



Advanced
LIGHTING TECHNOLOGIES

PAST, PRESENT & FUTURE

CASE STUDY

NEXT GEN HEALTH
& LIFESTYLE CLUB



NEXT GEN HEALTH & LIFESTYLE CLUB



CASE STUDY

Combining the Past, Present & Future

Next Gen Health & Lifestyle Clubs are premium, members-only gyms found right around Australia and in New Zealand, but their latest club in Melbourne is perhaps their most spectacular yet. Built on a former golf course, Next Gen Doncaster's state-of-the-art facilities share the grounds with the historic Tullamore homestead, which has been renovated and restored as part of the development.

Advanced Lighting Technologies supplied much of the external lighting at the club, including a premium tennis court lighting solution from **Cree Lighting** and architectural luminaires from **Arcluce**. We also supplied the innovative **PRACTH Quadronius** to illuminate the indoor swimming pool.



Aerial imagery courtesy of Nearmap.

The Facility

Next Gen Health & Lifestyle Clubs was established in Australia in 1999, with its first club opening at iconic Memorial Drive in Adelaide. Next Gen quickly became Adelaide's leading health and lifestyle club and has retained the elusive title ever since.

Over the next twenty years, Next Gen replicated the success of their Memorial Drive club to develop additional locations in iconic places with strong sporting traditions. Today, Next Gen have six locations with clubs in Sydney, Canberra, Adelaide, Perth, Auckland and now, Melbourne.

Located in a new residential development on the site of the former Eastern Golf Club, Next Gen Doncaster is arguably one

of the finest Health & Lifestyle Clubs in Australia, featuring cutting-edge gymnasium equipment, competition-grade tennis courts, indoor and outdoor heated pools, premium spa facilities, multiple hospitality offerings, member's lounge and more.

Sitting in the middle of the development is the historic Tullamore homestead. Originally constructed in the 1850's, the building has been fully restored to replicate its original form, and now takes pride of place as the grand centrepiece at Next Gen Doncaster. A much-loved nearby oak tree was also left untouched, retaining the site's rich heritage.



We're so pleased to offer an unparalleled range of premium training programs, world-class facilities and resort-style amenities to the local community. Next Gen truly has everything you want and need under one roof.

Tamara James-Reid
General Manager
Next Gen Doncaster

Requirements & Challenges

As a premium gym, Next Gen offers its members state-of-the-art facilities and equipment from top to bottom, and the lighting was no exception. Next Gen required high-quality luminaires that suited their intended application while integrating seamlessly into their surroundings.

Advanced Lighting Technologies were engaged by **BRT Consulting Engineers** to design and supply lighting solutions for a variety of applications at Next Gen Doncaster, including the exterior car park, pathways, tennis courts, indoor swimming pool and the undercover car park transition zone.

Tennis Court

Tennis can be an incredibly quick, visually demanding sport. Both the ball and players move rapidly around the court, requiring high visibility from all directions for participants, officials and spectators alike. Players need to be able to judge the flight and speed of the ball quickly and accurately in order to react appropriately.

Next Gen Doncaster boasts four outdoor tennis courts with professional hard-court surfaces, which host social games, classes, competitions and casual member bookings. The design brief was straight forward: a standard side-lit four-pole scheme was specified, and light levels had to achieve the recommendations listed in AS 2560.2.1-2003 for social play, which dictates a maintained horizontal illuminance of 250 lux across the playing surface.

A side-lit tennis court lighting scheme offers several advantages to alternatives, including less glare, lower poles and an improved ability to control spill light. To illuminate all four courts, a mix of single and back-to-back luminaires were needed.

Pathway

The search for a bollard to illuminate internal pathways at Next Gen required a luminaire that would match both the historic charm of Tullamore homestead and the brand-new construction surrounding it. It also needed to be robust enough to withstand the challenges of an urban environment. Finally, compliance with the light technical parameters recommended in Australian Standard (AS/NZS 1158.3.1:2005 Category P4) was needed to help ensure the safety of Next Gen's members, guests and staff when onsite.

