



LED RETROFIT LIGHTING SOLUTIONS





Espen Technology is dedicated to delivering sustainable and environmentally progressive lighting solutions. As a manufacturer and designer of high efficiency lighting products, Espen continually strives to improve the efficiency of lighting technology. Our products reflect an emphasis on sustainability, quality, and reliability. Our product development is driven by a simple commitment: to improve people’s lives and build a better future for generations to come.

Our ballasts, fluorescent lamps, LED drivers, LED lamps and LED modules are complemented by an industry-leading warranty policy. The goal is to offer our customers and end-users an invaluable asset: peace of mind. With an emphasis on quality and a focus on efficiency, Espen Technology’s engineers have developed a whole line of LED drivers, LED lamps and LED modules that are worthy of the latest LED luminaries. High efficiency, advanced thermal management, increased life, and versatility in form create the ultimate LED systems for today’s most advanced LED lighting. Stringent component qualification and quality control guarantee a long life and increased overall system longevity.



Not all products are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org/qpl



TABLE OF CONTENTS

Type A & B Series

RetroFlex™

LED T8 LAMP • Simplicity.



» p. 1-7

PLUG & PLAY, BALLAST COMPATIBLE LED LAMPS (TYPE A)

- 1.....RetroFlex LED Solutions Introduction
- 2.....Glass T8 Linear Lamps: 2', 3', 4'
- 3.....Glass T8 Linear: 5', 6', 8'
- 3.....Glass T8 Linear HO/VHO: 5', 6', 8'
- 4.....T5 Linear T5/HO
- 4.....T8 U-bent 1-5/8"
T8 U-bent 6" available in UniFlex™ Type A+B, pg.18
- 5.....T5 ArmorCoat™ Shatterproof
- 6.....T8 ArmorCoat™ Shatterproof
- 7.....Type-A LED Emergency Ballasts

TYPE - A

Flex™



» p.9-16

AC DIRECT INPUT (TYPE B) | Double End

- 9.....Flex LED Solutions Introduction
- 10.....Flex DE Linear T8 Lamps: 2', 3', 4'
- 11.....Flex DE Shatterproof Slimline T8 Lamps: 5', 6', 8'
- 12.....Flex DE Shatterproof HO/VHO T8 Lamps: 5', 6', 8'
- 13.....Flex DE Linear T5/HO Lamps: 4'



AC DIRECT INPUT (TYPE B) | Single End

- 14.....Flex T8 Linear Lamps: 2', 3', 4'
- 15.....Flex Compact Lamps
- 16.....Flex LED FT Lamps
- 17.....Type-B Emergency Inverters: 20w, 5w

TYPE - B

UniFlex™

UniFlex™ (TYPE A + B) | Double End

- 18.....UniFlex™ DE Type A+B Nano Plastic:
T8 U-Bent LED Lamps

TYPE
A+B

TABLE OF CONTENTS

Type-C Series, Retrofit & Emergency Solutions



» p.20-26

LED LAMPS WITH EXTERNAL DRIVER FOR FULL CONTROLLABILITY

- 20.....CoreTech™ LED System Introduction
- 21.....Glass T5 HE & HO Lamps: 2', 3', 4'
- 22.....Glass T8 Linear Lamps: 2', 3', 4'

- 23.....CoreTech™ Programmable LED Driver
- 24.....CoreTech™ Field Adjustable LED Driver
- 25.....Espen LED Modules
- 25.....Espen LED Drivers
- 26.....Type-C Emergency Driver

TYPE - C

VersaKIT™



» p.27-34

LED RETROFIT KITS

- 27.....VersaLinear™ LED Kit System Introduction
- 28-30....VersaLinear™ LED Linear Module Retrofit Kit

- 31.....VersaKIT™ Panel LED Center Basket Retrofit Kit
- 32.....VersaKIT™ Troffer LED Center Basket Retrofit Kit
- 33.....VersaKIT™ Channel LED Channel Retrofit Kit
- 34.....VersaKIT™ Strip 8ft LED Retrofit Kit for Linear LED Lamps

Retrofit Kits

SENTINEL®



» p.35-37

EMERGENCY SOLUTIONS

- 35.....Type-A Emergency Ballasts
- 36.....Type-B Emergency Inverters
- 37.....LED Emergency Drivers

Emergency Solutions

RetroFlex™



PLUG & PLAY, BALLAST COMPATIBLE LED LAMPS | Type A

TYPE - A



linearLED

Med, Bi-Pin, Single-Pin, Double-Recess Pin
Long Life, Convenient Wiring

RetroFlex led driver

Dedicated Driver, Instant Start
Constant Current, 0-10V Dimming



emergency ballast

Maintenance-Free, Long Life
Hi-Temperature Ni-Cad Battery

RetroFlex™

LED Solutions
Plug and Play



ARMORCOAT™
SHATTER-RESISTANT COATED LAMPS

Safety Coated, Shatter-Resistant Lamps



ballast replacement

High Efficiency, Slim Profile, Instant Start,
Program Start, and 0-10V Dimming

ABOUT ESPEN RETROFLEX LED LAMPS

Espen Retroflex LED lamps lead the industry with ballast compatible, plug & play technology. These high-performance lamps don't require any alteration to the fixture. The upgrade to LED technology is as simple as replacing the old fluorescent lamps with new Retroflex lamps. This saves you up to 50% of system power while maintaining or increasing illumination levels. These lamps work directly off your existing electronic ballasts, within your fixtures, and come in a range of shapes and sizes.

*Please visit www.espentech.com for compatibility list.

RetroFlex™

Glass Plug & Play Ballast Compatible LED T8 Lamps



FEATURES AND BENEFITS

- No rewiring needed
- Works with fluorescent electronic ballast (**Instant Start, Programmed Start, Dimming**)¹
- Long life / High CRI
- -20° F to 130° F Ambient Operating Temp
- Instant on, no delay
- Convenient and quick installation
- Utilizes existing instant start or rapid start sockets
- No Mercury, No UV
- Compatible with controls and sensors
- Works in cold temperature applications
- Glass tube for superior optical performance
- 325° Wide View Angle
- Dimmable
- 5 Year Warranty



TYPE - A

ORDER CODE	Replaces	Length (in)	Lamp Power (W)	System Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
L24T8/830/8G-EB	F17T8 ¹	24	8	10 ⁴	1100	110	120 - 277, 347 ⁵	3000+	80+	50,000
L24T8/835/8G-EB	F17T8 ¹	24	8	10 ⁴	1100	110	120 - 277, 347 ⁵	3500	80+	50,000
L24T8/840/8G-EB	F17T8 ¹	24	8	10 ⁴	1100	110	120 - 277, 347 ⁵	4000	80+	50,000
L24T8/850/8G-EB	F17T8 ¹	24	8	10 ⁴	1100	110	120 - 277, 347 ⁵	5000	80+	50,000
L36T8/830/10G-EB	F25T8 ¹	36	10	13 ⁴	1600	160	120 - 277, 347 ⁵	3000+	80+	50,000
L36T8/835/10G-EB	F25T8 ¹	36	10	13 ⁴	1600	160	120 - 277, 347 ⁵	3500	80+	50,000
L36T8/840/10G-EB	F25T8 ¹	36	10	13 ⁴	1600	160	120 - 277, 347 ⁵	4000	80+	50,000
L36T8/850/10G-EB	F25T8 ¹	36	10	13 ⁴	1600	160	120 - 277, 347 ⁵	5000	80+	50,000
L48T8/830/10G-EB	F32T8 ¹	48	10	13 ⁴	1600	160	120 - 277, 347 ⁵	3000+	80+	50,000
L48T8/835/10G-EB	F32T8 ¹	48	10	13 ⁴	1600	160	120 - 277, 347 ⁵	3500	80+	50,000
L48T8/840/10G-EB	F32T8 ¹	48	10	13 ⁴	1600	160	120 - 277, 347 ⁵	4000	80+	50,000
L48T8/850/10G-EB	F32T8 ¹	48	10	13 ⁴	1600	160	120 - 277, 347 ⁵	5000	80+	50,000
L48T8/830/12G-EB	F32T8 ¹	48	12	14 ⁴	1800	150	120 - 277, 347 ⁵	3000	80+	50,000
L48T8/835/12G-EB	F32T8 ¹	48	12	14 ⁴	1800	150	120 - 277, 347 ⁵	3500	80+	50,000
L48T8/840/12G-EB	F32T8 ¹	48	12	14 ⁴	1800	150	120 - 277, 347 ⁵	4000	80+	50,000
L48T8/850/12G-EB	F32T8 ¹	48	12	14 ⁴	1800	150	120 - 277, 347 ⁵	5000	80+	50,000
L48T8/830/14G-EB	F32T8 ¹	48	14	16 ⁴	2100	143	120 - 277, 347 ⁵	3000+	80+	50,000
L48T8/835/14G-EB	F32T8 ¹	48	14	16 ⁴	2100	143	120 - 277, 347 ⁵	3500	80+	50,000
L48T8/840/14G-EB	F32T8 ¹	48	14	16 ⁴	2100	143	120 - 277, 347 ⁵	4000	80+	50,000
L48T8/850/14G-EB	F32T8 ¹	48	14	16 ⁴	2100	143	120 - 277, 347 ⁵	5000	80+	50000

¹ See espentech.com for ballast compatibility list.

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 dependent on ballast brand and model number. See espentech.com for ballast compatibility list.

⁺ May be subject to lead times and availability.

RetroFlex™

Plug & Play Ballast Compatible LED T8 Lamps | Slimline/HO/VHO

TYPE - A



Anti-Rotation Bracket

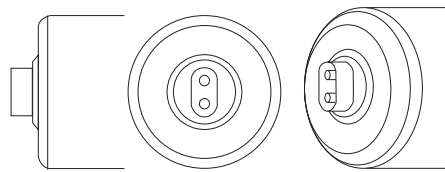


FEATURES AND BENEFITS

- LED Replacement for T8 & T12 Fluorescent Lamps
- **ArmorCoat™** Shatterproof Coating
- Works with fluorescent electronic ballast (**Instant Start, Programmed Start, Dimming**)¹
- Quick and Convenient Installation
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Instant on, No delay
- Convenient and quick installation
- Frosted to Prevent Glare
- Suitable for Damp Locations
- Integrated Thermal Fuse Protection
- Maintains the original UL Certification of the Fixture
- Compatible with Controls and Sensors
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- 5 Year Warranty
- 325° Wide Beam Angle
- Dimmable
- -20° F to 130° F Ambient Operating Temp
- Glass Tube for Optimal Light Output and Heat Diffusion
- **96" Lamps ONLY Compatible with ESPEN VE259MVHIP Ballasts**¹

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)
Single Pin Linear T8											
L96T8/SL/830/24G-EB	F96T8, F96T12	Fa8	96	24	27 ²	3500 ²	146	120 - 277, 347 ³	3000 ⁺	83+	50000
L96T8/SL/835/24G-EB	F96T8, F96T12	Fa8	96	24	27 ²	3500 ²	146	120 - 277, 347 ³	3500	83+	50000
L96T8/SL/840/24G-EB	F96T8, F96T12	Fa8	96	24	27 ²	3500 ²	146	120 - 277, 347 ³	4000	83+	50000
L96T8/SL/850/24G-EB	F96T8, F96T12	Fa8	96	24	27 ²	3500 ²	146	120 - 277, 347 ³	5000	83+	50000

Plug & Play Ballast Compatible Recessed Double Contact LED T8 Lamps



R17d Base
Recessed Double Contact



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											
L96T8HO/830/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45 ²	5500 ²	131	120 - 277, 347 ³	3000 ⁺	83+	50000
L96T8HO/835/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45 ²	5500 ²	131	120 - 277, 347 ³	3500	83+	50000
L96T8HO/840/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45 ²	5500 ²	131	120 - 277, 347 ³	4000	83+	50000
L96T8HO/840/42G-EB	F96T12HO, F96T12VHO	R17d	96	42	45 ²	5500 ²	131	120 - 277, 347 ³	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 dependent on ballast brand and model number. See espentech.com for ballast compatibility list.

