

$\log (L^*/L^*_u)$

CIELAB lightness L^* normalized
to the background lightness L^*_u

L^*/L^*_u
2 **100** $L^* = s (Y/Y_u)^n - d \quad (Y_n=100, Y_u=18, s=116, n=1/3, d=16) \quad [1a]$

$L^* = r (Y/Y_u)^n - d \quad (r = s (Y_u/Y_n)^n = 65,49, L^*_u = r - d) \quad [1b]$

$L^*/L^*_u = g (Y/Y_u)^n - h \quad (g = r/(r-d) = 1,32, h = d/(r-d) = 0,32) \quad [1c]$

$\log [(L^*/L^*_u + h) / g] = n \log (Y/Y_u) \quad [1d]$

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

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

