

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

CIELABn5 relative
tristimulus value difference

$Y_{nc}=Y_W$ RGB_{nc}=100, 21, 72, 7

$\Delta Y/\Delta Y_u$

2 100

$$t^*_{\text{CIELABn5}} = 116(Y/Y_u)^{1/3,0} - 16 \quad (Y_n=100, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY/dY_u) = [1 - (1/3,0)] \log(Y/Y_u)$$

1 10

$$dY_{90}/dY_u = 2,92, \gamma = 3,0, 1/\gamma = 1/3,0 = 0,33$$

$$dY_{18}/dY_u = 1,00, S_n = 115,49, D_n = -15,49$$

$$dY_{3,6}/dY_u = 0,34, Y_n = 100, dY_n = 4,60$$

0 1

$$t^*_u = 50, dY_u = 4,60, dY_u/Y_u = 0,2555$$

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

application
range

-2
-1

0,1
-1

10 18 100 Y
Y_N=3,6 1 Y_W=90 2 log(Y)