

$\log(\Delta Y)$

LABJNDu4

tristimulus value difference

$$Y_{nc} = Y_w \mathbf{RGB}_{nc} = 100, \mathbf{21}, \mathbf{72}, \mathbf{7}$$

ΔY

1-10

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

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

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

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

-1-0,1

$$l^*_u = 1187, dY_u = 0,05, dY/Y_u = 0,0028$$

$$\frac{dY}{dY_u} = 0,22, A_{0n} = 1,0, A_{2n} = 0,0438$$

$$\log(dY) = 0,05, A_{1n} = 0,8307, A_{2n} = 0,5024$$

$$dY_{3,6} = 0,01, Y_u = 18, dY_u = 0,005$$

application range

-2

0,1

1

10

100

Y

-2

-1

0

$x_N = 0,2$

1

$x_W = 5$

2

$\log(Y)$