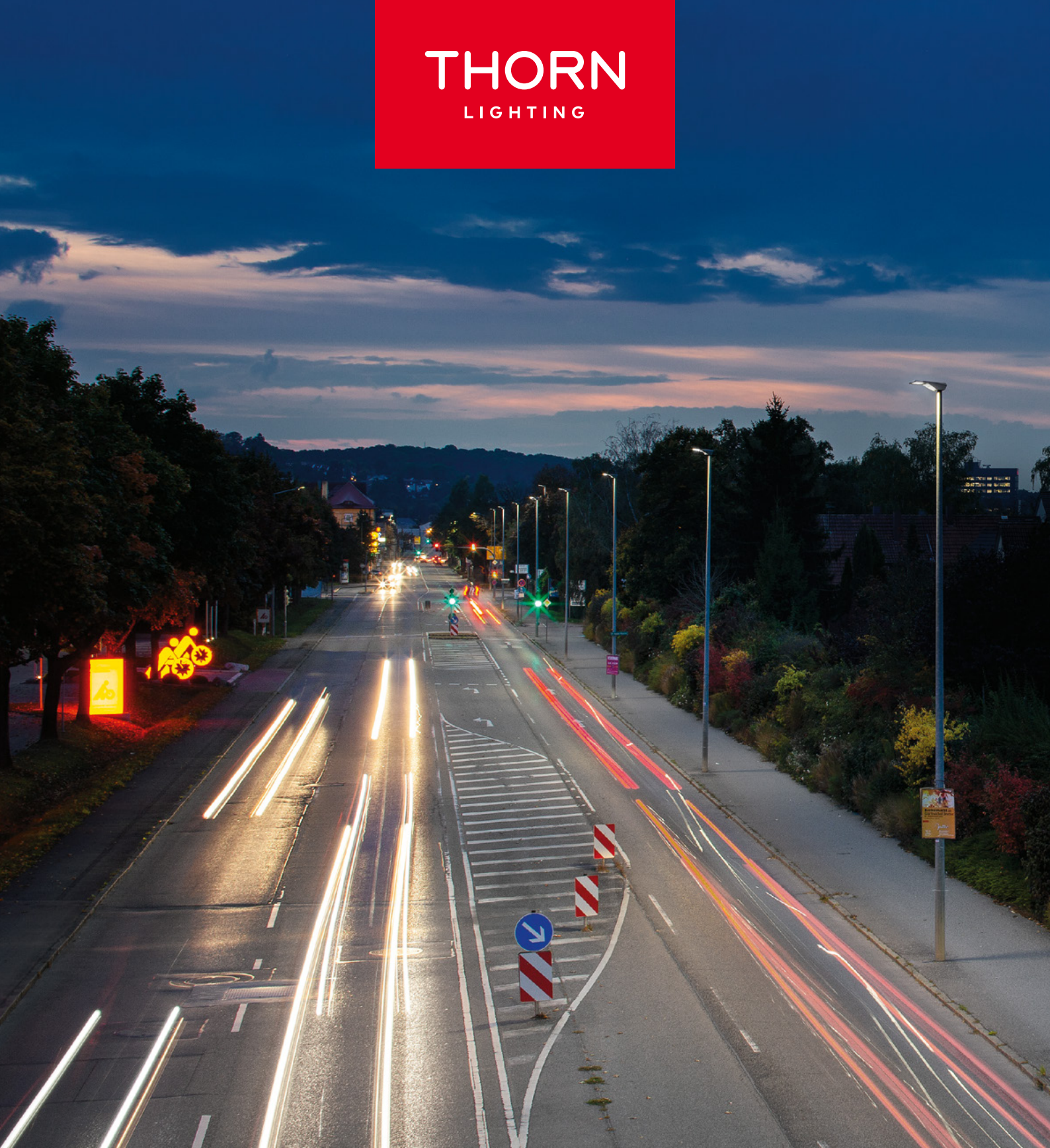


THORN

LIGHTING



R2L2

A complete road and street family for multiple applications



WE
MAKE
LIGHT
WORK

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 191 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 and
Residential roads



Intersections



Parking



DARKSKY ACCREDITATION

'DarkSky' is recognised as the global authority on light pollution and is the leading organisation combating this issue worldwide.

The DarkSky Approved seal 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 191 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 188 lm/W
- Up to 16 000 lm
- For residential areas, small roads, roundabouts, cycle paths, pedestrian crossings and car parks





R2L2 MEDIUM

- Up to 185 lm/W
- Up to 38 700 lm
- For motorways and main roads



R2L2 SMALL

- Up to 191 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 $+10^{\circ}$ (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.

