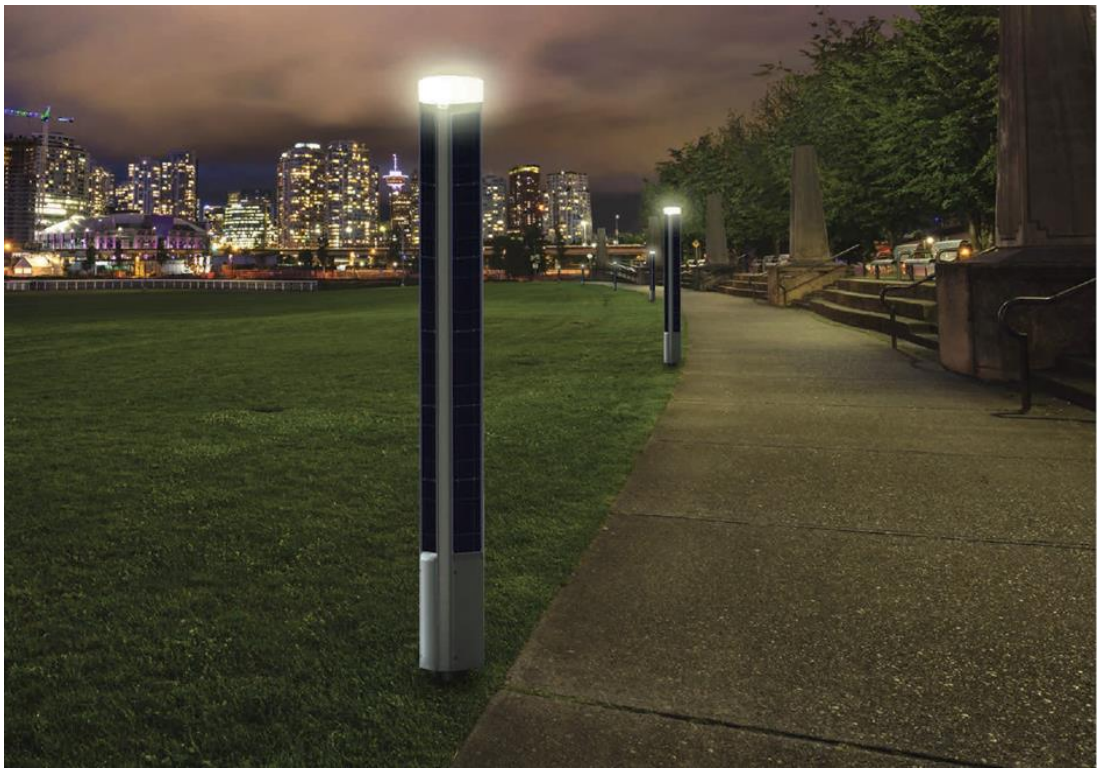
SOLAR LED STREET LIGHTING - Bollard Range

Easy Installation, No Cabling, Long Service Life and cost effective

Multiple Benefits of Silicon CPV Solar Powered Lights:

- Looks like a normal street light with a specially designed light envelope
- Uses free electricity from the sun so environmentally friendly and pollution-free
- Battery bank charge controller, LED driver, communication interface all in a single removable cartridge
- Easy to install and safe to use
- Computer-controlled EMS
- No costly or complicated pipe-laying or underground wiring required
- No cabling required
- Integrated unit, so no separate battery
- Optional Unbreakable Solar panel 15 year service life
- Special chemistry lithium-ion battery designed for 8-year service life in elevated temperatures
- Remote wireless connectivity
- No costly maintenance required
- Stylish and integrated design
- Robust and weather-tolerant
- Traffic accidents and pedestrian injuries decline as visibility increases



No Electricity Bills, No Grid Connection and No Carbon Emissions!

Our vision is simple – to develop and manufacture advanced Solar LED Street Lighting systems that will greatly reduce the cost of generating clean electricity from the sun's energy.

Silicon CPV's solar powered street lights are the most economic, reliable and versatile means of providing street lighting.

With a high efficiency long-life light source of up to 80,000 hours, the self-contained units are not only lightweight (less than 19kg per meter) but require no special tools or heavy lifting equipment to install. In fact they literally take just five minutes to install!

The economic advantage of solar lighting is very clear – deploying a solar light requires no timely and often costly overhead or underground electrical wiring. Further, not having to provide additional electricity from the grid for lighting avoids the incredible expense of power plants and electrical distribution equipment.

