



Path of Egress Solutions for Educational Facilities

A Guide To Emergency Lighting and Directional Path Indication

AUTHENTIC LIFE SAFETY PRODUCTS SINCE 1940



Egress Pathway Illumination and Signage Requirements For Educational Facilities

From the oldest institutions of higher learning to brand new, state-of-the-art learning centers, it's crucial that all varieties of educational facilities offer safety and security to students, teachers and visitors to the campus.

Because educational facilities offer a broad array of applications - classrooms, walkways, cafeterias, gymnasiums and much more - each requires unique life safety considerations. For all, emergency lighting plays a major role in meeting Life Safety Code requirements, as well as liability and insurance responsibilities.

The information presented in this guide is designed to aid you and your team in pairing various applications with lighting solutions based on the following criteria:

- Performance
- Appearance
- Durability
- Cost
- Maintenance
- Sustainability

Specifiers must be mindful of code requirements, as well as the various types of applications when selecting product solutions in a given facility.

Considerations:

- **The Life Safety Code (NFPA 101) calls for initial emergency illumination levels of 1 ft. candle average on the path of egress.**
- **Emergency lighting unit equipment and signage must be fully functional in emergency mode for no less than 90 minutes and be tested for overall integrity every 30 days for at least 30 seconds, and annually for no less than 90 minutes.**

At Dual-Lite, we know that there are a lot of factors that go into creating safe, compliant buildings, and we make it a priority to set the standard for excellence with commercial life safety products for your next project.



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Dual-Lite Emergency Lighting Solutions

Central Lighting Inverter Systems >>>

Emergency Battery Packs >>>

Emergency Lighting Units >>>

Exit Signs >>>

Typical Applications

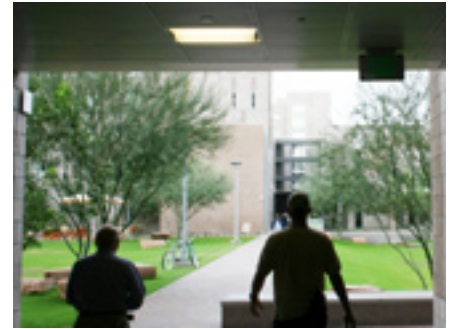
Stairways



Classrooms



Walkways



Restrooms



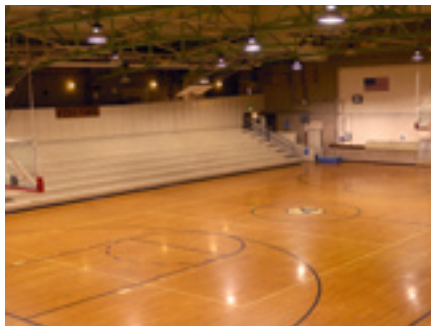
Cafeterias



Residence Halls



Gymnasiums



Parking Garages



Central Lighting Inverter Systems



Comparative Product Rating Scale



| | |
|--------------------|--------|
| Performance | ✓ ✓ ✓ |
| Appearance | ✓ ✓ ✓ |
| Durability | ✓ ✓ ✓ |
| Location | ✓ ✓ |
| Initial Cost | \$\$\$ |
| Maintenance | ✓ ✓ ✓ |

The use of a central lighting inverter that powers existing fixtures eliminates the need of emergency lighting units, and maintains the building's aesthetic design. These systems are installed in one central place, which offers ease of maintenance - particularly ideal for large school environments - and quality egress lighting by utilizing the existing lighting. Dual-Lite's LSN Series automates Life Safety Code required monthly and annual testing to quickly identify and report any issues, providing additional peace of mind.

Ideal Applications >>>

Ideal for use with indoor and outdoor fixtures where full light output in emergency mode is needed to provide the brightest, highest quality path of egress illumination.

Benefits >>>

- **Improved aesthetics using existing fixtures**
- **Improves performance with full lumen output**
- **Central location offers reduced maintenance**
- **Vandal resistant**
- **Self-test/self-diagnostic feature ensures complete and easy compliance with NFPA 101**
- **Compatible with all lamp types, including HID**

Indoor and Outdoor Battery Packs



Comparative Product Rating Scale



| | |
|--------------------|-------|
| Performance | ✓ ✓ |
| Appearance | ✓ ✓ ✓ |
| Durability | ✓ ✓ ✓ |
| Location | ✓ ✓ |
| Initial Cost | \$\$ |
| Maintenance | ✓ ✓ |

UFO Battery Pack Series

The UFO Series of emergency battery packs can easily be used to transform existing fluorescent fixtures into an emergency lighting system. With this UFO battery pack there is no need to sacrifice the aesthetic appeal of the original lighting design.

Hidden out of sight, battery packs reduce the occurrence of tampering and vandalism, while also providing multiple points of high quality, low glare emergency illumination. This ensures redundant operation, which is critical for life safety systems.

