LED Lamps - HID

Ballast Bypass - Ordinary Locations

LED replacement for HID lamps leverage the low energy and long life of LED. The existing fixture is wired to bypass the ballast, which reduces energy use and eliminates the need to check ballast compatibility. Additional maintenance savings are realized by removing costs associated with purchasing and installing ballasts.

PERFORMANCE HIGHLIGHTS:

Ballast Bypass - Ordinary Locations	
Light Output:	3,000 - 85,000 Lumens
CRI:	70
CCT:	3000K, 3500K, 4000K, 5000K
Input Voltage:	120-277V; 277-480V
Efficiency:	Up to 180 LPW
Wattage:	21W-470W
Life:	50,000
Temperature Rating:	-40°C to +50°C
Location Rating:	Damp
Fixtures:	Open or Enclosed

LIMITED WARRANTY

5 years

FEATURES:

- 3.3X longer life than metal halide (50,000 vs 15,000 hours)
- Uses 60-75% less energy, providing similar light output
- In-line misapplication fuse kit included
- Tether kit included with ED28, ED37 & BT56
- Horizontal support kit included with ED37 & BT56
- Matches ANSI length & diameter of HID lamp shape
- These lamps are energy efficient, contain no lead or mercury and are compliant with material restriction requirements of RoHS

BENEFITS:

- **Energy + Cost Savings**: an LED lamp saves in energy costs over the rated life of the lamp vs. a standard HID lamp. See energy savings chart below.
- Ballast bypass (Type B) wiring eliminates costs and hassle associated with replacing ballasts

LEARN MORE:

To learn more about saving money and energy, go to www.LED.com.

Energy Savings switching from HID to Type B LED Lamps

Lamp Replacement Wattage	HID System Wattage	LED System Wattage	System Energy Savings (W)	System Energy Cost Savings Over Life of Lamp*
1000	1075	450	625	$3,437
1000	1075	270	805	$4,427
750	825	200	625	$2,553
400	460	150	310	$1,705
250	290	115	175	$962
175	210	80	130	$715
100	120	50	70	$385

*Based on energy rates at 0.11 per kWh over the life of the lamp

LED Lamps for Hazardous Locations are also available - See Spec Sheet LEDL089 & White Paper LEDL126 for more information.

Ballast Bypass for Ordinary Locations

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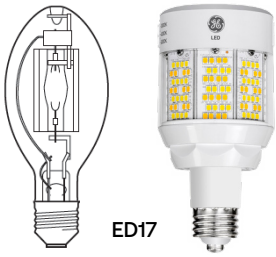
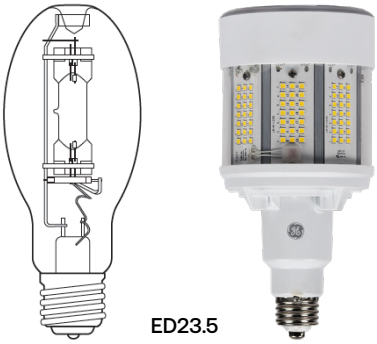
GE LED Lamps for HID Replacement utilize a proprietary design with active cooling, which allows for high output from a compact size. The length and diameter match HID ANSI profiles. These lamps feature omnidirectional light output, with similar distribution to traditional HID lamps. This enables GE LED Lamps to fit in a variety of fixtures while providing equivalent light levels to HID. All of the GE LED Lamps in this category are Type B, which means the fixture is re-wired to bypass the ballast.

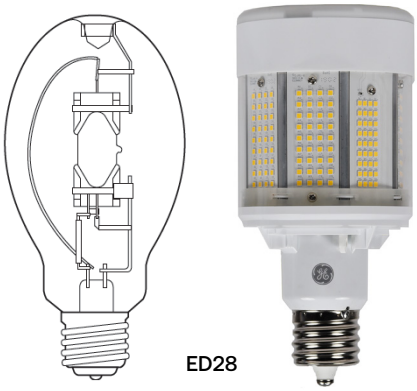
Lamp **Drawings** (not drawn to scale)



