

THORN

R2L2

All roads lead to one LED solution



Introducing R2L2

A complete road lantern family at the forefront of LED technology to offer excellent lighting performance and cover all applications

Three sizes

Eleven light distributions

One consistent design

All road applications from S5 to ME1

Suitable for operating at Ta -25°C to +50°C, R2L2 is designed for every region and available globally.

R2L2 Medium

Up to 222W system

Up to 18 900
luminaire lumens

For main roads





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 Large

Up to 417W system

Up to 35 000
luminaire lumens

For motorways
and highways



R2L2 Small

Up to 112W system

Up to 9 500
luminaire lumens

For minor roads,
roundabouts, residential
roads, cycle lanes,
pedestrian crossings
and car parks



Extensive light distribution choice

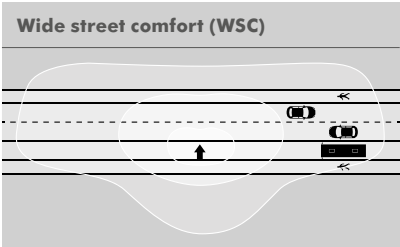
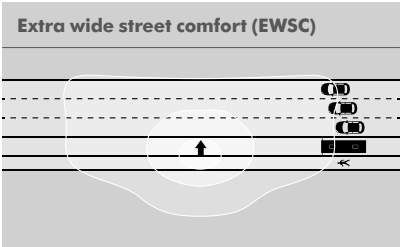
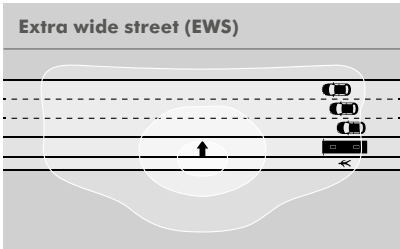
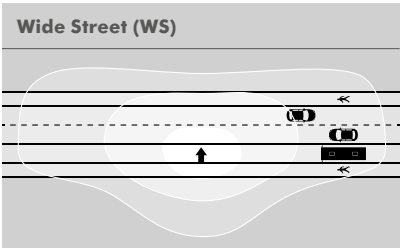
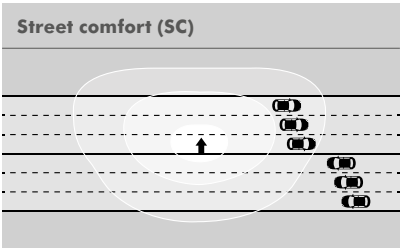
R2L2 uses a high performance R-PEC optic to offer 11 types of light distribution for precise light placement with no waste light.

Use R2L2 to efficiently and effectively light all road applications, from high speed roads to pedestrian crossings.

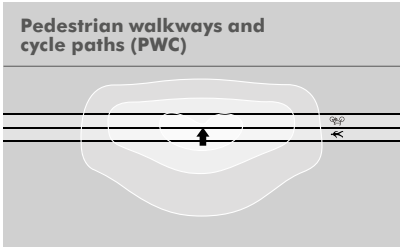
Comfort road and street optics are available for a sharper upward light cut-off to meet higher G-class requirements.



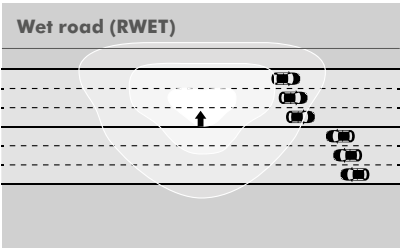
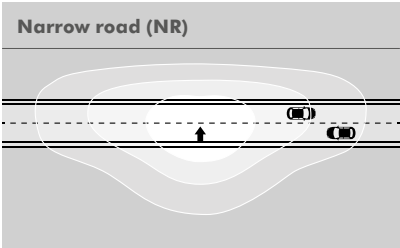
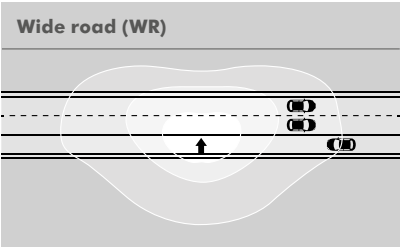
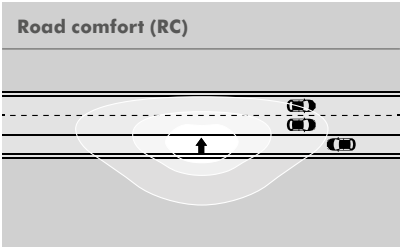
Street oriented distributions



