

l^* LABJNDu4 standard lightness l^* $Y_{nc}=Y_{wRGBnc}=100, \text{red } 21, \text{green } 72, \text{blue } 7$ l^*

4 10000

 $l^*_{LABJNDu4} = \ln(A_{1n} + A_{2n}Y) / (A_{2n}A_{0n}) \quad (Y_{nc}/100 < Y \leq Y_{nc})$ $l^*_{LABJNDu4} = \ln(A_{1n} + A_{2u}x) / (A_{2u}A_{0n}) \quad (x = Y/Y_u)$ $l^*_{3,6} = 782,77, l^*_{18} = 1779,78, l^*_{90} = 2770,81, l^*_{w(90)} = 2771$ 3 1000 $l^*_u = 49, l^*_u = 1780$

2 100

 $l^*_{90} = 2770,81, A_{0n} = 0,6666, A_{2u} = 0,0438, c_x = 0,42$ $l^*_{18} = 1779,78, A_{1n} = 0,007, A_{2n} = 0,0024$ $l^*_{3,6} = 782,77, l^*_u = 1779,78, Y_u = 18$

application range

1

0,1

10

 $x_u = 1$

100

 Y

-2

-1

 $x_N = 0,2$

1

 $x_w = 5$

2

 $\log(Y)$