

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

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

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

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

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

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

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

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

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

