

**NEW
Glass
LED T8
Lamps**

RetroFlex™

Type A Plug & Play Ballast Compatible Series



**TYPE
A
LEDS**

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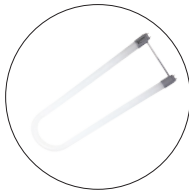
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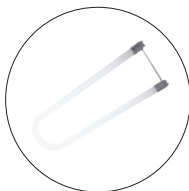
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NANO-PLASTIC LED LAMPS

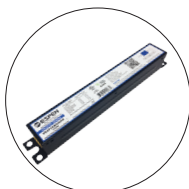
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RetroFlex™ Glass

Type A Plug & Play Ballast Compatible LED T8 Lamps



FEATURES AND BENEFITS

- Direct LED Replacement for T8 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Controls and Sensors
- Glass Tube for Optimal Light Output and Heat Diffusion
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 325° Wide Beam Angle
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Length (in)	Lamp Power (W)	System Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
Linear T8										
L24T8/830/10G-EB ²	F17T8	24	10	13	1600	160	120 - 277, 347	3000+	80+	50000
L24T8/835/10G-EB ²	F17T8	24	10	13	1600	160	120 - 277, 347	3500	80+	50000
L24T8/840/10G-EB ²	F17T8	24	10	13	1600	160	120 - 277, 347	4000	80+	50000
L24T8/850/10G-EB ²	F17T8	24	10	13	1600	160	120 - 277, 347	5000	80+	50000
L36T8/830/10G-EB ³	F25T8	36	10	13	1600	160	120 - 277, 347	3000+	80+	50000
L36T8/835/10G-EB ³	F25T8	36	10	13	1600	160	120 - 277, 347	3500	80+	50000
L36T8/840/10G-EB ³	F25T8	36	10	13	1600	160	120 - 277, 347	4000	80+	50000
L36T8/850/10G-EB ³	F25T8	36	10	13	1600	160	120 - 277, 347	5000	80+	50000
L48T8/830/10G-EB	F32T8	48	10	13	1600	160	120 - 277, 347	3000+	80+	50000
L48T8/835/10G-EB	F32T8	48	10	13	1600	160	120 - 277, 347	3500	80+	50000
L48T8/840/10G-EB	F32T8	48	10	13	1600	160	120 - 277, 347	4000	80+	50000
L48T8/850/10G-EB	F32T8	48	10	13	1600	160	120 - 277, 347	5000	80+	50000
L48T8/830/12G-EB ²	F32T8	48	12	14.5	1800	150	120 - 277, 347	3000	80+	50000
L48T8/835/12G-EB ²	F32T8	48	12	14.5	1800	150	120 - 277, 347	3500	80+	50000
L48T8/840/12G-EB ²	F32T8	48	12	14.5	1800	150	120 - 277, 347	4000	80+	50000
L48T8/850/12G-EB ²	F32T8	48	12	14.5	1800	150	120 - 277, 347	5000	80+	50000
L48T8/830/14G-EB	F32T8	48	14	16	2100	143	120 - 277, 347	3000+	80+	50000
L48T8/835/14G-EB	F32T8	48	14	16	2100	143	120 - 277, 347	3500	80+	50000
L48T8/840/14G-EB	F32T8	48	14	16	2100	143	120 - 277, 347	4000	80+	50000
L48T8/850/14G-EB	F32T8	48	14	16	2100	143	120 - 277, 347	5000	80+	50000

¹ See espentech.com for ballast compatibility list.

+ May be subject to lead times and availability.

² DLC Pending.

³ Not DLC listed. DLC does not regulate 3 foot lamps.

⁴ System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.