Ideal Applications >>>

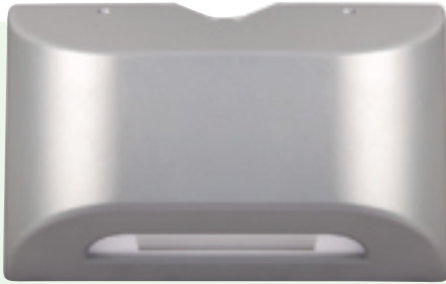
Ideal for both Indoor and Outdoor Applications:

UFO battery packs are installed in a wide range of existing indoor and outdoor fixtures.

Benefits >>>

- **Maintains aesthetic integrity of lighting design**
- **Low initial investment**
- **Reduces tampering and vandalism**
- **Self-test/self-diagnostic feature**
- **Redundant installations**

Indoor/Outdoor Emergency Lighting Units



Comparative Product Rating Scale



| | |
|--------------------|-------|
| Performance | ✓ ✓ ✓ |
| Appearance | ✓ ✓ ✓ |
| Durability | ✓ ✓ |
| Location | ✓ ✓ |
| Initial Cost | \$\$ |
| Maintenance | ✓ ✓ |

PG Series Wall Mount LED Sconce

With a durable yet attractive housing, the PG Series offers both an aesthetic and, a high performance emergency fixture. The PG Series is available as an emergency-only LED wall sconce and a dual-functioning normal and emergency LED wall sconce. The PG emergency-only version comes standard with Spectron® self-test/self-diagnostic circuitry to minimize maintenance costs while maintaining life safety code compliance.

Ideal Applications >>>

Ideal for Both Indoor and Outdoor Applications:

The high output, energy efficient LED lamps increase the life of the unit for indoor and outdoor applications, while providing wide fixture spacing along the path of egress.

Benefits >>>

- **Wide area illumination pattern**
- **Aesthetics**
- **Wet location listed**
- **Self-test/self-diagnostic circuitry available**
- **Long-life, highly efficient LED lamps**
- **Redundant installations**
- **ADA compliant**

Emergency Lighting Units



Comparative Product Rating Scale



| | |
|---------------------|-----------|
| Performance | ✓ ✓ ✓ |
| Appearance | ✓ ✓ |
| Durability | ✓ |
| Location | ✓ |
| Initial Cost | \$ |
| Maintenance | ✓ |

LZ Series Wall Mount Unit

Using high output Halogen or optional LED lamps, the LZ series offers bright, even egress path illumination - to provide more light with fewer fixtures. Featuring simple installation, multiple colors and a damp location listing, these wall mount units also include optional Spectron® self-test/self-diagnostic circuitry, reducing maintenance.

Ideal Applications >>>

Ideal for Indoor Applications:

With smooth contoured lines, unique low profile design and emergency capacity to 65W, the LZ series is a perfect choice in contemporary wall mounted emergency lighting.

Benefits >>>

- **High output Halogen or LED lamps**
- **Contemporary low profile housing**
- **"Hands free" installation**
- **Self-test/self-diagnostic feature reduces maintenance**
- **Redundant installations**
- **Lowest initial investment**

Indoor LED Die-cast Exit Signs



Comparative Product Rating Scale



| | |
|--------------------|-------|
| Performance | ✓ ✓ ✓ |
| Appearance | ✓ ✓ |
| Durability | ✓ ✓ |
| Location | ✓ ✓ |
| Initial Cost | \$\$ |
| Maintenance | ✓ ✓ ✓ |

SE Series LED Exit Sign

The SE Series features high-end die-cast aluminum LED exit signs. Available in multiple housing colors and styles, as well as master/remote configurations and optional Spectron® self-test/self-diagnostic circuitry, the SE Series also offers optional vandal resistant hardware.

A unique feature of the SE Series is the availability of personalized special wording face diffusers so all signage in the facility matches in appearance.

Ideal Applications >>>

For Indoor and Damp Location Applications:

LED lamps provide energy efficiency and long life to reduce maintenance costs for a variety of applications.

Benefits >>>

- **Long life energy efficient LED lamps with bright, even illumination**
- **Low profile architectural styling**
- **Self-test/self-diagnostic feature reduces maintenance**
- **Vandal resistant shield available**

Wet Location, NEMA 4X LED Exit Signs



Comparative Product Rating Scale



| | |
|--------------------|--------|
| Performance | ✓ ✓ ✓ |
| Appearance | ✓ ✓ |
| Durability | ✓ ✓ ✓ |
| Location | ✓ ✓ |
| Initial Cost | \$\$\$ |
| Maintenance | ✓ ✓ |

SEWL Wet Location Exit Sign

Offering the best in durability and design, the SEWL LED exit signs are constructed of rugged corrosion-resistant die-cast aluminum. Additionally, this series features a polycarbonate face shield secured with stainless steel tamper-resistant spanner head screws to prevent unauthorized access to internal components.

Ideal Applications >>>

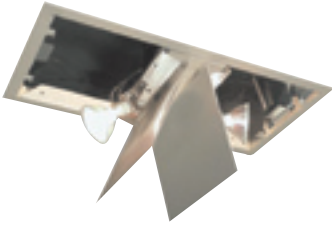
For Indoor and Outdoor Applications:

Ideal for a variety of indoor and outdoor applications, LED lamps provide energy efficiency and long life to reduce maintenance costs. The SEWL Series has an optional NEMA 4X/IP66 rating and battery heater for outdoor applications. Spectron® self-diagnostic circuitry and a standard wet location listing make this unit perfect for extreme temperatures, harsh environments and applications where vandalism and tampering may be an issue.

