

# RAY VISIONS

*Liquid Core Light Guides and UV curing systems*



*Architectural*

*Decorative*



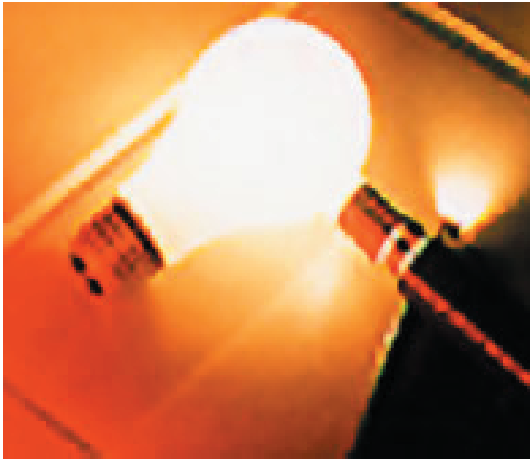
## 2007

Industrial



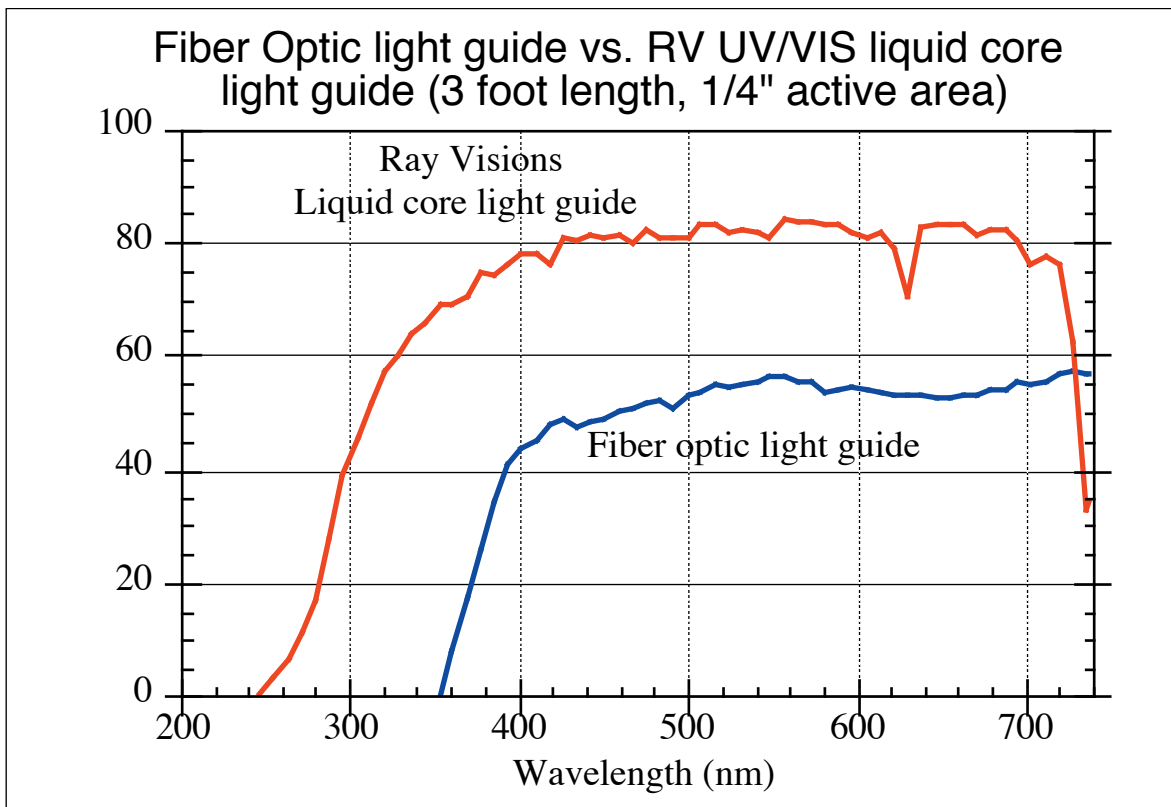
# RAY VISIONS

*Liquid Core Light Guides*



*Are you wasting  
your energy?*

Ray Visions' Liquid core light guides transmit **50% more light** than fiber optic light guides.



