

$\log(\Delta Y)$

LABJNDu1

tristimulus value difference

$$Y_{nc} = L^* w_{RGB} n_c = 100, 52, 87, 31$$

ΔY

1-10

$$L^*_{LABJNDu1} = \ln(A_{1n} + A_{2n}Y) / (A_{2n}A_{0n}) \quad (Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_{LABJNDu1} = \ln(A_{1n} + A_{2u}x) / (A_{2u}A_{0n}) \quad (x = Y/Y_u)$$

$$dY = A_{0n}(A_{1n} + A_{2n}Y) = A_{0n}(A_{1n} + A_{2u}x), \text{ see CIE 230:2019}$$

0-1

$$dY_{90} = 0,35, A_{0n} = 0,6666, A_{2u} = 0,1044, c_x = 1,00$$

$$dY_{18} = 0,08, A_{1n} = 0,017, A_{2n} = 0,0058$$

$$dY_{3,6} = 0,02, Y_u = 18, dY_u = 0,08$$

-1-0,1

$$L^*_u = 748, dY_u = 0,08, dY_u/Y_u = 0,0044$$

$$\log(dY) = 0,08, m_u = 0,85$$

application
range

-2

0,1

-1

0

$x_N = 0,2$

10

1

$x_u = 1$

$x_W = 5$

100

2

Y

$\log(Y)$