⁵ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

RetroFlex™ Glass

Type A Plug & Play Ballast Compatible LED U-Bent Lamps

FEATURES AND BENEFITS



- Direct LED Replacement for T8 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Controls and Sensors
- Glass Tube for Optimal Light Output and Heat Diffusion
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 325° Wide Beam Angle
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Leg Spacing (in)	Lamp Power (W)	System Power ² (W)	Lumens ² (lm)	Lamp Efficacy (lm/W)	Input Voltage ³ (V)	CCT (K)	CRI	Life (h)
Linear T8										
LB31T8U/830/12G-EB	FB31T8	1.625	12	15	1800	150	120 - 277, 347	3000+	80+	50000
LB31T8U/835/12G-EB	FB31T8	1.625	12	15	1800	150	120 - 277, 347	3500	80+	50000
LB31T8U/840/12G-EB	FB31T8	1.625	12	15	1800	150	120 - 277, 347	4000	80+	50000
LB31T8U/850/12G-EB	FB31T8	1.625	12	15	1800	150	120 - 277, 347	5000	80+	50000
LB31T8U/830/17G-EB	FB31T8	1.625	17	19	2200	129	120 - 277, 347	3000+	80+	50000
LB31T8U/835/17G-EB	FB31T8	1.625	17	19	2200	129	120 - 277, 347	3500	80+	50000
LB31T8U/840/17G-EB	FB31T8	1.625	17	19	2200	129	120 - 277, 347	4000	80+	50000

¹ See espentech.com for ballast compatibility list. + May be subject to lead times and availability.
² System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.
³ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

RetroFlex™ ArmorCoat™

Type A Plug & Play Ballast Compatible LED T5 Lamps



FEATURES AND BENEFITS

- Direct LED Replacement for T5 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Controls and Sensors
- ArmorCoat™ Shatterproof Coating
- ETL Sanitation Listed - Conforms to NSF/ANSI 2
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- Glass Tube for Optimal Light Output and Heat Diffusion
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 240° Wide Beam Angles
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Length (in)	Lamp Power (W)	System Power ³ (W)	Lumens ³ (lm)	Lamp Efficacy (lm/W)	Voltage ⁴ (V)	CCT (K)	CRI	Life (h)
Linear T5 High Efficiency (HE)										
L48T5HE/830/13G-EB-AC	F28T5	46	13	16	1800	139	120 - 277, 347	3000+	83+	50000
L48T5HE/835/13G-EB-AC	F28T5	46	13	16	1800	139	120 - 277, 347	3500	83+	50000
L48T5HE/840/13G-EB-AC	F28T5	46	13	16	1800	139	120 - 277, 347	4000	83+	50000
L48T5HE/850/13G-EB-AC	F28T5	46	13	16	1800	139	120 - 277, 347	5000	83+	50000
Linear T5 High Output (HO)										
L24T5HO/830/9G-EB-AC	F24T5HO	22	9	12	960	107	120 - 277, 347	3000+	83+	50000
L24T5HO/835/9G-EB-AC	F24T5HO	22	9	12	960	107	120 - 277, 347	3500	83+	50000
L24T5HO/840/9G-EB-AC	F24T5HO	22	9	12	960	107	120 - 277, 347	4000	83+	50000
L24T5HO/850/9G-EB-AC	F24T5HO	22	9	12	960	107	120 - 277, 347	5000	83+	50000
L36T5HO/830/18G-EB-AC ²	F39T5HO	34	18	21	1680	93	120 - 277, 347	3000+	83+	50000
L36T5HO/835/18G-EB-AC ²	F39T5HO	34	18	21	1680	93	120 - 277, 347	3500	83+	50000
L36T5HO/840/18G-EB-AC ²	F39T5HO	34	18	21	1680	93	120 - 277, 347	4000	83+	50000
L36T5HO/840/18G-EB-AC ²	F39T5HO	34	18	21	1680	93	120 - 277, 347	5000	83+	50000
L48T5HO/830/24G-EB-AC	F54T5HO	46	24	27	3200	133	120 - 277, 347	3000+	83+	50000
L48T5HO/835/24G-EB-AC	F54T5HO	46	24	27	3200	133	120 - 277, 347	3500	83+	50000
L48T5HO/840/24G-EB-AC	F54T5HO	46	24	27	3200	133	120 - 277, 347	4000	83+	50000
L48T5HO/850/24G-EB-AC	F54T5HO	46	24	27	3200	133	120 - 277, 347	5000	83+	50000

¹ Restrictions when dimming T5 High Output lamps. See espentech.com for ballast compatibility

+ May be subject to lead times and availability.

