# LUNERA HID LED LAMP

# LED Replacement for High Intensity Discharge Lamps

[20,000lm / 15,000lm / 9,000lm / 4,500lm] Mogul Base - Vertical Mount - Ballast Driven



#### Description

The Lunera HID LED lamp is a Ballast Driven (plug-and-play) LED replacement for Metal Halide (MH) and High Pressure Sodium (HPS) lamps with an E39 mogul base. This lamp replaces 400W~175W wattages of MH and HPS lamps in lighting applications such as High Bay, Low Bay, Parking Garages.

Lunera HID LED lamps feature a significantly lower energy consumption than conventional (High Intensity Discharge) HID lamps. These lamps deliver over 60% energy savings and have a rated life of 50,000 hours – 3 times longer than that of HID lamps.

Lunera's BallastLED technology makes these lamps truly plug-and-play by allowing them to operate directly off of existing magnetic HID ballasts.

The Lunera HID LED lamp is available in a range of color temperatures including 3500K, 4000K and 5000K. It delivers consistent light levels across its long life, which results in a high quality lighting experience for the building's occupants.

#### **Features**

- Replaces 400W ~ 175W High Intensity Discharge (MH and HPS) lamps
- Ballast-Driven plug-and-play installation; with existing magnetic HID ballast
- Works well in enclosed fixtures
- Up to 20,000, 15,000, 10,000 and 5,000 lumens fixture delivered light output
- Yields 60%-80% energy savings
- >80 CRI
- CCT 3500K, 4000K and 5000K
- Supports E39/EX39 Mogul base HID sockets
- Thermal IQ to support ambient temperatures up to 150°F



20,000lm 15,000lm



9,000lm 4,500lm VS



Example: SN-V-E39-B-20KLM-840-G3

# **Ordering Information**

Series	Version	Socket Type	Power Supply	Lamp Lumens	CCT	Generation
SN: Lunera HID LED SNSA: Lunera HID LED Sensor Lamp	V: Vertical Base [20KLM and 15KLM] VS: Vertical Short Base [9KLM and 4.5KLM]	E39: Fits in mogul-base (E39/EX39) HID socket	B: Plug-and-Play Magnetic HID Ballast	20KLM: 20,000lm 15KLM: 15,000lm 9KLM: 9,000lm 4.5KLM: 4,500lm	835: 80CRI / 3500K 840: 80CRI / 4000K 850: 80CRI / 5000K	G3: 3rd Generation

