### INSTALLATION

**Refractor Selection**

Refer to the chart below to determine the appropriate refractor. Plastic refractors are for nonhazardous use only and maximum 100 watt lamps.

<table>
<thead>
<tr>
<th>Part#</th>
<th>IES Distribution Type</th>
<th>Luminaire</th>
<th>Maximum Luminaire Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Glass</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GR302</td>
<td>II</td>
<td>DMV, VMV High Wattage</td>
<td>400</td>
</tr>
<tr>
<td>GR305</td>
<td>V</td>
<td>DMV, VMV High Wattage</td>
<td>400</td>
</tr>
<tr>
<td><strong>Plastic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGR302</td>
<td>II</td>
<td>DMV</td>
<td>100</td>
</tr>
<tr>
<td>PGR303</td>
<td>III</td>
<td>DMV</td>
<td>100</td>
</tr>
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<td>PGR305</td>
<td>V</td>
<td>DMV</td>
<td>100</td>
</tr>
<tr>
<td><strong>Glass</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>II</td>
<td>VMV</td>
<td>175</td>
</tr>
<tr>
<td>R5</td>
<td>V</td>
<td>VMV</td>
<td>175</td>
</tr>
<tr>
<td><strong>Plastic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR2</td>
<td>II</td>
<td>VMV</td>
<td>100</td>
</tr>
<tr>
<td>PR3</td>
<td>III</td>
<td>VMV</td>
<td>100</td>
</tr>
<tr>
<td>PR5</td>
<td>V</td>
<td>VMV</td>
<td>100</td>
</tr>
</tbody>
</table>

**WARNING**

To avoid the risk of fire, explosion, or electric shock, this product should be installed, inspected, and maintained by a qualified electrician only, in accordance with all applicable electrical codes.

**WARNING**

To avoid electric shock:

Be certain electrical power is OFF before and during installation and maintenance.

To avoid burning hands:

Make sure globe and lamp are cool when performing maintenance.

**WARNING**

To avoid explosion:

Do not install where the marked operating temperatures exceed the ignition temperature of the hazardous atmosphere.

Do not operate in ambient temperatures above those indicated on the luminaire nameplate.

All gasket seals must be clean.

Before opening, electrical power to the luminaire must be turned off. Keep tightly closed when in operation.

**WARNING**

To avoid water ingress: GR305 and GR302 refractors with 400 watt luminaires do not have wet location listing.

**WARNING**

To avoid explosion:

• Do not use PGR and PR series plastic refractors on luminaires of wattage greater than 100 watts.

• Do not use PGR and PR series plastic refractors in hazardous (classified) locations.

**WARNING**

To avoid burning hands:

Make sure globe and lamp are cool when performing maintenance.
Refractor for New Champ® Luminaire

The refractor is shipped separate from the Champ Luminaire.

GR & PGR Series Refractors

A New Champ® DMV or VMV High wattage series luminaires ordered for use with a refractor accepts the GR series and PGR series refractors as well as the standard G303 globe.

R & PR Series Refractors

New Champ VMV low wattage series luminaires ordered for use with a large refractor, accept the R series and PR series refractors only. They do not accept the standard G24 globe or the G241/G245 compact refractors. The VMV low wattage series large refractor luminaire lamp holder is extended to place the lamp deeper inside the large refractor for proper photometry.

To install GR, PGR, R & PR reflectors:

1) Install the luminaire. Refer to the instructions supplied with the luminaire.
2) Install the lamp. (See luminaire installation instructions and luminaire nameplate).
3) Carefully place the refractor over the lamp and thread refractor assembly into ballast housing. Hand tighten until it seats against the white silicone gasket. To provide the proper seal, refractor must seat against the white silicone gasket. (See Figure 1)

4) If the refractor is Type V (symmetrical light distribution), the installation is now complete and power to the luminaire may be turned on.

5) If the refractor is Type II or Type III, refer to the BEAM ADJUSTMENT section below before power to the luminaire is turned on.

Refractor for Replacement on an Existing Refractor Mount Champ® Luminaire

GR & PGR Series Refractors

For refractor installation on a DMV or VMV High Wattage Champ® series refractor mount luminaire that is already in service, additional modifications may be necessary. Determine if the existing luminaire has a threaded adapter to accept the threads on the GR or PGR series refractor assembly.

1) If the existing luminaire has a threaded adapter to accept the GR or PGR series refractors, proceed with the installation for a “Refractor for New Champ® Luminaire”.

2) If the existing luminaire does not have a threaded adapter to accept the GR or PGR series refractors, retrofit kit catalog number R54-K1 must be used. Follow the instructions supplied with this kit.

R & PR Series Refractors

For large refractor installation on a VMV Low Wattage Champ® series refractor mount luminaire that is already in service, no additional modifications are necessary. Proceed with the installation for a “Refractor for New Champ® Luminaire”.

Beam Adjustment - Type II Glass Refractors

1) Loosen the clamp ring so the glass refractor can be rotated.

2) Locate the glass refractor alignment indicator marked “STREET SIDE” and rotate the refractor until this indicator is oriented on the same side as the area to be illuminated. The arrows should be aligned parallel to the long axis of the area to be illuminated (See Figures 2 & 3).

3) Securely tighten clamp

4) The installation is now complete and power to the luminaire may be turned on.
Beam Adjustment - Type II & Type III Plastic Refractors

5) Loosen the clamp ring so the plastic refractor can be rotated.
6) Locate the plastic refractor alignment indicator marked "HOUSE SIDE" and rotate the refractor until this indicator is oriented 180 degrees from the area to be illuminated. The arrows should be aligned parallel to the long axis of the area to be illuminated (See Figures 2 and 3).
7) Securely tighten clamp.
8) The installation is now complete and power to the luminaire may be turned on.

MAINTENANCE

1. Perform visual, electrical and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year. We recommend an Electrical Preventive Maintenance Program as described in the National Fire Protection Association "Bulletin NFPA 70B: Recommended Practice for Electrical Equipment Maintenance" (www.nfpa.org).
2. The refractor (and guard when used) should be cleaned periodically to insure continued lighting performance. To clean, wipe the guard and the refractor with a clean damp cloth. If this is not sufficient, use a mild soap or a liquid cleaner such as Collinite NCF or Duco #7. Do not use an abrasive, strong alkaline, or acid cleaner. Damage may result.
3. Visually check for undue heating evidenced by discoloration, damaged parts, or leakage evidenced by water or corrosion in the interior. Worn or damaged gaskets and cracked, broken or damaged refractors should be replaced. Clean gasket seals before putting the luminaire back into service.
4. Mechanically check that all parts are properly assembled.

REPLACEMENT PARTS

Champ® series luminaires are designed to provide years of reliable performance. However, should the need for replacement parts arise, they are available through your authorized Cooper Crouse-Hinds distributor. Assistance may also be obtained through your local Cooper Crouse-Hinds representative or the Cooper Crouse-Hinds Sales/Service Department, P.O. Box 4999, Syracuse, New York 13221; Phone 315-477-7000.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Crouse-Hinds "Terms and Conditions of Sale", and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.