

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

CIE Y-based contrast
normalized to $Y_u/\Delta Y_u$

$C_r/C_{ru} = (Y/\Delta Y) / (Y_u/\Delta Y_u)$

100 $L^* = 116 (Y/Y_u)^{1/3} - 16$ ($Y_u=100, 1 \leq Y \leq 100$) [1h]

$Y/dY = (3/116) \cdot Y_u^{1/3} Y^{2/3}$ [2h]

$Y/dY = e \cdot (Y/Y_u)^{2/3}$ [3h]

$Y/dY = f \cdot (Y/Y_u)^{2/3}$ [4h]

$e = 833,048$ $f = 9743,392$ [5h]

10

$9,923$

0 $\log[(Y_u/dY_u)/(Y_u/dY_u)] = 0, m_u = 0,53$

1 $Y_u = 18, dY_u = 0,83, Y_u/dY_u = 21$

$0,222$

$Y_N = 3,6 \quad Y_u = 18 \quad Y_W = 90$

application range

1

10

100

1000

10000

Y

-1

0

1

2

3

$4 \log Y$