



## **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 Byp	ass - Ordinary Locations
Light Output:	3,000 - 85,000 Lumens
CRI:	70
CCT:	Selectable: 3000K/4000K/5000K,
	1800K/2200K/2700K
	Standard: 3000K, 3500K, 4000K,
	5000K
Input Voltage:	120-277V; 120-347V; 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 ED18, ED23.5, 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.





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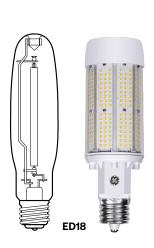
GE LED Lamps for HID Replacement utilize a proprietary design with active cooling, which allows for high output from a compact size. The length and diameter match HID ANSI profiles. These lamps feature omnidirectional light output, with similar distribution to traditional HID lamps. This enables GE LED 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)















## **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 Ordinary Location Selectable Retrofit Lamps	Current LED Hazardous Location Retrofit Lamps
50	3,200	2,000	LED21ED17	LED/LC/ED17	LED21ED17/HAZ
70	5,200	3,000	LED21ED17	LED/LC/ED17	LED21ED17/HAZ
100	8,100	5,000	LED35ED17; LED45ED17	LED/LC/ED17	LED35ED17/HAZ; LED45ED17/HAZ
150	12,000	7,500	LED50ED23.5	LED/LC/ED23.5	
175	11,000	7,000	LED45ED17; LED50ED23.5	LED/LC/ED17; LED/LC/ED23.5	
250	19,100	12,000	LED80ED23.5	LED/LC/ED23.5	LED80ED23.5/HAZ
320	25,600	16,500	LEDt15ED28	LED/LC/ED28	
350	28,400	18,000	LEDt15ED28	LED/LC/ED28	
360	29,400	19,000	LED150ED28	LED/LC/ED28	LED150ED28/HAZ
400	33,100	21,500	LED150ED28; LED180ED18; LED200ED37	LED/LC/ED28; LED/LC/ED37	LED150ED28/HAZ
750	72,300	46,500	LED360ED37	LED/LC/ED37	
1,000	100,280	65,000	LED450BT56; LED470BT56	LED/LC/ED37	

HPS Lamp Wattage (W)	HPS Initial Light Output (Im)	Minimum LED Lamp Initial Light Output (Im)	Current LED Ordinary Location Retrofit Lamps	Current LED Ordinary Location Selectable Retrofit Lamps	Current LED Hazardous Location Retrofit Lamps
50	4,500	2,500	LED21ED17	LED/LC/ED17	LED21ED17/HAZ
70	6,300	4,000	LED35ED17	LED/LC/ED17	LED35ED17/HAZ
100	9,500	6,000	LED45ED17; LED50ED23.5	LED/LC/ED17; LED/LC/ED23.5	LED45ED17/HAZ
150	13,000	8,500	LED80ED23.5	LED/LC/ED23.5	LED80ED23.5/HAZ
200	19,500	12,500		LED/LC/ED23.5	
250	26,000	17,000	LED115ED28	LED/LC/ED28	
310	33,200	21,500	LED150ED28	LED/LC/ED28	LED150ED28/HAZ
400	44,000	29,000	LED180ED18; LED200ED37; LED270BT56	LED/LC/ED37	
600	66,000	42,500	LED360ED37	LED/LC/ED37	
750	82,500	53,500	LED450BT56	LED/LC/ED37	
1,000	110,000	73,000	LED470BT56		





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Go to www.LED.com to learn more about Current's family of Selectable LED Lamps.



Current offers unmatched flexibility with Selectable LED HID Replacement Lamps. 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

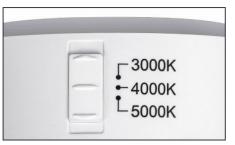
Simplify projects & BOMs - streamline product lists & take the guesswork out of which lamps are needed where





Select wattage (lumens) using built-in switch.





Select color temperature using built-in switch.



