GE Protected Metal Halide Open-Rated Lamps

GE protected Metal Halide lamps are available in CMH®, MXR and MPR designations. All elliptical shaped protected lamps are designed to meet the containment test specified in ANSI C78.389, HID Methods of Measuring Characteristics, Annexes A and B. Lamps that pass this containment test are suitable for use in open luminaires and are marked with the /O luminaire code as specified in ANSI C78.380, High-Intensity Discharge Lamps, Method of Designation, Annex A.

GE protected Metal Halide lamps are intended primarily for use in open luminaires, but may also be operated in enclosed luminaires. In addition to the elliptical shape glass outer jacket, these lamps employ a quartz shroud that surrounds the arc tube. This protective shroud reduces the potential risk to persons and property in the unlikely event of an arc tube rupture.

GE’s CMH®, MPR and MXR protected MH lamps comply with ANSI / ANSLG standard C78.43, for single-ended MH lamps and are fully compatible with the requirements for new and renovated Metal Halide installations that fall under the jurisdiction of Article 410.73 (F)(5) of the 2005 National Electric Code (NEC). GE also recommends operating MH lamps within the guidelines of NEMA LSD 25, Best Practices for Metal Halide Lighting Systems, and GE’s applicable warning and caution notices.

GE Elliptical Protected Mogul Base Lamps
GE’s mogul based protected CMH® and MPR lamps are designed with an EX39 exclusionary base. Luminaires that use exclusionary lampholders will only operate EX39 based Type-O lamps. Ceramic metal halide protected lamps contain the /O characteristic in both the lamp description and ANSI code. MPR identifies the lamp as protected, and may only use the /O characteristic in the ANSI code. GE’s EX39 based CMH® and MPR lamps are fully compatible the 2005 National Electric Code.

GE Elliptical Protected Medium Base Lamps
GE’s CMH® and MXR protected metal halide lamps employ E26 medium bases and are suitable for operation in open-rated or enclosed luminaires. These lamps are marked with the “/O” designation in both the lamp description and ANSI code. GE’s medium base protected lamps are designed with a narrow neck ED17 bulb that have a maximum neck diameter of 31.5mm (~1.24”) and can be distinguished from GE’s enclosed-rated medium base lamps which uses a BD17 bulb that have a minimum neck diameter of 34mm (~1.34”). GE’s CMH® and MXR protected medium base MH lamps are fully compatible with the 2005 NEC requirements referenced above.

GE PAR and MR Reflector Lamps
GE’s CMH PAR and MR reflector lamps are intended for use in open-rated luminaires. These lamps are marked with the /O designation in the ANSI code. Thick glass parabolic reflector lamps are exempt from the 2005 NEC regulations.
References

Reference – ANSI / ANSI-LG Standards
C78.43-2007, Single-Ended Metal Halide Lamps
C78.380-2007, High-Intensity Discharge Lamps, Method of Designation
C78.389-2004, Metal Halide Methods of Measuring Characteristics

Accessible from: http://www.nema.org/

Reference - NEMA LSD 25, LSD 31
LSD 25-2004, Best Practices for Metal Halide Lighting Systems,
   Plus Questions and Answers About Lamp Ruptures in MH Lighting Systems
LSD 31-2004  A Lighting Systems Division Information Bulletin,
   Changes to the 2005 NEC Will Impact Future Metal Halide Systems Options

Accessible from: http://www.nema.org/

Reference 2005 NEC, NFPA

Accessible from: http://www.nfpa.org/

Notes:

Note 1- GE’s Protected MH lamps are not designed for the intended requirements of FDA 2001

Note 2- GE Protected Metal Halide Lamps should be operated in accordance with instructions,
and caution and warnings notices contained on the lamp package and in GE literature.
GE’s Mogul Base Open Rated Lamps

The EX39 base has an extended center terminal that can reach the center contact of an EX39 socket.

GE’s Medium Base Open Rated Lamps

Open-rated ED17 lamps have a max bulb neck diameter of 31.5mm (~1.24”) Enclosed-rated BD17 lamps have a min bulb neck diameter of 34mm (~1.34”)

Examples:

<table>
<thead>
<tr>
<th>Lamp Description</th>
<th>ANSI Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPR350/VBU/PA</td>
<td>M131/O</td>
</tr>
<tr>
<td>CMH70/U/830/MED/O</td>
<td>M98/O</td>
</tr>
<tr>
<td>MXR70/U/MED/O</td>
<td>M98/O</td>
</tr>
<tr>
<td>CMH70/PAR38/830SP15/ECO</td>
<td>M98/O</td>
</tr>
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