+ May be subject to lead times and availability.

RetroFlex™

Plug & Play Ballast Compatible LED Lamps | Linear T5/HO & T8 U-bent



FEATURES AND BENEFITS

- No rewiring needed
- Works with controls & sensors¹
- Long life
- High CRI
- Instant on, no delay
- Convenient and quick installation
- Utilizes existing G5 sockets for T5 & T5HO
- No Mercury, No UV
- -20° F to 130° F Ambient Operating Temp
- Works with fluorescent electronic T5/HO ballast
- 5 Year Warranty
- 240° Wide Beam Angle
- ArmorCoat™ available on request



TYPE - A

Model No. (glass series)	Replaces	Length (in)	Lamp Wattage	System Wattage	CCT	Initial Lumens	CRI	Beam Angle	Lamp Efficacy	Life (h)
L48T5HO/830/24G-EB	F54T5HO	48	24W	27W	3000K	3200	83	240°	133	50000
L48T5HO/835/24G-EB	F54T5HO	48	24W	27W	3500K	3200	83	240°	133	50000
L48T5HO/840/24G-EB	F54T5HO	48	24W	27W	4000K	3200	83	240°	133	50000
L48T5HO/850/24G-EB	F54T5HO	48	24W	27W	5000K	3200	83	240°	133	50000



FEATURES AND BENEFITS

- No rewiring needed
- Works with fluorescent electronic ballast (Instant Start, Programmed Start, Dimming)¹
- Long life
- High CRI
- Instant on, no delay
- Convenient and quick installation
- Utilizes existing instant start or rapid start sockets
- No Mercury, No UV
- Compatible with controls and sensors
- -20° F to 130° F Ambient Operating Temp
- Glass tube for superior optical performance
- 5 Year Warranty
- 325° Wide Beam Angle
- Dimmable¹



ORDER CODE	Replaces	Length (inches)	Lamp Power (W)	System Power (W)	Lumens ² (lm)	Lamp Efficacy (lm/W)	Input Voltage* (V)	CCT (K)	CRI	Life (h)
LB31T8U/830/12G-EB	FB31T8	1-5/8	12	15 ²	1800 ²	150	120 - 277, 347	3000+	80+	50000
LB31T8U/835/12G-EB	FB31T8	1-5/8	12	15 ²	1800 ²	150	120 - 277, 347	3500	80+	50000
LB31T8U/840/12G-EB	FB31T8	1-5/8	12	15 ²	1800 ²	150	120 - 277, 347	4000	80+	50000
LB31T8U/850/12G-EB	FB31T8	1-5/8	12	15 ²	1800 ²	150	120 - 277, 347	5000	80+	50000
LB31T8U/830/17G-EB	FB31T8	1-5/8	17	19 ²	2200 ²	129	120 - 277, 347	3000+	80+	50000
LB31T8U/835/17G-EB	FB31T8	1-5/8	17	19 ²	2200 ²	129	120 - 277, 347	3500	80+	50000
LB31T8U/840/17G-EB	FB31T8	1-5/8	17	19 ²	2200 ²	129	120 - 277, 347	4000	80+	50000
LB31T8U/850/17G-EB	FB31T8	1-5/8	17	19 ²	2200 ²	129	120 - 277, 347	5000	80+	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.

+ May be subject to lead times and availability.

RetroFlex™ ArmorCoat™

Plug & Play Ballast Compatible LED T5 Lamps: Shatterproof

TYPE - A



FEATURES AND BENEFITS

- LED Replacement for T5 Fluorescent Lamps
- **ArmorCoat™** Shatterproof Coating
- Works with fluorescent electronic ballast (**Instant Start, Programmed Start, Dimming**)¹
- Quick and Convenient Installation
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Instant on, No delay
- Convenient and quick installation
- Frosted to Prevent Glare
- Suitable for Damp Locations
- Integrated Thermal Fuse Protection
- ETL Sanitation Listed - conforms to NSF/ANSI 2
- Maintains the original UL Certification of the Fixture
- Compatible with Controls and Sensors
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- -20° F to 130° F Ambient Operating Temp
- Glass Tube for Optimal Light Output and Heat Diffusion
- 5 Year Warranty
- 240° Wide Beam Angle
- Dimmable¹



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	F28T5HE	48	13	16 ³	1800 ³	139	120 - 277, 347 ⁴	3000+	83+	50000
L48T5HE/835/13G-EB-AC	F28T5HE	48	13	16 ³	1800 ³	139	120 - 277, 347 ⁴	3500	83+	50000
L48T5HE/840/13G-EB-AC	F28T5HE	48	13	16 ³	1800 ³	139	120 - 277, 347 ⁴	4000	83+	50000
L48T5HE/850/13G-EB-AC	F28T5HE	48	13	16 ³	1800 ³	139	120 - 277, 347 ⁴	5000	83+	50000
Linear T5 High Output (HO)										
L24T5HO/830/9G-EB-AC	F24T5HO	24	9	12 ³	960 ³	107	120 - 277, 347 ⁴	3000+	83+	50000
L24T5HO/835/9G-EB-AC	F24T5HO	24	9	12 ³	960 ³	107	120 - 277, 347 ⁴	3500	83+	50000
L24T5HO/840/9G-EB-AC	F24T5HO	24	9	12 ³	960 ³	107	120 - 277, 347 ⁴	4000	83+	50000
L24T5HO/850/9G-EB-AC	F24T5HO	24	9	12 ³	960 ³	107	120 - 277, 347 ⁴	5000	83+	50000
L36T5HO/830/18G-EB-AC ²	F39T5HO	36	18	21 ³	1680 ³	93	120 - 277, 347 ⁴	3000+	83+	50000
L36T5HO/835/18G-EB-AC ²	F39T5HO	36	18	21 ³	1680 ³	93	120 - 277, 347 ⁴	3500	83+	50000
L36T5HO/840/18G-EB-AC ²	F39T5HO	36	18	21 ³	1680 ³	93	120 - 277, 347 ⁴	4000	83+	50000
L36T5HO/840/18G-EB-AC ²	F39T5HO	36	18	21 ³	1680 ³	93	120 - 277, 347 ⁴	5000	83+	50000
L48T5HO/830/24G-EB-AC	F54T5HO	48	24	27 ³	3200 ³	133	120 - 277, 347 ⁴	3000+	83+	50000
L48T5HO/835/24G-EB-AC	F54T5HO	48	24	27 ³	3200 ³	133	120 - 277, 347 ⁴	3500	83+	50000
L48T5HO/840/24G-EB-AC	F54T5HO	48	24	27 ³	3200 ³	133	120 - 277, 347 ⁴	4000	83+	50000
L48T5HO/850/24G-EB-AC	F54T5HO	48	24	27 ³	3200 ³	133	120 - 277, 347 ⁴	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 dependent on ballast brand and model number. See espentech.com for ballast compatibility list.

RetroFlex™ ArmorCoat™

Plug & Play Ballast Compatible LED T8 Lamp: Shatterproof



FEATURES AND BENEFITS

- LED Replacement for T8 Fluorescent Lamps
- **ArmorCoat™** Shatterproof Coating
- Works with fluorescent electronic ballast (**Instant Start, Programmed Start, Dimming**)¹
- Quick and Convenient Installation
- Utilizes Existing Shunted or Non-Shunted Tombstones
- Instant on, No delay
- Convenient and quick installation
- Frosted to Prevent Glare
- Suitable for Damp Locations
- Integrated Thermal Fuse Protection
- ETL Sanitation Listed - conforms to NSF/ANSI 2
- Maintains the original UL Certification of the Fixture
- Compatible with Controls and Sensors
- Rated for Use in Food Prep Areas and Refrigerated Food Displays
- -20° F to 130° F Ambient Operating Temp
- Glass Tube for Optimal Light Output and Heat Diffusion
- 5 Year Warranty
- 325° Wide Beam Angle
- Dimmable¹



TYPE - A

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

+ May be subject to lead times and availability.



RetroFlex™

Type-A Emergency Ballasts

TYPE - A



500 Lumens



700 Lumens



800 Lumens



1,300 Lumens

FEATURES AND BENEFITS

VEM500DV - Emergency Ballast

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 500 lumens
- 5 Year Warranty



VEM700DV - Emergency Ballast

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 700 lumens | 2-lamp: 700 lumens
- 5 Year Warranty



VEM800DV - Emergency Ballast

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 800 lumens
- Slim Design
- 5 Year Warranty



VEM1300DV - Emergency Ballast

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 1,300 lumens | 2-lamp: 1,300 lumens
- Slim Design
- 5 Year Warranty



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

THE POWER TO CREATE BETTER LIGHT



compact^{LED}

Internal Driver, Convenient Installation, Instant on with no delay or warm up time, High CRI, 5 year warranty



LED FT lamps^{LED}

Utilizes current 2G11 sockets, Internal Driver, Compatible with controls and sensors, Instant On



emergency inverter

90 Minute Illumination Time



linear^{LED}

Med. Bi-pin, Internal Driver, DLC Listed, Glass tube for superior optical performance, Utilizes unshunted (rapid start) sockets, Long Life

Flex™

LED Solutions with Internal Driver

accessories

PLL Brackets, PLL Lamp Sockets, Unshunted sockets, G13, CFQ sockets



Espen Flex LED Lamps

Espen Flex LED lamps have an internal driver that frees linear luminaires from old fluorescent ballasts and lamps. The lamp works directly off of line input voltage 120/277V. Flex lamps make convenient and effective retrofit solutions for any old T12 system, especially with magnetic ballasts. Simply remove the old fluorescent ballast and wire line voltage directly to one side of the unshunted lamp holder. Flex lamps can save you up to 50% of system power, while maintaining or increasing illumination levels. Flex lamps come in a range of sizes, including linear 2ft, 3ft, 4ft, 5ft, 6ft, and 8ft.

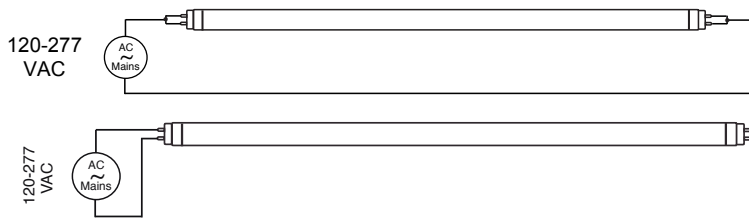
Flex™ DE

Linear T8 Lamps | Double End Input



FEATURES AND BENEFITS

- Double Ended Bypass Connection with Shunted or Non-Shunted Tombstones
- Internal Driver
- Glass Tube for Optimal Light Output and Heat Dissipation
- -20° F to 130° F Ambient Operating Temperature
- Instant on, No delay
- Convenient and quick installation
- Frosted to Prevent Glare
- Suitable for Damp Locations
- 325° Wide Beam Angle
- 5 Year Warranty



YES
Shunted
Instant Start Socket



YES
Unshunted
Rapid Start Socket

TYPE - B

Model No.	Replaces	Length (in)	Lamp Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
Linear T8									
L24T8/830/9G-ID DE	F17T8	24	9	1100	122	120 - 277	3000+	83+	50000
L24T8/835/9G-ID DE	F17T8	24	9	1100	122	120 - 277	3500	83+	50000
L24T8/840/9G-ID DE	F17T8	24	9	1100	122	120 - 277	4000	83+	50000
L24T8/850/9G-ID DE	F17T8	24	9	1100	122	120 - 277	5000	83+	50000
L36T8/830/12G-ID DE	F25T8	36	12	1400	117	120 - 277	3000+	83+	50000
L36T8/835/12G-ID DE	F25T8	36	12	1400	117	120 - 277	3500	83+	50000
L36T8/840/12G-ID DE	F25T8	36	12	1400	117	120 - 277	4000	83+	50000
L36T8/850/12G-ID DE	F25T8	36	12	1400	117	120 - 277	5000	83+	50000
L48T8/830/14G-ID DE	F32T8	48	14	1800	129	120 - 277	3000+	83+	50000
L48T8/835/14G-ID DE	F32T8	48	14	1800	129	120 - 277	3500	83+	50000
L48T8/840/14G-ID DE	F32T8	48	14	1800	129	120 - 277	4000	83+	50000
L48T8/850/14G-ID DE	F32T8	48	14	1800	129	120 - 277	5000	83+	50000
L48T8/830/17G-ID DE	F32T8	48	17	2200	122	120 - 277	3000+	83+	50000
L48T8/835/17G-ID DE	F32T8	48	17	2200	122	120 - 277	3500	83+	50000
L48T8/840/17G-ID DE	F32T8	48	17	2200	122	120 - 277	4000	83+	50000
L48T8/850/17G-ID DE	F32T8	48	17	2200	122	120 - 277	5000	83+	50000

+ May be subject to lead times and availability.

