# Models of SunWay **SUNWAY-Li1** SUNWAY-Li2 SUNWAY-Li3 Campus, Village and Community lighting Service support 2 year system warranty • 24x7 countrywide support Best in-class service team Onsite service support

Profit from the future of outdoor solar lighting!

# **Return on Investment**

Key Specifications - 10X better reliability

System	Traditional	Li1	Li2
Power Consumption (Watt)	48W	4W	9W
Lux˙(at 4 meters)	19	12	21
IP Rating	54	65	65
Bulb Lifetime (hrs.)	<5000 hrs.	45000-55000 hrs.	45000-55000 hrs.

# Upfront Cost - ZERO cabling cost lower installation cost

System	Cost of cabling per pole + luminaire	Cost of pole and related fittings	Cost of Iuminaire
Traditional	8000	2500	1850
Li1	0	2500	9000
Li2		2500	13000

# Maintenance Cost (5 years) - ZERO electricity bill

System	Luminaire	Battery <sup>*</sup>	Preventive maintenance	Power	Total
Traditional	4500	0	8000	8500	21000
Li1	0	2500	7000	0	12000
Li2	0	5000	7000	0	17000

# '3 years life

# Summary - Immediate ROI: ₹7000 to ₹13000 savings per light over 5 years

System	Initial setup cost per lighting system	5 years' maintenance cost per lighting system	Cost of ownership (5yrs)
Traditional	13050	21000	34050
Li1	11500	9500	21000
Li2	15500	12000	27500

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Su-Kam Power Systems Ltd.

Corporate Office: Plot No. 54, Udyog Vihar, Phase VI, Sector- 37, Gurgaon - 122001, Harayana, India | Tel: +91-124-4170500, Fax: +91-124-4038700/1/2 E-mail: info@su-kam.com | Website: www.su-kam.com | Toll Free No: 1800-102-4423

DEALER/DISTRIBUTOR:

# Su-Kam SunUay

Outdoor solar LED lights powered by inbuilt Lithium-ion batteries



Global warming and exhaustible energy sources have made solar power the preferred option all over the world. The Sun, apart from being a renewable source of energy, does not cause pollution. Solar-powered outdoor lighting is increasingly being preferred worldwide as a means of energy conservation and safeguarding Earth's

Apart from the huge electricity consumption of grid-based outdoor lights, the other issues associated with them are:

- Expensive and time consuming grid layout
- Blackout during power outages
- High maintenance costs

Lead-acid batteries prominently used in today's solar lights are fast proving to be cumbersome and disadvantageous. Some of the problems experienced are:

- High installation costs
- Propo to thef
- Blackout on cloudy days
- Regular maintenance is tricky and inconvenient

The introduction of Lithium-ion battery technology in outdoor solar lighting overcomes all the problems seen with gridand lead-acid based lights, providing the world with a hassle-free and desirable option.

**SunWay** makes its way past all the drawbacks of traditional solar and grid-based lighting, rightfully claiming the position of the world's most innovative solar LED outdoor lighting.

# THEFT- AND WATER-PROOF



- Inbuilt battery ensures the outdoor lights are safe from burglars
- Use of a UL/CE certified cable gland made of Polyamide material makes the casing IP65 compliant i.e. water-and dust-proof as well as weather-resistant

# SELF AUTONOMY



- Battery gets partially charged even under cloudy conditions
- Short wire length between the solar panel and the battery/charge controller combined with the smart electronic design resulting in low idle currents (<10microamps)</li>
- Eliminates the need for bigger batteries to accommodate for loss of charging, as is the case with other solar lights

# SYSTEM EFFICIENCY



- Combination of zero wire loss due to the inbuilt battery and low idle current leads to >92% system efficiency
- Combined with our world's best >150 lumen/W LEDs and special lenses
- Provides best in class lux levels with lowest power consumption

# **AESTHETICS**

- Use of reflectors and lenses add great aesthetic appeal
- Elimination of bulky battery boxes on the pole allows for the use of elegant poles, further improving the looks of the outdoor lighting system



# FAST CHARGING

Solar Charging Cycle Test (spec. 6 hrs.) with 35W panel on 15W L13

Time	Duration	Battery Voltage	Status
8 am	0 hrs.		Clear sky condition
10 am	2 hrs.	15.25	
11 am	3 hrs.	15.74	
12 noon	4 hrs.	16.34	
12:55 pm	4 hrs. 55 min.	16.76	Battery upper cut-off

The Lithium-ion battery takes less than 5 hours to charge on sunny days and has an inbuilt upper voltage cut-off to prevent overcharging. The ability to provide long life cycles even with fast charging is one of the key features of the Lithium-ion battery technology.

# LOW INSTALLATION COST



- Elimination of battery box and additional wires
- Lighter or no pole required
- Simple and fast installation with connectors
- Low transportation cost

## DUSK TO DAWN OPERATION



- Runs for longer than 13 hours
- Automatic dimming feature based on battery voltage and state of charge
  - Low voltage cut-off to prevent deep discharge

Lux and Run Time Laboratory Test on 15W L13				
Backup	Battery Voltage	Lux at 4 mts.	Dimming	Avg. Lux
0 hrs	16.50	36.4		
30 min	15.96	35.9		35.1
1 hrs	15.84	35.2	3 hrs	
1 hrs 30 min	15.62	34.8	31113	30,1
2 hrs	15.42	34.6		
3 hrs	15.12	34.0		
3 hrs 30 min	15.01	33.8		23.2
4 hrs	15.00	22.3		
4 hrs 30 min	14.01	21.3	3.3 hrs	
5 hrs	14.9	20.9		
6 hrs 15 min	14.87	16.8		
6 hrs 45 min	14.81	14.1		11
7 hrs 15 min	14.78	14.6		
7 hrs 45 min	14.72	14.2		
8 hrs 15 min	14.65	14.0		
8 hrs 45min	14.58	10.0		
9 hrs 15min	14.56	9.8		
9 hrs 45min	14.44	8.8		
10 hrs 15min	14.24	8.8	7 hrs	
10 hrs 45min	14.15	8.7		
11 hrs 15min	14.05	8.7		
11 hrs 45min	13.87	8.7		
12 hrs 15min	13.24	8.7		
12 hrs 45min	12.85	8.7		
13 hrs 15min	12.35	Battery cut off		

# **9** "

# HASSLE-FREE MAINTENANCE

- No maintenance (unlike tubular lead acid) lithium-ion battery which can withstand high temperature (unlike SMF)
- Long lifetime (>10years) LED and electronics



# RELIABILITY

IEC certified solar panel with a life span of >25 years, UL certified battery with a life span of >3 years and LM80 certified LED with a life span of >10 years

- Panel
- Battery
- LED



# STRUCTURAL AND MECHANICAL BENEFITS

- Built-in heat sink for thermal managementSulphur-free silicon gasket
- Toughened glass
- UL/IEC certified Polyamide PG9 gland

# ELECTRONICS TECHNOLOGY



- Fire retardant (FR4) dimmer-based PCB
- Metal Coated Printed Circuit Board (MCPCB) LED and driver
- Buck-based driver design
- Intelligent Battery Management System (BMS)

The reliability of SunWay products brings consumers the much needed peace of mind.