



CLASSIC INSTRUMENTATION PVT. LTD.

C-45, Sector-65, Noida-201 307 (U.P.)

Ph.: 0120-4279394, Contact : 9717699751

Email : classiclab@gmail.com, Website : www.classiclabindia.com



TC-5099

TEST REPORT

Group: Luminaires

Discipline: Photometry

U L R - T C 5 0 9 9 2 2 1 0 0 0 0 0 0 5 0 0 F

TEST REPORT AS PER: IES LM-79-08

Receipt No.: CI/TES/2K22/05/073

Name & Address of Customer: SUNNERGY SYSTEMS IID Govindsar Kathua Industrial Area kathua, Jammu and Kashmir 184102	Test Report No.: CI/TES/2K22/05/073		
	Date of Issue: 18/05/2022		
	Customer Ref. & Date: 18/05/2022		
Testing laboratory and its address:	Date of Sample Receipt: 18/05/2022	Start of Test Date; 18/05/2022	End of Test Date: 18/05/2022
	CLASSIC INSTRUMENTATION PVT.LTD C-45,Sector-65,Noida-201307(U.P.)		

PART A – PARTICULARS OF THE SAMPLE SUBMITTED

Sample description:	Solar Semi Integrated Street Light
Grade/variety/type/class/size etc.	12.8 VDC, 1.56 A, 20 W, 2400 lm, 120 lm/w, 5500-6500 K, Ra: >70
Declared values, if any	Rated Voltage: 12.8 VDC, Test Voltage: 12.8 VDC, Rated Wattage: 20 W, Rated Lumen: 2400 lm, Rated Colour Temperature: 5500-6500 K, Rated Colour Rendering Index: >70, Rated Luminous efficacy: 120 lm/w, Rated Current: 1.56 A
Brand Name and Model no.	Brand : SUNNERGY Model No.: SUNNL4S020W
Quantity	1 No.
Condition of the sample	OK
Reference specification (s)	IES LM-79-08 (Tests have been carried out as per customer's request)
Environmental conditions:	Temperature: (25±1)°C & Relative Humidity <65%

Tested by:	Reviewed by:	Approved by / Authorized Signatory:
Sr. Testing Engineer (Himanshu Sharma)	Deputy Technical Manager (Surendra Kumar)	Deputy Technical Manager (Surendra Kumar)
Dated: 18/05/2022	Dated: 18/05/2022	Dated: 18/05/2022



CLASSIC INSTRUMENTATION PVT. LTD.

C-45, Sector-65, Noida-201 307 (U.P.)

Ph.: 0120-4279394, Contact : 9717699751

Email : classiclab@gmail.com, Website : www.classiclabindia.com



TC-5099

U L R - T C 5 0 9 9 2 2 1 0 0 0 0 0 5 0 0 F

PART B – SUPPLEMENTARY INFORMATION

Test Report No.: CI/TES/2K22/05/073

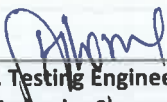


- Deviation from the test methods as per relevant specification/SOP, if any:
- Details of drawings, graphs, tables or photographs as referred in the test report, if any:
- Testing procedure according to SOP CI/TES/SOP/PHOTOMETRY-01, CI/TES/SOP/LFE and CI/TES/SOP/CCT.
- The Management System is maintained in accordance with IS/ISO/IEC 17025.

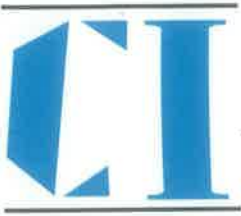
Notes:

- This report is not to be reproduced wholly or in part without written permission of testing laboratory.
- This report refers only to the particular sample detailed above.
- The results reported in this certificate are valid at the time of and under stipulated conditions of measurements.