Flex™ DE ArmorCoat™

AC Direct Input Slimline LED T8 Lamps | Double End Input



Anti-Rotation Bracket

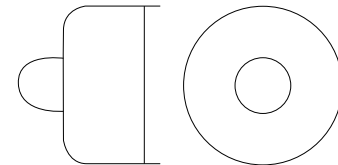
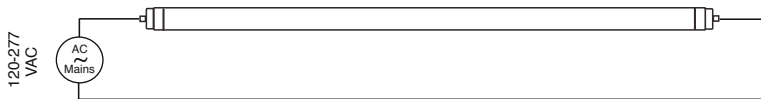
FEATURES AND BENEFITS

- Double Ended Bypass Connection
- Internal Driver
- **ArmorCoat™** Shatterproof Coating
- Glass Tube for Optimal Light Output and Heat Dissipation
- -20° F to 130° F Ambient Operating Temperature
- Bracket Included
- Frosted to Prevent Glare
- Suitable for Damp Locations
- 325° Wide Beam Angle
- 5 Year Warranty



TYPE - B

WIRING DIAGRAM



Fa8 Base
Single Pin

Model No.	Base Type	Replaces	Length (in)	Lamp Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
Slimline Linear T8										
L60T8/830/15G-ID DE	Fa8	F60T8, F60T12	60	15	2200	147	120 - 277	3000+	83+	50000
L60T8/835/15G-ID DE	Fa8	F60T8, F60T12	60	15	2200	147	120 - 277	3500+	83+	50000
L60T8/840/15G-ID DE	Fa8	F60T8, F60T12	60	15	2200	147	120 - 277	4000+	83+	50000
L60T8/850/15G-ID DE	Fa8	F60T8, F60T12	60	15	2200	147	120 - 277	5000+	83+	50000
L72T8/830/18G-ID DE	Fa8	F72T8, F72T12	72	18	2700	150	120 - 277	3000+	83+	50000
L72T8/835/18G-ID DE	Fa8	F72T8, F72T12	72	18	2700	150	120 - 277	3500+	83+	50000
L72T8/840/18G-ID DE	Fa8	F72T8, F72T12	72	18	2700	150	120 - 277	4000+	83+	50000
L72T8/850/18G-ID DE	Fa8	F72T8, F72T12	72	18	2700	150	120 - 277	5000+	83+	50000
L96T8/830/24G-ID DE	Fa8	F96T8, F96T12	96	24	3500	146	120 - 277	3000+	83+	50000
L96T8/835/24G-ID DE	Fa8	F96T8, F96T12	96	24	3500	146	120 - 277	3500	83+	50000
L96T8/840/24G-ID DE	Fa8	F96T8, F96T12	96	24	3500	146	120 - 277	4000	83+	50000
L96T8/850/24G-ID DE	Fa8	F96T8, F96T12	96	24	3500	146	120 - 277	5000	83+	50000
L96T8/830/42G-ID DE	Fa8	F96T8, F96T12	96	42	5500	131	120 - 277	3000+	83+	50000
L96T8/835/42G-ID DE	Fa8	F96T8, F96T12	96	42	5500	131	120 - 277	3500	83+	50000
L96T8/840/42G-ID DE	Fa8	F96T8, F96T12	96	42	5500	131	120 - 277	4000	83+	50000
L96T8/850/42G-ID DE	Fa8	F96T8, F96T12	96	42	5500	131	120 - 277	5000	83+	50000

+ May be subject to lead times and availability.

Flex™ DE ArmorCoat™

AC Direct Input HO/VHO LED T8 Lamps | Double End Input

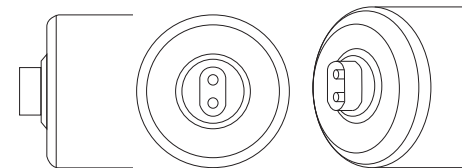
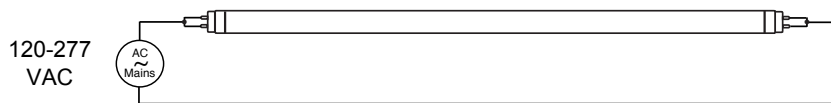


FEATURES AND BENEFITS

- Double Ended Bypass Connection
- Internal Driver
- **ArmorCoat™** Shatterproof Coating
- Glass Tube for Optimal Light Output and Heat Dissipation
- -20° F to 130° F Ambient Operating Temperature
- Integrated Thermal Fuse Protection
- Frosted to Prevent Glare
- Suitable for Damp Locations
- 325° Wide Beam Angle
- 5 Year Warranty



WIRING DIAGRAM



R17d Base
Recessed Double Contact

TYPE - B

Model No.	Base Type	Replaces	Length (in)	Lamp Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
HO/VHO Linear T8										
L60T8HO/830/15G-ID DE	R17d	F60T12 HO/VHO	60	15	2200	147	120 - 277	3000+	83+	50000
L60T8HO/835/15G-ID DE	R17d	F60T12 HO/VHO	60	15	2200	147	120 - 277	3500+	83+	50000
L60T8HO/840/15G-ID DE	R17d	F60T12 HO/VHO	60	15	2200	147	120 - 277	4000+	83+	50000
L60T8HO/850/15G-ID DE	R17d	F60T12 HO/VHO	60	15	2200	147	120 - 277	5000+	83+	50000
L72T8HO/830/18G-ID DE	R17d	F72T12 HO/VHO	72	18	2700	150	120 - 277	3000+	83+	50000
L72T8HO/835/18G-ID DE	R17d	F72T12 HO/VHO	72	18	2700	150	120 - 277	3500+	83+	50000
L72T8HO/840/18G-ID DE	R17d	F72T12 HO/VHO	72	18	2700	150	120 - 277	4000+	83+	50000
L72T8HO/850/18G-ID DE	R17d	F72T12 HO/VHO	72	18	2700	150	120 - 277	5000+	83+	50000
L96T8HO/830/42G-ID DE	R17d	F96T8, F96T12 HO/VHO	96	42	5500	131	120 - 277	3000+	83+	50000
L96T8HO/835/42G-ID DE	R17d	F96T8, F96T12 HO/VHO	96	42	5500	131	120 - 277	3500	83+	50000
L96T8HO/840/42G-ID DE	R17d	F96T8, F96T12 HO/VHO	96	42	5500	131	120 - 277	4000	83+	50000
L96T8HO/850/42G-ID DE	R17d	F96T8, F96T12 HO/VHO	96	42	5500	131	120 - 277	5000	83+	50000

+ May be subject to lead times and availability.

Flex™ DE

AC Direct Input HO LED T5 Lamps | Double End Input



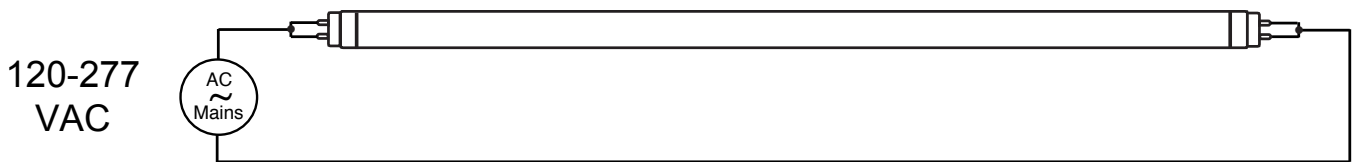
FEATURES AND BENEFITS

- Double Ended Bypass Connection
- Internal Driver
- Glass Tube for Optimal Light Output and Heat Dissipation
- -20° F to 130° F Ambient Operating Temperature
- Frosted to Prevent Glare
- Suitable for Damp Locations
- 240° Wide Beam Angle
- 5 Year Warranty



TYPE - B

WIRING DIAGRAM



Model No.	Replaces	Length (in)	Lamp Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Voltage (V)	CCT (K)	CRI	Life (h)
HO Linear T5									
L48T5/830/25G-ID DE	F54T5HO	48	25	3500	140	120 - 277	3000+	80+	50000
L48T5/835/25G-ID DE	F54T5HO	48	25	3500	140	120 - 277	3500	80+	50000
L48T5/840/25G-ID DE	F54T5HO	48	25	3500	140	120 - 277	4000	80+	50000
L48T5/850/25G-ID DE	F54T5HO	48	25	3500	140	120 - 277	5000	80+	50000

+ 3000K CCT may be subject to lead times and availability.



Flex™

AC Direct Input LED T8 Lamps | Single End Input



FEATURES AND BENEFITS

- Single Ended Bypass Connection with Non-Shunted Tombstones
- Internal Driver
- Glass Tube for Optimal Light Output and Heat Dissipation
- -20° F to 130° F Ambient Operating Temperature
- Frosted to Prevent Glare
- Suitable for Damp Locations
- 325° Wide Beam Angle
- 5 Year Warranty

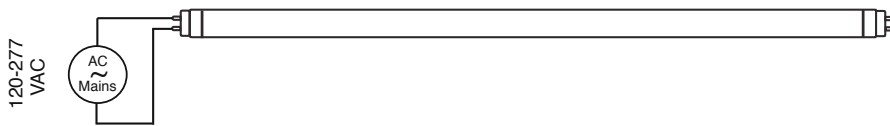


NO
Shunted
Instant Start Socket



YES
Unshunted
Rapid Start Socket

WIRING DIAGRAM



TYPE - B

Model No.	Replaces	Length (in)	Lamp Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
Linear T8									
L24T8/830/9G-ID	F17T8	24	9	1100	122	120 - 277	3000+	83+	50000
L24T8/835/9G-ID	F17T8	24	9	1100	122	120 - 277	3500	83+	50000
L24T8/840/9G-ID	F17T8	24	9	1100	122	120 - 277	4000	83+	50000
L24T8/850/9G-ID	F17T8	24	9	1100	122	120 - 277	5000	83+	50000
L36T8/830/12G-ID ¹	F25T8	36	12	1400	117	120 - 277	3000+	83+	50000
L36T8/835/12G-ID ¹	F25T8	36	12	1400	117	120 - 277	3500	83+	50000
L36T8/840/12G-ID ¹	F25T8	36	12	1400	117	120 - 277	4000	83+	50000
L36T8/850/12G-ID ¹	F25T8	36	12	1400	117	120 - 277	5000	83+	50000
L48T8/830/14G-ID	F32T8	48	14	1800	129	120 - 277	3000+	83+	50000
L48T8/835/14G-ID	F32T8	48	14	1800	129	120 - 277	3500	83+	50000
L48T8/840/14G-ID	F32T8	48	14	1800	129	120 - 277	4000	83+	50000
L48T8/850/14G-ID	F32T8	48	14	1800	129	120 - 277	5000	83+	50000
L48T8/830/18G-ID	F32T8	48	18	2200	122	120 - 277	3000+	83+	50000
L48T8/835/18G-ID	F32T8	48	18	2200	122	120 - 277	3500	83+	50000
L48T8/840/18G-ID	F32T8	48	18	2200	122	120 - 277	4000	83+	50000
L48T8/850/18G-ID	F32T8	48	18	2200	122	120 - 277	5000	83+	50000

¹ Not DLC listed. DLC does not regulate 3 foot lamps.
+ 3000K CCT may be subject to lead times and availability.

