

$\log [(\Delta Y/Y) / (\Delta Y/Y)_u]$

CIE LABu4 relative
tistimulus value sensitivity

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

$S_r/S_{ru} = (\Delta Y/Y) / (\Delta Y/Y)_u$

2 100

$L^*_{CIE LABu4} = 37 (Y/Y_u)^{1/1,5} + 13 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$

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

1 10

$(dY/Y)_{90}/(dY/Y)_u = 0,34, \gamma = 1,5, 1/\gamma = 1/1,5 = 0,66$

$(dY/Y)_{18}/(dY/Y)_u = 1,20, S_u = 36,98, D_u = 13,01$

$(dY/Y)_{3,6}/(dY/Y)_u = 2,91, Y_u = 18, dY_u = 4,05$

application
range

0 1

$\log[(dY/Y)/(dY/Y)_u] = 0, m_u = -0,66$

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

0,1

1

10

100

$Y_u = 18$

Y

-1

-1

0

$Y_N = 3,6$

1

$Y_W = 90$

2

$\log(Y)$