

$\log(\Delta Y)$

CIELABu4

tristimulus value difference

$Y_{nc} = Y_W \text{RGB}_{nc} = 100, 21, 72, 7$

ΔY
2
100

$$l^*_{\text{CIELABu4}} = 37 (Y/Y_u)^{1/1,5} + 13 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$\log(dY) = (1/1,5) \log[1,5(Y_u/36)] + [1 - (1/1,5)] \log(Y)$$

1
10

$$l^*_u = 50, dY_u = 4,05, dY_u/Y_u = 0,2253$$

$$\log(dY) = 4,05, m_u = 0,33$$

0
1

application
range

-1
0,1 1 10 100 Y
-2 -1 0 1 2 $\log(Y)$
 $Y_N = 3,6$ $Y_u = 18$ $Y_W = 90$