



EISA 2007 (Energy Independence & Security Act)



Topic Agenda

Legislation

Standards

Lighting Changes

Enforcement

HID Electronics

Wattage Availability

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Legislation

Purpose: A law that moves the U.S. toward greater energy independence and to increase the efficiency of lighting products

Products Affected: All probe start metal halide fixtures (indoor and outdoor) from 150 watts to 500 watts

Federal Law Effective Dates:

January 1, 2009

Preempted laws (key states) January 1, 2008



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Standards

“(hh) METAL HALIDE LAMP FIXTURES.—

“(1) STANDARDS.—

“(A) IN GENERAL.—Subject to subparagraphs (B) and (C), metal halide lamp fixtures designed to be operated with lamps rated greater than or equal to 150 watts but less than or equal to 500 watts shall contain—

“(i) a pulse-start metal halide ballast with a minimum ballast efficiency of 88 percent;

“(ii) a magnetic probe-start ballast with a minimum ballast efficiency of 94 percent; or

“(iii) a nonpulse-start electronic ballast with—

“(I) a minimum ballast efficiency of 92 percent for wattages greater than 250 watts; and

“(II) a minimum ballast efficiency of 90 percent for wattages less than or equal to 250 watts.

“(B) EXCLUSIONS.—The standards established under subparagraph (A) shall 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, as specified by the National Electrical Code 2002, section 410.4(A); and

“(III) contain a ballast that is rated to operate at ambient air temperatures above 50°C, as specified by UL 1029-2001.

“(C) APPLICATION.—The standards established under subparagraph (A) shall apply to metal halide lamp fixtures manufactured on or after the later of—

“(i) January 1, 2009; or

“(ii) the date that is 270 days after the date of enactment of this subsection.



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Legislation Standards

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1. 150W – 500W
2. **Fixtures** shall contain a
 - a) pulse start ballast (elect or mag) $\geq 88\%$ or a
 - b) magnetic probe start ballast $\geq 94\%$ or a
 - c) electronic nonpulse-start ballast
 - $\geq 90\%$ for 150-250W
 - $\geq 92\%$ for >250-500W
3. Dates effective:
 - All fixtures – Jan 1, 2009
4. Fixture and Ballast labels:





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Legislation Standards for Exclusions

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1. **Fixtures** that use **electronic** ballasts that operate at **480V**

2. **Fixtures** that meet **all** of the following:
 - a. Rated for 150W lamps **(and)**
 - b. Rated for wet locations and
 - c. Contain a ballast rated to operate at ambient air temperature >50°C.*

3. **Fixtures** that use **regulated lag** ballasts



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Lighting Changes

Summary

Sets new efficiency standards for metal halide products being sold

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Effectively moves industry from probe to pulse start and electronic ballasts

Manufacturer Requirements

Non-compliant fixtures can no longer be manufactured after Jan. 1, 2009

Remaining inventory can be sold after Jan. 1, 2009

Replacement lamps and ballasts for probe start not affected by legislation

Ballasts in new fixtures must meet the new efficiency ratings (88%)



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Enforcement

Enforcement efforts and penalties are yet to be defined

The Department of Energy (DOE) will be responsible for ensuring manufacturers adhere to the new laws

Details pertaining to enforcement efforts will be announced soon.



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Wattage Availability of Lamps

Probe versus Pulse Start Metal Halide

Probe Start Watts	Lamp Size	Mean Lumens	Pulse Start Watts	Lamp Size	Mean Lumens
			125	Med/Mogul	8400
			150	Med/Mogul	10500
175	Mogul/Medium	8000 at 6000 hours	175	Med/Mogul	14000
			200	Med/Mogul	16800
250	Mogul	12000 at 6000 hours	250	Mogul	20000
			320	Mogul	25000
			350	Mogul	29000
400	Mogul	23000 at 8000 hours	400	Mogul	35000



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Wattage Availability of Lamps

The 150 & 175 Options for Lamps

150 Watt

If you do not have the exclusion for wet fixture

Options

125W

150W with Electronic

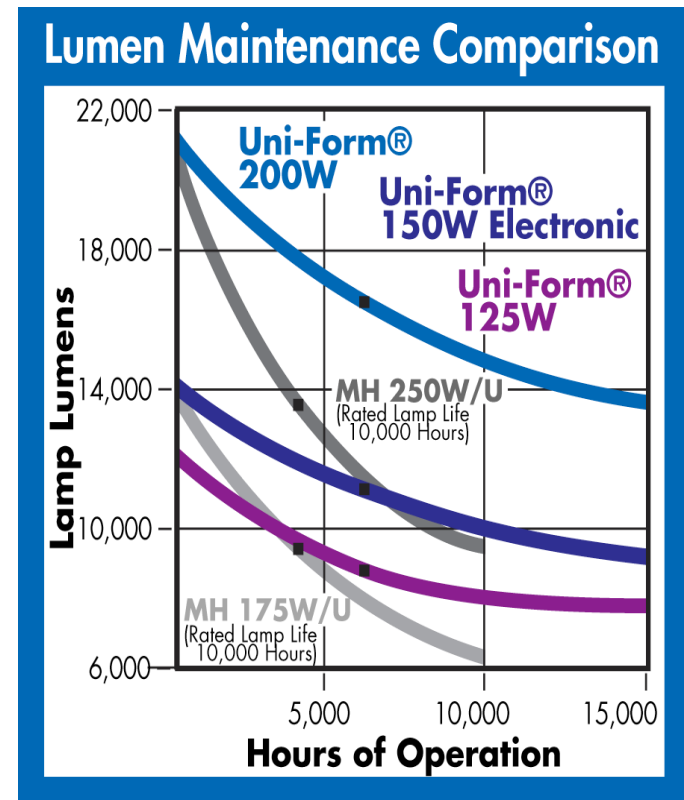
175 Watt

Energy Options

125W

150W Electronic (Indoor)

200W





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Electronic Ballasts

Advantages

Typical ballast efficiency available is 93%

Superior lamp wattage regulation, lumen maintenance, and color uniformity

Multiple line voltages and frequencies available

Venture E Lamps

Available Wattages

300, 320, 400, 450

E lamps deliver 90% lumen maintenance

Can be dimmed to 35% of rated wattage

Natural White

Available Wattages

250, 320, 350, 400, 450

High CRI 90+

Delivers 90% lumen maintenance



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What the Future Holds

As the legislation tightens, Venture Lighting brightens!

CEC California Energy Commission continues to look for ways to save energy

This will be accomplished by calling for even higher standard of efficiency

Venture Lighting will be ready to meet these challenges by continuing to lead the market in development efforts in Pulse Start Metal Halide technologies.



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Questions?

Thank You,

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