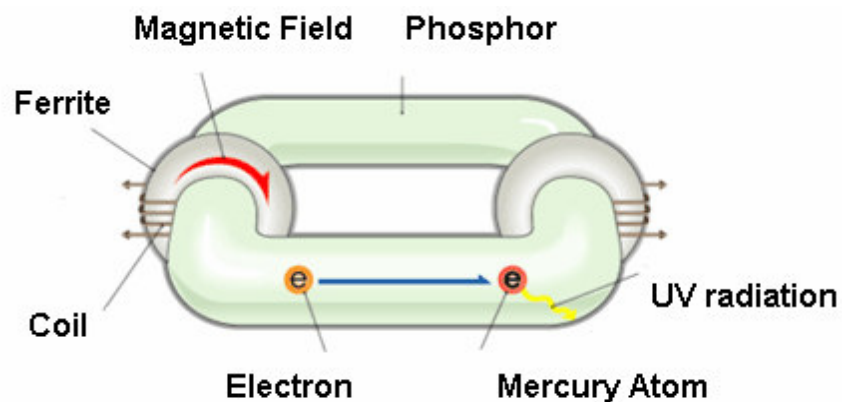


The Operating Principles of T-Lights

Induction lighting systems come in several different shapes and sizes but the operating principles are essentially all the same. They all include a frequency generator, a power coupling and a glass lamp housing. T-Lights are the next generation of induction lighting.

The principle of INDUCTION was introduced to the world by the scientist Nicola TESLA in the 1800's. TESLA once lit 200 lamps without wires from 25 miles away. Induction lights are similar to fluorescent lights in that they use gasses, which once 'excited', react with the phosphor that coats the tubes to produce white light. Fluorescent lamps use electrodes to 'excite' the gasses inside of the tube. These electrodes degrade with time, eventually causing the light to fail. Unlike fluorescent lamps, T(esla)-Lights don't use electrodes but the principle of INDUCTION (the transmission of energy by way of magnetic field). Think of it as wireless lighting.



Unique Characteristics of T-Lights

- Long Life - 100,000 hours
- Color rendering - 85 CRI
- Color Temperature - 2700-5000k
- Energy Efficient - 119 + Pupil Lumens per Watt
- Lumen maintenance - 70% of its light output at 100,000 hours
- Maintenance costs - rated life is over 11 years for 24/7 use
- Instant on Capability - Can be used with photocell or motion sensor
- Earth Friendly - 100% recyclable, 60% smaller carbon footprint
- No flickering, No Strobging, No Noise

The Benefits of T-Lights

Energy Savings Grow

In today's market, cost savings by energy reduction is the number one reason for business owners and facility managers to upgrade from inefficient HID lighting. High Intensity Discharge lamps have been the fixtures of choice for more than 30 years.

Today they continue to be installed because architects, specifiers, and end users are not aware of total fixture cost. Buy cutting energy use a T-Light pays for itself quickly and then pays you dividends for many years after. In fact, every time energy costs go up you save more money.

Maintenance Savings are Obvious

T-Lights will outlast the best HID's by over 400%. This means less ladder climbing, less bulb twisting, less screw dropping, less mobilization, less work orders, less inventory control, and more time for important tasks.

Improved Lumen Maintenance

The Achilles heel of HID lighting is its poor lumen maintenance. The amount of light output produced by an HID lamp decreases dramatically with age. Standard metal halide lamps lose on average 55% of their lumen output by the time they reach their "rated lamp life"(20,000/h). It is not uncommon to find HID lamps still operating well beyond their rated life producing only 15-25% of their original lumens. The newer style pulse-start lamps fair a little better by retaining around 57% of their lumens at end of lamp life. Regardless of how dim the HID lamps get over time they will still use the same amount of electricity as when they were new. If a building owner were to request a set level of light at the work plane he will only get that light level for the first few thousand hours of operation, after which time the facility will be perpetually under lit, and usually the lamp depreciation will go unnoticed until long after the lighting contractor is gone. Compare this lumen loss to a T-Light that will retain up to 75% of it's light output over the rated life of 100,000 hours.

Improved Lighting Quality

Workplace lighting is the least expensive and most important component influencing work place performance. T-Lights feature the highest color rendering of any fixture on the market with a natural 5,000 Kelvin color temperature. T-Lights, with their enhanced scotopic qualities, have been shown to increase contrast recognition leading to lower error rates, increased safety and improved energy levels in a work environment.

Instant Re-Strike

All HID bulbs when shut off must cool in order to be restarted. This time is typically a minimum of 10-15 minutes making it difficult, if not impossible, to use occupancy sensors or even simply change a burnt out bulb quickly. T-Lights offer instant re-striking with no waiting for the lamps to re-start and can easily accommodate occupancy sensors, daylight sensors, or the occasional power outage.

The Most Eco-Friendly HID in the World

It's easy to say T-Lights are green because they use 60% less power. We could also claim the extremely long life keeps the T-Light out of landfills and recycling centers, but that's just the start. T-Lights only contain .25mg of mercury (the #1 poison in lighting) while a metal halide lamp has over 1200% more. Because the lamp is just glass, ferrous metals and a mercury amalgam, the t-light is 100% recyclable.