#### Even more versatility

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





## **Ballast Bypass for Ordinary Locations**

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

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Bulb Shape	Base Type	Order Code	Description	Volts	Carton Qty <sup>2</sup>	MOL (in)	MOD (in)	Selectable Watts*	Selectable Lumens (Initial) <sup>7</sup>	Selectable Color Temp.* (Initial)	Wattage Replacement <sup>s</sup>	CRI	Rated Life L70 (Hrs)¹	DLC*3,4	Location Rating <sup>5,6</sup>
LED Rep	lacemer	nt Lamp for	HID - Ballast Bypass (Type B)												
ED17	E26/ EX39	93303384	LED/LC/ED17/7SC	120-277	3	5.4	2.6	21 35* 45	3,400 5,500* 7,000	3000K 4000K* 5000K	50W HPS / 70W MH 70W HPS / 100W MH 100W HPS / 175W MH	>70	50,000	-	Damp
ED17	E26/ EX39	93314526	LED/LC/ED17/7SC/120-347	120-347	3	5.4	2.6	21 35* 45	3,400 5,500* 7,000	3000K 4000K* 5000K	50W HPS / 70W MH 70W HPS / 100W MH 100W HPS / 175W MH	>70	50,000	-	Damp
ED23.5	E26/ EX39	93312104	LED/LC/ED23.5M/7SC	120-277	3	7.8	3.7	50 65 80*	8,200 10,500 12,500*	3000K 4000K 5000K*	100W HPS / 150W MH 150W HPS / 150W MH 150W HPS / 250W MH	>70	50,000	-	Damp
ED23.5	EX39	93312106	LED/LC/ED23.5/7SC	120-277	3	7.8	3.7	50 65 80*	8,200 10,500 12,500*	3000K 4000K 5000K*	100W HPS / 150W MH 150W HPS / 150W MH 150W HPS / 250W MH	>70	50,000	S-4V5N0G	Damp
ED23.5	EX39	93314766	LED/LC/ED23.5/7SC/277-480	277-480	3	7.8	3.7	50 65 80*	8,200 10,500 12,500*	3000K 4000K 5000K*	100W HPS / 150W MH 150W HPS / 150W MH 150W HPS / 250W MH	>70	50,000	S-Y2WDPN / S-S2HLFY	Damp
ED28	EX39	93312102	LED/LC/ED28/7SC	120-277	3	8.3	4.1	90 115 150*	14,000 18,000 23,500*	3000K 4000K 5000K*	200W HPS / 250W MH 250W HPS / 350W MH 310W HPS / 400W MH	>70	50,000	S-MB9GRL / S-NMTK94	Damp
ED28	EX39	93314772	LED/LC/ED28/7SC/277-480	277-480	3	8.3	4.1	90 115 150*	14,000 18,000 23,500*	3000K 4000K 5000K*	200W HPS / 250W MH 250W HPS / 350W MH 310W HPS / 400W MH	>70	50,000	S-WWN1WP / S-3WC1C9	Damp

### Selectable LumenChoice® HID Replacement - Type B

Bulb Shape LED Repl	Base Type acement	Order Code t Lamp for	Description HID - Ballast Bypass (Type B)	Volts	Carton Qty <sup>2</sup>	MOL (in)	MOD (in)	Selectable Watts*	Selectable Lumens (Initial) <sup>7</sup>	Selectable Color Temp.* (Initial)	Wattage Replacement <sup>8</sup>	CRI	Rated Life L70 (Hrs)¹	DLC*3,4	Location Rating <sup>5,6</sup>
ED37	EX39	93311586	LED/LC/ED37/740	277-480	3	11.3	5.6	200 325 450*	35,000 53,500 68,000*	4000K	400W HPS / 400W MH 750W HPS / 750W MH 750W HPS / 1000W MH	>70	50,000	S-ZZMLJT	Damp
ED37	EX39	93311587	LED/LC/ED37/750	277-480	3	11.3	5.6	200 325 450*	35,000 53,500 68,000*	5000K	400W HPS / 400W MH 750W HPS / 750W MH 750W HPS / 1000W MH	>70	50,000	S-25L41Q	Damp