Flex™

AC Direct Input Compact LED Lamps | Single End Input



CLD18WH



CLD18WV

FEATURES AND BENEFITS

- Compatible with 2-Pin and 4-Pin Sockets
- Internal Driver
- -20° F to 130° F Ambient Operating Temperature
- Frosted to Prevent Glare
- Suitable for Damp Locations
- 5 Year Warranty

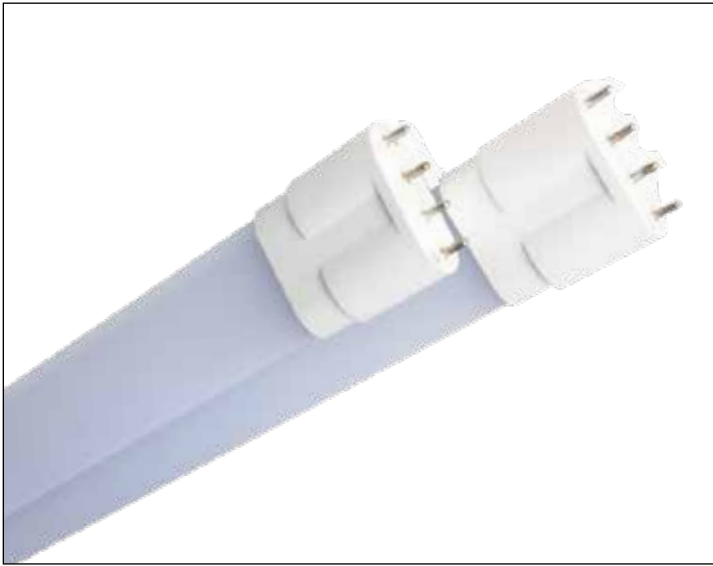


TYPE - B

Model No.	Replaces	Lamp Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
Compact LED Lamps								
CLD18WH/830-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	3000+	83+	50000
CLD18WH/835-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	3500	83+	50000
CLD18WH/840-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	4000	83+	50000
CLD18WH/850-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	5000	83+	50000
CLD18WV/830-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	3000+	83+	50000
CLD18WV/835-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	3500	83+	50000
CLD18WV/840-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	4000	83+	50000
CLD18WV/850-ID	18W, 26W, 32W, 42W CFQ	8	950	118	120 - 277	5000	83+	50000

+ May be subject to lead times and availability.





FEATURES AND BENEFITS

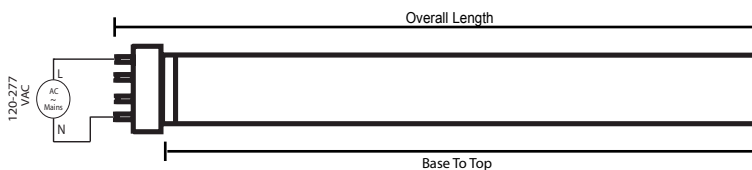
- Internal Driver
- Smooth, Consistent Light
- UL for Safety
- No UV, No Mercury
- Long Life
- High CRI
- Instant on, no delay or warm up time
- Convenient and quick installation
- Utilizes current lamp sockets
- Compatible with controls and sensors
- -20° F to 130° F Ambient Operating Temperature
- 5 Year Warranty



TYPE - B

Model No.	Replaces	Lamp Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
Compact LED Lamps								
LT40W/835-ID	FT40W/FT55W	18	1800	100	120 - 277	3500	83+	50000
LT40W/840-ID	FT40W/FT55W	18	1800	100	120 - 277	4000	83+	50000
LT40W/850-ID	FT40W/FT55W	18	1800	100	120 - 277	5000	83+	50000
LT36W/835-ID	FT36W	15	1200	80	120 - 277	3500	83+	50000
LT36W/840-ID	FT36W	15	1200	80	120 - 277	4000	83+	50000
LT36W/850-ID	FT36W	15	1200	80	120 - 277	5000	83+	50000
LT24W/835-ID	FT24W	10	800	80	120 - 277	3500	83+	50000
LT24W/840-ID	FT24W	10	800	80	120 - 277	4000	83+	50000
LT24W/850-ID	FT24W	10	800	80	120 - 277	5000	83+	50000
LT18W/835-ID	FT18W	8	640	80	120 - 277	3500	83+	50000
LT18W/840-ID	FT18W	8	640	80	120 - 277	4000	83+	50000
LT18W/850-ID	FT18W	8	640	80	120 - 277	5000	83+	50000

WIRING DIAGRAM



LT series	Overall Length (mm)	Base Face to Top (mm)
Dimensions		
LT40	540	493
LT36	421	374
LT24	326	278
LT18	231	183

Flex™

Type B Emergency LED Inverter



VEMB20W
20W



VEMB5W
5W

FEATURES AND BENEFITS

- Operates Espen Type B T5 & T8 LED Lamps
- Illuminates Most LEDs at Full Brightness, Up to 20W
- 32° F to 122° F Ambient Operating Temperature
- Durable Steel Housing Contains LED Driver & Battery
- Suitable for Damp Locations
- 90 Minute Illumination Time
- Nickel-Cadmium Rechargeable Battery
- LED Test Switch Included
- UL924, NFPA 101 Life Safety Code, NEC & OSHA Compliant
- 5 Year Warranty

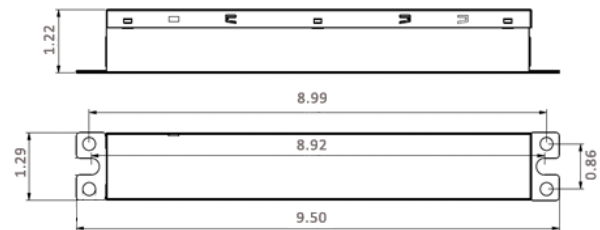
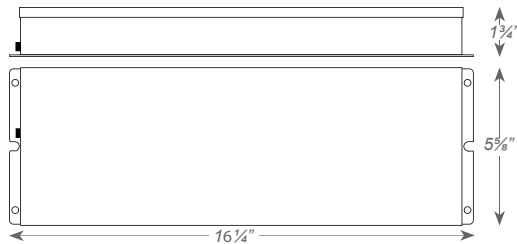
FEATURES AND BENEFITS

- Operates Espen Type B T5 & T8 LED Lamps
- Provides 5W of power for a minimum of 90 minutes
- 32° F to 122° F Ambient Operating Temperature
- Durable Steel Housing Contains LED Driver & Battery
- Suitable for Damp Locations
- Lithium-Ion Rechargeable Battery
- LED Test Switch Included
- UL924 & FCC Compliant
- 5 Year Warranty

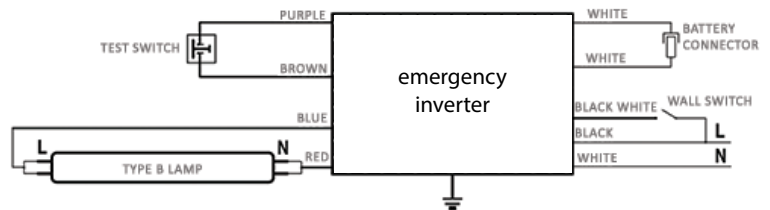
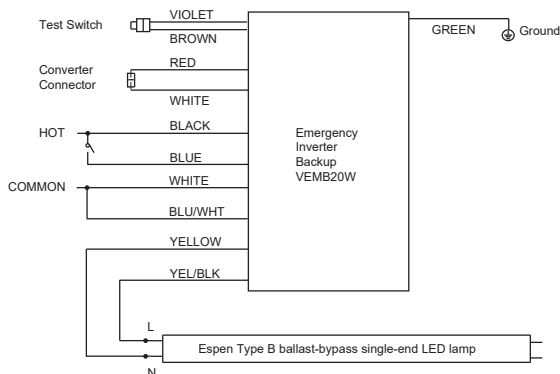


TYPE - B

DIMENSIONS



WIRING DIAGRAM

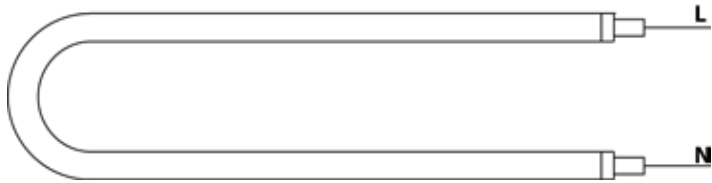


Model No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)
Type B Emergency LED Driver			
VEMB20W+	120-277	OCV 320VDC	20
VEMB5W	120-277	OCV 300VDC	5

+ May be subject to lead times and availability.

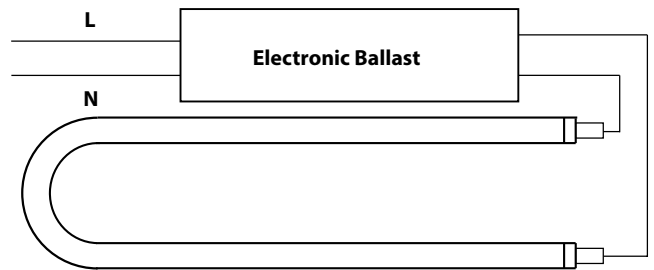
UniFlex™

UniFlex™ DE T8 U-bent Lamps | Type A+B Solutions



FEATURES AND BENEFITS

- Type A and B Lamp
- Internal driver for direct 120-277 VAC Input
- Double ended Type-B Input
- Works with fluorescent electronic ballast (Instant Start and Programmed Start)
- Long life | High CRI
- Instant on, No delay
- Convenient and quick installation
- Utilizes existing instant start or rapid start sockets
- Works with dimming ballast
- Compatible with controls and sensors
- Works in cold temperature applications
- 5 Year Warranty




TYPE A+B

Model No.	Length (in)	Width (in)	Power Direct AC (W)	Power w/Ballast (W)	Input Voltage	CCT	Lumens (lm)	CRI	Beam Angle	Lamp Efficacy ¹ Direct AC	Lamp Efficacy ¹ w/Ballast	Life (h)
LB48T8U6/830/13P-AB	24	6	13	16	120-277V	3000K	1800	83	240°	138 ¹	128 ¹	50,000
LB48T8U6/835/13P-AB	24	6	13	16	120-277V	3500K	1800	83	240°	138 ¹	128 ¹	50,000
LB48T8U6/840/13P-AB	24	6	13	16	120-277V	4000K	1800	83	240°	138 ¹	128 ¹	50,000
LB48T8U6/850/13P-AB	24	6	13	16	120-277V	5000K	1800	83	240°	138 ¹	128 ¹	50,000
LB31T8U/830/13P-AB	24	1-5/8	13	16	120-277V	3000K	1800	83	240°	138 ¹	112.5 ¹	50,000
LB31T8U/835/13P-AB	24	1-5/8	13	16	120-277V	3500K	1800	83	240°	138 ¹	112.5 ¹	50,000
LB31T8U/840/13P-AB	24	1-5/8	13	16	120-277V	4000K	1800	83	240°	138 ¹	112.5 ¹	50,000
LB31T8U/850/13P-AB	24	1-5/8	13	16	120-277V	5000K	1800	83	240°	138 ¹	112.5 ¹	50,000

¹ Calculation based on (lm/W)

UniFlex - Type A+B Solution

UniFlex is a line of Hybrid Type A+B LED linear tubes, with industry-leading performance. The lamps can work with an existing fluorescent ballast, as 'plug-n-play', or directly on line voltage if the old ballast is bypassed. For Type A operation, the lamps work with fluorescent electronic ballasts, both instant start and programmed start. For Type B operation, UniFlex lamps have an internal driver that accepts 120-277 VAC, double-ended input. UniFlex works with existing instant start or rapid start sockets and are compatible with dimming ballasts, controls, and sensors. UniFlex lamps are offered in U-Bent, 2', 3', and 4' configurations.



