

# JIMING Advances Emergency Light Safety with High-Efficiency Optics and LiFePO4 BMS Technology

*Exploring the optical design, battery management innovations, and engineering solutions behind reliable emergency lighting performance in demanding environments*

CALIFORNIA, CA, UNITED STATES, July 8, 2026 /EINPresswire.com/ -- NINGBO, China □July 8, 2026——High-uniformity optical lenses, lithium iron phosphate (LiFePO4) battery management, and flame-retardant housings form the core architecture of a new generation of emergency lighting from Ningbo [JIMING](#) Electric Appliance Co., Ltd. (JIMING), a China-based emergency light supplier with over five decades of specialization.

Ningbo JIMING Electric Appliance Co., Ltd. (JIMING) is an emergency light supplier that designs and manufactures emergency lights, exit signs, bulkhead emergency lights, LED emergency drivers, and emergency ballasts. Founded in 1967, the company operates two wholly owned factories—a 70,000 m<sup>2</sup> facility in Ningbo, China, and a 38,000 m<sup>2</sup> facility in Haiphong, Vietnam—and exports 96% of its output to global markets including the United States, Canada, Europe, and the Middle East.

## High-Efficiency Optical Lens Technology

JIMING's engineering team has developed lens systems that achieve high light uniformity across multiple product lines. For example, the DLB300 emergency downlight is equipped with one 3535 LED and replaceable lenses that allow users to select between circular or polarized light distribution. The fixture delivers a DC lumen output of up to 300 lm at a color temperature of

The JIMING logo, featuring the word "JIMING" in a bold, blue, sans-serif font. The letters are stylized with a slight shadow effect.

Ningbo JIMING Electric Appliance Co., Ltd.

6000–6500 K, with AC power consumption of 5.0 W and DC consumption of 2.0 W.

The LE518 [bulkhead emergency light](#) uses 20 SMD3528 LEDs to produce 200 lm with a CCT of 6000–7000 K. Its clear polycarbonate diffuser and ABS housing optimize light transmission while maintaining mechanical strength. For twin-head models such as the JLEU5WP, each head features 12 ultra-bright 2835 SMT LEDs (0.5 W each), yielding a combined emergency lumen output of more than 400 lm.

### LiFePO<sub>4</sub> Battery Management and Smart Electric Control

To extend emergency runtime and cycle life, select JIMING models now integrate LiFePO<sub>4</sub> (lithium iron phosphate) batteries instead of conventional nickel-cadmium or nickel-metal hydride chemistries. The DLB300 uses a 3.2 V 4000 mAh LiFePO<sub>4</sub> battery, providing a discharge time of three hours. The LE518 bulkhead light is equipped with a 3.2 V 2000 mAh LiFePO<sub>4</sub> battery, also rated for three hours of maintained operation. Both models incorporate a maximum charge current of 150 mA and discharge current of 550 mA, with a full recharge time of ≤24 hours.

The battery management system (BMS) in these products ensures overcharge protection, over-discharge protection, and temperature compensation, contributing to safe and reliable performance over the product's lifetime. This contrasts with earlier Ni-MH or Ni-Cd solutions, which typically offer shorter cycle life and less stable voltage output during discharge.

### Millisecond-Level Automatic Transfer

All JIMING emergency lights are designed to automatically switch to battery power upon loss of AC mains. The transfer is achieved within the time required by UL 924 and other applicable standards, enabling uninterrupted illumination during critical evacuation moments. The DLB300, LE518, and twin-head models such as the JLEU9 and JLEU5WP all support maintained and non-maintained operating modes, with the DLB300 providing up to three hours of emergency light in maintained mode.

### Flame-Retardant Housing Technology

JIMING encloses its emergency lighting electronics in injection-molded thermoplastic ABS housings rated UL 94V-0 for flame resistance. This material self-extinguishes within 10 seconds of a flame source removal, reducing fire propagation risk. The JLEU5WP, JLPWPEC2RW, and the JLEC2BCW exit sign combo all use the same UL 94V-0 rated ABS material. The JLPWPEC2RW twin-spot emergency light also includes a six-inch letter height with 3/4-inch stroke for exit signage, and its housing is rated for indoor damp locations (0–40 °C).

The JLEU5WP dual-head wet-location emergency light includes a thermoplastic ABS housing with UL 94V-0 flame rating, and is listed for damp and wet locations per UL standards. It operates on

120/277 VAC dual voltage and is suitable for wall- and ceiling-mount applications.

## Certification and Compliance

JIMING maintains a rigorous test-every-unit protocol meeting global standards including UL, CSA, CE, NFPA, OSHA, FCC, DOE, CEC, NEC, IBC, NEMA, BSCI, SASO, REACH, and RoHS. The company has been certified to ISO 9001 since 1998 under certificate number 00125Q33670R3M/3302, issued by the China Quality Certification Centre and valid until 2028.

Specific product certifications include: UL listing (UL 924) for the Emergency Light Series, covering the Bulkhead emergency light and Emergency Exit Sign Combo; CE certification (EN IEC 55015, etc.) for models such as JLEC2BCW, LE518, and DLB300; and FCC compliance (FCC CFR Title 47 Part 15 Subpart B) for the LED Emergency Light. The UL certification was first issued in 2014 and remains valid through 2034; the CE certification is valid through 2033.

## Manufacturing and Supply Chain Capability

JIMING operates with a monthly production capacity of 400,000 sets across its two facilities, employing over 1,000 staff including 50+ R&D engineers. The company offers OEM/ODM services with customization options for battery type, housing color, input voltage, logo, and packaging. Lead times range from 30 to 45 days, with a minimum order quantity of 200 pieces. Every unit undergoes 100% functional testing before shipment.

The company's Vietnam factory, built on self-owned land, currently runs three assembly lines at approximately 50% capacity and can scale to nine lines to meet demand surges. This dual-manufacturing footprint provides supply chain resilience and official Vietnam origin certification for tariff-efficient shipping outside China.

## Global OEM Partnership Track Record

JIMING has maintained long-term OEM/ODM partnerships with internationally recognized brands, with a North American-focused engagement lasting over five years. Products supplied under these partnerships have been validated in global markets and comply with UL/CSA standards. The engineering team collaborates directly with customers on new product development to meet specific specifications.

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