

# High Lumen High Efficiency



## Features & Benefits

- **High Ballast Factor for High Lumen Applications**
  - High Bay Fluorescent Fixtures
  - 4-Lamp to 3 or 2-Lamp Retrofits
- **Anti-Striation Circuitry**
- **THD < 10%**
- **Universal Voltage HEH**
  - 120 to 277 Volt Input
  - 2 & 4 Lamp Models
  - Multiple Lamp Operation
  - F32T8 Lamps
  - 30, 28 & 25 Watt T8 Lamps
  - Parallel Lamp Operation
  - -20° Starting Temperature
- **Programmed Start HEH**
  - Fast Start Time <700ms
  - 90° C max case temperature
- **High Range Voltage HRV**
  - 347 to 480 Volt Input
  - 3 Lamp Model
  - Multiple Lamp Operation
  - F32T8 Lamps
  - 30, 28 & 25 Watt T8 Lamps
  - Series Lamp Operation

Universal Lighting Technologies' **ULTim8®** family of high efficiency high ballast factor ballasts are ideal for new fixtures and T12 retrofits. With the application trend of fewer T8 lamps with more light and fluorescent replacing HID, **ULTim8®** High Lumen ballasts cover both with a single product family.

High lumen T8 fixtures that incorporate four to eight lamps are replacing HID for many indoor applications, and the **ULTim8®** high efficiency ballast provides the maximum energy savings for these installations. Energy savings of up to 50% is available with a higher quality and quieter light source that can be easily controlled.

De-lamping T12 fixtures during retrofits is becoming very common for certain applications. Three lamp and two lamp ballasts are available to make this an effective energy saving solution. **ULTim8®** High Lumen ballasts maximize energy savings while also providing the benefits of universal input voltage.

## Product Specifications

Model Number	Input Voltage	Primary Lamp Qty	F32T8 Operation		THD
			Input Power	Ballast Factor	
B232IUNVHEH-A	120-277	2	74-72	1.18	<10%
B432IUNVHEH-E	120-277	4	150-146	1.15	<10%
B332IHRVHB-E	347-480	3	110-109	1.18	<10%
B232PUNVHEH-A	120-277	2	77-76	1.17	<10%
B332PUNVHEH-A	120-277	3	112-109	1.15	<10%
B432PUNVHEH-E	120-277	4	143-141	1.15	<10%



## De-Lamp T12 to T8 Retrofit Savings



### Convert 4-Lamp T12 Fixtures to 3 or 2-Lamp T8 Fixtures with High Ballast Factor Ballasts

- Increase or Maintain Lumen Levels While Saving Energy
- Reduces Overall Lamp Count
- Use of Reflectors May Improve Fixture Efficiencies for Increased Lumen Output
- Most common lamp for electronic ballasts with a variety of lamp options available (colors, CRI's, life ratings).

Ballast Type	(Qty) Lamp Type	Mean Rated Lamp Lumens	Ballast Factor	Watts	Mean System Lumens	Mean LPW	Relative Mean System Lumens	Energy Savings (Watts)	Annual Energy Savings*
<b>4-Lamp Electromagnetic (Base System)</b>									
Energy Saving EM	(4) F34T12/CW	2280	0.89	148	8,117	55	100%	0	
De-Lamp Options									
B2321UNVHEH-A	(2) F32T8	2800	1.18	72	6,608	92	81%	76	\$24.00
<b>3-Lamp Electromagnetic (Base System)</b>									
Energy Saving EM	(3) F34T12/CW	2280	0.89	118	6,088	52	100%	0	
De-Lamp Option									
B2321UNVHEH-A	(2) F32T8	2800	1.18	72	6,608	92	109%	46	\$14.40

Values are measure at 277V

Use of reflectors may increase delivered fixture lumens

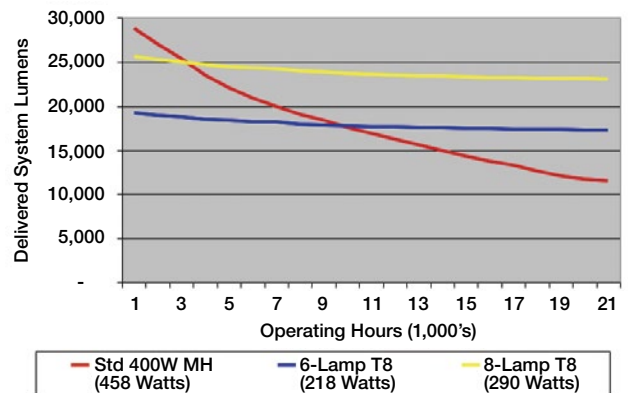
\* Savings calculation based on 4,000 annual operating hours and \$0.08/KWH utility rate  
Lamp Data shown is for an 800 Series F32T8 lamp

## 400 Watt Metal Halide HID to T8 Retrofit Savings

### Replace 400W HID Fixture with 6 or 8-Lamp Fixture

- Increase or Maintain Lumen Levels While Saving Energy
- Quiet Operation
- No Warm-up or Re-strike Delay Time Issues
- Standardizes Lamps with Others Used Throughout Facilities
- Options for 120, 277, 347 and 480V Installations
- Excellent color with no color variance or shift over time

### Fluorescent T8 Systems Provide Consistent Lumen Levels Over Time and Exceed HID Over Life



Ballast Type	Input Voltage	(Qty) Lamp Type	Mean Lamp Lumens	Ballast Factor	Watts	Mean LPW	Fixture Efficiency	Mean System Lumen Comparison	Mean Lumen Comparison	Energy Savings (Watts)	Annual Energy Savings*
<b>400 Watt Metal Halide Base System</b>											
Std Core & Coil		(1) 400W MH	24000	1.00	458	52.4	80%	19,200	100%		
<b>Electronic T8 Options</b>											
(2) B332IHRVHB-E	347 - 480	(6) F32T8	2800	1.18	226	87.7	92%	18,238	95%	232	\$74.24
(2) B4321UNVHEH-E	120 - 277	(8) F32T8	2800	1.15	292	88.2	92%	23,699	123%	166	\$53.76

\* Savings calculation based on 4,000 annual operating hours and \$0.08/KWH utility rate

\*\*System Delivered Mean Lumens = Mean Lamp Lumens x # of Lamps x Ballast Factor x Fixture Efficiency  
Lamp Data shown is for an 800 Series F32T8 lamp

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Data Subject to Change without Notice

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