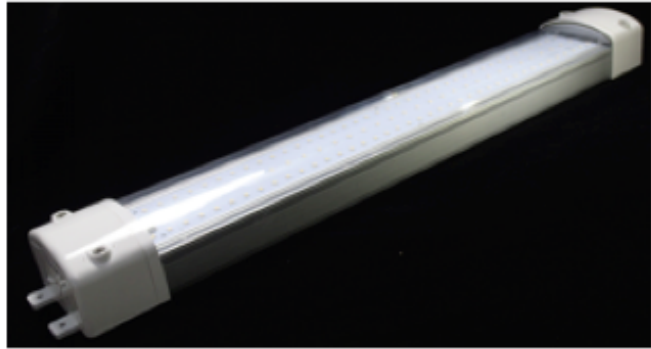


ULF24000 SP Series



ULF24000 SP Series

The OptoElectronix[™] ULF24000 SP Light is an iteration of the standard ULE24000 with defined special features. As with the standard ULE24000 it is a complete lighting solution that integrates the LEDs, thermal system and electronics within the unit. It has a rectangular form factor is powered directly from the 50/60 Hz AC mains.

Features

- Sealed Construction
- Safety Agency Approved
- Water-resistant
- Wide Beam Angle
- No filaments, vibration proof
- NSF certified in selected models

Key Applications

The unit is mounted by using a screw tabs 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 sconce fixtures.

The unit has built-in junction box at both ends enabling a daisy-chained installation on applicable models. Knock-out holes at the side and back facilitates wiring from either side or back of the unit.

All models can be wall or ceiling mounted.

Thermal Management

The ULF24000 SP 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 not required.

Certifications and Completed Tests

Safety Testing: Complies to CSA standards

NSF/ANSI 2 – 2015 FOOD EQUIPMENT: Certified (on selected models)

Ingress Protection: IP65 compliant

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

RoHS: Materials used are RoHS compliant

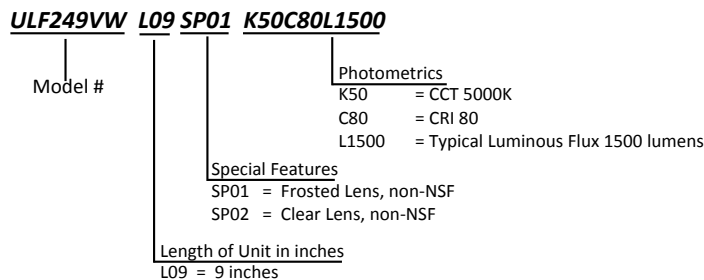
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USA

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Part Number Nomenclature



Product Specifications

COOL WHITE MODELS WITH FROSTED LENS

| <i>ULF243VW L09 SP01 K50C80L1500</i> | Unit | Specifications |
|--------------------------------------|----------|-----------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 |
| Input Power | watts | 14 to 18 |
| Input Current | amps | 0.04 to 0.24 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 1350 to 1650 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 80 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 9 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

| <i>ULF249VW L09 SP01 K50C80L1500</i> | Unit | Specifications |
|--------------------------------------|----------|-----------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 14 to 18 |
| Input Current | amps | 0.04 to 0.24 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 1350 to 1650 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 80 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 9 |
| Lens | | Frosted |
| Mounting Position | | Wall Mount Only |

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| ULF249VW L24 SP01 K50C80L2500 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 28 to 32 |
| Input Current | amps | 0.08 to 0.42 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 2250 to 2750 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 83 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 24 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

| ULF249VW L24 SP01 K50C90L2000 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 28 to 32 |
| Input Current | amps | 0.08 to 0.42 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 1800 to 2200 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 64 |
| Color Rendering Index (CRI) | | ≥ 90 |
| Beam Angle | degrees | 110 |
| Length | inches | 24 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

| ULF249VW L48 SP01 K50C80L3600 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 38 to 42 |
| Input Current | amps | 0.11 to 0.55 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 3240 to 3960 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 90 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 48 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

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| ULF249VW L48 SP01 K50C90L3000 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 38 to 42 |
| Input Current | amps | 0.11 to 0.55 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 2700 to 3300 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 75 |
| Color Rendering Index (CRI) | | ≥ 90 |
| Beam Angle | degrees | 110 |
| Length | inches | 48 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