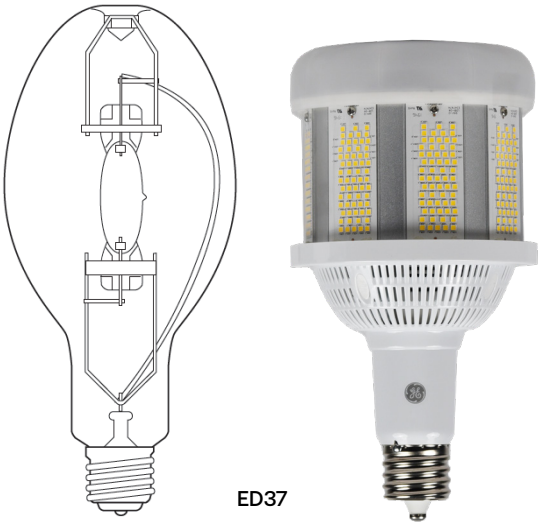
ED17



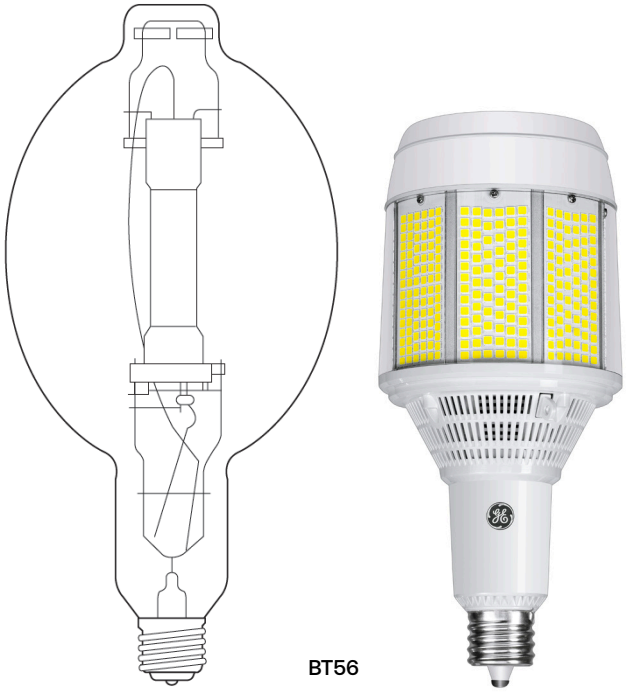
ED23.5



ED28



ED37



BT56

Ballast Bypass for Ordinary Locations

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NEMA LED HID Wattage Equivalency

In February of 2021, the National Electrical Manufacturers Association (NEMA) published NEMA LL 10-2020 *Replacing HID Lamps with LED Lamps: Light Output Equivalency Claims*. Current uses this Standard for LED products replacing HID lamps, meeting or exceeding the minimum LED light output for equivalency claims. The LED wattage equivalency varies based on the type of HID lamp being replaced - Metal Halide (MH) or High Pressure Sodium (HPS).

Metal Halide Lamp Wattage (W)	Metal Halide Initial Light Output (lm)	Minimum LED Lamp Initial Light Output (lm)	Current LED Ordinary Location Retrofit Lamps	Current LED Hazardous Location Retrofit Lamps
50	3,200	2,000	LED21ED17	LED21ED17/HAZ
70	5,200	3,000	LED21ED17	LED21ED17/HAZ
100	8,100	5,000	LED35ED17; LED45ED17	LED35ED17/HAZ; LED45ED17/HAZ
150	12,000	7,500	LED50ED23.5	
175	11,000	7,000	LED45ED17; LED50ED23.5	
250	19,100	12,000	LED80ED23.5	LED80ED23.5/HAZ
320	25,600	16,500	LED115ED28	
350	28,400	18,000	LED115ED28	
360	29,400	19,000	LED150ED28	LED150ED28/HAZ
400	33,100	21,500	LED150ED28; LED200ED37	LED150ED28/HAZ
750	72,300	46,500	LED360ED37	
1,000	100,280	65,000	LED450BT56; LED470BT56	

HPS Lamp Wattage (W)	HPS Initial Light Output (lm)	Minimum LED Lamp Initial Light Output (lm)	Current LED Ordinary Location Retrofit Lamps	Current LED Hazardous Location Retrofit Lamps
50	4,500	2,500	LED21ED17	LED21ED17/HAZ
70	6,300	4,000	LED35ED17	LED35ED17/HAZ
100	9,500	6,000	LED45ED17; LED50ED23.5	LED45ED17/HAZ
150	13,000	8,500	LED80ED23.5	LED80ED23.5/HAZ
200	19,500	12,500		
250	26,000	17,000	LED115ED28	
310	33,200	21,500	LED150ED28	LED150ED28/HAZ
400	44,000	29,000	LED200ED37; LED270BT56	
600	66,000	42,500	LED360ED37	
750	82,500	53,500	LED450BT56	
1,000	110,000	73,000	LED470BT56	

