

Global Trends in Water Illumination: Developments by Top Pool Lighting Manufacturers

SHENZHEN CITY, GUANGDONG PROVINCE, CHINA, March 20, 2026 /EINPresswire.com/ -- The global pool lighting industry is in the middle of a quiet but significant transformation. Driven by advances in LED technology, tighter safety regulations, and rising consumer expectations for energy efficiency, manufacturers around the world are rethinking how they design, produce, and distribute underwater illumination products. According to a report published by Grand View Research, the global swimming pool lighting market was valued at approximately USD 980 million in recent years and is projected to grow at a compound annual growth rate of around 7.5 percent through the end of the decade. This growth is not happening in a vacuum. It reflects broader shifts in construction activity, hospitality investment, and residential outdoor living trends across North America, Europe, the Middle East, and the Asia-Pacific region.

For pool lighting manufacturers, these shifts present both opportunities and competitive pressure. Companies that can combine product reliability, regulatory compliance, and design flexibility are increasingly setting themselves apart in a crowded marketplace.

1. LED Technology as the Industry Standard

The transition from halogen and incandescent bulbs to LED technology is now largely complete across the professional pool lighting segment. Industry estimates suggest that LED-based products currently account for more than 80 percent of new pool lighting installations worldwide. The reasons are straightforward: LED fixtures consume 70 to 80 percent less energy than traditional halogen equivalents, offer a rated lifespan of 30,000 to 50,000 hours, and generate significantly less heat, which reduces wear on housing seals and gaskets.

This shift has pushed manufacturers to invest heavily in LED driver design, thermal management, and optical engineering. Products such as the [PAR56 Pool Light](#), a format originally developed for halogen use, have been widely re-engineered with LED arrays while retaining the standard housing dimensions. This allows facility operators to upgrade existing installations without replacing in-wall niches or junction boxes, a practical consideration that has accelerated adoption rates in the retrofit market.

Shenzhen Heguang Lighting Co., Ltd., a Shenzhen-based manufacturer specializing in underwater and pool lighting, is among the companies that have built a focused product line

around this LED transition. The company's approach reflects a broader industry pattern: investing in luminous efficacy improvements and color consistency rather than competing solely on price.

2. Smart Controls and IoT Integration

Remote control and programmable lighting have moved from a luxury feature to a standard expectation in both residential and commercial pool projects. Modern pool lighting systems increasingly support DMX512 control protocols, Wi-Fi and Bluetooth connectivity, and integration with broader building management systems. These capabilities allow operators to adjust color temperature, brightness, and lighting sequences from a smartphone app or a centralized control panel.

For commercial venues such as hotels, water parks, and public swimming facilities, smart controls deliver measurable operational benefits. Automated scheduling reduces unnecessary runtime, and diagnostic feedback from connected fixtures can alert maintenance teams to lamp failures or driver faults before they affect guest experience.

Manufacturers have responded by embedding control electronics directly into fixture housings or offering modular driver units that support multiple communication protocols. This trend has increased the average bill of materials per fixture, but it has also raised the value proposition of each installed unit.

3. Evolving Safety and Quality Standards

Pool lighting operates in one of the most demanding environments for electrical equipment: continuous submersion, chemical exposure from chlorinated or salt-treated water, and proximity to swimmers. Regulatory bodies in major markets have maintained strict requirements. In the European Union, pool luminaires must comply with EN 60598-2-18 standards for submersible fixtures. In North America, UL 676 governs underwater lighting equipment. Markets in the Middle East and Asia-Pacific increasingly reference IEC standards and, in many cases, add local certification requirements.

For manufacturers, meeting these standards is not optional but a baseline requirement for market access. The cost and complexity of certification testing have effectively raised barriers to entry, favoring established manufacturers with in-house testing capabilities and long-standing relationships with certification bodies such as TUV, SGS, and Intertek.

In recent years, IP68-rated products, indicating complete dust protection and continuous submersion capability, have become the expected minimum across all professional-grade pool lighting. Products that cannot demonstrate verified IP68 performance are increasingly excluded from specification lists used by architects, pool builders, and facility consultants.

