

THORN
LIGHTING



ALTIS

The most powerful light, controlled



**WE
MAKE
LIGHT
WORK**

CONTROLLED LIGHT POLLUTION. MAXIMUM POWER.

Altis is a powerful, flexible and easy to install, LED floodlight with up to 264,000 lumens.

For a wide-range of sports and high column area lighting applications, Altis offers numerous CCT/CRI/TLCI (3000 K, 4000 K and 5700 K, CRI from 70 to 90+ and TLCI up to 90+) as well as colour changing configuration options (RGBW and Balanced White). In addition to flicker-free operation for HDTV broadcasting, it also provides mixed optics. Thanks to its tiltable LED modules, it enables installation design optimisation, with a minimum number of floodlights.



Stadia
& arenas



Recreational
sports



Multi-sports
halls



Swimming
pools



Transportation &
industrial areas



Façades



Light
shows



INNOVATION DELIVERS OPTIMAL PERFORMANCE

Altis is available in 1, 2 or 3-module versions, allowing for a variety of optical configurations and installation options – from horizontal for reduced obtrusive light to tiltable for sports applications – so designers can select the most suitable for each individual project's needs.

Different optics can be mixed in each floodlight. The ability to tilt the floodlight allows the lighting design to be optimised. This delivers several benefits including fewer floodlights, perfect uniformity on the playing area and greatly reduces windage.



3 LED MODULES
(504/480/456/432 LEDS)



2 LED MODULES
(336/312/288 LEDS)



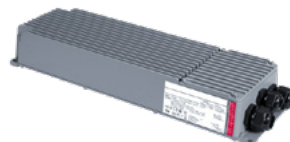
2 LED MODULES
(336/312/288 LEDS
LIGHT BRACKET)

PREMIUM GEARBOX

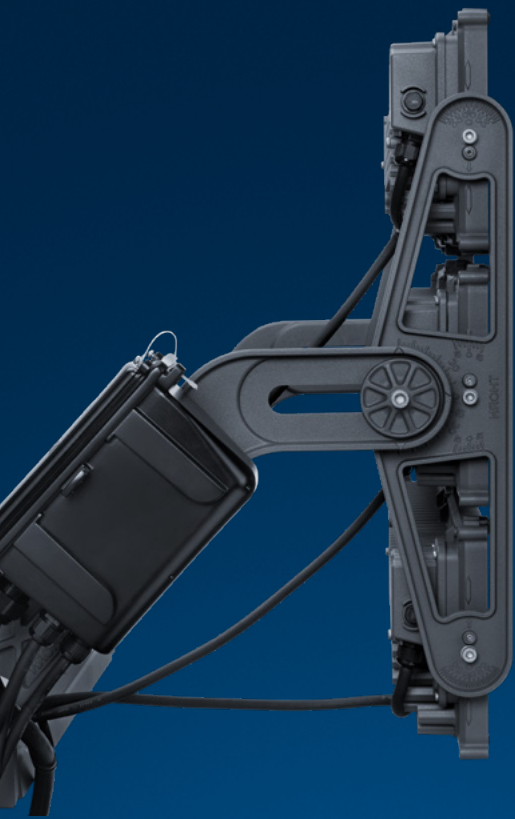
Whether large stadium, recreational field or area floodlighting, the compact patented gearbox delivers high performance in all types of installations. Its improved lifetime also makes it an attractive retrofit solution.



Premium Gearbox
Suitable for all configurations of
Altis, with excellent performance



Performance Gearbox
Cost-conscious option for limited
applications, with high performance
maintained



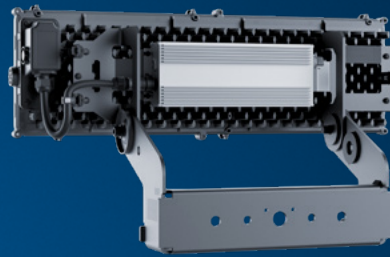
FLEXIBLE AND INTUITIVE DESIGN

Offering maximum flexibility, the different optics in Altis can be combined in the luminaire structure to create the right light solution for specific applications. Not only flexible, the floodlight is easy to install with handling possible from the lateral arms and it offers multiple installation positions.

