

$\log(\Delta Y)$

CIELABn7

tristimulus value difference

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

ΔY

2 100

$$t^*_{\text{CIELABn7}} = 109 (Y/Y_n)^{1/2,5} - 9 \quad (Y_n = 100, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY) = (1/2,5) \log[2,5(Y_u/108)] + [1 - (1/2,5)] \log(Y)$$

1 10

$$t^*_u = 46, dY_u = 4,57, dY_u/Y_u = 0,2543$$

$$\log(dY) = 4,57, m_u = 0,60$$

0 1

$$dY_{90} = 12,02, \gamma = 2,0, 1/2,5 = 0,40$$

$$dY_{18} = 4,57, S_n = 100,42, D_n = -8,42$$

$$dY_{3,6} = 1,73, Y_n = 100, dY_n = 4,57$$

application range

0,1

1

10

100

$Y_u = 18$

100

Y

-1

0

1

2

$Y_N = 3,6$

1

$Y_W = 90$

2

$\log(Y)$