PROJECT	CONTACT	MODEL NO.
REFERENCE NO.	QUANTITY	DATE

# LUNERA HID LED LAMP - BALLAST DRIVEN

# Performance Specifications - Vertical Mount Lamp - 20,000lm / 15,000lm

S000K: 21,920lm			
South   Sout		20,000 lumens	15,000 lumens
South   Sout			
South   Sout	III. con to a 42 a co		
Color Consistency		05001/ 40001/ 50001/	05001/ 40001/ 50001/
Lumens 4,000K: 20,618lm 5000K: 21,920lm 5000K: 16,970lm Color Consistency Lumera TruColor proprietary process Lumera TruColor proprietary process 50,000+ hours life	Color Temperatures	· · · · · · · · · · · · · · · · · · ·	
S000K: 21,920lm   S000K: 16,910lm   S000K: 16,910lm   S000K: 16,910lm   S000K: 16,910lm   S000K: 16,910lm   S0,000+ hours life   S0,0			
Color Consistency Lunera TruColor proprietary process Lunera TruColor proprietary process 50,000+ hours life    So,000+ hours life	Lumens	· ·	
Dependent of HID ballast   Dependent of HID ballast   CWA Ballast Input (480V ~ 120V)   HX Ballast Input (480V ~ 120V)   HX Ballast Input (480V ~ 120V)   HX Ballast Input (277V ~ 120V)   HX Ballas			
Dependent of HID ballast   Dependent of HID ballast   CWA Ballast Input (480V ~ 120V)   HX Ballast Input (480V ~ 120V)   HX Ballast Input (277V ~ 120V)   HX Ballast Input (270V ~ 120V)   HX Ballast Input (280V ~ 120V)   HX Ballas	-		
Dependent of HID ballast CWA Ballast Input (480V ~ 120V) HX Ballast Input (180V ~ 120V) HX Ballast Input (480V) HX Ballast Input (180V) HX Ballast Input (277V ~ 120V) HX Ballast Input (180V) HX B	Lumen Maintenance (L70)	50,000+ hours life	50,000+ hours life
Dependent of HID ballast CWA Ballast Input (480V ~ 120V) HX Ballast Input (180V ~ 120V) HX Ballast Input (480V) HX Ballast Input (180V) HX Ballast Input (277V ~ 120V) HX Ballast Input (180V) HX B			
Dependent of HID ballast CWA Ballast Input (480V ~ 120V) HX Ballast Input (180V ~ 120V) HX Ballast Input (480V) HX Ballast Input (180V) HX Ballast Input (277V ~ 120V) HX Ballast Input (180V) HX B	Electrical System		
Input Voltage CWA Ballast Input (480V ~ 120V) HX Ballast Input (277V ~ 120V) HX Ballast Input (277V ~ 120V) Average Lamp Power Lamp Wattage Replaced 400W/320W/310W/250W 400W/320W/310W/250W  Physical Dimensions (H x W) 9.88" x 6.31" 9.88" x 6.31" Weight 12.75lb 2.75lb 2.75lb 12.75lb 12.	Ziodinadi Gyatam	Dependent of HID ballast	Dependent of HID ballast
HX Ballast Input (277V ~ 120V) Average Lamp Power 230W Lamp Wattage Replaced 400W/320W/310W/250W 400W/320W/310W/250W  Physical Dimensions (H x W) 9.88" x 6.31" 9.88" x 6.	Input Voltage		
Augustage Replaced			
Physical Dimensions (H x W) 9.88" x 6.31" 9.88" x 6.31" 9.88" x 6.31" Weight 2.75lb 2.75lb 1.275lb 1.2	Average Lamp Power	230W	164W
Dimensions (H x W) 9.88" x 6.31" 9.88" x 6.31" Weight 2.75lb Painted Painted Pleat Sink Size 6" Configuration Vertical Standard Base/Heatsink (V) Vertical Standard Base/Heatsink (V) Lens Clear  Environment Armbient Temperature -40°F to 150°F* -40°F to 150°F* Humidity Rating Damp OK, no direct water spray Open or enclosed  Pits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications UL Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury LM79, LM80, IES Files Available DesignLights Consortium  Painted Pain	Lamp Wattage Replaced	400W/320W/310W/250W	400W/320W/310W/250W
Dimensions (H x W) 9.88" x 6.31" 9.88" x 6.31" Weight 2.75lb Painted Painted Pleat Sink Size 6" Configuration Vertical Standard Base/Heatsink (V) Vertical Standard Base/Heatsink (V) Lens Clear  Environment Armbient Temperature -40°F to 150°F* -40°F to 150°F* Humidity Rating Damp OK, no direct water spray Open or enclosed  Pits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications UL Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury LM79, LM80, IES Files Available DesignLights Consortium  Painted Pain			
Dimensions (H x W) 9.88" x 6.31" 9.88" x 6.31" Weight 2.75lb 2.75lb Painted Plainted Plainted Pleat Size 6" 6" Configuration Vertical Standard Base/Heatsink (V) Vertical Standard Base/Heatsink (V) Lens Clear  Clear  Environment Ambient Temperature -40°F to 150°F* -40°F to 150°F* Humidity Rating Damp OK, no direct water spray Open or enclosed  Pits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury LM79, LM80, IES Files Available DesignLights Consortium  Painted Painte	Physical		
Weight 2.75lb 2.75lb 2.75lb Housing and Finish Painted		0.88" v 6.31"	0.88" v 6.31"
Housing and Finish Painted Painted Painted Heat Sink Size 6" 6" 6"  Configuration Vertical Standard Base/Heatsink (V) Vertical Standard Base/Heatsink (V)  Lens Clear Clear  Environment  Ambient Temperature -40°F to 150°F* -40°F to 150°F*  Humidity Rating Damp OK, no direct water spray Damp OK, no direct water spray Pixture Type Open or enclosed  Installation  Socket Type Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury Contains no lead or mercury LM79, LM80, IES Files Available  DesignLights Consortium DLC category not available  Warranty			
Heat Sink Size 6" 6" Configuration Vertical Standard Base/Heatsink (V) Vertical Standard Base/Heatsink (V) Lens Clear Clear  Environment Ambient Temperature -40°F to 150°F* -40°F to 150°F* Humidity Rating Damp OK, no direct water spray Damp OK, no direct water spray Fixture Type Open or enclosed  nstallation Socket Type Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN RoHS Compliant Contains no lead or mercury Contains no lead or mercury LM79, LM80, IES Files Available DesignLights Consortium  Marranty  Order  6" 6" Certifications Sandard Base/Heatsink (V) Vertical Standard Base/Heatsink (V) Vertical S			
Configuration  Vertical Standard Base/Heatsink (V)  Lens  Clear  Contains no lead or mercury  LM79, LM80, IES Files  DesignLights Consortium  Vertical Standard Base/Heatsink (V)  Clear  Clear  Clear  Clear  Clear  Damp OK, no direct water spray  Damp OK, no direct water spray  Open or enclosed  Fits vertical mount mogul  base (E39/EX39) HID socket  Fits vertical mount mogul  base (E39/EX39) HID socket  Certifications & Qualifications  UL  Classified / Recognized US, CAN  Classified / Recognized US, CAN  Classified / Recognized US, CAN  Contains no lead or mercury  LM79, LM80, IES Files  Available  DesignLights Consortium  DLC category not available  Warranty	-		
