

Designing With Light
Chapter 4

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Accommodation

Adaptation

Apparent Brightness

Cones

Contrast

Cornea

Fovea

The ability of the eye to change focus from one distance to another.

The perceived brightness of a light source or illuminated object as determined by the brightness range to which the eye has adapted.

The relationship between the luminance or color of an object and its surround.

A small region at the center of the retina that contains only cones and provides the most distinct vision.

The ability of the eye to adjust to different illumination levels.

Retinal photoreceptors that provide color vision and respond to high illuminance levels. Cells in the retina that perceive color and detail. So called because their shape resembles a cone

The clear covering over the iris and pupil. The cornea helps to focus light onto the retina

Mesopic Vision

Photopic Vision

Pupil

Retina

Rods

Scotopic Vision

Visual Acuity

Vision resulting from the cone cells of the retina. Generalized as daytime vision, photopic vision occurs at illuminance levels greater than 100 lux.

Vision utilizing both rods and cones. Mesopic vision occurs at illuminance levels between .1 and 100 lux.

A membrane lining the inner eye, opposite the pupil, which contains photo-reactive cells that provide vision.

The opening of the iris that allows light into the eye.

Vision that relies only on rods. Scotopic vision occurs at illuminance levels below .1 lux.

Retinal photoreceptors that provide vision at low light levels. Rods do not provide color vision.

The ability to see fine or small details.