



## Autonomous solar lighting meets cutting-edge design



### KEY ADVANTAGES

- > **Seamless integration of high-performance photovoltaic modules in an elegant square column pole design**
- > **Versatile architecture (solar module layout) to maximise solar energy harvesting**
- > **Ability to harvest energy in poor weather conditions**
- > **In-ground sealed battery for optimum performance and longevity**
- > **One or two (back-to-back) luminaires**
- > **Numerous light distributions**
- > **Optional sensors for light-on-demand scenarios**
- > **Hybrid variant available**

The VERTICALIS solar-powered LED streetlight is a reliable and energy-efficient lighting solution for areas where electrical infrastructure is lacking or too costly to install.

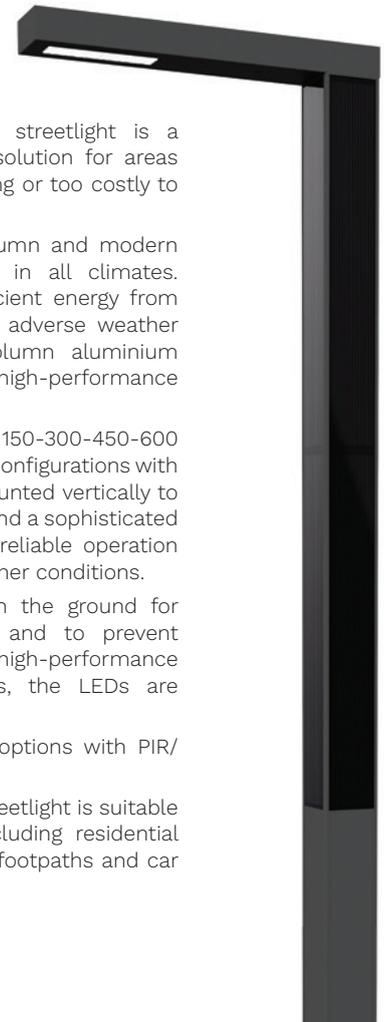
VERTICALIS has a unique, square column and modern design and provides reliable power in all climates. The system is able to generate sufficient energy from the scattered light in even the most adverse weather conditions, thanks to its square column aluminium construction, which incorporates high-performance photovoltaic modules.

The VERTICALIS family includes 150-300-450-600 models, with the possibility of creating configurations with 1 or 2 luminaires. The modules are mounted vertically to prevent snow accumulation in winter, and a sophisticated energy management system ensures reliable operation over multiple nights, even in poor weather conditions.

The integrated battery is recessed in the ground for optimum temperature maintenance and to prevent theft. It is charged during the day by high-performance photovoltaic modules. As night falls, the LEDs are automatically activated.

The system offers additional control options with PIR/microwave sensors.

The VERTICALIS solar-powered LED streetlight is suitable for a wide range of applications, including residential streets, secondary roads, cycle paths, footpaths and car parks.



## HIGHLIGHTS



High quality finish with perfect integration of vertical photovoltaic panels.



Easy installation with only 3 main components (pole, luminaire and battery) to mount and connect.



Waterproof components (LED module, power supply and cabling) make the luminaire lightweight and easy to install.



