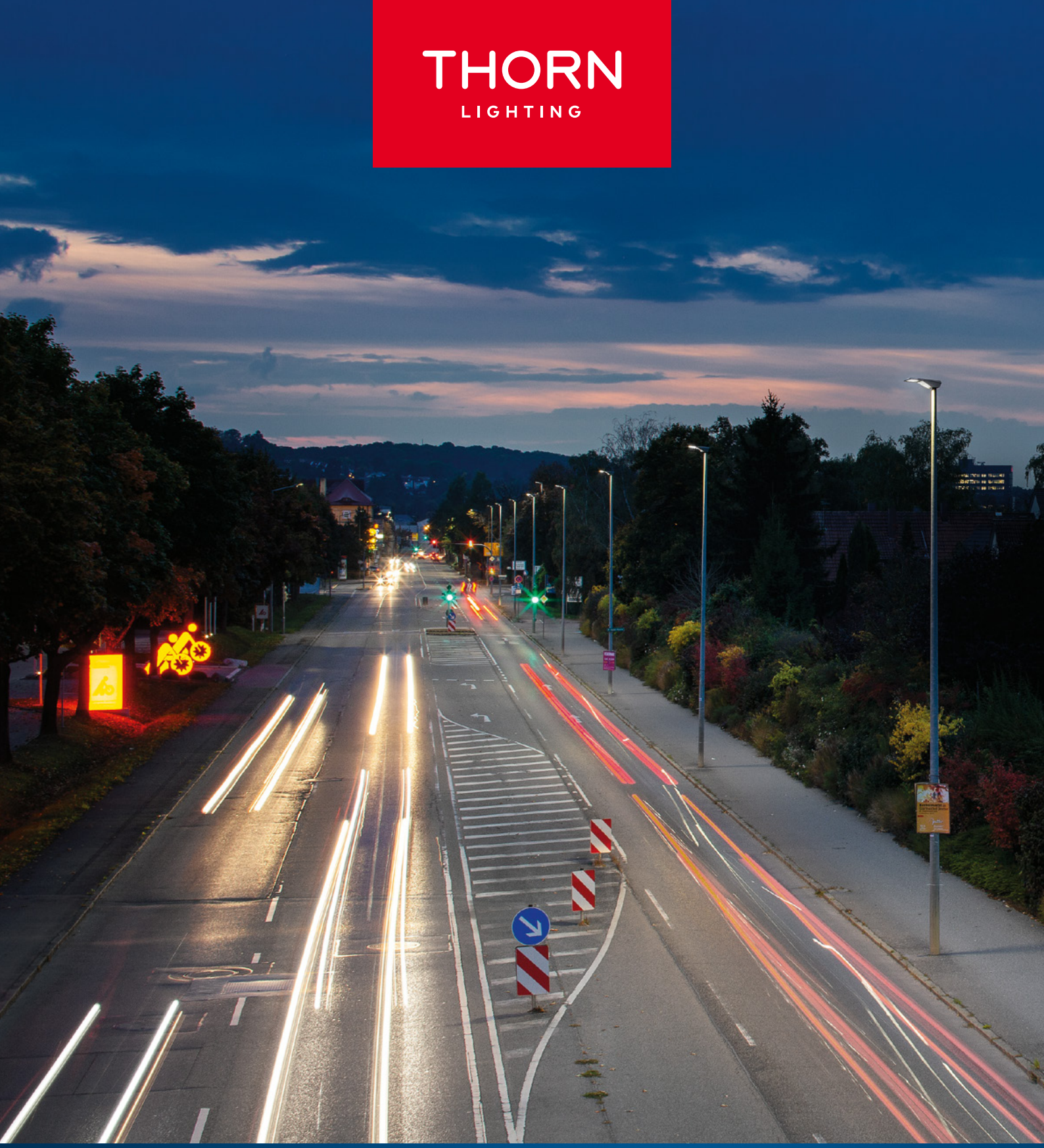
THORN
LIGHTING



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 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 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.

NEW
TRAFFIC
SIGNALS
AHEAD

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

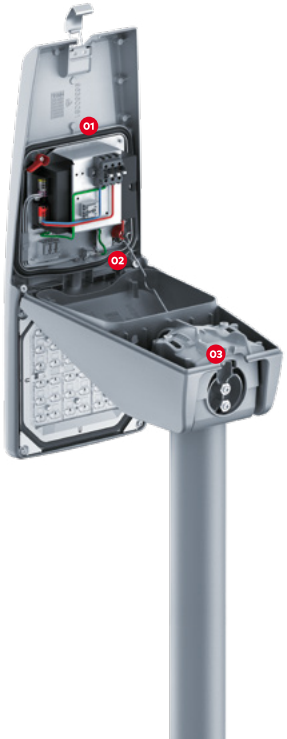
R2L2 is easy to specify, install, maintain and control. Simple yet effective design features eliminate complexity to provide a quick, easy and low-cost installation.