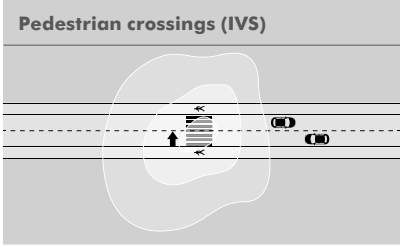
Walkways



Road oriented distributions



Pedestrian crossing



Recommended optic choice vs project layout:

- Flexibility of solutions, optimisation scenarios
- Energy savings: just the quality of light required is provided

1.35	RC	NR	PWC			
1.2					RWET	
1						IVS
0.85	SC	WR	WSC	WS		
0.7						
0.6			EWSC	EWS		
0.45						
Mounting height/ width of road ratio	ME Comfort	ME	S Comfort	S	MEW	Pedestrian crossing
	Dry condition				Wet condition	

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 lighting point (level: 1), local group of lighting points (level: 2) or fully remote via a central monitoring system (level: 3).



Radio frequency (RF) real-time duplex mode remote control via ZIGBEE



Photocell: NEMA socket, Minicell



Motion detection of people and vehicles



Power line (PL) real-time duplex mode remote control via LONWorks



Light level adjustment

Constant light output

Stand alone one step or multistep dimming via programmable driver offering level and duration adjustment

Line switch via pilot line

Mains dimming

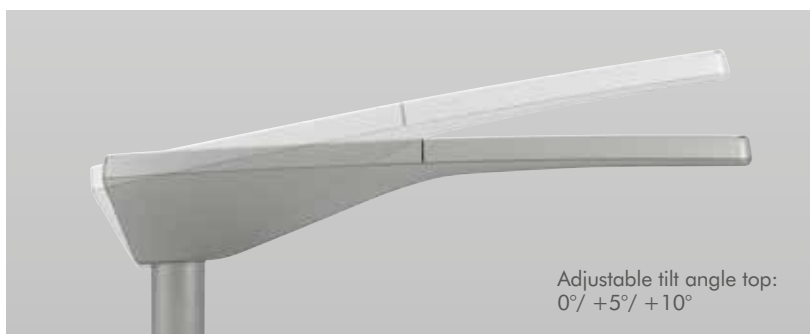
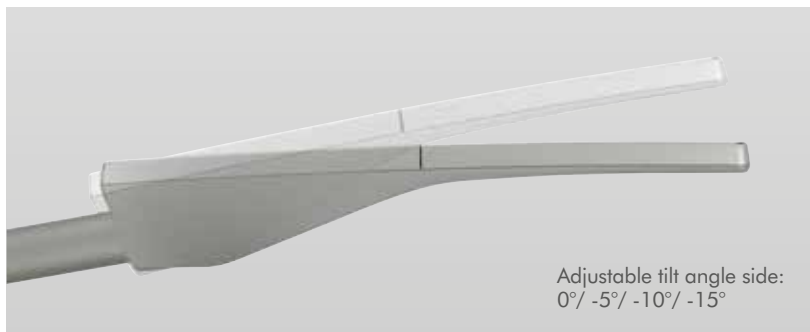
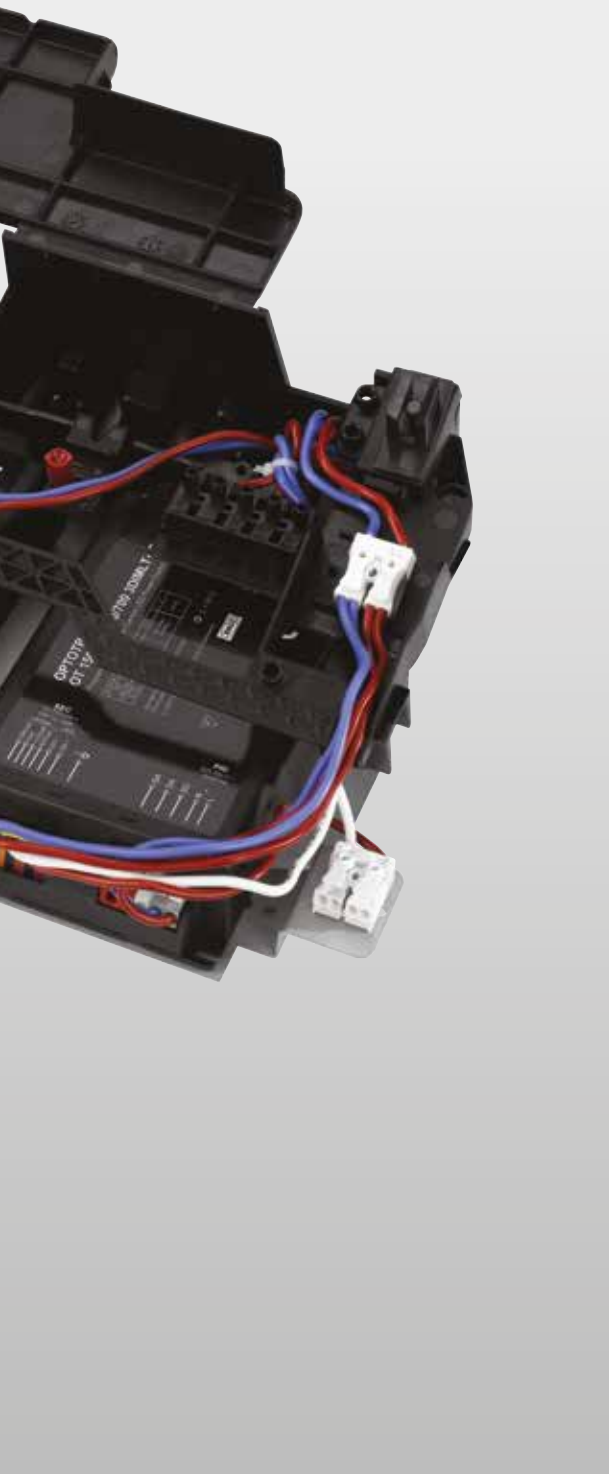
Unique spigot fixing