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Selectable LumenChoice® + SpectraChoice™ ED17 HID Replacement - Type B

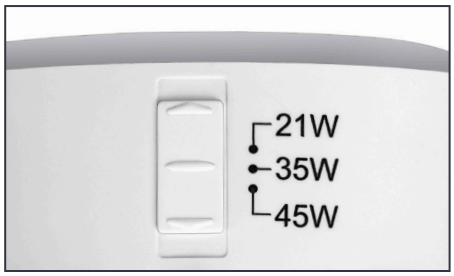
Bulb Shape	Base Type	Selectable Watts*	Order Code	Description	Volts	Carton Qty[2]	MOL (in)	MOD (in)	Selectable Lumens (Initial)[7]	Selectable Color Temp.* (Initial)	CRI	Wattage Replacement[8]	Rated Life L70 (Hrs)[1]	DLC*[3]	Location Rating[5,6]
LED Replacement Lamp for HID - Ballast Bypass (Type B)															
ED17 	E26/ EX39	21 35 45	93303384	LED/LC/ED17/7SC	120-277	3	5.4	2.6	3,400 5,500 7,000	3000K 4000K 5000K	>70	50W HPS / 70W MH 70W HPS / 100W MH 100W HPS / 175W MH	50,000	-	Damp

[1] The life rating is based on the hours of operation the lamp will provide before reaching 70% of its original lumen output (L70)
[2] Minimum order quantity = 1
[3] E26 based products are not eligible for DLC.
[5] UL 1993 Environmental Requirements for LED LAMPS
Damp Location – Exterior or interior location that is normally or periodically subject to condensation of moisture in, on, or adjacent to electrical equipment, including partially protected locations
[6] Not suitable for air-tight explosive or hazardous fixtures.
[7] Lumen levels correspond with wattage levels. Color temperature levels are independent of wattage & lumens.
[8] Wattage Replacement levels correspond with wattage levels. Wattage Replacements based on NEMA Standards Publication LL 10-2020 *Replacing HID Lamps with LED Lamps: Light Output Equivalency Claims.*
* Default wattage setting is 35W. Default color temperature setting is 4000K. Lumen levels correspond with wattage levels. Color temperature levels are independent of wattage & lumens.

Current offers unmatched flexibility in a single **ED17 LED Replacement Lamp**.
Select wattage and color temperature at the flick of a switch.

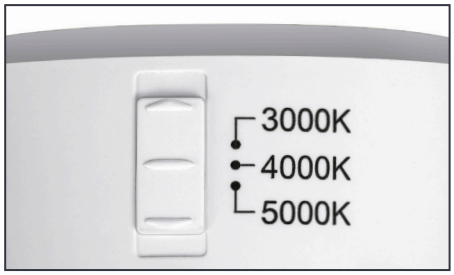
Reduce & simplify inventory - one lamp can replace many, reducing inventory dollars & storage space
Optimize solutions & save - adjust light output to the correct level & color for each application & reduce energy consumption
Simplify projects & BOMs - streamline product lists & take the guesswork out of which lamps are needed where

LumenChoice®



Select wattage (lumens) using built-in switch.

SpectraChoice™



Select color temperature using built-in switch.

Even more versatility
Each lamp comes with a mogul base adapter.
Lamps may be used in E26 or E39/EX39 sockets.

