

$\log(\Delta Y)$

CIELABn4

tristimulus value difference

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

$$l^*_{\text{CIELABn4}} = 87 (Y/Y_n)^{1/1,5} + 13 \quad (Y_n = 100, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY) = (1/1,5) \log[1,5(Y_u/86)] + [1 - (1/1,5)] \log(Y)$$

ΔY

2 100

1 10

0 1

-1

$$l^*_u = 41, dY_u = 5,40, dY_u/Y_u = 0,3005$$

$$\log(dY) = 5,40, m_u = 0,33$$

$$dY_{90} = 9,25, \gamma = 1,5, 1/\gamma = 1/1,5 = 0,66$$

$$dY_{18} = 5,40, S_n = 86,98, D_n = 13,01$$

$$dY_{3,6} = 3,15, Y_n = 100, dY_n = 5,40$$

application range

0,1

1

10

100

$Y_u = 18$

100

Y

$Y_N = 3,6$

1

10

$Y_W = 90$

2

$\log(Y)$