WARM WHITE MODELS WITH FROSTED LENS

| ULF243VW L09 SP01 K27C80L1200 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 |
| Input Power | watts | 14 to 18 |
| Input Current | amps | 0.04 to 0.24 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 1100 to 1300 |
| Color Temperature | °K | 2700 |
| Luminous Efficacy | lm/watts | ≥ 80 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 9 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

| ULF249VW L09 SP01 K27C80L1200 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 14 to 18 |
| Input Current | amps | 0.04 to 0.24 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 1100 to 1300 |
| Color Temperature | °K | 2700 |
| Luminous Efficacy | lm/watts | ≥ 80 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 9 |
| Lens | | Frosted |
| Mounting Position | | Wall Mount Only |

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USA

| ULF249VW L24 SP01 K27C80L2400 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 28 to 32 |
| Input Current | amps | 0.08 to 0.42 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 2200 to 2600 |
| Color Temperature | °K | 2700 |
| Luminous Efficacy | lm/watts | ≥ 83 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 24 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

| ULF249VW L48 SP01 K27C80L3200 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 38 to 42 |
| Input Current | amps | 0.11 to 0.55 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 3000 to 3400 |
| Color Temperature | °K | 2700 |
| Luminous Efficacy | lm/watts | ≥ 90 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 48 |
| Lens | | Frosted |
| Mounting Position | | No restrictions |

COOL WHITE MODELS WITH CLEAR LENS

| ULF249VW L09 SP03 K50C80L1500 | Unit | Specifications |
|--------------------------------------|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 14 |
| Input Current@120VAC | amps | .120 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 1500 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 100 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 9 |
| Lens | | Clear |
| NSF Certified | | Yes |
| Internal Daisy-chain Option** | | No |

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| ULF249VW L24 SP03 K50C80L3100 | Unit | Specifications |
|---|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 29 |
| Input Current @120VAC | amps | 0.240 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 3100 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 100 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 24 |
| Lens | | Clear |
| NSF Certified | | Yes |
| Internal Daisy-chain Option** | | No |

| ULF249VW L48 SP03 K50C80L4500 | Unit | Specifications |
|---|-------------|-----------------------|
| Input Voltage (nominal, AC, 50/60Hz) | volts | 120 to 277 |
| Input Power | watts | 38 |
| Input Current @120VAC | amps | 0.320 |
| Power Factor | | ≥ 0.9 |
| Luminous Flux | lumens | 4500 |
| Color Temperature | °K | 5000 |
| Luminous Efficacy | lm/watts | ≥ 100 |
| Color Rendering Index (CRI) | | ≥ 80 |
| Beam Angle | degrees | 110 |
| Length | inches | 48 |
| Lens | | Clear |
| NSF Certified | | Yes |
| Internal Daisy-chain Option** | | No |

** For Part Numbers of models with internal daisy-chain option refer to Product Selection Chart Below.

Applicable to all models

| 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.

Options:

For other Color Temperatures, Frosted Lens, Luminous Flux or customized features please consult OptoElectronix's Sales personnel.

Operating Conditions:

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.

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

ii. The ULF24000 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.

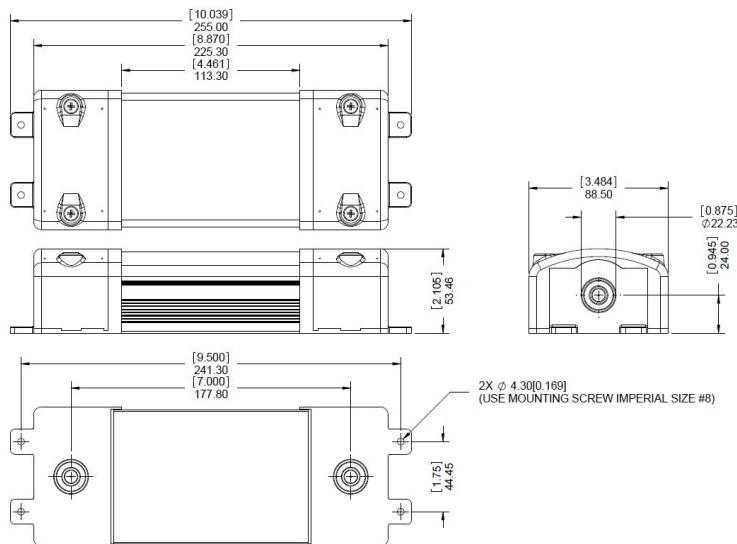
B) Transients and Surge Immunity:

