ULF24000 B-Series

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The OptoElectronix^TM ULF24000 B-Series is a cost effective version of the popular ULF24000. It is a complete lighting solution that integrates the LEDs, thermal system and electronics within the unit that can be powered directly off a 50/60 Hz AC mains.

A unique integrated junction-box with knock-out holes enables cords or conduits to exit through the side or back as required by the installer. Power cord exit is on one side of unit for 9-inch and 24-inch models and two sides for for daisy-chaining in the 48-inch model.

Features

- Sealed Construction
- UL Certified
- NSF/ANSI 2 Food Equipment Certified
- Water-resistant
- Wide Beam Angle
- No filaments, vibration proof
- Power cord exit from side or back locations

Key Applications

The unit is mounted by using a screw at each end and is suitable for mounting onto the surface either vertically or horizontally. Its low profile lends itself to be used as is or inside fixtures.

Thermal Management

The ULF24000 B-Series was designed with use of thermal profiling and simulation so that the LEDs are operated within an appropriate temperature range ensuring prolonged life-span. No additional heat sink is required.

Regulatory & Voluntary Certifications

Safety Testing: UL Certified E357027

NSF/ANSI 2 – 2015 FOOD EQUIPMENT: Certified

Ingress Protection: IP65 compliant

IESNA LM80-08: LEDs used comply with LM80-08 standards ensuring verifiable life-span

RoHS: Materials used are RoHS compliant

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Product Specifications

ULF249VW L09 BK50C80L1500	Unit	Specifications
Input Voltage (nominal, AC, 50/60Hz)	volts	120 to 277
Input Power (typical)	watts	15
Input Current @ 120V AC	amps	0.125
Power Factor		≥ 0.9
Luminous Flux (typical)	lumens	1500
Color Temperature	°K	5000
Luminous Efficacy	lm/watts	100
Color Rendering Index (CRI)		≥ 80
Beam Angle	degrees	110
Length	inches	9
Lens		Diffused
Daisy-chain		No

ULF249VW L24 BK50C80L2900	Unit	Specifications
Input Voltage (nominal, AC, 50/60Hz)	volts	120 to 277
Input Power (typical)	watts	30
Input Current @ 120V AC	amps	0.242
Power Factor		≥ 0.9
Luminous Flux (typical)	lumens	2900
Color Temperature	°K	5000
Luminous Efficacy	lm/watts	97
Color Rendering Index (CRI)		≥ 80
Beam Angle	degrees	110
Length	inches	24
Lens		Diffused
Daisy-chain		No

ULF249VW L48 BK50C80L4350	Unit	Specifications
Input Voltage (nominal, AC, 50/60Hz)	volts	120 to 277
Input Power (typical)	watts	39
Input Current @ 120V AC	amps	0.325
Power Factor		≥ 0.9
Luminous Flux (typical)	lumens	4350
Color Temperature	°K	5000
Luminous Efficacy	lm/watts	112
Color Rendering Index (CRI)		≥ 80
Beam Angle	degrees	110
Length	inches	48
Lens		Diffused
Daisy-chain		Yes

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ULF249VW L48 BK50C90L4000	Unit	Specifications
Input Voltage (nominal, AC, 50/60Hz)	volts	120 to 277
Input Power (typical)	watts	39
Input Current @ 120V AC	amps	0.325
Power Factor		≥ 0.9
Luminous Flux (typical)	lumens	4000
Color Temperature	°K	5000
Luminous Efficacy	lm/watts	103
Color Rendering Index (CRI)		≥ 90
Beam Angle	degrees	110
Length	inches	48
Lens		Diffused
Daisy-chain		Yes

Typical Environmental Specifications	
Operating Temperature	-40°C to 50°C
Thermal Management	Self Cooled, no additional heat sinking required
Lumens Maintenance at L70	>50,000 hours

*Warranty for 35,000 hours or 5 years, whichever comes first.

A) Operating Voltage Ranges:

    i. Product was designed to the Utilization Voltage Ranges specified in ANSI C84.1 ELECTRICAL POWER SYSTEMS AND EQUIPMENT – VOLTAGE RANGES (60 HERTZ) which specified Range A as the favorable working range while range B as the tolerable range.