Benefits >>>

- **Long-life energy efficient LED lamps with bright, even illumination**
- **Vandal resistant**
- **Rugged die-cast construction**
- **Self-test/self-diagnostic feature reduces maintenance**
- **Wet location, NEMA 4X/IP66 listing available**

Emergency Lighting Unit Equipment



CL Series



LiteScape® Series



EZ-2 Series



LM Series

Combination Emergency Lighting Unit/LED Exit Sign



LT Series



HCX Series

LED Exit Signs



LE Series



LX Series



CVE Series

Remote Lighting Heads For Indoor Use



LZR Series



CPR Series



SRH Series



AHD Series



GNX Series

Remote Lighting Heads For Outdoor Use



OCR Series



OMS Series

Case Study:



Arizona State University: Barrett, The Honors College Tempe, Arizona

Situation: Created in 1988, The Honors College offers a four-year degree program at Arizona State University (ASU) and actively recruits academically outstanding undergraduates nationwide. In August, 2009, ASU opened a nine-acre residential campus for Barrett, The Honors College, featuring a student center, dining hall, administrative and faculty offices and a 1,700 student residential housing community.

Challenge: Identify an attractive emergency lighting unit that blends in with existing architecture at Barrett, The Honors College.

Solution: Dual-Lite's PG Series high-performance LED units.

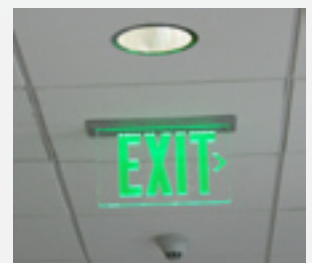
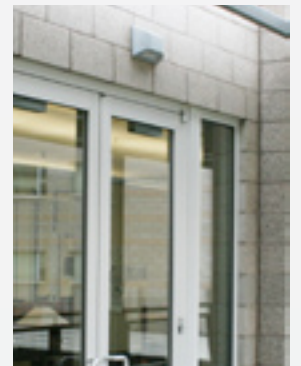
Benefits of PG Series Wall Mount LED Sconce:

The PG Series offers the best of both worlds: an aesthetic, functional emergency fixture.

Ideal for both indoor and outdoor applications, the high output, energy efficient LED lamps increase the life of the unit while providing wide fixture spacing along the path of egress. Other features include:

- **Aesthetic appeal** - a sleek, low profile, ADA compliant housing blends into any interior or exterior application.
- **Low maintenance** - An expected lamp life of 48,000 hours dramatically reduces lamp replacement consideration.
- **Energy efficiency** - Low energy consumption LED lamps provide code-required wide area illumination.
- **Durable construction and vandal resistance** - A die-cast aluminum housing withstands the effects of temperature and moisture weather extremes.
- **Outdoor installation** - A powder-coated electro-deposition paint resists the effects of outdoor exposure.

Result: The campus is being considered for LEED Silver certification, and includes a Sustainability House At Barrett (SAHB) with low-consumption plumbing fixtures, enhanced energy monitoring, recycled gray water, a green roof and an organic garden. Dual-Lite is proud to have been selected to provide PG Series LED emergency lighting units and edge-lit exit signs for this prestigious facility.



The American Recovery and Reinvestment Act of 2009

In an effort to stimulate America's economy, on February 17, 2009, President Barack Obama signed into law the American Recovery and Reinvestment Act of 2009 (ARRA). The ARRA stimulus package has appropriated more than \$700 billion in funds towards federal tax relief, expansion of unemployment benefits and domestic spending in education, health care and infrastructure.

To qualify for stimulus funding, the ARRA requires that projects meet certain criteria. Primarily, departments and agencies are being urged to support projects that are of a sustainable nature, that optimize economic activity, as well as increase the number of jobs created or saved in the U.S. Secondly, projects must have a demonstrated or potential ability to create programmatic, long-term public benefits versus short-term spikes in the economy.

All of the Dual-Lite products listed below are considered Commercially Available Off-The Shelf (COTS) items and can qualify for many different FAR clauses depending on where the products are manufactured (substantially transformed).



Fluorescent Battery Packs

- UFO Series: 3, 4, 5, 6, 7, 12, LP, and PSMH

Central Lighting Inverters

- LG Compact Single Phase IPS Inverter Systems
- DLS and LSN Single Phase UPS Inverter Systems
- TRN and TRX Three Phase UPS Inverter Systems

Transfer Switches

- ATSD and ATSD20 Series

Emergency Lighting Units

- AS Series
- PGN Series
- LZ Series

Combination Emergency and Exit Units

- HCX Series

Exit Signs

- LX Series
- SE Series
- SEWL Series

Remote Heads

- LZR Series
- OMS Series
- AHD Series
- SRH Series
- OCR Series

Accessories

- Vandal Resistant Shield Series
- Wire Guard Series



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