Exterior Car Park

Exterior car park lighting should focus on security and safety; car park users should feel safe walking to and from their cars, and pedestrians should be visible to drivers at all times.

Next Gen's exterior car park offers space for 35 vehicles, and as the closest car park to the main entrance, is often quite busy. An optimised lighting design using minimal fittings and poles was required to ensure the most efficient possible use of the space, while light levels recommended in Australian Standard (AS/NZS 1158.3.1:2005 Category P11(B)) had to be achieved.

Indoor Swimming Pool

Ideal for use all year round, Next Gen Doncaster boasts a 6-lane 25m heated indoor pool which hosts aquatic programs, swimming classes and lap sessions.

Indoor swimming pools create a warm, humid environment that can challenge even the highest quality electrical components. Moisture in the air can leach into electrical systems (including light fittings) resulting in reduced performance, lowered life expectancy and even failure. A luminaire with high levels of ingress protection is essential.

Safety and visibility are also of paramount importance; instructors and supervisors need to be able to clearly see the entire pool and all swimmers using it. Obstructions like glare and reflectance need to be minimised. A lighting solution that achieved the recommendations in AS 2560.2.5-2007 Sports Lighting (Swimming Pools) was crucial.

The lighting design was completed to ensure compliance with the light levels recommended by the following Australian Standards:

- **AS/NZS 1158.3.1:2005 Roads & Public Spaces**
Category P11(B) - Parking Spaces
- **AS/NZS 1158.3.1:2005 Roads & Public Spaces**
Category P4 - Pathway
- **AS 2560.2.1-2003 Sports Lighting**
Outdoor Tennis
- **AS 2560.2.5-2007 Sports Lighting**
Swimming Pools



The Solution

Advanced Lighting Technologies offer luminaires from some of the world's leading lighting manufacturers, including **Cree Lighting**, **PRACHT** and **Arcluce**.

Our range of specification-grade luminaires have been carefully chosen to meet the most demanding requirements of lighting designers, engineers, contractors and end users.



OSQ High Output

CREE LIGHTING

LED AREA & FLOOD LIGHT

Not all light fittings are created equal. The Cree Lighting OSQ High Output LED Area & Flood Light is a premium luminaire that has changed the standard of high output illumination.

Market leaders Cree Lighting have been at the forefront of LED innovation since its commercial inception, which is evident in the OSQ High Output (HO) Series. Offering an industry-leading 10-year warranty, advanced optical control and true-to-life colour rendering, this remarkable luminaire generates up to 76,000 lumens in a slim, low-profile design, perfect for sporting applications like tennis.

FEATURES

3000K, 4000K, 5000K & 5700K CCT

UP TO 90 CRI (5000K)

RANGE OF VERSATILE MOUNTING CONFIGURATIONS

10 YEAR WARRANTY

FULL CUT OFF

IP66 / IK08

DELTA GUARD®

TRUEWHITE® (CRI 5,000K*)

NANOOPTIC® TECHNOLOGY

FUTURE PROOF*

BENEFITS

SLIM, LOW-PROFILE DESIGN

SIMPLE INSTALLATION

MINIMAL WIND LOAD REQUIREMENTS

PREMIUM LONG-TERM WARRANTY

*Optional / Model Dependant

Klou-IK

Arcluce

LED BOLLARD

The Arcluce Klou-IK LED Bollard was conceived to offer incredible impact resistance without sacrificing the look and feel of an architectural fitting.

The Klou-IK's impact resistance rating protects the sensitive optics inside while its clean and geometrical design allows it to integrate seamlessly into any urban environment.

A range of different optics (radial 360°, one-way 180° or two-way) provide perfect control of the beam; light slides smoothly from the source, grazing the ground and avoiding any glare effect at eye level.

