

„achromatic response” discrimination
as function of relative light density

$$h = \ln H = k(u - u_0), \quad \ln = \text{natural log.}$$

$$Q' = \frac{d}{dH} [\ln \{ 1 + 1/(1 + \sqrt{2}H) \}] / \ln \sqrt{2}$$
$$= -\sqrt{2} / [\ln \sqrt{2} (1 + \sqrt{2}H)(2 + \sqrt{2}H)]$$

function values:

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

$$Q' [k(u - u_0) = 0] = -0,5$$

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