

THORN
LIGHTING



R2L2

A complete road and street family
for multiple applications

ROAD LIGHTING THAT EXCELS

FLEXIBLE AND ADAPTIVE LIGHTING, EASY TO MAINTAIN AND CONTROL

R2L2 comprises of a family of three sizes with an extensive choice of lumen outputs and light distributions, making it suitable for all kinds of road lighting applications.

Efficient (up to 174 lm/W) R-PEC® optics offering precision light distributions, achieving wide column spacing, excellent uniformity with no waste or obtrusive light. Compatible with Zhaga for smart control and NightTune to protect the nocturnal ecosystem.



Motorways,
High speed roads,
Major roads



Minor roads &
Residential roads



Intersections



Parking



DARK SKY ACCREDITATION

The International Dark-Sky Association is recognised as the global authority on light pollution and is the leading organisation combating this issue worldwide.

The IDA Fixture Seal of Approval is a highly regarded accreditation for manufacturers. The process to achieve this accreditation reviews key features and benefits of a luminaire, its fundamental design and deep dive analysis of photometric data to ensure the product meets strict requirements to limit light pollution.



A COMPLETE ROAD LANTERN FAMILY

R2L2 DELIVERS EXCELLENT LIGHTING PERFORMANCE AND HAS THE ABILITY TO COVER ALL ROAD AND STREET APPLICATIONS

The comprehensive range is available in three sizes with extensive optical, lumen and light distribution choices for all road applications up to ME1.

The R2L2 family features an efficient (up to 174 lm/W) R-PEC® optic offering 19 types of light distribution for precise light placement with no wasted light. Energy savings can be maximised through the use of Thorn's intelligent lighting control solutions, from standalone dimming to smart remote control via Thorn's UrbaSens range.

An attractive, universal and integrated spigot offers flexibility through top and side entry as well as tilt adjustment and easy to fit louvres which can be fitted retrospectively for extra light control and comfort.

Sleek, modern and consistent, R2L2 is easy to integrate into the landscape and has a balanced design from all angles. Simply choose the luminaire size and quantity and type of light distribution.

R2L2 EXTRA SMALL

- Up to 164 lm/W
- Up to 16 000 lm
- For residential areas, small roads, roundabouts, cycle paths, pedestrian crossings and car parks



R2L2 MEDIUM

- Up to 172 lm/W
- Up to 38 000 lm
- For motorways and main roads



R2L2 SMALL

- Up to 174 lm/W
- Up to 17 000 lm
- For minor roads, roundabouts, residential roads, cycle lanes, pedestrian crossings and car parks

EXTENSIVE LIGHT DISTRIBUTION CHOICE

Use Thorn's R2L2 family to efficiently and effectively light all road applications, from high-speed motorways and highways to local roads and pedestrian crossings. Comfort road and street optics are available for a sharper upward light cut-off to meet higher G-class requirements.



Ultra-durable, reinforced flat glass optical cover is resistant to unsightly ageing and discolouration

ADVANCED LIGHTING CONTROL

R2L2 offers a wide range of optional control solutions to meet all needs and environments. As well as maximising energy savings by reducing waste energy, R2L2's lighting controls will extend the LED lifetime and in turn, reduce maintenance requirements.

Solutions include controls at lighting point level: integrated mini photocell, single Bi-Power dimming, fine-tunable to the needs in lumen reduction level and hours.

Local group of lighting points or fully remote via a central monitoring system (CMS): wired with DALI 2 or wireless with options for Nema 7 and Zhaga sockets and nodes.



READY TO CONNECT

All sizes of R2L2 can be configured with a NEMA or Zhaga interface, Zhaga-D4i certified.



Motion detection of people and vehicles

Photocell:
NEMA socket, Minicell

FULL FLEXIBILITY

R2L2 benefits from a universal and integrated spigot offering full flexibility through top and side entry, as well as tilt adjustment and tool-free top opening.

The spigot design makes R2L2 ideal for cost-effectively upgrading older installations, fitting to any type of column without the need for additional accessories or unexpected reworks.



- Integrated for aesthetic appeal
- Flexible top and side entry
- Multi-position rotational tilt adjustment from -15° (side) to +10° (top) to maximise LED performance
- Universal T76/T60/S60/S48/S42/S34 mm

CONTRACTOR FRIENDLY

R2L2 is easy to specify, install, maintain and control. Simple yet effective design features eliminate complexity to provide a quick, easy and low-cost installation.

