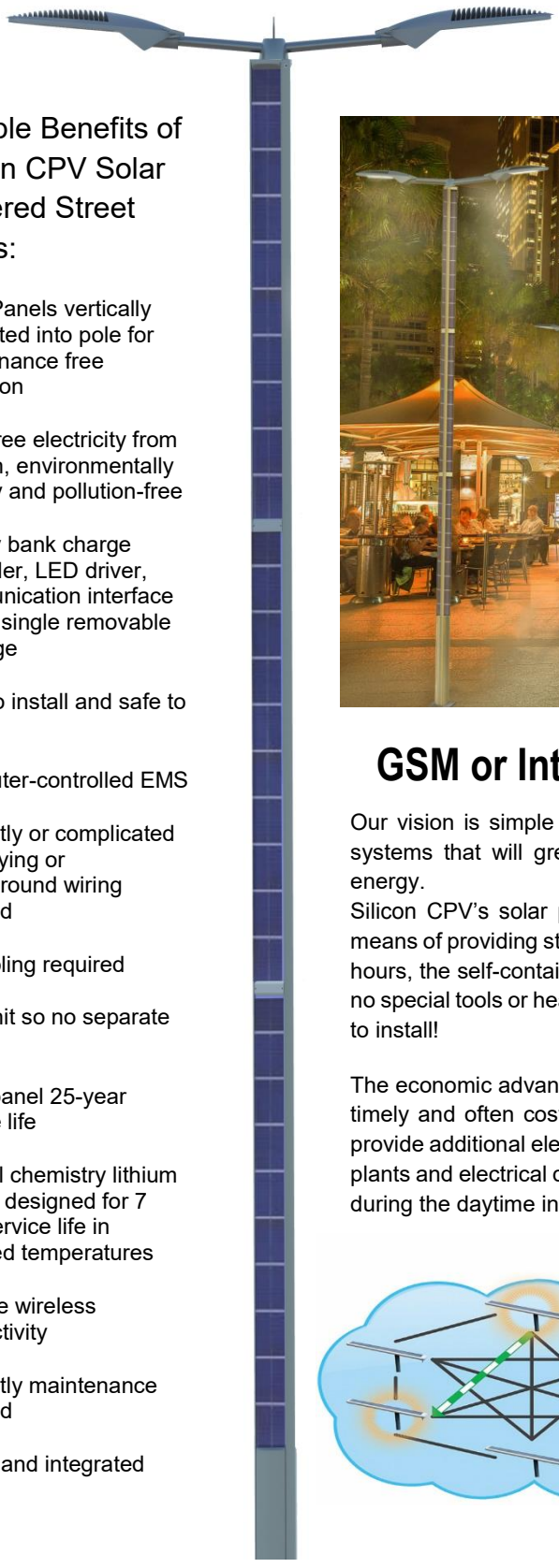
# SOLAR LED STREET LIGHTING - PYRAMID RANGE



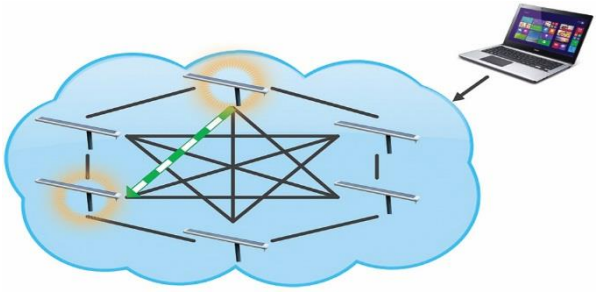
## Multiple Benefits of Silicon CPV Solar Powered Street Lights:

- Solar Panels vertically integrated into pole for maintenance free operation
- Uses free electricity from the sun, 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
- One unit so no separate battery
- Solar panel 25-year service life
- Special chemistry lithium battery designed for 7 year service life in elevated temperatures
- Remote wireless connectivity
- No costly maintenance required
- Stylish and integrated design.

## 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 up to 80,000 hours, the self-contained units are not only lightweight (less than 19kg 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 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.

