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

2 100 $L^* = s(Y/Y_n)^n - d$ ($Y_n = 100$, $Y_u = 22$, $s = 134.6$, $n = 0.31$, $d = 34.6$)[1a]

$L^* = r(Y/Y_n)^n - d$ ($r = s(Y_u/Y_n)^n = 79.10$, $L^*_u = r - d = 44.4$) [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]

1 10 $dY/dY_u = (Y/Y_u)^{1-n}$ [2e]

$\log(dY/dY_u) = (1-n)\log(Y/Y_u)$ [2f] 0.931

0.448

$m_{nu} = 1 - n = 0.690$

0.008

$m_u = 0.659$

φ = 120°

$L_{aw} = 300 \text{ cd/m}^2$

application range

−0.723

0.1   10   Yu=18 100

0   1   Yu=22   2   log Y

−2   −1   0   1   2

het90−5a