## The Art of LEDs <sup>™</sup>



ULF83000 SP Series Data Sheet 902-00133(F)

### ULF83000 SP Series Hazardous Locations Class I, Division 2



The OptoElectronix<sup>™</sup> ULF83000 SP Series Luminaire consists of a set of highly reliable LEDs with optics, thermal management with dimming capabilities. Constant current drive ensures uniform light distribution. Designed for recess mounting specifically for paint booth installation. Operates with input voltage range from 120VAC to 277VAC 50/60Hz.

Features

- Sealed Construction with 16-gauge white powder-coated steel housing, non-glare translucent matte finish one side tempered glass
- Customized texture and matte finish tempered glass that ensure minimum glare and hotspotting from the LEDs
- Recessed Mount with thin depth profile
- Withstands up to 71°C bake cycle for 90 minutes at power off
- In-rush Current Limiter (ICL) Circuit Protection
- Input Surge Protection: DM 4kV, CM 6kV
- IESNA LM80-08 Certified LEDs
- Analogue 1~10V or DALI-2 dimming options

#### **Key Applications**

ULF83000 SP Series was designed as a **Class I Div. 2** lighting fixture for installation in spray painting booths. Can be recess mounted on wall or ceiling.

#### **Thermal Management**

The heat-sink is incorporated into the ULF83000 SP Series design for reliable operation. Use of thermal profile and simulation enables the LEDs to operate at temperatures significantly below the maximum specification limits ensuring prolonged lifespan.

#### **Light Transmission**

The LEDs are shielded with non-glare translucent matte finish one side tempered glass achieving high level of light transmission and minimum hot spotting.

#### **Regulatory Certifications**

Safety Testing: UL certified for UL 844 Hazardous Class I Div. 2 Group ABCD, Spray Paint Listed,

UL8750 UL 1598 Wet Location UL certified for US, Canada

#### Ingress Protection Rating: IP65

**IESNA LM80-08:** LEDs used comply with LM80-08 standards with verifiable life-span **RoHS:** Materials used are RoHS compliant

OptoElectronix is the leader in The Art of LEDs — the conception, design, and manufacture of cutting-edge, standard, highly efficient LED-based lighting.



# The Art of LEDs <sup>™</sup>

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#### **Product Specifications**

ULF839VW SP01		
Input Voltage (nominal, AC, 50/60Hz)	volt	120 to 277
Total Power (typical)	watt	84
Power Factor		≥0.9
Luminous Flux (typical)	lumen	7,500
Luminous Efficacy	lumen/watt	89
Color Temperature	°K	5000
Color Rendering Index (CRI)		80
Dimmer Configuration		1~10V
Beam Angle	degree	120
Weight	kg (lb)	25.3 (55.8)
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ULF839VW SP02		
Input Voltage (nominal, AC, 50/60Hz)	volt	120 to 277
Total Power (typical)	watt	173
Power Factor		≥0.9
Luminous Flux (typical)	lumen	15,000
Luminous Efficacy	lumen/watt	87
Color Temperature	°K	5000
Color Rendering Index (CRI)		80
Dimmer Configuration		1~10V
Beam Angle	degree	120
Weight	kg (lb)	26.0 (57.3)
ULF839VW SP03		
Input Voltage (nominal, AC, 50/60Hz)	volt	120 to 277
Total Power (typical)	wett	170
	watt	173
Power Factor		≥0.9
Power Factor Luminous Flux (typical)	lumen	≥0.9 15,000
Power Factor Luminous Flux (typical) Luminous Efficacy	lumen lumen/watt	≥0.9
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature	lumen	≥0.9 15,000 87 5000
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI)	lumen lumen/watt	≥0.9 15,000 87 5000 80
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration	lumen lumen/watt °K	≥0.9 15,000 87 5000 80 DALI-2
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle	lumen lumen/watt °K degree	≥0.9 15,000 87 5000 80 DALI-2 120
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration	lumen lumen/watt °K	≥0.9 15,000 87 5000 80 DALI-2
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight	lumen lumen/watt °K degree	≥0.9 15,000 87 5000 80 DALI-2 120
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04	lumen lumen/watt °K degree kg (lb)	≥0.9 15,000 87 5000 80 DALI-2 120 26.0 (57.3)
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz)	lumen lumen/watt °K degree kg (lb)	≥0.9 15,000 87 5000 80 DALI-2 120 26.0 (57.3) 120 to 277
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz) Total Power (typical)	lumen lumen/watt °K degree kg (lb)	≥0.9 15,000 87 5000 80 DALI-2 120 26.0 (57.3) 120 to 277 184
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz) Total Power (typical) Power Factor	lumen lumen/watt °K degree kg (lb) volt watt	≥ 0.9  15,000  87  5000  80  DALI-2  120  26.0 (57.3)  120 to 277  184  ≥0.9
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz) Total Power (typical) Power Factor Luminous Flux (typical)	lumen lumen/watt °K degree kg (lb) volt watt lumen	≥ 0.9  15,000  87  5000  80  DALI-2  120  26.0 (57.3)  120 to 277  184  ≥0.9  21,000
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz) Total Power (typical) Power Factor Luminous Flux (typical) Luminous Efficacy	Iumen       Iumen/watt       °K       °K       degree       kg (Ib)       volt       watt       Iumen       Iumen       Iumen/watt	≥ 0.9  15,000  87  5000  80  DALI-2  120  26.0 (57.3)   120 to 277  184  ≥ 0.9  21,000  114
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz) Total Power (typical) Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature	lumen lumen/watt °K degree kg (lb) volt watt lumen	≥ 0.9  15,000  87  5000  80  DALI-2  120  26.0 (57.3)   120 to 277  184  ≥ 0.9  21,000  114  5000
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz) Total Power (typical) Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI)	Iumen       Iumen/watt       °K       °K       degree       kg (Ib)       volt       watt       Iumen       Iumen       Iumen/watt	≥ 0.9  15,000  87  5000  80  DALI-2  120  26.0 (57.3)   120 to 277  184  ≥ 0.9  21,000  114  5000  80
Power Factor         Luminous Flux (typical)         Luminous Efficacy         Color Temperature         Color Rendering Index (CRI)         Dimmer Configuration         Beam Angle         Weight         ULF839VW SP04         Input Voltage (nominal, AC, 50/60Hz)         Total Power (typical)         Power Factor         Luminous Flux (typical)         Luminous Efficacy         Color Temperature         Color Rendering Index (CRI)         Dimmer Configuration	lumen       lumen/watt       °K       OK       degree       kg (lb)       volt       umen       lumen/watt       OK	≥ 0.9  15,000  87  5000  80  DALI-2  120  26.0 (57.3)   120 to 277  184  ≥ 0.9  21,000  114  5000  80  DALI-2
Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI) Dimmer Configuration Beam Angle Weight ULF839VW SP04 Input Voltage (nominal, AC, 50/60Hz) Total Power (typical) Power Factor Luminous Flux (typical) Luminous Efficacy Color Temperature Color Rendering Index (CRI)	lumen lumen/watt °K degree kg (lb) volt watt lumen lumen lumen/watt	≥ 0.9  15,000  87  5000  80  DALI-2  120  26.0 (57.3)   120 to 277  184  ≥ 0.9  21,000  114  5000  80

