

$\log(\Delta Y/\Delta Y_u)$

CIELABu4 relative
tristimulus value difference

$$Y_{nc} = L^*_{wRGBnc} = 100, 52, 87, 31$$

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

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

$\Delta Y/\Delta Y_u$

2 100

1 10

0 1

-1

-2

$$dY_{90}/dY_u = 1,70, \gamma = 1,5, 1/\gamma = 1/1,5 = 0,66$$

$$dY_{18}/dY_u = 1,00, S_n = 36,98, D_n = 13,01$$

$$dY_{3,6}/dY_u = 0,58, Y_u = 18, dY_u = 4,05$$

$$L^*_u = 50, dY_u = 4,05, dY_u/Y_u = 0,2253$$

$$\log[(dY)/(dY)_u] = 0, m_u = 0,33$$

application
range

0,1

1

10

100

$Y_u = 18$

$Y_N = 3,6$

$Y_W = 90$

2

$\log(Y)$