

## BALLAST COMPATIBILITY REPORT

Metal Halide LED Replacement Lamps  
Type A – Ballast Driven

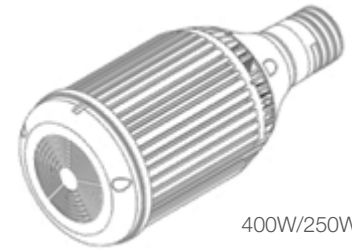
Last Updated 08/12/2017

### Ballast Compatibility Description

Lunera conducts ballast compatibility testing to on a wide range of commercially available ballasts to achieve the highest possible ballast compatibility with it's ballast driven (Type A) LED lamps.

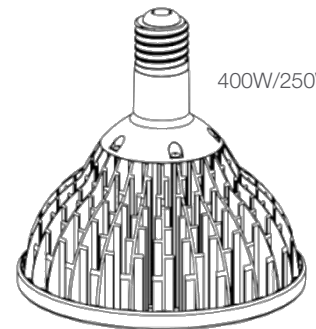
The LUNERA MH LED FANLESS E39 lamps are compatible with 400W, 250W and 175W Metal Halide CWA ballasts and the LUNERA MH LED FANLESS E26 lamps are compatible with 175W, 100W, and 70W CWA ballasts\*.

The lamps NOT compatible metal halide CWA ballasts either above or below their specified wattages. Nor are they compatible with non-CWA magnetic ballasts, HX-HPF ballasts, high pressure sodium ballast or LED drivers.



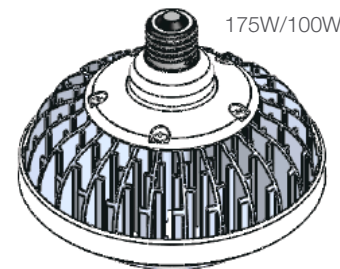
400W/250W/175W

LUNERA MH HID HORIZONTAL E39



400W/250W/175W

LUNERA MH HID VERTICAL E39 FANLESS



175W/100W/70W

LUNERA MH HID VERTICAL E26 FANLESS

Compatible Metal Halide Ballast Types		
Wattage	ANSI	Type
400W	<b>M59</b>	<b>Metal Halide CWA – Probe Start</b>
	M128	Metal Halide CWA – Pulse Start
	M135	Metal Halide CWA – Pulse Start
	M155	Metal Halide CWA – Pulse Start
350W*	M131	Metal Halide CWA – Pulse Start
320W*	M132	Metal Halide CWA – Pulse Start
250W	<b>M58</b>	<b>Metal Halide CWA – Probe Start</b>
	M80	Metal Halide CWA – Probe Start, Double-Ended
	M138	Metal Halide CWA – Pulse Start
175W	<b>M57</b>	<b>Metal Halide CWA – Probe Start</b>
	M137	Metal Halide CWA – Pulse Start
100W**	<b>M90</b>	<b>Metal Halide CWA - Probe Start / Pulse Start</b>
	M91	Metal Halide CWA - Probe Start, Double Ended
	M140	Metal Halide CWA – Ceramic, Double Ended
70W**	<b>M85</b>	<b>Metal Halide CWA - Probe Start, Double Ended</b>
	<b>M98</b>	<b>Metal Halide CWA - Probe Start</b>
	M139	Metal Halide CWA – Ceramic, Double Ended

The most popular ballasts are indicated in boldface.

\* The E39 lamps are compatible with 350W (M131) and 320W (M131) Metal Halide CWA ballasts, however, the lamps are only specified for operation with 400W, 250W, and 175W ballasts. If they are used with a 350W or 320W ballast, lumen output and lamp wattage will be affected.

\*\* 100W and 70W ballasts are only supported on the E26 medium base version.