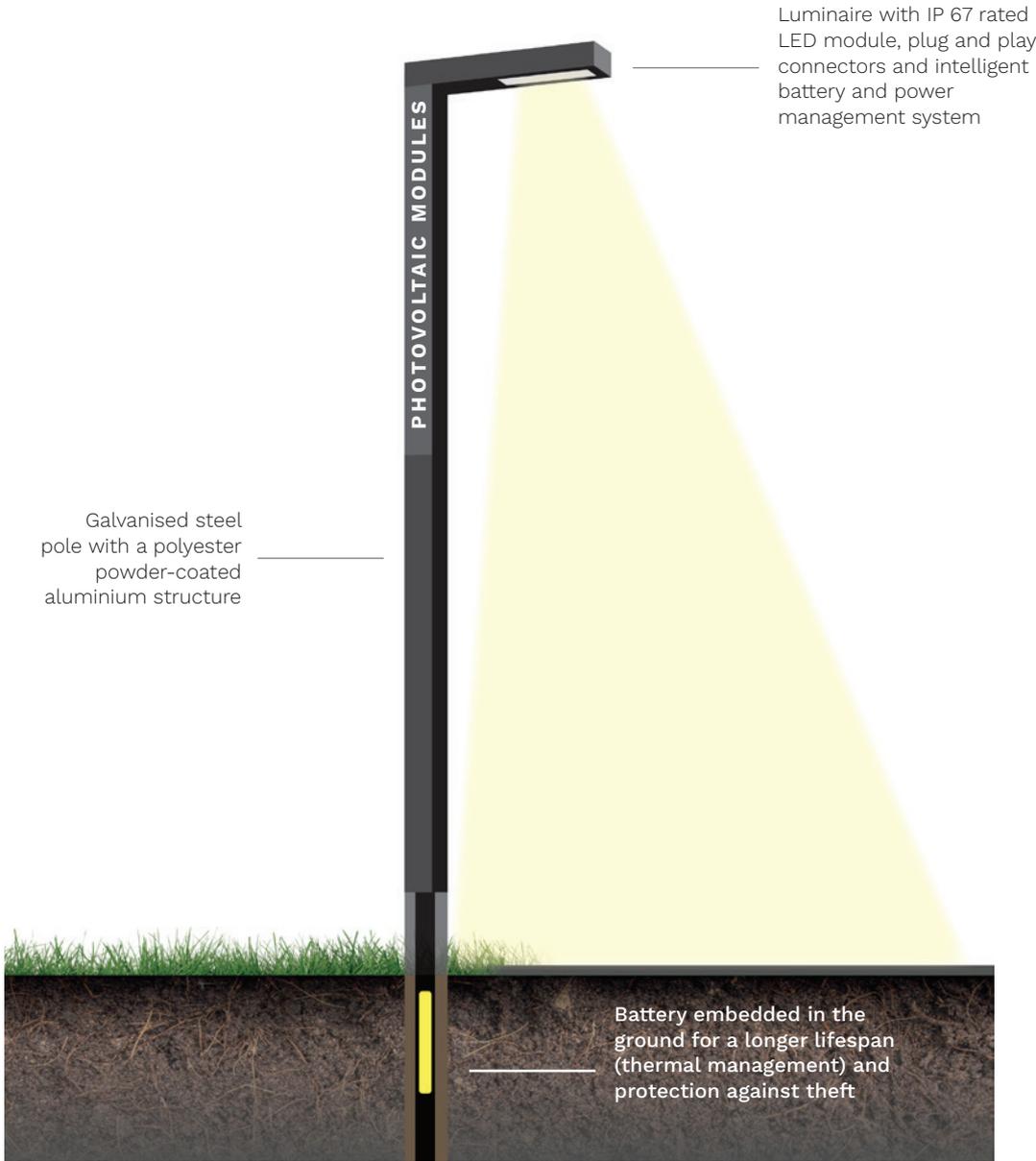
The IPX8 LiFePo4 battery offers superior water resistance and reliable performance.



Toolless coded connectors for all connections.



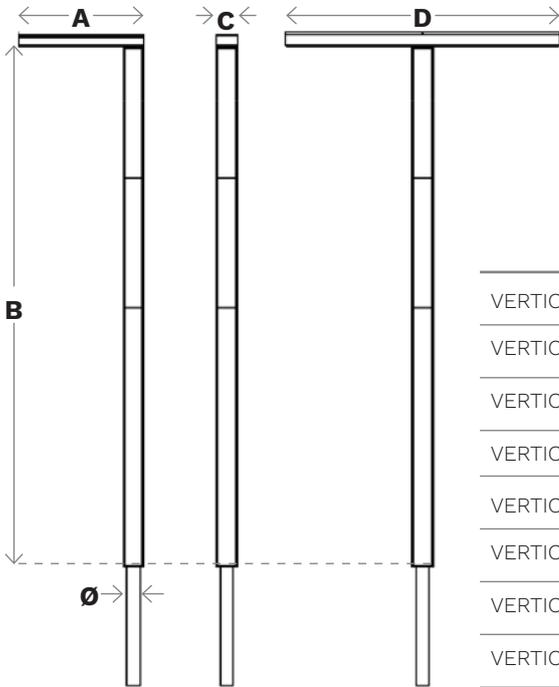
A hybrid version of the VERTICALIS is also available for continuous operation, using solar energy first and switching to the grid only in the event that the battery is empty.