Taking
Energy Efficiency
- and -
Versatility
To A New Level

LED LAMP WITH EXTERNAL DRIVER | Type C



driver LED

Constant Current
Multi-Channel 0-10V & power line dimming
Available in Programmable & Field Adjustable

linear LED

G13 or G5, External Driver
Dimmable, Long Life, Convenient Wiring



emergency driver

Constant light output,
Auto LED load sensing



LED programmer

Adjusts drivers' power, current,
dimming levels and delay timer



module LED

Safe Push-in Connection, Dimmable,
Long Life, Uniform Light Distribution,
Complete Thermal Solution, Suitable for
DLC applications



TYPE - C

ESPEN CORETECH LED SYSTEM

LED lamps with external driver for full controllability Espen's CoreTech LED system consists of industry-leading LED lamps and programmable multi-channel drivers. The CoreTech system utilizes the exact same wiring diagram as fluorescent ballasts. The upgrade is handled the same as replacing an electronic ballast and lamps. Your facility can save up to 50% of system power while maintaining or increasing illumination levels.

The CoreTech multi-channel design permits all lamps to work independently to prevent total darkness when one lamp fails. The user-friendly programmability allows you to set the same system for normal output, high output, or low output, to match your application requirements.

LED T5, HE & HO LAMP WITH EXTERNAL DRIVER | Type C



FEATURES AND BENEFITS

- No Polarity, Lamp Ends Can Be Reversed
- Compatible with Controls and Sensors
- Glass Tube for Optimal Light Output and Heat Dissipation
- 50,000 Hours Life with No Limitation on On/Off Cycles
- -20° F to 130° F Ambient Operating Temperature
- 1 or 2 Lamps Compatible with Espen VPL50 LED Driver¹
- 3 or 4 Lamps Compatible with Espen VPL100 LED Driver¹
- 240° Wide Beam Angle
- Dimmable
- 5 Year Warranty



Model No.	Length (in)	Driver Current	Replaces	Lamp Power (W)	System Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Lamp Voltage (V)	CCT (K)	CRI	Life (h)	Current Settings
Linear T8												
L24T5/830/11G-XT	24	Normal	F14T5HE	9	12	1300	144	120 - 277	3000+	82+	50000	360mA
		High	F24T5HO	12	15	1700	142					500mA
L24T5/835/11G-XT	24	Normal	F14T5HE	9	12	1300	144	120 - 277	3500	82+	50000	360mA
		High	F24T5HO	12	15	1700	142					500mA
L24T5/840/11G-XT	24	Normal	F14T5HE	9	12	1300	144	120 - 277	4000	82+	50000	360mA
		High	F24T5HO	12	15	1700	142					500mA
L24T5/850/11G-XT	24	Normal	F14T5HE	9	12	1300	144	120 - 277	5000	82+	50000	360mA
		High	F24T5HO	12	15	1700	142					500mA
L36T5/830/18G-XT	36	Normal	F21T5HE	13	16	1900	146	120 - 277	3000+	82+	50000	360mA
		High	F39T5HO	18	21	2500	139					500mA
L36T5/835/18G-XT	36	Normal	F21T5HE	13	16	1900	146	120 - 277	3500	82+	50000	360mA
		High	F39T5HO	18	21	2500	139					500mA
L36T5/840/18G-XT	36	Normal	F21T5HE	13	16	1900	146	120 - 277	4000	82+	50000	360mA
		High	F39T5HO	18	21	2500	139					500mA
L36T5/850/18G-XT	36	Normal	F21T5HE	13	16	1900	146	120 - 277	5000	82+	50000	360mA
		High	F39T5HO	18	21	2500	139					500mA
L48T5/830/24G-XT	48	Normal	F28T5HE	15	18	2300	153	120 - 277	3000+	82+	50000	360mA
		High	F54T5HO	24	27	3300	138					500mA
L48T5/835/24G-XT	48	Normal	F28T5HE	15	18	2300	153	120 - 277	3500	82+	50000	360mA
		High	F54T5HO	24	27	3300	138					500mA
L48T5/840/24G-XT	48	Normal	F28T5HE	15	18	2300	153	120 - 277	4000	82+	50000	360mA
		High	F54T5HO	24	27	3300	138					500mA
L48T5/850/24G-XT	48	Normal	F28T5HE	15	18	2300	153	120 - 277	5000	82+	50000	360mA
		High	F54T5HO	24	27	3300	138					500mA

¹ See VPL50 and VPL100 specifications.

+ 3000K CCT may be subject to lead times and availability.

LED T8 LAMP WITH EXTERNAL DRIVER | Type C



FEATURES AND BENEFITS

- No Polarity, Lamp Ends Can Be Reversed
- -20° F to 130° F Ambient Operating Temperature
- Glass Tube for Optimal Light Output and Heat Dissipation
- 50,000 Hours Life with No Limitation on On/Off Cycles
- 1 or 2 Lamps Compatible with Espen VPL50 LED Driver¹
- 3 or 4 Lamps Compatible with Espen VPL100 LED Driver¹
- 325° Wide Beam Angle
- Dimmable
- 5 Year Warranty



Model No.	Length (in)	Driver Current	Replaces	Lamp Power (W)	System Power (W)	Lumens (lm)	Lamp Efficacy (lm/W)	Lamp Voltage (V)	CCT (K)	CRI	Life (h)	Current Settings
Linear T8												
L24T8/830/8G-XT	24	Normal	F17T8	8	11	1200	150	120 - 277	3000+	82+	50000	300mA
		High		10	13	1400	140					360mA
L24T8/835/8G-XT	24	Normal	F17T8	8	11	1200	150	120 - 277	3500	82+	50000	300mA
		High		10	13	1400	140					360mA
L24T8/840/8G-XT	24	Normal	F17T8	8	11	1200	150	120 - 277	4000	82+	50000	300mA
		High		10	13	1400	140					360mA
L24T8/850/8G-XT	24	Normal	F17T8	8	11	1200	150	120 - 277	5000	82+	50000	300mA
		High		10	13	1400	140					360mA
L36T8/830/11G-XT	36	Normal	F25T8	11	14	1600	145	120 - 277	3000+	82+	50000	300mA
		High		13	16	1900	146					360mA
L36T8/835/11G-XT	36	Normal	F25T8	11	14	1600	145	120 - 277	3500	82+	50000	300mA
		High		13	16	1900	146					360mA
L36T8/840/11G-XT	36	Normal	F25T8	11	14	1600	145	120 - 277	4000	82+	50000	300mA
		High		13	16	1900	146					360mA
L36T8/850/11G-XT	36	Normal	F25T8	11	14	1600	145	120 - 277	5000	82+	50000	300mA
		High		13	16	1900	146					360mA
L48T8/830/15G-XT	48	Normal	F32T8	12	15	1800	150	120 - 277	3000+	82+	50000	300mA
		High		15	18	2200	146					360mA
L48T8/835/15G-XT	48	Normal	F32T8	12	15	1800	150	120 - 277	3500	82+	50000	300mA
		High		15	18	2200	146					360mA
L48T8/840/15G-XT	48	Normal	F32T8	12	15	1800	150	120 - 277	4000	82+	50000	300mA
		High		15	18	2200	146					360mA
L48T8/850/15G-XT	48	Normal	F32T8	12	15	1800	150	120 - 277	5000	82+	50000	300mA
		High		15	18	2200	146					360mA

TYPE - C

¹ See VPL50 and VPL100 specifications.

+ May be subject to lead times and availability.

Programmable LED Driver for Type-C LED's | Type C



FEATURES AND BENEFITS

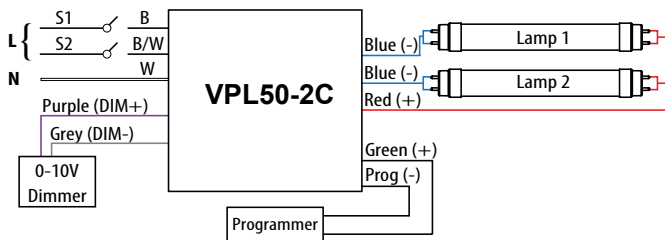
- Programmable Drive Current Range (300 - 600mA)
- For Use with 1 or 2 Espen CoreTech™ LED T5 or T8 Lamps
- Constant Current
- 2 Channels
- Universal Voltage (120 - 277V)
- Dimmable
- Suitable for Damp Locations
- 5 Year Warranty



- Programmable Drive Current Range (200 - 500mA)
- For Use with 3 or 4 Espen CoreTech™ LED T5 or T8 Lamps
- Constant Current
- 4 Channels
- Universal Voltage (120 - 277V)
- Dimmable
- Suitable for Damp Locations
- 5 Year Warranty



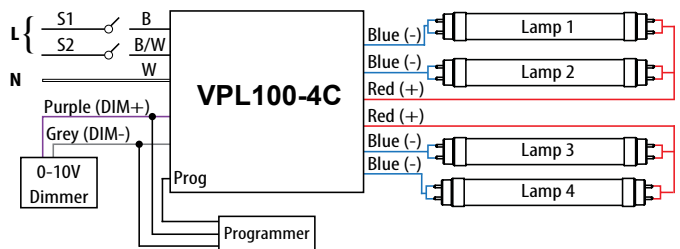
2 LAMP WIRING DIAGRAM



Light Level	S1	S2
100%	ON	ON
50%*	ON	OFF
25%*	OFF	ON
0%	OFF	OFF

*Programmable For Dual-Relay Dimming

4 LAMP WIRING DIAGRAM



Light Level	S1	S2
100%	ON	ON
50%*	ON	OFF
25%*	OFF	ON
0%	OFF	OFF

*Programmable For Dual-Relay Dimming

Model No.	Output Current	Driver Type	Max Wattage (W)	No. of Channels	Input Voltage (V)	Dimming
Programmable LED Driver						
VPL50-2C	Programmable	Constant Current	50	2	120 - 277	0-10V or A/B
VPL100-4C	Programmable	Constant Current	80	4	120 - 277	0-10V or A/B

Field Adjustable LED Driver for Type-C LED's | Type C



FEATURES AND BENEFITS

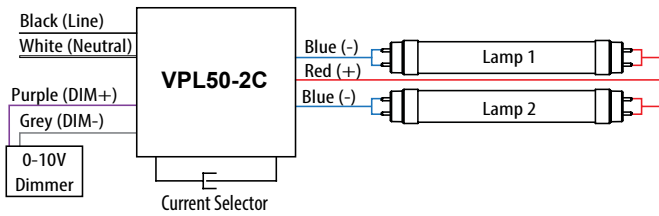
- Programmable Drive Current Range (300 - 600mA)
- For Use with 1 or 2 Espen CoreTech™ LED T5 or T8 Lamps
- Constant Current
- 2 Channels
- Universal Voltage (120 - 277V)
- Dimmable
- Suitable for Damp Locations
- 5 Year Warranty



- Programmable Drive Current Range (200 - 500mA)
- For Use with 3 or 4 Espen CoreTech™ LED T5 or T8 Lamps
- Constant Current
- 4 Channels
- Universal Voltage (120 - 277V)
- Dimmable
- Suitable for Damp Locations
- 5 Year Warranty

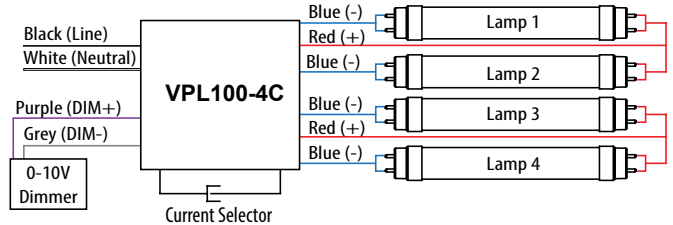


2 LAMP WIRING DIAGRAM



Current Selector Close = (300mA)

4 LAMP WIRING DIAGRAM



Current Selector Open = (360mA)

TYPE - C

Model No.	Output Current	Driver Type	Max Wattage (W)	No. of Channels	Input Voltage (V)	Dimming
Programmable LED Driver						
VPL50-2C-030/036	Field Adjustable	Constant Current	33	2	120 - 277	0 - 10V
VPL100-4C-030/036	Field Adjustable	Constant Current	66	4	120 - 277	0 - 10V

See espentech.com for CoreTech™ and VersaLinear™ specifications.



