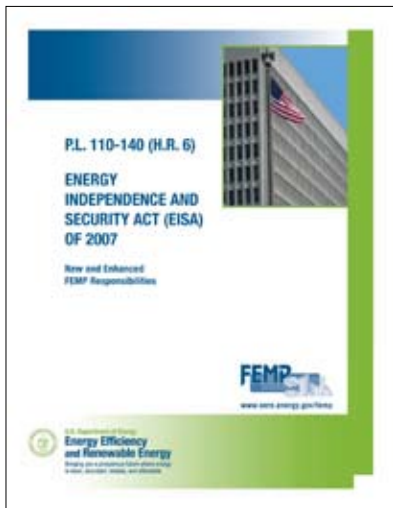


# Pulse Start MH & EISA At a Glance



## What does EISA mean to us?



### When

**EFFECTIVE January 1, 2009:** Metal Halide 150w-500w fixture production will meet higher efficiency standards (88% for pulse start, 94% for probe start)

- This will virtually eliminate the manufacture of probe start fixtures
- Metal Halide fixtures which will have to be Pulse Start will increase in price
- Pulse start ballasts, by their inherent energy-efficient design, are more expensive than standard probe start ballasts
- Pulse start lamps are also more expensive than standard probe start lamps
- A pulse start price increase will be announced Q4 for the new EISA-compliant products

### Energy Advantage

Pulse Start technology provides an ENERGY ADVANTAGE

- You can use lower wattage pulse start fixtures for equivalent lumen output of higher wattage traditional probe start fixtures:
  - 350w or 320w pulse start fixtures can replace standard 400w probe start fixtures
  - 150w pulse start fixtures can replace standard 175w probe start fixtures

### What Happens to Probe Start?

The law allows manufacturers and distributors to sell all probe start MH fixture inventories.

- No RMAs will be needed since the market can continue to sell probe start luminaires until inventories are depleted.
- Distributors can stock-up on lower cost probe start fixtures and continue to legally sell off their inventories in 2009, for as long as those inventories last
- Ballast and lamp suppliers will continue to build components for replacement business. Replacement ballast and lamp business will not be impacted.

### Exceptions

One EISA exception is significant-- the 150w wet location fixtures (as rated per NEC 2002, section 410.4(A)).

- 175w wet location rated fixtures will be replaced by 150w (already pulse start technology) for the energy savings
- The 150w system will still be more expensive than the 175w probe start technology, however, less expensive than the new 88% efficient 175w pulse start systems

### Our Commitment



We will continue to update our brand websites with the latest energy-saving pulse start technology products, marked with our "Powered by Pulse Start" trademarked logo. We will also be adding sales tools in the Agent Resource Center to help our sales force explain EISA and sell the advantages of pulse start technology.

## Probe Start vs. Pulse Start Comparison

Probe Start				EISA Compliant Pulse Start			
Watts	Mean Lumens	Life	Watts	Watts	Mean Lumens	Life	Watts
175	8,775	10,000	210	150	8,100	15,000	185
				175	11,200	15,000	198
250	13,500	10,000	295	200	16,800	15,000	277
				250	16,625	15,000	291
400	24,000	20,000	458	320	21,000	20,000	361
				350	25,200	20,000	397
				400	29,820	20,000	452

## EISA Legislation and Labeling Example

### Energy Independence & Security Act of 2007

Public Law 110-140-Dec. 19, 2007

#### Sec. 324. Metal Halide Lamp Fixtures

Metal halide lamp fixtures, from 150w to 500w, produced on or after Jan 1, 2009, shall contain a ballast with the following minimum efficiency level-

- (i) 88% for Pulse Start MH ballasts
- (ii) 94% for Magnetic Probe Start MH ballasts
- (iii) For Non-Pulse Start electronic ballasts-
  - (I) 92% for  $\geq 250w$
  - (II) 90% for  $< 250w$

**EXCLUSIONS.**-The efficiency standards do not apply to-

- (i) fixtures with regulated lag ballasts;
- (ii) fixtures that use electronic ballasts that operate at 480 volts; or
- (iii) fixtures that-
  - (I) are rated only for 150 watt lamps;
  - (II) are rated for use in wet locations per NEC 202, section 410.4 CA); and (III) contain a ballast that is rated to operate at ambient air temperatures above 50°C, as specified by UL 1029-2001.

**LABELING.**-The rules shall provide that any metal halide lamp fixture manufactured on or after January 1, 2009, shall contain a capital letter 'E' printed within a circle on the packaging of the fixture, and on the ballast contained in the fixture.

Labeling example



Ballast label



Fixture packaging

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