



A Beacon of Brilliance

SPIRIT OF TASMANIA QUAY

LOCATION

GEELONG, VIC

END USER

SPIRIT OF TASMANIA

ELECTRICAL CONTRACTOR

STOWE AUSTRALIA

ELECTRICAL CONSULTANT

PM DESIGN GROUP



Spirit of Tasmania Quay

The Spirit of Tasmania is an iconic ferry service that operates between mainland Australia and Tasmania, transporting passengers, vehicles and cargo across Bass Strait. Renowned for its reliability, Spirit of Tasmania plays a vital role in connecting Tasmania with the rest of Australia and vice versa.

In late 2022, Spirit of Tasmania relocated its Victorian operations from Port Melbourne to a new, purpose-built terminal in Geelong. The move to Geelong offers more space, improved facilities, modern amenities and a streamlined boarding process. The move was also undertaken to accommodate two new, larger ships - Spirit of Tasmania IV & V, which are currently under construction.

Advanced Lighting Technologies supplied an array of exterior lighting solutions as part of the Spirit of Tasmania Quay project, including road and area lighting products from **Cree Lighting**, solar lighting solutions from **Orca Solar Lighting** and battens designed for harsh environments from **PRACHT**.

Challenges

- Achieve compliance with Australian Standards
- Minimise spill light and glare
- Solve unique mounting requirements
- Consideration of marine life

Solutions

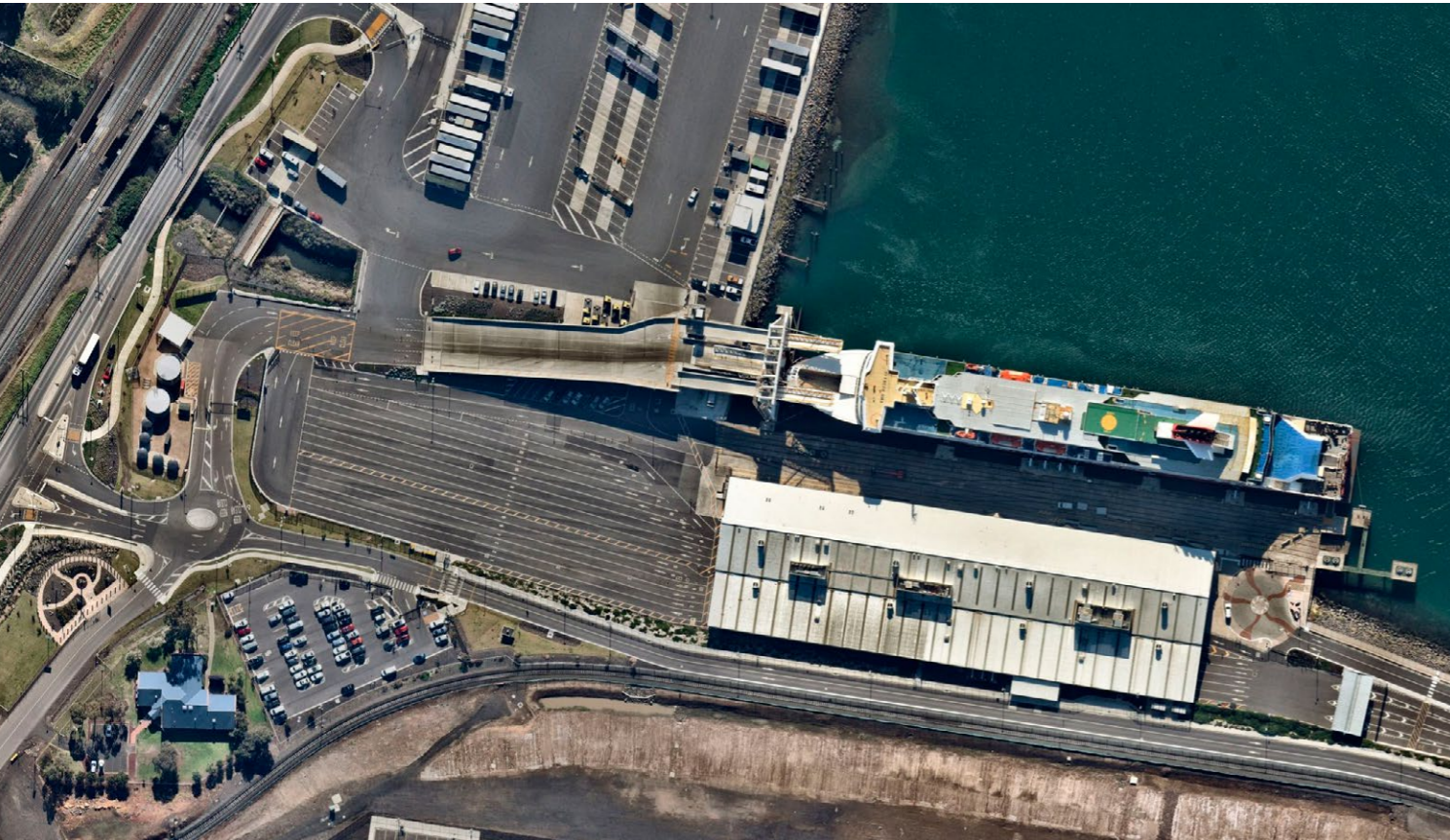
- Cree Lighting XSP Series
- Cree Lighting OSQ Series & OSQ Series High Output
- PRACHT Katla BL
- Orca Solar Avero