The process is also made quicker and more efficient still with a quick fix connection box and the easy plug-in connectors for the luminaire and for the gearbox. The connection box can be attached at different places on the luminaire structure and cable guidance behind the LED modules gives a secure place to hold all the cables together. The angle indication for each LED module and arm is simple to use for quicker and more precise luminaire aiming.



1 LED MODULE
(168/144 LEDS)



1 LED MODULE (STANDALONE)
(168/144 LEDS)

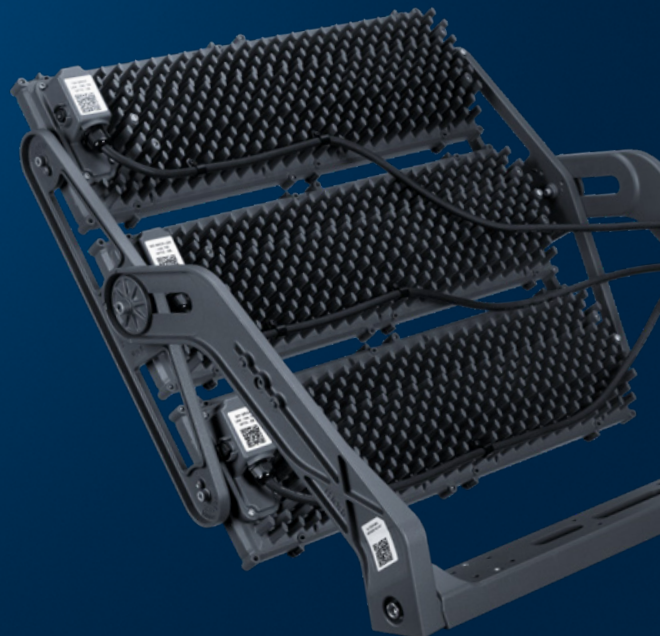
Compact and lightweight with integrated gearbox and quick-fit connectors for a simple installation, ideal for smaller areas requiring high performance.

MULTI PATENTED INNOVATIONS INCLUDED

Altis is a truly innovative luminaire due to the concept that provides a comparable high exchange area to volume ratio. This means there is multi directional air flow resulting in reduced pressure loss, improved air flow that creates a good balance between high cooling abilities and low impact drag forces.

Designed with the user in mind. With a customer friendly lateral arm, a lightweight body with high structural vibration resistance, and also the adjustable precision setting that allow for accurate and fast LED module tilting and orientation.

As if two unique features weren't enough, there is also the patented fishbone concept on the premium gearbox, and aerodynamic component for a flat floodlight.



LIGHT JUST RIGHT FOR TV

At stadiums that host televised events, lighting specifications for HD, 4K TV and super-slow motion capabilities are key. Altis scores 90+ on the TLCI (Television Lighting Consistency Index), which broadcasters use to evaluate the performance of lighting for television. Altis illuminates the athletes and the on-field action so that TV cameras will capture bright and colourful images, providing an optimal viewing experience.

BEST-IN-CLASS LIGHT

With our integrated electronic providing gearboxes with a flicker factor <1% as a standard, Altis offers slow motion broadcasting up to 1000 fps, to enable TV broadcasters to film super-slow-motion replays with no visible flicker.

