

$\log(\Delta Y)$

CIELABu2

tristimulus value difference

$$Y_{nc} = L^* \mathbf{w} \mathbf{R} \mathbf{G} \mathbf{B}_{nc} = 100, \mathbf{52}, \mathbf{87}, \mathbf{31}$$

$$L^*_{\text{CIELABu2}} = 59(Y/Y_u)^{1/2,5} - 9 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY) = (1/2,5) \log[2,5(Y_u/58)] + [1 - (1/2,5)] \log(Y)$$

2
1
0
-1

100
10
1
0
-1

$$L^*_u = 50, dY_u = 4,27, dY_u/Y_u = 0,2377$$

$$\log(dY) = 4,27, m_u = 0,59$$

$$dY_{90} = 11,23, \gamma = 2,5, 1/\gamma = 1/2,5 = 0,40$$

$$dY_{18} = 4,27, S_n = 58,42, D_n = -8,42$$

$$dY_{3,6} = 1,62, Y_u = 18, dY_u = 4,27$$

application
range

0,1

1

10

100

$Y_u = 18$

Y

$Y_N = 3,6$

1

10

$Y_W = 90$

2

$\log(Y)$