² Not DLC listed. DLC does not regulate 3 foot lamps.

³ System Power and Lumens based on normal ballast factor (1.0). Operation on low or high ballast factor will yield alternate specifications.

⁴ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.



RetroFlex™ ArmorCoat™

Type A Plug & Play Ballast Compatible LED T8 Lamps



FEATURES AND BENEFITS

- Direct LED Replacement for T8 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Controls and Sensors
- ArmorCoat™ Shatterproof Coating
- ETL Sanitation Listed - Conforms to NSF/ANSI 2
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- Glass Tube for Optimal Light Output and Heat Diffusion
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 325° Wide Beam Angles
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Length (in)	Lamp Power (W)	System Power ² (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Voltage ³ (V)	CCT (K)	CRI	Life (h)
Linear T8										
L48T8/830/12G-EB-AC	F32T8	48	12	14	1900	136	120 - 277, 347	3000+	83+	50000
L48T8/835/12G-EB-AC	F32T8	48	12	14	1900	136	120 - 277, 347	3500	83+	50000
L48T8/840/12G-EB-AC	F32T8	48	12	14	1900	136	120 - 277, 347	4000	83+	50000
L48T8/850/12G-EB-AC	F32T8	48	12	14	1900	136	120 - 277, 347	5000	83+	50000
L48T8/830/15G-EB-AC	F32T8	48	15	19	2200	116	120 - 277, 347	3000+	83+	50000
L48T8/835/15G-EB-AC	F32T8	48	15	19	2200	116	120 - 277, 347	3500	83+	50000
L48T8/840/15G-EB-AC	F32T8	48	15	19	2200	116	120 - 277, 347	4000	83+	50000
L48T8/850/15G-EB-AC	F32T8	48	15	19	2200	116	120 - 277, 347	5000	83+	50000

¹ See espentech.com for ballast compatibility list.

² System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.

³ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

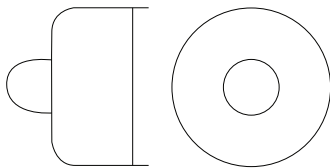
+ May be subject to lead times and availability.