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

Mechanicals

[inches]
mm

9-inch Model



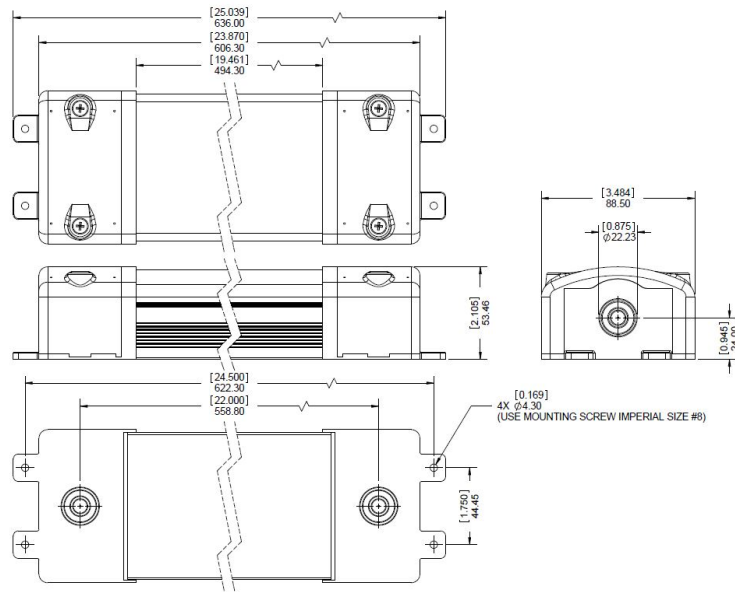
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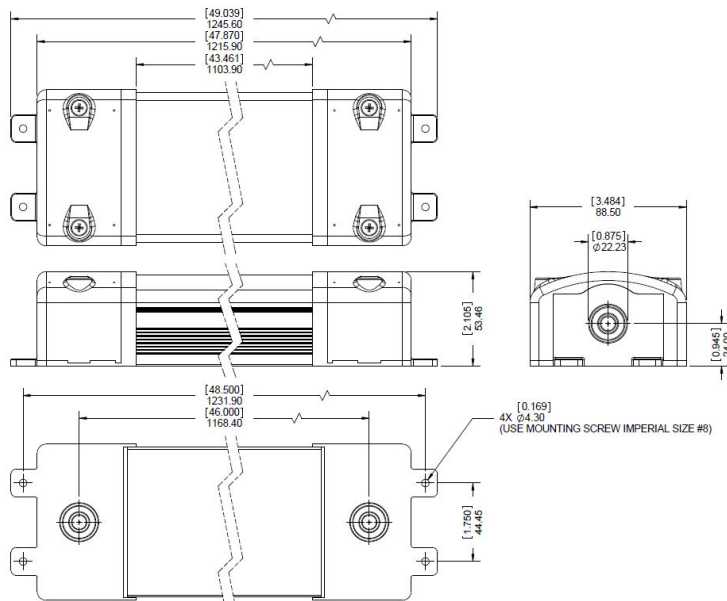
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24-inch Model

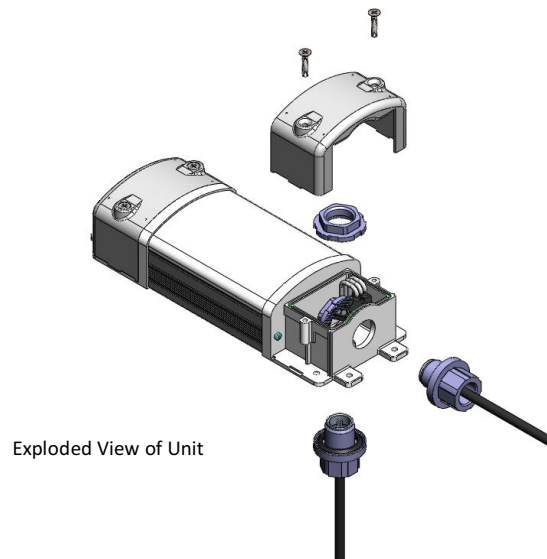


48-inch Model



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Installation Guide:

