

$\log(L^*)$

CIELABn0 standard lightness  $L^*$

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

$L^*$

4 10000

$$L^*_{\text{CIELABn0}} = 116(Y/Y_n)^{1/3,0} - 16 \quad (Y_n = 100, Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_{N(3,6)} = 23, L^*_{u(18)} = 50, L^*_{W(90)} = 96$$

3 1000

$$L^*_{90} = 96,01, \gamma = 3,0, 1/\gamma = 1/3,0 = 0,33$$

$$L^*_{18} = 49,71, S_n = 115,49, D_n = -15,49$$

$$L^*_{3,6} = 22,55, L^*_n = 49,71, Y_n = 18$$

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

$Y_u = 18$

$Y$

-2

-1

0

$Y_N = 3,6$

1

$Y_W = 90$

2

$\log(Y)$