

power light source

# LUXEON® Collimator

## LXHL-NX05

### Introduction

LUXEON® is a revolutionary, energy efficient and ultra compact new light source, combining the lifetime and reliability advantages of Light Emitting Diodes with the brightness of conventional lighting.

The Collimator LXHL-NX05 was designed to efficiently collimate the light of a LUXEON power light source into a 10° beam.

The optical design of the collimator uses the Total Internal Reflection mechanism to collimate the light. This design and the use of precision-injection molding optical grade Acrylic plastics bring the optical efficiency up to 90%.



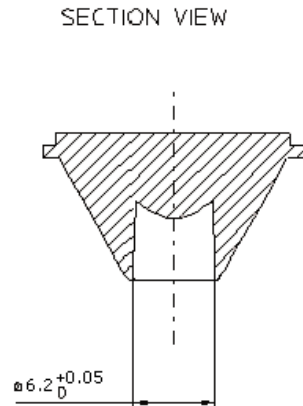
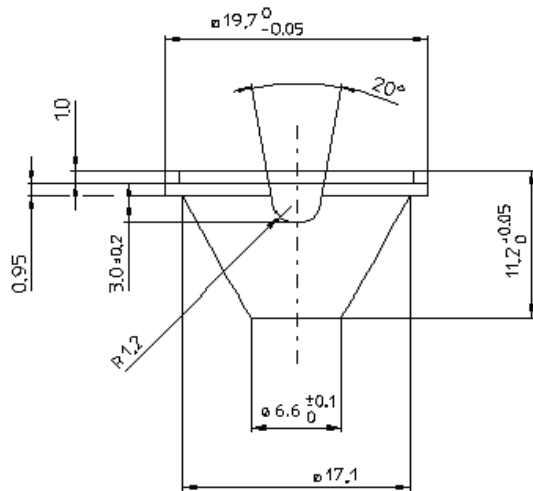
### Features

- ◆ Up to 90% efficiency
- ◆ 10° viewing angle
- ◆ Works with all LUXEON products
- ◆ Optical grade Acrylic plastic

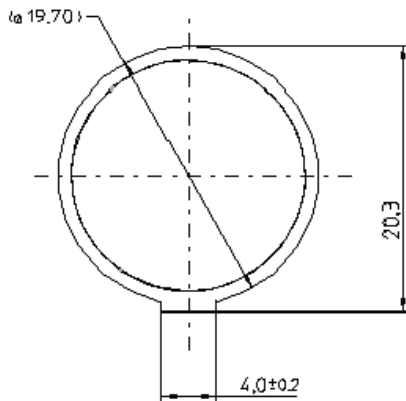
### Typical Applications

- ◆ Reading lights (car, bus, aircraft)
- ◆ Portable (flashlight, bicycle)
- ◆ Mini-accent / Decorative / Fiber Optics Alternative
- ◆ Undershelf / Task Lighting
- ◆ Indoor and Outdoor Commercial and Residential Architectural lighting

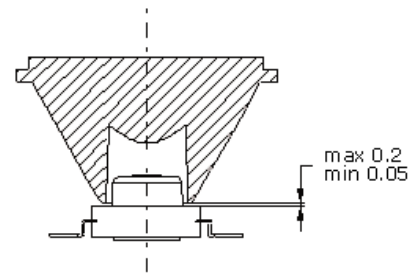
## Mechanical Dimensions



TOP VIEW



Clearance between Collimator and LED



### Notes

1. All dimensions in millimeters
2. The collimator rim ( $\varnothing 19.7\text{mm}$ ) may be used as a snap-on feature to support the collimator
3. The LUXEON light source must be protected from any axial or lateral loads caused by the collimator—do not clamp the collimator against the LUXEON emitter.
4. The collimator is molded from optical grade acrylic. Do not subject to temperatures greater than  $75^\circ\text{C}$  as plastic deformation may occur. Protect collimator against exposure to solvents and adhesives that are not compatible with acrylic. Use care in handling the optic to avoid scratches or other damage that will effect the optical performance.

## Representative Spatial Radiation Pattern

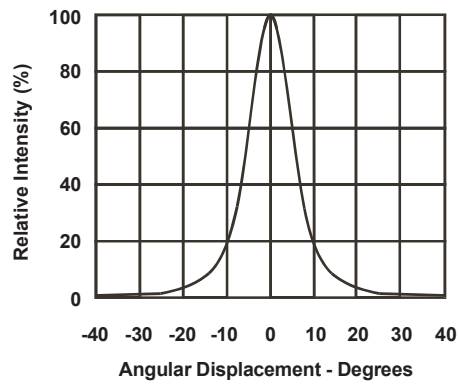


Figure 1. Representative Spatial Radiation for LUXEON devices with collimator.



### Company Information

LUXEON® is developed, manufactured and marketed by Philips Lumileds Lighting Company. Philips Lumileds is a world-class supplier of Light Emitting Diodes (LEDs) producing billions of LEDs annually. Philips Lumileds is a fully integrated supplier, producing core LED material in all three base colors (Red, Green, Blue) and White. Philips Lumileds has R&D centers in San Jose, California and in The Netherlands and production capabilities in San Jose and Penang, Malaysia. Founded in 1999, Philips Lumileds is the high-flux LED technology leader and is dedicated to bridging the gap between solid-state LED technology and the lighting world. Philips Lumileds technology, LEDs and systems are enabling new applications and markets in the lighting world.

Philips Lumileds may make process or materials changes affecting the performance or other characteristics of our products. These products supplied after such changes will continue to meet published specifications, but may not be identical to products supplied as samples or under prior orders.



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