



EISA Overview

The Energy Independence and Security Act 2007 (EISA) is a federal law that has broad-reaching implications aimed at the reduction of energy consumption, reduced dependence on oil and strategies for addressing global climate change. A portion of this law mandates the efficiency of 150W - 500W metal halide ballasts that are used in luminaires manufactured (or imported) for sale in the United States on or after January 1, 2009.

Acuity Brands Lighting is committed to energy conservation and 100% compliance to federal and state legislation. All applicable products manufactured or imported for sale in the U.S. after January 1, 2009, will meet EISA requirements.

Legislative Details:

- Regulation of 150W - 500W metal halide luminaires sold in the U.S., all lamp configurations (horizontal and vertical), effective January 1, 2009
- Requires higher ballast efficiencies as follows:

Ballast Type	Lamp Wattage	Ballast Efficiency
Magnetic Probe Start	150W - 500W	94%
Pulse Start	150W - 500W	88%
Non-Pulse Start Electronic	150W - 250W	90%
Non-Pulse Start Electronic	251W - 500W	92%

- **EISA effectively prevents the sale of 150W - 500W probe start metal halide luminaires**

- Impacts indoor and outdoor lighting products
- The required encircled capital letter "E" on the ballast and carton labels assures that the product meets applicable Department of Energy (DOE) energy efficiency standards
- Non-compliant products produced or imported prior to January 1, 2009, can still be sold
- Metal halide exemptions – regulations do NOT apply to luminaires that:
 - Use regulated lag ballasts
 - Use electronic ballasts rated for 480 volts
 - Meet **all** the following criteria: rated only for 150W lamps; AND rated for wet location use as defined by National Electric Code 2002 Section 410.4(A); AND contain a ballast rated to operate at an ambient air temperature above 50°C as specified by UL 1029-2001



A complete summary of all provisions in the EISA 2007 is available from the National Electrical Manufacturers Association at: <http://www.nema.org/gov/energy/upload/NEMA-Summary-and-Analysis-of-the-Energy-Independence-and-Security-Act-of-2007.pdf>

Pulse Start Solution

Pulse start technology is the new cornerstone in HID lighting. Pulse start systems dramatically improve every aspect of metal halide lighting, including improved lumens per watt, lumen maintenance, longer lamp life and color stability.



Probe Start vs. Pulse Start Metal Halide			
Features	Existing Probe Start	Existing Pulse Start	Pulse Start (E)
Color	White	Whiter	Whiter
Efficacy (L/W)	60 - 85	90 - 110	90 - 110
Ballast Efficiency	81 - 86%	86 - 88%	≥88%
Lumen Maintenance	65%	70 - 75%	70 - 75%
Lamp Wattage	175W - 400W	150W - 450W	150W - 450W
Lamp Life (kHrs)	6 - 16	10 - 30	10 - 30

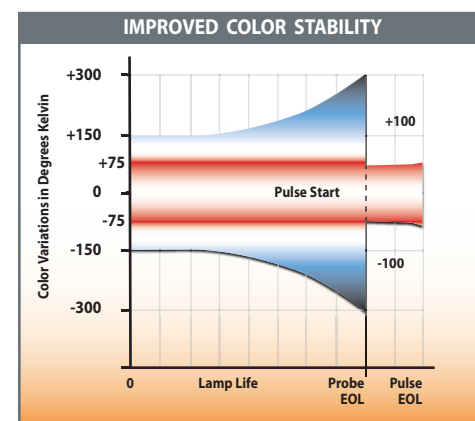
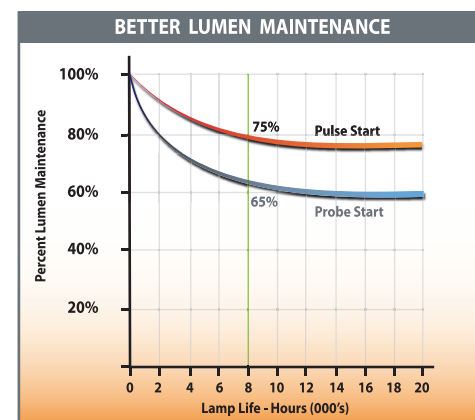
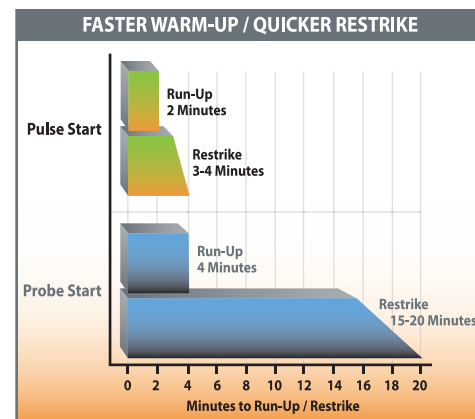
Pulse Start Advantages

- Improved Efficacy**
 Lumen output per watt increases by 25% to 50%, depending on lamp wattage and burning cycle
- Up to 75% Lumen Maintenance**
 Lower light loss results in consistently higher light levels and less energy consumption over life of lamp
- Longer Lamp Life**
 Up to a 50% improvement of lamp life: up to 20,000 – 30,000 hours
- Superior Color Rendition**
 Color Rendering Index (CRI) of up to 85+ represents a 30% improvement
- Reduced Color Shift**
 Improved lamp-to-lamp color consistency
- Faster Warm-up**
 Warm-up time is cut in half to just two minutes
- Quicker Restrike**
 Reduces the time needed to restart hot lamps after a momentary outage to just three to four minutes
- Colder Starting Temperatures**
 -30° to -40°F/C pulse start versus -20° to -30°F/C probe start

The ABL Solution

Each Acuity Brands Lighting company offers luminaires that save energy and meet the requirements of EISA legislation. Some brands may require the use of specific ordering information (nomenclature) that represents the pulse start ballast (i.e. SCWA, SC). Please see the specification sheet, product catalog or visit our website for information regarding ordering information for pulse start ballasts that are EISA compliant.

In addition, ABL provides the tools to communicate product and specification solutions to address EISA. For more information, visit www.AcuityBrandsLighting.com/EISA.



* Information referenced in charts was secured with permission from Advance®.