

Protected and Unprotected Metal Halide Lamps

Capri metal halide downlights are available as open rated or enclosed. In terms of the fixture, the sockets are different and enclosed units require a lens. On lamps, the envelopes are different.

Open rated Capri fixtures such as the CM6-M100-V65, have a special medium base socket. A standard medium base HID socket is about one inch deep while an open rated medium base HID socket is about one and a half inches deep. Capri uses the taller socket in all open rated metal halide fixtures to prevent the misapplication of an unprotected metal halide lamp in the open fixture.

Open rated lamps have either a glass quartz shield around the arc tube or a double envelope or both. As lower wattage metal halide lamps age, they have a tendency for a “non passive end of lamp life.” In other words, they can explode. The quartz shield, or double envelope, is there to contain the ruptured arc tube in the event of non-passive end of lamp life.

Physically, the standard /enclosed rated lamp has an envelope which contours out after the screw shell where the open rated does not have this contour. That is, standard lamps have blown envelopes beyond the screw shell and open rated lamps do not. When one tries to install a standard lamp in an open rated fixture such as the CM6-M70-V65, one will find the outer envelope of the lamp prevents the lamp from installing into the taller open rated socket.

The second page of this tech topic illustrates the differences of the lamp and socket. In addition, there is some cursory information as to how each lamp manufacturer notes the difference between the lamps in their literature.

Protected & Standard ED17 Lamps.



The above illustrates the standard/enclosed medium base HID socket on the left and the protected medium base HID socket on the right.



The above shows the standard/enclosed rated medium base HID ED17 lamp on the left. The protected medium base HID ED17 with the slim neck is on the right.

Here is how the lamp manufacturers denote the protected lamp:

- NAP - ED17P (for protected arc tube)
- GE - "O" added to lamp description. (for open rated fixture)
- OSI - MP catalog prefix. (for protected arc tube)

Capri offers products in both open and enclosed. Please be sure to check the products specification sheet for proper lamp suitability. If still in doubt, please call Rick Spencer or Mike Arnold for further assistance.