Typical Environmental Specifications	
Operating Temperature	-20°C to +55°C
Thermal Management	No additional heat-sink required
Lumens Maintenance at L70	>50,000 hours
Warranty	5 years

#### **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 ULF83000 SP Series is operable at voltages within the Range B minimum of 120 V

(ie 104V) and the Range B maximum of 277V (ie 293V).

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

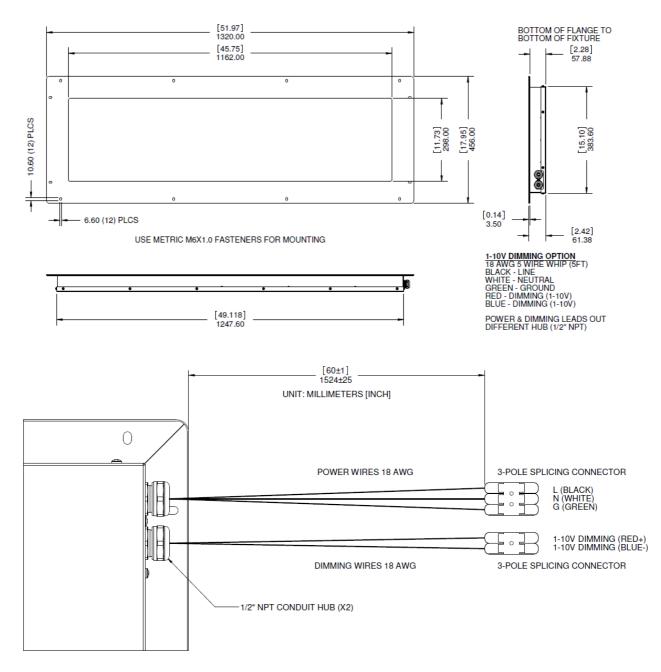


ULF83000 SP Series Data Sheet 902-00133(F)

#### Mechanicals

mm [inches]

#### ULF839VW SP01 & ULF839VW SP02

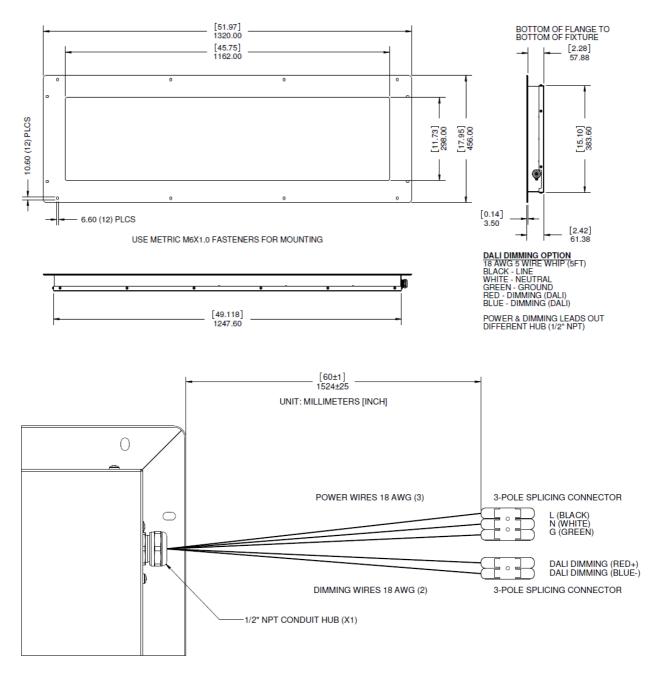


Wire Whip Connection

ULF83000 SP Series Data Sheet 902-00133(F)



#### ULF839VW SP03 & ULF839VW SP04



Wire Whip Connection



ULF83000 SP Series Data Sheet 902-00133(F)

#### ULF839VW SP0x (applicable to all models)

# Panel Cut-out Dimensions

mm [inches]

