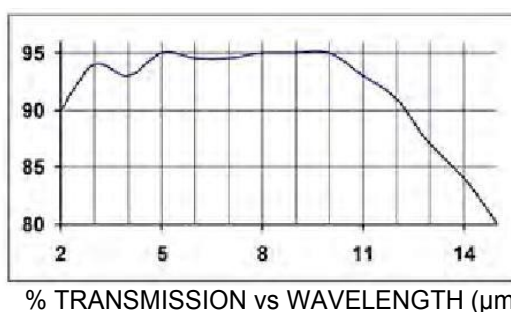


## MID-IR FOCUSING OBJECTIVES 2 $\mu\text{m}$ to 12 $\mu\text{m}$

InnPho's Mid-IR Focusing Objectives are designed for maximum efficiency in coupling the output from a mid-IR source into single-mode or multimode IR transmitting fibers.

- ZnSe MicroLens
- AR-AR in Mid-IR
- Diffraction limited
- Easy alignment using HeNe
- Mounting RMS thread
- 2  $\mu\text{m}$  to 12  $\mu\text{m}$



| <u>Catalog Number</u> | <u>Clear Aperture</u> | <u>Numerical Aperture</u> | <u>Working Distance</u> | <u>Focal Length</u> |
|-----------------------|-----------------------|---------------------------|-------------------------|---------------------|
| LFO-5-6               | 5 mm                  | 0.25                      | 5.3 mm                  | 6 mm                |
| LFO-5-12              | 5 mm                  | 0.13                      | 11.5 mm                 | 12 mm               |
| LFO-5-18              | 5 mm                  | 0.08                      | 17.5 mm                 | 18 mm               |

-----FOCAL SPOT DIAMETER ( $\mu\text{m}$ )-----

| <u>Beam Dia (mm)</u> | <u>Focal Length (6, 12, 18 mm)</u> |           |           |                           |          |           |                           |           |           |
|----------------------|------------------------------------|-----------|-----------|---------------------------|----------|-----------|---------------------------|-----------|-----------|
|                      | <u>6</u>                           | <u>12</u> | <u>18</u> | <u>6</u>                  | <u>2</u> | <u>18</u> | <u>6</u>                  | <u>12</u> | <u>18</u> |
| 2.0 mm               | 15                                 | 30        | 46        | 23                        | 46       | 69        | 30                        | 61        | 91        |
| 3.0 mm               | 14                                 | 20        | 30        | 15                        | 30       | 46        | 20                        | 41        | 61        |
| 4.0 mm               | 32                                 | 15        | 23        | 32                        | 23       | 34        | 32                        | 30        | 46        |
|                      | $\lambda = 4 \mu\text{m}$          |           |           | $\lambda = 6 \mu\text{m}$ |          |           | $\lambda = 8 \mu\text{m}$ |           |           |

### TRANSMISSION

The ZnSe lens in LFO-Series Objectives is Broadband AR (BBAR) coated on both sides. Transmission from 2  $\mu\text{m}$  to 12  $\mu\text{m}$  is 90% to 96%.

See graph above.