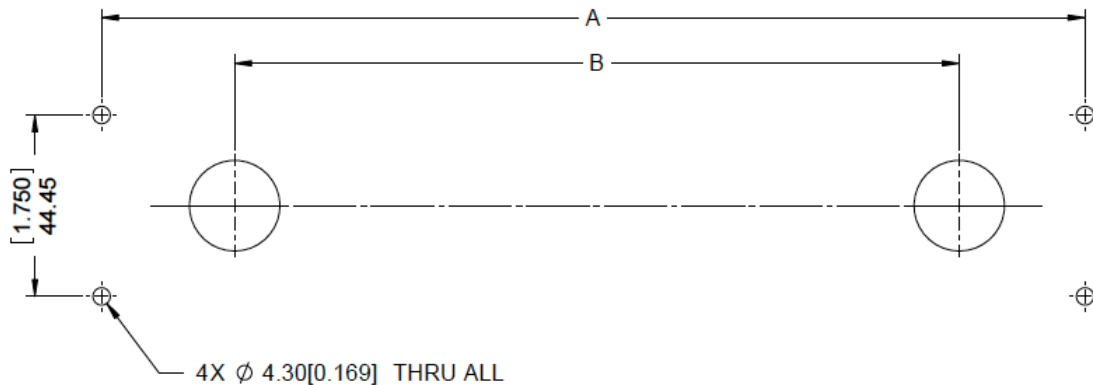


REMARK: Conduit fitting and power cord is not included.

For removal of knock-outs refer Application Notes: ***ULF249VW Series Knock-out Hole Preparation***

A) Mounting the Unit:

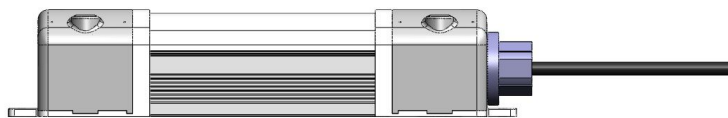
- i. Remove the screws and detach the end-caps.
- ii. Remove the required knock-outs.
- iii. Bolt the unit using metric screws M4 or imperial screws #8. Use mounting hole guide below for hole locations.
- iv. Install cord grip or conduits.
- v. Tighten cord grip or conduits fitting per requirements.
- vi. Connect incoming wires to splicing connectors.
- vii. Reinstall the end-caps.
- viii. Mounting Hole guide:



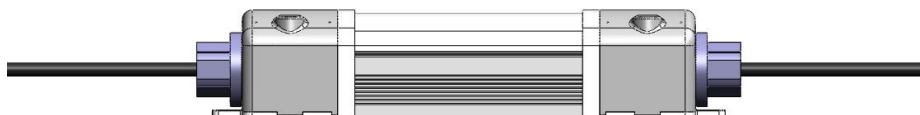
| PRODUCT | DISTANCE A mm[IN] | DISTANCE B mm[IN] |
|--------------|-------------------|-------------------|
| ULF24000 L09 | 241.3 [9.5] | 177.8 [7.0] |
| ULF24000 L24 | 622.3 [24.5] | 558.8 [22.0] |
| ULF24000 L48 | 1231.9 [48.5] | 1168.4 [46.0] |

B) Power Cord Exit Configuration

i. Power cord exits from the one side or both sides.

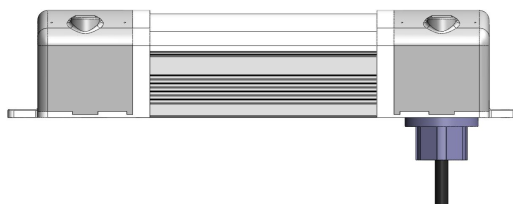


Side Wire Exit – one pole

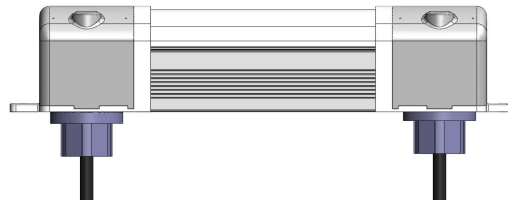


Side Wire Exit – two poles

ii. Power cord exits from the bottom, one location or two locations.