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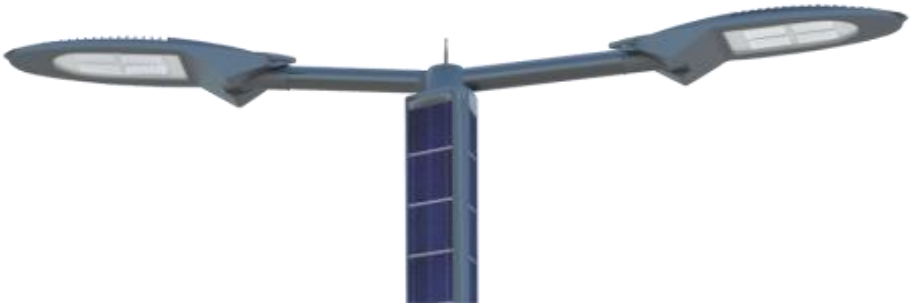
# Pyramid Range

- From 6,750 to 36,000 Lumens
- 7 Year Battery Life
- IENSA Type II, Type III and Type IV Optics
- Pole height from 6m to 11.5m
- Pole spacing up to 5 times pole height
- Built-in wireless communications link for remote monitoring and management
- 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 | Pyramid 6m | Pyramid 6m Twin | Pyramid 8m | Pyramid 8m Twin | Pyramid 10m | Pyramid 10m Twin | Pyramid 12m | Pyramid 12m Twin |
|---|---|---|---|---|---|---|---|---|
| Maximum Light Output Phase 1 (Lumens) | **6,300** | **2 x 6,300** | **10,100** | **2 x 10,100** | **13,400** | **2 x 13,400** | **16,800** | **2 x 16,800** |
| Battery - Type | Lithium | | | | | | | |
| Capacity (Wh) | 339 | 678 | 509 | 1,018 | 678 | 1,356 | 848 | 1,696 |
| Battery - Service Life | 7 Years at 70% DoD and at 45º ambient | | | | | | | |
| Light Source - Type | High Efficiency LED, 5000K Colour Temperature | | | | | | | |
| Light Out Put (Lumen Hours) 90% DoD | 69,450 | 104,170 | 104,170 | 159,730 | 159,730 | 208,350 | 208,350 | 243,070 |
| Number of LEDs | 48 | 2 x 48 | 96 | 2 x 96 | 160 | 2 x 160 | 320 | 2 x 320 |
| Light Head Lifetime | 80,000hrs to LM80 specifications | | | | | | | |
| Optical Efficiency | >93% | | | | | | | |
| Main Body | Aluminum Alloy | | | | | | | |
| Pole Integrated Solar Panels | 128W | 256W | 256W | 384W | 256W | 512W | 384W | 768W |
| Solar Panel Size | 2x1990x172 | 4x1990x172 | 4x1990x172 | 6x1990x172 | 4x1990x172 | 8x1990x172 | 6x1990x172 | 12x1990x172 |
| 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 | | | | | | | |
| Integrated Pole Height | 6 meters | 6 meters | 8 meters | 8 meters | 10 meters | 10 meters | 12 meters | 12 meters |
| Pole Spacing for T2 Optics | 5 times Pole height for T2 Optics (IENSA Type II) | | | | | | | |
| Light Envelope ($m^2$) for T2 optics | 180 | 2 x 180 | 320 | 2 x 320 | 500 | 2 x 500 | 720 | 2 x 720 |
| Average Light level (Lux) | 32 | 32 | 29 | 29 | 25 | 25 | 24 | 24 |
| Weight (Kg) | 90 | 100 | 120 | 130 | 150 | 160 | 180 | 190 |
| Operating Temperature | -20ºC to +60ºC | | | | | | | |
| Protection Rating | IP67 | | | | | | | |
| Standards Compliance | BS 5489:2003 EN13201, ME4a, IESNA Type II or Type III | | | | | | | |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Part Code: Pyramid Range