

# Sports Lighting Solutions

*Change the game.*



**Sports lighting** is lighting used to illuminate both indoor and outdoor sports. It covers the full range of professional stadiums or arenas, to sports centers and recreational fields.

Today, sports lighting can be either traditional or LED lighting. Traditional lighting is categorized into linear fluorescent lamps (LFLs) and high-intensity discharge (HID) lights. As for outdoor lighting in general, the forecast is that traditional lighting in the sports lighting market will observe a sharp decline in sales due to the increasing popularity of LED technology providing better beam control, and smaller and lighter fixtures.



*Together with our customers, Lumileds is making the world better, safer, more beautiful—with light. At Lumileds we're collaborating with our customers to push the boundaries of light. We have an ambitious vision for the future of light, and we're taking the lead. The best innovation happens when great minds work together—when we act with integrity as trusted partners to our customers, honoring commitments, offering deep expertise, and going the extra mile. Because it's only together that we can make the world better, safer, more beautiful—with light.*

*For companies who require innovative lighting solutions, Lumileds is a global leader employing more than 9,000 team members operating in over 65 countries. Lumileds partners with its customers to push the boundaries of light.*

### LUXEON LEDs usher in a bold new era in sports lighting.

To satisfy the unique demands associated with illuminating sports venues, Lumileds offers transformative Sports Lighting Solutions. Available as application-optimized LEDs or using Lumileds Matrix Platform, these innovative lighting products enable consistent performance and adhere to precise optical and electrical specifications—attributes essential for sports lighting fixtures.

LUXEON LEDs are optimized for sports venues large and small. Recognizing the need for effective and efficient stadium and arena lighting, Lumileds created its category-defining Sports Lighting Solutions. Working closely with leading sports lighting manufacturers, these state-of-the-art LUXEON LEDs can be found in many of the highest-profile venues.

### Lumileds Sports Lighting Solutions: A game changer for both athletes and fans.

Few activities get the adrenaline flowing like a sporting event. Stadium management teams recognize this passion—and are committed to elevating fan enjoyment by upgrading current sports lighting.

Traditionally, sports lighting has been limited to linear fluorescent lamps and high-intensity discharge lights. But today, more than one-third of professional sports teams, as well as a growing number of colleges and high schools, are using LEDs to illuminate their stadiums and arenas.

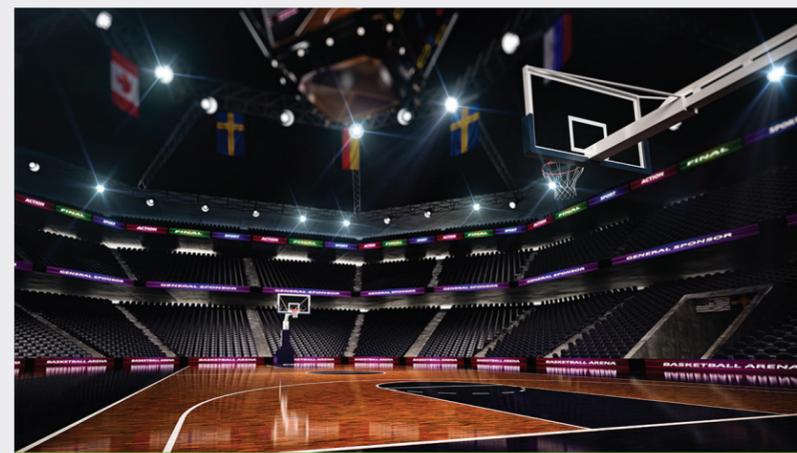
The number of sports venues around the world, capable of holding more than 10,000 people, amounts to 5,400, accommodating a total of 130 million people. With increasing attention to the sport industry in all countries and regions, and with the cost performance of LED lighting improving rapidly, LED sport lighting will continue its growth trajectory. It is estimated that the global stadium lighting market reaches USD 864 Million in 2018 and USD 1,563 Million in 2022; with a CAGR of 16% over this period, growing faster than general LED lighting.

Europe takes up the largest proportion of 22%, followed by North America and China, who account for 18% and 15% respectively. For 2019 it is estimated that the global LED stadium lighting will increase 26% YoY, with China seeing the largest growth of 33%, benefitting from the policy support and guidance from the country and government. Also Europe and North America, however, are expected to achieve growth rates of 24% and 27%, respectively.

