

# Innovative solar solution for city

Benefits of UrbanSpark



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## Green, benefit to the environment

Solar energy is green and renewable. UrbanSpark is a solar integrated lighting system requires no energy from the grid. It's a 100% energy saving lighting solution.





## Beautify cities, campus, parks and residential areas

More and more cities look for recyclable solar energy, traditional solar lighting system can't match style of cities either modern or classic. UrbanSpark is a breakthrough innovation for solar lighting application in cities. Its artistic designing beautify city centers like shopping malls, commercial blocks as well as campus, parks and residential areas.

# Create distinctive and harmonious circumstance

With UrbanSpark, creates distinctive and harmonious circumstance for citizens and tourists, enhancing well-being and making cities more livable.



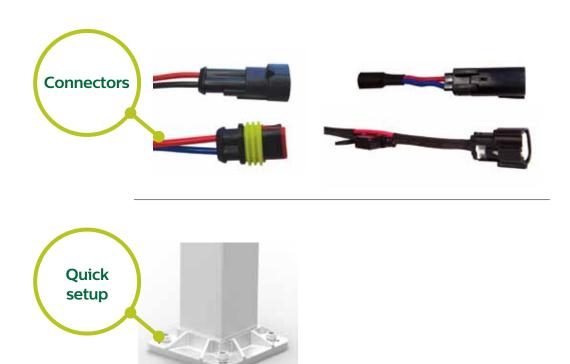




## Simplify installation and maintenance

There is no trenching and grid cabling work on site. Modular design, plug and play connection lead to easy installation.

Long design life time of PV panel, LiFePO4 battery and LED luminaire, save maintenance cost.



## Wide range of luminaire options

To satisfy different applications, Philips provides wide range of luminaires on top of the pole. There is always one solution for you.





## Experience more benefits of UrbanSpark

#### Features include

- · Long life cycle of LiFePO4 battery
- Programmable
- · Remote monitoring is optional
- · Less impact by dust, sand and snow

#### **Benefits**

- · 100% energy efficient and no need on electricity
- · No trenching and grid cabling work on site
- Automatic on/off according to day light and weather conditions
- · Aesthetics design to beautify the surroundings
- Robust design to handle harsh conditions like sand, dust and snow
- Professional lighting effect to create safety
   & comfort
- · Easy plug & play installation
- Integration design, a complete system that can be installed quickly with minimum installation costs and lowest total cost of ownership
- LiFePO4 battery has long lifespan, lower system cost over the entire life cycle





## Application areas

## City center

- · Commercial plaza
- · Shopping mall
- Landmark
- Sidestreet

## Campus

- · Cycle path & footpath
- Parking area

### **Park**

- Pedestrian crossing
- · Cycle path & footpath
- Landscape

### Residential area

- · Residential street
- · Pedestrian crossing
- · Cycle path & footpath
- · Roundabout



## Lighting performance

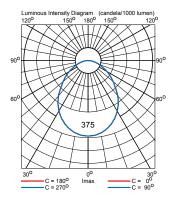
### **BGP161**

#### BGP161 LED2500/NW

Light output ratios

DLOR : 0.99
ULOR : 0.01
TLOR : 1.00
Lamp flux : 2500 lm
Luminaire wattage : 25.0 W
Measurement code : LVC1160890

Note: Luminaire data not from database.



