

$$\frac{\log(L^*_{80}/L^*_{80,u})}{L^*/L^*_{80,u}}$$

**HAULAB-Helligkeit  $L^*_{80}$  normiert  
für die UmgebungsHelligkeit  $L^*_{80,u}$**

$$2 \uparrow 100L^*=s(Y/Y_p)^n-d \quad (Y_p=100, Y_u=11, s=134,6, n=0,31, d=19,2) [1a]$$

$$L^* = r(Y/Y_n)^n - d \quad (r = s(Y_1/Y_n)^n = 79,10, L^* = r-d = 59,8) \quad [1b]$$

$$L^*/L^*_n = g(Y/Y_n)^n - h \quad (g=r/(r-d)=1.32, h=d/(r-d)=0.32) \quad [1c]$$

$$\log \left[ \frac{(L^*/L^*_u + h)}{g} \right] = n \log \left( \frac{Y}{Y_u} \right) + 0.31 \log(Y/u) \quad [1d]$$

$$1 - \ln \left[ \frac{(L^* L^*_{\text{u}} + h) / g}{g} \right] = n \ln(10) \log \left( \frac{Y}{Y_{\text{u}}} \right) = 0,71 \log \left( \frac{Y}{Y_{\text{u}}} \right) \quad [1e]$$

$$(L^*/L^*_n + h) / g = e^{n \ln(10) \log(Y/Y_n)} = e^{0.71 \log(Y/11)} \quad [1f]$$