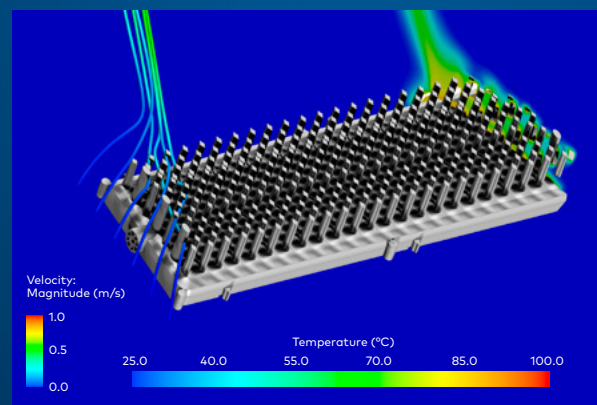
LIGHT WHERE YOU NEED IT

A floodlight should precisely illuminate the intended area. It is important that scattered light reaching neighbouring buildings is minimal and that players and spectators do not experience uncomfortable glare. Altis can be equipped for different light distributions, including asymmetric for area and symmetric for sports applications. Asymmetrically, it focusses the light forward at 0° tilt with a defined cut-off to reduce artificial sky glow, glare and intrusive light.



MINIMISING WINDAGE

Windage is the force generated by wind on an object such as a floodlight. Altis greatly minimises windage through combined frame and modules tilting up to 70°. Thorn floodlights are tested to optimise tilting and keep windage to a minimum.

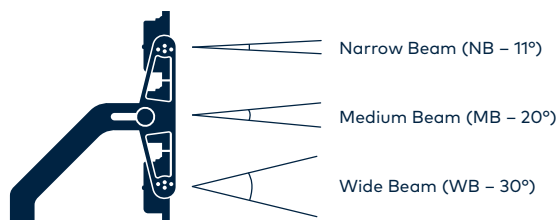


THERMAL OPTIMISATION

We perform thermal and fluid-dynamic simulations, to optimise Altis geometry, to guarantee safe operation, and lifetime performance.

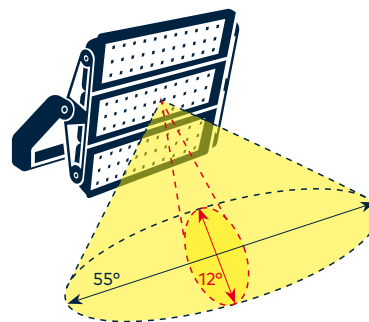
SYMMETRICAL LIGHTING DISTRIBUTIONS

NB / MB / WB



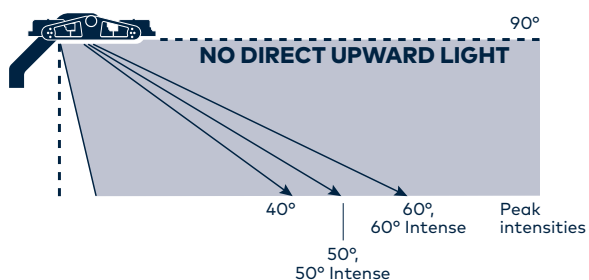
ELLIPTICAL LIGHTING DISTRIBUTION

EB



ASYMMETRICAL LIGHTING DISTRIBUTIONS

A4 / A5 / A6 / A15 / A16 / EW / AW3



To help with uniformity on medium and large scale outdoor sports fields, Extra Wide, 40/50/60° versions, standard and intensive, are available. An Asymmetric Intense 30° light distribution is coming soon. Additionally an Asymmetric Wide 50° will be available for lighting of small size outdoor and indoor sports areas. Most asymmetric optics are available with internal louvres, for maximum light control.

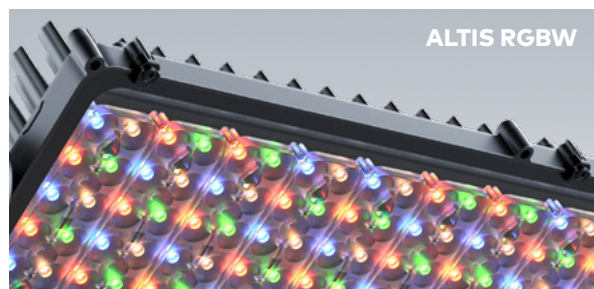
PLAY WITH COLOURS

CREATE A UNIQUE IDENTITY

Generate excitement and enhance the fan experience in stadiums and arenas, add a touch of atmosphere to swimming pools, or light up large-scale architecture and building facades with a wash of vivid colour, placed exactly where you need it with a range of precision optics. Altis RGBW integrates with DALI-2 or RMD-DMX control to create dynamic effects ranging from calm and subtle to awe-inspiring.