01
Easy maintenance thanks to opening and gear tray removal without tools.

02
Safe maintenance and installation thanks to automatic disconnection and spacing lever.

03
Universal and integrated spigot offering flexibility through top and side entry as well as tilt adjustment.

04
Easy to dismantle for recycling at the end of the product lifetime.



NIGHTTUNE

NightTune creates the perfect balance in lighting at night. It gives a sense of security and wellbeing for people, whilst conserving energy and protecting ecosystems. NightTune automatically adjusts the level of light emitted from a light fitting, mixing dimmable light from warm and cool LEDs.

biodiversity including nocturnal fauna and flora, insects and animals, which can all suffer from high light intensity and react adversely to blue and green colour spectrum found in cooler LEDs. The tailored NightTune colour spectrum significantly reduces disturbance.

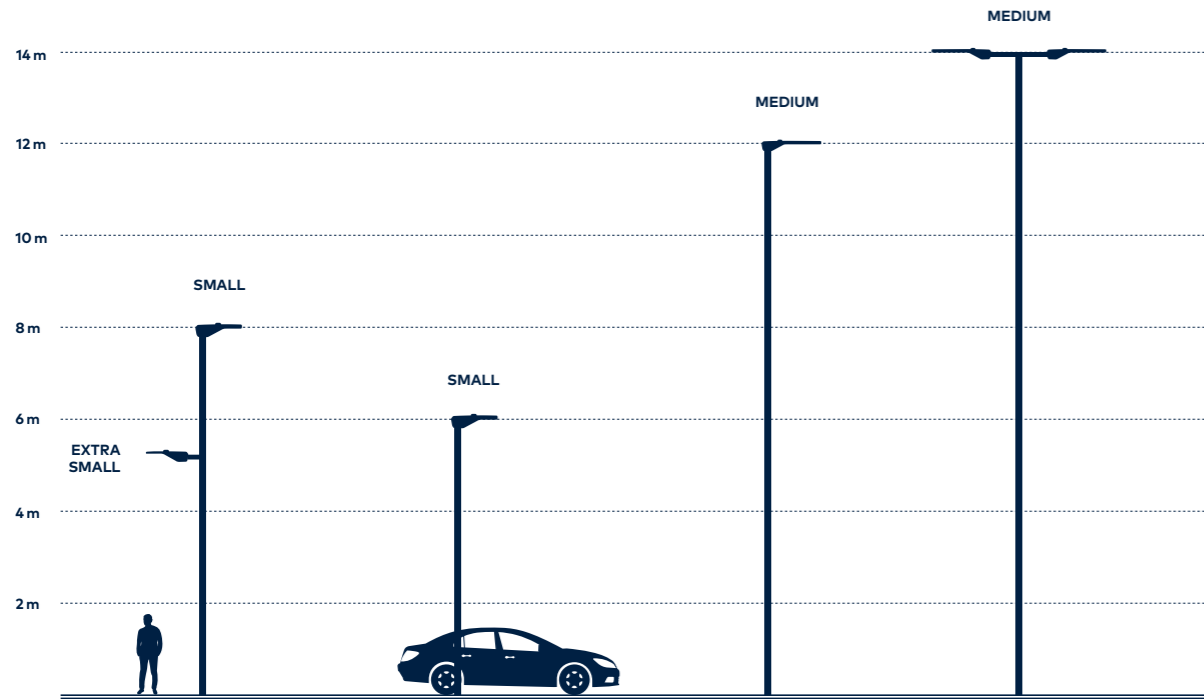
Cooler LEDs are dimmed when night falls and there are less people and vehicles in the area, leaving warmer LEDs on throughout the night. This will maintain safety during the night, while preserving

As daytime hours return, resulting in an increase in traffic levels, the cooler LEDs are dimmed up and a brighter lumen output is restored.



INSTALLATION POSSIBILITIES

- Post-top mounting: Ø 60-76 mm
- Side-entry mounting: Ø 48-60 mm or Ø 34-42-48-60 mm
- Suitable for use up to 50 °C through the use of a heat regulation system
- Recommended mounting height: 4 m to 14 m
- Adjustable tilt angle side: 0°, -5°, -10°, -15°
- Adjustable tilt angle top: 0°, +5°, +10°