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LED HID - Type B

Bulb Shape	Base Type	Watts	Order Code	Description	Volts	Carton Qty[2]	MOL (in)	MOD (in)	Lumens (Initial)	Color Temp. (Initial)	CRI	Wattage Replacement[8]	Rated Life L70 (Hrs)[1]	DLC[*3,4]	Location Rating[5,6]
LED Replacement Lamps for HID - Ballast Bypass (Type B)															
ED17	E26	21	27729	LED21ED17/740	120-277	3	5.4	2.6	3,000	4000K	>70	50W HPS / 70W MH	50,000	-	Damp
	E26	21	27732	LED21ED17/750	120-277	3	5.4	2.6	3,000	5000K	>70	50W HPS / 70W MH	50,000	-	Damp
	E26	35	93112114	LED35ED17/730	120-277	3	5.4	2.6	5,000	3000K	>70	70W HPS / 100W MH	50,000	-	Damp
	E26	35	27602	LED35ED17/740	120-277	3	5.4	2.6	5,000	4000K	>70	70W HPS / 100W MH	50,000	-	Damp
	E26	35	27724	LED35ED17/750	120-277	3	5.4	2.6	5,000	5000K	>70	70W HPS / 100W MH	50,000	-	Damp
	E26	45	93116975	LED45ED17/835	120-277	3	5.4	2.6	6,000	3500K	>70	100W HPS / 100W MH	50,000	-	Damp
	E26	45	93148082	LED45ED17/740	120-277	3	5.4	2.6	7,000	4000K	>70	100W HPS / 175W MH	50,000	-	Damp
	E26	45	93148081	LED45ED17/750	120-277	3	5.4	2.6	7,000	5000K	>70	100W HPS / 175W MH	50,000	-	Damp
ED23.5	E26	50	93125012	LED50ED23.5M/730	120-277	3	7.8	3.7	7,500	3000K	>70	100W HPS / 150W MH	50,000	-	Damp
	E26	80	22768	LED80ED23.5M/740	120-277	3	7.8	3.7	12,000	4000K	>70	150W HPS / 250W MH	50,000	-	Damp
	E26	80	93125008	LED80ED23.5M/750	120-277	3	7.8	3.7	12,000	5000K	>70	150W HPS / 250W MH	50,000	-	Damp
	EX39	50	93112115	LED50ED23.5/730	120-277	3	7.8	3.7	7,500	3000K	>70	100W HPS / 150W MH	50,000	Yes	Damp
	EX39	50	22679	LED50ED23.5/740	120-277	3	7.8	3.7	7,500	4000K	>70	100W HPS / 150W MH	50,000	Yes	Damp
	EX39	50	22739	LED50ED23.5/750	120-277	3	7.8	3.7	7,500	5000K	>70	100W HPS / 150W MH	50,000	Yes	Damp
	EX39	50	93154637	LED50ED23.5/740/277/480	277-480	3	7.8	3.7	7,500	4000K	>70	100W HPS / 150W MH	50,000	Yes	Damp
	EX39	50	93154639	LED50ED23.5/750/277/480	277-480	3	7.8	3.7	7,500	5000K	>70	100W HPS / 150W MH	50,000	Yes	Damp
	EX39	80	93112196	LED80ED23.5/730	120-277	3	7.8	3.7	12,000	3000K	>70	150W HPS / 250W MH	50,000	Yes	Damp
	EX39	80	22635	LED80ED23.5/740	120-277	3	7.8	3.7	12,000	4000K	>70	150W HPS / 250W MH	50,000	Yes	Damp
	EX39	80	22676	LED80ED23.5/750	120-277	3	7.8	3.7	12,000	5000K	>70	150W HPS / 250W MH	50,000	Yes	Damp
	EX39	80	93154642	LED80ED23.5/740/277/480	277-480	3	7.8	3.7	12,000	4000K	>70	150W HPS / 250W MH	50,000	Yes	Damp
	EX39	80	93154640	LED80ED23.5/750/277/480	277-480	3	7.8	3.7	12,000	5000K	>70	150W HPS / 250W MH	50,000	Yes	Damp
ED28	EX39	115	93112197	LED115ED28/730	120-277	3	8.3	4.1	18,000	3000K	>70	250W HPS / 350W MH	50,000	Yes	Damp
	EX39	115	22622	LED115ED28/740	120-277	3	8.3	4.1	18,000	4000K	>70	250W HPS / 350W MH	50,000	Yes	Damp
	EX39	115	22623	LED115ED28/750	120-277	3	8.3	4.1	18,000	5000K	>70	250W HPS / 350W MH	50,000	Yes	Damp
	EX39	115	93139853	LED115ED28/740/277/480	277-480	3	8.3	4.1	18,000	4000K	>70	250W HPS / 350W MH	50,000	Yes	Damp
	EX39	115	93139854	LED115ED28/750/277/480	277-480	3	8.3	4.1	18,000	5000K	>70	250W HPS / 350W MH	50,000	Yes	Damp
	EX39	150	93112198	LED150ED28/730	120-277	3	8.3	4.1	23,500	3000K	>70	310W HPS / 400W MH	50,000	Yes	Damp
	EX39	150	22611	LED150ED28/740	120-277	3	8.3	4.1	23,500	4000K	>70	310W HPS / 400W MH	50,000	Yes	Damp
	EX39	150	22613	LED150ED28/750	120-277	3	8.3	4.1	23,500	5000K	>70	310W HPS / 400W MH	50,000	Yes	Damp
	EX39	150	93139849	LED150ED28/740/277/480	277-480	3	8.3	4.1	23,500	4000K	>70	310W HPS / 400W MH	50,000	Yes	Damp
	EX39	150	93139850	LED150ED28/750/277/480	277-480	3	8.3	4.1	23,500	5000K	>70	310W HPS / 400W MH	50,000	Yes	Damp
ED37	EX39	200	93122140	LED200ED37/740	277-480	3	10.6	5.6	30,000	4000K	>70	400W HPS / 400W MH	50,000	Yes	Damp
	EX39	200	93122142	LED200ED37/750	277-480	3	10.6	5.6	30,000	5000K	>70	400W HPS / 400W MH	50,000	Yes	Damp
BT56	EX39	270	93153080	LED270BT56/740/120/277	120-277	3	12.3	5.6	40,000	4000K	>70	400W HPS / 400W MH	50,000	Yes	Damp
	EX39	270	93153121	LED270BT56/750/120/277	120-277	3	12.3	5.6	40,000	5000K	>70	400W HPS / 400W MH	50,000	Yes	Damp
	EX39	270	93095547	LED270BT56/740	277-480	3	12.3	5.6	40,000	4000K	>70	400W HPS / 400W MH	50,000	Yes	Damp
	EX39	270	93095553	LED270BT56/750	277-480	3	12.3	5.6	40,000	5000K	>70	400W HPS / 400W MH	50,000	Yes	Damp
ED37	EX39	360	93122144	LED360ED37/740	277-480	3	10.6	5.6	53,000	4000K	>70	600W HPS / 750W MH	50,000	Yes	Damp
	EX39	360	93122166	LED360ED37/750	277-480	3	10.6	5.6	53,000	5000K	>70	600W HPS / 750W MH	50,000	Yes	Damp
BT56	EX39	450	93153122	LED450BT56/740/208/277	208-277	3	12.3	5.6	65,000	4000K	>70	750W HPS / 1000W MH	50,000	Yes	Damp
	EX39	450	93153123	LED450BT56/750/208/277	208-277	3	12.3	5.6	65,000	5000K	>70	750W HPS / 1000W MH	50,000	Yes	Damp
	EX39	450	93096445	LED450BT56/740	277-480	3	12.3	5.6	65,000	4000K	>70	750W HPS / 1000W MH	50,000	Yes	Damp
	EX39	450	93096547	LED450BT56/750	277-480	3	12.3	5.6	65,000	5000K	>70	750W HPS / 1000W MH	50,000	Yes	Damp
	EX39	470	93303389	LED470BT56/740	277-480	3	12.8	5.6	85,000	4000K	>70	1000W HPS / 1000W MH	50,000	-	Damp
	EX39	470	93303388	LED470BT56/750	277-480	3	12.8	5.6	85,000	5000K	>70	1000W HPS / 1000W MH	50,000	-	Damp

