

## Introduction

This latest edition of the GE product catalog has been updated to help you more easily select the GE lighting products that best meet your needs.

Technical data in this catalog (life, lumens, wattage, etc.) are nominal values, subject to manufacturer's tolerances. All technical data in this catalog is based on laboratory tests conducted under controlled conditions. Performance of individual lamps may vary. Because of frequent design improvements, the values listed may not be current ratings. The data and suggested applications should not be taken as representations or warranties as to the suitability of any product for a particular application. Technical bulletins may be issued from time to time if changes in ratings occur prior to the next catalog printing.

### Technical Support

**1-800-GE LAMPS**  
**1-888-GE BALLAST**  
 (1-888-432-2552)

For the most up-to-date, comprehensive product information, visit the GE Lighting website at [www.gelighting.com](http://www.gelighting.com).

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imagination at work

# Introduction

## GE Lighting

### Leading the way to environmental excellence

#### Learn how these top 3 environmental impacts affect your business

Today, with so much environmental data in the market place, it's hard to differentiate which imperatives positively affect your business. For instance, a longer lamp life may be more environmentally preferable compared to lamps with super low mercury levels, if they offer short life and performance issues.

GE is focused on today's most pressing environmental challenges, such as energy efficiency, longer life products, lamp recycling, and RoHS compliance.

#### Energy Efficiency

**FACT:** Increasing the energy efficiency of the lighting system has a large effect on reducing the overall environmental impact and reduces energy bills.

Reduction of greenhouse gas emissions and an energy efficiency focus will be critical to businesses if the federal Climate Change Bill passes later in 2009, because businesses will be taxed on the amount of GHGs emitted. GE offers you energy efficient systems to reduce your energy consumption and subsequently your GHG emissions.

To learn how to reduce energy costs by using GE products, go to [www.geconsumerandindustrial.com/environmentalinfo](http://www.geconsumerandindustrial.com/environmentalinfo)

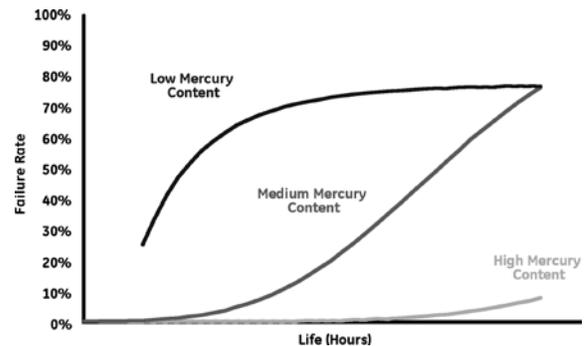


#### Long Life

**FACT:** Increasing lamp life and therefore reducing the number of lamps made, transported and recycled, also has a large effect on reducing environmental impact.

GE test data of linear fluorescent tubes illustrates that lamp life is directly related to the mercury content. Lamps made with extremely low amounts of mercury have a higher probability of failing early because they run out of usable mercury that is needed to generate light – commonly identified by the lamp turning pink.

To view all of GE's large range of long life & RoHS compliant products, go to [www.gelighting.com/products](http://www.gelighting.com/products) and search for 'long life'.



#### Recycling

**FACT:** 5mg of mercury would fit on the tip of a ballpoint pen. This tiny amount of mercury enables the lamp to operate with high-energy efficiency and long life, and you can help address the environmental impact by recycling, which recovers and reuses the mercury. GE's most common T8 lamps have less than 4mg of mercury.

GE recommends recycling fluorescent lamps at the end of life. Recycling recovers lamp materials, including mercury, for reuse. Visit our new recycling web site resource on [www.geconsumerandindustrial.com/environmentalinfo](http://www.geconsumerandindustrial.com/environmentalinfo) to find out more.



GE  
Lighting

## Helping you achieve environmental excellence in your industry

GE has products that meet or exceed environmental standards within the following categories:

- USGBC's LEED® Certification Picogram per Lumen Hour Rating
- Toxicity Characteristic Leaching Process (TCLP)
- Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (RoHS compliant lamps and ballasts)
- ecomagination<sup>SM</sup> is GE's own commitment to environmental stewardship and its own reduction of greenhouse gas emissions

Find the latest information on all these topics and more on environmental topics within GE's premier environmental website link at:

[www.geconsumerandindustrial.com/environmentalinfo](http://www.geconsumerandindustrial.com/environmentalinfo)



Did you know...as part of GE's ecomagination<sup>SM</sup> commitment, we have already reduced our energy consumption by over 210,000,000 kWh, which is the same as reducing 155,700 metric tons of CO<sub>2</sub> or the equivalent to planting 70 square miles of trees OR taking 30,000 cars off the road.



For additional product and application information, please consult GE's Website: [www.gelighting.com](http://www.gelighting.com)

Information provided is subject to change without notice. Please verify all details with GE. All values are design or typical values when measured under laboratory conditions, and GE makes no warranty or guarantee, express or implied, that such performance will be obtained under end-use conditions.

# Introduction

## Ballasts

Ecomagination<sup>SM</sup> is GE's commitment to create products that help our customers improve their environmental and operating performance. GE's UltraStart<sup>®</sup> T5 and T8 programmed start and GE UltraMax<sup>®</sup> Instant Start ballasts are among the highest energy-efficient ballasts available and contribute to significant reductions in energy consumption and the curbing of greenhouse gas emissions.

