

luminance discrimination

possibility $L/\Delta L$ as function of H

with: $L = 10^x$ $H = e^h = 10^{\log_e k(x-u)}$

$dL/dx = \ln 10 L$ $dH/dx = k H$

it follows: $L/\Delta L = [kH / (dH \ln 10)]$

$\frac{L}{\Delta L} = \text{const } H / [(1 + \sqrt{2}H)(2 + \sqrt{2}H)]$

$Q' [k(x-u) \rightarrow +\infty] = 0$

$Q' [k(x-u) = 0] = \text{maximum}$

$Q' [k(x-u) \rightarrow -\infty] = 0$