Nominal Service Voltage	Range B Minimum	Range A Minimum	Range A Maximum	Range B Maximum
Utilization Voltage Ranges per ANSI 84.1				
120	104	108	126	127
277	204	249	291	293

    ii. The ULF24000 B-Series is operable at voltages within the Range B minimum of 120V (ie 104V) and the Range B maximum of 277V (ie 293V).

    iii. In instances sustained voltage levels fall outside Range B maximum of 277V voltage product may not operate satisfactorily, and protective devices may be needed.
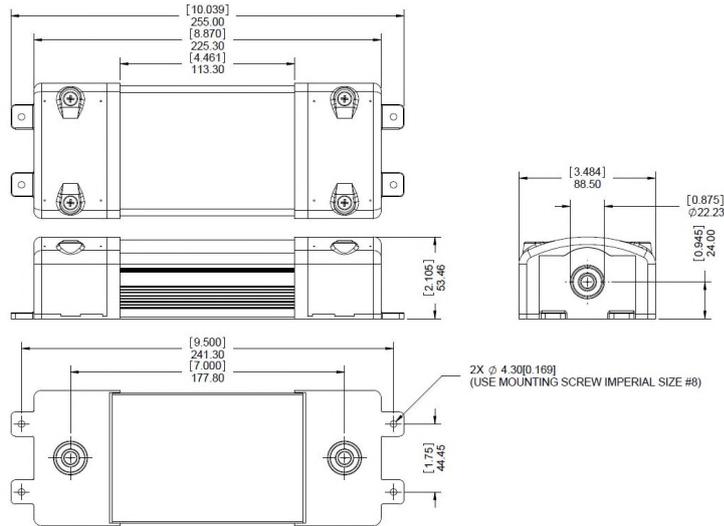
B) Transients and Surge Immunity:

    i. In installations where high surges are expected from power switching, lightning etc, it is recommended that appropriate Surge Protection Devices (SPD) be installed.
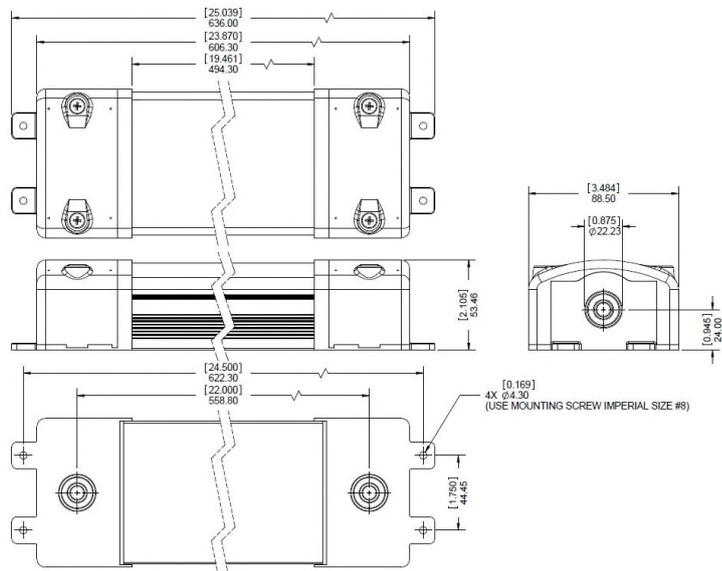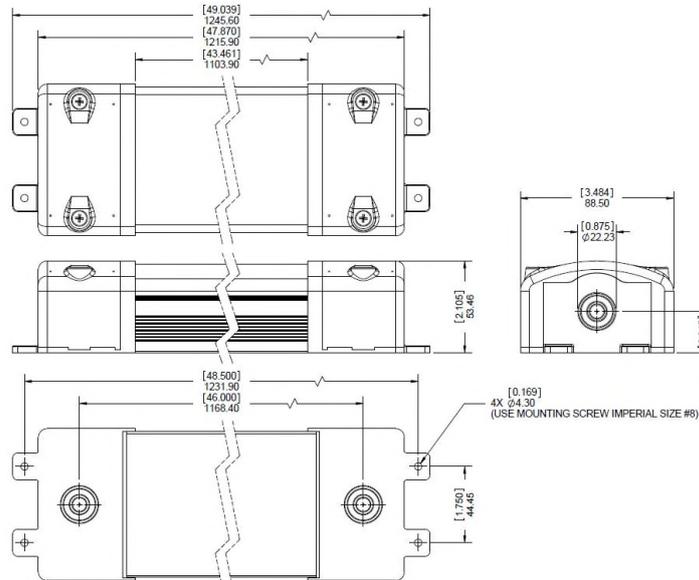
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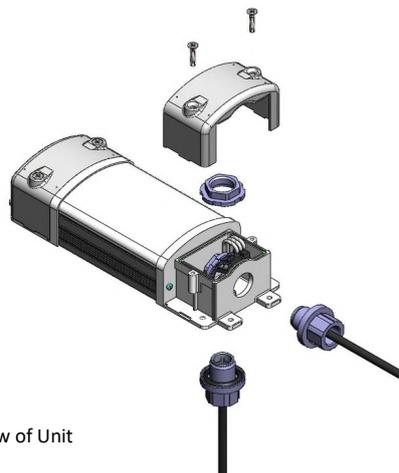
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Mechanicals