R2L2 benefits from an attractive integrated all-in-one spigot.

The universal 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



Smart design

R2L2 is carefully designed to deliver high performance year after year.



External front and back louvres can be easily fitted retrospectively without disconnecting for extra light control and comfort



Anti-dust and water collecting surface reduces maintenance, and increases lifetime and heat dissipation



Sustainable design from high quality materials



Efficiency

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

Optional self-cleaning coating reduces maintenance and ensures sustained performance over time

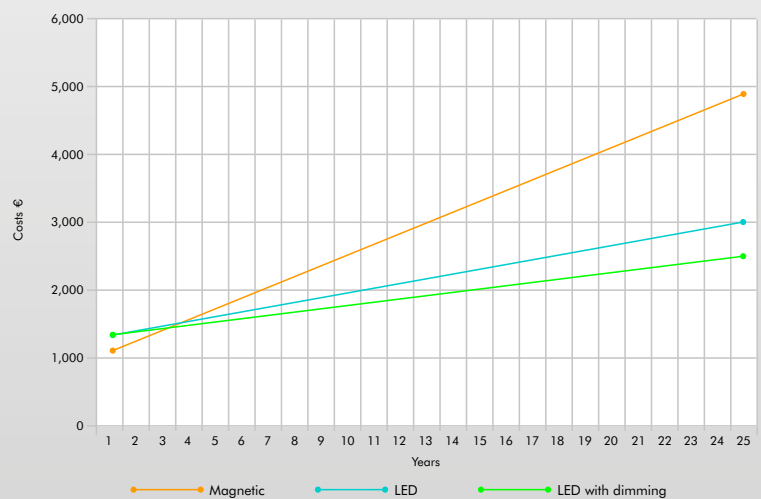


Flexible modular design offers plenty of room for controls, replaceable optics and gear, which can be upgraded as new technology becomes available

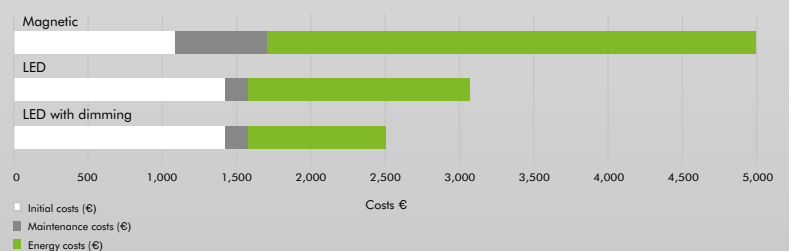
R2L2 integrates the latest LED, gear and controls technology to achieve high levels of efficiency up to 100lm/W. By reducing energy consumption and therefore costs, R2L2 offers an attractive return on investment of typically less than three years.

With a long lifetime up to 100 000 hours @B10L70, R2L2's efficient LEDs also reduce the expense and inconvenience associated with maintenance.