Rear Wire Exit – One Pole



Rear Wire Exit – Two Poles

iii. For instructions to remove and punch out the required knock-outs refer App Notes :
OAN1003Rev0:ULF249VW Series Knock-out Hole Preparation

C) For Daisy-chain Installations:

- i. Internal wiring can withstand up to 24 units for 9-inch model and 12 units for 24-inch and 48-inch models in one daisy chain.
- ii. Consult Sales personnel for other configurations if required.

PRODUCT SELECTION CHART

| MODEL | INPUT VOLTAGE V AC | INPUT POWER Watt | OUTPUT FLUX Lumen | CCT °K | CRI (min) | LENGTH Inch | LENS | NSF/ANSI2 CERTIFIED | INTERNAL DAISY CHAIN OPTION |
|--------------------------------------|--------------------|------------------|-------------------|--------|-----------|-------------|---------|---------------------|-----------------------------|
| <i>ULF243VW L09 SP01 K50C80L1500</i> | 120 | 16 | 1500 | 5000 | 80 | 9 | Frosted | No | Yes |
| <i>ULF249VW L09 SP01 K50C80L1500</i> | 120 ~ 277 | 16 | 1500 | 5000 | 80 | 9 | Frosted | No | Yes |
| <i>ULF249VW L24 SP01 K50C80L2500</i> | 120 ~ 277 | 30 | 2500 | 5000 | 80 | 24 | Frosted | No | Yes |
| <i>ULF249VW L24 SP01 K50C90L2000</i> | 120 ~ 277 | 30 | 2000 | 5000 | 90 | 24 | Frosted | No | Yes |
| <i>ULF249VW L48 SP01 K50C80L3600</i> | 120 ~ 277 | 40 | 3600 | 5000 | 80 | 48 | Frosted | No | Yes |
| <i>ULF249VW L48 SP01 K50C90L3000</i> | 120 ~ 277 | 40 | 3000 | 5000 | 90 | 48 | Frosted | No | Yes |
| <i>ULF243VW L09 SP01 K27C80L1200</i> | 120 | 16 | 1200 | 2700 | 80 | 9 | Frosted | No | Yes |
| <i>ULF249VW L09 SP01 K27C80L1200</i> | 120 ~ 277 | 16 | 1200 | 2700 | 80 | 9 | Frosted | No | Yes |

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| | | | | | | | | | |
|--|---|----|------|------|----|----|---------|-----|-----|
| ULF249VW L24 SP01 K27C80L2400 | 120 ~ 277 | 30 | 2400 | 2700 | 80 | 24 | Frosted | No | Yes |
| ULF249VW L48 SP01 K27C80L3200 | 120 ~ 277 | 40 | 3200 | 2700 | 80 | 48 | Frosted | No | Yes |
| ULF249VW Lxx SP02 K50C80Lxxxx | SP02 Series have been obsoleted and replaced by the SP03 Series | | | | | | | | |
| ULF249VW L09 SP03 K50C80L1500 | 120 ~ 277 | 14 | 1500 | 5000 | 80 | 9 | Clear | Yes | No |
| ULF249VW L24 SP03 K50C80L3100 | 120 ~ 277 | 29 | 3100 | 5000 | 80 | 24 | Clear | Yes | No |
| ULF249VW L48 SP03 K50C80L4500 | 120 ~ 277 | 38 | 4500 | 5000 | 80 | 48 | Clear | Yes | No |
| ULF249VW L09 SP04 K50C80L1500 | 120 ~ 277 | 14 | 1500 | 5000 | 80 | 9 | Clear | Yes | Yes |
| ULF249VW L24 SP04 K50C80L3100 | 120 ~ 277 | 29 | 3100 | 5000 | 80 | 24 | Clear | Yes | Yes |
| ULF249VW L48 SP04 K50C80L4500 | 120 ~ 277 | 38 | 4500 | 5000 | 80 | 48 | Clear | Yes | Yes |