

$\log(\Delta Y/Y)$

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

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

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

application range

0,1

1

10

-2

-1

0

$Y_N=3,6$

1

10

100

Y

$Y_u=18 \quad Y_W=90$