### RoHS Compliant

European Directive (2002/95EC on the Restriction of Hazardous Substances) states that (beyond certain limited exemptions) electrical and electronic products shall not contain lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBBs), or polybrominated diphenyl ethers (PBDEs). GE's electronic ballasts use lead-free solder and other environmentally preferable materials that meet the RoHS directive. Although not required in the U.S., RoHS-compliant ballasts show GE's commitment to helping our customers meet their disposal needs now, and in the future. GE encourages customer awareness on the importance of reducing hazardous materials and getting ahead of complying with environmental trends. Look for the RoHS-compliant mark on GE ballasts.

### UltraMax<sup>®</sup> Electronic Ballast

A family of high-efficiency GE T8 instant-start electronic linear fluorescent ballasts designed to optimize GE's T8 Ultra lamps for optimal system energy savings. UltraMax<sup>®</sup> ballasts have a lamp-friendly low-lamp-current crest factor and virtually "read" and adapt to incoming voltage from 108V to 305V. Other features include UL Type CC Anti-Arc Rating and anti-striation control to eliminate lamp striations and spiraling. All UltraMax<sup>®</sup> ballasts exceed 90% efficiency and the NEMA Premium<sup>®</sup> ballast program minimum efficiency requirements.

### UltraStart<sup>®</sup> Electronic Ballast

UltraStart<sup>®</sup> ballasts are a family of high-efficiency GE Program Start (see page 10-2) electronic linear fluorescent ballasts designed to optimize GE's T8 and T5 Ultra lamps in frequently switched applications. Instant Start ballasts provide approximately 10,000 starts before 50% of lamp failure. UltraStart<sup>®</sup> provides greater than 100,000 starts. UltraStart<sup>®</sup> have the equivalent energy savings and convenience of instant start ballasts but with the long lamp life of a programmed start ballast. UltraStart<sup>®</sup> T8 L, N and H ballasts exceed 90% efficiency and the NEMA Premium<sup>®</sup> ballast program minimum efficiency requirements.

### ProLine<sup>®</sup> Electronic Ballast

Offered in dedicated or multivolt (120-277V), these high-performance T8 instant start ballasts are long life, less than 10% THD and most models also meet minimum efficiency requirements of the NEMA Premium<sup>®</sup> ballast program.





UltraMax® T8 Electronic Ballast



UltraStart® T8 Electronic Ballast

### Compact Fluorescent Lamp (CFL)

CFLs are single-ended T4 and T5 lamps that are bent to form a compact shape. Screw-in CFLs have an integral ballast with a screw base for easy replacement of incandescent lamps. GE offers multi-voltage, multi-lamp and multi-entry ballasts for a wide range of CFL plug-in lamps. Multivolt ProLine® CFL ballasts are designed for plug-in lamps so that a ballast will survive over the useful life of approximately 3-to-4 lamp lives.



Multivolt ProLine® CFL Ballast

### Electromagnetic Ballast (Magnetic Ballast)

Primarily used for T12 lamps. These ballasts operate lamps at a less efficient 60Hz and typically have efficiencies of 70-80%. Most ballasts consist of a core and coil transformer assembly. Today, magnetic ballasts for 4 foot and 8 foot lamps are typically used only for replacement purposes and are restricted by EPCACT to be sold, even in replacement applications, starting in 2009.



Sign Ballast

### Sign Ballast (Magnetic Ballast)

Designed to operate T12 HO Lamps at 120 volts in cold and damp conditions in sign cabinets.

### GE eHID, Electronic High Intensity Discharge Ballast (eHID)

Electronic HID significantly improves the performance of HID lighting. GE's UltraMax® eHID ballast operates pulse start and ceramic metal halide lamps.



HID Electromagnetic Ballast Kit

### GE High Intensity Discharge Ballast (HID)

HID magnetic ballasts consist of robust core and coil designs that meet or exceed minimum ANSI requirements. These ballasts are typically sold as distributor replacement kits which are pre-wired with a capacitor, ignitor (if applicable) and all necessary mounting hardware and instructions. Each wattage is typically offered in quad (MLT-120/208/240/277 volt), 5-tap (ML5-120/208/240/277/480 volt) or 480 volt (48T) options.



UltraMax® eHID Ballast

# Introduction

## GE Lighting & Electrical Institute

- World renowned training and education center at historic Nela Park in Cleveland, Ohio
- Impressive full-scale lighting demonstrations plus comprehensive electrical distribution solution center
- Variety of scheduled courses offered throughout the year, taught by experienced industry professionals
- Accreditation through IACET – International Association for Continuing Education and Training

Call **1-800-255-1200**

or visit **[www.gelighting.com](http://www.gelighting.com)**

### E-tools from the Institute:

- Mondays at noon and Mondays at 1/2 past noon – live webcasts each week to sharpen your product and application knowledge on lighting and electrical distribution products
- Specifier Technical Tuesdays – monthly webcasts on lighting and electrical distribution, designed for the specification community
- Value\*Light – GE's award-winning cost of light analysis program
- The Lighting Toolkit – a collection of seven simple estimating tools including a Simple Energy Calculator, Lighting Layout Estimator, and the Watts Per Square Foot Estimator
- The Lighting Assistant – a set of 26 user-friendly tools and additional resources
- Light Beams – a comprehensive beam rendering and design tool for GE's PAR, R, MR and other directional lamps

### Learning Central...

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