



**CENTRAL POWER RESEARCH INSTITUTE**  
**ENERGY EFFICIENCY AND RENEWABLE ENERGY DIVISION**

**CPRI**

**TEST REPORT**

Sl. No.	Particulars	Details
01	Test report no.	CPRI/ERED/SPV/MS-164/2012
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	Reference	Nil
07	Sample tested	Solar Lantern
08	Designation	Solite Global
09	Configuration	--
10	Identification no.	ERED/SPV/1975/2011
11	Serial no.	0002-5996
12	Date (s) of the test	02/02/2012 to 29/02/2012
13	No. of samples tested	One
14	Test in accordance with standards/specifications	As per Manufacturer Specification
15	Client's requirement	Nil
16	Deviation (if any)	Nil
17	Name of the witnessing persons	Nil
18	Clients representative	Nil
19	Other than clients representative	Nil
20	No. of pages (including this page)	Four
21	No. of oscillograms	Nil
22	No. of drawings	Nil
23	No. of graphs	Nil
24	No. of photos	Nil

  
**Test In-charge**



  
**(M. Siddhartha Bhatt)**  
**Additional Director**

Note:

- This is not a certificate of compliance.
- These test results relate only to the items tested, which are selected and submitted by the client mentioned above.
- The data reported in this test report are valid at the time of and under the stipulated conditions of measurements.
- Publications or reproduction of this 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.
- Correction/erasing invalidate the test report.

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**TEST RESULTS**

Sl. No.	Test description	Observations	Requirement as per Manufacturer specification	Remarks
<b>1.0 PV MODULE</b>				
1.1	Type of module	Mono crystalline silicon	Mono/poly crystalline silicon	
1.2	Manufacturer	M/s. Andromeda	--	
1.3	Sl. No	2011K-57751	--	
1.4	Arrangement for mounting	Provided	Arrangement preferred	
1.5	Peak power at 16.4 V	7.12 Wp	6.00 Wp	* See below
<b>2.0 LAMP</b>				
2.1	Make	M/s. Osram	--	
2.2	Power	7 W	7 W CFL	
2.3	No. of pins	4 Pins	4 pins	
2.4	Mounting configuration	Base Down	Preferably base up	
2.5	<b>Light output</b>			
	(a) Prior to 1000 on/off cycles	362 Lumens	370 ± 5 % lumen	
	(b) After 1000 on/off cycles	358 Lumens	Variation less than ± 10 % of the measured value (a)	
<b>3.0 BATTERY</b>				
3.1	Make	M/s. Vision	-	
3.2	Type of battery	SMF	SMF Lead Acid	
3.3	Capacity at C/20 discharge rate at 12V	10 Ah	Minimum 10.0 Ah.	
3.4	Percent of rated capacity between low and high voltage cut-off	Conforms	80	

- 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

  
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Sl. No.	Test description	Observations	Requirement as per Manufacturer specification	Remarks
<b>4.0 ELECTRONICS</b>				
<i>Inverter</i>				
4.1	Wave form type	Quasi sine wave	Sine or quasi sine wave	
4.2	Crest factor	1.55	< 1.7	
4.3	Frequency	32.07 kHz	20-35 kHz	
4.4	Efficiency	85.45 %	≥ 80 %	
4.5	Pre-heating arrangement	Provided	Required for 4 pin lamp only	
4.6	Idle current	0.082 mA	<1 mA	
4.7	PCB installation	Solder free	Solder free	
4.8	Battery temperature compensation	Provided	Required	
<b>5.0 PROTECTION</b>				
5.1	No load protection	Provided	Required	
5.2	Short circuit	Provided	Required	
5.3	Reverse polarity	Provided	Required	
5.4	Reverse flow protection (blocking diode)	Provided	Required	
<i>Battery protection</i>				
5.5	Low voltage cut off	Provided	Required	
5.6	Load reconnect	Provided	Required	
5.7	Over charge cut off	Provided	Required	
5.8	Module reconnect	Provided	Required	

  
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TEST RESULTS

Sl. No.	Test description	Observations	Requirement as per Manufacturer specification	Remarks
<b>6.0 Other features</b>				
6.1	Duty cycle	Qualifies	Required to qualify	
6.2	Indicators	Provided	Required	
6.3	Switch and cable	Provided	Required	
6.4	Marking on lantern	Provided	Required	
6.5	Marking on module	Provided	Required	
6.6	Manual	Provided	Required	
6.7	Warranty			
	(a) Module	Provided	15 years	
	(b) Lantern	Provided	2 years	

**Conclusion: Solar Lantern qualifies as per the manufacturer specification.**

  
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