Results

- Optimised lighting solutions across multiple applications
- Enhanced visibility, safety and security
- Minimal obtrusive light



**SPIRIT of
TASMANIA**



The Development

Spread out over twelve hectares, the new Spirit of Tasmania Quay in Geelong offers passengers and customers an enhanced travel experience, including a new terminal, contemporary facilities and seamless boarding and security processes. The marshalling area can accommodate up to six hundred cars while free parking is also available for visitor's and passenger's cars, caravans, motorhomes and more.

The ferry service also provides a vital freight link between Tasmania and the mainland, carrying over 100,000 TEU's (twenty-foot equivalent units) of freight per year and supporting industries such as agriculture, manufacturing and retail. Now free from the space and time constraints in place at Port Melbourne, the new Spirit of Tasmania Quay features a dedicated freight terminal with segregated entry and exit points, one hundred and fifty truck parking bays and an after-hours secure freight yard.

Another key element of the new facility is the world-first three-level marine loading ramp, specifically designed to suit both the current ships and the new larger ships being constructed in Europe. The ramp's innovative design has dramatically improved the efficiency of the boarding and disembarkation processes, reducing the waiting time for passengers and freight clients.

Requirements & Challenges

Situated on Corio Bay, Spirit of Tasmania Quay is subject to harsh weather conditions including high humidity, salty sea air and strong winds, all of which can affect metal components and electronics in products like light fittings. Any proposed lighting solution had to be able to withstand these harsh conditions. The brightness and colour temperature of any lighting solution also had to be carefully considered - with spill light minimised - to curtail any disruption to the area's natural habitat and in particular, any marine wildlife that may frequent the area.

In addition to enduring these environmental factors, a number of technical parameters and practical challenges had to be met at Spirit of Tasmania Quay. Advanced Lighting Technologies were engaged by PM Design Group to provide a wide range of exterior lighting products, covering a myriad of applications, each with their own set of challenges and requirements:

Staff & Public Car Parking / Standard & After-Hours Freight & Truck Parking

When designing a lighting solution for car and truck parking, several important factors must be considered to ensure safety, visibility and compliance. Namely, achieving adequate illumination levels for both vehicles and pedestrians, minimising glare and ensuring uniformity of light across the entire area.

Compliance with the applicable Australian Standard (AS/NZS 1158.3.1:2020), which outlines lighting requirements for public outdoor car parks, is critical. This standard specifies the minimum average illuminance, uniformity ratio and glare limits to provide a safe and visually comfortable environment.

Private Roadways

Many of the same factors apply when designing lighting for private and local roadways; ensuring adequate brightness and uniformity across the entire area is paramount for pedestrian and vehicle safety. Following the recommendations in AS/NZS 1158.3.1:2020 can help to achieve this.

Marshalling Area

Spirit of Tasmania's marshalling area spans up to fourteen lanes and can accommodate hundreds of cars, including many caravans and other larger vehicles. Ensuring adequate visibility in this area is essential to ensure the safety of pedestrians, motorists and staff.