Equipment used:

S.No.	Equipment ID	Equipment Name	Traceability	Calibration Valid Upto
1.	CI/TES/GP/001	Type-C Goniophotometer	---	Before Test
2.	CI/TES/247	Integrating Sphere	---	Before Test
3.	CI/TES/SLS/002	Standard Lamp (Standard Light Source: GLS lamp, E-27, Sr. No.:S1320092)	Traceable to NPL vide certificate no.: 22011298/D1.04/C - 298	27/01/2023
			Traceable to NPL vide certificate no.: 22011299/D1.04/C - 301	03/02/2023
			Traceable to NPL vide certificate no.: 22011299/D1.04/C - 302	03/02/2023
4.	CI/TES/250	Digital Power Meter	Traceable to NPL through CIPL vide certificate no.: CI/2K21-22/12/561	20/12/2022

Tested by:	Reviewed by:	Approved by / Authorized Signatory:
		
Sr. Testing Engineer (Himanshu Sharma)	Deputy Technical Manager (Surendra Kumar)	Deputy Technical Manager (Surendra Kumar)
Dated: 18/05/2022	Dated: 18/05/2022	Dated: 18/05/2022



CLASSIC INSTRUMENTATION PVT. LTD.

C-45, Sector-65, Noida-201 307 (U.P.)

Ph.: 0120-4279394, Contact : 9717699751

Email : classiclab@gmail.com, Website : www.classiclabindia.com



TC-5099

U L R - T C 5 0 9 9 2 2 1 0 0 0 0 0 5 0 0 F

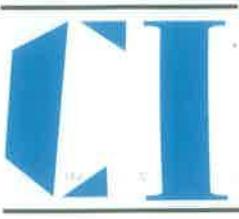
PART C – TEST RESULT

Test Report No.: CI/TES/2K22/05/073

Test Results:

S. No	TESTS WITH CLAUSE REFERENCE		SPECIFIED REQUIREMENT	RESULTS
1.	Photometric Results (IES LM-79-08)	i)	Total Luminous Flux	2442.441 lm
		ii)	Luminous Efficacy	121.58 lm/W
		iii)	Luminous intensity	1841.474 cd
		iv)	Beam Angle	112°
		v)	Luminous intensity distribution	Graph Attached
		vi)	Chromaticity Co-ordinates	x= 0.3241 y= 0.3336
		vii)	Correlated Colour Temperature	5892 K
		viii)	Color Rendering Index	71.5
2.	Electrical Results (IES LM-79-08)	i)	Input Power	20.089 W
		ii)	Input Voltage	12.758 VDC
		iii)	Input Current (Amps)	0.160 A
		iv)	Power Factor	N/A
		v)	Input Frequency (Hertz)	N/A
3.	Additional Parameters	i)	Stabilization time	2Hrs
		ii)	Photometric Method Used	IES LM-79-08 Using C type- Goniophotometer

Tested by:	Reviewed by:	Approved by / Authorized Signatory:
Sr. Testing Engineer (Himanshu Sharma)	Deputy Technical Manager (Surendra Kumar)	Deputy Technical Manager (Surendra Kumar)
Dated: 18/05/2022	Dated: 18/05/2022	Dated: 18/05/2022



CLASSIC INSTRUMENTATION PVT. LTD.

C-45, Sector-65, Noida-201 307 (U.P.)