BALANCED WHITE: DYNAMIC LIGHT FOR MAXIMUM FLEXIBILITY

Tune the colour temperature from the warmest 2200 K though to 4000 K and completely transform the atmosphere of your project. A warmer colour temperature of 2200 K is ideal for areas close to natural habitats or architectural lighting whereas 4000 K may be used for sports and general area lighting. With Altis Balanced White you are able to adjust colour temperatures to suit the mood of the event, game or sporting requirement. Easily tune your sport with either DALI-2 or DMX-RDM control.



CONTROL SOLUTIONS

ADJUSTING LIGHT TO SUIT YOUR NEEDS

Altis is available in complete lighting management packages for wide-ranging professional and recreational sports applications, both indoors and outdoors. Designed to provide safety and comfort for players, our control solutions fully meet relevant sports lighting requirements. They also increase energy savings and provide more flexibility.

FULLY INTEGRATED CONTROL PACKAGE

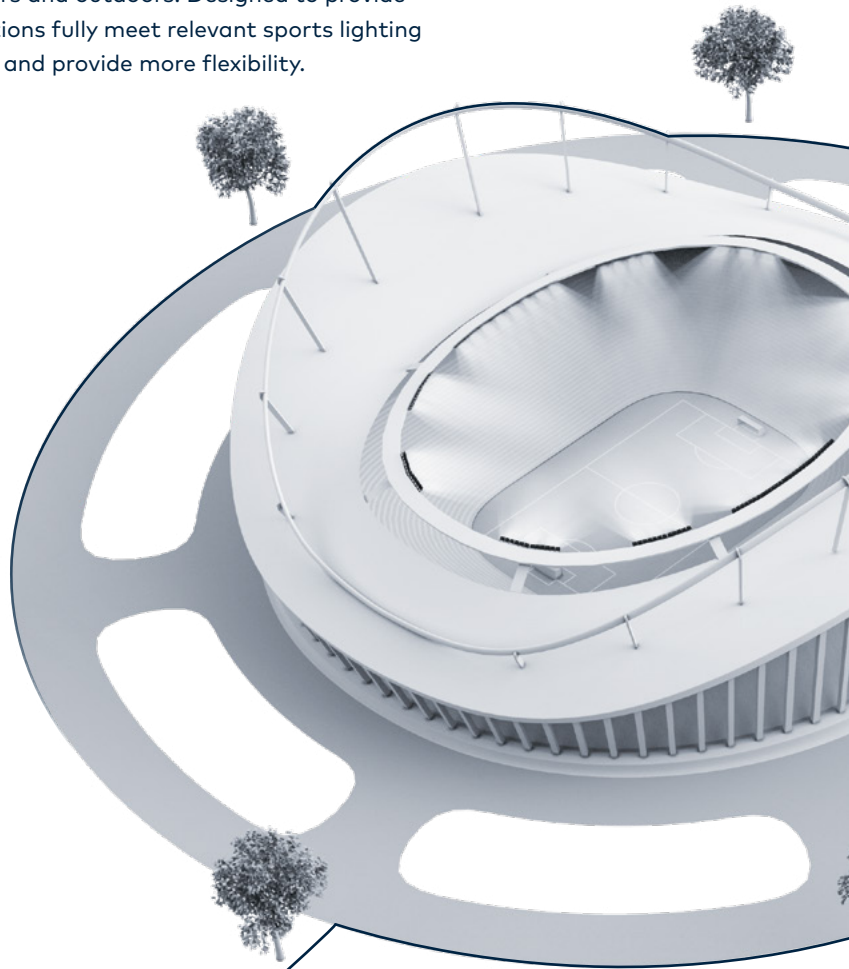
With the scalable control solution, Altis enables customisable, pre-programmed lighting effects with real-time overrides and supports Art-Net, DMX RDM and DALI protocols. The system's integrated lighting console also enables remote control of building management, audio and perimeter advertising systems.