Marine Ramp

All vehicles use the custom three-level ramp to enter and exit the ship, so many of the same requirements relating to brightness and uniformity previously mentioned also apply. Most of the fittings used to light the marine ramp had to be attached directly to the gantry, necessitating some creative thinking to find an acceptable solution.

An overhead walkway also had to be lit, allowing staff to safely cross from one side of the ramp to the other. The light fixtures installed here also required a unique mounting solution.

Drop Off Area

The drop off area is situated between the ship's berth and the passenger terminal, directly next to the water. Appropriate luminaire selection here was crucial, to prevent glare from affecting the ship's crew and to avoid any spill light that could disturb marine life below.

Gantry Walkway

Running mains power to the gantry walkway simply wasn't feasible, so a solar lighting solution was required to ensure the walkway was sufficiently lit for safe wayfinding, while minimising the amount of spill light directed outwards or into the water.

The Solution

Advanced Lighting Technologies supplied a complete exterior lighting solution at Spirit of Tasmania Quay, including solar lighting systems from **Orca Solar Lighting**, sturdy battens from **PRACHT** and area lighting luminaires from **Cree Lighting**.



CREE LIGHTING

XSP Series

AREA & FLOOD

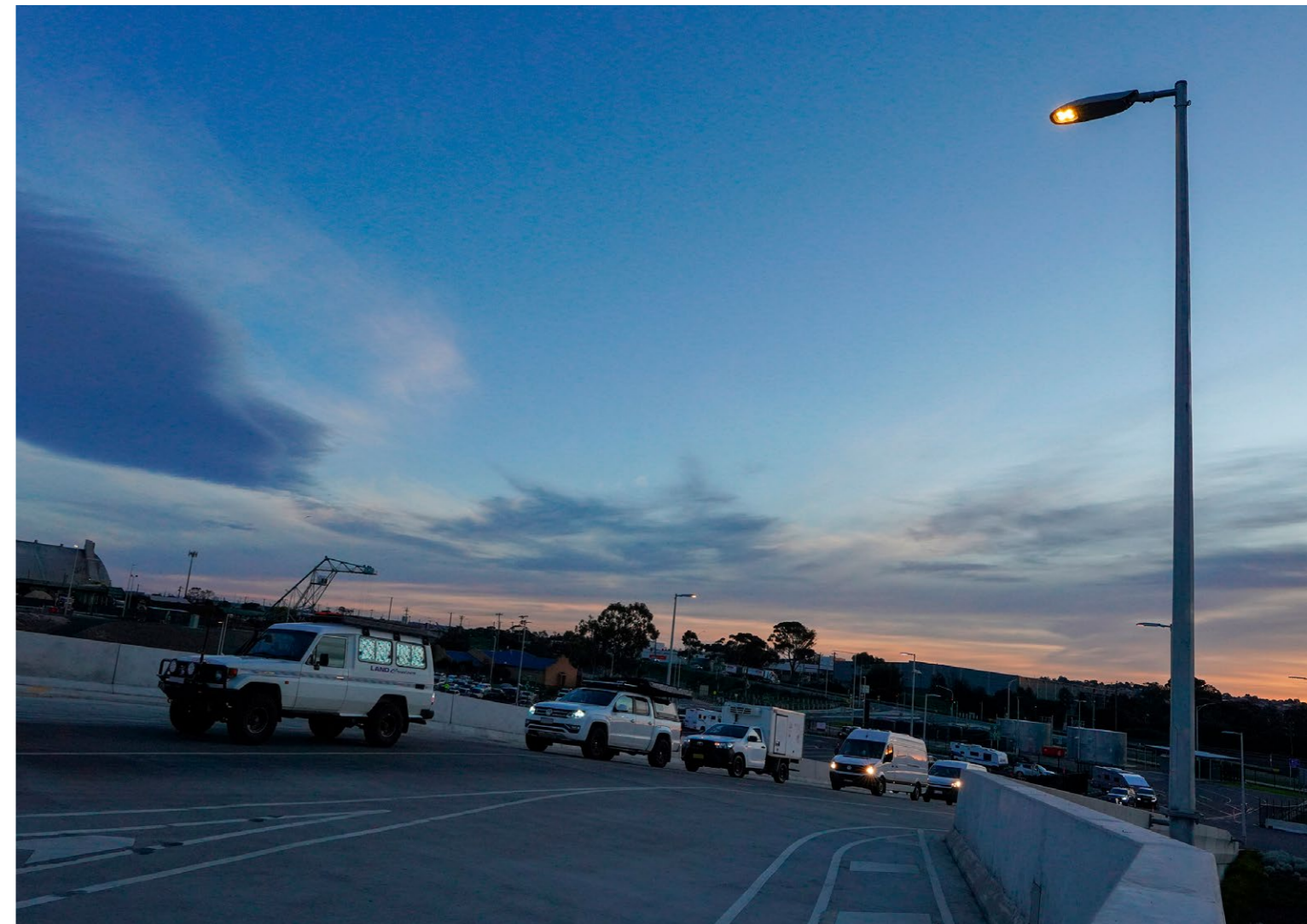
The Cree Lighting XSP Street & Area Light delivers uniform illumination exactly where it's needed thanks to its integrated NanoOptic technology. Delivering incredible efficiency without sacrificing application performance, the XSP Series is perfect for both retrofit and new construction. A standard 10-year warranty offers peace of mind.

