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

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

$\mathrm{d}L/\mathrm{d}u = \ln 10\, L$ $\mathrm{d}H/\mathrm{d}u = k\,H$

it follows: $L/\Delta L = [k\,H/(\mathrm{d}H\,\ln 10)]$

$$\dfrac{L}{\mathrm{d}L} = \text{const}\; H/[(1+\sqrt{2}\,H)(2+\sqrt{2}\,H)]$$

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

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

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