

$\log(\Delta Y/Y)$

CIELABu4

tristimulus value sensitivity

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

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

2
100

$$l^* \text{CIELABu4} = 37(Y/Y_u)^{1/1,5} + 13 \quad (Y_u=18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY/Y) = \log[1,5(Y_u/36)] - (1/1,5) \log(Y/Y_u)$$

$$= (1/1,5) \log[1,5(Y_u/36)] - (1/1,5) \log(Y)$$

1
10

0
1

$$\log(dY/Y) = -0,64, m_u = -0,66$$

$$l^* u = 50, dY_u = 4,05, dY_u/Y_u = 0,2253$$

application range

$$(dY/Y)_{90} = 0,0770, \gamma = 1,5, 1/\gamma = 1/1,5 = 0,66$$

$$(dY/Y)_{18} = 0,2253, S_n = 36,98, D_n = 17,01$$

$$(dY/Y)_{3,6} = 0,6575, Y_u = 18, dY_u = 4,05$$

0,1

1

10

100

$Y_u = 18$

100

Y

$Y_N = 3,6$

1

$Y_W = 90$

2

$\log(Y)$