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

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

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

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

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