Source \( l(y) \) – an angular distribution of radiances (W/m\(^2\)-steradian) for the entire scene

Spread function \( P(x,y) \) – the set of all points \( x \) on the membrane receiving radiation from source point at \( y \).

Image \( M(x) \) – a distribution of irradiances (W/m\(^2\)) over the pit membrane

Pit aperture - defines \( P(x,y) \)

\( \bullet \) A specific source point \( i \) at angular coordinates \( y \), with radiance \( l(y) \).

\( \bullet \) The conjugate image point to the specific source point at \( y \), located at angular coordinates \( x = y \), with irradiance \( M(x) \).

All computations are size-independent as they use angular coordinates (azimuth, elevation), \( x \) and \( y \).
The irradiance distribution image $M(x)$ is found by summing (integrating) contributions from all points $y$ irradiating an image point at $x_i$, and repeating the summation for all points $x$.

\[ M(x) = \bigwedge P(x,y) \ l(y) \ dy \]
Heat transfer processes convert irradiance distribution image $M(x)$ into temperature contrast image $T(x)$.

Receptor sensitivity converts the temperature contrast image $T(x)$ into the neural input image $D(x)$ that is transmitted to the brain via trigeminal nerve branches.