RetroFlex™ ArmorCoat™

Type A Plug & Play Ballast Compatible Single Pin LED T8 Lamps



Bracket



Fa8 Base
Single Pin

FEATURES AND BENEFITS

LED Replacement for T8 and T12 Fluorescent Lamps

Quick and Convenient Installation

Instant On, No Delay

60" and 72" Lamps Compatible with ESPEN

VE2P32MVHIPE Ballasts ONLY

96" Lamps Compatible with ESPEN VE259MVHIP Ballasts¹

Utilizes Existing Shunted or Non-Shunted Tombstones

Maintains the Original UL Certification of the Fixture

Compatible with Controls and Sensors

ArmorCoat™ Shatterproof Coating

Glass Tube for Optimal Light Output and Heat Diffusion

Frosted to Prevent Glare

Bracket Included

-5° F to 130° F Ambient Operating Temperature

Integrated Thermal Fuse Protection

Suitable for Damp Locations

325° Wide Beam Angle

5 Year Warranty



Model No.	Replaces	Base Type	Length (in)	Lamp Power (W)	System Power (W)	Lumens ² (lm)	Lamp Efficacy (lm/W)	Input Voltage ³ (V)	CCT (K)	CRI	Life (h)
Single Pin Linear T8											
L60T8/SL/830/15G-EB	F60T12	Fa8	60	15	18	2200	147	120 - 277, 347	3000 ⁺	83+	50000
L60T8/SL/835/15G-EB	F60T12	Fa8	60	15	18	2200	147	120 - 277, 347	3500	83+	50000
L60T8/SL/840/15G-EB	F60T12	Fa8	60	15	18	2200	147	120 - 277, 347	4000	83+	50000
L60T8/SL/850/15G-EB	F60T12	Fa8	60	15	18	2200	147	120 - 277, 347	5000	83+	50000
L72T8/SL/830/18G-EB	F72T8, F72T12	Fa8	72	18	21	2700	150	120 - 277, 347	3000 ⁺	83+	50000
L72T8/SL/835/18G-EB	F72T8, F72T12	Fa8	72	18	21	2700	150	120 - 277, 347	3500	83+	50000
L72T8/SL/840/18G-EB	F72T8, F72T12	Fa8	72	18	21	2700	150	120 - 277, 347	4000	83+	50000
L72T8/SL/850/18G-EB	F72T8, F72T12	Fa8	72	18	21	2700	150	120 - 277, 347	5000	83+	50000
L96T8/SL/830/24G-EB	F96T8, F96T12	Fa8	96	24	27	3500	146	120 - 277, 347	3000 ⁺	83+	50000
L96T8/SL/835/24G-EB	F96T8, F96T12	Fa8	96	24	27	3500	146	120 - 277, 347	3500	83+	50000
L96T8/SL/840/24G-EB	F96T8, F96T12	Fa8	96	24	27	3500	146	120 - 277, 347	4000	83+	50000
L96T8/SL/850/24G-EB	F96T8, F96T12	Fa8	96	24	27	3500	146	120 - 277, 347	5000	83+	50000

¹ See espentech.com for additional ballast compatibility.

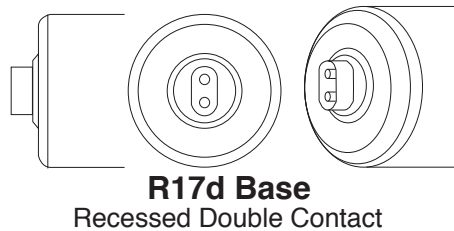
² System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.

³ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

⁺ May be subject to lead times and availability.

RetroFlex™ ArmorCoat™

Type A Plug & Play Ballast Compatible Recessed Double Contact LED T8 Lamps



FEATURES AND BENEFITS

LED Replacement for T8 and T12 Fluorescent Lamps

Quick and Convenient Installation

Instant On, No Delay

60" and 72" Lamps Compatible with ESPEN

VE2P32MVHIPE Ballasts ONLY

96" Lamps Compatible with ESPEN VE259MVHIP Ballasts¹

Utilizes Existing Shunted or Non-Shunted Tombstones

Maintains the Original UL Certification of the Fixture

Compatible with Controls and Sensors

ArmorCoat™ Shatterproof Coating

Glass Tube for Optimal Light Output and Heat Diffusion

Frosted to Prevent Glare

-5° F to 130° F Ambient Operating Temperature

Integrated Thermal Fuse Protection

Suitable for Damp Locations

325° Wide Beam Angle

5 Year Warranty



Model No.	Replaces	Base Type	Length (in)	Lamp Power (W)	System Power ² (W)	Lumens ² (lm)	Lamp Efficacy (lm/W)	Input Voltage ³ (V)	CCT (K)	CRI	Life (h)
Recessed Double Contact Linear T8											
L60T8HO/830/15G-EB	F60T12HO, F60T12VHO	R17d	60	15	18	2200	147	120 - 277, 347	3000 ⁺	83+	50000
L60T8HO/835/15G-EB	F60T12HO, F60T12VHO	R17d	60	15	18	2200	147	120 - 277, 347	3500	83+	50000
L60T8HO/840/15G-EB	F60T12HO, F60T12VHO	R17d	60	15	18	2200	147	120 - 277, 347	4000	83+	50000
L60T8HO/850/15G-EB	F60T12HO, F60T12VHO	R17d	60	15	18	2200	147	120 - 277, 347	5000	83+	50000
L72T8HO/830/18G-EB	F72T12HO, F72T12VHO	R17d	72	18	21	2700	150	120 - 277, 347	3000 ⁺	83+	50000
L72T8HO/835/18G-EB	F72T12HO, F72T12VHO	R17d	72	18	21	2700	150	120 - 277, 347	3500	83+	50000
L72T8HO/840/18G-EB	F72T12HO, F72T12VHO	R17d	72	18	21	2700	150	120 - 277, 347	4000	83+	50000
L72T8HO/850/18G-EB	F72T12HO, F72T12VHO	R17d	72	18	21	2700	150	120 - 277, 347	5000	83+	50000
L96T8HO/830/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45	5500	131	120 - 277, 347	3000 ⁺	83+	50000
L96T8HO/835/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45	5500	131	120 - 277, 347	3500	83+	50000
L96T8HO/840/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45	5500	131	120 - 277, 347	4000	83+	50000
L96T8HO/840/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45	5500	131	120 - 277, 347	5000	83+	50000

¹ See espentech.com for additional ballast compatibility.