## Warm Selectable LumenChoice $^{\otimes}$ + SpectraChoice $^{\text{\tiny{TM}}}$ HID Replacement - Type B

Bulb Shape		Order Code Lamp for	Description HID - Ballast Bypass (Type B)	Volts	Carton Qty <sup>2</sup>	MOL (in)	MOD (in)	Selectable Watts*	Selectable Lumens (Initial) <sup>7</sup>	Selectable Color Temp.* (Initial)	Wattage Replacement <sup>s</sup>	CRI	Rated Life L70 (Hrs)¹	DLC*3	Location Rating <sup>5,6</sup>
			, (), /					21	2,450 3,000	1800K 2200K 2700K	35W HPS / 50W MH 35W HPS / 50W MH				
ED17	E26/ EX39	93315986	3 LED/LC/ED17/7WSC/120-347	120-347	3	5.4	2.6	35*	3,300 3,950 4,900* 5,350	1800K 2200K* 2700K	50W HPS / 50W MH 35W HPS / 50W MH 50W HPS / 70W MH 70W HPS / 70W MH	>70	50,000	-	Damp
								45	4,900 6,200 6,650	1800K 2200K 2700K	50W HPS / 70W MH 70W HPS / 70W MH 70W HPS / 100W MH				

<sup>&</sup>lt;sup>1</sup> The life rating is based on the hours of operation the lamp will provide before reaching 70% of its original lumen output (L70)

<sup>\*</sup> Default wattage and color temperature settings noted by \*\*\* in tables above. Lumen levels correspond with wattage levels. Color temperature levels are independent of wattage & lumens.



<sup>&</sup>lt;sup>2</sup> Minimum order quantity = 1

<sup>&</sup>lt;sup>3</sup> 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.

<sup>&</sup>lt;sup>4</sup> Do not use with phase-cut dimmers. Dimming functions only with external Variac control devices.

 $<sup>^{\</sup>rm 5}$  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

<sup>&</sup>lt;sup>6</sup> Not suitable for air-tight explosive or hazardous fixtures.

<sup>&</sup>lt;sup>7</sup>Lumen levels correspond with wattage levels. Color temperature levels are independent of wattage & lumens.

<sup>8</sup> 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.



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CUSTOMER NAME PROJECT NAME DATE

