

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

relative CIELAB-tristimulus value difference

$\Delta Y / \Delta Y_u$

2-100

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

relative CIELAB-tristimulus value difference

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

