

$\log(Y/\Delta Y)$

CIELABu4

tristimulus value contrast

$Y_{nc}=Y_{WRGBnc}=100, 21, 72, 7$

$C_r=(Y/\Delta Y)$

2 100

$l^*_{CIELABu4}=37(Y/Y_u)^{1/1,5}+13 \quad (Y_u=18, Y_{nc}/100 < Y \leq Y_{nc})$

$\log(Y/dY) = -\log[1,5(Y_u/36)] + (1/1,5) \log(Y/Y_u)$   
 $= -(1/1,5) \log[1,5(Y_u/36)] + (1/1,5) \log(Y)$

1 10

$l^*_u=50, dY_u=4,05, Y_u/dY_u=4$

$\log(Y/dY)=0,64, m_u=0,66$

0 1

$(Y/dY)_{90}=12,97, \gamma=1,5, 1/\gamma=1/1,5=0,66$

$(Y/dY)_{18}=4,43, D_n=36,98, D_n=13,01$

$(Y/dY)_{3,6}=1,52, Y_u=18, dY_u=4,05$

application  
range

0.1

1

10

100

$Y_u=18$

2

$Y$

-1

0

1

2

$\log(Y)$

$Y_N=3,6$

$Y_W=90$