EMERGENCY LIGHTS
POWERED BY UL

Battery Backup Emergency Lighting - Buyer's Guide

What's Included in This Guide

What Is Battery Backup Emergency Lighting?

Battery backup emergency lighting ensures your space remains illuminated when power fails. These lights automatically switch to an internal battery, offering at least 90 minutes of emergency runtime per UL 924 requirements. They're essential in providing safe egress and preventing panic during outages.

> **Highlight:** UL 924 requires all emergency lighting to provide at least 90 minutes of illumination during a power outage.

Why It's Required

Battery-powered emergency lighting is mandated by life safety codes such as NFPA 101 and OSHA regulations. In the event of a power failure, these fixtures help guide occupants to exits, stairwells, and safe zones. By maintaining illumination for at least 90 minutes, battery backup units allow

enough time for safe evacuation or restoration of power.

Key Buying Features

Choosing the right battery backup emergency lighting starts with understanding key features that affect performance, reliability, and code compliance. Here's what to look for when comparing products:

- **UL 924 Listing:** This certification ensures the unit has been tested to meet emergency lighting standards, including a minimum 90-minute battery runtime.
- **Battery Type:** Look for sealed lead-acid (SLA), nickel-cadmium (Ni-Cd), or lithium iron phosphate (LiFePO4). Lithium options offer longer service life and higher efficiency.
- **Illumination Power:** Consider lumen output and head adjustability. Dual-head LED fixtures offer directional lighting and coverage for corridors, exits, and stairways.
- **Mounting Versatility:** Most units allow wall or ceiling mounting, and some include universal mounting brackets to simplify installation.
- **Self-Testing Diagnostics:** Some models include automated self-testing features that perform monthly and annual tests, helping you stay compliant with NFPA 101.
- **Remote Head Capability:** Remote-capable units allow you to power additional remote lamp heads from the same battery sourceâ€”ideal for extended coverage.
- **Durability Ratings:** For tough environments, consider weather-resistant emergency lights with gasketed housings and sealed lenses.
- **Consider Combo Units:** If you also need exit signage, battery backup exit sign and light combos offer a 2-in-1 solution with integrated illumination and signage.
- **Exit Sign Options:** Explore battery-backed exit signs for reliable egress labeling that stays lit during power outages.

> **Tip:** Choose a unit with self-testing diagnostics to simplify your monthly and annual code compliance.

Top Use Cases

Battery backup emergency lighting is essential in a variety of settings. Whether you're outfitting a small business, large commercial facility, or multi-unit residential building, understanding where these units perform best can help guide your purchase:

- **Hallways & Stairwells:** Ensure uninterrupted visibility

during power failures, guiding occupants safely toward exits.

- **Commercial Spaces:** Offices, retail stores, and restaurants must remain accessible and safe during blackouts, especially near exits and elevators.
- **Warehouses & Industrial Areas:** These high-ceiling spaces benefit from high-output units and remote-head capable models for broad illumination.
- **Apartment Complexes & Hotels:** Required in common corridors, staircases, and lobbies to protect residents and meet fire code regulations.
- **Outdoor Access Points:** When paired with weather-resistant emergency lights, these units ensure safety near exterior doors and loading docks.

> **Use Case Insight:** For exterior walkways and loading docks, make sure your unit is wet-location rated and sealed.

Installation Best Practices

Installing battery backup emergency lighting is straightforward with a few best practices to follow. Most units come with universal mounting plates for wall or ceiling installation. Before mounting, ensure power is turned off and the electrical box is securely installed.

- **Check Voltage Compatibility:** Many units support both 120V and 277V, making them adaptable to commercial and residential wiring.
- **Secure Mounting:** Use appropriate anchors or back plates depending on wall or ceiling material. Fixtures should sit flush and level.
- **Connect Wires Safely:** Follow manufacturer wiring diagrams. Typically, black is line, white is neutral, and red may be for 277V applications.
- **Battery Connection:** Many units ship with the battery disconnected. Don't forget to connect it before completing installation.

Maintenance Tips

Keeping your battery backup emergency lights in working order is critical for long-term safety and code compliance. Here are some simple maintenance steps every building owner or facility manager should follow:

- **Monthly Function Test:** Press the test button on each unit to verify the battery powers the lamps for at least 30 seconds. Look for illumination and indicator LED activity.
- **Annual 90-Minute Test:** Conduct a full-duration test at least once a year to confirm the unit can sustain lighting for the required emergency runtime.

- **Watch for Fault Indicators:** On self-testing units, look for blinking or colored LEDs that signal battery or circuit problems.
- **Battery Replacement:** Most batteries last 3-5 years. Replace any battery that fails to hold a charge or shows swelling, leakage, or discoloration.
- **Record-Keeping:** Maintain a log of all test results and maintenance performed. This helps with fire code audits and routine inspections.

> **Maintenance Tip:** Keep a testing log for inspectors and replace batteries every 3-5 years even if they appear functional.

Featured Emergency Lights

Here are a few featured battery backup emergency lighting units that offer performance, reliability, and versatility:

E-1 Series Compact LED Emergency Light

This ultra-compact model is ideal for standard indoor use in corridors, offices, and utility areas. It features dual adjustable LED heads, a Ni-Cd battery with 90-minute runtime, and dual voltage (120/277V) input. The flame-retardant thermoplastic housing makes it lightweight and easy to install.

CAEM Steel Emergency Light - Chicago Approved

Designed to meet stringent local codes, this heavy-duty steel unit offers rugged construction and high-output LED heads. The sealed lead-acid battery delivers over 90 minutes of runtime. Ideal for stairwells, institutional facilities, and high-traffic zones.

HPEM High-Performance Emergency Light

Perfect for warehouses and open commercial spaces, this model includes 5W LED MR16 heads for extended spacing and coverage. The LiFePO4 battery lasts longer and charges faster than traditional options. Also features a self-test option for hassle-free compliance.

RMR-16-WP Wet-Location Emergency Unit

This weather-resistant unit is built for exterior installations and wet environments. It features dual MR16 LED heads, a fully gasketed housing, and optional cold-weather battery upgrades. Great for covered loading docks, outdoor walkways, and entrance areas.

FRM Recessed Emergency Light

For a cleaner look in lobbies, corridors, and architectural environments, this recessed fixture hides in

the ceiling and deploys pop-out optics during an outage. Includes a 90-minute Ni-Cd battery and self-test option.

Conclusion & Next Steps

Battery backup emergency lighting plays a crucial role in any safety plan. By selecting the right units based on your environment, mounting requirements, and battery preferences, you'll ensure your facility remains compliant and protected during unexpected power outages.

If you're looking for a no-wiring alternative to traditional emergency lighting, consider non-powered options like photoluminescent or tritium-based signs. These provide reliable, code-compliant visibility without electricity or battery backup. Shop Now to explore our full range of non-electrical solutions.