

Date: 07.11.2016

National Institute of Solar energy
(An Autonomous Institute of Ministry of New & Renewable Energy)

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2016-2017

PERFORMANCE TEST REPORT ON
LED BASED SOLAR STREET LIGHTING SYSTEM

The Industry is the manufacturer of electronics for LED Based Solar
Street lighting system

Sample ID No: 129/2116/SLS/LED

Manufactured by: M/s. INTELIZON ENERGY PVT. LTD., HYDERABAD.

Submitted by: M/s. INTELIZON ENERGY PVT. LTD., HYDERABAD.

Note

This is a report on measurements carried out on the LED based Solar Street Lighting system submitted at National Institute of Solar Energy as per **User specifications**. The data reported in this TEST REPORT are valid at the time of and under the stipulated conditions of measurement and the test results are applicable to this sample only and do not apply to other Solar Street Lighting systems even though declared to be identical. The data contents in this report do not constitute a qualification test certificate. NISE does not accept any liability for any consequences including commercial or otherwise arising out of the utilization of the information contained in the report.

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Rajiv Kumar
10/11/2016



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S. N.	Test Description	Manufacturer's claim	NISE Observations	Remarks
1.	PV Module i. a) Name of Manufacturer or Company Logo b) Model or Type No. c) Serial No. d) Year of Make ii Module Wattage at STC iii. Type of Module iv. Module Efficiency v. Voc of PV Module	SIRIUS SOLAR SS050 SS160850120224 Yr-2016 50 W Multi C-Si	SIRIUS SOLAR SS050 SS160850120224 Yr-2016 50.8 W Multi C-Si 14.0% 22.89 V	
2.	LOAD/LIGHT (White LED based Light) i. Make and Origin of LED ii. No. of LEDs iii. Light output (in lux) from 4 meter height a) at Centre b)1.0 m dia c) 2.0 m dia d)4.0 m dia iv. Dimming Mode v. Motion Sensor v. Housing including optics for focusing light. Should have appropriate housing and optics for uniform intensity. It must be free from the glare.	NICHIA 6 Nos. Provided Provided Provided	NICHIA 6 Nos. Full Mode (Motion sensor ON) Low Mode (Motion Sensor OFF) 30.50 Lux 29.04 Lux 25.81 Lux 19.08 Lux 16.30 Lux 15.11 Lux 13.95 Lux 9.91 Lux Working Working Provided	
3.	Battery i. Make and type of Battery ii. Voltage iii.100% capacity at C/10 or suitable Discharge rate. iv. %Capacity between fully charged and load cut-off condition.	Samsung, Li-Ion battery, 2 Nos. 14.8 V 5.2 Ah 75%	Samsung, Li-Ion battery, 2 Nos. 14.8 V 5.19 Ah , 5.24 Ah Comply	
4.	Electronic DC -DC converter a. Parameter at 14.8 V i.) Input power (W) ii) Output power (W) iii) Efficiency (%) iv) PCB installation	21 W Not Provided 92.00% Solder free	21.98 W* Not Checked** Not Checked** Solder free	*Motion sensor is ON **LEDs are mounted on LED Driver PCB

Prepared By: Avinash
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Date: 10/11/2016

Authorized Signatory: Rajesh Kumar
Name: Dr. Rajesh Kumar
Designation: Scientist-F
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5.	Protections a) No Load protection b) Battery Protection VII. Low voltage cut-off (V) VIII. Load reconnect (V) IX. Over charge cut-off (V) c) Battery reverse polarity protection d) Short circuit protection e) Protection for reverse flow of current through the PV Module f) Temperature compensation g) No load Current	Provided 12.6 V Not Provided 16.68 V Provided Provided Provided Provided 8.0 mA	Provided 12.70 V 13.28 V 16.51 V Provided Provided Provided Provided 0.02 mA	
6.	Other features Duty cycle Indicator	Dusk to dawn Two Indicators should be provided	Qualified* Provided	*3 dimming mode are provided with interval of 3 hrs. at the full input power, then next 3 hrs. at 60 % of the input power, and rest of the time at 40 % of the input power (Motion sensor is OFF)

Prepared By: Avinash

Name: Avinash Kumar Haldkar

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Date: 10/11/2016

Authorized Signatory: Rajesh Kumar

Name: Dr. Rajesh Kumar

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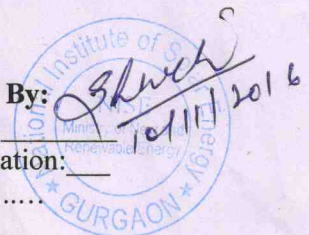
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