

80 W Solar Lighting System

SC80-8018RF

Brand name: SolarChange

Results based on test procedures detailed in IEC TS 62257-9-5:2024

Verify online:

<https://data.verasol.org/products/sek/sc-sc80>

Valid until: August 31, 2028



Meets the Requirements in IEC TS 62257-9-8:2025
for Size B kits

Mobile charging

5

Light point(s)



Plug-and-play



WARRANTY INFORMATION

A 2-year warranty covering manufacturing defects in the system (3 years in Rwanda).

PERFORMANCE DETAILS

				Run time after a typical day of solar charging (assuming 5kWh/m ² /day)	
VeraSol Certified?	Included in kit?	Appliance ^a	Description	Used alone ^b	Used in combination ^c
yes	included	Main lighting unit	4 light points on "On" totaling 2600 lumens and 27 W power	8.2 hours	5 hours
yes	included	Television	32", with 11 W power consumption while in use	27 hours	2.6 hours
yes	included	Fan	16" diameter standing fan, with 14 W power consumption while in use	22 hours	6.6 hours
yes	included	Radio	Portable (Li-ion battery: 2 Ah, 3.7 V) with integrated light, with 0.41 W power consumption while in use	410 hours	4.1 hours
no	not included	Mobile phone	Basic phone (3.7 Wh battery)	42 full charge(s)	1.4 full charge(s)

Available daily electrical energy [Wh/day]	250
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Performance measure	Brightness setting: Four lamps on "On"
Lighting full battery run time for main unit [hours]	8.2
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	21300

^a Only included appliances were tested. Run times and power ratings for appliances sold separately come from manufacturer ratings or standard estimates.

^b Without any other loads used during the run time

^c Based on an example use profile with all of the appliances listed in the "Used in combination" column used simultaneously.

^d Lighting full battery run time estimates do not account for mobile phone charging or other auxiliary loads; the run time is defined as the time until the output is 70% of the initial, stabilized output.

LIGHTING DETAILS									
Lamp name	Number of lamps	Number of settings	Setting name	Light output [lm]	Power Consumption [W]	Lumen efficacy ^e [lm/W]	CRI ^f	CCT ^g	Lumen maintenance ^h
LED bulb	4	1	On	650	6.8	95	83	7200	98
Integrated radio light	1	1	On	not tested	0.17	not tested	not tested	not tested	not tested

^e Lumen efficacy is the power consumption at a light point during the light output test.

^f Color Rendering Index. An index of 100 is equivalent to viewing objects in daylight; above 80 is considered good.

^g Correlated Color Temperature in kelvin. Describes color appearance as warm (2700-3000 K), cool (3000-5000 K), or daylight (>5000 K).

^h Percent of the original light output that remains after 1,000 hours of run time.

PORTS			
2	USB 2.0 type A		Mobile phones and radios can be charged. Adapters are included.
6	Barrel jack		12 V ports available to power appliances and light points.

DURABILITY		
Overall durability and workmanship		Pass
Durability tests passed		Switch test, Drop test, Strain relief test, Physical ingress protection, PV durability tests
Level of water protection	Main Unit	Water ingress protection not tested, meant for indoor use only.
	PV module	Permanent rooftop installation for PV modules
	32" TV	Water ingress protection not tested, meant for indoor use only.
	16" Fan	Water ingress protection not tested, meant for indoor use only.
	Radio	Has protection from occasional rain; met with appropriate warning label

SOLAR DETAILS	
PV Module Type	Monocrystalline silicon
PV Maximum Power	81 W
PV Rated Power	80 W
PV Open-Circuit Voltage (V _{OC})	25 V

MAIN UNIT BATTERY DETAILS	
Battery Replaceability	Easily replaceable with common tools.
Battery Chemistry	Lithium iron phosphate
Battery Package Type	32700
Battery Capacity (tested)	17 Ah
Battery Capacity (rated)	18 Ah
Battery Nominal Voltage	12.8 V
Battery status / other indicator lights	Four indicators for battery level, one indicator for charging rate and low power.

PRODUCT DETAILS	
Company Name (full)	Qingdao Sunshine New Energy Co., Ltd
Company Name ("brand")	SolarChange
Product Name	80 W Solar Lighting System
Product Model or ID Number	SC80-8018RF
Company Contact Information	steven@solarchange.com.cn
Company Website	www.solarchange.com.cn
Mass	n/a

SSS INFORMATION	
Expiration Date	August 31, 2028
Revision	2025.10