Lighting playback controller with touch panel (in-or external)

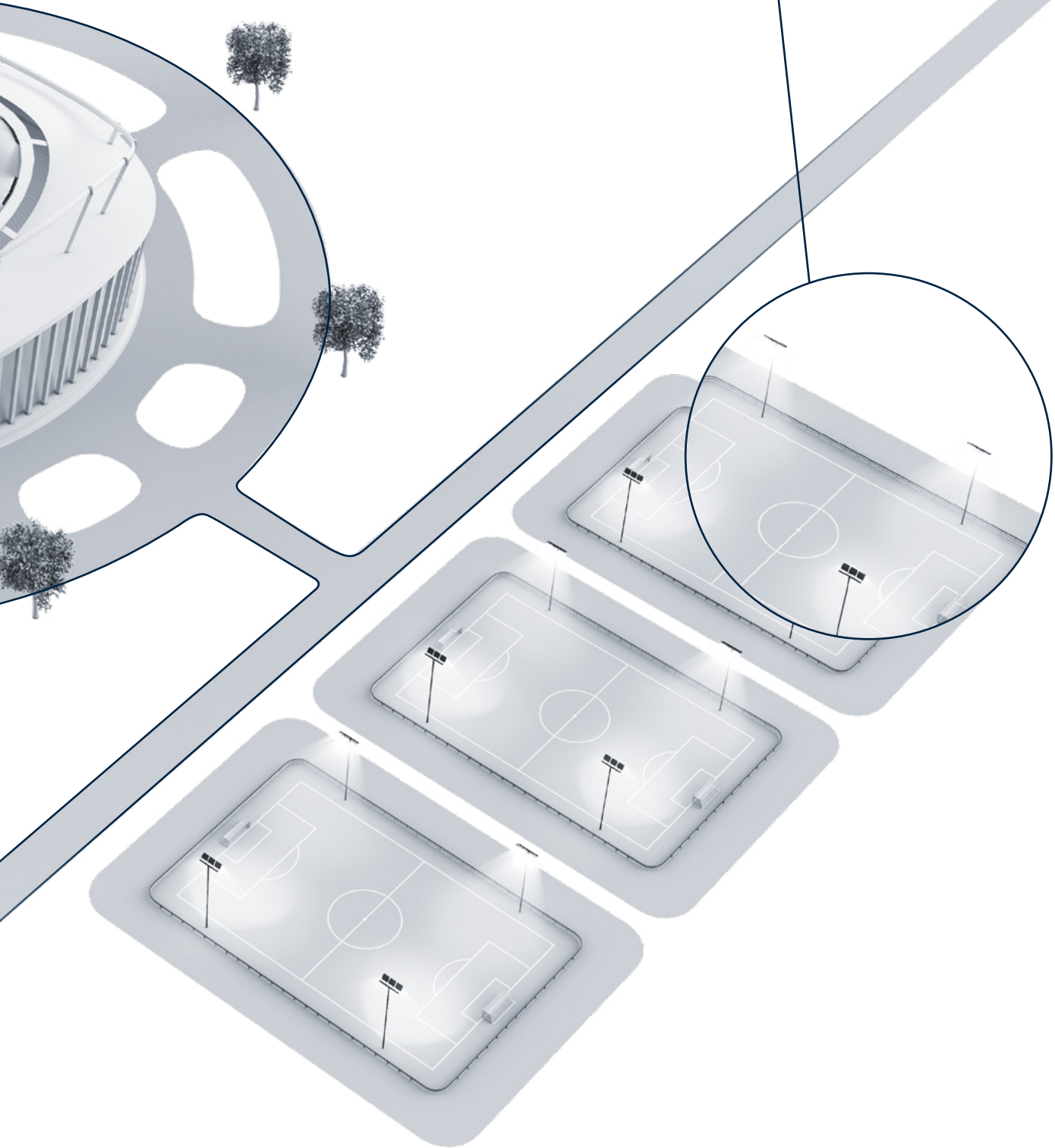
SERVICES:

