

Induction Lighting

This must be where Byron Brubaker received his inspiration for his improvements of the Joseph Newman device?

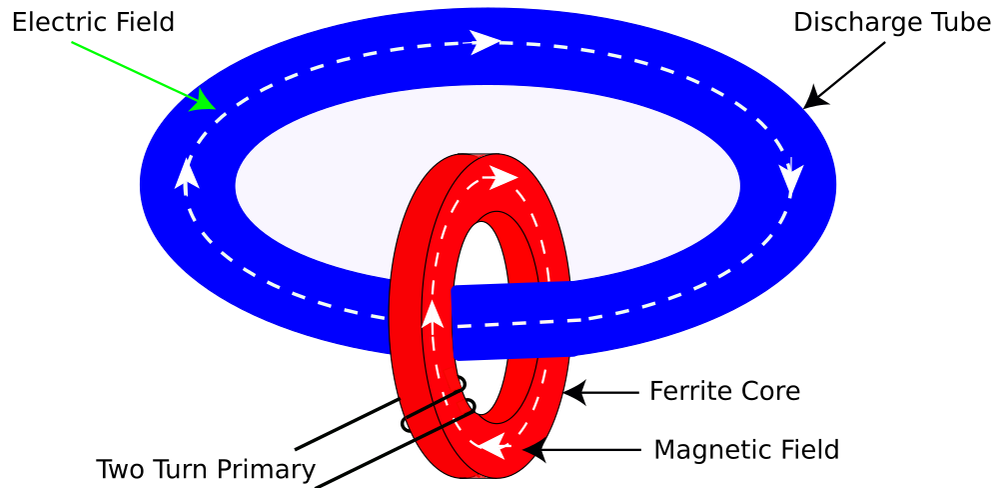


VINYASI

JUL 24, 2026



[Induction lamp](#) - Wikipedia



External, Closed-Core Induction Lamp

Victor Roberts
April 6, 2015

Induction lighting is a highly efficient, long-lasting fluorescent lighting technology that generates light without electrodes or filaments.

How Induction Lighting Works

Induction lighting is a type of **electrodeless fluorescent lamp** that uses **electromagnetic fields** to excite gas inside a sealed bulb, producing light inductionlightingfixtures.com+2. Unlike traditional fluorescent or incandescent bulbs, it has **no internal electrodes or filaments**, which are common failure points in other lamps inductionlightingfixtures.com+1. The process involves:

1. **Electromagnetic Field Generation** – A high-frequency generator, or ballast, creates a magnetic field.
2. **Energy Transfer** – The magnetic field excites mercury vapor or other gases inside the lamp, forming plasma.
3. **UV Emission** – The plasma emits ultraviolet light.
4. **Visible Light Production** – A phosphor coating on the inside of the lamp converts UV radiation into visible light

1. [LinkedIn](#).

This method allows the lamp to operate for **60,000 to 100,000 hours**, far exceeding the lifespan of typical fluorescent or even high-quality LED lights

1. [lightingwarehouse.com](#).

Benefits of Induction Lighting

- **Long Lifespan:** Minimal maintenance is required due to the absence of filaments, making it ideal for hard-to-reach fixtures like streetlights, parking lots, and high-ceiling industrial spaces
- [lightingwarehouse.com](#).
- **Energy Efficiency:** Induction lamps consume less electricity than traditional high-intensity discharge (HID) lamps while providing comparable or better light output
- [inductionlightingfixtures.com+1](#).
- **Excellent Color Rendering:** Typically offers a CRI of 80–90, producing natural and vibrant colors
- [lightingwarehouse.com](#).
- **Durability and Reliability:** Fewer components that wear out, reducing downtime and replacement costs
- [inductionlightingfixtures.com+1](#).

Applications

Induction lighting is commonly used in:

- **Industrial and commercial facilities** such as factories, warehouses, and garages
- [inductionlightingfixtures.com](#).

- **Outdoor and municipal lighting**, including streetlights, sports courts, and public parks
- lightingwarehouse.com.
- **Specialty applications** where long-lasting, low-maintenance lighting is critical, such as high poles or large-area coverage
- lightingwarehouse.com.

Comparison to Other Technologies

While **LEDs** are more widely known and increasingly popular, induction lighting offers **comparable efficiency and superior longevity** in certain high-use or hard-to-access installations lightingwarehouse.com. Unlike LEDs, induction lamps provide **even light distribution** without multiple diodes, which can be advantageous for large spaces.

Summary

Induction lighting is a **robust, energy-efficient, and low-maintenance lighting solution** that excels in industrial, commercial, and outdoor applications. Its unique electrodeless design ensures **exceptional lifespan and reliability**, making it a practical alternative to traditional fluorescent, metal halide, and high-pressure sodium lamps inductionlightingfixtures.com+2.