

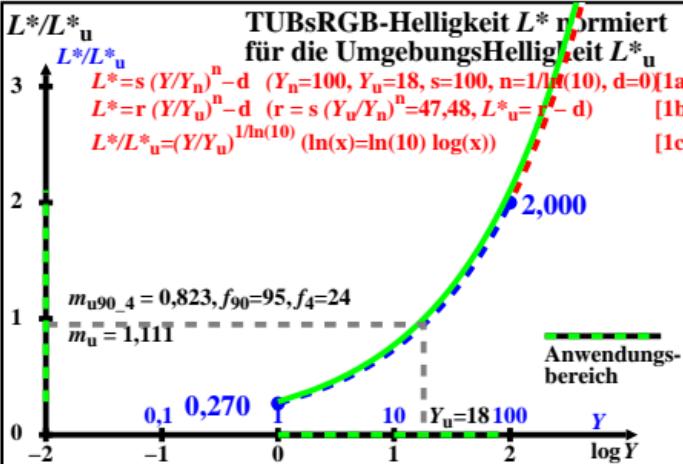
TUBsRGB-Helligkeit L^* normiert für die UmgebungsHelligkeit L^*_u

L^*/L^*_u

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

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

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



hgt41-5a

TUBsRGB-Normfarbwertdifferenz ΔY normiert für ΔY_u

$\Delta Y/\Delta Y_u$

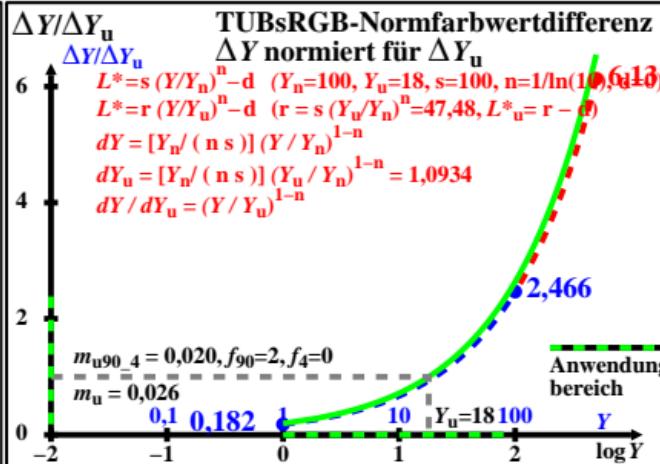
$$\Delta Y = s(Y/Y_u)^n - d \quad (Y_u=100, Y_u=18, s=100, n=1/\ln(10), d=0) \quad [1a]$$

$$\Delta Y = r(Y/Y_u)^n - d \quad (r=s(Y_u/Y_u)^n=47,48, \Delta Y_u=r-d) \quad [1b]$$

$$\Delta Y/\Delta Y_u = [Y_u/(n s)] (Y_u/Y_u)^{1-n} \quad [2c]$$

$$\Delta Y/\Delta Y_u = [Y_u/(n s)] (Y_u/Y_u)^{1-n} = 1,0934 \quad [2d]$$

$$\Delta Y/d\Delta Y_u = (Y/Y_u)^{1-n} \quad [2e]$$



hgt41-6a

TUBsRGB-Y-Empfindlichkeit $(\Delta Y/Y) / (\Delta Y/Y_u)$ normiert für $(\Delta Y/Y_u)$

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

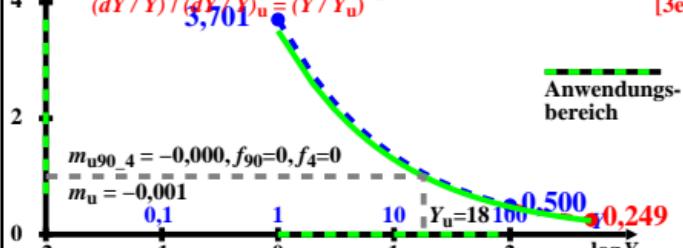
$$L^* = s(Y/Y_u)^n - d \quad (Y_u=100, Y_u=18, s=100, n=1/\ln(10), d=0) \quad [1a]$$

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

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

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

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



hgt41-7a

hgt41-7n

TUBsRGB-Y-Kontrast $(Y/\Delta Y) / (Y/\Delta Y_u)$ normiert für $(Y/\Delta Y_u)$

$C_r/C_{ru}=(Y/\Delta Y)/(Y/\Delta Y_u)$

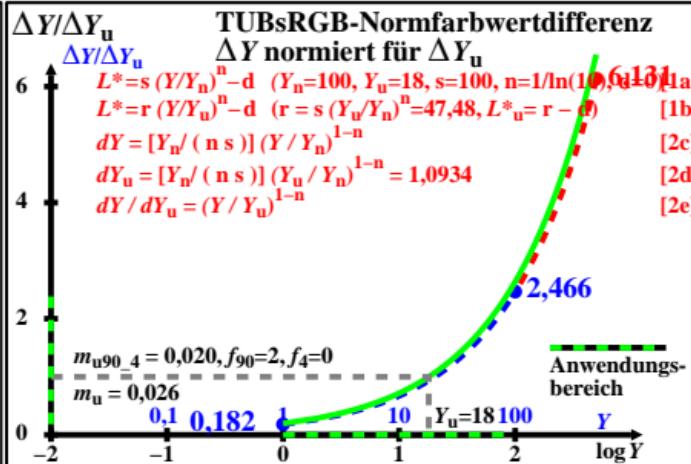
$$L^* = s(Y/Y_u)^n - d \quad (Y_u=100, Y_u=18, s=100, n=1/\ln(10), d=0) \quad [1a]$$

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

$$Y/dY = Y / \{ [(Y_u/(n s))(Y/Y_u)^{1-n}] \} \quad [4c]$$

$$(Y/Y_u) = Y_u / \{ [(Y_u/(n s))(Y_u/Y_u)^{1-n}] \} \quad [4d]$$

$$(Y/dY) / (Y/dY)_u = (Y/Y_u)^n \quad [4e]$$



hgt41-8a