

# SOLAR LED STREET LIGHTING

## Kamr L - G2 Hoarding

Wireless Remote Monitoring and Control

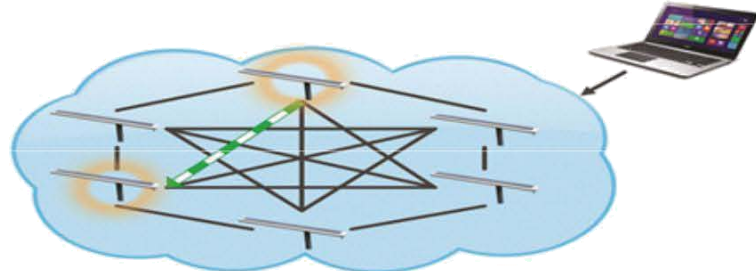
Easy Installation, Long Service Life, Cost Effective

### Multiple Benefits of Silicon CPV Solar Powered Street 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
- Lightweight – less than 20kg
- Easy to install and safe to use
- Computer-controlled EMS
- No costly or complicated pipe-laying or underground wiring required
- No cabling required
- One unit so no separate battery
- Solar panel 25 year service life
- Special chemistry lithium - ion battery designed for 5 year service life in elevated temperatures
- Remote wireless connectivity
- No costly maintenance required
- Stylish and integrated design
- Suitable for hoarding up to 10 metre high
- Robust and weather-tolerant



### GSM or Internet based Remote Management



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 over 60,000 hours, the self-contained units are not only lightweight (less than 20kg per unit) 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 under-ground electrical wiring. Further, not having to provide additional electricity from the grid for lighting avoids the in-credible 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 CPVs Solar street light solution offers many advantages:**

- Aluminium Alloy Body
- 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 re-mote 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	Kamr L – G2 Hoarding
Maximum Light Output Phase 1 (Lumens)	9,000
Battery - Type	Lithium
Capacity (Ah)	60Ah
Battery - Service Life	7 Years at 70% DoD and at 45° ambient
Light Source - Type	High Efficiency LED, 5000K Colour Temperature
Number of LEDs	40
LED Power (Maximum)	80W
Light Head Lifetime	80,000hrs to LM80 specifications
LED Efficiency	220 lumens /Watt
Optical Efficiency	>93%
Main Body	Aluminium Alloy
Solar Panel (W)	65 + 50
Solar Cells	Very High Efficiency – Proprietary Solar Cells
Solar Panel - Service Life	25 Years
Controller	Microprocessor based Energy Management and Wireless Communications
Wireless Network	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
Light Hours	Programmable trigger levels from "Dusk to Dawn"
Optics	Option for 8 different light profiles available for each light
Recommended Pole Height	1m above Hoarding
Pole Spacing	10m (T2 Optics)
Light Envelope (m <sup>2</sup> ) for T2 optics	100
Average Light level	35 Lux
Maximum Light Level	75 Lux
Minimum Light Level	25 Lux
Dimensions (L x W x H) cm (excluding pole)	228 x 23 x 7
Weight (Kg)	20
Operating Temperature	-20°C to +60°C
Protection Rating	IP67
Standards Compliance	BS 5489:2003 EN13201