## BEAM SIZE MANAGEMENT

## **CAMERA LENSES**

Camera lenses work by indirectly imaging on the sensor the reflection or the transmission of a beam that previously went through a diffusing material such as glass (see diagrams below).

It is necessary to use a Camera Lens to image beams that are larger than the CMOS sensor (11.3 mm X 6.0 mm) of the Beamage beam profiling camera.

A Camera Lens can be directly C-mounted onto the aperture of the Beamage camera.

## **SPECIFICATIONS**

| MODEL                                 | CL-25                                                    | CL-50                                                         |
|---------------------------------------|----------------------------------------------------------|---------------------------------------------------------------|
| Focal Length                          | 25 mm                                                    | 50 mm                                                         |
| Maximum Beam Size                     | 2000 mm X 2000 mm (not a limiting factor)                | 2000 mm X 2000 mm (not a limiting factor)                     |
| Maximum Measurable Intensity / Energy | Very high because of indirect mechanism                  | Very high because of indirect mechanism                       |
| Inverted Image                        | Yes                                                      | Yes                                                           |
| Beam Distortion                       | Setup, lens aberration and speckles f<br>diffusing glass | from Setup, lens aberration and speckles from diffusing glass |
| Diffusing Material Needed             | Yes                                                      | Yes                                                           |
| Magnification Calibration Needed      | Yes                                                      | Yes                                                           |
| Possibility of Wavelength Conversion  | Yes                                                      | Yes                                                           |
| Optical Filter Needed                 | Rarely to never                                          | Rarely to never                                               |
| Removable                             | Yes                                                      | Yes                                                           |
| Product Number                        | 202343                                                   | 202344                                                        |



To determine which lens better fits your requirements, refer to the table below.

| PRODUCT | PRODUCT NUMBER | FOCAL LENGTH | HORIZONTAL FOV | FOV AT 1 m | MINIMUM WORKING<br>DISTANCE |
|---------|----------------|--------------|----------------|------------|-----------------------------|
| CL-25   | 202343         | 25 mm        | 14°            | 245 mm     | 0.5 m                       |
| CL-50   | 202344         | 50 mm        | 7°             | 120 mm     | 1 m                         |

To calculate linear FOV (Field of View) at distances other than 1 m, simply multiply the value found in the table by the distance in meters.

