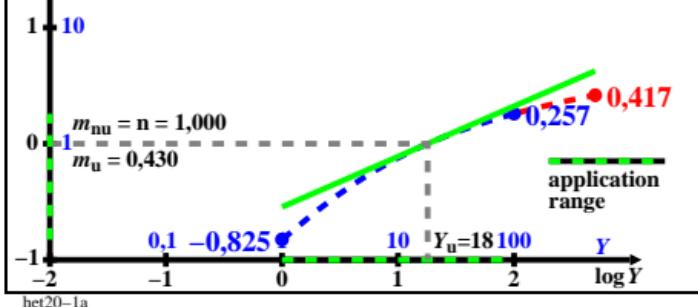


log $(L^*_{85}/L^*_{85,u})$ LABJND lightness L^*_{85} normalized to the background lightness $L^*_{85,u}$

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

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

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

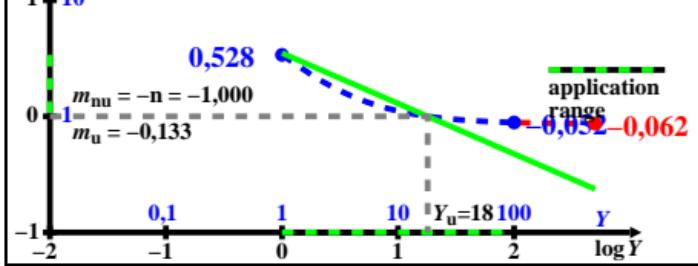


log $[(\Delta Y/Y) / (\Delta Y/Y_u)]$ LABJND-Y sensitivity normalized to $(\Delta Y/Y)_u$

$$\frac{S_r/S_{ru}}{\Delta Y/\Delta Y_u} = (\Delta Y/Y)/(\Delta Y/Y_u) \quad [1a]$$

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

$$\begin{aligned} & (\Delta Y/Y) / (\Delta Y/Y_u) \quad \text{tristimulus value } Y \text{ sensitivity} \\ & = [(1 + a \cdot Y) / Y] / [(1 + a \cdot Y_u) / Y_u] \end{aligned} \quad [3f]$$



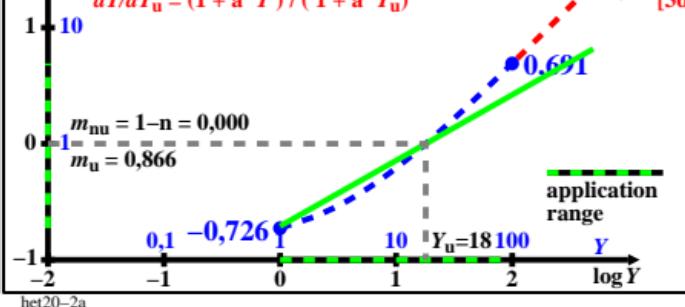
het20-3a
het20-3n

log $(\Delta Y/\Delta Y_u)$ LABJND tristimulus value difference ΔY normalized to ΔY_u

$$\frac{\Delta Y/\Delta Y_u}{\Delta Y/\Delta Y_u} = (t/a) \{ \ln(1 + a \cdot Y) - \ln(1 + a \cdot Y_u) \} \quad [1a]$$

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

$$\begin{aligned} & \text{normalized tristimulus value } Y \text{ difference} \\ & dY/dY_u = (1 + a \cdot Y) / (1 + a \cdot Y_u) \end{aligned} \quad [3d]$$

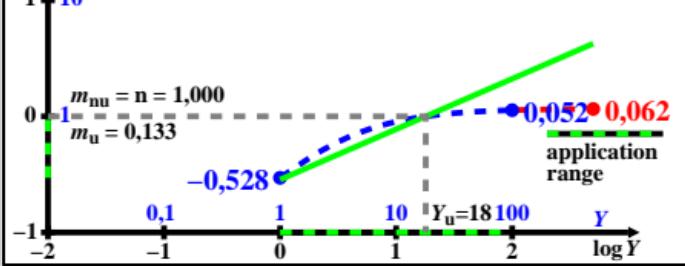


log $[(Y/\Delta Y) / (Y/\Delta Y_u)]$ LABJND-Y contrast normalized to $(Y/\Delta Y)_u$

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

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

$$\begin{aligned} & (Y/\Delta Y) / (Y/\Delta Y_u) \quad \text{tristimulus value } Y \text{ contrast} \\ & = [Y / (1 + a \cdot Y)] / [Y_u / (1 + a \cdot Y_u)] \end{aligned} \quad [4h]$$



het20-4a