

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

CIELABu3 relative

tristimulus value difference

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

$\Delta Y/\Delta Y_u$

2 100

$L^*_{CIELABu3} = 50(Y/Y_u)^{1/2,0} + 1 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$

$\log(dY/dY_u) = [1 - (1/2,0)] \log(Y/Y_u)$

1 10

$dY_{90}/dY_u = 2,23, \gamma = 2,0, 1/\gamma = 1/2,0 = 0,50$

$dY_{18}/dY_u = 1,00, S_n = 49,21, D_n = 0,78$

$dY_{3,6}/dY_u = 0,44, Y_u = 18, dY_u = 4,06$

0 1

$L^*_u = 50, dY_u = 4,06, dY_u/Y_u = 0,2257$

$\log[(dY)/(dY)_u] = 0, m_u = 0,50$

application range

-2
-1

0,1
-1

1
0

10
1

100
2

$Y_u = 18$

Y

$Y_N = 3,6$

$Y_W = 90$

$\log(Y)$