

$\log(\Delta Y/\Delta Y_u)$
 $\Delta Y/\Delta Y_u$

relative CIE tristimulus
 value Y difference

$$L^* = 116 (Y/Y_n)^{1/3} - 16$$

relative tristimulus difference according to CIELAB

$$\begin{aligned}\log(dY) &= \log(3 (Y_n/116)) + (2/3) \log(Y/Y_n) \\ &= \log(3(Y_n^{1/3})/116) + (2/3) \log(Y)\end{aligned}$$

$$Y_u=18, dY_u=0,83, dY_u/Y_u=0,0454$$

$$\log[(dY)/(dY_u)]=0, m_u=0,66$$

application
 range

$$Y_u=18 \quad 100 \quad Y$$

