,677

$\varphi = 120°$

$L_{aw} = 200 \, cd/m^2$

application range

het90−7a