Benefits

- 1 Elite optical control
- 2 Popular cobra head design
- 3 Multiple control options

LUMENS	4,000L - 17,000L
WATTAGE	67W - 128W
CCT	3000K 4000K 5700K
CRI	70 CRI
RATING	IP66 IK08
WARRANTY	10 YEARS
COLOURS	BK SV
HIGHLIGHTS	NANOOPTIC® PRECISION DELIVERY
HIGHLIGHTS	AEMO APPROVED*

- *Certain variants AEMO approved.
- MOQ may apply for certain variations.
- All lumen and wattage figures nominal.





Boarding
Vehicle proceed to
Check-in

Terminal
Pick-up and
Drop-off

SPIRIT of TASMANIA



20
AREA

20
AREA

20
NO
STOPPING
OR
PARKING



CREE ⇄ LIGHTING

OSQ Series

AREA & FLOOD

The Cree Lighting OSQ and OSQ High Output Area & Flood Lights offer exceptional energy efficiency, durability and performance for outdoor lighting applications. Both models feature advanced optics that provide uniform, high-quality illumination, ideal for parking lots, roadways and large outdoor spaces. The High Output variant delivers even greater lumen output, making it suitable for bigger areas with increased pole spacings. The OSQ Series is designed for longevity, with durable construction and advanced thermal management to ensure reliable operation in the most challenging environments.

Benefits

- 1 Suitable upgrade for HID applications
- 2 Slim, low-profile design minimises wind load requirements
- 3 Standard 10-year limited warranty



		HIGH OUTPUT
☀ LUMENS	8,500L - 31,000L	42,000L - 80,000L
⚡ WATTAGE	103W - 208W	304W - 533W
🌡 CCT	3000K 4000K 5700K	3000K 4000K 5000K 5700K
📊 CRI	70 CRI 80 CRI @ 3000K	70 CRI 90 CRI @ 5000K
🔧 RATING	IP66 IK08	
⚙️ OPTIONS	NEMA, DALI	
🛡️ WARRANTY	10 YEARS	
🎨 COLOURS	BK SV	
★ HIGHLIGHTS	NANOOPTIC® PRECISION DELIVERY	

- MOQ may apply for certain variations.
- Mount must be ordered separately.
- All lumen and wattage figures nominal.
- Not all variants available in all models.

The Cree Lighting OSQ Series boasts a well-earned reputation but these particular models are now closer to the end of their life cycle than the beginning. Advanced Lighting Technologies will continue to offer limited quantities for project use until our supplies are exhausted. We recommend considering modern alternatives where possible - contact us for more information.





PRACHT®

Katla BL

BATTEN

Suitable for both everyday use and extreme applications, the **PRACHT Katla BL** is a robust and efficient surface-mounted LED batten designed for industrial and commercial environments. Known for its durability, the Katla BL's impact-resistant housing offers a tremendous level of protection in harsh conditions.

