

Energy 50

Niwa-Next Energy Products Ltd.

Verify online: <http://www.lightingglobal.org/products/niwa-3356>

Results based on test procedures detailed in
Lighting Global Solar Home System Test Method, Ed. 2.0

Valid Until: July 31, 2021



Available Daily Electrical Energy (Wh/day)

161

Lumens

460



**Meets Lighting Global
Quality Standards**



Mobile Charging



Pay-As-You-Go Option Available

3 Light Points

2 5-volt USB Ports



4 12-volt Ports



Warranty Information

A 2-year warranty covering manufacturing defects in the system

Performance Details

Appliance ^b	Description	Included with kit?	Power ^b (W)	Run Time After a Typical Day of Solar Charging ^a		
				Used Alone ^c	Used In Combination ^d	Run Time Units
Main lighting	Two 100 lm and One 300 lm light point on High	included	6	41	6.0	hours
Television	32" diagonal	sold separately	14	11	3.0	hours
Fan	16" stand fan	sold separately	9	16	7	hours
Mobile Phone	Smart Phone (5.7 Wh battery)	advertised	--	20	1.5	number of full charges

Available daily electrical energy^d (Wh/day): 161

Performance Measure	Brightness Setting: All lights on high
Lighting full battery run time ^e (hours)	41
Total light output in lumens ^f	460

^a A typical day of solar charging assumes 5 kWh/m²/day

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

^c Without any other loads used during the run time

^d Based on an example use profile with all of the appliances listed above used in combination

^e 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.

^f 1 candle or kerosene wick lamp = approximately 10 lumens

Lighting Details

Lamp Name	Type	Number of Settings	Light Output (lm)	Lumen Efficacy (lm/W)	CRI ^g	CCT ^h	Distribution Type	Lumen Maintenance ⁱ
Home 100 (2 in kit)	LED	3	92	150	82	Cool (3000-5000 K)	Omnidirectional	>99%
Home 300 (1 in kit)	LED	3	290	150	82	Cool (3000-5000 K)	Omnidirectional	>98%

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

^h Correlated Color Temperature in degrees Kelvin. Describes color appearance as warm, cool, or daylight.

ⁱ Percent of the original light output that remains after 2,000 hours of run time

Special Features

Mobile charging and appliances	USB and 12 V ports available to charge devices and power appliances			
Alternate Combination Run Time Option:		Run Time After a Typical Day of Solar Charging		
	Appliance	Description	Used in Combination	Run Time Units
	Main lighting	Two 100 lm and One 300 lm light point on High	10	hours
	Television	32" diagonal	5.2	hours
	Mobile Phone	Smart Phone (5.7 Wh battery)	2.6	number of full charges

Durability

Overall Durability and workmanship	Pass
Durability tests passed	Switch and connector cycling, strain relief test, physical ingress protection test. Water ingress protection not tested; meant for indoor use only.

Solar Details

PV module type	Polycrystalline silicon
PV maximum power	48 watts

Battery Details

Battery replaceability	Easily replaceable with common tools
Battery chemistry	Lithium iron phosphate
Battery capacity	10 Ah
Battery nominal voltage	12.8 V
Battery Status Indication	One display shows the charging battery level, charging rate and credit remaining.

Product Details

Manufacturer name	Niwa-Next Energy Products Ltd.
Product name	Energy 50
Product model / ID number	3356
Contact information	sales@niwasolar.com
Website	www.niwasolar.com
Dimensions (entire product in package)	Components packaged separately
Weight	4405 g

SSS Information

Specs sheet expiration date	July 31, 2021
Quality Standards Framework Version	2018
Revision	2018.09