[inches]
  mm

9-inch Model

24-inch Model
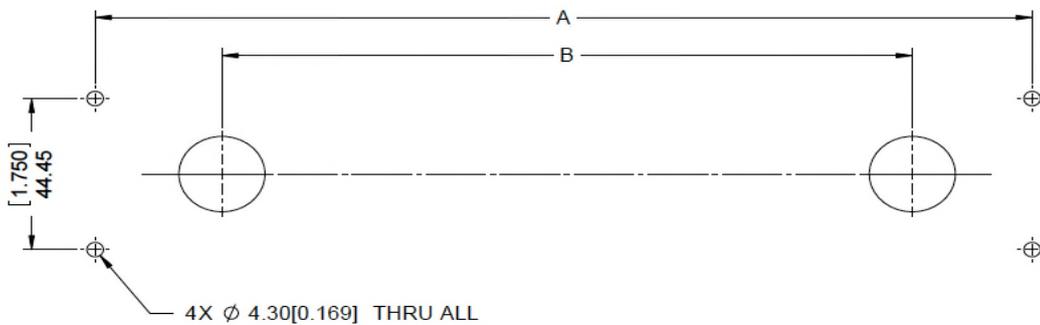
48-inch Model

Installation Guide:

Exploded View of Unit

REMARK: Conduit fitting and power cord is not included.
For instructions to remove and punch out the required knock-outs refer App Notes :
OAN1003Rev0:ULF249VW Series Knock-out Hole Preparation

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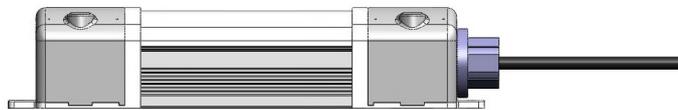
A) Mounting the Unit:

i. Remove the screws and detach the end-caps.

ii. Remove the required knock-outs. Refer Application Notes OAN1003(0) for knock-out removal procedures.

iii. Bolt the unit using metric screws M4 or imperial screws #8. Use mounting hole guide below for hole locations.

iv. Install cord grip or conduits.

v. Tighten cord grip or conduits fitting per requirements.

vi. Connect incoming wires to splicing connectors.

vii. Reinstall the end-caps.

viii. Mounting Hole guide:

4X Ø 4.30[0.169] THRU ALL

PRODUCT	DISTANCE A mm[IN]	DISTANCE B mm[IN]
ULF24000 L09	241.3 [9.5]	177.8 [7.0]
ULF24000 L24	622.3 [24.5]	558.8 [22.0]
ULF24000 L48	1231.9 [48.5]	1168.4 [46.0]

B) Power Cord Exit Configuration

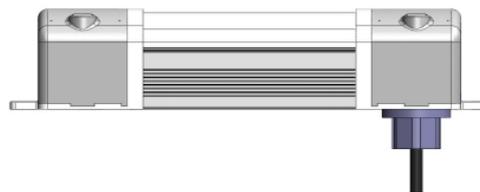i. Power cord exits from the one side for 9-inch and 24-inch models or both sides for the 48-inch model.
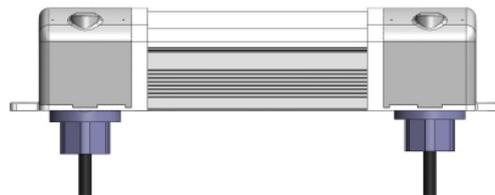

Side Wire Exit – one pole

Side Wire Exit – two poles (48-inch model only)

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ii. Power cord exits from the bottom, one location for 9-inch and 24-inch models and two locations for the 48-inch model.

Rear Wire Exit – One Pole

Rear Wire Exit – Two Poles (48-inch model only)

C) For Daisy-chain Installations:

i. Internal daisy chain feature is not available in 9-inch and 24-inch models but available in the 48-inch model.
Internal wiring can withstand up to 24 units for 48-inch model in one daisy chain.

ii. Consult Sales personnel if daisy-chain options are required for 9-inch and 24-inch models.

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