FEATURES AND BENEFITS

- High Efficacy
- Push-In Connectors
- Long Life
- Consistent and Even Light Distribution
- Flexibility in Design
- Consistent and Even Light Distribution
- Thermally Independent
- Suitable for DLC Applications
- UL for Safety: UL1598C for LED Retrofit Kits
- 5 Year Warranty



Model No.	Lumen	CCT	CRI	SDCM	Driving Current (mA)	P (W) Module Tc 55°C	Im. W* Module Tc 55°C	L70 B50 (h)
VLM11L/250/830/2R/530X30	1800	3000	>80	6	250	11	150	50,000
VLM11L/250/835/2R/530X30	1800	3500	>80	6	250	11	150	50,000
VLM11L/250/840/2R/530X30	1800	4000	>80	6	250	11	150	50,000
VLM11L/250/850/2R/530X30	1800	5000	>80	6	250	11	150	50,000
VLM13L/500/830/2R/482X30	2400	3000	>80	6	500	18	130	50,000
VLM13L/500/835/2R/482X30	2400	3500	>80	6	500	18	130	50,000
VLM13L/500/840/2R/482X30	2400	4000	>80	6	500	18	130	50,000
VLM13L/500/850/2R/482X30	2400	5000	>80	6	500	18	130	50,000

* Eligible for DLC when built in a luminaire. Please contact Customer Service for more

TYPE - C

Advance LED Drivers | CoreTech™

Espen's extensive range of advanced LED drivers offer:

- Constant current or constant voltage
- 0-10V or triac dimming options
- UL listed or recognized
- Advance thermal management for long life
- Multiple case options
- Protections: short circuit, open, circuit, overload, and overheat
- 5-Year warranty



FOR MORE DRIVER OPTIONS
PLEASE CHECK OUR ESPEN DRIVER CATALOG



Emergency LED Driver

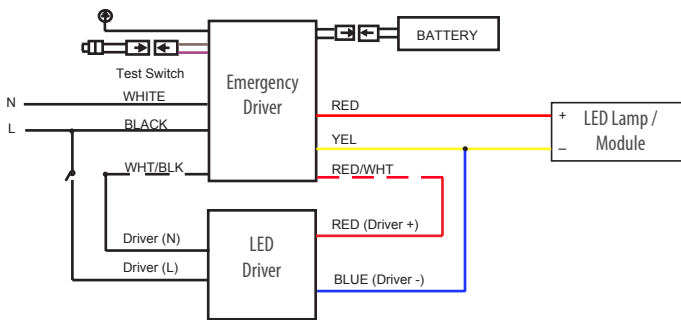


FEATURES AND BENEFITS

- Constant light output
- Auto LED load sensing
- Universal Input (120-277V)
- Complete Thermal Solution
- Heavy duty battery
- Programmable for Lumen Output
- UL Recognized



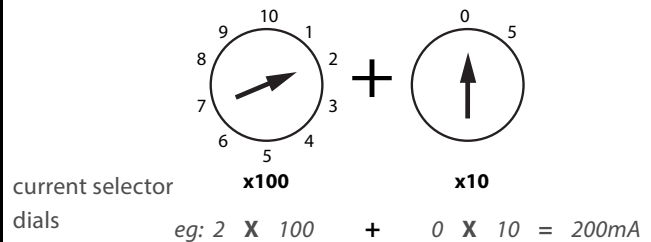
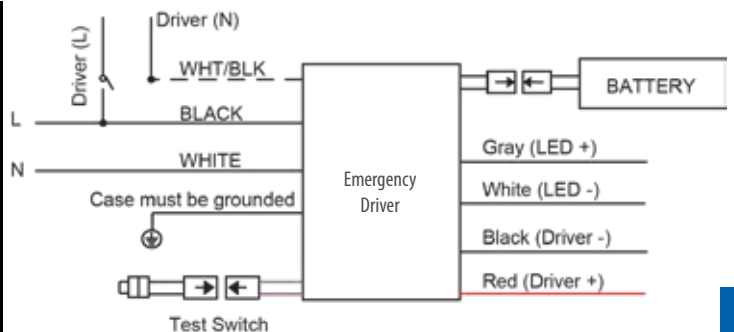
VEML20



Dip Switch	Output Power	Output Voltage	Output Current
	5W	12-50V	416-100mA
	10W	12-50V	830-200mA
	15W	12-50V	1250-300mA
	20W	12-50V	1400-400mA

current selector dip switch

VEML25



current selector dials

TYPE - C

Model No.	Battery Package	Max Load for 90 Min
Emergency LED Driver		
VEML20MV (Constant Wattage)	BA/96L/1.0AH	5W
	BA/96L/2.0AH	10W
	BA/96L/3.0AH	15W
	BA/96L/6.0AH	20W
VEML25MV (Constant Current)	BA/96L/1.0AH	5W
	BA/96L/1.5AH	8W
	BA/96L/3.0AH	16W
	BA/96L/6.0AH	25W

versaKIT™

LED Retrofit Kits | LED Retrofit Solutions



versaLinear LED

Designed to Achieve High Lumen Output
Each Kit Includes LED Modules Paired with an LED Driver

Troffer Kit LED

Ultra-Thin LED Panel
Available in 2' x 2' and 2' x 4' Sizes



Panel Kit LED

Ultra-Thin LED Panel
Available in 2' x 2' and 2' x 4' Sizes



emergency driver

90 Minute Illumination Time
5 Year Warranty
Universal Input (120-277V)



versaKIT™

Channel Kit LED

High Efficiency LED Module & LED Driver
Provides Uniform Ambient Lighting



versaKIT Strips LED

Converts 8ft T12 or T8 Fluorescent
Strip Lights to the latest 4ft LED Technology
Holds Two Rows of Two LED T8 Lamps
Compatible with Type-A, Type-B, & Type-C Lamps for Rebate Programs



LED Retrofit Solutions

The VersaKit family includes more than 50 models of LED linear retrofit kits. Many of the VersaKit retrofit kits create the look of a completely new fixture, but without the labor of replacing the fixture. Utilizing the existing housing drops installation time to just minutes, and the ceiling doesn't need to be disturbed. The VersaKit retrofit kit family includes: Flat Panel Retrofit Kits, 8' Channel Retrofit Kits, LED Channel Retrofit Kits, and Troffer Retrofit Kits.

versaKIT™ versaLinear™

LED Linear Module Retrofit Kits

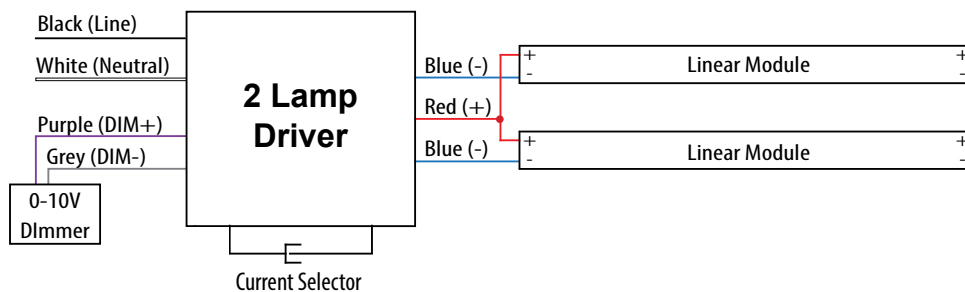


FEATURES AND BENEFITS

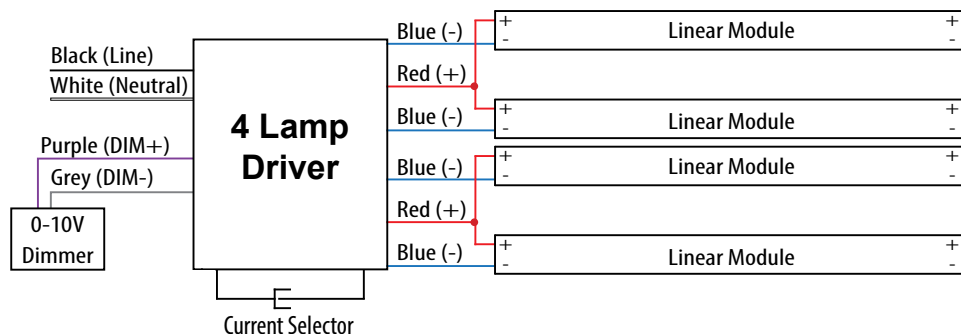
- Designed to Achieve High Lumen Output
- Each Kit Includes LED Modules Paired with an LED Driver
- LED Modules Feature Durable Aluminium Structures
- Magnetic Backing for Easier Installation
- Available with Frosted Diffuser Lens or No Diffuser Lens
- Kits Retrofit 2, 3 and 4 foot T5 and T8 Fixtures
- -20° F to 130° F Ambient Operating Temperature
- End-to-End Lighting with No Dark Spots
- 120 - 277V Input Voltage
- 80+ CRI
- 50,000 Hours Life
- Dimmable
- 5 Year Warranty



2 LAMP WIRING DIAGRAM



4 LAMP WIRING DIAGRAM



versaKIT™ versaLinear™

LED Linear Module Retrofit Kits

Espen Model No.	DLC Model No.	Replaces	Diffuser Lens	No. of Modules Included	Driver Included	Driver Current	System Power (W)	System Lumens (lm)	System Efficacy (lm/W)
2 Foot HE - High Efficiency									
VEKM-L21C/8XX ^{1,2}	D546-1M-302C	1 x F17T8	No	1	VPL50	High	12	1500	125
						Normal	10	1250	125
VEKM-L21F/8XX ^{1,2}	D546-1M-302F	1 x F17T8	Yes	1	VPL50	High	12	1250	104
						Normal	10	1050	105
VEKM-L22C/8XX ^{1,2}	D546-2M-302C	2 x F17T8	No	2	VPL50	High	24	3000	125
						Normal	20	2500	125
VEKM-L22F/8XX ^{1,2}	D546-2M-302F	2 x F17T8	Yes	2	VPL50	High	24	2550	105
						Normal	20	2100	105
VEKM-L23C/8XX ^{1,2}	D547-3M-302C	3 x F17T8	No	3	VPL100	High	34	4300	126
						Normal	28	3600	129
VEKM-L23F/8XX ^{1,2}	D547-3M-302F	3 x F17T8	Yes	3	VPL100	High	34	3550	104
						Normal	28	3000	107
VEKM-L24C/8XX ^{1,2}	D547-4M-302C	4 x F17T8	No	4	VPL100	High	43	5600	130
						Normal	36	4700	131
VEKM-L24F/8XX ^{1,2}	D547-4M-302F	4 x F17T8	Yes	4	VPL100	High	43	4600	107
						Normal	36	3900	108
3 Foot HE - High Efficiency									
VEKM-L31C/8XX ^{1,2}	D546-1M-303C	1 x F25T8	No	1	VPL50	High	16	2100	131
						Normal	13	1750	135
VEKM-L31F/8XX ^{1,2}	D546-1M-303F	1 x F25T8	Yes	1	VPL50	High	16	1700	106
						Normal	13	1400	108
VEKM-L32C/8XX ^{1,2}	D546-2M-303C	2 x F25T8	No	2	VPL50	High	32	4250	133
						Normal	26	3500	135
VEKM-L32F/8XX ^{1,2}	D546-2M-303F	2 x F25T8	Yes	2	VPL50	High	32	3400	106
						Normal	26	2800	108
VEKM-L33C/8XX ^{1,2}	D547-3M-303C	3 x F25T8	No	3	VPL100	High	46	6100	133
						Normal	38	5000	132
VEKM-L33F/8XX ^{1,2}	D547-3M-303F	3 x F25T8	Yes	3	VPL100	High	46	5050	110
						Normal	38	4200	111
VEKM-L34C/8XX ^{1,2}	D547-4M-303C	4 x F25T8	No	4	VPL100	High	60	8000	133
						Normal	50	6500	130
VEKM-L34F/8XX ^{1,2}	D547-4M-303F	4 x F25T8	Yes	4	VPL100	High	60	6500	108
						Normal	50	5400	108

¹ XX = 30, 35, 40 or 50
30 = 3000K, 35 = 3500K, 40 = 4000K and 50 = 5000K (3000K may be subject to lead times and availability.)

