

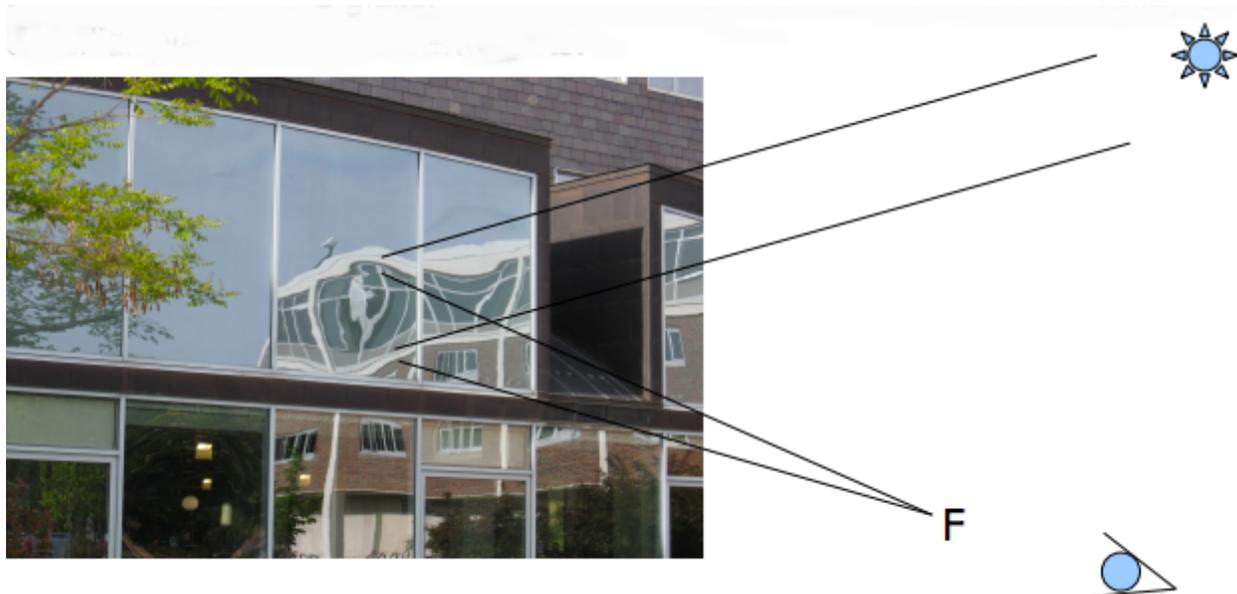
LITESENTRY FACT SHEET:

What is a milliDiopter?

A milliDiopter (mD) is 1/1000 of a Diopter, a unit of measurement of the refractive power of a glass lens. Unlike peak-to-valley or other physical measures of waves, kinks, or other displacements in a glass sheet, a Diopter is a measure of the observable distortion (the magnification or “lens power”) in the glass as it transmits or reflects light.

Perfectly flat glass has no curvature – 0mD – and reflects a true, undistorted image. Glass fabrication processes such as tempering and heat strengthening impart some amount of curvature in the glass. Any curvature, no matter how small, bends the transmitted or reflected light causing distortion perceptible to the human eye. The extent of the curvature is measured as lens power, which is related to the radius of curvature of the glass. This distortion is measured in milliDiopters.

It is important to note that while the human eye can easily perceive distortion, it does not see peak-to-valley or other displacement measurements. It sees mD or the curvature in the glass. This is why distortion in a glass sheet can be overlooked by an operator on the manufacturing line, and yet be obvious and unsightly when the glass is installed.



Example:

$$F = 3 \text{ m}$$

$$1/F = 1/3 = 0.333 \text{ D} = 333 \text{ mD}$$

$$\text{Radius of curvature} = 2F = 6 \text{ m}$$