



Type No. \_\_\_\_\_

Job Name \_\_\_\_\_

Catalog No. \_\_\_\_\_



Shown: UNBR31KSC



# Unity Series

**Architectural White LED Lighting Fixture**  
**Optional Emergency Packages**  
**7.2 Volt, 12 Watt, White LED Lamps**  
**NiMH Battery**  
**Standard Self-Diagnostics Electronics\***  
**Wet Location Listing Standard**

## Housing

- Durable and fully gasketed die cast aluminum housing and cover with UV stabilized polycarbonate lens
- A full range of pleasing architecturally inspired powder coated finishes are available
- Wall mount to standard 3½" or 4" octagonal junction box or single gang junction box
- Surface conduit entry knockout located on top of housing
- Tamperproof hardware is included standard
- The Unity Series meets the Buy American requirements

## Illumination

- Illumination is provided by two field-replaceable white LED modules and a vacuum plated polycarbonate reflector
- The reflector design has been optimized to produce a 1 footcandle average illumination along a 6' x 30' path of egress when placed at a mounting height of 8' AFF

## Operating Temperature Range

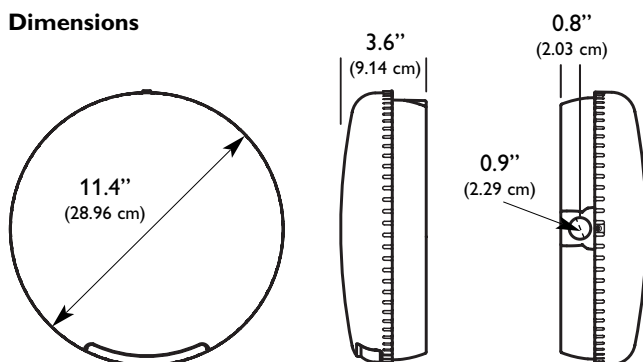
### AC Only Models

- Standard Wet Location: -40°F (-40°C) to 104°F (40°C)
- Standard Wet Location w/ 2CKT Option: -40°F (-40°C) to 104°F (40°C)

### Self-Powered Models

- Standard Wet Location: 32°F (0°C) to 104°F (40°C)
- Standard Wet Location w/ Heater Option: -40°F (-40°C) to 104°F (40°C)

## Dimensions



Dimensions are approximate and subject to change.

Top View

\*Self-powered models incorporate the Smart Charger diagnostics electronics package. Self-testing is a factory installed option.

## Battery

- Maintenance-free sealed nickel metal hydride with 10-year life

## Smart Charger Electronics

### AC Only

- 120/277 VAC dual voltage input with surge protection is standard on all models

### Self-Powered Operation

- Charging system is microprocessor driven with software embedded diagnostic routine and temperature compensation
- See specification sheet L2368 for electronics details
- 120/277 VAC input, surge protection, brownout, AC lockout and low voltage disconnect features are standard

## Electrical Specifications - Input Power Requirements

### AC Only Models

- 120 VAC: 60 Hz, 0.203 A; 277 VAC: 60 Hz, 0.087 A

### AC Only, 2 Circuit Models

- 120 VAC: 60 Hz, 0.203 A; 277 VAC: 60 Hz, 0.087 A

### Self-Powered Models Without Heater

- 120 VAC: 60 Hz, 0.198 A; 277 VAC: 60 Hz, 0.088 A

### Self-Powered Models With Heater

- 120 VAC: 60 Hz, 0.366 A; 277 VAC: 60 Hz, 0.148 A

## Smart Charger Self-Testing Diagnostics (Optional)

- The Smart Charger diagnostic/charging platform with optional self-testing mode automatically runs a one-minute self-test every 30 days and a 30-minute test on the sixth and twelfth month. A one-minute or 90-minute test may be initiated via the push to test switch on the unit or by activating the appropriate test command on the optional IR test device.

