

$\log(\Delta Y)$

LABJNDu3

tristimulus value difference

$$Y_{nc} = L^* \mathbf{w}_{\text{RGB}} \mathbf{b}_{nc} = 100, 52, 87, 31$$

ΔY

1-10

$$L^*_{\text{LABJNDu3}} = \ln(A_{1n} + A_{2n}Y) / (A_{2n}A_{0n}) \quad (Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_{\text{LABJNDu3}} = \ln(A_{1n} + A_{2u}x) / (A_{2u}A_{0n}) \quad (x = Y/Y_u)$$

$$dY = A_{0n}(A_{1n} + A_{2n}Y) = A_{0n}(A_{1n} + A_{2u}x) \quad x = Y/Y_u$$

$$A_{0n,D65} = 1,5, A_{0n,A} = 1,0, \text{ see CIE 230:2019}$$

$$L^*_u = 496, dY_u = 0,13, dY_u/Y_u = 0,0072$$

$$\log(dY) = 0,13, m_u = 0,80$$

application
range

0,1

1

10

$x_u = 1$

100

Y

-2

-1

0

$x_N = 0,2$

1

$x_W = 5$

2

$\log(Y)$