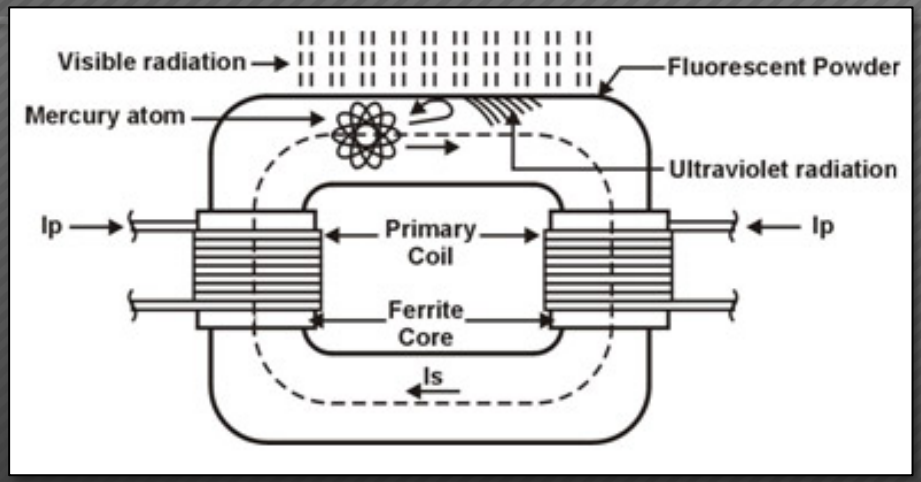
# INDUCTION SERIES

## HOW IT WORKS: *INDUCTION LAMPS*




Electromagnetic transformers, consisting of ferrite rings with metal coils, create an electromagnetic field around a gas-filled tube, using a high frequency that is generated by an electronic ballast. The UV radiation created is converted to visible light as it passes through a phosphor coating on the surface of the tube. The shape of the induction lamp maximizes the efficiency of the fields that are generated.

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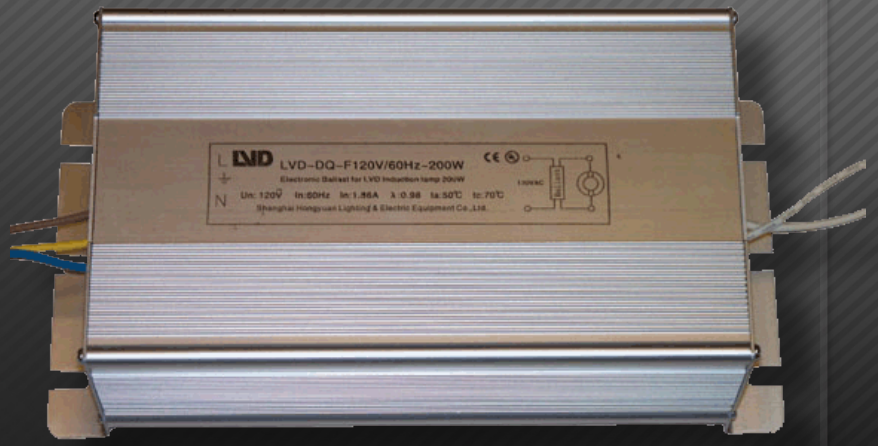
## HOW IT WORKS:

### *HIGH FREQUENCY ELECTRONIC BALLAST*

The ballast generates the high frequency current that drives the inductively coupled discharge. The ballast contains an integrated circuit (IC) chip, which controls the operating frequency and allows the electrode-less fluorescent lamp to work properly with a ballast power factor of up to .99 for lower power consumption.

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## THE "GREEN" FACTOR

### Are induction lamps environmentally friendly?

Yes. Even though they use mercury as a basis for the luminescence the mercury is in a solid form and can easily be recovered for recycling. In addition the lamp uses less mercury per hour of illumination than conventional lighting and the lamp consumes less energy than conventional lighting.

### Are the Induction fixtures energy efficient?

Yes, the Induction fixtures are equipped with electronic solid state drivers which operate at a high frequency rate. Typically a 200w Induction lamp can be compared to a new 400w Metal Halide from a light output standpoint however the 200w Induction fixture pulls 204 watts where as the 400w HID pulls approximate 454 watts.

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## INTRODUCTION TO A GREAT SERIES OF LIGHTING

Induction lamps are one of the newest energy-saving lighting technologies developed in recent years. Induction lighting is based on a technology that is fundamentally different from that of traditional lighting products, such as fluorescent or high-intensity discharge (HID). With no filaments and electrodes to burn out, these unique lamps can last up to 100,000 hours, making them virtually maintenance-free!

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## ADVANTAGES

- Low energy consumption
- Long life (100,000 hours)
- Environmentally friendly
- Maintenance free
- Cost effective

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## FREQUENTLY ASKED QUESTIONS

**What quality of light do the Induction fixtures produce?**

The Induction fixtures are equipped with lamps running at 5000 Kelvin and 80+ Color Rendering Index (CRI).

**Do induction lamps need a dedicated fixture?**

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

**Can the system be used for a "flashing beacon"?**

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

**Is the induction lamp system vibration-resistant?**

Yes, the fact that induction lamps have no electrodes makes them more reliable in high-vibration applications. The induction system has proven its durability in bridges, tunnels, and signage applications.

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## FREQUENTLY ASKED QUESTIONS

### What temperature can the Induction fixtures operate at?

The majority of Induction fixtures operate from -15°F to 122°F.

### Does magnetic induction use any electrodes or filaments?

There are no electrodes or filaments involved. Electrodes and filaments are the components that will fail due to one of two causes. They either burn out or fail due to vibration. With no electrodes or filaments induction fixtures can achieve extremely long lamp life.

### What voltage can the Induction fixtures operate at?

The Induction Fixtures will operate on single phase single voltage of either 120 or 277. The voltage must be specified when ordering the fixture. The drivers are not multi-voltage and have to correspond to the incoming voltage.

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