☀️ LUMENS	2,800L - 6,500L
⚡ WATTAGE	20W - 46W
📏 CCT	4000K
📊 CRI	80 CRI
🔧 RATING	IK08 IP65
🌡️ TOLERANCE	FROM -20 °C UP TO +35 °C
🛡️ WARRANTY	5 YEARS
🎨 COLOURS	WH
★ HIGHLIGHTS	HIGH INGRESS PROTECTION

• All lumen and wattage figures nominal.
• Some features are model dependant.



Benefits

- 1 Easy installation
- 2 Extremely durable
- 3 Withstands tough environments







Benefits

- 1 Low environmental impact
- 2 Easy install - no trenching or cabling
- 3 Powered by renewable solar energy

CREE LIGHTING

Solar Avero

AREA & FLOOD

Designed in Australia, the **Orca Solar Avero Lighting System** generates up to two thousand lumens of warm light. A high-quality, multi-directional solar panel ensures maximum sunlight capture while a premium battery provides up to five days autonomy and battery back-up. Built-in adaptive lighting controls allow the Avero to be programmed to reduce or increase light levels based on set times or the presence of movement in the area.

LUMENS	385L - 2,000L
WATTAGE	5W - 14W
CCT	3000K
CRI	80 CRI
RATING	IP67 IK08
OPTIONS	PIR SENSOR
WARRANTY	5 YEARS
COLOURS	BK SV
HIGHLIGHTS	UP TO 5 DAYS AUTONOMY

- Length of autonomy/battery backup subject to location requirements.
- All lumen and wattage figures nominal.

Results

Spirit of Tasmania strive to ensure its passengers reach their destination safely, comfortably and efficiently, so it stands to reason that the facilities supporting their operations also provide safety, comfort and efficiency at the beginning or end of their journey.

The lighting at Spirit of Tasmania Quay is no exception, with a primary focus on safety, especially in the areas where vehicles and people are in close proximity. Advanced Lighting Technologies supplied the **Cree Lighting OSQ Series & XSP Series** to provide uniform illumination across the car parks, roadways, marshalling areas and marine ramp.

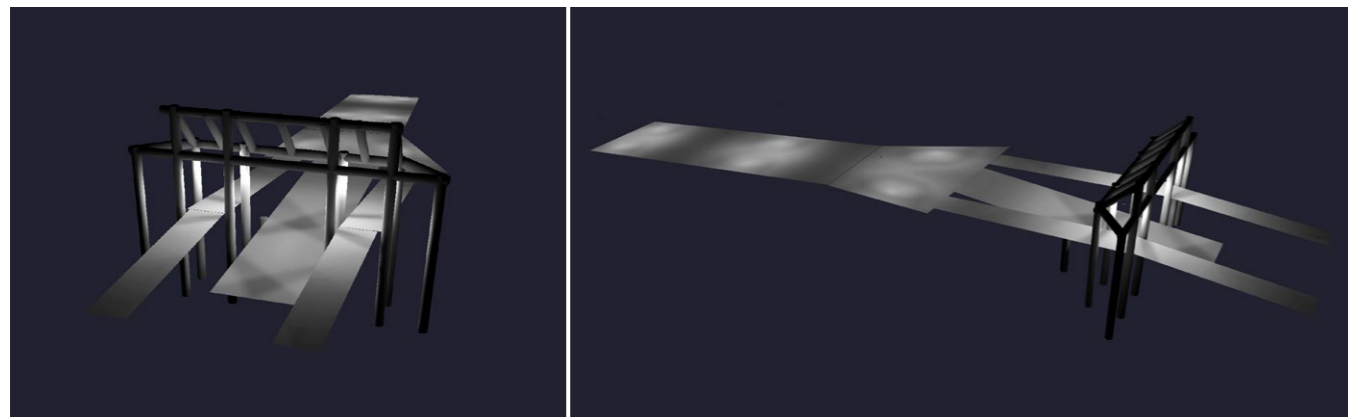
Our experienced technical lighting team created a highly optimised, intelligent lighting design that ensured the most efficient possible use of the space while complying with the light technical parameters recommended by the relevant Australian Standards. Using minimal fittings and poles lowered both the initial installation costs and ongoing maintenance requirements. Cree Lighting's integrated **NanoOptic** technology ensures obtrusive light is minimised, while optional backlight shields were deployed where necessary to ensure even greater spill-light control.

