

$\log(\Delta Y/\Delta Y_u)$

relative IECsRGBJND-tristimulus value

$\Delta Y/\Delta Y_u$

2

100

$$L^*_{IECsRGBJND} = 100 (Y/Y_n)^{1/7,2}$$

relative IECsRGBJND-tristimulus value difference

1

10

$$\begin{aligned} \log(dY) &= \log(7,2 (Y_n/100)) + (1-(1/7,2)) \log(Y/Y_n) \\ &= \log(7,2(Y_n^{1/7,2})/100) + (1-(1/7,2)) \log(Y) \end{aligned}$$

0

1

$$Y_u=0, dY_u=0,09, dY_u/Y_u=0,1440$$

$$\log[(dY)/(dY_u)]=0, m_u=0,86$$

application
range

0,1

1

$Y_N=4$ 10

$Y_u=18$ 100

Y

-1

-1

0

1

2

$\log(Y)$