Total cost amortisation chart

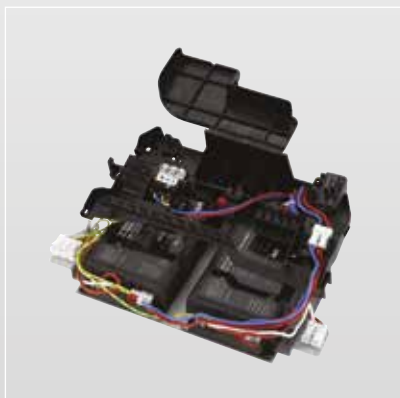


Total Life Cost Analysis



Contractor friendly

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



Plug and socket connections to save time
Clearly identified components for simplicity



All-in-one universal spigot to fit any type of column



Easy to open clip for convenient access
Visible and tool-free opening system



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



Product features

A complete road lantern family at the forefront of LED technology to offer excellent lighting performance and cover all applications

Key features

- Comprehensive range available in three sizes with extensive optical, lumen and light distribution choice for all road applications up to ME1
- Efficient (up to 100lm/W) R-PEC optic offering 11 types of light distribution for precise light placement with no waste light
- Maximises energy savings with a wide range of intelligent lighting control solutions from stand alone dimming to fully remote control via central monitoring system
- Attractive, universal and integrated spigot offering flexibility through top and side entry as well as tilt adjustment
- Easy to fit louvres which can be fitted retrospectively for extra light control and comfort

Applications

- Major roads: motorways and highways within and between cities
- Minor roads: mixed traffic and residential streets
- Walking/cycling paths, car parks and roundabouts

Light source

- From 12 LED to 180 LED
- Lifetime:
100 000 hours @B10L70
83 000 hours @B10L80
- Luminaire efficacy up to 100lm/W
- Up to 35 000lm
- Colour Temperature 4000K but also 3000K and 5700K
- CRI: 70

Standards



Materials/Finish

Housing, canopies, spigot: die-cast aluminium with powder coating
Glass: tempered, 4 mm thick
Screws: Ecolubric® treated
Powder coating texturised light grey as standard (close to R9006)
Other RAL or AKZO colours available on request
Other special treatment on request

Installation/Mounting

Post-top mounting: Ø 60-76mm
Side-entry mounting: Ø48-60mm or Ø34-42-48-60mm
Operating temperature: $-25^{\circ}\text{C} < T_a < +35^{\circ}\text{C}$
Suitable for use up to $+50^{\circ}\text{C}$ through the use of heat regulation system
Recommended mounting height: 4m to 14m
Adjustable tilt angle side: $0^{\circ} / -5^{\circ} / -10^{\circ} / -15^{\circ}$
Adjustable tilt angle top: $0^{\circ} / +5^{\circ} / +10^{\circ}$

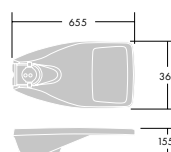
Specification

To specify state:

Three sizes with extensive optical, lumen and light distribution choice for all road applications up to ME1.
Efficient (up to 100lm/W) R-PEC optic with 11 light distributions for precise light placement with minimum waste light. Wide range of intelligent lighting control solutions from stand alone dimming to fully remote control via central monitoring system. Attractive, universal and integrated spigot offering flexibility through top and side entry as well as tilt adjustment up to 15° . Easy to fit back and front louvres which can be fitted retrospectively for extra light control and comfort.
As Thorn R2L2

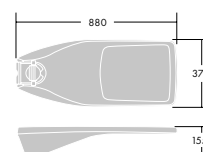
Dimensions

R2L2 Small



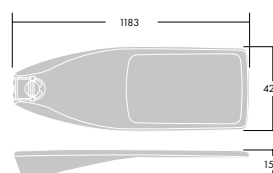
Max. weight (kg)
10.6 (with gear) 8.6 (without gear)
Max. Scx: 0.05m²

R2L2 Medium



Max. weight (kg)
14.2 (with gear) 11.1 (without gear)
Max. Scx: 0.06m²

R2L2 Large



Max. weight (kg)
17.9 (with gear) 13.4 (without gear)
Max. Scx: 0.08m²

Output flux tables

Output Flux

The tables below describe the indicative flux and output power of the available versions depending on the number of LEDs and current.

The multipliers help understand the behaviour of the luminaire under different conditions to get a more precise value of the performances.

The luminaire efficiency (expressed in Llm/W) must be calculated as the ratio between the output luminous flux of the luminaire and the power absorbed by the unit.

The tables also show the nominal LED flux so as to show the luminaire efficiency for the ease of comparison between solutions.

Those values are subject to modifications as per or continuous work towards the most efficient solutions.

For precise measured values please use the photometric data of the preferred version.

