

l^* CIELABu3 standard lightness l^* $Y_{nc}=Y_{W\text{RGB}nc}=100, 21, 72, 7$

l^*

4 10000

$$l^*_{\text{CIELABu3}} = 50 (Y/Y_u)^{1/2,0} + 1 \quad (Y_u = 18, Y_{nc}/100 < Y \leq Y_{nc})$$

$$l^*_{N(3,6)} = 23, l^*_u(18) = 50, l^*_W(90) = 111$$

3 1000

$$l^*_{90} = 110,83, \gamma = 2,0, 1/\gamma = 1/2,0 = 0,50$$

$$l^*_{18} = 50,00, S_n = 49,21, D_n = 0,78$$

$$l^*_{3,6} = 22,74, l^*_u = 50,00, Y_u = 18$$

2 100

$$\log[l^*/l^*_u] = 0, m_u = 0,49$$

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

application
range

