

# Roofstar Flex 3e- Solar Home Systems

Flex 3e  
Mango Energy Tech.Co.Ltd.  
Results based on test procedures detailed in  
IEC 62257-9-5 v.4

Verify online:  
[www.lightingglobal.org/products/mg-flex3e](http://www.lightingglobal.org/products/mg-flex3e)  
Valid until: May 31, 2022



Meets the Lighting Global Solar Home System Kit Quality Standards



Mobile charging

4

Light point(s)



Plug-and-play



## WARRANTY INFORMATION

A 2-year warranty for the main unit and kit, and a 1-year warranty for optional appliances.

## PERFORMANCE DETAILS

	Appliance <sup>a</sup>	Description	Run time after a typical day of solar charging (assuming 5kWh/m <sup>2</sup> /day)	
			Used alone <sup>b</sup>	Used in combination <sup>c</sup>
included in kit	LED Lantern	1 integrated light point on High mode totaling 160 lumens and 1.5 W power	7.1 hours	3.9 hours
	Torch	30 lumen torch (LiFePO4 battery: 400 mAh, 3.3 V)	53 hours	6.1 hours
	Radio	Rated power consumption of .4 W (Li-ion battery: 1500 mAh, 3.7 V)	40 hours	4.6 hours
sold separately	Mobile phone	Basic phone (3.7 Wh battery)	4.7 full charge(s)	1.5 full charge(s)

Available daily electrical energy<sup>c</sup> (Wh/day) 30

Performance measure	Brightness setting: High
Lighting full battery run time <sup>d</sup> for main unit (hours)	7.1
Lighting full battery run time of the Torch powered by Torch battery (hours)	5.7
Total lighting service (lumen-hours/solar-day) (includes the both main lighting unit and any lights with internal batteries included with the product)	1320

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

<sup>b</sup> Without any other loads used during the run time

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

<sup>d</sup> 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 <sup>e</sup> (lm/W)	CRI <sup>f</sup>	CCT <sup>g</sup>	Distribution type	Lumen maintenance <sup>h</sup>
LED Lantern	3	2	High Mode	160	100	78	7800	Wide	98%
Torch	1	1	On	30	100	81	6800	Wide	100%

<sup>e</sup> Lumen efficacy is the power consumption at a light point during the light output test.

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

<sup>g</sup> Correlated Color Temperature in degrees Kelvin. Describes color appearance as warm (2700-3000 K), cool (3000-5000 K), or daylight (>5000 K)

<sup>h</sup> Percent of the original light output that remains after 2,000 hours of run time

**SPECIAL FEATURES****Remote****Torch acts as a wireless remote control to turn lamps On and Off****PORTS**

1

USB 2.0 type A



USB output port on each LED Lantern. Mobile phones and radios can be charged. Adapters are included.

**DURABILITY**

Overall durability and workmanship	Pass	
Durability tests passed	Switch test, Drop test, Strain relief test, Physical ingress protection.	
Level of water protection	LED Lantern	Has protection from frequent rain; met with IPX4 and an appropriate warning label
	PV module	Has protection from permanent outdoor exposure
	Torch	Has protection from occasional rain; met with appropriate warning label
	Radio	Has protection from occasional rain; met with appropriate warning label

**SOLAR DETAILS**

PV module type	Polycrystalline silicon
PV maximum power	11 watts (one 8 W and 3 W module in parallel)

**MAIN UNIT BATTERY DETAILS**

Battery replaceability	Easily replaceable with common tools; however, the warranty is void if product is opened.
Battery chemistry	Lithium iron phosphate
Battery package type	1 x 26650
Battery capacity	3.4 Ah
Battery nominal voltage	3.2 V
Battery status indication	Four LEDs indicate different battery capacity levels on the LED Lanterns; Three LED indicators show the working status of the Torch.

**MARKS AND CERTIFICATIONS**

Factory certification	--
Safety certification	--
Other certification	--

**PRODUCT DETAILS**

Manufacturer name	Mango Energy Tech.Co.Ltd.
Product name	Roofstar Flex 3e- Solar Home Systems
Product model / ID number	Flex 3e
Contact information	jeff@mango-energy.com
Website	www.mango-energy.com
Dimensions (entire product in package)	36.5 x 19 x 14 cm
Mass	2720 g

**SSS INFORMATION**

Specs sheet expiration date	May 31, 2022
Quality standards framework version	2020
Revision	2020.05