

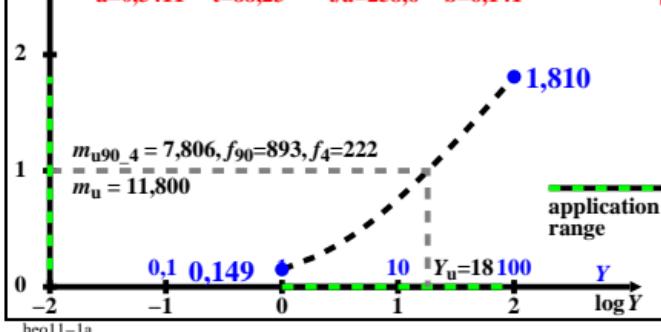
$$L^*_{85,2} / L^*_{85,2,u}$$

LABJND lightness $L^*_{85,2}$ normalized to the background lightness $L^*_{85,2,u}$

$$\frac{L^*}{L^*_{85,2,u}} = \frac{t/a}{(t/a) \{ \ln(1 + a \cdot Y) - \ln(1 + a \cdot Y_u) \}} \quad [1a]$$

$$\frac{L^*}{L^*_{85,2,u}} = \frac{(t/a) \{ \ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b) \}}{(t/a) \{ \ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b) \}} \quad [1b]$$

$$a=0,3411 \quad t=88,23 \quad t/a=258,6 \quad b=6,141 \quad [1c]$$



heo11-1a

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

LABJND-Y sensitivity normalized to $(\Delta Y/Y)_u$

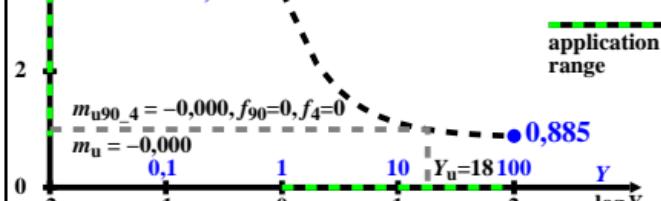
$$\frac{L^*/L^*_{85,2}}{L^*_{85,2,u}} = \frac{(t/a) \{ \ln(1 + a \cdot Y) - \ln(1 + a \cdot Y_u) \}}{(t/a) \{ \ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b) \}} \quad [1a]$$

$$\frac{L^*/L^*_{85,2}}{L^*_{85,2,u}} = \frac{\ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b)}{\ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b)} \quad [1b]$$

tristimulus value Y sensitivity

$$\frac{(dY/Y)}{(dY_u/Y_u)} = \frac{[(1 + a \cdot Y)/Y] / [(1 + a \cdot Y_u)/Y_u]}{[(1 + a \cdot Y)/Y] / [(1 + a \cdot Y_u)/Y_u]} \quad [3f]$$

$$3,380 \quad 0,885$$



heo11-3a

heo11-3n

$$\Delta Y / \Delta Y_u$$

$$\Delta Y / \Delta Y_u$$

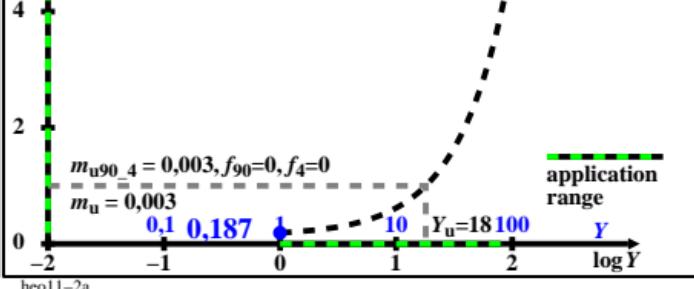
LABJND tristimulus value difference ΔY normalized to ΔY_u

$$\frac{L^*/L^*_{85,2}}{L^*_{85,2,u}} = \frac{(t/a) \{ \ln(1 + a \cdot Y) - \ln(1 + a \cdot Y_u) \}}{(t/a) \{ \ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b) \}} \quad [1a]$$

$$\frac{L^*/L^*_{85,2}}{L^*_{85,2,u}} = \frac{\ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b)}{\ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b)} \quad [1b]$$

normalized tristimulus value Y difference $4,917$

$$dY/dY_u = (1 + a \cdot Y) / (1 + a \cdot Y_u) \quad [3d]$$



heo11-2a

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

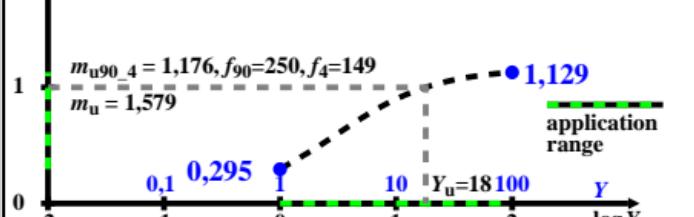
LABJND-Y contrast normalized to $(Y/\Delta Y)_u$

$$\frac{C_r/C_{ru}}{C_r/C_{ru}} = \frac{(Y/\Delta Y)/(Y/\Delta Y)_u}{(Y/\Delta Y)/(Y/\Delta Y)_u} \quad [1a]$$

$$\frac{L^*/L^*_{85,2}}{L^*_{85,2,u}} = \frac{(t/a) \{ \ln(1 + a \cdot Y) - \ln(1 + a \cdot Y_u) \}}{(t/a) \{ \ln[1 + b \cdot (Y/Y_u)] - \ln(1 + b) \}} \quad [1b]$$

tristimulus value Y contrast

$$\frac{(Y/dY)}{(Y_u dY_u)} = \frac{[Y / (1 + a \cdot Y)] / [Y_u / (1 + a \cdot Y_u)]}{[Y / (1 + a \cdot Y)] / [Y_u / (1 + a \cdot Y_u)]} \quad [4h]$$



heo11-4a