

Achromatic receptor response function

$$Q_{ab}[x_r/a]$$

with $x_r = \log [L/L_u]$ (L =test luminance)

L_u =surround luminance

$$Q_{ab}[x_r/a] = \frac{b}{\ln \sqrt{2}} \ln q[x_r/a] - b$$

$$q[x_r/a] = 1 + 1/[1 + \sqrt{2} e^{(x_r/a)}]$$

$$Q_{a1}[x_r/a \rightarrow -\infty] = -1 \quad x = \log L$$

$$Q_{a1}[x_r/a = 0] = 0 \quad \text{for } b = 1$$

$$Q_{a1}[x_r/a \rightarrow +\infty] = +1$$