

THORN
LIGHTING



THOR

Urban lighting for the cities of today and tomorrow

Thor

Thor is a family of smart urban lanterns and bollards for the cities of today and tomorrow.

Combining simple design with wireless connectivity, the Thor family of lanterns and bollards are prepared for the future.

Thor offers a single design concept for numerous applications. The larger Thor L lantern is suitable for major urban roads, while the smaller Thor S is ideal for paths and residential streets. A range of optics carefully tuned for different road types are also available. Thor lanterns come in post-top, lateral, suspended and catenary mounted versions. To complete the family, Thor offers a variety of different bollards ideal for plazas, pathways or parks. With a rated lifetime of 100 000 hours, the high quality materials used and the ability to monitor performance and report failures, Thor is built to last. But it's the integrated intelligence that makes Thor truly futureproof: wireless connectivity and sensors enable data gathering, failure alerts, traffic management and dimming in response to traffic flow or daylight levels. The combination of smart controls and special optics does not only increase energy efficiency but also ensures an excellent balance between performance and comfort within the whole family.





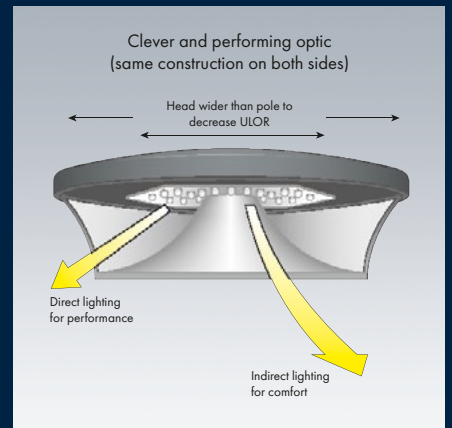
Smart design

The variety of different lanterns and bollards offer the perfect fit for any application within an urban environment. This does not only support the design freedom of planners but also creates familiarity throughout the space. The clever design also allows for integrated sensors and controls to be upgraded at a later stage, making Thor the first decorative family to be ready for the future offerings of smart lighting.



Smart controls

In the cities of the future, outdoor lighting will help to ease traffic flows, improve safety and save energy. It's all thanks to smart, wireless technology built into luminaires. Thor's wide choice of integrated control options such as power dimming and presence detection can already actively support these functions. For cities that aren't yet ready to make the jump to smart lighting, Thor can still make you futureproof: the polycarbonate material parts make it easy to incorporate sensors and antennas to enable smart functions, now or later.



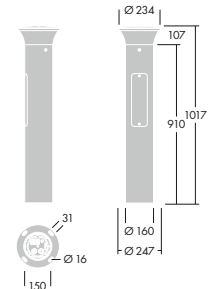
Smart optics

Thor features Thorn's high-performance R-PEC® LED optic specially designed for road and street lighting. Depending on the area, the light distribution can be tailored to meet specific needs, offering full flexibility. The special position of the LEDs inside the lantern not only increases the area of emitting light in the luminaire but also generates a unique lighting effect. The bollard's precise direct/indirect light distribution allows for additional spacing between luminaires, providing the correct light levels and maximum safety.

Product specification

thornlighting.com/THOR

Application	From pedestrian areas to urban motorised roads
Lumen Output	1 200 lm - 13 500 lm
Efficacy	Up to 130 lm/W
Lifetime	100 000 hours L90B10 at 4 000 K, Ta 25°C
Size	2 sizes for mounting height 4 to 8 m (small and large lantern) 2 sizes: 0.5 to 1 m (bollard)
CRI	70
Colour Temperature	3 000 K / 4 000 K
Switch	CLO, bi-power, LRT, presence detection DALI and Radio Frequency (RF)



Please refer to installation instructions for access door configuration options and MAS settings.

Design

Thor's simple design works well in parks, squares, residential streets and main roads. A selection of different sized lanterns and bollards help create a consistent design throughout the urban space.

Controls

Thor's construction makes it easy to incorporate intelligent wireless control systems. It is also compatible with various communication devices to meet the requirements of today's smart city. The polycarbonate top dome of the lantern enables antennas to be mounted inside.