### **LED HID** - Type B

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Bulb Shape	Base Type	Order Code	Description	Volts	Carton Qty <sup>2</sup>	(in)	(in)	Watts	Lumens (Initial)	Color Temp. (Initial)	Wattage Replacement <sup>8</sup>	CRI	Rated Life L70 (Hrs) <sup>1</sup>	DLC*3,4	Location Rating <sup>5,6</sup>
			or HID - Ballast Bypass (Type			()	()	Trutto	(iriiciai)	(ii ii cici)	Wattago Ropiacomont	0111	L/ 0 (1110)	<u> </u>	rtuurig
ED17	E26	27729	LED21ED17/740	120-277	3	5.4	2.6	21	3,000	4000K	50W HPS / 70W MH	>70	50,000	-	Damp
	E26	27732	LED21ED17/750	120-277	3	5.4	2.6	21	3,000	5000K	50W HPS / 70W MH	>70	50.000	-	Damp
0	E26	93112114	LED35ED17/730	120-277	3	5.4	2.6	35	5,000	3000K	70W HPS / 100W MH	>70	50,000	_	Damp
-	E26	27602	LED35ED17/740	120-277	3	5.4	2.6	35	5,000	4000K	70W HPS / 100W MH	>70	50,000	-	Damp
ŵ	E26	27724	LED35ED17/750	120-277	3	5.4	2.6	35	5,000	5000K	70W HPS / 100W MH	>70	50,000	_	Damp
	E26	93116975	LED45ED17/835	120-277	3	5.4	2.6	45	6,000	3500K	100W HPS / 100W MH	>70	50,000	-	Damp
	E26		LED45ED17/740	120-277	3	5.4	2.6	45	7,000	4000K	100W HPS / 175W MH	>70	50,000	-	Damp
	E26	93148081	LED45ED17/750	120-277	3	5.4	2.6	45	7,000	5000K	100W HPS / 175W MH	>70	50,000	-	Damp
ED23.5	E26	22768	LED80ED23.5M/740	120-277	3	7.8	3.7	80	12,000	4000K	150W HPS / 250W MH	>70	50,000	-	Damp
	E26	93125008	LED80ED23.5M/750	120-277	3	7.8	3.7	80	12,000	5000K	150W HPS / 250W MH	>70	50,000	-	Damp
	EX39	22679	LED50ED23.5/740	120-277	3	7.8	3.7	50	7,500	4000K	100W HPS / 150W MH	>70	50,000	P2LJ433Z	Damp
	EX39	22739	LED50ED23.5/750	120-277	3	7.8	3.7	50	7,500	5000K	100W HPS / 150W MH	>70	50,000	P9E7B4MB	Damp
	EX39	93154637	LED50ED23.5/740/277/480	277-480	3	7.8	3.7	50	7,500	4000K	100W HPS / 150W MH	>70	50,000	S-QSEC3A	Damp
*	EX39	93154639	LED50ED23.5/750/277/480	277-480	3	7.8	3.7	50	7,500	5000K	100W HPS / 150W MH	>70	50,000	S-TGNWE4	Damp
	EX39	93112196	LED80ED23.5/730	120-277	3	7.8	3.7	80	12,000	3000K	150W HPS / 250W MH	>70	50,000	PDVKOYIV	Damp
	EX39	22635	LED80ED23.5/740	120-277	3	7.8	3.7	80	12,000	4000K	150W HPS / 250W MH	>70	50,000	PHJ4LA1W	Damp
	EX39	22676	LED80ED23.5/750	120-277	3	7.8	3.7	80	12,000	5000K	150W HPS / 250W MH	>70	50,000	PYL1MPL2	Damp
	EX39	93154642	LED80ED23.5/740/277/480	277-480	3	7.8	3.7	80	12,000	4000K	150W HPS / 250W MH	>70	50,000	S-TUGPZM	Damp
	EX39	93154640	LED80ED23.5/750/277/480	277-480	3	7.8	3.7	80	12,000	5000K	150W HPS / 250W MH	>70	50,000	S-1FJ4CK	Damp
ED28	EX39	93112197	LED115ED28/730	120-277	3	8.3	4.1	115	18,000	3000K	250W HPS / 350W MH	>70	50,000	PE646DNU / S-PJV8RX	Damp
	EX39	22622	LED115ED28/740	120-277	3	8.3	4.1	115	18,000	4000K	250W HPS / 350W MH	>70	50,000	PONSAR2J / S-7Y6F60	Damp
	EX39	22623	LED115ED28/750	120-277	3	8.3	4.1	115	18,000	5000K	250W HPS / 350W MH	>70	50,000	PZFIPZUL / S-VVTYR7	Damp
11111	EX39	93139853	LED115ED28/740/277/480	277-480	3	8.3	4.1	115	18,000	4000K	250W HPS / 350W MH	>70	50,000	PZ3P5P7U/PEQF29S7	Damp