## Code Compliance

- UL 1598 listed, UL 924 listed, UL wet location listing standard
- NFPA 101, NEC, BOCA, OSHA, and IBC illumination standards
- ADA compliant

## Warranty

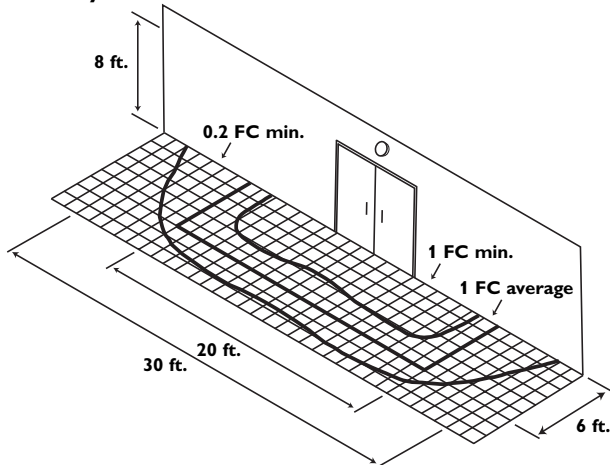
- Electronics: 3 years full, Battery: 5 years full, 5 years pro-rated

## Ordering Information

U				SC	
SERIES	BATTERY	HOUSING FINISH	LED DESIGNATOR	MODEL DESIGNATOR	FACTORY INSTALLED OPTIONS <sup>1</sup>
U = Unity LED Lighting Fixture	A = AC Only N = Self-Powered Emergency Unit with Nickel Metal Hydride Battery (NiMH)	W = White B = Black A = Aluminum G = Gunmetal BR = Ornamental Bronze AC = Aged Copper VG = Velvet Green N = Nickel GA = Granite	31K = 3,100 Kelvin 65K = 6,500 Kelvin	SC = Smart Charger Self-Diagnostic Electronics  <b>NOTE:</b> 1) Some options impact UL listing. Consult factory for specifics.	2CKT1 = Two-Circuit 120/120 VAC (AC only models) 2CKT2 = Two-Circuit 277/277 VAC (AC only models) DC = Universal 12-48 VDC Remote Emergency Input (AC only models) EX = Special Input Transformer (specify voltage & frequency) <sup>1</sup> HR = Heater Option for -40°C to 40°C Ambient T = Self-Testing Diagnostics TA = Audible Self-Testing Diagnostics TD = Time Delay
<b>ACCESSORIES (Ordered Separately)</b> SCIR = Smart Charger Infra-Red Remote T10TPTOOL = Tamperproof Screwdriver					

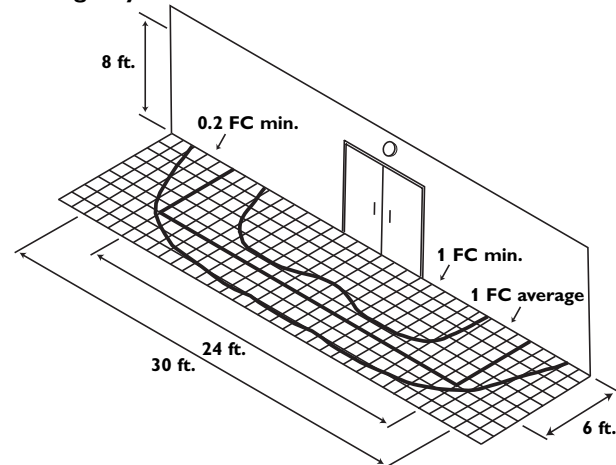
## Optics\* (wall mounted 8' AFF)

### AC Only Mode



Normal or Emergency Operation (AC Only and AC 2 Circuit)  
 Dual fixtures on 27' centers, 8' AFF, provide an average of 1 footcandle on a 5' wide path.  
 Single fixture provides an average of 1 footcandle over 20 feet on a 6' wide path.

### Emergency Mode



Emergency Operation (Self-Powered)  
 Dual fixtures on 30' centers, 8' AFF, provide an average of 1 footcandle on a 6' wide path.  
 Single fixture provides an average of 1 footcandle over 24 feet on a 6' wide path.

\*The optics layout shown is intended to be used as reference only. Standard reflectances used were 80/50/20. LightGuard is not responsible for site specific conditions that may alter the results.

## Suggested Specification

Furnish and install LightGuard's Unity lighting fixture model \_\_\_\_\_. The unit shall be constructed to meet Underwriters Laboratories, Inc. Standard 1598 & 924 and must be installed to conform to Article 700 of the National Electrical Code (NEC).