FEATURES

DIE-CAST ALUMINIUM BODY

AVAILABLE WITH SEVERAL WATTAGES

AVAILABLE IN 3000K & 4000K CCT

5 YEAR WARRANTY

FULL CUT OFF

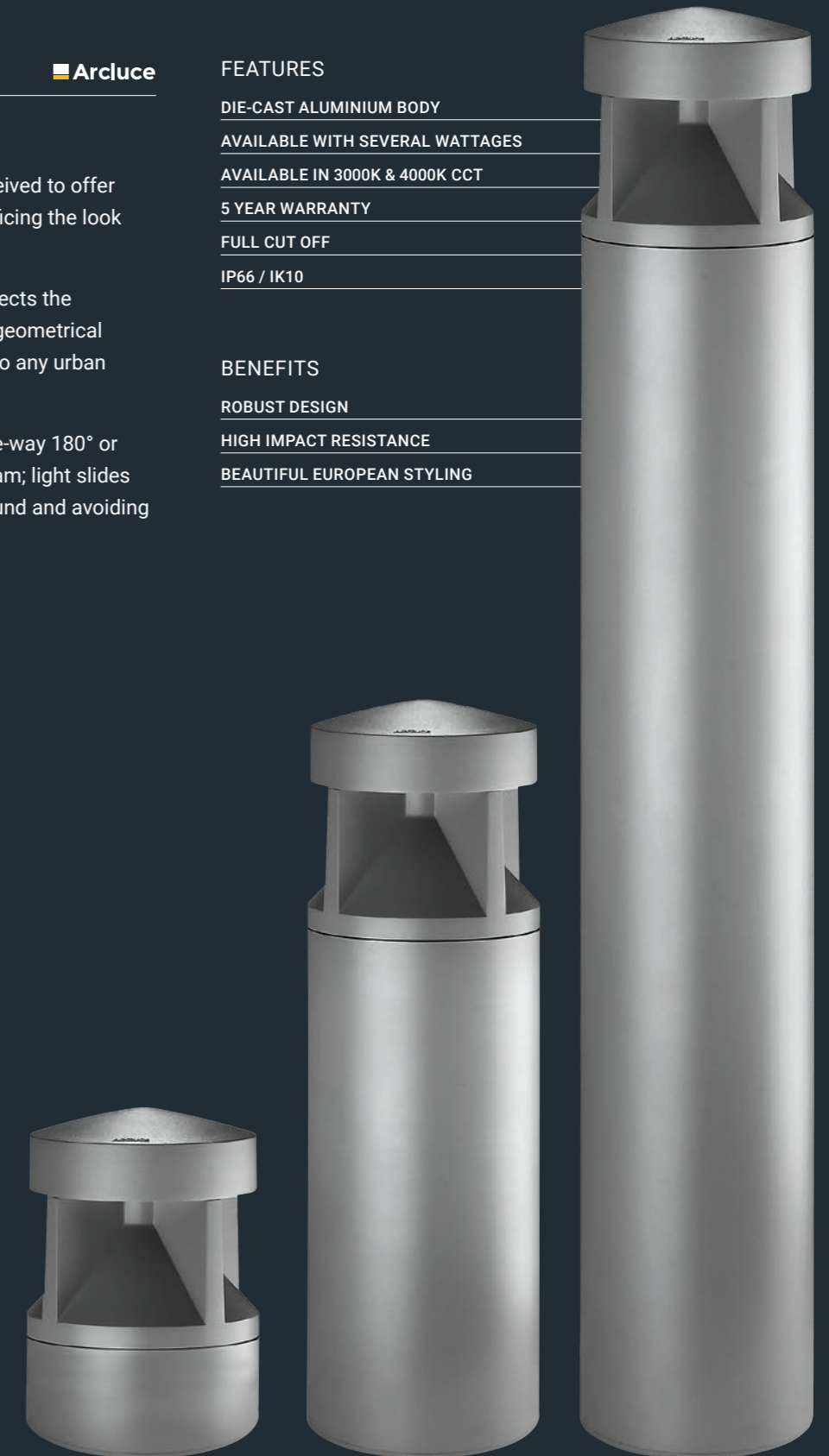
IP66 / IK10

BENEFITS

ROBUST DESIGN

HIGH IMPACT RESISTANCE

BEAUTIFUL EUROPEAN STYLING





XSPM

CREE LIGHTING

LED STREET & AREA LIGHT

The Cree Lighting XSPM LED Street & Area Light delivers incredible efficiency without sacrificing application performance. Equipped with Cree Lighting's NanoOptic® Precision Delivery Grid Optics, the XSPM Series achieves far superior optical control than traditional streetlights, delivering uniform illumination exactly where it's meant to go.