Optics

Thor offers a wide range of different optics such as narrow beam, RWET/SC/WS/PWC/IVS/NR.*

Installation

Lanterns: Supplied pre-wired and ready to install, in a single box. Thor can be mounted on poles at various heights as well as on a catenary wire.
Bollard: Slim version: suitable for Root and Flange, Wide version: suitable for Flange mounting. Ready to install: prewired fittings to be connected with a connection box (to be ordered separately) through the anti vandal access door (via Torx hollow T30).

Standards

L: IK08, S and Bollard: IK10



Light source information

5 MacAdam ellipse

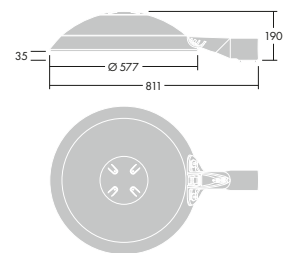
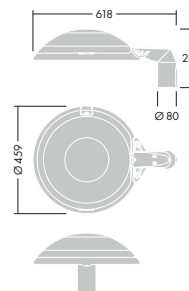
Materials/Finish

Lantern: Body and bracket: die-cast aluminium (AS12U, LM6 equivalent, EN AC - 44300). Thor range: powder coated anthracite (close to RAL 7043).
Dome: die-cast aluminium or UV stabilised polycarbonate. Enclosure: toughened glass. Screws and closing set: stainless steel. Bollard: Column and base: aluminium (EN AW 6060) - Canopy: die-cast aluminium (EN AC 47100). Diffuser: clear anti UV. Polycarbonate Reflector: white polycarbonate.

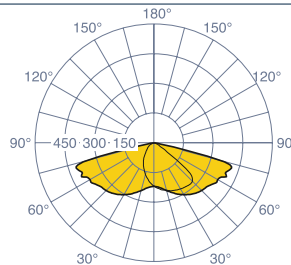
To specify state:

IP66 - Integrating R-PEC® optic - 3 000K/4 000K colour temperature.
Lanterns: 2 sizes - 2 finishes (full dome or opal dome). Treated against corrosion. Negative and positive tiltings.
CLO, LRT, Bi-power switch Thor S, Dali and Radio Frequency (RF) as standard - Small size lantern up to 9 120lm - Large size lantern up to 13 500 lm, efficacy up to 130lm/W - MTP (post top), MLE (lateral), MSU (suspended), MCA (catenary). Compatible with a wide range of intelligent lighting controls.
Bollard: 2 sizes (slim, wide) - 2 distributions: Asymmetric and symmetric DALI, presence detection - up to 1170 lm - efficacy up to 90lm/W.
As Thorn Thor family.

* NR - Narrow Road optic, RWET - Wet Road optic, SC - Street Comfort optic, WS - Wide street optic, PWC - Pedestrian walkway and cycle path optic, IVS - Pedestrian Crossing Distribution

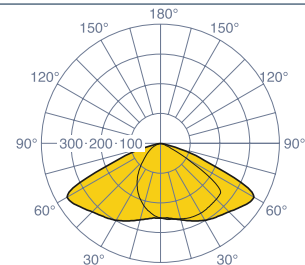


Thor S 36L50 NR 4000K



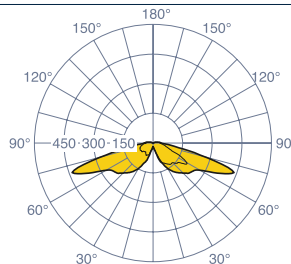
cd/klm ULOR: 0% DLOR: 100% LOR: 100%

Thor L 72L50 SC 4000K



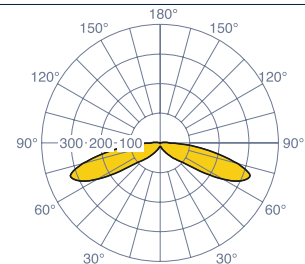
cd/klm ULOR: 0% DLOR: 100% LOR: 100%

Thor B S 10L25 740 ASY CL2 MPL



cd/klm ULOR: 7% DLOR: 93% LOR: 100%

Thor B S 10L25 740 R/S CL2 MPL



cd/klm ULOR: 4% DLOR: 96% LOR: 100%



As a globally leading luminaire manufacturer, Thorn Lighting provides a five-year warranty for its complete product range within all European Countries.
thornlighting.com/guarantee

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07/2024 (INT)

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