ACOLOR Solar Lighting System

ACOLOR-70
Afreesun Limited

Results based on test procedures detailed in
IEC 62257-9-5 v.4

✔ **Meets the Lighting Global Pico-PV Quality Standards**

📱 **Mobile charging**

PAYG **Pay-As-You-Go option available**

4 **Light point(s)**

▶ **Plug-and-play**

WARRANTY INFORMATION

A 2-year warranty covering manufacturing defects in the system.

PERFORMANCE DETAILS

	Appliance[a]	Description	Run time after a typical day of solar charging (assuming 5kWh/m^2/day)	
			Used alone[b]	Used in combination[c]
included in kit	Lantern-10 (Desk Lamp)	1 light point on (High) totaling 130 lumens and 0.86 W power	5.8 hours	1.5 hours
included in kit	Lantern-20	3 light points on (High) totaling 600 lumens and 3.9 W power	5.1 hours	5.1 hours
sold separately	Mobile phone	Smart phone (5.7 Wh battery)	0.92 full charge(s)	0.38 full charge(s)
sold separately	Radio	3.7 Wh/ 3.7 V nominal voltage battery and power consumption of 0.5 W while in use	11 hours	1.1 hours

Available daily electrical energy[c] (Wh/day)	25

Performance measure	Brightness setting: High
Lighting full battery run time[d] for Lantern-20 (hours)	5.1
Lighting full battery run time of the Lantern-10 (Desk Lamp Setting) (hours)	5.8
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	3800

[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	Light output (lm)	Lumen efficacy[e] (lm/W)	CRI[f]	CCT[g]	Distribution type	Lumen maintenance[h]
Lantern-10	1	3	Desk Lamp	130	150	83	5100	Wide	100%
Lantern-10	1	2	Torch	95	110	81	6200	Wide	100%
Lantern-20	3	4	High	200	150	83	5100	Wide	100%

[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 vieiwing objects in daylight; above 80 is considered good.

[g] Correlated Color Temperature in degrees 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 2,000 hours of run time

PORTS			
4	USB 2.0 type A		Mobile phones and radios can be charged, adapters are included. One USB port in Lantern-10 and one USB port in each Lantern-20 (3 included in kit).

DURABILITY		
Overall durability and workmanship		Pass
Durability tests passed		Switch test, Drop test , Strain relief test, Physical ingress protection. Met IP67
Level of water protection	Main Unit (Lantern-10)	Meets IP67
	10 W PV module	Has protection from permanent outdoor exposure
	Main Unit (Lantern-20)	Has protection from occasional rain; met IP67
	Keycode Remote	Water ingress protection not tested, meant for indoor use only.

SOLAR DETAILS	
PV module type	Polycrystalline silicon
PV maximum power	9.7 watts

MAIN UNIT BATTERY DETAILS	
Battery replaceability	Not easily replaceable with common tools.
Battery chemistry	Lithium-ion
Battery package type	1x18650
Battery capacity Lantern-10 and Lantern-20	2.6 Ah
Battery nominal voltage Lantern-10 and Lantern-20	3.7 V
Battery status indication	Lantern-10 has one indicator for battery state of charge and PV charging. Lantern-20 has two indicators for battery state of charge and PV charging.

PRODUCT DETAILS	
Manufacturer name	Afreesun Limited
Product name	ACOLOR Solar Lighting System
Product model / ID number	ACOLOR-70
Contact information	sales@afreesun.com
Website	www.afreesun.com
Dimensions (entire product in package)	Multiple packages. Contact manufacturer for more information.
Mass	

SSS INFORMATION	
Specs sheet expiration date	June 30, 2024
Quality standards framework version	2021
Revision	2024.03