केन्द्रीय विद्युत अनुसंधान संस्थान
(भारत सरकार की सोसाइटी, विद्युत मंत्रालय)
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ENERGY EFFICIENCY AND RENEWABLE ENERGY DIVISION
Phone/Tele fax: 080-23604682 email: msb@cpri.in, ered@cpri.in

CPRI/ERED/SPV/2012 *02/02/2012*

To,

M/s. Andromeda Energy Technologies (P) Ltd.
D-13, Phase V, IDA, Jeedimetla,
Hyderabad – 500 055

Dear Sir,

Please find enclosed the test report for the following:

1. LED based solar Lantern(model – solite) – 1 No.
2. Solar Lantern 6 volt (model- solite global) – 1 No.

Please acknowledge the receipt of the test report. Thank you for utilizing our services.

Corrections, if any, in the report may please be brought to our notice within 45 days from the date of issue of the report.

Kindly arrange to take back the equipment tested within 15 days, failing which the same will be disposed of.

Thanking you,

Yours Sincerely,

(M. Siddhartha Bhatt)
Additional Director

CPRI

CENTRAL POWER RESEARCH INSTITUTE
ENERGY EFFICIENCY AND RENEWABLE ENERGY DIVISION

TEST REPORT

Sl. No.	Particulars	Details
01	Test report no.	CPRI/ERED/SPV/LED/136/2012
02	Date	29/02/2012
03	Client's address	M/s. Andromeda Energy Technologies (P) Ltd. D-13, Phase V, IDA, Jeedimetla, Hyderabad – 500 055
04	Reference	Nil, dated 03/01/2012
05	Manufacturer's address	Same as above
06	Sample tested	LED Reading Lamp
07	Designation	Solar based LED Lantern System
08	Configuration	2 LEDs with Electronic Circuit
09	Identification no.	ERED/SPV/1976/2012
10	Serial No.	0017-1862
11	Date (s) of the test	02/02/2012 to 22/02/2012
12	No. of samples tested	One
13	Test in accordance with standards/specifications	As per the Manufacturer Specification
14	Client's requirement	Nil
15	Deviation (if any)	Nil
16	Name of the witnessing persons	Nil
17	Clients representative	Nil
18	Other than clients representative	Nil
19	No. of pages (including this page)	Three
20	No. of oscillograms	Nil
21	No. of drawings	Nil
22	No. of graphs	Nil
23	No. of photos	Nil

Test In-charge

(M. Siddhartha Bhatt)
Additional Director

NOTE:
a) This is not a certificate of compliance.
b) These laboratory test results relate only to the items tested which are selected and submitted by the client mentioned above.
c) The data reported in this laboratory test report are valid at the time of and under the stipulated conditions of measurements.
d) Publications or reproduction of this laboratory test report in any form other than by complete set of the whole report and in the language written is not permitted without consent of CPRI.
e) Correction/erasing invalidate the test report.

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TEST RESULTS

Sl.No.	Test Description	Manufacturer Specification	Observations
LED based solar lantern composed of 2 LED with electronic circuit			
01	Product Name	Solar LED Lantern	Complies
02	Brand Name	Solite	Light O
03	Operating temperature	0 -50 ^{O}C	Complies
04	Lamp Type	White LED	White LED
Electrical			
Light Emitting Diode (LED)			
05	Make	Osram	Osram
06	Lamp wattage	1.5 W x 2 Nos.	1.5 W x 2 Nos.
Luminary			
07	Nominal Working Voltage	6 V DC	6 V DC
08	Battery Low cut off	5.6 V ± 0.5 V	5.62 V
09	Battery re-connection	6.05 ± 0.5 V	6.12 V
10	Over Charge cut off	7.2 V ± 0.2 V	7.24 V
11	Panel Reconnection	6.6V ± 0.2 V	6.62 V
12	Dusk to dawn sensing	2.5 V ± 0.1 V	2.23 V
13	Input current at 6 VDC	450 ± 20 mA	408 mA
14	Efficiency at 6 volt	≥ 80 %	83.21 %
Protections			
15	Deep Discharge	Provided	Provided
16	Over charge	Provided	Provided
17	Reverse Polarity	Provided	Provided
18	Short circuit at output	Provided	Provided
19	No load at out put	Provided	Provided
Indicators			
20	Battery Low	Red LED	Complies
21	Battery charging	Green LED	Complies
22	Over charge	Duel LED turns in to yellow	complies

Test In-charge

Test Engineer

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TEST RESULTS

Sl. No.	Test description	Observations	Requirement as per Manufacturer specifications	Remarks
1.0 PV MODULE				
1.1	Type of module	Mono crystalline silicon	Mono/poly crystalline silicon	
1.2	Manufacturer	M/s. Andromeda		
1.3	Sl. No	210J-48135	--	
1.4	Arrangement for mounting	Provided	Arrangement Provided	
1.5	Peak power at 16.4 V	3.48 Wp	3.0 Wp	*** See below**
2.0 LAMP				
2.1	LED Make	M/s. Osram	--	
2.2	LED Model No.	Not provided		
2.3	**Light output**			
	Average lux level			

Sl. No.	Distance in feet	Detector in horizontal	Detector in Vertical
01	1	34.0	107.0
02	2	8.4	36.2
03	3	3.3	19.1
04	4	2.2	9.6
05	5	1.7	6.6

3.0 BATTERY				
3.1	Make	M/s. Vision	-	
3.2	Type of battery	VRLA	Lead Acid Tubular/ VRLA	
3.3	Capacity at C/20 discharge rate at 12V	4.0 Ah	Minimum 4.0 Ah.	
3.4	Percent of rated capacity between low and high voltage cut-off	Conforms	75 %	

- **The solar PV Module is manufactured as per IEC 61215 standards. Test Certificate No. 08 – PPV-00045/01-TIC, dated 09/02/2009 issued by TUV Inter Cert**

Test In-charge **Test Engineer**

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