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

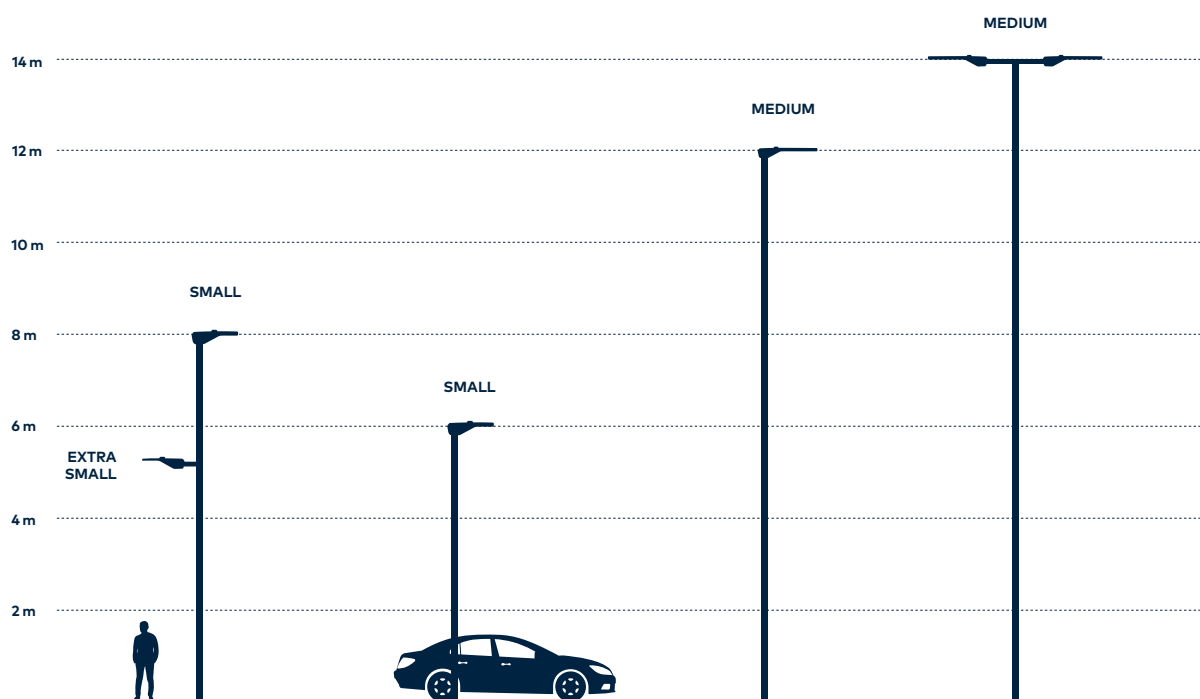
biodiversity including nocturnal fauna and flora, insects and animals, which can all suffer from high light intensity and react adversely to blue and green colour spectrum found in cooler LEDs. The tailored NightTune colour spectrum significantly reduces disturbance.

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

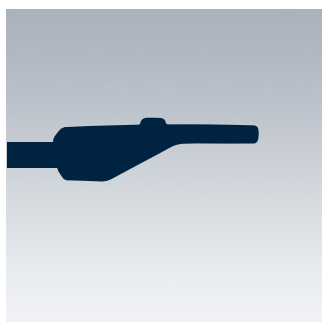


INSTALLATION POSSIBILITIES

- 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

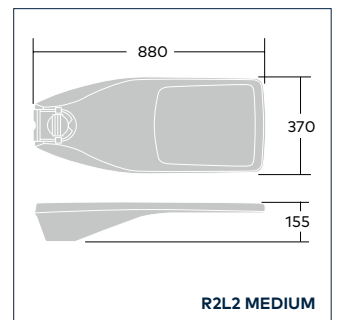
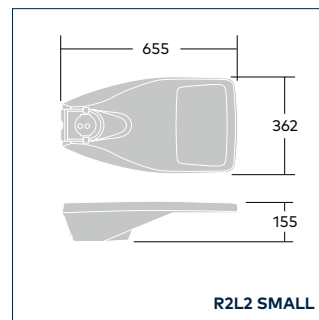
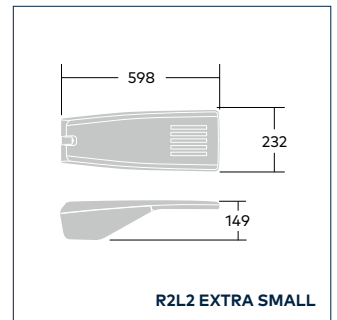


TILT ADJUSTMENTS

CONFIGURATION GUIDE

thornlighting.com/R2L2

R2L2	24L	700	730	NR	CLO	BP850	HFX	ZU	SPD	LV	CL2	MTP	W3	GY
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 HO7RNF 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	
											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	DALI-2						
						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									
				EWK	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	CRI80 4000 K										
			827	CRI80 2700 K										
			830	CRI80 3000 K										
			730	CRI70 3000 K										
			740	CRI70 3000 K										
			757	CRI70 5700 K										
			722	CRI70 2200 K										
			722-740	CRI70 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													



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

R2L2

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

	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 38 700 lm
	Up to 188 lm/W	Up to 191 lm/W	Up to 185 lm/W
	70 / 80		
	< 1%		
	IP66		
	–25 °C up to 50 °C		
	IK08		
	Die-cast aluminium EN AC 44300. Corrosion protection Class C5 – coastal & tropical application (ISO 9223)		
	UV Resistant		
	Up to 100,000 h L98 B10 ≤ 700 mA @ Ta 25 °C Up to 100,000 h L95 B10 > 700 mA @ Ta 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		
	DALI-2, 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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