

L^*/L_u^* CIE LABu3 relative standard lightness L^*/L_u^*

$$Y_{nc} = L^*_w \text{RGB}_{nc} = 100, \text{52, 87, 31}$$

 L^*/L_u^*

2 100

$$L^*_{\text{CIE LABu3}} = 50(Y/Y_u)^{1/2,0} + 1 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_N(3,6) = 23, L^*_u(18) = 50, L^*_w(90) = 111$$

1 10

$$L^*_{90}/L_u^* = 2,21, \gamma = 2,0, 1/\gamma = 1/2,0 = 0,50$$

$$L^*_{18}/L_u^* = 1,00, S_n = 49,21, D_n = 0,78$$

$$L^*_{3,6}/L_u^* = 0,45, L^*_u = 50,00, Y_u = 18$$

0 1

$$\log[L^*/L_u^*] = 0, m_u = 0,49$$

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

application
range

0,1

1

10

 $Y_u = 18$

100

 Y

-1

0

1

 $Y_N = 3,6$ $Y_W = 90$

2

 $\log(Y)$