

$\log(\Delta Y)$

CIELABn3

tristimulus value difference

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

$$l^*_{\text{CIELABn3}} = 100 (Y/Y_n)^{1/2,0} + 1 \quad (Y_n = 100, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY) = (1/2,0) \log[2,0(Y_u/99)] + [1 - (1/2,0)] \log(Y)$$

2
1
0
-1

ΔY
100
10
1

$$l^*_u = 43, dY_u = 4,75, dY_u/Y_u = 0,2639$$

$$\log(dY) = 4,75, m_u = 0,49$$

$$dY_{90} = 10,62, \gamma = 2,0, 1/\gamma = 1/2,0 = 0,50$$

$$dY_{18} = 4,75, S_n = 99,21, D_n = 0,78$$

$$dY_{3,6} = 2,11, Y_n = 100, dY_n = 4,75$$

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

$\log(Y)$