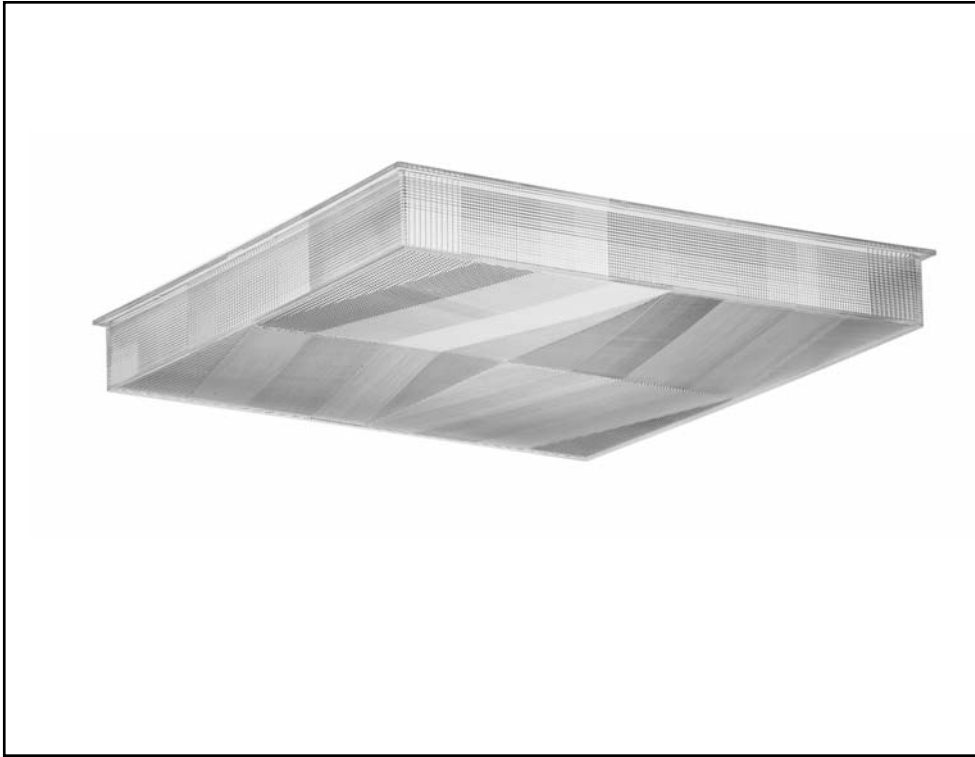
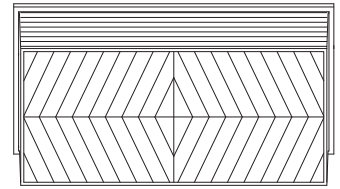


# REFRACTORS

## Models 303 and 304



Model 303



### Models 303 and 304

Dimensions: 20" x 20"  
Depth: 2.5"

STREET AND AREA LIGHTING  
APPLICATIONS

Efficiency: 64%

Materials: Acrylic and polycarbonate

### Description

These 20 x 20 inch lenses utilize unique prismatic configurations that produce either a symmetrical or asymmetrical light pattern for maximum design flexibility. Designed to use up to 400W vertically or horizontally mounted HID sources, these lenses are used for outdoor area lighting including service station and parking lot applications. Model 303 is molded of ultraviolet stabilized acrylic for high efficiency in applications where ambient heat is not excessive. Model 304 is molded of impact resistant polycarbonate for use in areas where vandal resistance is required.

### Lamp Data

These lenses are primarily used with 250W and 400W 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 lens.

### Ordering Information

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

### Service Life

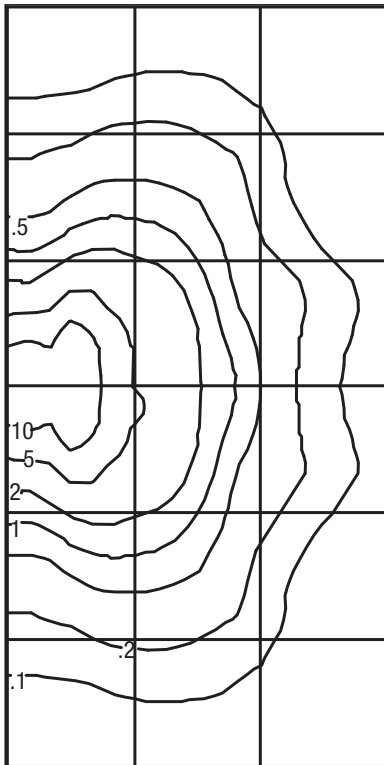
The service life of acrylic refractors is virtually unlimited when used within the recommended temperature limit. Acrylic versions are covered by our 10 year limited warranty.

