

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

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

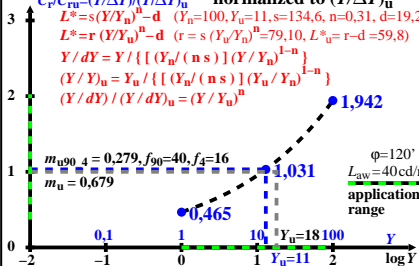
$$L^* = s(Y/Y_n)^n - d \quad (Y_n=100, Y_u=11, s=134,6, n=0,31, d=19,2) \quad [1a]$$

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

$$Y/dY = Y / \{ [(Y_n/(n s))] (Y/Y_n)^{1-n} \} \quad [4c]$$

$$(Y/Y)_u = Y_u / \{ [(Y_n/(n s))] (Y_u/Y_n)^{1-n} \} \quad [4d]$$

$$(Y/dY)/(Y/dY)_u = (Y/Y_u)^n \quad [4e]$$



$\varphi = 120'$
 $L_{aw} = 40 \text{ cd/m}^2$

application range