

SPECIFICATIONS FOR HOME-LIGHTING SYSTEM

Configuration

- One amorphous solar panel
- One Control box containing battery, controller and dimming knobs and sockets
- Two LED bulbs
- One Night Lamp
- One Mobile Charger

Specifications

Physical		Technical		Light Output	
Number of LED Bulbs	2	Solar Panel	10 W	Color	Cool White
Number of LEDs per bulb	2	Panel Type	Amorphous	Color Temperature	5000-8000 K
Number of LEDs per Night-lamp	6	Maximum current consumption per bulb	340-370 mA	Light Angle	170°
Control Box	Height 4.5 in Width 7.5 in Length 7.5 in	Voltage across LED	3.15-3.35 V	Lux level underneath the bulb (7 ft height)	11-12
Solar Panel	Height 1 in Width 1 ft Length 3 ft	Maximum power consumption per bulb	2-2.5 W		
Dimming Knob	Manual	Battery	12 V, 7 Ah		

Operational Performance

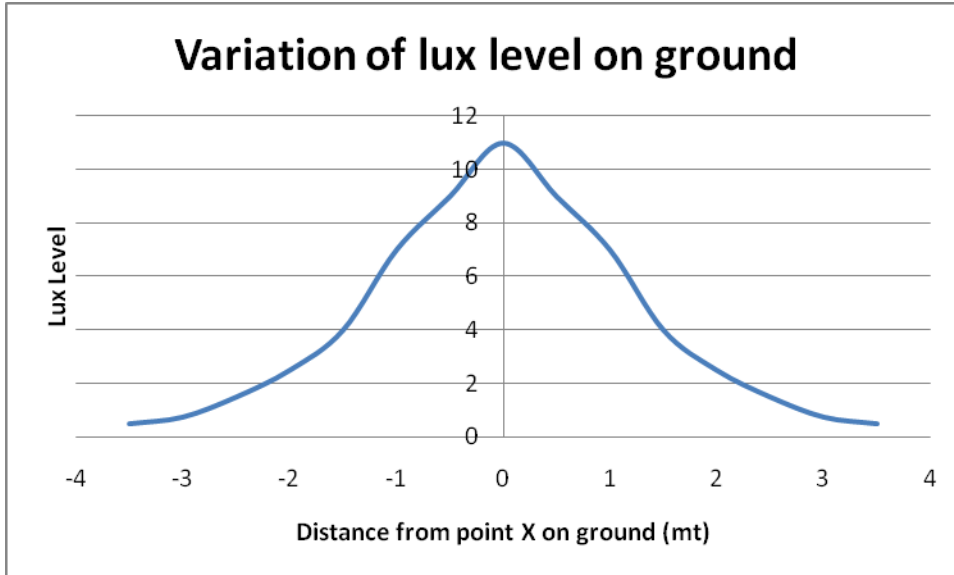
Hours of operation (at maximum power consumption of two LED bulbs and night-lamp)

- Without mobile charging: 5-6 hours
- Full mobile charging (Nokia BL5C, 850 mAh) once: 4 hours

Lux Levels under one LED bulb (at maximum power consumption) for different configurations

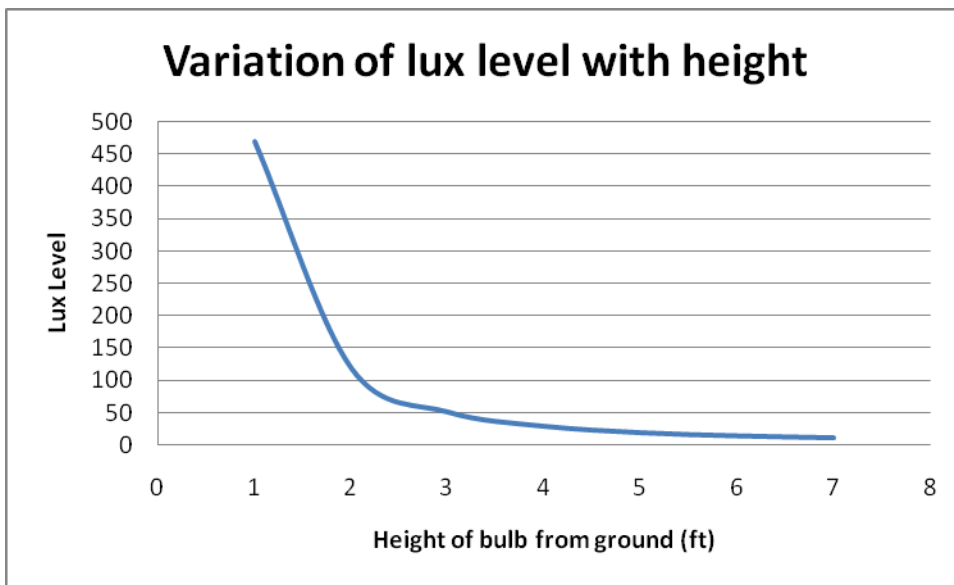
I. Variation of lux level with distance (on ground) from the bulb’s foot of perpendicular on ground

The bulb is mounted at a height of 7 ft (2.13 mts) from ground and lux levels are shown below



Distance (mt)	Lux level
0	11
0.5	9
1	7
1.5	4
2	2.5
2.5	1.5
3	0.75
3.5	0.5

II. Variation of lux level (on ground directly facing LED bulb) at different heights of the bulb



Height (ft)	Lux Level
1	470
2	119
3	51
4	29
5	19
6	14
7	11

Charging and Discharging

When the battery is being charged under the sun, green LED glows and when the battery goes low (9.75 V-10.1 V) the system automatically switches off and red LED starts glowing.