



# PHILIPS

Stadium lighting  
Perth, Australia

## Philips Lighting delivering unrivalled 'fans-first' experience at multi-purpose Optus Stadium



### Fast facts

**Client:** Government of Western Australia

**Project:** Optus Stadium

**Location:** Burswood Peninsula,  
Perth, Australia

### Acknowledgements:

- Client: Government of Western Australia
- Builder: Multiplex
- Architects: COX Architecture and Hassell HKS
- Electrical Contractor: Nilsen
- Lighting Designer and Supplier: Philips Lighting
- Project Lighting Design Manager: Vessi Ivanova, Philips Lighting

### Customer challenge

In 2012, the Government of Western Australia set the ambitious goal of building a new Stadium for Perth, a stadium to rival those in Australia's key sporting cities, Melbourne and Sydney. The vision was to create a multi-purpose facility that truly delivered a unique experience for fans and the wider Perth community.

“The trend in world sport is that people are tending to stay in their living rooms, so we had to encourage people to get out of their house and come and watch live sport. We wanted to create a unique experience that you cannot get on television.”

- Ronnie Hurst, Project Director, Department of Local Government, Sport and Cultural Industries

As a very significant project for the Government, it was critical the stadium project team delivered a completely integrated solution, that allowed for use 365 days a year. In addition, the stadium needed to employ cutting edge technologies to deliver on the 'fan-first' experience that would attract both domestic, and international sport and entertainment fans.

### More than 5 years in the making

To achieve the ambitious goals of the government, the lighting design team pushed the boundaries of lighting integration, creating a bespoke solution, while managing everything from **lighting design to installation, documentation, and commissioning** in collaboration with key project partners.

A key challenge for the project team, was keeping pace with technological advancements as the stadium was built over five years. This meant working in very close partnership to assess designs and plans at every stage throughout the project to ensure that on completion, Optus Stadium had the most sophisticated technologies to deliver on the vision of the Government of Western Australia.



## Taking light beyond illumination

**“We’ve got a great score on the television consistency index, which is quite a robust and hard standard to meet, but critical for the broadcast sports”**

- Neil Merritt, Senior Services Manager, Multiplex

Central to the stadium’s aesthetic is the façade and roof lighting, which incorporates a fully controllable LED solution featuring 650 RGB LED lighting fixtures to create a stunning visual impact. The façade has been fitted with 1.4km of RGB LED strip lighting to create a dynamic and unique aesthetic. The entire stadium can be lit in team colours on game day to add to the fan experience.

More than five years in the making, Optus Stadium is the largest LED sports lighting installation in the world, featuring more than 22,000 LED fittings. Completely multi-functional, the stadium is able to not only host a range of international sports including AFL, Rugby Union, Rugby League, Soccer, Soccer FIFA 5, Cricket and Athletics, but also events including music concerts, galas and conferences. The Stadium meets the stringent TV broadcast requirements for each of the sports.

**“The community have been absolutely blown away by what a fantastic facility has actually been created here in Perth. And the ability to light up the stadium with your team colours on a game day is magnificent.”**

- Ronnie Hurst, Project Director, Department of Local Government, Sport and Cultural Industries

## Flexible Lighting Solution

**“It was really great working with the Philips design team because they knew exactly what they were trying to achieve with the LED systems. Working with their creative side, we were able to leverage their capabilities to realise the architectural vision.”**

- Peter Dean, Principal Architect, Hassell

The multi-functional nature of the stadium and its facilities demanded flexibility from the lighting systems, which needed to meet a number of criteria. Beyond the pitch, the lighting for every facility throughout the stadium and wider precinct has been thoroughly planned and designed to enhance the safety and architectural vision and meet the strict code requirements and brief.

There are more than 60 VIP areas and 95 corporate suites, each with a unique purpose and carefully designed lighting to perfectly compliment the specific space requirements, create ambience and build atmosphere.

The distinctive arbour lighting has been created using colour-changing LED to illuminate the shapes and forms of the space. This spectacular visual, featuring 621 RGB fixtures throughout the 500m space, has been designed to acknowledge the Aboriginal heritage of the site.

The lighting for each of the four entrances and concourses has been carefully designed to not only build on the aesthetic, but assist in wayfinding and build anticipation for fans.





## End to end integrated lighting solution

The Philips Lighting project team worked collaboratively throughout the entire design, installation and commissioning process to deliver a multi-purpose, state-of-the-art lighting system within Optus Stadium.

- More than 22,000 LED fittings across the entire stadium and precinct
- 891 LED floodlights, making it the largest LED sports lighting installation in the world
- 650 RGB LED lighting fixtures light up the iconic 'halo' roof
- 621 RGB fixtures within the 500m harbour
- 1.4km of RGB LED strip lighting in the stadium façade



## Benefits



### Fan-First experience

Delivering on the 'fan-first' experience that will attract both domestic and international sport and entertainment fans. The lighting has the flexibility to create a multi-purpose arena for fans to watch anything from their home football and cricket teams to world-famous rock concerts. Music and lighting can be merged together in advance by the lighting operator for seamless implementation, creating visually stunning light shows.



### Future proof technology

The biggest LED sports lighting installation of its kind in the world, providing a lighting solution that is adaptable to specific requirements of sporting codes and other events allowing occupancy 365 days a year, not just on game days. It also ensures public safety and security, with well-lit areas in and around the stadium.



### Ready to broadcast

Sports lighting system delivered by Philips Lighting not only provides Ultra High Definition television and super slow motion replays, but makes Optus Stadium meet stringent broadcasting standards.



### Energy efficient stadium

The design brief was to create the most energy efficient stadium to 2018 standards. Light points can be monitored remotely, faults can be detected easily, the system enables a proactive maintenance approach and an always spot on lighting.

Find out how Philips Lighting can transform your stadium

[www.lighting.philips.com.au/systems/system-areas/arena-stadiums](http://www.lighting.philips.com.au/systems/system-areas/arena-stadiums)

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