All measured values are subject to a tolerance of +/- 10% inherent to the technology and in accordance to IEC PAS 62722-2-1:2011.

R2L2 Small

Current value	Number of LEDs	System power	Nominal efficiency	Luminaire useful flux	Luminaire efficiency	Life time at remaining flux at 25°C	
mA	unit	W	lm/W	LLm	Llm/W	B10L70	B10L80
350	12	15	107	1320	88	100khrs	83khrs
	24	29	106	2615	90		
	36	42	115	3955	94		
	48	54	117	5300	98		
500	12	21	102	1800	86	100khrs	65khrs
	24	42	103	3535	84		
	36	58	106	5375	93		
	48	77	109	7160	93		
700	12	29	94	2390	82	89khrs	55khrs
	24	57	97	4675	82		
	36*	84	101	7065	84		
	48*	110	101	9400	85		

Multipliers

Flux as function of colour temperature	
3000K	0.93
4000K	1.00
5700K	1.08

R2L2 Medium

Current value	Number of LEDs	System power	Nominal efficiency	Luminaire useful flux	Luminaire efficiency	Life time at remaining flux at 25°C	
mA	unit	W	lm/W	LLm	Llm/W	B10L70	B10L80
350	60	67	119	6685	100	100khrs	83khrs
	72	82	118	8215	100		
	84	94	119	9420	100		
	96	107	118	10630	99		
500	60	98	111	9100	93	100khrs	65khrs
	72	117	112	11010	94		
	84	137	111	12770	93		
	96*	156	110	14445	93		
700	60*	140	101	11985	86	89khrs	55khrs
	72*	169	102	14490	86		
	84*	195	102	16750	86		
	96**	222	101	18890	85		

Flux as function of Ta	
50°C + HMS*	0.50
50°C	0.98
35°C	0.99
25°C	1.00
15°C	0.99
System power as function of Ta	
50°C + HMS*	0.50
50°C	0.98
35°C	0.99
25°C	1.00
15°C	1.01


R2L2 Large

Current value	Number of LEDs	System power	Nominal efficiency	Luminaire useful flux	Luminaire efficiency	Life time at remaining flux at 25°C	
mA	unit	W	lm/W	LLm	Llm/W	B10L70	B10L80
350	108*	123	116	12030	98	100khrs	83khrs
	120*	135	117	13370	99		
	132*	149	115	14790	99		
	144*	162	116	16110	99		
	156*	178	117	17485	98		
	168*	192	117	18800	98		
	180**	205	117	20160	98		
500	108*	178	108	16325	92	100khrs	65khrs
	120*	197	109	18165	92		
	132*	215	110	20005	93		
	144*	234	110	21815	93		
	156*	255	109	23645	93		
	168*	274	109	25370	93		
	180**	294	109	27130	92		
700	108*	250	101	21435	86	89khrs	55khrs
	120*	277	102	23770	86		
	132**	305	101	26160	86		
	144**	333	101	28605	86		
	156**	362	101	30500	84		
	168**	390	101	33070	85		
	180***	417	101	35200	84		

Flux as function of Optic	
NR	1.00
WR	1.01
WS	0.98
WSC	1.00
EWS	0.98
EWSC	0.99
RWET	1.01
RC	1.02
SC	1.02
PWC	1.01
IVS	1.00

* Ta50°C max with Heat Management System (HMS)
** Ta25°C max
*** Ta15°C max

Ordering guide



Configuration guide

Example SAP designation

R2L2	L	36L	70	NR	L757	CL1	CLO	BP	SW	PN	HFA	PL	6F	10KV	SLD	
															SLD	Pedestrian detection
															SLDM	Motorised and pedestrian detection
															10kV	10kV protection
													6F	6A fuse		
												PL	Power Line control able			
												RF	Radio Frequency control able			
											HFA	1-10V able				
											HFX	DALI able				
										PN	Plus Nema socket					
										PM	Plus Minicell IP65					
										PMxx	Plus Minicell other					
									SW	Switch-off dim						
								BP	Bi-Power (8h-50% output reduction)							
								BPL	Bi-Power Line switch							
							CLO	Constant Light Output								
						CL1	Electrical Class I									
						CL2	Electrical Class II									
					L730	3000K CRI70										
					L740	4000K CRI70										
					L757	5700K CRI70										
				RC	Road & Comfort optic											
				RWET	Road Wet optic											
				NR	Narrow Road optic											
				WR	Wide Road optic											
				WS	Wide Street optic											
				WSC	Wide Street & Comfort optic											
				EWS	Extra Wide Street optic											
				EWSC	Extra Wide Street & Comfort optic											
				IVS	Pedestrian Crossing optic											
				SC	Street & Comfort optic											
				PWC	Pedestrian Walkways & Comfort optic											
			35	350mA												
			50	500mA												
			70	700mA												
			105	1050mA												
			xx	xxmA drive current												
		12L	12 LEDs (small body)													
		24L	24 LEDs (small body)													
		36L	36 LEDs (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)													
		108L	108 LEDs (large body)													
		120L	120 LEDs (large body)													
		132L	132 LEDs (large body)													
		144L	144 LEDs (large body)													
		156L	156 LEDs (large body)													
		168L	168 LEDs (large body)													
		180L	180 LEDs (large body)													
S	Small body															
M	Medium body															
L	Large body															

