

$\log(\Delta Y/Y)$

CIELABu4

tristimulus value sensitivity

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

$S_r = (\Delta Y/Y)$

2-100

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

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

1-10

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

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

application  
range

0-1

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

$(dY/Y)_{18} = 0,2253, S_n = 36,98, D_n = 13,01$

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

0,1

1

10

100

$Y_u = 18$

Y

-1

0

1

2

$Y_N = 3,6$

$Y_W = 90$

$\log(Y)$