## RANGE

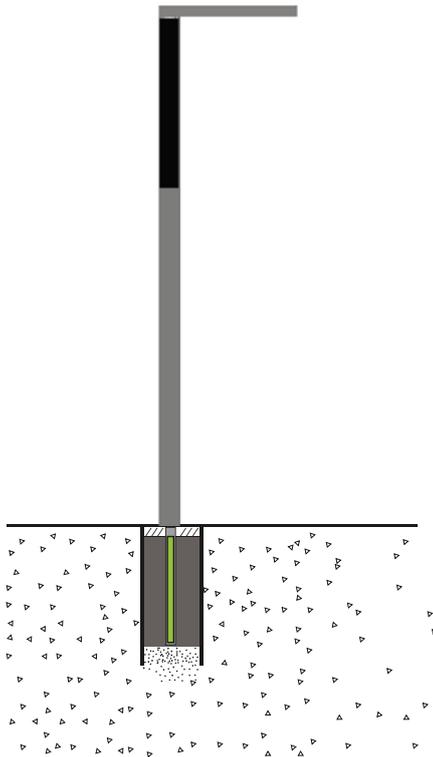
	PRODUCT	POLE HEIGHT	ENERGY HARVESTING	ENERGY STORAGE	LUMINAIRE
	VERTICALIS 150	4800mm   15ft	4 photovoltaic modules		
	VERTICALIS 300	4800/6000/8000mm 15/19/26ft	8 photovoltaic modules	LiFePo4 battery 474Wh or 1152Wh (1 or two batteries)	1x 24-LED module
	VERTICALIS 450		12 photovoltaic modules		
	VERTICALIS 600	6000/8000mm   19/26ft	16 photovoltaic modules		
	VERTICALIS DUO 150	4800mm   15ft	4 photovoltaic modules		
	VERTICALIS DUO 300	4800/6000/8000mm 15/19/26ft	8 photovoltaic modules	LiFePo4 battery 474Wh or 1152Wh (1 or two batteries)	2x 24-LED module
	VERTICALIS DUO 450		12 photovoltaic modules		
	VERTICALIS DUO 600	6000/8000mm   19/26ft	16 photovoltaic modules		