The XSPM offers flexible mounting options and simple installation, perfect for both retrofit and new construction.

FEATURES

- MINIMUM 70 CRI
- AVAILABLE IN 2700K, 3000K, 4000K & 5700K CCT
- TRADITIONAL COBRA HEAD APPEARANCE
- 10 YEAR WARRANTY
- FULL CUT OFF
- IP66 / IK08
- DELTA GUARD®
- NANOOPTIC® TECHNOLOGY
- FUTURE PROOF*
- AEMO APPROVED*

BENEFITS

- FLEXIBILITY THANKS TO FIELD ADJUSTABLE OPTION
- STANDARD 10-YEAR LIMITED WARRANTY

*Optional / Model Dependant



Quadronius

PRACHT

LED HIGHBAY

Designed for extreme conditions, the PRACHT Quadronius LED Highbay features precision German engineering and quality construction and is available in a range of variants suited for different applications, including food production, manufacturing, ball sports and indoor swimming pools.

Featuring a modern low-profile design, the Quadronius' can be suspended or mounted directly to walls or ceilings and is available in single or double module configuration.

While its unique appearance may initially catch the eye, it's what you can't see that really sets the Quadronius apart. Thanks to PRACHT's innovative and unique approach, the Quadronius features age-resistant silicone seals, shorter than usual to minimise vulnerability and increase protection. Designed to withstand moisture and vapour ingress, the Quadronius' seals offer much greater protection than a standard IP66 rated fitting, preventing the damage invasive moisture can cause over time.

Advanced Lighting Technologies supplied a special 'Pool' variant at Next Gen Doncaster, in which the Quadronius' internal components also receive a special lacquered coating during the manufacturing process, designed to further protect the driver from moisture and aggressive chlorine vapours. **This special coating is what separates the Quadronius from the competition – there's simply nothing else on the market like it.**

FEATURES

- STANDARD 4000K CCT (Others available upon request)
- SINGLE & DUAL MODULE
- RANGE OF VERSATILE MOUNTING CONFIGURATIONS
- 5 YEAR WARRANTY

BENEFITS

- FLEXIBLE INSTALLATION OPTIONS
- SPECIALLY DESIGNED APPLICATION-BASED VARIANTS
- PRECISION GERMAN ENGINEERING



Premium Square Poles

CREE LIGHTING

LIGHT POLES

Advanced Lighting Technologies offer a range of premium straight square steel light poles from Cree Lighting.

Cree Lighting's proprietary Crown-Weld® pole base configuration was designed to minimise stress in areas most vulnerable to failure, provide superior strength and offer higher wind load ratings than poles of similar height and cross-section. Its premium pole design and extended-life finish combine for a 7-year limited warranty to reduce lifetime cost of ownership.

Cree Lighting's premium poles come in a variety of heights and finishes and are available with a range of optional accessories including foundation cages, mounts and brackets (sold separately).

FEATURES

HEIGHTS: 4.6M, 6.1M, 7.6M

SILVER & BLACK FINISHES AVAILABLE

7-YEAR LIMITED WARRANTY

BENEFITS

FLEXIBILITY TO SUIT MOST APPLICATIONS

A WIDE RANGE OF MOUNTS, BRACKETS AND TENONS AVAILABLE (SOLD SEPARATELY)

ROBUST AND STRONG



“ Advanced Lighting Technologies offer premium, specification-grade luminaires to our clients, and Next Gen offer premium health and wellness facilities to their members, so it was a natural fit. The range of products specified and installed at Next Gen provide the perfect mix of architectural styling, functionality and performance.

Working closely with BRT Consulting Engineers on the project, Advanced Lighting Technologies' Victorian Sales Manager, Peter Rees praised the functional and stylish nature of the solution:



Results

Next Gen Health & Lifestyle Club Doncaster is perhaps one of Australia's most spectacular gymnasiums, providing a range of premium fitness and wellness options for its members. The club's modern facilities blend seamlessly with the historic charm of Tullamore homestead, while the property offers sweeping views of its surrounds, including the Melbourne city skyline in the distance.