**Lumileds Sports Lighting Solutions deliver high efficacy at high drive currents**—resulting in high flux density fixtures that are ideal for sports facilities. This advantage is complemented by several exclusive Lumileds benefits:

- **Unmatched Quality of Light:** Offers uniform color rendering, ensuring athletes, spectators, broadcasters and advertisers enjoy an ideal experience, and with Lumileds Matrix Platform, manufacturers get LUXEON LEDs as a fully preconfigured system based on their unique requirements, ensuring a consistently high level of color fidelity and performance
- **Expanded Selection:** Featuring a CCT range of 2700-6500K and top-tier performance in CRIs of 70, 80 and 90, LUXEON LEDs allow manufacturers to develop high fidelity, tunable solutions that can be tailored to the unique demands of an event
- **Comprehensive Optical Ecosystem:** By optimizing light distribution and minimizing glare from the fixture, playing surface and spill light, Lumileds Sports Lighting Solutions create horizontal and vertical uniformity that is essential for state-of-the-art camerawork and videography
- **Industry's Lowest Thermal Resistance:** Enables reduced heatsinking, size and weight

- **Unrivaled Reliability:** Lumileds Sports Lighting Solutions can be designed into almost any fixture for easy, low cost maintenance



*With Lumileds, sports lighting manufacturers have a trusted, go-to source for innovative LEDs that can help improve athletic performances on the field—as well as fans' enjoyment in the stands or at home.*

There's no doubt about it, people love their sports, and sports fans have noticed the experience of watching their favorite teams has greatly improved—whether in the stands or in front of the TV—as more stadiums and arenas move to LEDs. There are some key reasons for this shift.

Today, stadium owners are continually searching for ways to provide an optimal environment for athletes and spectators—while minimizing power and maintenance expenses. LEDs satisfy these challenges by cost-effectively providing precise light quality and control that enhances the experience inside stadiums and arenas, while also meeting today's stringent HD broadcast requirements.

Our Sports Lighting Solutions are making a significant impact at venues of all sizes, just one more way Lumileds is making the world better, safer and more beautiful. Plus, our commitment to pursuing innovation, delivering flawless light and maintaining environmentally friendly practices will fuel our continued growth in sports lighting—as well as strengthen our leadership across a range of other lighting categories.

### Unlike conventional lighting sources, LEDs offer high efficiency, greater reliability and consistent system performance. In addition, LEDs incorporate several qualities that make them ideal for lighting sports venues.

**Control** for enhanced visibility and reduced light spill

**Light Quality** that optimizes visibility and ensures HD broadcast requirements are met

**Color Tunability** that helps stadiums and arenas maximize revenue by attracting diverse entertainment options beyond sports—including music concerts that require impactful, dramatic lighting

**Cost-Efficiency** resulting from lower energy consumption and longer product life

**Compact Form Factor** that lessens the wind load on poles and eases installation



## Products – Top picks from our portfolio that add the best value.



**Matrix Platform:** Simplifying system design through integrated connectivity, controls and application specific driver topologies, enabling smaller and more elegant luminaires. Reducing system costs through a patented circuitry for CCT tuning and dim to warm electronics that pairs with single channel drivers and can achieve high definition pulse width modulation dimming down to 0.1%.



**LUXEON V/LUXEON V2:** Designed for outdoor stadium lighting, LUXEON V is a Chip Scale Package-based higher light output single package LED that supports directional applications and enables smaller fixtures and optics with high-intensity beams. With the new LUXEON V2, manufacturers can design with a proven package that delivers the most usable light and unmatched performance. In addition, it is compatible with existing optical designs and easily leverages existing ecosystems—making it ideal for indoor arenas and recreational fields.



**LUXEON MX:** Providing industry-leading efficiency and double the flux compared to previous designs, this high power LED enables cost-effective, high-reliability fixtures for a range of outdoor lighting applications.



**LUXEON 5050:** Setting the standard for high lumen per watt (lm/W), this advanced solution enables compact fixture design and optimal performance, plus its cost-effectiveness allows manufacturers to produce energy-saving fixtures that frequently qualify for utility rebates.

## What makes Lumileds solution better and different?

- Matrix Platform, including Oberon algorithmic LED mixing technology, provides identical and predictable fixture-to-fixture system performance (system lumen output, uniformity and electrical characteristics)
- High efficacy at high drive currents enables high flux density fixtures
- Optimized radiation pattern and small source size enable fixtures with narrow beam angles that minimize glare, spill light and allow for the use of smaller optics. This in combination with the lowest thermal resistance in the industry support reduced heatsinking, size and weight

## About Lumileds

Companies developing automotive, mobile, IoT and illumination lighting applications need a partner who can collaborate with them to push the boundaries of light. With over 100 years of inventions and industry firsts, Lumileds is a global lighting solutions company that helps customers around the world deliver differentiated solutions to gain and maintain a competitive edge. As the inventor of Xenon technology, a pioneer in halogen lighting and the leader in high performance LEDs, Lumileds builds innovation, quality and reliability into its technology, products and every customer engagement. Together with its customers, Lumileds is making the world better, safer, more beautiful—with light.

To learn more about our lighting solutions, visit [lumileds.com](http://lumileds.com).



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