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

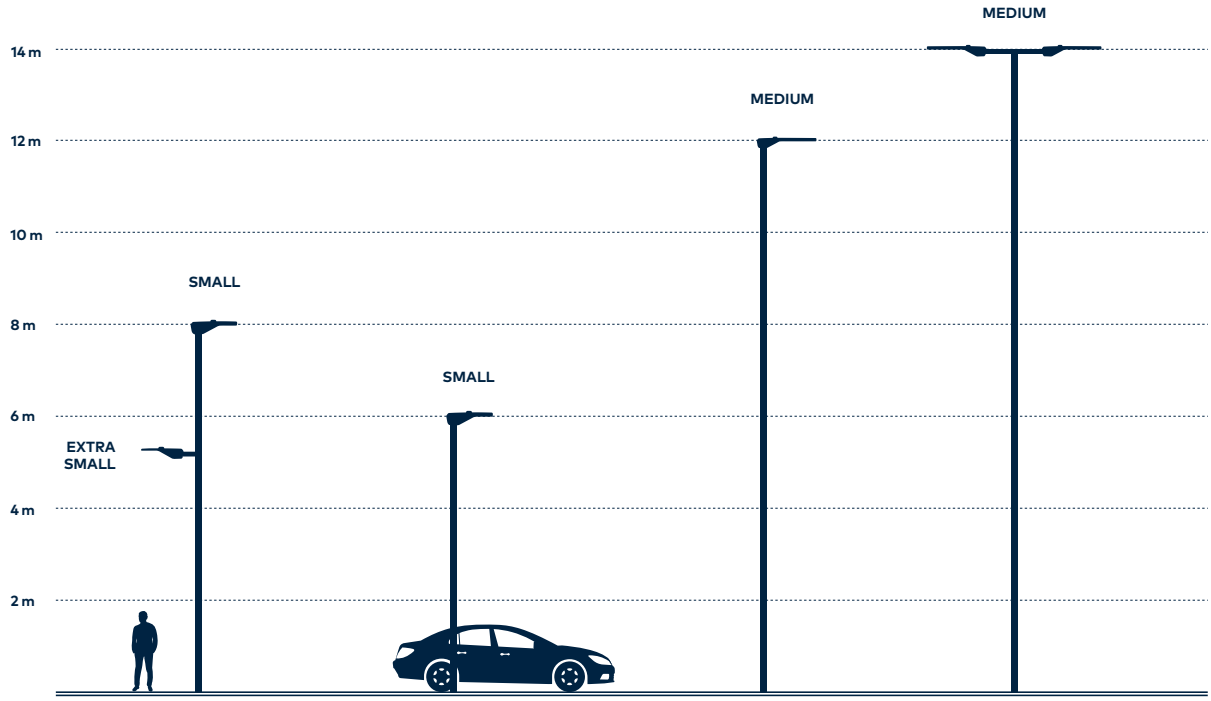
NightTune creates the perfect balance in lighting at night. It gives a sense of security and wellbeing for people, whilst conserving energy and protecting ecosystems. NightTune automatically adjusts the level of light emitted from a light fitting, mixing dimmable light from warm and cool LEDs.

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

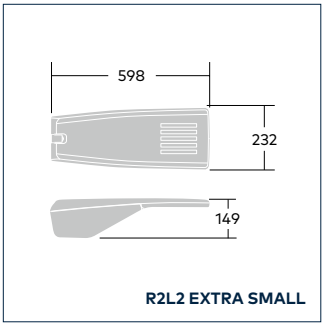
TOP

TILT ADJUSTMENTS

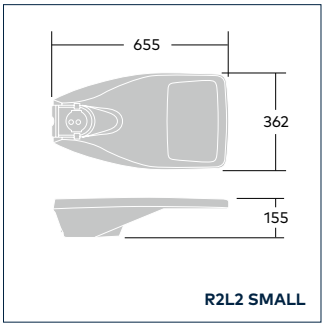
CONFIGURATION GUIDE

thornlighting.com/R2L2

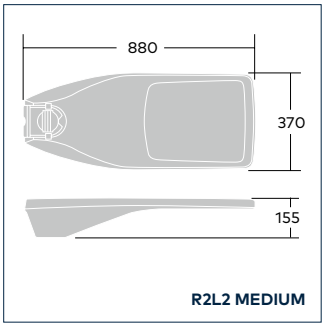
R2L2	24L	700	730	NR	CLO	BP850	HFX	ZU	SPD	LV	CL2	MTP	W3	GY	
Range	**LED**	**mA**	**CCT/CRI**	**Optic**	**CLO**	**Dimming**	**DALI**	**CMS**	**Fuse**	**Louvre**	**Safety**	**Spigot**	**Wiring**	**Colour**	
														GY	Light Grey 150 Sanded
														ANT	Anthracite 900 Sanded
														BK	Black 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										
				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	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														



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

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 38 000 lm
	Up to 164 lm/W	Up to 174 lm/W	Up to 172 lm/W
CRI	70 / 80		
ULOR	< 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		
100K	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		

5 YEAR GUARANTEE

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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