

$\log \Delta Y$

CIE tristimulus value difference

$10\Delta Y_{LABJND}$ and ΔY_{CIELAB}

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

tristimulus value difference according to CIELAB

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