A high-end facility like Next Gen Doncaster requires high-end lighting solutions, which is precisely what was supplied by Advanced Lighting Technologies. Our selection of specification-grade luminaires installed on the project offer practicality and performance without sacrificing visually appealing design.

Next Gen's roots are intertwined with tennis, so it's no surprise they demanded a premium tennis court lighting solution for their Doncaster club. The **Cree Lighting OSQ High Output** easily meets the necessary illumination levels while offering exceptional colour rendering. Every ground stroke, ace, volley and smash are clearly visible on even the darkest of nights. Cree Lighting's advanced optical control technology means any obtrusive light is minimised, and optional backlight shields were deployed to ensure even greater spill-light control. The OSQ High Output's low-profile design looks sleek and modern, matching the architecture of Next Gen's contemporary facilities.

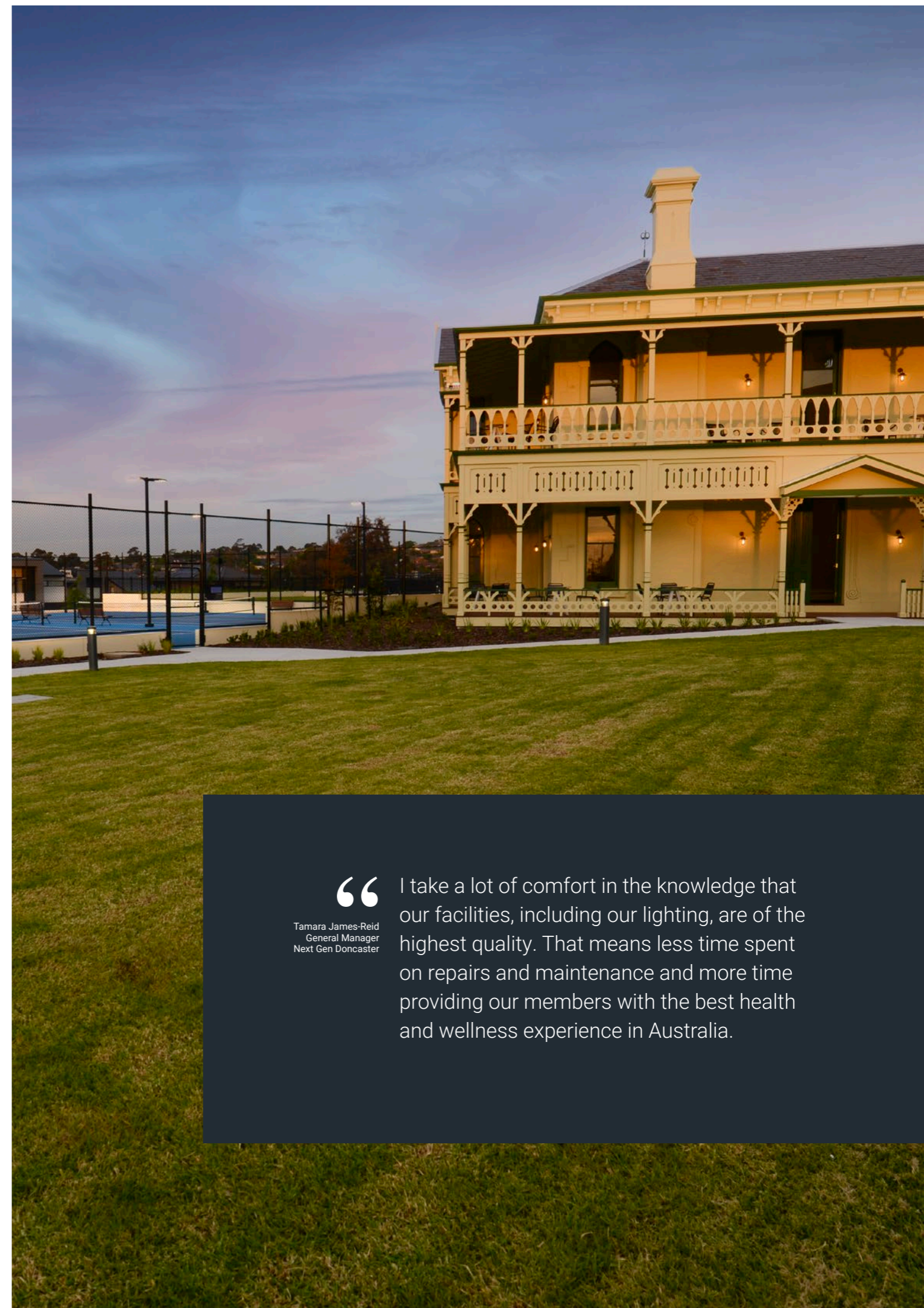
The exterior walkways at Next Gen Doncaster are well lit thanks to the soft radial illumination provided by the **Arcluce Klou-IK**. The Klou-IK's sleek European styling ensures it integrates seamlessly into its surroundings, which is evident on the pathways leading to and from Tullamore homestead. The Klou-IK is perfectly suited to the urban environment, offering a high level of robustness that can withstand significant impacts such as vandalism, ensuring it will help to guide the way at Next Gen Doncaster into the future.