- Commissioning and addressing
- Controls programming
- Web page creation with custom user interface design
- Integration of stand lighting control subsystems (DALI, DMX and hybrid)
- On-site technical consultation meetings
- Training of operating personnel
- Technical support
- Control solution for the entire stadium, from the pitch lighting to the facade and interiors



BASIC CONTROL PACKAGE

Using a locally installed control cabinet, this switching and dimming package enables control of a group of lighting points, when needed. The solution offers good energy savings while still providing all of the required lighting on demand. Light settings can also be pre-programmed. New installations and refurbishments can benefit from Thorn's UrbaSens Play, with wireless communication and either simple app-based control or push-button control box.

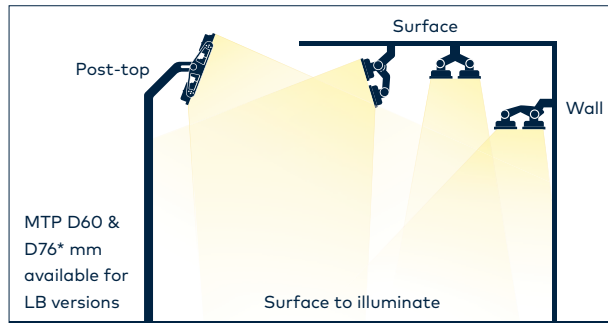


INSTALLATION POSSIBILITIES

Altis can be configured for virtually any lighting design. Modules are easy to adjust with the patented precision settings that are specially designed for accurate and fast LED module tilting and orientation. The flexible gearbox IP66 enables installation directly in the back of the bracket, remotely up to 200 m, inside distribution boards, electrical rooms, on the masts and more. Post-top, surface and wall mounted options are available.

MOUNTING OPTIONS

Direct lighting

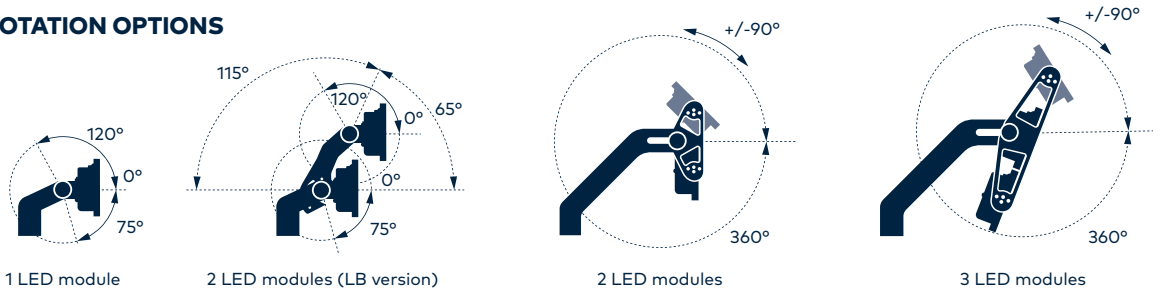


Indirect lighting



*Post-top mounting adaptor (MTP D60/D76) to fit luminaire to Ø60 and to Ø76 mm column

ROTATION OPTIONS

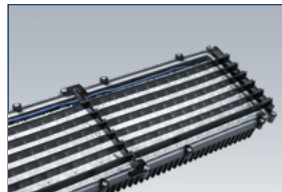


ACCESSORIES



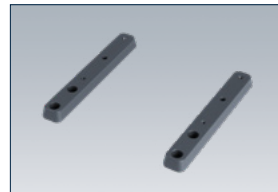
AIMING DEVICE

To direct the orientation of the luminaire, for symmetric as well as asymmetric aiming.