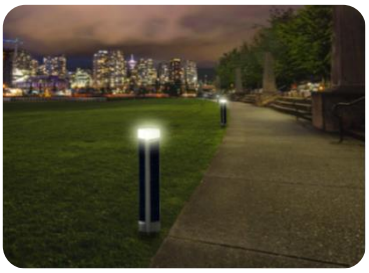
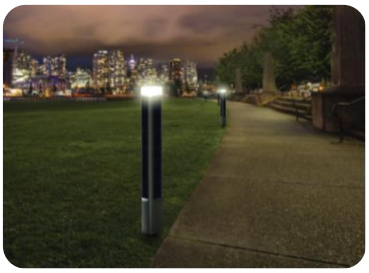
The self-contained unit simply converts sunlight during the daytime into electricity and stores it into the battery. After sunset, the solar panel will detect a drop in ambient light and the system will automatically turn on the light. The LED light source complete with integrated lens ensures that all light produced is directed along the road exactly where required.

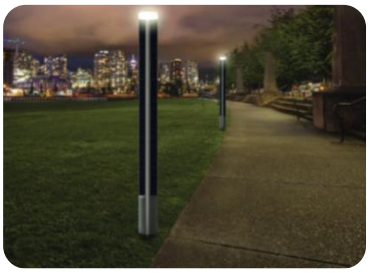
Silicon CPV, Akhter House, Perry Road, Harlow, Essex, CM18 7PN, UK
Tel: 01279 821200 Email: info@SiliconCPV.com www.SiliconCPV.com

Bollard Range

- From 2,900 to 9,700 Lumens
- 8 Year Battery Life
- 360 degree Light coverage
- Pole Height from 1m to 2.7m
- Pole Spacing 10m to 30m
- Unbreakable Vertical Solar Panels (optional)
- Very Quick and easy Installation

- Solar lighting can save the owners large amounts of money by eliminating trenching, wiring and electricity costs and also ensures that there are few or no landscaping issues.
- Compared to traditional grid-tied lighting, the solar LED lights do not require timers and their LED fixtures eliminate regular maintenance visits. In more remote places, solar lights are also a way to help prevent theft.
- Solar lights are good for the environment. Using only the limitless clean energy from the sun, they have the benefit of using less material and labour to install, further reducing the carbon footprint.



Specifications	Bollard 1m	Bollard 1.4m	Bollard 1.9m	Bollard 2.7m
Maximum Light Output Phase 1 (Lumens)	2,900	4,900	6,800	9,700
Battery - Type	Lithium			
Capacity (Wh)	179	298	417	595
Battery - Service Life	8 Years at 60% DoD and at 45º ambient			
Number of LED's	48	48	96	96
Light Source - Type	High Efficiency LED, 4000K Colour Temperature			
Total Light Output (Lumen Hours) 60%	21,427	35,712	49,997	71,424
LED Power (Maximum)	24W	32W	48W	72W
Light Head Lifetime	80,000hrs to LM80 specifications			
Optical Efficiency	>93%			
Main Body	Aluminum Alloy			
Solar Panels Vertically Integrated in Pole	54W	81W	108W	162W
Solar Panel Size	2 x 960x172	2 x 1376 x 172	4 x 960 x 172	4 x 1376 x 172
Toughened Glass Panel Life	25 Years			
Unbreakable Panel (Optional) Life	15 Years			
Controller	Microprocessor based Energy Management and Wireless Communications (Optional)			
Wireless Network (Optional)	Proprietary Wireless Network allows Remote Management and Control of Lights using Internet or GSM. One gateway per 200 lights and all the gateways report to a central control room.			
Light Control	Intelligent Adaptive Light level control based on energy received or a predefined user selectable light level (Optional)			
Light Hours	Programmable trigger levels from "Dusk to Dawn"			
Integrated Pole Height	1 meter	1.5 meters	2 meters	3 meters
Recommended Pole Spacing	8 times Pole height			
Weight (Kg)	20	30	40	60
Operating Temperature	-20ºC to +60ºC			
Protection Rating	IP66			

Silicon CPV Ltd,

Akhter House, Perry Road, Harlow, Essex CM18 7PN, UK

☎ +44 (0) 1279 821200

sales@siliconcpv.com

www.siliconcpv.com

Part Code: Bollard Range