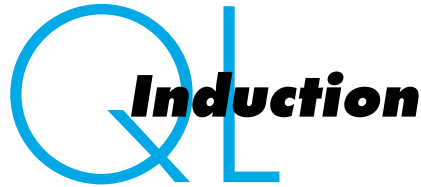


## QL Induction Lighting



### Q. What is the QL and how does induction lighting work?

A. The QL lamp systems uses a revolutionary technology of light generation that combines the basic principals of induction and gas discharge in an A-lamp design. Void of electrodes this new technology delivers an unprecedented 100,000 hours of high quality white light.

### Q. What are the components of the QL system?

A. The system is comprised of three components; the generator, the power coupler and the lamp.

### Q. Why QL Lighting?

A. QL induction lighting offers an amazing 100,000 hours life making it virtually maintenance free. It offers crisp white light with 80+ CRI and a choice of 3K and 4K color temperatures. QL offers high reliability and instant on and off.



### Q. Does QL need a dedicated fixture?

A. Yes. Due to operating and thermal requirements the system needs to be properly installed in a suitable fixture.

### Q. Who makes a QL fixture?

A. Most fixture manufacturers are familiar with the QL system and offer fixtures designed around the QL. Ask your local Philips sales representative for a complete listing.

### Q. Can running a lamp interfere with computers or any other electronic device?

A. No. The QL system complies with FCC rules with noninterference under normal circumstances.

### Q. Will the QL lighting system interfere with telecommunication equipment?

A. No. The FCC standards are in place to protect navigation and radio communications. The system will not interfere with portable or cellular/mobile phones.

### Q. Is the light output of a QL lamp affected by low temperature? High temperatures?

A. QL's amalgam fill technology and the heat conduction rod in the center create stable light output over a wide range of ambient temperatures, maintaining at least 85% of nominal lumens from -30° F to 130° F (for an enclosed fixture with heatsink). QL systems can start at temperatures as low as -40° F.

**Q. Does operating position affect output?**

A. No. The universal operating position does not affect the performance of the QL system.

**Q. What is the color shift of the QL system?**

A. The color shift is very small over life. In new installations the color may appear “pink” until the system stabilizes and the mercury has vaporized. The light will change to a normal white color within a few minutes.

**Q. Is QL dimmable?**

A. At the present time QL cannot be dimmed.

**Q. Can the QL system be used for a “flashing beacon”?**

A. The QL system is recommended for use in long burning applications. Constant on and off switching reduces the system life significantly.

**Q. Is QL vibration-resistant?**

A. Yes. The fact that QL has no electrodes makes it more reliable in high-vibration and gusty applications. QL has proven its durability in bridges, tunnels, and signage applications.

**Q. What, if any, is the effect of voltage supply fluctuations on the performance of the QL system?**

A. Due to the built-in pre-conditioner in the HF generator, which provides a well stabilized internal supply voltage (a wide operating voltage range of +/- 20V) to the HF generator, the light output, consumed power and system efficacy (efficiency) of lamp system vary by less than 2% as a result of mains voltage fluctuations. There is no noticeable effect (visual or measurable) on the color performance (color temperature, color rendering, etc.) due to supply voltage fluctuation.

**Q. Will QL lighting fade or damage materials?**

A. The amount of ultraviolet light generated by an 85W QL is roughly equivalent to that of a regular fluorescent lamp per 1000 lux. The permissible exposure time (PET) is >40 hours per 1000 lux, generously above the norm (24 hours per 1000 lux). The damage factor for materials is rated at a low 0.3 so QLs can generally be used in open luminaires without any front glass.

**Q. How far can the HF generator be remotely mounted from the power coupler/discharge vessel assembly?**

A. The length of the coaxial cable connecting them (15”). Because the cable forms part of the oscillating circuit of the HF generator, the length of the cable cannot be modified.

**Q. At the end of life, must all components be replaced?**

A. All three components are separately replaceable, however, QL is almost always supplied as a three-component system, even for relamping. End of life usually means the generator must be replaced and, at the time, it is usually recommended to replace the bulb, as phosphor degeneration at 100,000 hours lowers lumen output 35% to 40%.

**Q. Why is QL worth more?**

A. QL offers five to ten times the life of HID systems for only two to three times the cost of the HID lamp and ballast. And the QL system is warranted for five years. In most cases the payback in maintenance savings will more than offset the additional cost of the initial system.

