

log(L*) CIELAB lightness

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3 1000

CIELAB lightness for all colours, $L^*_W=100$:

$$L^*_{\text{CIELAB}} = 116 (Y/Y_n)^{1/3} - 16 \quad (Y_n=100, Y > 1)$$

2 100

$L^*_u=50, Y_u=18$

$\log(L^*_u)=1,69, m_u=0,43$

1 10

application range

0 0,1 1 $Y_N=4$ 10 $Y_u=18$ 100 Y

-2 -1 0 1 2 log(Y)