Environment  Ambient Temperature -40°F to 150°F* -40°F to 150°F* Humidity Rating Damp OK, no direct water spray Damp OK, no direct water spray Fixture Type Open or enclosed Open or enclosed  Installation  Socket Type Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury  LM79, LM80, IES Files Available Available  DesignLights Consortium DLC category not available  Warranty			
Environment  Ambient Temperature -40°F to 150°F* -40°F to 150°F* Humidity Rating Damp OK, no direct water spray Damp OK, no direct water spray Fixture Type Open or enclosed Open or enclosed  Installation  Socket Type Fits vertical mount mogul Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN RoHS Compliant Contains no lead or mercury Contains no lead or mercury  LM79, LM80, IES Files Available Available  DesignLights Consortium DLC category not available  Warranty  Warranty			
Ambient Temperature  -40°F to 150°F*  -40°F to 150°F*  Humidity Rating  Damp OK, no direct water spray  Open or enclosed  Open or enclosed  Open or enclosed  Installation  Socket Type  Fits vertical mount mogul base (E39/EX39) HID socket  DesignLights Consortium  -40°F to 150°F*  -40°F to 150°F*  Damp OK, no direct water spray  Open or enclosed  Open or enclosed  Fits vertical mount mogul base (E39/EX39) HID socket  Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury Contains no lead or mercury LM79, LM80, IES Files DLC category not available  DLC category not available  Warranty		, 5 . 5 . 5	
Ambient Temperature  -40°F to 150°F*  -40°F to 150°F*  Humidity Rating  Damp OK, no direct water spray  Open or enclosed  Open or enclosed  Open or enclosed  Installation  Socket Type  Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL  Classified / Recognized US, CAN  Contains no lead or mercury  LM79, LM80, IES Files  Open or enclosed  Cave descriptions  Cave descriptions  Contains no lead or mercury  Available  DesignLights Consortium  DLC category not available  Warranty	Environment		
Humidity Rating Damp OK, no direct water spray Open or enclosed  Open or enclosed  Open or enclosed  Installation  Socket Type  Fits vertical mount mogul base (E39/EX39) HID socket  DesignLights Consortium  Damp OK, no direct water spray Open or enclosed  Fits vertical mount mogul base (E39/EX39) HID socket  Dase (E39/EX39) HID socket  Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury Contains no lead or mercury Available  DLC category not available  DLC category not available  Warranty		400F to 1500F*	400F to 1500F*
Pixture Type Open or enclosed Open or enclosed  Open or enclosed  Open or enclosed  Open or enclosed  Pits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury Contains no lead or mercury LM79, LM80, IES Files Available DesignLights Consortium  Open or enclosed  Other is vertical mount mogul base (E39/EX39) HID socket  Classified / Recognized US, CAN Classified / Recognized US, CAN Contains no lead or mercury LM79, LM80, IES Files Open or enclosed  DLC category not available  Open or enclosed  DLC category not available	•		
nstallation Socket Type  Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN RoHS Compliant Contains no lead or mercury Contains no lead or mercury  LM79, LM80, IES Files Available Available  DesignLights Consortium  DLC category not available  Warranty	, ,		
Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN  RoHS Compliant Contains no lead or mercury Contains no lead or mercury  LM79, LM80, IES Files Available Available  DesignLights Consortium DLC category not available  Warranty	Tixture Type	Open or enclosed	Open of enclosed
Fits vertical mount mogul base (E39/EX39) HID socket  Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN  RoHS Compliant Contains no lead or mercury Contains no lead or mercury  LM79, LM80, IES Files Available Available  DesignLights Consortium DLC category not available  Warranty			
Dertifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN  RoHS Compliant Contains no lead or mercury Contains no lead or mercury  LM79, LM80, IES Files Available DesignLights Consortium DLC category not available DLC category not available  Warranty	Installation		
Certifications & Qualifications  UL Classified / Recognized US, CAN Classified / Recognized US, CAN  RoHS Compliant Contains no lead or mercury Contains no lead or mercury  LM79, LM80, IES Files Available Available  DesignLights Consortium DLC category not available DLC category not available  Warranty	Socket Type		
UL Classified / Recognized US, CAN Classified / Recognized US, CAN RoHS Compliant Contains no lead or mercury Contains no lead or mercury LM79, LM80, IES Files Available Available DesignLights Consortium DLC category not available DLC category not available  Warranty	Gooder Type	base (E39/EX39) HID socket	base (E39/EX39) HID socket
UL Classified / Recognized US, CAN Classified / Recognized US, CAN RoHS Compliant Contains no lead or mercury Contains no lead or mercury LM79, LM80, IES Files Available Available DesignLights Consortium DLC category not available DLC category not available  Warranty			
UL Classified / Recognized US, CAN Classified / Recognized US, CAN RoHS Compliant Contains no lead or mercury Contains no lead or mercury LM79, LM80, IES Files Available Available DesignLights Consortium DLC category not available DLC category not available  Warranty	Certifications & Qualifications		
RoHS Compliant Contains no lead or mercury Contains no lead or mercury  LM79, LM80, IES Files Available Available  DesignLights Consortium DLC category not available DLC category not available  Warranty	UL Grandations a gaameations	Classified / Recognized US, CAN	Classified / Recognized U.S. CAN
LM79, LM80, IES Files Available Available  DesignLights Consortium DLC category not available DLC category not available  Warranty		_	_
DesignLights Consortium  DLC category not available  DLC category not available  Warranty	LM79, LM80, IES Files		
Warranty	DesignLights Consortium		
		, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
	Morronty		
vvarranty 5 years 5 years	-	F	T
	vvarranty	o years	o years

