



# EV Series

## Architectural LED Emergency Light

### FEATURES

#### Application

The EV Series is a compact architectural emergency lighting unit designed for fast wall mount installation and reliable service. The EV Series has a flame-rated, UV stable thermoplastic housing and a lightly textured white finish. Integral LED based lamp-heads are fully adjustable. Unit provides a full 90 minutes of emergency lighting. Includes micro-controlled pulse charger and nickel metal hydride (NiMH) battery. The EV accepts 120/277VAC input at 60 Hz and optional 220-240VAC input at 50-60 Hz with self-diagnostics option.

#### Construction

The EV Series housing and back-plate are made from durable injection molded thermoplastic. Lamp-head front halves are made of die-cast aluminum for thermal dissipation. Back half of lamp-head made of ABS thermoplastic. LED lens are made of acrylic.

#### Installation

Universal mounting template molded in the back plate aids in quick installation. Unit mounts to all single gang and standard 3 1/2" and 4" square or octagonal electrical boxes. Conduit entry through a molded-in knock-out at the top center. Pre-stripped AC input leads provided. Unit may be ceiling or wall mounted.

#### Illumination

The EV Series provides bright and uniform illumination and increased spacing by using 2 high power LEDs which are mounted in a specially designed heat dissipation lamp-head. Each lamp-head is fully adjustable and positioning is maintained by a friction fit design. Photometrics are available for download at [www.dual-lite.com](http://www.dual-lite.com).

#### Compliances

Listed to UL924 Standard, NFPA 101, NFPA 70  
Damp Location Listed Optional  
RoHS

#### Warranty

LED Lifetime Warranty  
EV Full 3 year warranty  
EV with Spectron® Full 5 year warranty

Catalog Number	
Comments	Type



Patents Pending



### ACCESSORIES

<b>EVR2</b>	2 LED Remote
<b>EVO</b>	2 LED Outdoor Remote
<b>EVR2B</b>	2 LED Remote with Black Finish
<b>WGLZ</b>	Wire Guard - 6 1/4"H x 14"L x 4"D
<b>VRS3</b>	Vandal Resistant Shield - 11 1/2"H x 15 1/2"L x 4 1/2"D

Reference "Remote Heads and Fixtures" specification sheet for information on matching LED remote heads



EVR2 Indoor Remote



EVO Outdoor Remote

### ORDERING GUIDE

#### EV

Series	Capacity	Rating	Self-Diagnostics	Options
	2 1W LED Heads 4 1W LED with remote capacity <sup>1</sup>	<b>Blank D</b> Standard Model Damp Location Listed <sup>2</sup>	<b>Blank I</b> No Self-Diagnostics Spectron® Self-Diagnostics	<b>B</b> Black Finish <b>-24K</b> 220-240VAC 60Hz with Spectron® <sup>3</sup> <b>-02L</b> 2 watt LED heads <sup>5</sup> <b>-0</b> No-head option to run external remotes only <sup>6</sup>

<sup>1</sup> Capacity to run 2 head remote

<sup>2</sup> EV2 available with or without damp listing, all other models include damp

<sup>3</sup> -24K option only available with damp plus Spectron®

<sup>4</sup> Not capable of running remote heads

<sup>5</sup> Can only be run from EV4 model

<sup>6</sup> -0 No-head option only available with EV4D-02L, with or without Spectron®

**NOTE: Remote Capacity Option will only power the EVR2 and EVO remotes**



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### SPECIFICATIONS

#### Electronics

Upon failure of normal utility power, a solid-state transfer switch automatically activates the emergency LED lamp-heads. Upon resumption of normal utility power, the battery is disconnected from the load and recharged through a microprocessor controlled pulse charger. The battery is a maintenance-free Nickel Metal Hydride(NiMH) type. The EV series accepts dual-voltage input of 120 or 277VAC at 60 Hz, or an optional 220-240VAC input at 50-60 Hz. A low voltage battery disconnect (LVD) feature protects the battery from severe damage during prolonged power failures. Manual testing is available at any time using the push-to-test button.

