

L^* CIELABn1 standard lightness L^*

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

 L^*

150

$$L^*_{CIELABn1} = 116(Y/Y_n)^{1/3,0} - 16 \quad (Y_n = 100, Y_{nc}/100 < Y \leq Y_{nc})$$

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

100

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

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

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

50

$$L^*_{u} = 49,71, m_u = 50,02$$

$$L^*_{u} = 49, L^*_{u} = 50$$

application
range

0,1

10

1

 $Y_u = 18$

100

 Y

-2

-1

0

 $Y_N = 3,6$

1

 $Y_W = 90$

2

 $\log(Y)$