

# OVATE REFRACTORS

## Models 310 and 320



Model 310 Type III

### Description

This roadway refractor is suitable for commercial and residential lighting requirements and can be used with an ovate luminaire reflector. Model 310 is an ultraviolet stabilized acrylic Refractor for high efficiency operation in general applications. Model 320 is a polycarbonate Refractor for use in areas where vandal resistance is a requirement.

### Lamp Data

These refractors are primarily used with horizontal 150W-250W HID lamps. To avoid detrimental internal reflections and high temperatures, proper reflector and luminaire design is required. Thermal testing should be conducted on each luminaire with the proposed light source in its selected position to confirm lamp size suitability, or to predict service life of the refractor.

### Ordering Information

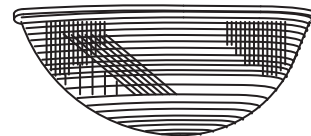
Please call 877-257-5841 for price and delivery. Typical lead time is four to six weeks.

### Service Life

The service life of acrylic refractors is virtually unlimited when used within the recommended temperature limit. Polycarbonate refractors are subject to yellowing especially when used with high ultraviolet output light sources; this effect is enhanced at high temperatures.

### Notice

A.L.P. Lighting Components, Inc. assumes no responsibility for suitability of luminaires and applications. The use of our molded products at excessive temperatures with high UV output light sources will cause degradation of the material. Information regarding the use of lenses and refractors with Metal Halide lamps can be found in the Products/Technical Resources section of our web site at [www.alplighting.com](http://www.alplighting.com).



### Models 310 and 320

Length: 13.94"  
Width: 11.69"  
Depth: 5.53"

ROADWAY, STREET AND AREA  
LIGHTING APPLICATIONS

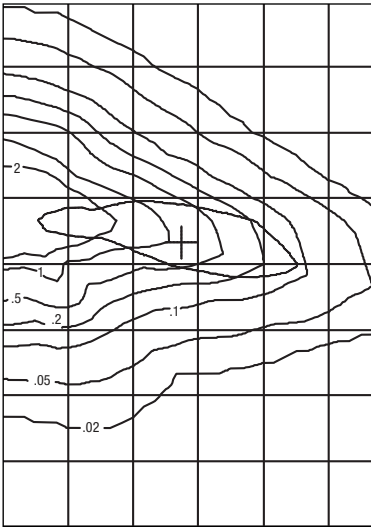
TYPE I, II AND III  
DISTRIBUTIONS

Model 310 Type II  
Medium, Non-cutoff  
Efficiency: 79.83%  
Arc Tube Voltage Rise = 2.8

Materials: Acrylic and Polycarbonate



# Models 310 and 320



## Photometrics

When used with proper reflector design, the refractor is capable of producing IES Type I, II or III short, medium and long distributions, and cutoff, semi-cutoff or non-cutoff classifications. The various distributions provide excellent uniformity, spacing and illumination levels; however, lamp position and reflector design are key factors in achieving this uniformity. Model 310, Type II in a "cobra-head" with a clear 150W HPS horizontal lamp produces 10788 candela at 70° vertical and 76° horizontal. Efficiency is 79.83% (ITL37249). Individual luminaire performance depends on the lamp center position and the reflector design chosen. Each luminaire design should be individually tested for proper classification. Please visit our web site for additional photometric data.

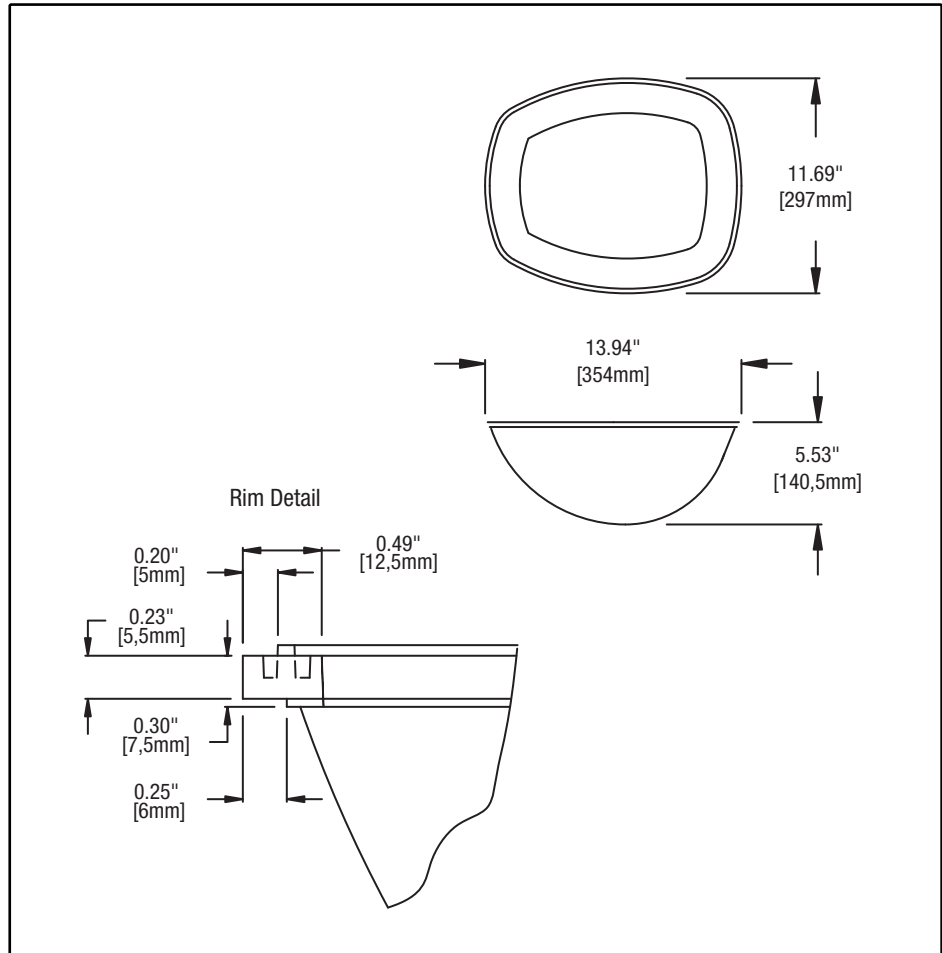
Report Number: ITL37249  
 Total Luminaire Efficiency = 79.83%  
 IES Classification: Medium, Non-cutoff, Type II  
 Arc Tube Voltage Rise = 2.8  
 Location of Max-Candela = X  
 Location of Half Max-Candela = ---

## Materials

See the LexaLite® brand price list for current part numbers and material offerings. Up-to-date and detailed material specifications can be found in the Products/Technical Resources section of our web site at [www.alplighting.com](http://www.alplighting.com).

UvaLex® is LexaLite's proprietary treatment to retard yellowing in ultraviolet environments and is standard on these polycarbonate refractors.

When using an acrylic Model 310, the surface temperature of the Refractor should not exceed 80°C. When using a polycarbonate Model 320, the surface temperature of the Refractor should not exceed 90°C.



**This drawing is for reference only. Actual part dimensions will vary.  
 Customer is urged to review actual samples to confirm fit and function.  
 All specifications and dimensions are subject to change without notice.**