Number of Lamps- 2 High Power LEDs at 1 watt each configured so that if 1 lamp malfunctions, the remaining lamp will continue to provide illumination.

The -0(no-head) option will power 1 double-head remote (EVR2 or EVODW) at 2 watts per lamp (145 lumens). This option allows the battery to be located in a conditioned environment.

**Lamp Color:** Cool White

**Total Lamp Output:** 1W, 88 Lumens per LED

2W (optional), 145 Lumens per LED

**System efficacy:** 80lm/W

**Rated LED lifecycle:** greater than 100,000 hrs.

#### Standard Features Include:

- Intelligent 2-wire input connection
- External push-to-test switch and AC-on indicator
- Battery re-charge within 24 hours
- AC Lock-out circuit
- Low voltage disconnect
- Conduit entry knock-out located at the top center
- Microprocessor controlled pulse charger

#### Optional Spectron Feature:

- Self-diagnostics monitors LED status, LED load transfer circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30 or 60 minute test once every 6 months. Multi-color LED indicator provides visible fault detection and charging status.
- User initiated 1 or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

#### Operating Temperature Range:

Standard: 68° to 86°F (20° to 30°C)

Damp Listed: 50° to 104°F (10° to 40°C)

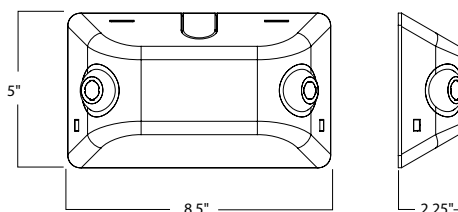
**Weight:** 2.0 lbs

### MAXIMUM POWER CONSUMPTION

	AC Voltage	Hz.	Amps.	Watts	Power Factor
EV2 EV2D	120	60	0.015	1.10	0.61
	240	60	0.009	1.43	0.62
	277	60	0.008	1.45	0.62
EV4D	120	60	0.022	2.00	0.73
	240	60	0.015	2.51	0.65
	277	60	0.014	2.75	0.63

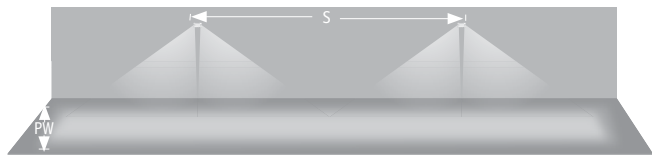
The EV Series meets proposed California Energy Commission(CEC) requirements for limits on power consumption in maintenance mode with less than 0.5 watts.

### DIMENSIONS



### APPLICATION INFORMATION

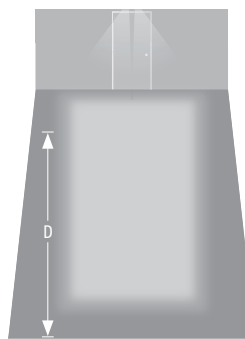
Multi-Unit Spacing



1 fc Average			1 fc Minimum		
Using 1 Watt Heads		Using 2 Watt Heads	Using 1 Watt Heads		Using 2 Watt Heads
Path Width (PW)	Spacing (S)	Spacing (S)	Path Width (PW)	Spacing (S)	Spacing (S)
3'	27'	39'	3'	14'	18'
6'	20'	33'	6'	10'	14'

Meets Life Safety Code minimum illuminance of 0.1 fc and average illuminance of 1.0 fc. Assumes open space with no obstructions, mounting height of 7.5', ceiling height of 9' and reflectances of 80/50/20. Photometry files available on the Dual-Lite web site ([www.dual-lite.com](http://www.dual-lite.com)).

Single Unit Coverage



1 fc Average	
Using 1 Watt Heads	
Depth (D)	Width (W)
16'	10'
Using 2 Watt Heads	
Depth (D)	Width (W)
26'	10'
1 fc Minimum	
Using 1 Watt Heads	
Depth (D)	Width (W)
6'	10'
Using 2 Watt Heads	
Depth (D)	Width (W)
9'	10'