Anywhere vehicles and people come in close contact has the potential to be unsafe, however Next Gen Doncaster have ensured this risk has been minimised by combining intelligent lighting design with an advanced street lighting solution. The compact nature of Next Gen's car park meant space was at an absolute premium, so only the most optimised design would have achieved compliance with the required Standard. Enter the **Cree Lighting XSPM**, which has created a welcoming and safely lit environment through

excellent uniformity ratios and controlled high-angled brightness. When combined with Cree Lighting's premium square steel light poles, reinforced to better withstand the rigours of busy car parks, the result is a robust and high-performance lighting system designed to last for many years.

Lighting swimming pools is not a simple task. Factors like glare, reflectance, natural light, water depth and the type of aquatic activities undertaken were all considered during the design phase to best ensure compliance with the applicable Standard (AS 2560.2.5-2007). The humid environment inherent to indoor swimming pools can make a difficult task even harder: careful luminaire selection is key. By choosing the **PRACHT Quadronius Pool**, Next Gen Doncaster can rest assured that lighting is something they won't have to worry about for the foreseeable future. PRACHT's innovative internal lacquered coating, short silicone seals and high ingress protection rating means the luminaires are protected from moisture and aggressive chlorine vapours.

The commitment to purchase and install premium lighting solutions at Next Gen Health & Lifestyle Club Doncaster is a refreshing change from the price driven mentality that has influenced the industry in recent times. The old adage "you get what you pay for" has been proven correct time and time again. Saving a few dollars by installing the cheapest lights available to begin with can prove costly down the track when reliability and performance issues set in. By investing in high quality lighting solutions designed to comply with the relevant Australian Standard from the start, Next Gen Doncaster can be confident that's something they won't have to worry about.



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Tamara James-Reid
General Manager
Next Gen Doncaster

I take a lot of comfort in the knowledge that our facilities, including our lighting, are of the highest quality. That means less time spent on repairs and maintenance and more time providing our members with the best health and wellness experience in Australia.

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.**



Advanced
LIGHTING TECHNOLOGIES

**Advanced Lighting Technologies
Australia Inc**

110 Lewis Road
Wantirna South, Victoria
AUSTRALIA 3152

T: +61 3 9800 5600

E: sales@adlt.com.au

www.adlt.com.au

**Advanced Lighting Technologies
New Zealand Ltd**

8 Boeing Place
Mount Maunganui
NEW ZEALAND

T: +64 7 579 0163

F: +64 7 579 0164

E: light@adlt.co.nz

www.adlt.co.nz

**Advanced Lighting Technologies
Asia Pte Ltd**

Block 4008, Ang Mo Kio Avenue 10
#04-06, Techplace I
SINGAPORE 569625

T: +65 6844 2338

E: sales@adlt.com.sg

www.adlt.com.sg