

L^* LABJNDu4 standard lightness L^*

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

 L^*

4 10000

$$L^*_{LABJNDu4} = \ln(A_{1n} + A_{2n}Y) / (A_{2n}A_{0n}) \quad (Y_{nc}/100 < Y \leq Y_{nc})$$

$$L^*_{LABJNDu4} = \ln(A_{1n} + A_{2u}x) / (A_{2u}A_{0n}) \quad (x = Y/Y_u)$$

$$L^*_N(3,6) = 146, L^*_u(18) = 332, L^*_{w(90)} = 517$$

3 1000

$$\log[L^*/L^*_u] = 0, m_u = 0,33$$

$$L^*_u = 49, L^*_u = 332$$

2 100

$$L^*_{90} = 517,21, A_{0n} = 1,5, A_{2u} = 0,1044, c_x = 0,42$$

$$L^*_{18} = 332,22, A_{1n} = 0,007, A_{2n} = 0,0058$$

$$L^*_{3,6} = 146,11, L^*_u = 332,22, Y_u = 18$$

application
range

1

0,1

1

10

100

 Y

-2

-1

0

1

2

 $\log(Y)$