	EX39	93139854	LED115ED28/750/277/480	277-480	3	8.3	4.1	115	18,000	5000K	250W HPS / 350W MH	>70	50,000	PY31MNAU/PCV74KSL	Damp
III	EX39	93112198	LED150ED28/730	120-277	3	8.3	4.1	150	23,500	3000K	310W HPS / 400W MH	>70	50,000	PAVD2D0E	Damp
	EX39	22611	LED150ED28/740	120-277	3	8.3	4.1	150	23,500	4000K	310W HPS / 400W MH	>70	50,000	P53Y3N60	Damp
	EX39	22613	LED150ED28/750	120-277	3	8.3	4.1	150	23,500	5000K	310W HPS / 400W MH	>70	50,000	P1EL9LHG	Damp
	EX39	93139849	LED150ED28/740/277/480	277-480	3	8.3	4.1	150	23,500	4000K	310W HPS / 400W MH	>70	50,000	PUQHU5LU/PYCNNIK7	Damp
	EX39	93139850	LED150ED28/750/277/480	277-480	3	8.3	4.1	150	23,500	5000K	310W HPS / 400W MH	>70	50,000	PY3DUSY0/POTANRAP	Damp
ED18	EX39	93312096	LED180ED18/730	120-277	3	9.7	3.0	180	30,000	3000K	400W HPS / 400W MH	>70	50,000	S-F26H3J	Damp
	EX39	93312098	LED180ED18/740	120-277	3	9.7	3.0	180	30,000	4000K	400W HPS / 400W MH	>70	50,000	S-WN2HR8	Damp
	EX39	93312100	LED180ED18/750	120-277	3	9.7	3.0	180	30,000	5000K	400W HPS / 400W MH	>70	50,000	S-BG0B87	Damp
BT56	EX39	93153080	LED270BT56/740/120/277	120-277	3	12.3	5.6	270	40,000	4000K	400W HPS / 400W MH	>70	50,000	PG8499V4	Damp
	EX39	93153121	LED270BT56/750/120/277	120-277	3	12.3	5.6	270	40,000	5000K	400W HPS / 400W MH	>70	50,000	PIZKSQ30	Damp
	EX39	93095547	LED270BT56/740	277-480	3	12.3	5.6	270	40,000	4000K	400W HPS / 400W MH	>70	50,000	PW00L0QL	Damp
	EX39	93095553	LED270BT56/750	277-480	3	12.3	5.6	270	40,000	5000K	400W HPS / 400W MH	>70	50,000	PUZP8RVI	Damp
ED37	EX39	93122144	LED360ED37/740	277-480	3	10.6	5.6	360	53,000	4000K	600W HPS / 750W MH	>70	50,000	P7WQQT4S	Damp
	EX39	93122166	LED360ED37/750	277-480	3	10.6	5.6	360	53,000	5000K	600W HPS / 750W MH	>70	50,000	PK5HC9UY	Damp
BT56	EX39	93153122	LED450BT56/740/208/277	208-277	3	12.3	5.6	450	65,000	4000K	750W HPS / 1000W MH	>70	50,000	POIL8M4C	Damp
	EX39	93153123	LED450BT56/750/208/277	208-277	3	12.3	5.6	450	65,000	5000K	750W HPS / 1000W MH	>70	50,000	PD4K2UXF	Damp
	EX39	93096445	LED450BT56/740	277-480	3	12.3	5.6	450	65,000	4000K	750W HPS / 1000W MH	>70	50,000	PLNCOZ5Z	Damp
STATE OF	EX39	93096547	LED450BT56/750	277-480	3	12.3	5.6	450	65,000	5000K	750W HPS / 1000W MH	>70	50,000	PH8F9ZNF	Damp
	EX39	93303389	LED470BT56/740	277-480	3	12.8	5.6	470	85,000	4000K	1000W HPS / 1000W MH	>70	50,000	S-E56HRP	Damp
Ш	EX39	93303388	LED470BT56/750	277-480	3	12.8	5.6	470	85,000	5000K	1000W HPS / 1000W MH	>70	50,000	S-64APZW	Damp
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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 ap

#### **LED HID Accessories**

Order Code	Description	Carton Qty <sup>2</sup>	
93151372	LED/E26/EX39/ADAPTER	60	E26/EX39 Socket Adapter
93313551	LED-HID-TETHER-KIT	20	1 Tether Kit
93313553	LED-HID-4A-FUSE-KIT	20	1 Fuse (4A), 1 Fuse Holder
93313555	LED-HID-8A-FUSE-KIT	20	1 Fuse (8A), 1 Fuse Holder

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<sup>6</sup> Not suitable for air-tight explosive or hazardous fixtures.
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