## DIMENSIONS AND MOUNTING

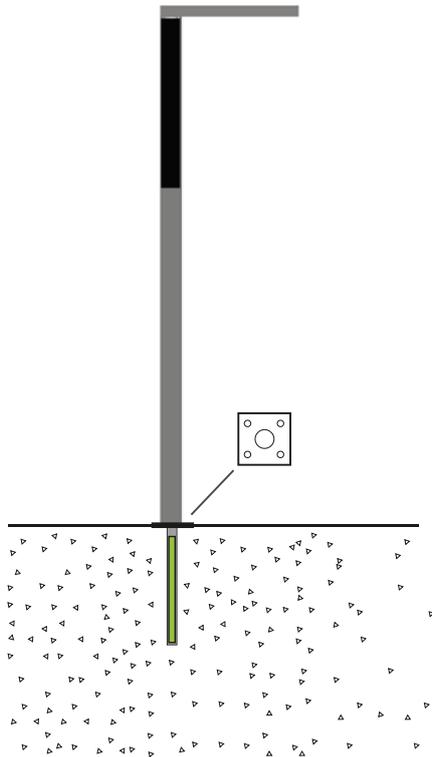


	<b>A</b> (mm   inch)	<b>B</b> (mm   ft)	<b>C</b> (mm   inch)	<b>D</b> (mm   inch)	<b>Ø</b> (mm   inch)
VERTICALIS 150	1150   45	4800   15	195   7.7	-	121   4.7
VERTICALIS 300		4800/6000/8000   15/19/26			
VERTICALIS 450					
VERTICALIS 600		6000/8000   19/26			
VERTICALIS DUO 150	-	4800   15	195   7.7	2300   90	121   4.7
VERTICALIS DUO 300		4800/6000/8000   15/19/26			
VERTICALIS DUO 450					
VERTICALIS DUO 600		6000/8000   19/26			

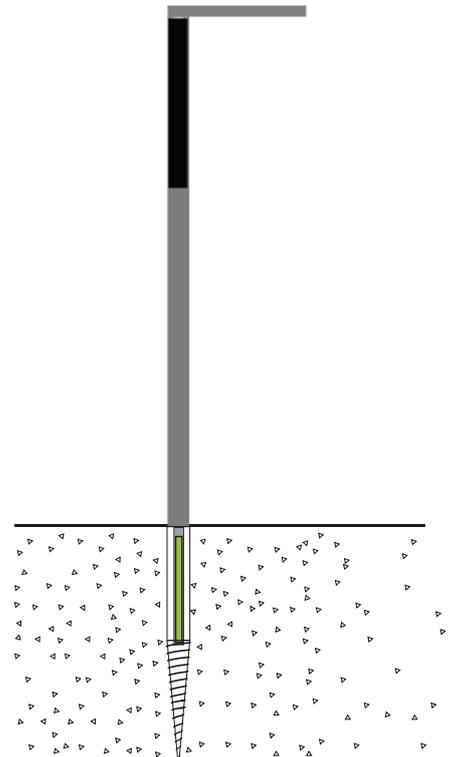
### PIPE FOUNDATION



### ANCHOR BASE



### GROUND SCREW FOUNDATION



## CHARACTERISTICS

### GENERAL

CE Mark	Yes
Electrical class	Class III EU, Class II EU (hybrid variant)
Wind speed resistance	Land category 4: 200km/h
	Land category 1: 150km/h

### MATERIALS

Pole	Galvanised steel
Metal parts	Aluminium
Finish	Polyester powder coating
Standard colour	RAL 7016M anthracite grey*
Impact resistance	IK 06
*any other RAL colour upon request	

### SOLAR MODULES

Technology	Monocrystalline silicon cells (32 cells per module)
Frame	Anodised aluminium alloy
Glass	3.2mm (0.13 in) tempered glass
Power (per module)	40Wp
Module quantity	<b>VERTICALIS 150/DUO 150:</b> 4 modules - 160Wp
	<b>VERTICALIS 300/DUO 300:</b> 8 modules - 320Wp
	<b>VERTICALIS 450/DUO 450:</b> 12 modules - 480Wp
	<b>VERTICALIS 600/DUO 600:</b> 16 modules - 640Wp
Module layout	<b>VERTICALIS 150/DUO 150</b> Symmetrical: 1 on each side of the pole Optimised: 2 facing south, 1 facing west, 1 facing east
	<b>VERTICALIS 300/DUO 300</b> Symmetrical: 2 on each side of the pole
	<b>VERTICALIS 450/DUO 450</b> Symmetrical: 3 on each side of the pole
	<b>VERTICALIS 600/DUO 600</b> Symmetrical: 4 on each side of the pole
Electrical characteristics	VOC: 21.9V
	VMPP: 18.5V
	ISC: 2.16A
	IMPP: 2.16A
Lifetime expectancy	25 years

### BATTERY

Technology	LiFePo4
Voltage	12.8V
Capacity	474Wh (37Ah) or 1152Wh (90Ah)
Operating temperature	-20°C to 55°C   -4°F to 131°F
Autonomy	3 to 5 days
Tightness level	IPX8
Lifetime expectancy	>10 years

