

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

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

L^*/L^*_u

2 **100** $L^* = s (Y/Y_u)^n - d$ ($Y_n=100, Y_u=18, s=100, n=1/\ln(10), d=0$) [1a]

$L^* = r (Y/Y_u)^n - d$ ($r = s (Y_u/Y_n)^n = 47,48, L^*_u = r - d$) [1b]

$L^*/L^*_u = (Y/Y_u)^{1/\ln(10)}$ ($\ln(x) = \ln(10) \log(x)$) [1c]

$\log(L^*/L^*_u) = (1/\ln(10)) \log(Y/Y_u)$ [1d]

1 **10** $\ln(L^*/L^*_u) = \log(Y/Y_u)$ [1e]

$L^*/L^*_u = e^{\log(Y/Y_u)}$ [1f]