² System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.

³ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

⁺ May be subject to lead times and availability.

RetroFlex™ BAA Nano-Plastic

Introduction to Buy American Act Compliant Lamps



Santa Fe Springs, California is home to Espen Technology Inc.'s Buy American Act Compliant LED tube and retrofit kit production line. Here, materials and components are put through a refining process in a set of sequential operations to produce quality end-products. Espen's products reflect an emphasis on sustainability, quality, and reliability.

RetroFlex™ BAA Nano-Plastic

Type A Plug & Play Ballast Compatible Buy American Act Compliant LED T5 Lamps



FEATURES AND BENEFITS

- Buy American Act Compliant Direct LED Replacement for T5 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Sensors
- Shatterproof Nano-Plastic Tube
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 240° Wide Beam Angles
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Length (in)	Lamp Power (W)	System Power ¹ (W)	Lumens ¹ (lm)	Lamp Efficacy (lm/W)	Input Voltage ⁵ (V)	CCT (K)	CRI	Life (h)
Linear T5 High Output (HO)										
L24T5/830/11P-EB BAA ²	F24T5HO	22	11	14	1400	127	120 - 277, 347	3000 ⁺	83+	50000
L24T5/835/11P-EB BAA ²	F24T5HO	22	11	14	1400	127	120 - 277, 347	3500	83+	50000
L24T5/840/11P-EB BAA ²	F24T5HO	22	11	14	1400	127	120 - 277, 347	4000	83+	50000
L24T5/850/11P-EB BAA ²	F24T5HO	22	11	14	1400	127	120 - 277, 347	5000	83+	50000
L36T5/830/16P-EB BAA ³	F39T5HO	34	16	18	2000	125	120 - 277, 347	3000 ⁺	83+	50000
L36T5/835/16P-EB BAA ³	F39T5HO	34	16	18	2000	125	120 - 277, 347	3500	83+	50000
L36T5/840/16P-EB BAA ³	F39T5HO	34	16	18	2000	125	120 - 277, 347	4000	83+	50000
L36T5/850/16P-EB BAA ³	F39T5HO	34	16	18	2000	125	120 - 277, 347	5000	83+	50000
L48T5/830/24P-EB BAA ²	F54T5HO	46	24	27	3200	133	120 - 277, 347	3000 ⁺	83+	50000
L48T5/835/24P-EB BAA ²	F54T5HO	46	24	27	3200	133	120 - 277, 347	3500	83+	50000
L48T5/840/24P-EB BAA ²	F54T5HO	46	24	27	3200	133	120 - 277, 347	4000	83+	50000
L48T5/850/24P-EB BAA ²	F54T5HO	46	24	27	3200	133	120 - 277, 347	5000	83+	50000

¹ See espentech.com for ballast compatibility list. ⁺ May be subject to lead times and availability.
² DLC pending.
³ Not DLC listed. DLC does not regulate 3 foot lamps.
⁴ System Power and Lumens based on normal ballast factor (1.0). Operation on low or high ballast factor will yield alternate specifications.
⁵ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

