

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

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

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

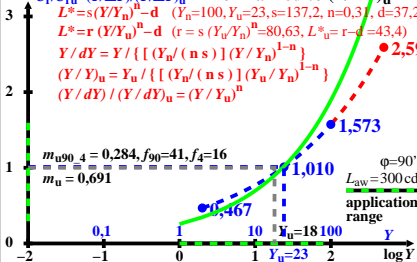
$L^* = s(Y/Y_n)^n - d$  ( $Y_n=100, Y_u=23, s=137,2, n=0,31, d=37,2$ ) [1a]

$L^* = r(Y/Y_u)^n - d$  ( $r = s(Y_u/Y_n)^n = 80,63, L^*_u = r - d = 43,4$ ) [1b]

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

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

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



$m_{u90_4} = 0,284, f_{90}=41, f_4=16$

$m_u = 0,691$

$\phi=90'$

$L_{aw} = 300 \text{ cd/m}^2$

application range

0,1

1

10

$Y_u=18$

$Y_u=23$

1

2

log Y