² Not DLC listed. See 4 foot modules for DLC listed modules.

versaKIT™ versaLinear™

LED Linear Module Retrofit Kits

Espen Model No.	DLC Model No.	Replaces	Diffuser Lens	Quantity of Modules Included	Driver Included	Drive Current	System Power (W)	System Lumens (lm)	System Efficacy (lm/W)
4 Foot HE - High Efficiency									
VEKM-L41C/8XX ^{1,2}	D546-1M-304C	1 x F32T8	No	1	VPL50	High	18	2300	128
						Normal	14	1850	132
VEKM-L41F/8XX ^{1,2}	D546-1M-304F	1 x F32T8	Yes	1	VPL50	High	18	1850	103
						Normal	14	1550	111
VEKM-L42C/8XX ^{1,3}	D546-2M-304C	2 x F32T8	No	2	VPL50	High	35	4600	131
						Normal	27	3700	137
VEKM-L42F/8XX ^{1,3}	D546-2M-304F	2 x F32T8	Yes	2	VPL50	High	35	3900	111
						Normal	27	3100	115
VEKM-L43C/8XX ^{1,2}	D547-3M-304C	3 x F32T8	No	3	VPL100	High	50	6900	138
						Normal	39	5550	142
VEKM-L43F/8XX ^{1,2}	D547-3M-304F	3 x F32T8	Yes	3	VPL100	High	50	5850	117
						Normal	39	4600	118
VEKM-L44C/8XX ^{1,4}	D547-4M-304C	4 x F32T8	No	4	VPL100	High	65	9250	142
						Normal	51	7400	145
VEKM-L44F/8XX ^{1,4}	D547-4M-304F	4 x F32T8	Yes	4	VPL100	High	65	7800	120
						Normal	51	6150	121
4 Foot HO - High Output									
VEKM-L41C/HO/8XX ^{1,2}	D546-1M-304C/HO	1 x 4'HO	No	1	VPL50	Normal	26	4000	150
VEKM-L41F/HO/8XX ^{1,2}	D546-1M-304F/HO	1 x 4'HO	Yes	1	VPL50	Normal	26	3400	130
VEKM-L42C/HO/8XX ^{1,2}	D547-2M-304C/HO	2 x 4'HO	No	2	VPL100	Normal	52	8000	150
VEKM-L42F/HO/8XX ^{1,2}	D547-2M-304F/HO	2 x 4'HO	Yes	2	VPL100	Normal	52	6800	130
4 Foot VHO - Very High Output									
VEKM-L41C/VHO/8XX ^{1,2}	D547-1M-304C/VHO	1 x 4'VHO	No	1	VPL100	Normal	52	8200	155
VEKM-L41F/VHO/8XX ^{1,2}	D547-1M-304F/VHO	1 x 4'VHO	Yes	1	VPL100	Normal	52	7000	135

¹ XX = 30, 35, 40 or 50
30 = 3000K, 35 = 3500K, 40 = 4000K and 50 = 5000K (3000K may be subject to lead times and availability.)
² Not DLC listed. See 4 foot modules for DLC listed modules.

³ DLC listed.
⁴ DLC pending.

versaKIT™ Panel

LED Flat Panel Troffer Retrofit Kits



FEATURES AND BENEFITS

- Ultra-Thin LED Panel
- Utilizes Existing Housing to Reduce Installation Time and Cost of Labor
- Edge-Lit Technology for Even Ambient Lighting
- -20° F to 130° F Ambient Operating Temperature
- Available in 2' x 2' and 2' x 4' Sizes
- Installation Brackets Included (*as seen on page 32*)
- Dimmable (0-10V Dimming)
- UL Recognized
- 5 Year Warranty



Model No.	Retrofits	Power (W)	Lumens (lm)	Efficacy (lm/W)	Voltage (V)	CCT (K)	CRI	Life (h)
DLC Premium								
VEKT-P2X2/830	2 x 2 Troffer	22	2750	125	120 - 277	3000 ⁺	80+	50000
VEKT-P2X2/835	2 x 2 Troffer	22	2750	125	120 - 277	3500	80+	50000
VEKT-P2X2/840	2 x 2 Troffer	22	2750	125	120 - 277	4000	80+	50000
VEKT-P2X2/850	2 x 2 Troffer	22	2750	125	120 - 277	5000	80+	50000
VEKT-P2X4/830	2 x 4 Troffer	36	4500	125	120 - 277	3000 ⁺	80+	50000
VEKT-P2X4/835	2 x 4 Troffer	36	4500	125	120 - 277	3500	80+	50000
VEKT-P2X4/840	2 x 4 Troffer	36	4500	125	120 - 277	4000	80+	50000
VEKT-P2X4/850	2 x 4 Troffer	36	4500	125	120 - 277	5000	80+	50000
DLC Standard								
VEKT-P2X2/830	2 x 2 Troffer	22	2200	100	120 - 277	3000 ⁺	80+	50000
VEKT-P2X2/835	2 x 2 Troffer	22	2200	100	120 - 277	3500	80+	50000
VEKT-P2X2/840	2 x 2 Troffer	22	2200	100	120 - 277	4000	80+	50000
VEKT-P2X2/850	2 x 2 Troffer	22	2200	100	120 - 277	5000	80+	50000
VEKT-P2X4/830	2 x 4 Troffer	36	3600	100	120 - 277	3000 ⁺	80+	50000
VEKT-P2X4/835	2 x 4 Troffer	36	3600	100	120 - 277	3500	80+	50000
VEKT-P2X4/840	2 x 4 Troffer	36	3600	100	120 - 277	4000	80+	50000
VEKT-P2X4/850	2 x 4 Troffer	36	3600	100	120 - 277	5000	80+	50000

⁺ 3000K CCT may be subject to lead times and availability.

versaKIT™ Troffer

LED Center Basket Troffer Retrofit Kits



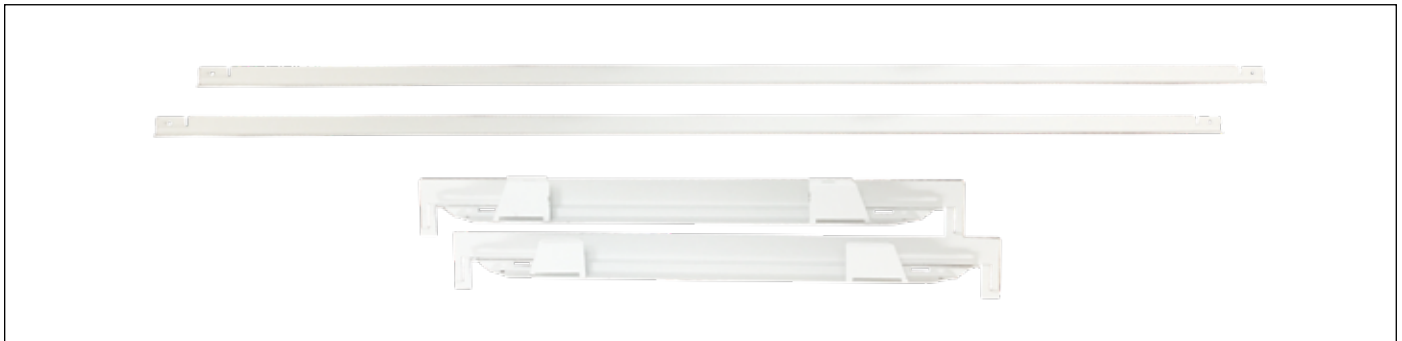
FEATURES AND BENEFITS

- Central Basket Design
- Quick & Easy Installation
- Utilizes Existing Housing to Reduce Installation Time and Cost of Labor
- -20° F to 130° F Ambient Operating Temperature
- Center Diffuser Snaps in Place
- Reflective Surface for Uniform Distribution of Light
- Dimmable (0-10V Dimming)
- 5 Year Warranty



Installation Brackets

for versaKIT Panel & versaKIT Troffer



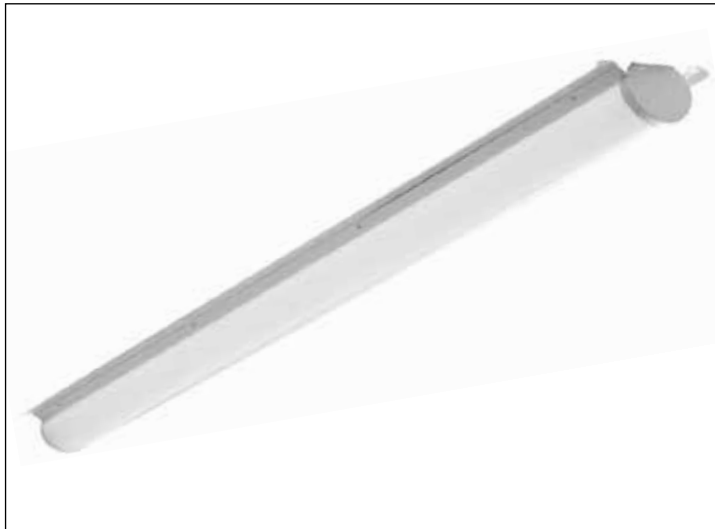
Model No.	Application	Power (W)	Lumens (lm)	Efficacy (lm/W)	Voltage (V)	CCT (K)	CRI	Life (h)
VEKT2X2H/830 ¹	2 X 2 Troffer	22	2750	125	120 - 277	3000 ⁺	80+	50000
VEKT2X2H/835	2 X 2 Troffer	22	2750	125	120 - 277	3500	80+	50000
VEKT2X2H/840	2 X 2 Troffer	22	2750	125	120 - 277	4000	80+	50000
VEKT2X2H/850	2 X 2 Troffer	22	2750	125	120 - 277	5000	80+	50000
VEKT2X4L/830 ¹	2 X 4 Troffer	36	4500	125	120 - 277	3000 ⁺	80+	50000
VEKT2X4L/835	2 X 4 Troffer	36	4500	125	120 - 277	3500	80+	50000
VEKT2X4L/840	2 X 4 Troffer	36	4500	125	120 - 277	4000	80+	50000
VEKT2X4L/850 ²	2 X 4 Troffer	36	4500	125	120 - 277	5000	80+	50000

¹ DLC Standard

⁺ 3000K CCT may be subject to lead times and availability.