How to order your R2L2.

One of the main features of R2L2 is all of the different options and variants that can be specified, so in order to make it easier to order your R2L2 we have produced this configurator which allows you to create the exact product you require from the options and variants listed. Once you have created your unique designation then your sales representative can quickly find out the SAP code, associated price and time schedule for delivery.

How to order your R2L2.

One of the main features of R2L2 is all of the different options and variants that can be specified, so in order to make it easier to order your R2L2 we have produced this configurator which allows you to create the exact product you require from the options and variants listed. Once you have created your unique designation then your sales representative can quickly find out the SAP code, associated price and time schedule for delivery.

R2L2 Brackets

A comprehensive collection of functional bracket packages to achieve a fully harmonised design within the R2L2 family

Type		Arm length	Tilt angle	Pole top Ø	Net weight	SAP Code
	single bracket	1x800mm	+10°	60mm	8.3 kg	96269050
	single bracket	1x800mm	+10°	76mm	8.3 kg	96269051
	double bracket	2x800mm	+10°	60mm	13.4 kg	96269052
	double bracket	2x800mm	+10°	76mm	13.4 kg	96269053
	wall bracket	500mm	+10°		4.9 kg	96269054
	mid pole bracket	500mm	+10°		4.7 kg	96269055

Available on request (subject to calculations)

- Different arm length
- Different tilt angle



Bracket features

Key features

- Specifically designed for R2L2 with the perfect balance between functionality and aesthetics
- Options of single or twin arms, wall or side brackets are available
- The flexibility of the range allows for various applications and layouts with consistent design
- Solid but lightweight and an included cable puller make it easy to install which is one of the essentials of R2L2

Standards



Materials/Finish

Painted galvanized steel, texturised light grey
Decorative insert in steel
Top end cap: Polypropylene, black

Installation/Mounting

The tube is fixed inside the post top which is available as Ø60mm or Ø76mm with 3x120° screws in 2 rows
Cable complete with cable puller

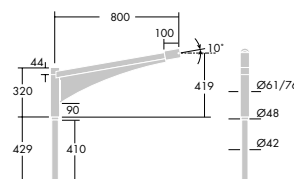
Specification

To specify state:

Steel galvanized texturised light grey bracket with black top end cap. Rectangular arm tilted 10° and welded decorative insert. Suitable for Ø60mm or Ø76mm top pole. Delivered with cable puller. As per Thorn R2L2 bracket.

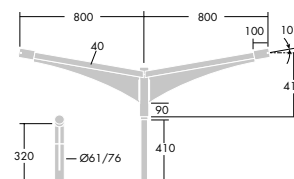
Dimensions

Single Bracket



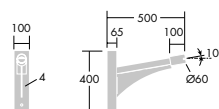
weight (kg) 8.3

Double Bracket



weight (kg) 13.4

Mid pole/wall bracket



Mid pole
weight (kg) 4.7

Wall bracket
weight (kg) 4.9



Thorn Lighting Main Offices

Australia

Thorn Lighting Pty Limited
43 Newton Road, Wetherill Park, NSW 2164
Tel: (02) 8786 6000
Fax: (02) 9612 2700
infoaustralia@zumtobelgroup.com
www.thornlighting.com.au

Austria

Zumtobel Licht GmbH
Donau-City-Straße 1, 1220 Wien
Tel: (43) 1 202 66 11
Fax: (43) 1 202 66 11 82712
office.at@zumtobelgroup.com
www.thornlighting.at

Benelux

Rijksweg 47 A
Industriezone Puurs Nr. 442
BE-2870 Puurs, Belgium
Tel: (32) 3 860 93 93
Fax: (32) 3 886 25 00
info.be@zumtobelgroup.com
info.nl@zumtobelgroup.com
info.lu@zumtobelgroup.com