### LED MODULE

Optic/protector	PMMA/PC integrated
Tightness level	IP 67
LED colour temperature	2200K (Warm White 722)
	3000K (Warm White 730)
	4000K (Neutral White 740)
Colour rendering index (CRI)	>70
Upward Light Output Ratio (ULOR)	0%
Upward Light Ratio (ULR)	0%
Lifetime of the LEDs @ Tq 25°C	100,000h - L95

### CONTROL

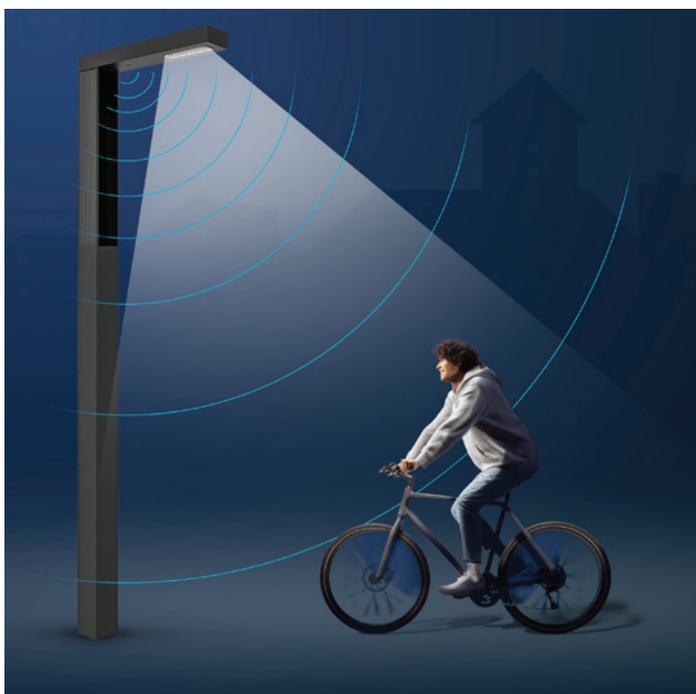
PIR sensor	Optional
Microwave sensor	Optional
Zhaga socket	Optional

## PERFORMANCE

	Number of LEDs	Luminaire output flux (lm) Warm White 722		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)
		Min	Max	Min	Max	Min	Max	Min	Max	
VERTICALIS	24	400	6300	500	7000	500	7400	3	51	Up to 191
VERTICALIS DUO	2x24	800	12600	1000	14000	1000	14800	6	102	191