4. Design Innovation and Customization

Pool lighting is no longer viewed purely as a functional requirement. Architects and landscape designers now treat underwater illumination as a core element of the overall visual environment. This has created demand for fixtures that offer a wide range of color temperatures, from warm white at 2700K to daylight white at 6500K, as well as full RGB and RGBW color-mixing capabilities.

Fixture form factor has also diversified. Flush-mount designs, surface-mounted options, recessed wall units, and freestanding [Underwater Lights](#) for ponds and fountains each serve distinct installation contexts. Manufacturers that can offer a broad catalog covering multiple form factors and output levels are better positioned to serve the specification needs of large-scale projects.

Customization extends to materials as well. Stainless steel 316L remains the standard housing material for saltwater and marine-adjacent installations due to its corrosion resistance. Some manufacturers also offer engineered polymer housings for freshwater residential applications, providing a lighter and more cost-effective alternative without compromising waterproof integrity.

5. Regional Market Dynamics and Supply Chain Patterns

Pool lighting demand varies significantly by region. North America and Western Europe represent mature markets where replacement and upgrade activity accounts for a large share of sales. The Middle East, particularly the Gulf Cooperation Council states, remains a high-growth market driven by hospitality construction and large-scale urban development projects. In the Asia-Pacific region, rising disposable incomes and expanding residential pool ownership in countries such as Australia, Thailand, and Indonesia are generating consistent demand growth.

China's Guangdong province, and the Shenzhen-Zhongshan corridor in particular, has emerged as a global manufacturing hub for pool lighting products. The region's concentration of LED component suppliers, PCB fabrication facilities, and specialized fixture assembly operations provides manufacturers with supply chain advantages that are difficult to replicate elsewhere. Shenzhen Huguang Lighting Co., Ltd. operates within this ecosystem, leveraging proximity to component suppliers and testing facilities to maintain short production lead times across its product range. This manufacturing geography has made southern China a primary sourcing destination for distributors, OEM buyers, and project contractors in Europe, the Americas, and the Middle East.

6. Sustainability as a Core Manufacturing Priority

Environmental performance has become a measurable factor in product selection, particularly for commercial and municipal projects where procurement decisions are subject to sustainability

audits. Pool lighting manufacturers are responding in several ways: reducing the use of hazardous substances in compliance with RoHS directives, using recyclable or partially recycled housing materials, and publishing product environmental profiles that document energy consumption per lumen of output.

The energy efficiency gains delivered by current-generation LED pool lights are substantial in absolute terms. A typical LED pool fixture rated at 35 watts can produce comparable or greater lumen output to a 300-watt halogen PAR56 unit. For a commercial facility operating 50 or more pool lights, the aggregate energy reduction translates directly into lower operating costs and a smaller carbon footprint.

Some manufacturers have also begun to explore low-voltage DC power distribution for pool lighting circuits, which can improve system-level efficiency and simplify compliance with safety standards related to voltage limits in wet environments.

7. Outlook

The pool lighting industry is expected to maintain steady growth in the near term, supported by continued expansion in hospitality construction, residential outdoor living investment, and municipal aquatic facility development. Manufacturers that combine reliable LED performance, smart control capabilities, broad regulatory compliance, and responsive supply chains are likely to consolidate market share.

For buyers and specifiers, the key selection criteria are increasingly focused on total cost of ownership rather than upfront fixture price. Longevity, energy consumption, ease of maintenance, and compatibility with control systems all factor into procurement decisions. This trend favors manufacturers with strong engineering capabilities and transparent product documentation over those competing purely on cost.

As the market matures, the pool lighting sector is expected to see further consolidation, with established manufacturers expanding their product portfolios through both organic development and strategic partnerships.

8. About Shenzhen Huguang Lighting Co., Ltd.

Shenzhen Huguang Lighting Co., Ltd. is a manufacturer of professional pool and underwater lighting products based in Shenzhen, Guangdong Province, China. The company's product range includes LED pool lights, fountain lights, and submersible fixtures designed for residential, commercial, and municipal applications. With a focus on LED optical design, IP68-rated waterproof construction, and multi-standard regulatory compliance, the company serves distributors and project clients across Europe, the Middle East, Southeast Asia, and the Americas.

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