

$\log[(Y/\Delta Y) / (Y_u/\Delta Y_u)]$ Y_{CIELAB} contrast
 normalized to $[Y/\Delta Y]_{\text{CIELAB},u}$

2 100 $L^* = 116 (Y/Y_u)^{1/3} - 16, \quad Y_u=100, Y_u=18, 1 \leq Y \leq 100$ [1h]

$L^* = k_u (Y/Y_u)^{1/3} - 16, \quad k_u = 116 [Y_u/Y_u]^{1/3} = 65,50$ [2h]

$(Y/dY) / (Y/dY)_u = [Y/Y_u]^{1/3}$ [3h]

1 10

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

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

N threshold

application range