Some sections of the marine ramp required unconventional mounting solutions to affix the luminaires - either to the overhead gantry or underneath the upper levels of the ramp. Advanced Lighting Technologies proposed alternative solutions to suit both, which were manufactured and sourced locally.

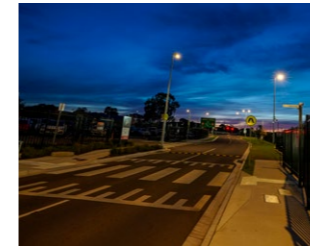
The XSP Series & OSQ Series both feature Cree Lighting's high-performance **DeltaGuard** protective coating, designed to enhance the durability, corrosion resistance, and UV protection of their outdoor lighting fixtures, ensuring long-term reliability even in the harsh environmental conditions inherent with a seaside location. The result is an efficient and robust area lighting system designed to last for many years.

To provide sufficient light and ensure workers could safely cross the overhead gantry walkway in all conditions, Advanced Lighting Technologies supplied the sturdy and energy-efficient **PRACHT Katla BL**, which were also mounted using an innovative custom solution to light the area from above.

A separate gantry walkway in the drop-off area also required illumination, however running electricity wasn't an option. Thankfully, our partners at **Orca Solar Lighting** offer the perfect solution - the **Avero**, specifically designed for solar pathway lighting applications. The Avero generates warm illumination with tight optical boundaries, minimising any spill light from entering the water below. Using renewable energy from the sun produces no greenhouse gas emissions and minimises the system's carbon footprint.



Lighting supplied by Advanced Lighting Technologies at Spirit of Tasmania Quay were designed to comply with the light technical parameters recommended by the following Australian Standards:



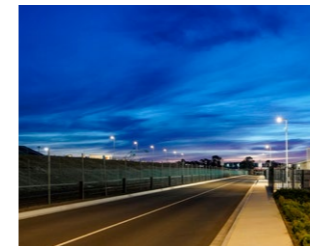
Staff Car Park & Public Car Parking

AS/NZS 1158.3.1:2020 - Lighting for Roads & Public Spaces / Pedestrian Area Lighting
- Subcategory PC3 (Outdoor Car Parks)
- Subcategory PCD (Outdoor Car Parks For People With Disabilities)



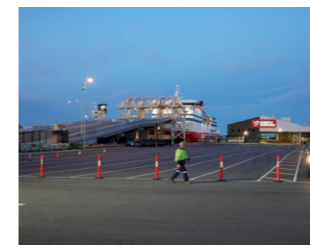
Standard & After-Hours Freight & Truck Parking

AS/NZS 1158.3.1:2020 - Lighting for Roads & Public Spaces / Pedestrian Area Lighting
- Subcategory PC3 (Outdoor Car Parks)



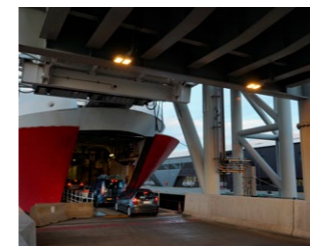
Private Roadways

AS/NZS 1158.3.1:2020 - Lighting for Roads & Public Spaces / Pedestrian Area Lighting
- Subcategory PR2 (Roads in Local Areas)



Marshalling Area

AS/NZS 1158.3.1:2020 - Lighting for Roads & Public Spaces / Pedestrian Area Lighting
- Subcategory PR2 (Roads in Local Areas)



Marine Ramp (Vehicle Access)

AS/NZS 1158.3.1:2020 - Lighting for Roads & Public Spaces / Pedestrian Area Lighting
- Subcategory PR2 (Roads in Local Areas)



Marine Ramp (Overhead Walkway)

AS/NZS 1680.5:2012 - Outdoor Workplace Lighting
- Table 3.1 (General Outdoor Areas - Assembly, Fabrication, Manufacture or Maintenance)





SPIRIT OF TASMANIA I



Advanced Lighting Technologies are specialists in architectural, commercial and industrial lighting. **Whatever the application, whatever the budget - we'll have a solution that fits your needs.**



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