Shat-R-Shield High Intensity Discharge (HID) lamps are designed to be safely used in open fixtures and are excellent for lighting large areas. In addition to offering greater flexibility in system design, open fixtures are less expensive and more compact than enclosed fixtures. The lenses on enclosed fixtures can reduce light output by up to 10 percent (compounded over time by the build-up of dirt, insects and other debris on the lens).

**METAL HALIDE**
Metal halide lamps are the most efficient source of pure white light available. They provide good color rendering and are used in high quality outdoor lighting installations, as well as floodlighting, industrial high bay and many commercial applications.

**PROTECTIVE-SHROUD (MP)**
The combination of Shat-R-Shield’s shatterproof coating on a protective-shrouded (MP) lamp offers the greatest possible protection on the market. Regardless of the lamp manufacturer, metal halide lamps can suffer “non-passive failure” (arc tube rupture) on rare occasions. MP lamps contain a special quartz shield which is designed to contain a ruptured arc tube and thereby minimize the risks. An additional benefit with the quartz shroud is that, combined with the thicker glass bulb wall, ultraviolet emissions from the lamp are reduced by over 70%.

**ENERGY SAVING**
Shat-R-Shield also offers energy-saving lamps. Our 360-watt lamps can be used in standard 400-watt fixtures, will deliver nearly the same lumens as the 400 lamp (97% lumens) and save you 40-watts in energy usage - saving over $80 during the life of a 20,000 hour lamp.

**PULSE START (PS)**
These lamps are newly designed and require an external ignitor and compatible ballast to insure longer life. They offer shorter hot restrike time (5-7 minutes vs. 10-12 minutes for standard lamps), improved lumen maintenance and reduced color shift compared to standard metal halides.

**SELF-EXTINGUISHING**
These lamps are designed to self-extinguish if the outer bulb is broken, preventing long-term exposure to UV emissions from the lamp.

**RETROFIT**
These lamps are made to operate on HPS ballast. They provide crisp, white light with 85%+ lumen maintenance and pass the EPA’s TCLP test.

**High Pressure Sodium (HPS)**
These lamps are the most efficient source of high intensity light and are also available in non-cycling versions. Their efficiency is up to 140 lumens per watt and the light produced is a warm golden color. Because of their yellow light output, they are frequently used in street lighting and other areas where color...
rendering is not critical. (Although they are not quite as energy efficient, metal halide is generally used when pure white light is needed.)

**MERCURY VAPOR**

Although many of these applications have been converted to the much more efficient metal halide and high pressure sodium lamps, we will still be able to satisfy the needs of your customers that use mercury vapor lamps. Please call customer service for your specific requests.

**The Facts on Arc-Tube Rupture**

Shat-R-Shield lamps have a shatterproof coating to contain glass, phosphors and mercury in the event a lamp is dropped or broken. Our coating is not designed to contain an arc-tube rupture ("non-passive failure"). In extraordinary applications or under certain conditions, glass fragments may escape the coating. Shat-R-Shield HID lamps must be burned base up only and in open fixtures only. On rare occasion, usually at the end-of-life, an arc-tube can rupture and shatter the outer glass bulb and coating, resulting in the discharge of glass fragments and extremely hot quartz particles (as high as 2192°F, 1200°C). This is possible with all non-shrouded metal halide lamps, regardless of manufacturer. Shat-R-Shield protective-shrouded lamps contain a special quartz shield which is designed to contain a ruptured arc-tube and thereby minimize the risk.

To reduce the possibility of arc-tube rupture and premature lamp or coating failure:

1. Operate with compatible ballast and fixture only.
2. Burn lamp base-up only and in open fixtures only.
3. Turn lamp off a minimum of 15-minutes per week.
4. Replace lamp at or before the end of rated-life.
5. Follow all instructions on the lamp’s sleeve.

**NOTE:** Due to variable temperature conditions and fixture design, Shat-R-Shield does not warrant or otherwise guarantee the plastic coating on their HID lamps for the rated-life of the lamp. The purpose of the coating is to contain virtually all glass fragments, phosphors and mercury in the event the lamp is accidentally dropped or broken. The coating is not designed to contain arc-tube rupture in the event of "non-passive failure". Shat-R-Shield suggests that HID shatterproof lamps be inspected and replaced if the coating material is compromised due to temperature extremes.

**Shat-R-Shield HID Lamp Warranty**

The plastic coating on a Shat-R-Shield HID lamp is guaranteed not to yellow and will withstand bulb wall temperatures up to 500° F. Except under the foregoing conditions, due to variable conditions and fixture design, Shat-R-Shield does not warrant or otherwise guarantee the plastic coating on HID lamps for the rated-life of the lamp. The purpose of the coating is to contain virtually all glass fragments, phosphors and mercury in the event the lamp is accidentally dropped or broken. Shat-R-Shield suggests the HID shatterproof lamps be inspected and replaced if the coating material is compromised due to temperature extremes.

- The coating is not designed to contain an arc-tube rupture.
- Under certain conditions, glass fragments may escape the coating.
- Lamps MUST be burned base up only and in open fixtures.
- On rare occasion, usually at end of life, an arc-tube can rupture and shatter the outer glass and coating. This is possible with all non-shrouded metal halide lamps.