

luminance discrimination

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

with: $L = 10^u$ $H = e^h = 10^{\log e k (u - u_0)}$

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

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

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

$$Q' [k(u - u_0) \rightarrow +\infty] = 0$$

$$Q' [k(u - u_0) = 0] = \text{maximum}$$

$$Q' [k(u - u_0) \rightarrow -\infty] = 0$$