MOUNTING OPTIONS



SIDE



TOP

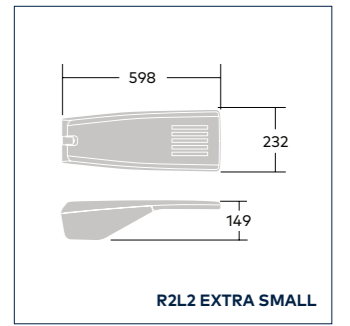


TILT ADJUSTMENTS

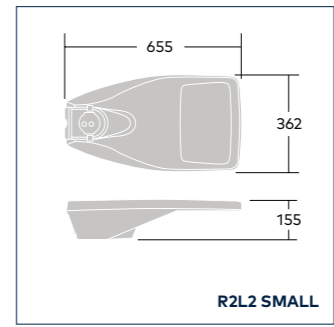
CONFIGURATION GUIDE

thornlighting.com/R2L2

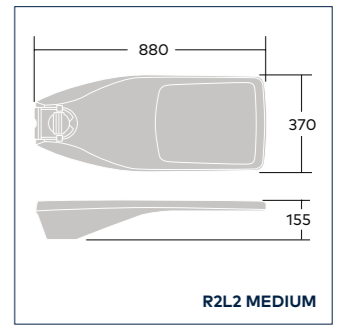
Range	LED	mA	CCT/CRI	Optic	CLO	Dimming	DALI	CMS	Fuse	Louvre	Safety	Spigot	Wiring	Colour
														GY Light Grey 150 Sanded
														ANT Anthracite 900 Sanded
														BK Black Sanded
														RALxxxx 50 RAL options
													Wx Pre-wired, 1.5-2.5 mm² HO2RNF type	
													Ux Pre-wired, 1.5-2.5 mm² Blue HO5VVF	
													Dx Pre-wired, 1.5 mm² Prepared DACH type	
												MTP Post Top Mounting		
												MLE Side Entry Mounting		
														Integral NEMA photocell socket - 7 pin
														Zhaga socket up
														CL1 Electrical Class 1 (earthed)
														CL2 Electrical Class 2 (double insulated)
														LV Internal louvre
														SPD 10 kV multi pulse surge protection device
														ZU Zhaga socket up
														ZD Zhaga socket down
														ZUD Zhaga socket up and down
														N7 Integral NEMA 7-pin photocell
														PM Mini photocell
														HFX DALI2
														BP Bi-Power (selectable dimming curve: number of hours, reduction level)
														BS Bi-Power switchable (selectable dimming curve: number of hours, reduction level)
														BPL Bi-Power Line switch
														LRT Light Reduction Twin Phases
														CLO Constant Light Output
														NR Narrow Road
														MR Medium Road
														WR Wide Road
														EWR Extra Wide Road
														RC Highway Wide
														WS Wide Street
														EWS Extra Wide Street
														WSC Wide Street Comfort
														EWC Extra Wide Comfort Street
														RWT Wet Road
														ES Extensive Street
														ENR Extra Narrow Road
														SC Street Comfort
														NR2 Narrow Road 2
														TSR Tight Staggered Road
														SES Super Extensive Street
														SR Staggered Road
														IVS Pedestrian Crossing – Right
														ZC Pedestrian Crossing – Left
														840 CR180 4000 K
														827 CR180 2700 K
														830 CR180 3000 K
														730 CR170 3000 K
														740 CR170 3000 K
														757 CR170 5700 K
														722 CR170 2200 K
														722-740 CR170 NightTune 2200 - 3000 K
														35 350mA
														50 500mA
														70 700mA
														105 1050mA
														xx xxmA drive current
														12L 12 LEDs (extra small or small body)
														24L 24 LEDs (extra small or small body)
														36L 36 LEDs (extra small or small body)
														48L 48 LEDs (small body)
														60L 60 LEDs (medium body)
														72L 72 LEDs (medium body)
														84L 84 LEDs (medium body)
														96L 96 LEDs (medium body)
RX	R2L2 XS													Extra Small body
RX	R2L2 S													Small body
RX	R2L2 M													Medium body



R2L2 EXTRA SMALL



R2L2 SMALL



R2L2 MEDIUM

Configure the ideal product solution with myProduct. The myProduct configurator allows you to easily configure a luminaire according to your needs. Try it now at www.thornlighting.com/myproduct

DISCOVER

*IDA Fixture Seal of Approval relates to <= 3000K only, clear enclosures, +/- 10° maximum tilt only. Luminaires must be mounted as photometered.

R2L2



EXTRA SMALL



SMALL



MEDIUM

	12 - 36 LEDs	12 - 48 LEDs	60 - 96 LEDs
	2200 K / 2700 K / 3000 K / 4000 K / 5700 K / NightTune (2200 - 3000 K)		
	Up to 16 000 lm (4000 K)	Up to 17 000 lm	Up to 38 000 lm
	Up to 164 lm/W	Up to 174 lm/W	Up to 172 lm/W
	70 / 80		
	<1 %		
	IP66		
	-25 °C up to 50 °C		
	IK09		
	Die-cast aluminium EN AC 44300. Corrosion protection Class C5 - coastal & tropical application (ISO 9223)		
	UV Resistant		
	100 000 h B10L90@25 °C		
	R-PEC®		
	Post-top mounting: Ø 60-76 mm / Side-entry mounting: Ø 48-60 mm or Ø 34-42-48-60 mm		
	Texturised anthracite, light grey, black and 50 additional RAL colours		
	10 kV (Driver) - Option for 10 kV multi pulse / 20 kV single pulse		
	DALI2, Bi-Power, Constant Light Output, Light Reduction Twin Phases, Zhaga interface, Nema Photocell, Mini Photocell		



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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10/2022

**WE
MAKE
LIGHT
WORK**