versaKIT™ Channel

LED Channel Retrofit Kits



FEATURES AND BENEFITS

- Utilizes Existing Housing to Reduce Installation Time and Cost of Labor
- Diffuser Lens Provides Uniform Ambient Lighting and Reduces Glare
- High Efficiency LED Module and LED Driver
- -20° F to 130° F Ambient Operating Temperature
- Dimmable (0-10V Dimming)
- Suitable for Damp Locations
- 5 Year Warranty



Model No.	Retrofits	Length (ft)	Power (W)	Lumens (lm)	Efficacy (lm/W)	Input Voltage (V)	CCT (K)	CRI	Life (h)
For T8 or Slim Line Applications									
VEKL4F/23-830	4' Channel	4	23	3000	130	120 - 277	3000 ⁺	80+	50000
VEKL4F/23-835	4' Channel	4	23	3000	130	120 - 277	3500	80+	50000
VEKL4F/23-840	4' Channel	4	23	3000	130	120 - 277	4000	80+	50000
VEKL4F/23-850	4' Channel	4	23	3000	130	120 - 277	5000	80+	50000
VEKL8F/46-830	8' Channel	8	46	5980	130	120 - 277	3000 ⁺	80+	50000
VEKL8F/46-835	8' Channel	8	46	5980	130	120 - 277	3500	80+	50000
VEKL8F/46-840	8' Channel	8	46	5980	130	120 - 277	4000	80+	50000
VEKL8F/46-850	8' Channel	8	46	5980	130	120 - 277	5000	80+	50000
For HO or VHO Line Applications									
VEKL4F/40-830	4' Channel	4	40	5240	131	120 - 277	3000 ⁺	80+	50000
VEKL4F/40-835	4' Channel	4	40	5240	131	120 - 277	3500	80+	50000
VEKL4F/40-840	4' Channel	4	40	5240	131	120 - 277	4000	80+	50000
VEKL4F/40-850	4' Channel	4	40	5240	131	120 - 277	5000	80+	50000
VEKL8F/90-830	8' Channel	8	90	11440	127	120 - 277	3000 ⁺	80+	50000
VEKL8F/90-835	8' Channel	8	90	11440	127	120 - 277	3500	80+	50000
VEKL8F/90-840	8' Channel	8	90	11440	127	120 - 277	4000	80+	50000
VEKL8F/90/850	8' Channel	8	90	11440	127	120 - 277	5000	80+	50000

+ 3000K CCT may be subject to lead times and availability.

versaKIT™ Strip

8-Foot Channel Retrofit Kits for Linear Lamps

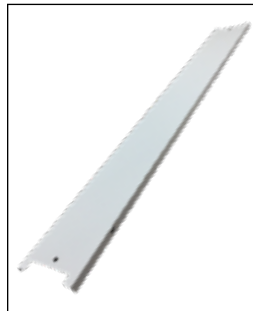


FEATURES AND BENEFITS

- Converts 8 Foot T12 or T8 Fluorescent Strip Lights to the Latest 4 Foot LED Technology
- Holds Two Rows of Two LED T8 Lamps
- Compatible with Type A, B, & C Lamps for Rebate Programs
- Can Reduce Energy Costs Up to 50% While Still Maintaining Existing Light Levels
- 5 Year Warranty



[1] Universal Socket Plate



[2] Ballast Cover (white)



[8] Screws



[4] Quarter Turn Fasteners



[8] Sockets

Model No.	Socket Type	Case Qty.
8 Foot Channel Retrofit Kits for Linear LED Lamps		
RXS8-432-USP-WH/10 PACK	Shunted	10
RXS8(NS)-432-USP-WH/10 PACK	Non-Shunted	10



Sentinel®

Type-A Emergency Ballasts



500 Lumens

VEM500DV - Emergency Ballast

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 500 lumens
- 5 Year Warranty



700 Lumens

VEM700DV - Emergency Ballast

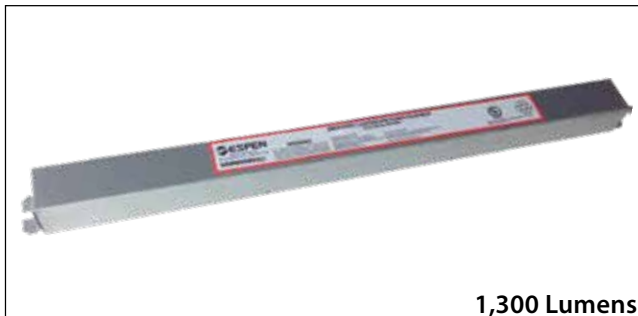
- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 700 lumens | 2-lamp: 700 lumens
- 5 Year Warranty



800 Lumens

VEM800DV - Emergency Ballast

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 800 lumens
- Slim Design
- 5 Year Warranty



1,300 Lumens

VEM1300DV - Emergency Ballast

- Dual Input Voltage (120/277V)
- Maintenance Free, Long Life
- High Temperature Ni-Cad Battery
- Durable, Heavy-Duty Steel Housing
- 1-lamp: 1,300 lumens | 2-lamp: 1,300 lumens
- Slim Design
- 5 Year Warranty



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

Sentinel®

Type-B Emergency Inverters



FEATURES AND BENEFITS

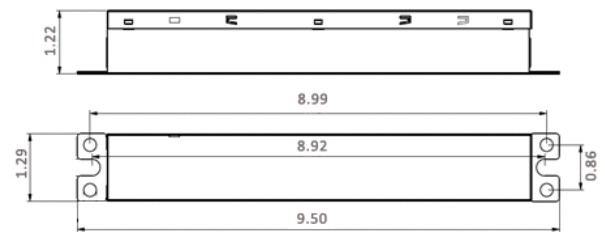
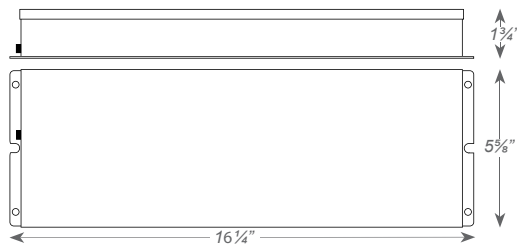
- Operates Espen Type B T5 & T8 LED Lamps
- Illuminates Most LEDs at Full Brightness, Up to 20W
- 32° F to 122° F Ambient Operating Temperature
- Durable Steel Housing Contains LED Driver & Battery
- Suitable for Damp Locations
- 90 Minute Illumination Time
- Nickel-Cadmium Rechargeable Battery
- LED Test Switch Included
- UL924, NFPA 101 Life Safety Code, NEC & OSHA Compliant
- 5 Year Warranty

FEATURES AND BENEFITS

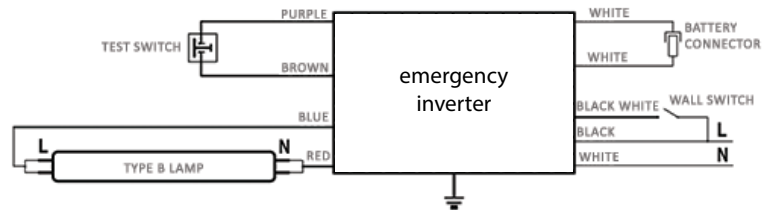
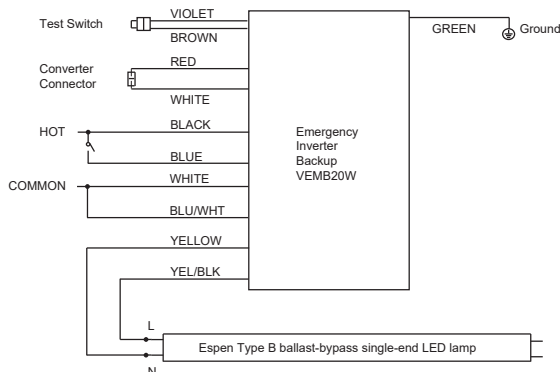
- Operates Espen Type B T5 & T8 LED Lamps
- Provides 5W of power for a minimum of 90 minutes
- 32° F to 122° F Ambient Operating Temperature
- Durable Steel Housing Contains LED Driver & Battery
- Suitable for Damp Locations
- Lithium-Ion Rechargeable Battery
- LED Test Switch Included
- UL924 & FCC Compliant
- 5 Year Warranty



DIMENSIONS



WIRING DIAGRAM



Model No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)
Type B Emergency LED Driver			
VEMB20W+	120-277	OCV 320VDC	20
VEMB5W	120-277	OCV 300VDC	5

Emergency Solutions

Sentinel®

Type-C Emergency LED Driver

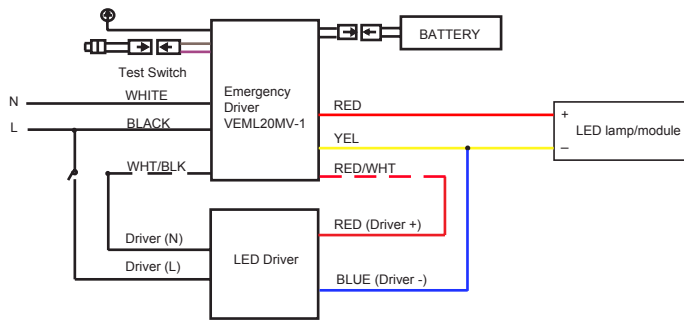


FEATURES AND BENEFITS

- Constant light output
- Auto LED load sensing
- Universal Input (120-277V)
- Complete Thermal Solution
- Heavy duty battery
- Programmable for Lumen Output
- UL Recognized



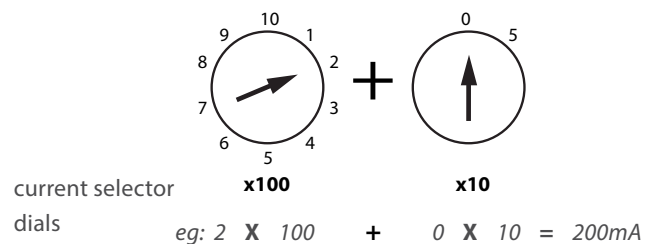
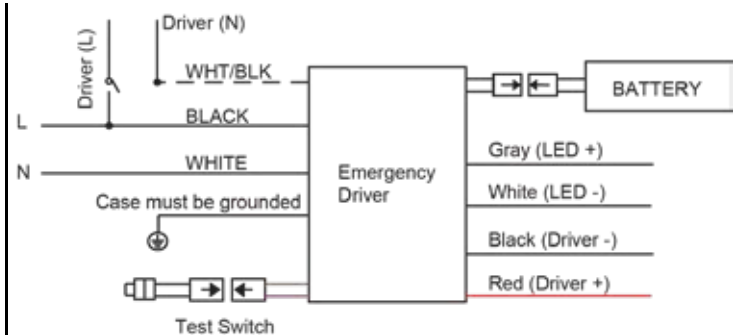
VEML20



Dip Switch	Output Power	Output Voltage	Output Current
	5W	12-50V	416-100mA
	10W	12-50V	830-200mA
	15W	12-50V	1250-300mA
	20W	12-50V	1400-400mA

current selector dip switch

VEML25



current selector dials

Max Load for 90 Min

Model No.

Battery Package

Emergency LED Driver

VEML20MV
(Constant Wattage)

BA/96L/1.0AH

5W

BA/96L/2.0AH

10W

BA/96L/3.0AH

15W

BA/96L/6.0AH

20W

VEML25MV
(Constant Current)

BA/96L/1.0AH

5W

BA/96L/1.5AH

8W

BA/96L/3.0AH

16W

BA/96L/6.0AH

25W



the Power to Create Better Light™

RETROFIT LIGHTING SOLUTIONS

HEADQUARTERS

Espen Technology Inc.
12257 Florence Ave
Santa Fe Springs, CA 90670,
USA

SALES/CUSTOMER SERVICE

Toll Free Tel.: (866) 933-7736
Toll Free Fax: (888) 503-7736
Tel.: (562) 529-2938
Fax: (562) 529-2978

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EMAIL

info@espentech.com

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