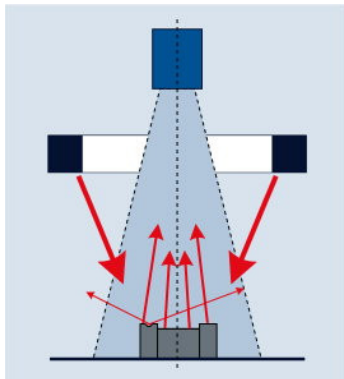




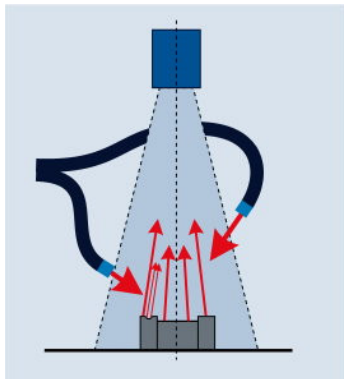
Light is vision.

## Illumination Techniques



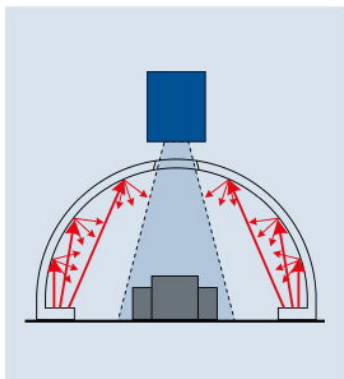
### Ringlights

Ringlight illumination provides a shadow-free and homogenous illumination of objects with matte or low reflection surfaces. Using additional equipment it is possible to generate polarized or fluorescence stimulating light.



### Direct Incident Light

The object is illuminated with flexible or semi-rigid light guides. This method is well-suited for objects with matte or low reflection surfaces. Flexible light guides in different lengths are also suitable for hard to access places.

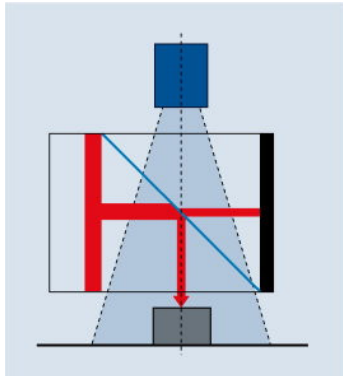


### Diffuse Incident Light (Dome)

Diffuse incident light is ideal for illuminating non-reflective or low reflective objects without causing shadows.

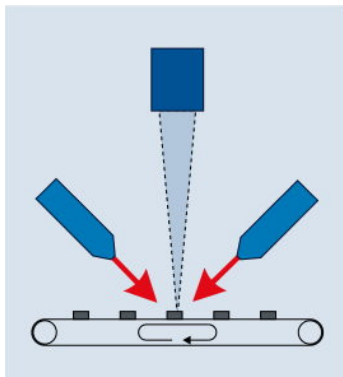


Light is vision.



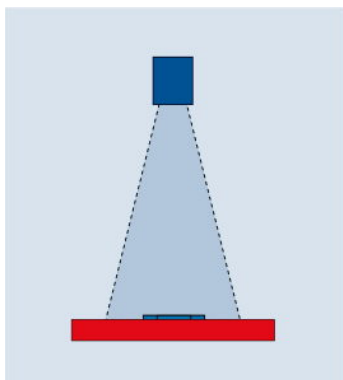
### Coaxial Illumination

Coaxial illumination is needed for objects with glossy or highly reflective surfaces. The light is generated with a diffuse light field and diverted with a 50% transparent mirror onto the object such that the axis of illumination is exactly on the optical axis of the camera (CIS). With the Advanced Coaxial Illumination System (ACIS) the object is also illuminated diffusely.



### Line illumination

Lightlines are mainly used as incident light illumination but are also used as backlights or light curtains. Lightlines from Volpi offer you a good degree of uniformity and homogenous illumination all the way to the line edges.

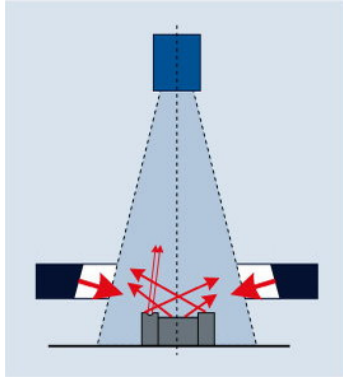


### Backlight Illumination

Background or transmitted light illumination is preferred if contours are to be measured or inspected. Background illumination can also be used for diffuse incident light illumination.



Light is vision.



### Darkfield Illumination

Darkfield illumination has the effect that only part of the light which is deflected by dispersion, reflection, refraction or diffraction reaches the camera lens. Dark field illumination allows edges and height structures of objects to be highlighted.