RetroFlex™ BAA Nano-Plastic

Type A Plug & Play Ballast Compatible Buy American Act Compliant LED T8 Lamps



FEATURES AND BENEFITS

- Buy American Act Compliant Direct LED Replacement for T8 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Sensors
- Shatterproof Nano-Plastic Tube
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 325° Wide Beam Angles
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Length (in)	Lamp Power (W)	System Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
Linear T8										
L24T8/830/12P-EB BAA	F17T8	24	12	14	1680	140	120 - 277, 347	3000 ⁺	83+	50000
L24T8/835/12P-EB BAA	F17T8	24	12	14	1680	140	120 - 277, 347	3500	83+	50000
L24T8/840/12P-EB BAA	F17T8	24	12	14	1680	140	120 - 277, 347	4000	83+	50000
L24T8/850/12P-EB BAA	F17T8	24	12	14	1680	140	120 - 277, 347	5000	83+	50000
L36T8/830/12P-EB BAA ²	F25T8	36	12	14	1700	142	120 - 277, 347	3000 ⁺	83+	50000
L36T8/835/12P-EB BAA ²	F25T8	36	12	14	1700	142	120 - 277, 347	3500	83+	50000
L36T8/840/12P-EB BAA ²	F25T8	36	12	14	1700	142	120 - 277, 347	4000	83+	50000
L36T8/850/12P-EB BAA ²	F25T8	36	12	14	1700	142	120 - 277, 347	5000	83+	50000
L48T8/830/12P-EB BAA	F32T8	48	12	14	1800	150	120 - 277, 347	3000 ⁺	83+	50000
L48T8/835/12P-EB BAA	F32T8	48	12	14	1800	150	120 - 277, 347	3500	83+	50000
L48T8/840/12P-EB BAA	F32T8	48	12	14	1800	150	120 - 277, 347	4000	83+	50000

¹ See espentech.com for ballast compatibility list.

² Not DLC listed. DLC does not regulate 3 foot lamps.

³ System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.

⁴ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

+ May be subject to lead times and availability.

RetroFlex™ BAA Nano-Plastic

Type A Plug & Play Ballast Compatible Buy American Act Compliant LED U-Bent Lamps



FEATURES AND BENEFITS

- Buy American Act Compliant Direct LED Replacement for U-Bent T8 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Sensors
- Shatterproof Nano-Plastic Tube
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 325° T8 Wide Beam Angles
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Length (in)	Lamp Power (W)	System Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
U-Bent T8										
LB48T8U6/830/15P-EB BAA	FB32T8	48	15	17	2200	147	120 - 277, 347	3000 ²	83+	50000
LB48T8U6/835/15P-EB BAA	FB32T8	48	15	17	2200	147	120 - 277, 347	3500	83+	50000
LB48T8U6/840/15P-EB BAA	FB32T8	48	15	17	2200	147	120 - 277, 347	4000	83+	50000
LB48T8U6/850/15P-EB BAA	FB32T8	48	15	17	2200	147	120 - 277, 347	5000	83+	50000

¹ See espentech.com for ballast compatibility list.

² System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.

³ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

+ May be subject to lead times and availability.

RetroFlex™ Nano-Plastic

Type A Plug & Play Ballast Compatible LED U-Bent Lamps

FEATURES AND BENEFITS



- Direct LED Replacement for T8 Fluorescent Lamps
- Quick and Convenient Installation
- Instant On, No Delay
- Compatible with Electronic Ballasts - Instant Start, Programmed Start and Dimming¹
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Maintains the Original UL Certification of the Fixture
- Compatible with Controls and Sensors
- Shatterproof Nano-Plastic Tube
- Frosted to Prevent Glare
- 5° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Suitable for Damp Locations
- 325° Wide Beam Angle
- Dimmable¹
- 5 Year Warranty



Model No.	Replaces	Length (in)	Lamp Power (W)	System Power ² (W)	Lumens ² (lm)	Lamp Efficacy (lm/W)	Input Voltage ³ (V)	CCT (K)	CRI	Life (h)
U-Bent T8										
LB48T8U6/830/12P-EB	FB32T8	48	12	15	1800	150	120 - 277, 347	3000 ⁺	82+	50000
LB48T8U6/835/12P-EB	FB32T8	48	12	15	1800	150	120 - 277, 347	3500	82+	50000
LB48T8U6/840/12P-EB	FB32T8	48	12	15	1800	150	120 - 277, 347	4000	82+	50000
LB48T8U6/850/12P-EB	FB32T8	48	12	15	1800	150	120 - 277, 347	5000	82+	50000

¹ See espentech.com for ballast compatibility list.

