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## About magnification

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Magnifiers allow us to view objects and images invisible to the naked eye. By increasing the size of an object in appearance, we are able to view detail otherwise indiscernible.

The degree of magnification will vary with the task at hand. With low level magnification an object can be studied while the edge of the object remains in focus. With increased magnification, small details are clearly visible but the blurring at the edge of the object increases.

### Using a Luxo magnifier

Luxo's illuminated magnifiers are working tools. They are designed for precision and comfort. We recommend using both eyes to view an object whenever possible.

In order to achieve maximum magnification without distortion, the user should position the lens a proper distance from the object, and fairly close to the eyes. Do not lean back and away from the lens in order to increase magnification.

Seating and worksurface height should be adjusted for good posture.

### Added magnification with a secondary lens

For additional magnification our magnifiers may be equipped with a secondary lens.

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## Dictionary

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### *Diopter*

*Diopter is an optical term referring to the refractive (light bending) capacity of a lens. Each diopter increases magnification by 25%.*

### *Magnification*

*The degree to which a viewed object is enlarged. Expressed in percentage or by the symbol X.*

*100% magnification = 1X magnification. To determine the level of magnification based on diopters used, divide the total diopters by 4 and add 1. e.g. 5D=2.25X as follows:  $5/4+1=2.25X$*

### *Field-of-view*

*Field-of-view is the area which is visible as seen through a lens.*

### *Focal length*

*Focal length is the distance from the center of the lens to the viewed object when in focus. As magnification increases, the focal length decreases.*

### *Working distance*

*Working distance is the area between the underside of the magnifier and the top of the object being viewed when the object appears in focus.*