

White Paper
Legislative Update:
Federal Energy Independence & Security Act
Benefits of Pulse Start Metal Halide



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September 24, 2008

The Federal Energy Independence & Security Act signed into law in late 2007 states that all 150W – 500W metal halide lamp luminaires manufactured on or after January 1, 2009, must meet the following ballast efficiency ratings:

- 88% for magnetic or electronic pulse start ballasts
- 94% for magnetic probe-start ballasts
- 90% for electronic non-pulse start ballasts of 250w or less
- 92% for electronic non-pulse start ballasts greater than 250w

For all effective purposes, this new legislation will obsolete current probe start metal halide ballasted products in this wattage range, and will force a national transition to higher efficiency pulse start metal halide technology. Several states including California, Washington, Oregon, and Arizona preemptively enacted laws with similar ballast efficiency requirements, effective Jan 1, 2008 for all lamp burning positions. New York and Rhode Island enacted ballast efficiency laws effective Jan 1, 2008 for vertical lamp positions only (both base up and base down).

In addition to improved operating efficiency, there are several benefits to pulse start metal halide technology including:

More Lumens Per Watt:

Pulse start metal halide systems improve lamp efficacy (lumens per watt) by up to 45%, resulting in more useable light per watt consumed.

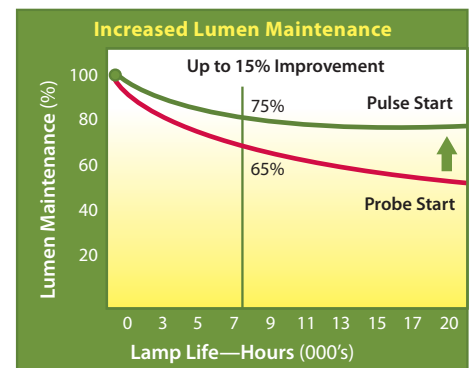
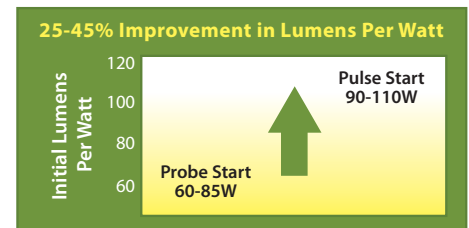
Longer Life:

Pulse start lamps offer substantially higher life ratings—up to 20,000-30,000 hours, or an improvement of up to 50%.

Probe vs. Pulse Start Metal Halide Benefits		
Features	Probe MH	Pulse MH
Color	White	Brighter White
Efficacy (Lumens per Watt)	60-85	90-110
Lumen Maintenance	65%	70-75%
Lamp Wattages	175-1000	35-1000
Lamp Life (kHrs)	6-16	6-30

Better Lumen Maintenance:

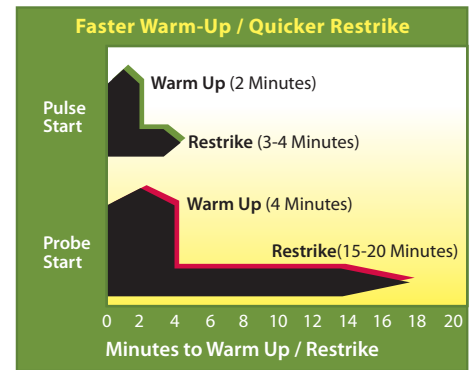
With a lumen maintenance rating of up to 75%, pulse start lamps reduce light loss over life by up to 15% when compared to probe start metal halide lamps. Fewer watts per square foot are required to illuminate an area as a result of consistently higher light levels throughout lamp life.



Customer First Center
1121 Highway 74 South
Peachtree City, Georgia 30269
P: 770-486-4800 F: 770-486-4801

Faster Warm-Up / Quicker Restrike:

Warm up time is cut in half to 2 minutes for pulse start systems versus 15-20 minutes for probe start. Restrike times after an outage are reduced to 3 to 4 minutes for pulse start lamps.



FREQUENTLY ASKED QUESTIONS FEDERAL ENERGY INDEPENDENCE & SECURITY ACT

What is the Federal Energy Independence & Security Act?

In December, 2007, President Bush signed a federal law that enforces the reduction of U.S. energy consumption. The goal is to move the United States toward greater energy independence and to increase the efficiency of lighting products.

When does the law take effect?

January 1, 2008: Arizona, California, New York, Oregon, Rhode Island, Washington
January 1, 2009: All other states

What types of lighting products are affected?

All metal halide ballasted fixtures (indoor or outdoor) from 150 Watts to 500 Watts.

What are the new energy efficiency ratings and is product available?

All pulse start metal halide products must meet a minimum 88% ballast efficiency rating (lamp wattage/input watts). While a limited offering of compliant ballasts are commercially available today, OEM manufacturers are currently developing additional new pulse start metal halide ballast designs ahead of the Jan 1, 2009 deadline to meet the legislative requirements.

What is the wattage selection with pulse start products?

Probe Start Metal Halide	Lamp Size	Pulse Start Metal Halide	Lamp Size
150 Watt	Medium	150 Watt	Medium
175 Watt	Medium & Mogul	175 Watt	Mogul
		200 Watt	Medium
250 Watt	Mogul	250 Watt	Mogul
		320 Watt	Mogul
		350 Watt	Mogul
400 Watt	Mogul	400 Watt	Mogul

Can existing probe start metal halide fixtures be sold through distribution after Jan 1, 2009?

Yes, so long as the fixture was manufactured prior to Jan 1, 2009.

Will probe start ballasts and lamps remain available for service needs?

Yes, the new legislation applies only to finished good fixtures.

How can the new 88% efficient metal halide products be identified from standard probe start products?

An encircled “E” identification marking has been established by The Federal Trade Commission (FTC). The new “E” marking is required for effected pulse start metal halide products (150W – 500W) manufactured after January 1, 2009. The “E” label mark is required on the ballast, carton packaging, product descriptions, point of purchase displays and catalog/websites.



For additional information on the Federal Energy Independence & Security Act contact your local Cooper Lighting representative.

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