Central Asia, Africa, Turkey

Thorn Europhone S.A.
156 Boulevard Haussmann
75379 Paris Cedex 08, France
Tel: (33) 1 49 53 62 62
Fax: (33) 1 49 53 62 40
info.paris@thornlighting.com
www.thornlighting.fr

China

Thorn Lighting (Guangzhou) Limited
No.12 Lianyun Road, Eastern Section, GETDO
Guangzhou 510530 P.R. China
Tel: (86) 20 2232 6000
Fax: (86) 20 3228 1777
cn.sales@zumtobelgroup.com

Croatia

ZG Lighting d.o.o.
Radnička cesta 80
HR - 10000 Zagreb
Croatia
Tel: (385) 1 640 40 80
welcome@zumtobel.hr
www.thornlighting.com.hr

Cyprus, Greece, Malta and Portugal

ZG Lighting Southern Europe and Latam, S.L.
C/ Inocencio Fernández, 81
28035 Madrid (Spain)
Tel: (34) 91 659 30 76
info.med@zumtobelgroup.com
www.thornlighting.com

Czech Republic

Thorn Lighting CS spol. s r.o.,
Jankovcova 2, 170 00 Praha 7
Tel: (420) 266 782 200
Fax: (420) 266 782 201
thorn.cz@zumtobelgroup.com
www.thornlighting.cz

Denmark

Thorn Lighting A/S
Stamholmen 155, 5. sal, 2650 Hvidovre,
Tel: (45) 76 96 36 00
Fax: (45) 76 96 36 01
thorninfo.dk@zumtobelgroup.com
www.thornlighting.dk

France

Thorn Europhone SA
156 Boulevard Haussmann,
75379 Paris Cedex 08, France
Tel: (33) 1 49 53 62 62
thorn.promotion@zumtobelgroup.com
www.thornlighting.fr

Germany

Thorn Licht GmbH
Achtzehnmorgenweg 2-4, 61250 Usingen
Tel: (49) 6081 1026 500
office.de@zumtobelgroup.com
www.thornlighting.de

Hong Kong, Taiwan

Thorn Lighting (Hong Kong) Limited
Unit 4301, Level 43, Tower 1, Metroplaza,
223 Hing Fong Road, Kwai Chung, N.T.,
Hong Kong
Tel: (852) 2578 4303
Fax: (852) 2887 0247
info.hk@zumtobelgroup.com
www.thornlighting.hk
www.thornlighting.tw

India

Thorn Lighting India Pvt. Ltd.
Unit No. 404, Western Edge-I
4th Floor, Located at CTS 163A/165
Western Express Highway, Borivali (E)
400 066, Mumbai, India
Tel: (91) 22 40481900
Fax: (91) 22 28541120
info.in@thornlighting.com
www.thornlighting.in

Ireland

Thorn Lighting (Ireland) Limited
Century House, Harolds Cross Road,
Dublin 6W
Tel: (353) 1 4922 877
Fax: (353) 1 4922 724
dublinsales@zumtobelgroup.com
www.thornlighting.co.uk

Italy

Thorn Lighting S.r.l.
Via G Di Vittorio, 2, Cadriano di Granarolo,
Bologna 40057, Italy
Tel: (39) 051 763391
Fax: (39) 051 763088
info@zumtobelgroup.it
www.thornlighting.it

Kingdom of Saudi Arabia

Thorn Lighting
Jeddah 21411, Madina Road,
Sulaiman Building
Tel: (966) 2 653 3077
Fax: (966) 2 653 3153
marketing.mena@zumtobelgroup.com
www.thornlighting.ae

Korea

1506, Union Centre BLDG,
837-11, Yeoksam-dong, Kangnam-gu, Seoul
Tel: (82) 2 565 8823-4
Fax: (82) 2 565 8827
info.kr@zumtobelgroup.com
www.thornlighting.kr

Latin America

ZG Lighting Southern Europe and Latam, S.L.
Calle Orinoco 90, planta 21, Of. 03
Las Condes, Santiago de Chile (Chile)
Tel: (56) 22 573 77 80
info.latam@zumtobelgroup.com
www.thornlighting.es
www.thornlighting.com

New Zealand

Thorn Lighting (NZ) Ltd
399 Rosebank Road, Avondale,
Auckland 1026, PO Box 71134, Rosebank,
Auckland 1348
Tel: (64) 9 828 7155
Fax: (64) 9 828 7591
NZakth.info@zumtobelgroup.com
www.thornlighting.co.nz