**INSTALLATION AND OPERATION, AC Only Models** – Unit shall be easily field connected to a 120 or 277 VAC, 60 Hz, switched, dimmed, photo-celled, or occupancy sensor power source for normal illumination use. This configuration shall provide area illumination under normal power conditions as would any standard luminaire.

**AC Only, 2 Circuit Models** – The unit shall be easily field connected to a 120 or 277 VAC, 60 Hz, switched, dimmed, photo-celled, or occupancy sensor power source on the primary input of the fixture for normal illumination use. The isolated secondary input of the unit shall be easily field connected to an emergency AC power source, such as a generator or inverter equal to the AC connection on the primary input (120/120 or 277/277). This method of installation shall provide emergency illumination in the event the generator or inverter system is brought on line.

**AC/DC Models** – The unit shall be easily field connected to a 120 or 277 VAC, 60 Hz, switched, dimmed, photo-celled, or occupancy sensor power source for normal illumination use. The unit shall have provisions for an isolated low-voltage emergency electrical connection that will accept any DC input ranging from 12 to 48V DC from an emergency battery unit (EBU) remotely located from the fixture and supplied separately. This method of installation shall provide emergency illumination in the event the EBU senses a brownout or power loss and transfers the DC battery backup voltage to the Unity luminaire.

**Self-Powered, Nickel Metal Hydride Models** – The unit shall be easily field connected to a 120 or 277 VAC, 60 Hz, switched, dimmed, photo-celled, or occupancy sensor power source on the primary input of the fixture for normal illumination use. The isolated secondary input (emergency input) of the unit shall be easily field connected to an unswitched 120 or 277 VAC, 60 Hz input and establish the method of monitoring the quality of the AC utility voltage for brownout or power outage conditions. This method of installation provides a single fixture for normal illumination as well as emergency illumination in a single fixture without the aid of other equipment or components.

**ELECTRONICS** – All self-powered models shall be provided with LightGuard's Smart Charger diagnostics electronics platform. Smart Charger will detect and notify the installer regarding incorrect wiring of the input transformer primary and will restrict the damaging effects from reaching the printed circuit card. The Smart Charger electronics package shall provide continuous, real-time monitoring of all the critical equipment functions including, but not limited to: line voltage status and condition, charger fault, transfer fault, battery fault, LED load fault, and notify personnel with a visual indicator sequence. Optional audible diagnostics as well as self-testing diagnostics shall be available from the factory. The self-testing option shall satisfy the periodic testing requirements as defined in NFPA 101, Life Safety Code, NFPA 70, the National Electrical Code, as well as the International Building Code (IBC). The Smart Charger circuit shall continuously sample the ambient temperature conditions and adjust the charging regime to compensate for typical and dramatic ambient conditions to maximize the life of the battery and maintain a readiness condition for emergency use. The temperature compensation shall employ an algorithm equivalent to 3mv/C° change in temperature. An on-board IR receiver shall be standard and pre-programmed to operate from an optional IR user interface device (available as an accessory item).

**BATTERY (Self-Powered Models Only)** – The battery shall be a sealed, maintenance-free, nickel metal hydride (NiMH) technology. The NiMH battery shall provide trouble-free operation in temperatures ranging from 32°F (0°C) to 104°F (40°C) in standard products or -40°F (-40°C) to 104°F (40°C) in products ordered with the optional heater assembly. The battery shall be tested in accordance with the accelerated life testing requirements of the IEC. The battery shall be supplied with a five-year full warranty.

**ILLUMINATION** – Illumination shall be provided by two six-watt white LED modules designed and enhanced by a custom vacuum metalized polycarbonate reflector system. Adjacent fixtures mounted 30' on centers shall provide an average of 1 footcandle average when mounted at an 8' above finished floor (AFF).

**HOUSING** – Housing construction shall be of premium die cast aluminum with a UV stabilized polycarbonate diffusing lens. The unit shall be available in multiple colors and finishes. The unit shall be wall mounted to a standard 3 1/2", 4" and single gang junction box. A wall mount gasket kit shall be provided for use when used in wet locations. The knockout unit shall be provided on the top of the fixture to accommodate surface conduit.



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