Ray Visions, Inc., 317 Blacksmith Arch, Yorktown, VA 23693 PH: 757-865-6442  
FAX: 206-666-6208, Email: sales@rayvisions.com, <http://www.rayvisions.com>

# RAY VISIONS

## *Liquid Core Light Guides*

### Standard sizes

Transmission light guides in a protective sheath

| Core Diam. | OD   |
|------------|------|
| .20"       | .41" |
| .26"       | .47" |
| .33"       | .54" |
| .39"       | .60" |
| .52"       | .79" |

Side emitting light guides

| Core Diam. | OD    |
|------------|-------|
| 3/16"      | 1/4"  |
| 3/16"      | 5/16" |
| 1/4"       | 3/8"  |
| 3/8"       | 9/16" |
| 1/2"       | 3/4"  |

Lengths made to order from .5 m to 20 m

#### Parameters:

The numerical aperture is 0.42.

Standard design temperature range is between -15 C to 60 C. Wider temperature ranges available.

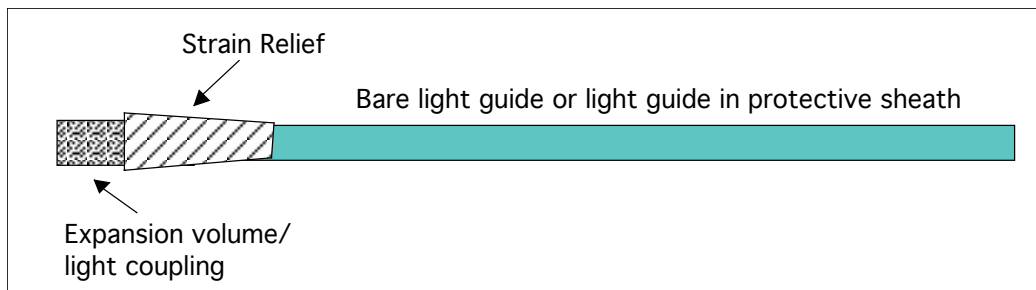
The liquid is a safe non toxic oil with a flash point > 300 C.

The tubing is made from either a fluoropolymer alone or a fluoropolymer coextruded with clear PVC.

End plugs may be either quartz or acrylic. Non stocked quartz endplugs require 6 week lead time.

Each light guide has an expansion volume for the liquid contained inside a metal tube. This tube is usually placed on the input and makes for a solid coupling to the light source. Size and length of the expansion volume depends on size and length of light guide.

Standard protective sheath is synthetic covered steel or aluminum interlock tubing. Lower cost plastic sheath also available.



# RAY VISIONS

## Plastic Fiber Optics

1 mm, 2 mm, and 3 mm flexible solid core light guides. Higher collection efficiency and more rugged than stranded fiber optics. Available as raw fiber, hard, or soft jacketed.

Parameters:

Numerical Aperture: 0.51

Temperature range: -55 to 70 C (up to 135 C available)

Typical attenuation: 0.2 dB/m

## Flexible Fluorescent Tubes

Tubing filled with a safe nontoxic fluorescent jelly.

Sizes from 3/16" to 3/4" ID.

Colors - Pink, Red, Orange, Yellow, Green, Blue, Magenta.

Easy to install, inexpensive, rugged, reusable.



## Solid State 150 W Light Source

150 Watt Halogen light source for indoor use. Packaged in a 4" high, 6" wide, and 7" deep box. 'No tool' easy to replace bulb.