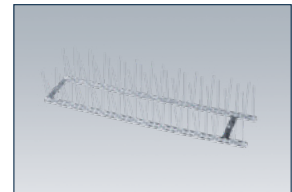
LOUVRE

External louvre for asymmetric or symmetric optics to limit spill light.



DRIVER STIRRUP MOUNTING BRACKET

Enables gearbox mounting to the floodlight stirrup.



BIRD DETERRENT

Prevent birds from landing on and damaging the floodlight.



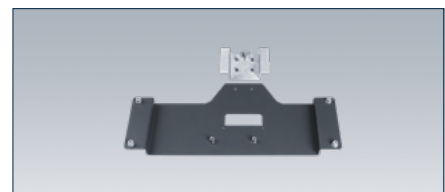
VISOR

External visor, adjustable in angle and length, to create precise light cut-off on-site.



JUNCTION BOX

Allows the connection of 1 LED module to 2 or 3 channel gearbox. Supplied as standard with 2 & 3 module luminaires.



DRIVER STIRRUP MOUNTING BRACKET LB

Enables gearbox mounting to the floodlight stirrup light bracket (LB), including fixing of the junction box.

DISCOVER

ALTIS



| | | | | |
|-------------|---|--|--|--|
| | 144 / 168 LEDs 1 Module or Standalone with integrated gearbox | 336 / 312 / 288 LEDs LB 2 Modules | 336 / 312 / 288 LEDs 2 Modules | 504 / 480 / 456 / 432 LEDs 3 Modules |
| | Up to 88,000* lm | Up to 177,000* lm | Up to 177,000* lm | Up to 264,000* lm |
| | Up to 164 lm/W | | | |
| | 3000 K / 4000 K / 5700 K / RGBW / Balanced White (2200 K – 4000 K) | | | |
| CRI | 70 / 80 / 90 | | | |
| TLCI | Up to 90+ | | | |
| | IP66 | | | |
| | -40 °C to 45 °C | | | |
| | IK08 | | | |
| | Ball proof | | | |
| | 10 kV surge voltage protection | | | |
| | Max 9.6 kg Gearbox IP66: max 5.7 kg Standalone: max 14 kg | Max 18.7 kg Gearbox IP66: max 5.7 kg | Max 23 kg Gearbox IP66: max 5.7 kg | Max 30.8 kg Gearbox IP66: max 6.5 kg |
| | Corrosion class C5 Suitable for swimming pools (with remote mounted gearbox) and coastal environments | | | |
| | 100,000 h L90B10 | | | |
| | Narrow beam (NB) / Medium beam (MB) / Wide beam (WB) / Elliptical beam (EB) / Asymmetrical 40° (A4) / Asymmetrical 50° (A5) / Asymmetrical 60° (A6) / Asymmetrical Intense 50° (AI5) / Asymmetrical Intense 60° (AI6) / Extra Wide (EW) / Asymmetrical Wide 30° (AW3) | | | |
| | 0.06 at 0° / 0.07 at 15° / 0.12 at 45° / 0.16 at 65° / 0.17 at 90° Standalone: max 0.20 at 90° | 0.16 at 0° / 0.19 at 15° / 0.30 at 45° / 0.32 at 65° / 0.35 at 90° | 0.16 at 0° / 0.19 at 15° / 0.30 at 45° / 0.35 at 65° / 0.37 at 90° | 0.18 at 0° / 0.23 at 15° / 0.40 at 45° / 0.50 at 65° / 0.52 at 90° |
| | Luminaire: Texturised anthracite (different RAL on request) Gearbox: Texturised light grey | | | |
| | Flicker <1% | | | |
| | Fixed Output (HF), DALI-2 (DA), DMX RDM (RDMX) | | | |

*Data refers to system level, and to the narrow beam version



