

$\log(\Delta Y)$

CIELABn1

tristimulus value difference

$$Y_{nc} = Y_W \text{RGB}_{nc} = 100, 21, 72, 7$$

ΔY

2 100

$$l^*_{\text{CIELABn1}} = 116 (Y/Y_n)^{1/3,0} - 16 \quad (Y_n = 100, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY) = (1/3,0) \log[3,0(Y_u/115)] + [1 - (1/3,0)] \log(Y)$$

1 10

$$l^*_u = 50, dY_u = 4,60, dY_u/Y_u = 0,2555$$

$$\log(dY) = 4,60, m_u = 0,66$$

0 1

$$dY_{90} = 13,45, \gamma = 3,0, 1/\gamma = 1/3,0 = 0,33$$

$$dY_{18} = 4,60, S_u = 115,49, D_n = -15,49$$

$$dY_{3,6} = 1,56, Y_n = 100, dY_n = 4,60$$

application range

0,1

1

10

100

$Y_u = 18$

100

Y

-1

0

$Y_N = 3,6$

1

10

100

$Y_W = 90$

2

$\log(Y)$