

## Point Source

Although very few luminaires are actual point sources, they do simplify the drawing of shadows.

As can be seen in the image on the left, construction lines are first drawn from the point source and pass through all the significant points on the object to be illuminated.

Because the light is spreading as it leaves the source, parts that are further from the shadow plane will cast larger shadows.

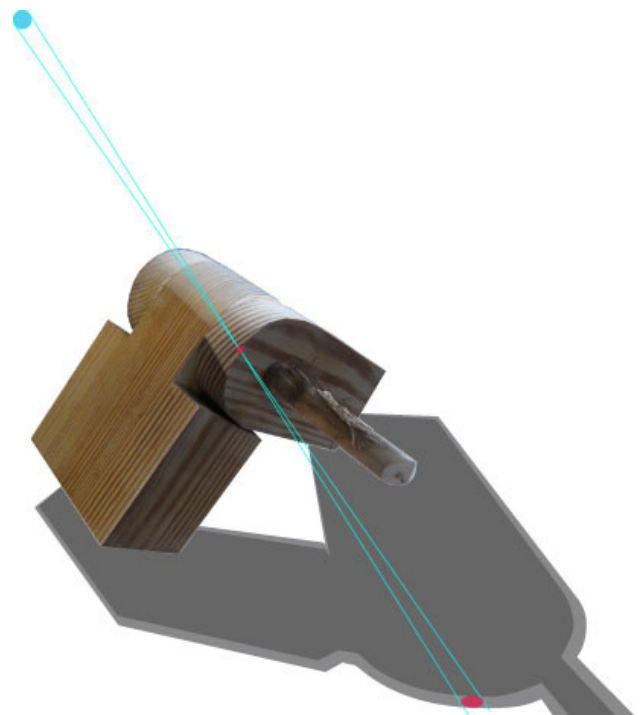
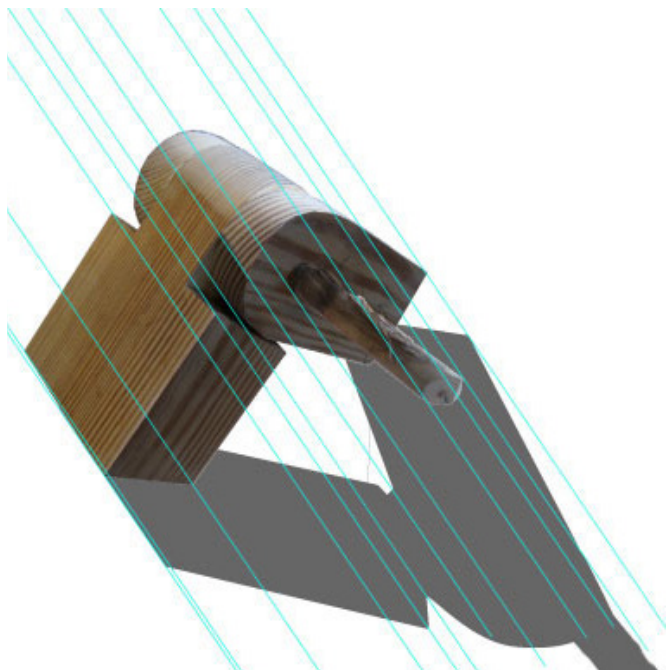
There is a definite umbra or shadow, without any partial shadow or penumbra.

## Spot Light

When light hits a point on an object from several locations, shadow from that point will be observed at several locations.

The area of shadow cast from the single red point, is represented by the red ellipse and will vary in size, proportionally with the area of the light source and distance to plane, but inversely with the distance to the source.

This partially illuminated zone will form the partial shadow or penumbra.



## Parallel light

Sunlight can be considered parallel when observing Earthly objects on the Earth.

With this source of light, shadows are not enlarged with their distance from the object, as can be seen from the parallel construction lines.

They do however become longer as the projection plane is sloped away from the light source.