

$Y/\Delta Y$

CIE Y-based contrast

$C_r = (Y/\Delta Y)$

60 $L^* = 116 (Y/Y_n)^{1/3} - 16 \quad (Y_n = 100, 1 \leq Y \leq 100)$ [1g]

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

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

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

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

$\log[(Y/dY)/(Y_u/dY_u)] = 0, m_u = 0,33$

$L_u^* = 50, Y_u = 18, dY_u = 0,83, Y_u/dY_u = 21$
 $Y_n = 5,6, Y_u = 18, Y_w = 90$

application range

5,4
9,3

1 10 100 1000 10000 Y
-1 0 1 2 3 4 $\log Y$