

$\log [(\Delta Y/Y) / (\Delta Y/Y)_u]$

**CIELAB-Y sensitivity  
normalized to  $(\Delta Y/Y)_u$**

$S_r/S_{ru}=(\Delta Y/Y)/(\Delta Y/Y)_u$

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

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

$dY / Y = [ (Y_n / (n s)) ] (Y / Y_n)^{1-n} / Y \quad [3c]$

$(dY / Y)_u = [ (Y_n / (n s)) ] (Y_u / Y_n)^{1-n} / Y_u \quad [3d]$

$10 \quad (dY / Y) / (dY / Y)_u = (Y / Y_u)^{-n} \quad [3e]$

$\log [(dY / Y) / (dY / Y)_u] = (-n) \log(Y / Y_u) \quad [3f]$

