

$\log \Delta Y$

CIELAB-
tristimulus value difference

$\log(\Delta Y)$ ΔY

2-100

$$L^*_{\text{CIELAB}} = s(Y/Y_n)^{1/3} - 16 \quad (s=100, Y_n=100, 1 < Y \leq 100)$$

CIELAB-tristimulus value difference

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

1-10

0,-1

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

$$\log(dY)=0,82, m_u=0,66$$

application
range

-2

-1

0

1

10

100

2 $\log(Y)$