**ONLY \$149.**

# RAY VISIONS

## *Liquid Core Light Guides*

### Ordering Information

Side emitting light guides with acrylic endplugs. Part number SA-Diam-length

| Length<br>Core Diam | 1 meter | 2 meter | 3 meter | 5 meter | 10 meter |
|---------------------|---------|---------|---------|---------|----------|
| 3/16"               | \$95    | \$110   | \$125   | \$145   | \$195    |
| 1/4"                | \$100   | \$115   | \$130   | \$150   | \$200    |
| 3/8"                | \$105   | \$120   | \$135   | \$155   | \$205    |
| 1/2"                | \$110   | \$125   | \$140   | \$160   | \$210    |

UV-visible transmitting light guides. Part number UV-Diam-length.

| Length<br>Core Diam | 1 meter | 2 meter | 3 meter | 5 meter | 10 meter |
|---------------------|---------|---------|---------|---------|----------|
| 5mm                 | \$105   | \$120   | \$135   | \$155   | \$205    |
| 8mm                 | \$115   | \$130   | \$145   | \$165   | \$215    |
| 10mm                | \$120   | \$135   | \$150   | \$170   | \$220    |
| 12.7mm              | \$125   | \$140   | \$155   | \$175   | \$225    |

Visible-IR transmitting light guides. Part number IR-Diam-length.

| Length<br>Core Diam | 1 meter | 2 meter | 3 meter | 5 meter | 10 meter |
|---------------------|---------|---------|---------|---------|----------|
| 5mm                 | \$115   | \$140   | \$165   | \$195   | \$275    |
| 8mm                 | \$140   | \$185   | \$225   | \$300   | \$485    |
| 10mm                | \$165   | \$210   | \$265   | \$360   | \$595    |
| 12.7mm              | \$190   | \$265   | \$340   | \$485   | \$840    |

**Prices are for quantities 1-10. Discounts available for larger quantities. Other sizes and lengths available upon request.**

Payment terms: We accept Mastercard, Visa, prepayment, COD, or net 30 days with approved credit. No minimum order.



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# RAY VISIONS

*Plastic Fiber Optics*

## Specifications

| Fiber type | Core refractive index | Cladding refractive index | Numerical Aperture | Ave. Attenuation (dB/m)@650nm |
|------------|-----------------------|---------------------------|--------------------|-------------------------------|
| Economy    | 1.492                 | 1.402                     | 0.51               | 0.2                           |
| Optical    | 1.492                 | 1.402                     | 0.51               | 0.18                          |

Temperature range: -55 to +70C. Minimum bend radius 20 x diameter.

## Ordering Information

Economy unjacketed plastic fiber optics cut to length and polished.

Part number EPF-Diam-length

| Length<br>Core Diam | 1 m    | 2 m     | 3 m     | 5 m     | 10 m    |
|---------------------|--------|---------|---------|---------|---------|
| 1 mm                | \$0.80 | \$1.35  | \$2.00  | \$3.20  | \$6.40  |
| 2 mm                | \$4.20 | \$8.05  | \$11.60 | \$18.50 | \$33.60 |
| 3 mm                | \$7.20 | \$13.80 | \$19.80 | \$33.00 | \$60.00 |

Optical grade unjacketed plastic fiber optics cut to length and polished.

Part number OPF-Diam-length

| Length<br>Core Diam | 1 m     | 2 m     | 3 m     | 5 m     | 10 m    |
|---------------------|---------|---------|---------|---------|---------|
| 1 mm                | \$1.20  | \$2.00  | \$3.00  | \$4.80  | \$9.60  |
| 2 mm                | \$6.30  | \$12.10 | \$17.40 | \$27.75 | \$50.00 |
| 3 mm                | \$10.80 | \$20.70 | \$29.70 | \$49.50 | \$90.00 |

Black Polyethylene Jacketing available at an additional \$0.50 per meter.

**Prices are for quantities 1-10. Discounts available for larger quantities. Other lengths and custom fiber optic bundling available upon request.**

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