

$\log(\Delta Y/Y)$

CIELABu3

tristimulus value sensitivity

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

$$S_r = (\Delta Y/Y)$$

2
100

$$l^*_{\text{CIELABu3}} = 50(Y/Y_u)^{1/2,0} + 1 \quad (Y_u=18, Y_{nc}/100 < Y \leq Y_{nc})$$

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

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

1
10

0
-1

$$\log(dY/Y) = -0,64, m_u = -0,49$$

$$l^*_{u_0} = 50, dY_u = 4,06, dY_u/Y_u = 0,2257$$

application range

$$(dY/Y)_{90} = 0,1009, \gamma = 2,0, 1/\gamma = 1/2,0 = 0,50$$

$$(dY/Y)_{18} = 0,2257, S_n = 49,21, D_n = 0,78$$

$$(dY/Y)_{3,6} = 0,5036, Y_u = 18, dY_u = 4,06$$

0,1

1

10

100

Y

$Y_N = 3,6 \quad Y_W = 90 \quad \log(Y)$