

$\log(\Delta Y)$

CIELABu8

tristimulus value difference

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

ΔY
2 100

$$t^*_{\text{CIELABu8}} = 50 (Y/Y_u)^{1/2,0} + 1 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY) = (1/2,0) \log[2,0(Y_u/49)] + [1 - (1/2,0)] \log(Y)$$

1 10

$$t^*_u = 50, dY_u = 4,06, dY_u/Y_u = 0,2257$$

$$\log(dY) = 4,06, m_u = 0,50$$

0 1

$$dY_{90} = 9,08, \gamma = 2,0, 1/\gamma = 1/2,0 = 0,50$$

$$dY_{18} = 4,06, S_n = 49,21, D_n = 0,78$$

$$dY_{3,6} = 1,81, Y_u = 18, dY_u = 4,06$$

application
range

0,1

1

10

100

$Y_u = 18$

100

Y

-2

-1

0

$Y_N = 3,6$

1

10

$Y_W = 90$

2

100

Y

$\log(Y)$