



ANSI/NEMA C136.17-2005 (R2010, S2017)

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American National  
Standard  
for Roadway and Area  
Lighting Equipment—  
Enclosed Side—Mounted  
Luminaires for  
Horizontal— Burning  
High-Intensity Discharge  
Lamps—Mechanical  
Interchangeability of  
Refractors



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Burning High-Intensity Discharge Lamps—Mechanical  
Interchangeability of Refractors*

Secretariat:

**National Electrical Manufacturers Association**

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## 1 Scope

This standard covers the dimensional features and the materials of refractors of the approximate shape shown in Figures 1 through 3, and as described in ANSI C136.14, *American National Standard for Roadway and Area Lighting Equipment—Enclosed Side—Mounted Luminaires for Horizontal—Burning High—Intensity Discharge Lamps*.

## 2 Purpose

This standard provides:

- a. A description and diagrams of substitute refractors for the original refractor when replacement is necessary.
- b. The dimensions for a good fit for the refractor at the points of contact, the points of attachment, or both, to the reflector or the housing, or to both the reflector and the housing.
- c. Requirements for light distribution acceptable to the user, but not necessarily equal to the original optical system.

Note: The optics package consisting of the lamp, the reflector, and the refractor configuration is unique to the individual luminaire. Replacement of a single luminaire component will not guarantee the same optical performance.

The requirements and figures of this standard will help keep the number of refractors needed on service vehicles to a minimum.

## 3 Physical Dimensions

Figures 1 through 3 show the refractors' points of contact, points of attachment, or both, to the reflector, the housing, or both.

The dimensions given in these figures are for interchangeability, and other variants satisfying non-dimensioned provisions may be capable of otherwise equivalent performance.

## 4 Materials

Refractors may be made of heat-resistant glass, polycarbonate, acrylics, or other suitable materials as specified by the user.