

$\log(\Delta Y)$

LABJNDu4

tristimulus value difference

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

ΔY

1-10

$$L^*_{LABJNDu4} = \ln(A_{1n} + A_{2n}Y) / (A_{2n}A_{0n}) \quad (Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_{LABJNDu4} = \ln(A_{1n} + A_{2u}x) / (A_{2u}A_{0n}) \quad (x = Y/Y_u)$$

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

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

$$L^*_u = 791, dY_u = 0,07, dY_u/Y_u = 0,0042$$

$$\log(dY) = 0,33, A_{0n} = 1,5, A_{2u} = 0,0433, c_x = 0,42$$

$$dY_{18} = 0,07, A_{1n} = 0,007, A_{2u} = 0,0024$$

$$dY_{3,6} = 0,02, Y_u = 18, dY_u = 0,07$$

application
range

-2 -1 0 1 2 $\log(Y)$