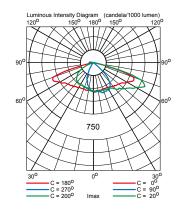
#### **BRP711**

#### BRP711 LED60/CW

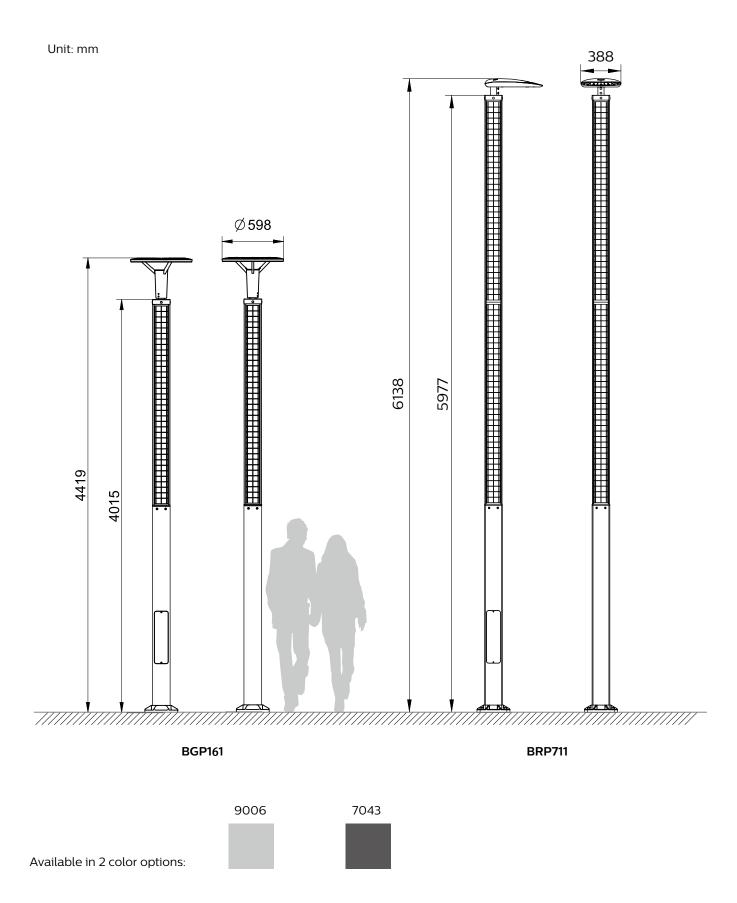
Light output ratios

DLOR : 1.00
ULOR : 0.01
TLOR : 1.01
Lamp flux : 6000 lm
Luminaire wattage : 44.0 W

Note: Luminaire data not from database.



## Dimensional drawings



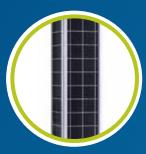


## Components



## Luminaire

Wide range of luminaires are optional, tailor made solution also can be provided via ETO process.



## **Vertical PV panel**

Integrated vertical PV panel into pole provides aesthetic view, avoids snow or sand collection on solar panel, and no tilt angle adjustment needed on site.



## LiFePO4 battery

Over 8 years design life time lowers total system cost. Special designed battery pack ensures protection of over temperature & short circuit.



## Aluminum alloy pole

Recyclable, good ability of endure corrosion. Excellent quality of surface treatment provides nice view of the product. Low weight makes installation quick and easy.





## Product specifications

		Post Top	Street	
Luminaire	Luminaire	BGP161	BRP711	
	Maximum luminous flux	2500lm	6000lm	
	CCT; CRI	CCT=4000K; CRI>70	CCT=5000K; CRI>70	
	Standard light profile	6H 100% + 6H 50%	6H 100% + 6H 50%	
	Typ. service life of LEDs	> 50,000 hours	> 50,000 hours	
LiFePO4 battery	Battery technology	LiFePO4	LiFePO4	
	Battery capacity	60Ah	100Ah	
	Life cycles	>2000 cycles @ 90% DOD	>2000 cycles @ 90% DOD	
	IP rating	IP68	IP68	
battery	Operating temperature	-0 to 60 ºC	-0 to 60 °C	
	Dimension	120 x 146 x 470mm	120 x 146 x 470mm	
	Weight	8.5Kg	12.2Kg	
PV module	PV cell technology	Mono-Si	Mono-Si	
	Watt peak rating per module	180 Wp/23Voc	180 Wp/23Voc	
	Solar cell efficiency (under STC)	16.40%	16.40%	
	Number of strings	4	8	
	String topology	Parallel	Parallel	
	PV module lifespan	>15 years	>15 years	
	Dimension	172 x 172 x 2000mm	172 x 172 x 4000mm	
Power	Programmable per application scenarios	Yes	Yes	
	Dynamic light profile customer-specific	Yes	Yes	
management	Run time extension	Yes	Yes	
	Remote monitoring (LCU)	Yes	Yes	
Column	Total column length	4m	6m	
	Aluminium bottom part	2m	2m	
	Solar PV module	2m	4m	
	Size of square column	172x172mm	172x172mm	
	Construction material	Aluminium alloy	Aluminium alloy	
	Aluminum surface finish	Powder painting	Powder painting	
	Security	Special locking mechanism	Special locking mechanism	
	Total nominal peak power output	180 Wp	360 Wp	
	Light poles certificates	EN 40-6	EN 40-6	
	CE certificate	Yes	Yes	

## Choice sheet

Туре	12NC	SAP description	Voltage	Product size	Gross weight	Qty / package
			(V)	(cm)	(kg)	
Pole	911401897201	BDP301 LED 4M 9006	12	32 x 32 x 411	73	1
	911401800802	BDP301 LED 4M 7043	12	32 x 32 x 411	73	1
	911401897301	BDP301 LED 6M 9006	12	32 x 32 x 607	116	1
	911401800502	BDP301 LED 6M 7043	12	32 x 32 x 607	116	1
LiFePO4 battery	911401800602	ZJS601 60AH 12.8V Battery	12	12.1 x 14.7 x 47.1	9.5	1
	911401800702	ZJS601 100AH 12.8V Battery	12	12.1 x 14.7 x 47.1	13.2	1
	824110111071	BGP161 LED2500/NW 12V SD 4.0M 9006 CC	12	57.8 × 57.8 × 26.5	12	2
Luminaire	824110111051	BGP161 LED2500/NW 12V SD 4.0M 7043 CC	12	57.8 x 57.8 x 26.5	12	2
	824110111031	BRP711 LED60/CW 44W 12V DM SD 6.0M CC	12	59.5 x 39 x 9	8.8	1







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