

$\Delta L_r = |L_{r2} - L_{r1}| =$ Relative luminance difference

$$\log(\Delta L_r) = \log(|L_{r2} - L_{r1}|)$$

Samples:
adjacent

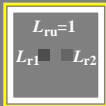


Weber law:

$$\log(\Delta L_{rw}) = \log L_r$$

$$\Delta L_{rw} / L_r = \text{const}$$

Samples:
separated



Stevens law:

$$\log(\Delta L_{rs}) = 0,5 \log L_r$$

$$\Delta L_{rs} = \text{const } L_r^{0,5}$$

$$L_r = L/L_u$$

$$L_u = 50 \text{ cd/m}^2$$

combine laws:

$$\log L_{aw} = 1,0 \log L_r$$

$$\log L_{as} = 0,5 \log L_r$$