

$(Y/\Delta Y) / (Y/\Delta Y)_u$

HAULAB-Y contrast normalized to $(Y/\Delta Y)_u$

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

$L^* = s(Y/Y_n)^n - d$ ($Y_n=100, Y_u=11, s=134,6, n=0,31, d=19,2$) [1a]

$L^* = r(Y/Y_u)^n - d$ ($r = s(Y_u/Y_n)^n = 79,10, L^*_u = r - d = 59,8$) [1b]

Y_curve, ij=3, Yuij=11, L*uij=50

k=99, Ykij=400, L*kij=187,5, $(Y/\Delta Y) / (Y/\Delta Y)_u = 1,94$

k=11, Ykij=312, L*kij=172,2, $(Y/\Delta Y) / (Y/\Delta Y)_u = 1,69$

k=1, Ykij=302, L*kij=170,3, $(Y/\Delta Y) / (Y/\Delta Y)_u = 0,57$

k=0, Ykij=301, L*kij=170,1, $(Y/\Delta Y) / (Y/\Delta Y)_u = 0,46$

$m_{u90} = 0,279, f_{90}=40, f_4=16$

$m_u = 0,679$

$\phi = 120^\circ$

$L_{aw} = 40 \text{ cd/m}^2$

application range