Middle East - Bahrain, Kuwait, Jordan, Palestine, Lebanon, Iran, Yemen

Thorn Lighting Ltd.
Al Shoala Building, Office 301, Block E,
Airport Road, P.O.Box 22672, Deira,
Dubai, UAE
Tel: (971) 4 294 0181
Fax: (971) 4 294 8838
bobby.sudhir@thornlighting.com
www.thornlighting.ae

Norway

Thorn Lighting AS
Strømsveien 344, 1081 Oslo
Tel: (47) 22 82 07 00
Fax: (47) 22 82 07 01
info.no@zumtobelgroup.com
www.thornlighting.no

Osman

Thorn Lighting c/o Delta Co. Ltd. LLC.
P.O.Box: 1537; Postal Code 112 RUWI
Tel: (968) 2470 8483
Fax: (968) 2470 8502
bobby.sudhir@thornlighting.com
www.thornlighting.ae

Poland

ZG Lighting Polska Sp. z o.o.
Ul. Gazowa 26A, Wrocław 50-513
Tel: (48) 71 33 66 026
Fax: (48) 71 33 66 029
wroclaw@zumtobelgroup.com
www.thornlighting.pl

Qatar

Thorn Lighting W.L.L.
Cleopatra Building, Office No. 8, First Floor
P.O.Box 6026, Doha, State of Qatar
Tel: (974) 4432 1445
Fax: (974) 4432 1445
dakshata.sathye@zumtobelgroup.com
www.thornlighting.ae

Russia

Thorn Lighting
Skakovaya str., h. 17, bl. 2, office 2110
125040, Moscow
Tel: (7) 495 981 35 41
Fax: (7) 495 981 35 42
office.moscow@zumtobelgroup.com
www.thornlighting.ru

Singapore

Thorn Lighting (Singapore) Pte Ltd
5 Kaki Bukit Crescent, 04-02 Koyotech
Building, 416238 Singapore
Tel: (65) 6844 5800
Fax: (65) 6745 7707
info.sg@zumtobelgroup.com

Slovenia

ZG Lighting d.o.o.
Štukljeva cesta 46, 1000 Ljubljana
Tel: (386) 1 56 09 820
si.welcome@zumtobelgroup.com
www.thornlighting.si

South + East Africa

Thorn Lighting Ltd
Durhamgate, Spennymoor,
County Durham, DL16 6HL
Main Switchboard
United Kingdom
Tel: (44) 1388 42 00 42
www.thornlighting.co.uk

Spain

ZG Lighting Southern Europe and Latam, S.L.
C/ Inocencio Fernández, 81
28035 Madrid (Spain)
Tel: (34) 91 659 30 76
info.spain@zumtobelgroup.com
www.thornlighting.es

Sweden

Thorn Lighting AB
Industrigatan, Box 305, SE-261 23
Landskrona
Tel: (46) 418 520 00
Fax: (46) 418 265 74
thorninfo.se@zumtobelgroup.com
www.thornlighting.se

Switzerland

Zumtobel Licht AG
Thurgauerstrasse 39, 8050 Zürich
Tel: (41) 44 305 35 35
Fax: (41) 44 305 35 36
info@zumtobel.ch

United Arab Emirates - Abu Dhabi

Thorn Gulf LLC
Obaid Khaleefa Al Jaber Building
Office No. 01, Floor '0' (zero)
Behind National Bank of Abu Dhabi,
Tel: (971) 2 634 4144
Fax: (971) 2 634 4116
salesthorngulf@zumtobelgroup.com
www.thornlighting.ae

United Arab Emirates - Dubai

Thorn Gulf LLC
Al Shoala Building, Office 301,
Block E, Airport road, P.O. Box 22672,
Deira, Dubai, UAE
Tel: (971) 4 294 8938
Fax: (971) 4 294 8838
salesthorngulf@zumtobelgroup.com
www.thornlighting.ae

United Kingdom

Thorn Lighting Ltd
Durhamgate, Spennymoor,
County Durham, DL16 6HL
Tel: (44) 1388 42 00 42
Fax: (44) 1388 42 01 56
brochures.uk@zumtobelgroup.com
www.thornlighting.co.uk

www.thornlighting.com

Thorn Lighting is constantly developing and improving its products. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. The right is reserved to change specifications without prior notification or public announcement. All goods supplied by the company are supplied subject to the company's General Conditions of Sale, a copy of which is available on request. All measurements are in millimetres and weights in kilograms unless otherwise stated. Printed on Luxo Light.

Publication No: R2L2_INT Publication Date: 09/14