Tolerance on LED flux is ± 7% and on total luminaire power ± 5%

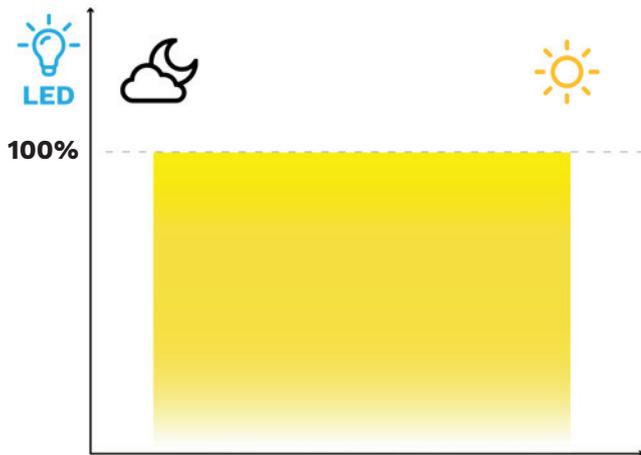
## LIGHT ON DEMAND



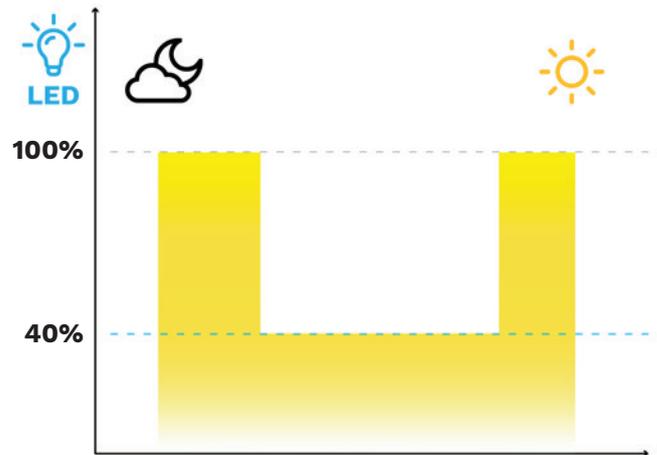
With advanced sensor technology and options for stand-alone operation or luminaire-to-luminaire local communication, light-on-demand features make a significant contribution to species conservation by actively reducing light pollution. These intelligent luminaires provide full light intensity only when needed, ensuring optimum visibility and safety. By dimming the lights during periods of low activity, they prevent over-dimensioning and eliminate the need for additional solar panels and larger batteries, making them an efficient and sustainable solution.