Additional Information for LED Replacement Lamps for HID: Open and Closed Rated - Ballast bypass required
These products are covered by U.S. Patents 10788163 and 10508776. These products may also be covered by other U.S. patents or pending applications.

LED HID E26/EX39 Socket Adapter

Current offers this adapter for use with E26 based GE LED HID lamps in mogul base applications.

Order Code	Description	Carton Qty[2]
93151372	LED/E26/EX39/ADAPTER	60

[1] The life rating is based on the hours of operation the lamp will provide before reaching 70% of its original lumen output (L70)
[2] Minimum order quantity = 1
[3] E26 based products are not eligible for DLC. Not all product variations on this page are DLC qualified. Visit qpl.designlights.org/solid-state-lighting to confirm qualification.
[4] Do not use with phase-cut dimmers. Dimming functions only with external Variac control devices.
[5] UL 1993 Environmental Requirements for LED LAMPS
Damp Location – Exterior or interior location that is normally or periodically subject to condensation of moisture in, on, or adjacent to electrical equipment, including partially protected locations
[6] Not suitable for air-tight explosive or hazardous fixtures.
[8] Wattage Replacement levels correspond with wattage levels. Wattage Replacements based on NEMA Standards Publication LL 10-2020 *Replacing HID Lamps with LED Lamps: Light Output Equivalency Claims.*