### 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). \*See second page for important UL information.



# Models 303 and 304



Report Number: ITL47860  
 Total Luminaire Efficiency = 64%

## Materials

Clear acrylic: Model 303 is molded in Underwriters Laboratory (UL) recognized Altuglas International Plexiglas® V(825)-UVA-5A, Lucite International Inc. Perspex® CP-75UVA, CYRO Acrylite® S-10-343, or Plaskolite Optix® CA-75UVA.

Clear polycarbonate: Model 304 is molded in UL recognized Bayer lighting grade polycarbonates including Makrolon® LTG 3123, Makrolon® LTG 2623, or GE Lexan® grade 243.

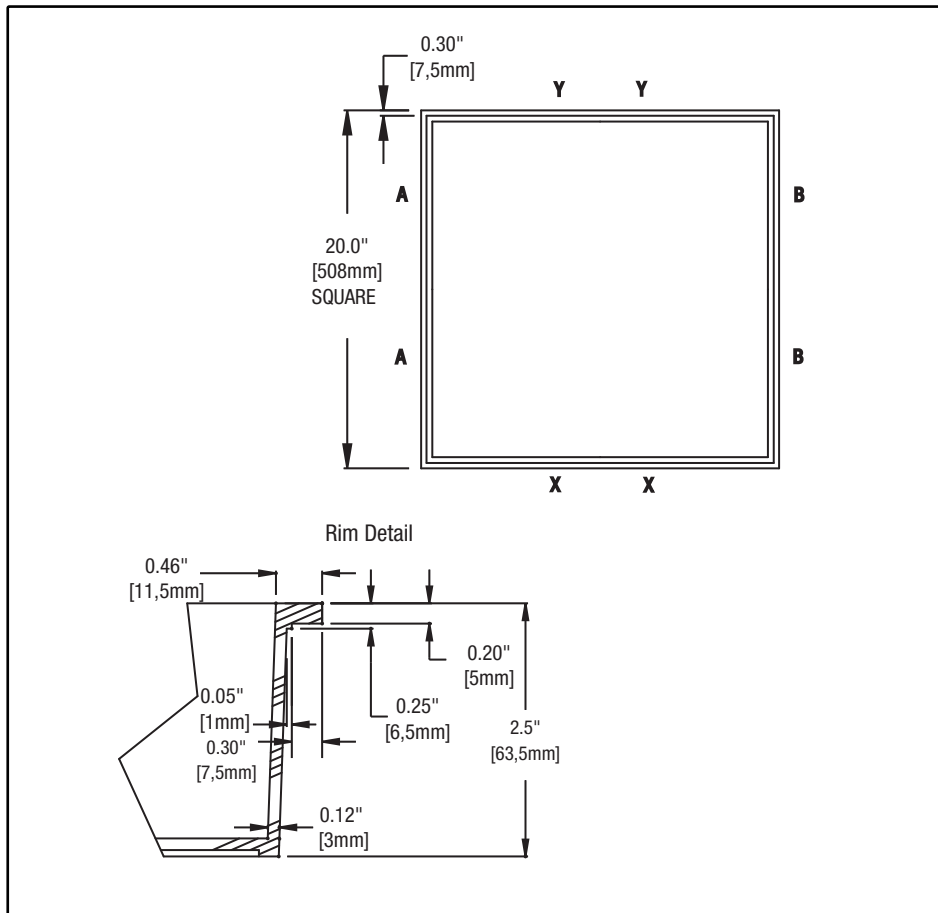
LexaLite's proprietary treatment to retard yellowing in ultraviolet environments, UvaLex®, is optional on these polycarbonate refractors.

Please visit our web site for the most current material specifications.

When using an acrylic Model 303, the surface temperature of the refractor should not exceed 80°C. When using a polycarbonate Model 304, the surface temperature of the refractor should not exceed 90°C.

## Photometrics

While the exact photometrics are dependent on the luminaire design, a few generalizations are possible. When the lens is used with a simple curved, reflective sheet material and a horizontal source with the socket in the "X" position, it yields a rectangular asymmetrical "bow tie" pattern, as shown in the Iso footcandle plot at left. In the same luminaire, rotating the lens 90° and placing the socket in the "A" position, a symmetrical square pattern is obtained. Various other distributions may be obtained using alternate lamp position, light sources, and reflector contours. 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.



**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.**

**\*Effective June 30, 2010, lenses associated with this product will no longer be UL recognized components. A.L.P. LexaLite recommends the use of open rated lamps with any polymeric lens. These lenses should not be used as arc retention devices.**