## STANDARD DIMMING PROFILES\*

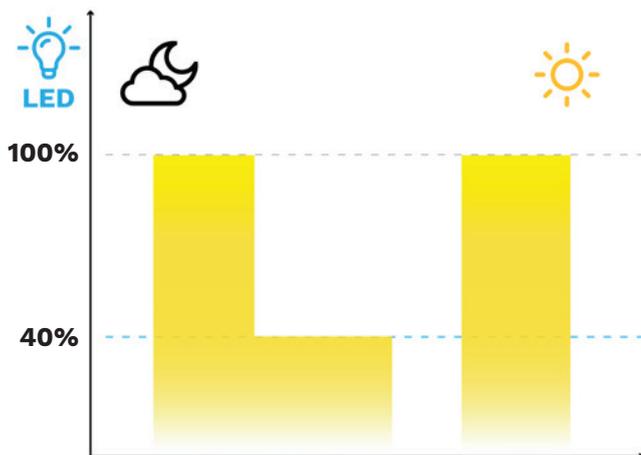
**V3: all night 100%**



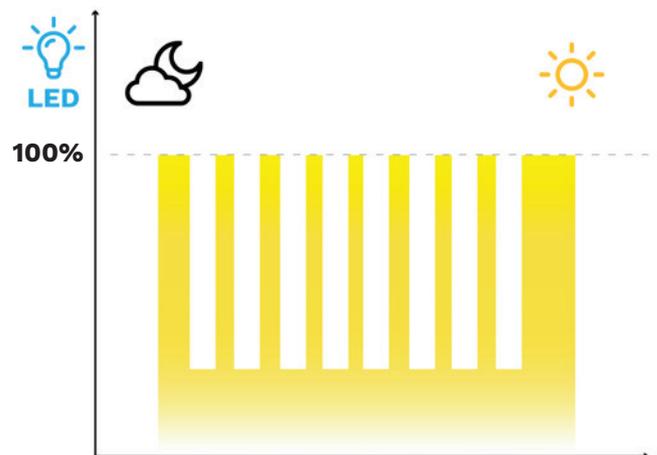
**V4: night dimming to 40%**



**V5: partial switch OFF**

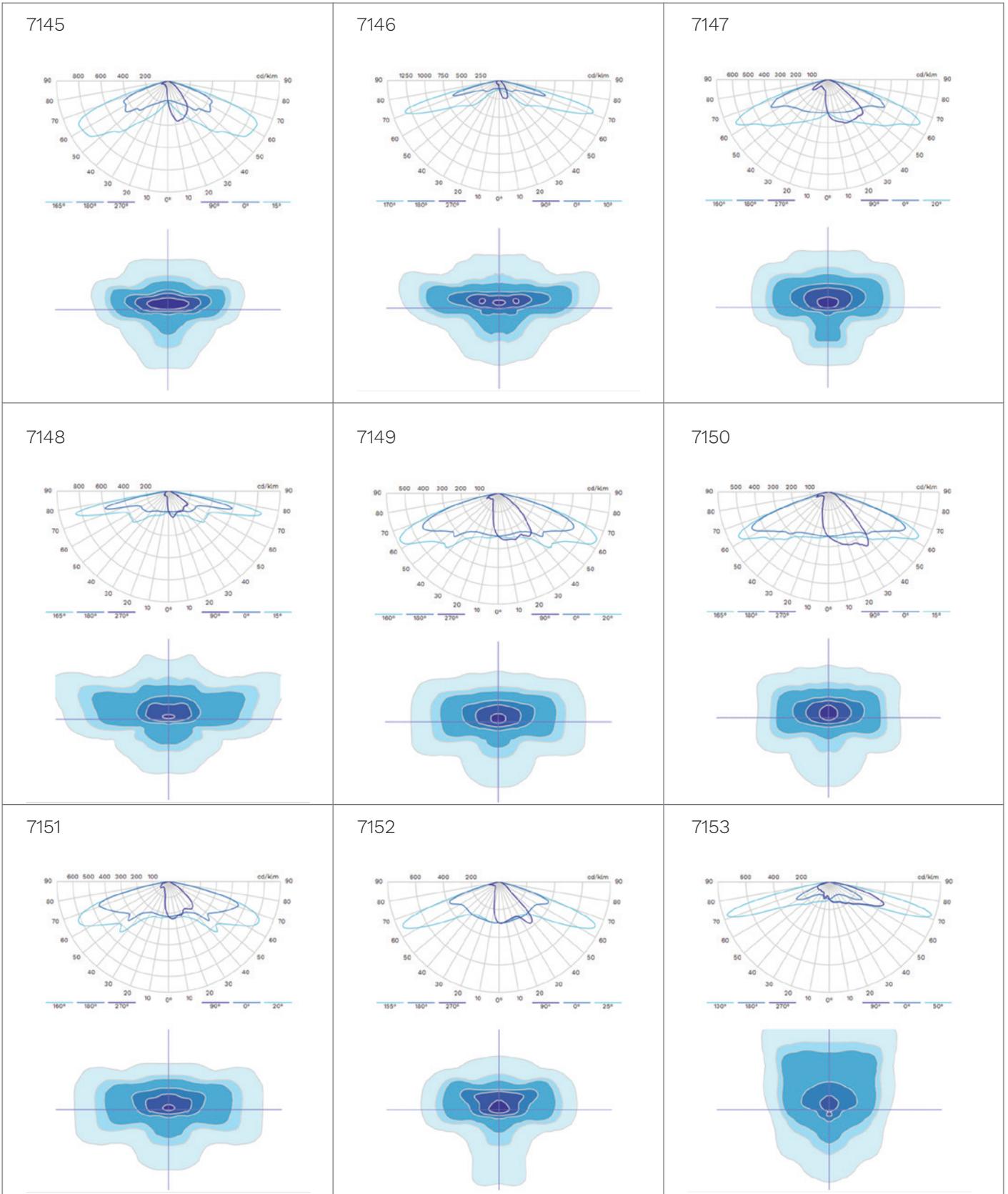


**Light on demand (sensor)**



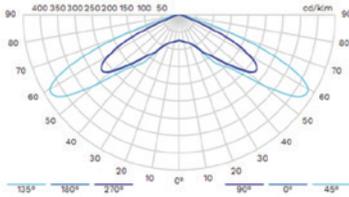
\*Customised dimming profiles are available as an option.

## LIGHT DISTRIBUTIONS

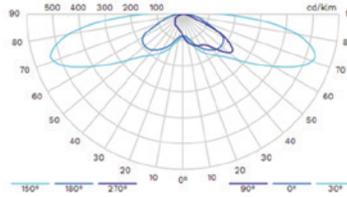


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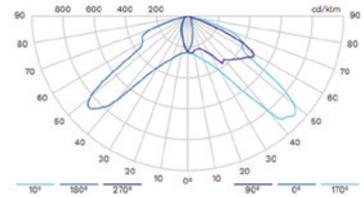
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