<sup>\*</sup>Thermal IQ is a proprietary Lunera technology which enables the Susan Lamp to operate reliably up to 150°F ambient by dimming itself at extreme temperatures based upon thermal characteristics of the fixture in which it has been installed.

<sup>\*</sup> Lamp dimming profiles subject to ballast type and environmental conditions. Contact Lunera for more detailed information.



# LUNERA HID LED LAMP - BALLAST DRIVEN

# Performance Specifications - Vertical Mount Lamp - 9,000lm / 4,500lm

	9,000 lumens	4,500 lumens
III. usa isa aki a sa		
Illumination	05001/ 40001/ 50001/	05001/ 40001/ 50001/
Color Temperatures	3500K, 4000K, 5000K	3500K, 4000K, 5000K 3500K: 4,644lm
Lumens	3500K: 8,817lm 4000K: 8,794lm	4000K: 4,800lm
Lumons	5000K: 9,170lm	5000K: 4,911lm
Color Consistency	Lunera TruColor proprietary process	Lunera TruColor proprietary process
Lumen Maintenance (L70)	50,000+ hours life	50,000+ hours life
Flooring of Charles		
Electrical System		
Input Voltage	Dependent of HID ballast CWA Ballast Input (480V ~ 120V)	Dependent of HID ballast CWA Ballast Input (480V ~ 120V)
input voitage	HX Ballast Input (277V ~ 120V)	HX Ballast Input (277V ~ 120V)
Average Lamp Power	103W	58W
Lamp Wattage Replaced	250W/175W/150W/100W/70W	175W/150W/100W/70W
Physical		
Dimensions (H x W)	8.59" x 6.31"	8.59" x 6.31"
Weight	1.9lb	1.9lb
Housing and Finish	Painted	Painted
Heat Sink Size	6" Small	6" Small
Configuration	Vertical Short Base/Heatsink (VS)	Vertical Short Base/Heatsink (VS)
Lens	Frosted or Type V Option	Frosted or Type V Option
Environment		
Ambient Temperature	-40°F to 150°F*	-40°F to 150°F*
Humidity Rating	Damp OK, no direct water spray	Damp OK, no direct water spray
Fixture Type	Open or enclosed	Open or enclosed
Installation		
Installation	Eita vartical mount magul	Fita vortical mount mague
Socket Type	Fits vertical mount mogul base (E39/EX39) HID socket	Fits vertical mount mogul base (E39/EX39) HID socket
	5436 (E00/E/00) File 300/00	base (Ess) File source
Certifications & Qualifications		
UL Pal IC Compliant	UL Classified & Recognized	UL Classified & Recognized
RoHS Compliant	Contains no lead or mercury	Contains no lead or mercury
LM79, LM80, IES Files	Available  DLC category not available	Available
DesignLights Consortium	DLC category not available	DLC category not available
Warranty		
Warranty	5 years	5 years

<sup>\*</sup>Thermal IQ is a proprietary Lunera technology which enables the Susan Lamp to operate reliably up to 150°F ambient by dimming itself at extreme temperatures based upon thermal characteristics of the fixture in which it has been installed.

