Architectural LED Emergency Light

Aesthetics
Design
Performance
Sustainability
Value
"The Evolution of Emergency Lighting" has begun with the most technologically advanced emergency light on the market.

The new LED based EV Series emergency light, once again proves Dual-Lite’s reputation as “Innovator” in the emergency lighting industry. The EV Series architectural emergency light has half the footprint of contemporary emergency lights and uses 2 high powered long-life LEDs to produce superior light output and improved fixture spacing. The EV Series LEDs will never require maintenance or replacement and the premium Nickel Metal Hydride battery requires only 1 watt of input power. This cutting edge design is centered around the LEDs and offers the latest in electronic technology for LED thermal maintenance and driver technology.

Dual-Lite’s EV unit uses only high power LEDs and has been designed around the reduced energy requirements of these LEDs. This approach has resulted in the use of a smaller, more environmentally friendly Nickel Metal Hydride battery.

The tangible benefits of the EV Series are founded in the following characteristics: Aesthetics, Design, Performance, Sustainability and Value.

Aesthetics | Sleek architectural styling
Break-throughs in LED technology, increased energy-density batteries, and surface mount electronics have resulted in circuits and optics which are greatly reduced in size and require much less energy while providing increased amounts of light. These characteristics all contribute to a much smaller and more powerful emergency light. The EV packs these characteristics into a small housing with the following features.

INCONSPICUOUS:
The EV unit blends in to the environment while providing emergency lighting coverage in an attractive fixture.

SLEEK:
Visually appealing design with soft contours allows the EV to be unobtrusive in any setting.

COMPACT:
Measuring 8.5” wide by 5” high with a depth of 2.25”, the EV Series is the most compact, low profile emergency lighting unit on the market.

ARCHITECTURAL:
The EV unit is modeled after Dual-Lite’s popular PG Series LED and offers an elegant, architectural style.

Photo is actual product size.
**Design | Ease of Installation and Maintenance**

Dual-Lite focused on ease of installation, maintenance, and longevity of service when designing the EV emergency lighting unit. The unique LED light engine and thermal management design are paired with beneficial options like intelligent dual-voltage input and redundant LED operation. Redundant LED operation ensures the unit will continue to operate at reduced light output in the event one of the LEDs fails. The EV also uses an environmentally friendly battery source as opposed to the traditional lead acid or Nickel Cadmium based batteries which contain elements that when disposed of improperly are harmful to the environment.

**ADDITIONAL DESIGN FEATURES:**
- Quick installation with “third hand” strap which supports the housing while performing connections
- 50% less plastic than traditional units
- Long life-cycle LEDs rated at 100,000 hours
- RoHS Compliant
- Fully aimable lamp-head design with friction fit positioning
- Wall or ceiling mount
- Intelligent 120 or 277 VAC input wiring

**Performance | Sophisticated LED based lamp-head**

While most contemporary emergency lights use a minimum of 10 watts to light a given space, the EV Series offers superior spacing of up to 27’ while requiring only 2 watts to power. The EV uses a high energy density Nickel Metal Hydride (NiMH). This battery technology is used extensively in hybrid automobiles and other applications due to their high energy density. The use of NiMH batteries combined with the low wattage required to power the LEDs allows for a reduced amount of input power required to maintain a full battery charge while providing a superior performing emergency lighting unit.

**ADDITIONAL PERFORMANCE FEATURES:**
- The LEDs are mounted inside a die-cast housing which utilizes precision components to offer adjustability and thermal stability
- Superior light output with optimized spacing and uniform bright LED light with no irregular light patterns or hot-spots
- Optional Spectron® self-test/self-diagnostics offers user initiated testing for 1 or 90 minutes by pushing a test switch and automatic testing on a monthly basis
- The EV unit with remote capacity will also run a 2 headed remote (EV2R) to double overall coverage and offer initial product savings.

**THERMAL MANAGEMENT**

The illustration shows the thermal effects of the LED and the heat dissipative qualities designed into the “eyeball”. The red areas have the highest temperature while the green areas are virtually unaffected. This thermal image shows that the eyeball does not conduct any of the heat to the inside of the fixture, but that heat generated from the LED is carried equally around the die-cast aluminum heat-sink.
Sustainability | Our Future
Dual-Lite’s sustainability mission: "To achieve an ongoing culture of environmental responsibility with our employees, community, and industry by implementing educational programs and sustainable practices." and vision serve as a foundation for our new product development efforts. Dual-Lite’s vision for this initiative is to be recognized as a leader in conservation efforts to sustain our natural resources and protect our environment.

Part of this vision is to utilize new technology to reduce the materials and energy required to manufacture, pack, ship and maintain newly designed products. The EV is the next step in Dual-Lite’s product development to support and promote this vision by including the following sustainable practices:

• Reduced plastic content - plastic content has been reduced by 50% which has resulted in smaller packaging and reduced transportation impact.
• Reduced power requirements - The use of cutting edge LED technologies allows for less power requirements for battery charging.
• Minimizing maintenance requirements - The LEDs utilized by the EV unit have a Lifetime Warranty, no lamps to be changed meaning less materials sent to our landfills.
• The use of “Green” batteries - Using Nickel Metal Hydrides (NiMH) batteries over Lead Acid and Nickel Cadmium batteries reduces harmful chemicals and hazardous cadmium waste from landfills and water sources.

Value | A Class of its Own
Now that you have seen what the EV has to offer in terms of product capabilities, we saved the best part for last - VALUE. A product’s value is the culmination of benefits it provides when compared to its total cost. The EV emergency light provides:

For the Owner:
• Energy savings, extended product warranties, reduced maintenance costs, and easy disposal.

For the Installer:
• Simplified installation and great performance from a trusted brand.

For the Designer:
• Low profile, unobtrusive design with optical and electrical performance that surpasses NFPA code requirements.

For the Distributor:
• Pricing on par with traditional emergency lighting products and a reduced shelf-space footprint.

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For the Owner:
• Low voltage disconnect.
• AC lock-out circuit.
• Battery re-charged within 24 hours.
• Self-Test feature automatically runs a 1 minute test once a month and an alternating 30 or 60 minute test once every 8 months.
• Multi-color means of a flashing code capacity and charger function and displays any fault detection by means of a flashing code.

For the Designer:
• Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage).
• Intelligent 2-wire input connection.
• External push-to-test switch and AC-on indicator.
• Low voltage disconnect.

For the Distributor:
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• External push-to-test switch and AC-on indicator.
• Battery re-charged within 24 hours.
• AC lock-out circuit.
• Low voltage disconnect.
• Conductivity knock-out located at the top center.
• Microprocessor controlled pulse charger.

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Dual-Lite first incorporated high brightness white LEDs in the PG Series followed by its UL924 MR16 LED lamp and now in the most technologically advanced emergency light on the market the EV Series. “The Evolution of Emergency Lighting” has begun and Dual-Lite, the first name in emergency lighting, is leading the way.