

log (L^*)

CIELABu0 standard lightness L^*

$$Y_{nc} = L^*_{wRGBnc} = 100, 52, 87, 31$$

L^*

4 10000

$$L^*_{CIELABu0} = 66(Y/Y_u)^{1/3,0} - 16 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_{N(3,6)} = 23, L^*_u(18) = 50, L^*_{W(90)} = 97$$

3 1000

2 100

$$\log[L^*/L^*_u] = 0, m_u = 0,43$$

$$L^*_u = 49, L^*_u = 50$$

application
range

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