

## Frequently Asked Questions

# Temperature Concerns: Halogen Lamps

### *Are halogen lamps hot enough to cause fires?*

As a result of recently reported incidences concerning the potential of fire danger when using halogen lamps, please be advised of the following:

The stories focused on the safety features (or lack thereof) of fixtures (also known as torchieres) that use 300 and 500 watt double end halogen lamps. Concerned parties included UL (Underwriters Laboratory) and certain fixture manufacturers. The halogen lamp itself was never an issue...only the methods employed by fixture manufacturers to make the fixture and lamp assembly safe.

There were several incidents of fires allegedly caused by either curtains blowing over a fixture, or by a lamp rupture, where the lamp was improperly shielded. These incidents had been under investigation by UL for several months, and as a result of their research, UL has issued a completely new specification. Under this new spec, UL will require the design of a shield on torchiere fixtures that will prevent a piece of cheesecloth draped over the lamp from igniting over a seven-hour period. Recent TV stories did not prompt these changes, they only brought greater public attention to the issue. Once again, the focus of the story was on fixtures, not halogen lamps.

However, to address the issue of heat produced by lamps, bear in mind that all lamps produce heat; this is true for incandescent, tungsten halogen, fluorescent and high intensity discharge. Because lamps are used in a variety of fixtures at different voltages, it is not possible to predict the operating temperatures of each individual lamp. What can be said is that heat is a function of wattage. The higher the wattage, the higher the lamp wall temperature. Some lamps, like halogen PAR's, would have a slightly lower lamp wall temperature because the reflector is farther away from the inner capsule. Other lamps, like Double End Quartz lamps, would have a slightly higher wall temperature since the filament is so close to the lamp wall.

In order to reduce the likelihood of a problem, the consumer should use the correct lamp in the correct application, and follow the warning and caution notices printed on both the lamp package and the fixture directions. Please remember that the only halogen lamps discussed in the news were double end quartz lamps such as 300T3Q/CL and 500T3Q/CL. Halogen PAR lamps and Halogen A-Line lamps have not been an issue.

For additional information, the warning OSRAM SYLVANIA places on carded 300 and 500-watt double end halogen lamps is attached.

Name:	300 & 500 W Double Ended	Single Ended
Base:	RSC (Recessed Single Contact)	Mini Candelabra
Capsule:	Quartz	Quartz

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## CAUTION

- This lamp **MUST** be used in a fixture that has a suitable protective shield and/or screening technique to protect people and surroundings against the risk of personal injury and/or property damage from lamp shattering and UV exposure, since:
  1. THIS LAMP OPERATES AT HIGH INTERNAL PRESSURE AND AT HIGH SURFACE TEMPERATURE AND MAY UNEXPECTEDLY SHATTER RESULTING IN HOT, FLYING FRAGMENTS OF GLASS OR METAL.
  2. This lamp generates UV (ultraviolet) radiation that may cause skin and eye irritation with prolonged exposure.
- To avoid risk of serious eye injury from the intense light, do not stare at operating lamp.
- To avoid the possibility of fire, do not operate lamp close to materials that are combustible or affected by heat or drying.
- To avoid electric shock, turn off power before attempting replacement.
- To avoid skin burns, wait for old lamp to cool before removal.
- For safe and proper lamp operation, operate lamp at rated voltage and wattage. Operation above rated voltage increases UV output and internal pressure, thus increasing the risk of rupture. Use only in equipment/fixture specifying this lamp type.
- Do not move, bump or bounce equipment/fixture during operation because mechanical shock can cause shattering and failure of the lamp.
- Replace all equipment/fixture covers and shields to prevent personal injury or property damage.
- **\*Do not use this lamp in torchiere style floor fixtures.**

## INSTALLATION

- Do not use if lamp is scratched or damaged in any way.
- To avoid damaging the glass, do not touch lamp with bare hands. (Hold with clean cloth or tissue when installing. If touched, wipe off fingerprints before lighting.)
- Make sure lamp is properly installed into socket to obtain good electrical contact and to avoid damaging lamp and/or socket.
- Socket condition may affect lamp life, replace socket if deterioration of socket or lamp contacts is observed.

**Note:** This statement proposed for addition to the warning for the 500-watt lamp only.