² System Power and Lumens based on normal ballast factor (0.88). Operation on low or high ballast factor will yield alternate specifications.

³ Input Voltage is dependant on ballast brand and model number. See espentech.com for ballast compatibility list.

⁺ May be subject to lead times and availability.

Ballasts & Drivers

Type A Compatible Ballasts & Drivers



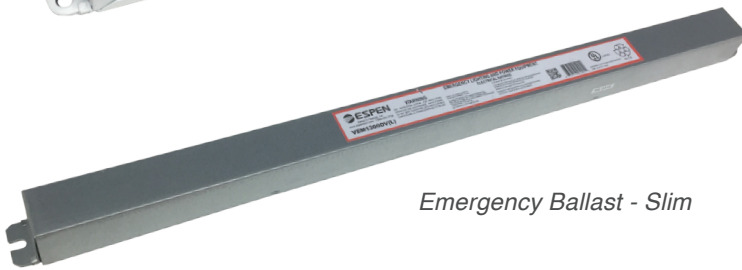
Electronic Ballast



Dimmable Driver



Emergency Ballast - Regular



Emergency Ballast - Slim

FEATURES AND BENEFITS

Electronic Ballasts

- Slim Profile
- Lamp Auto Restrike
- High Efficiency
- 5 Year Warranty



Non-Dimmable Drivers

- Constant Current
- Universal Voltage (120 - 277V)
- 5 Year Warranty



Dimmable Drivers

- Constant Current
- Universal Voltage (120 - 277V)
- 0 - 10V Continuous Dimming (10% - 100%)
- 5 Year Warranty



Emergency Ballasts - Regular & Slim

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 7 Year Warranty



Model No.	Type	Compatible Lamps	Number of Lamps	Voltage (V)	Method
VE254MVHRP	Electronic Ballast	F54T5HO	1 or 2	120 - 277	Program Start
VE454MVHRP	Electronic Ballast	F54T5HO	2, 3 or 4	120 - 277	Program Start
VE2P32MVHIPE	Electronic Ballast	F17T8 - F32T8	1 or 2	120 - 277	Instant Start
VE4P32MVHIPE	Electronic Ballast	F17T8 - F32T8	2, 3 or 4	120 - 277	Instant Start
VE259MVHIP	Electronic Ballast	F96T8, F96T12	1 or 2	120 - 277	Instant Start

Model No.	Type	Compatible Lamps	Number of Lamps
VEL50BN-2C	Constant Current Non-Dimmable Driver	RetroFlex Type A LED Lamps	1 or 2
VEL100BN-4C	Constant Current Non-Dimmable Driver	RetroFlex Type A LED Lamps	3 or 4
VEL30BN-2C-10V	Constant Current Dimmable Driver	RetroFlex Type A LED Lamps	1 or 2

Model No.	Type	Lumens	Voltage (V)	Operation Hours	Case
VEM500DV-L	Emergency Ballast	500	120/277	90 mins	Regular
VEM700DV-L	Emergency Ballast	700	120/277	90 mins	Regular
VEM800DV-L	Emergency Ballast	800	120/277	90 mins	Slim
VEM1300DV-L	Emergency Ballast	1300	120/277	90 mins	Slim



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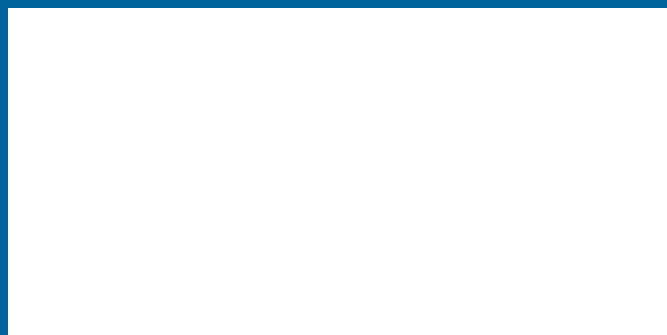
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