

L^* CIELABu2 standard lightness L^*

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

 L^*

4 10000

$$L^*_{CIELABu2} = 59(Y/Y_u)^{1/2,5} - 9 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_{N(3,6)} = 22, L^*_u(18) = 50, L^*_{W(90)} = 103$$

3 1000

$$L^*_{90} = 102,79, \gamma = 2,5, 1/\gamma = 1/2,5 = 0,40$$

$$L^*_{18} = 50,00, S_n = 58,42, D_n = -8,42$$

$$L^*_{3,6} = 22,19, L^*_u = 50,00, Y_u = 18$$

2 100

$$\log[L^*/L^*_u] = 0, m_u = 0,46$$

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

application
range

1

0,1

1

10

 $Y_u = 18$

100

 Y

0

 $Y_N = 3,6$

1

 $Y_W = 90$

2

 $\log(Y)$