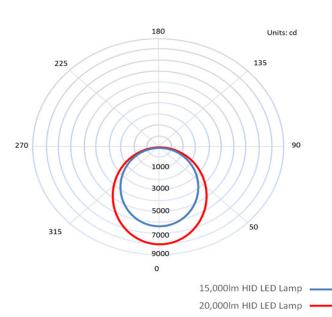
<sup>\*</sup>Lamp dimming profiles subject to ballast type and environmental condition. Contact Lunera for more detailed information.



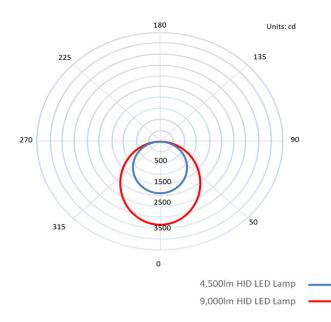
#### **Photometry**

Optical data is based on performance of bare lamps.

# Polar Candela Distribution [20,000lm / 15,000lm]



## Polar Candela Distribution [9,000lm / 4,500lm]



#### **Intended Applications**

The Lunera HID LED lamp is designed to replace Metal Halide (MH) and High Pressure Sodium (HPS) lamps in the following compatible applications:

Wattage Compatibilities	Sockets	Power Source	Mount
Lunera HID LED Mogul (E39) Base	E39 / EX39 Mogul	Magnetic HID Ballast	Vertical Mount High Bay / Low Bay
400W -70W MH or HPS			Fixture Type  High Bay Low Bay

#### **Application Notes**

The Lunera HID LED lamp can be used in open and fully enclosed fixtures.

This device is NOT rated for use with dimmers.

Lunera HID LED Lamps supports operation with following ballasts:

Ballast Type	Ballast Input Voltage	Ballast Wattage
Constant Wattage Autotransformer (CWA)	480V ~ 120V	400W ~ 70W
High Reactance (HX)	277V ~ 120V	400W ~ 70W

Contact Lunera for luminaire level IES files with high bay and low bay DLC referenced fixtures.

Lunera HID LED lamp does NOT support operations with electronic HID ballasts.

This product is NOT intended for use with emergency lighting or for emergency lighting.

Warranty will be voided if the product is installed into/with the following:

- CWA or HX ballast with power rating above 400W
- HX ballast with input voltage above 277V
- Installed with dimmers
- Electronic HID ballast

#### Caution

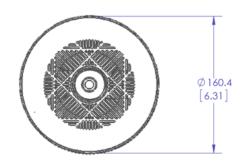
Turn power off when installing this lamp.

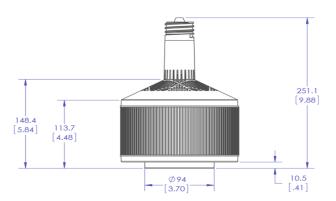


#### **Product Dimensions**

Measurements are exact. Dimensions are shown in millimeters and inches. Please contact your Lunera representative for other product dimensions.

#### Vertical E39 Lamp Standard Body/Heatsink 20,000lm / 15,000lm





#### **Sample Part Numbers:**

SN-V-E39-B-20KLM-8XX-G3 SN-V-E39-B-15KLM-8XX-G3

'XX': may be 35 (3500K), 40 (4000K), or 50 (5000K)

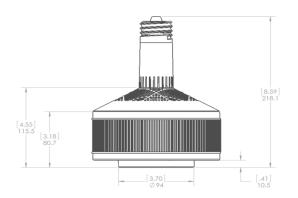
#### **CAUTION**

Turn off power when installing the lamp.

For FAQ and Technical Support, please visit: https://lunera.freshdesk.com/support/home

## Vertical E39 Lamp Short Body/Heatsink 9,000lm / 4,500lm





## Sample Part Numbers:

SN-VS-E39-B-9KLM-8XX-G3 SN-VS-E39-B-4.5KLM-8XX-G3

'XX': may be 35 (3500K), 40 (4000K), or 50 (5000K)

© 2016 Lunera Lighting, Inc. All Rights Reserved. Lunera and the Lunera logo are registered trademarks of Lunera Lighting, Inc. All other trademarks are the property of their respective owners. Specifications are subject to change without notice. This document is for informational purposes only.