Ph.: 0120-4279394, Contact : 9717699751

Email : classiclab@gmail.com, Website : www.classiclabindia.com



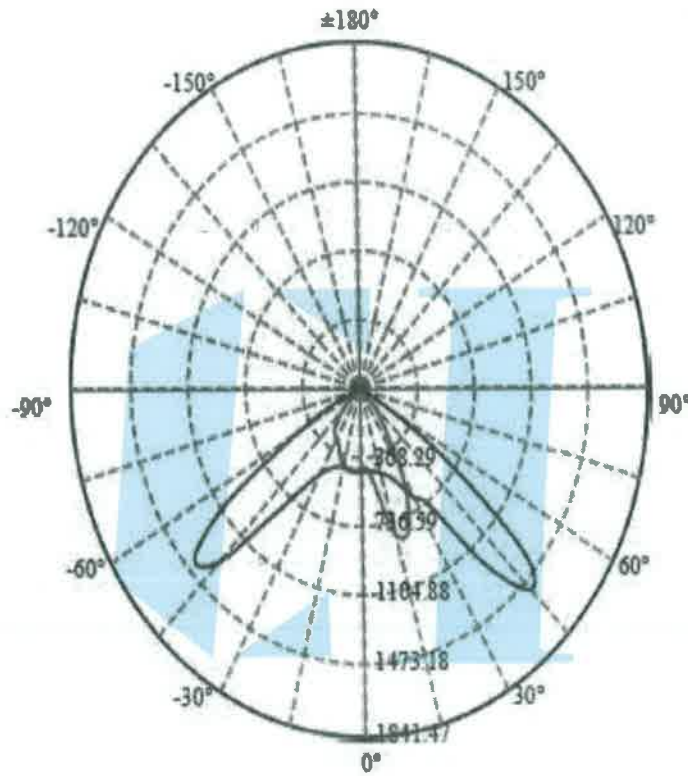
TC-5099

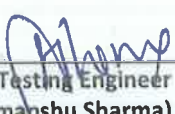


U L R - T C 5 0 9 9 2 2 1 0 0 0 0 0 5 0 0 F

PART C – TEST RESULT

Test Report No.: CI/TES/2K22/05/073

Intensity Distribution Graph



Tested by:	Reviewed by:	Approved by / Authorized Signatory:
		
Sr. Testing Engineer (Himanshu Sharma)	Deputy Technical Manager (Surendra Kumar)	Deputy Technical Manager (Surendra Kumar)
Dated: 18/05/2022	Dated: 18/05/2022	Dated: 18/05/2022

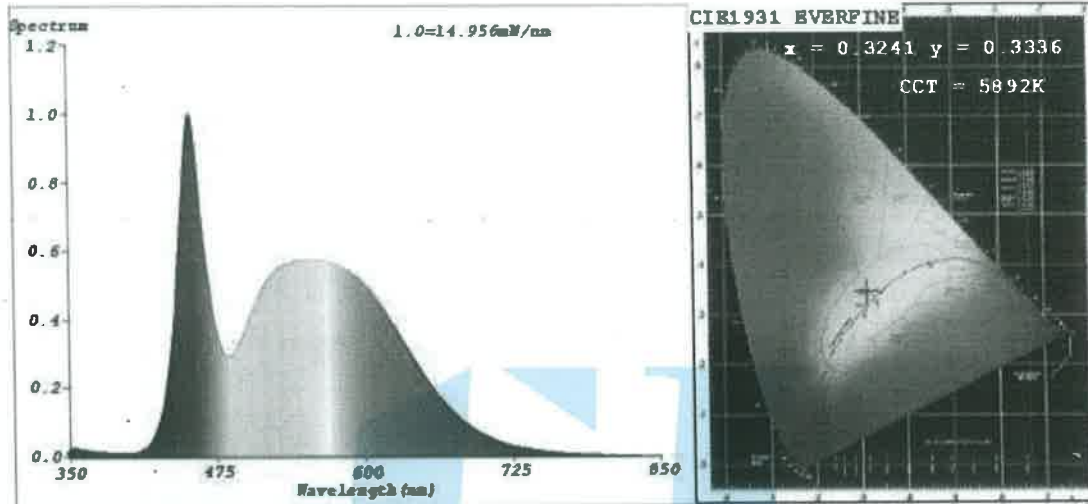


U L R - T C 5 0 9 9 2 2 1 0 0 0 0 0 5 0 0 F

PART C – TEST RESULT

Test Report No.: CI/TES/2K22/05/073

Spectral Parameter



Color Parameters:

Chromaticity Coordinate: $x=0.3241$ $y=0.3336$ $u'=0.2011$ $v'=0.4775$

CCT=5892K(Duv=0.0051) Dominant WL: $L_d = 527.5\text{nm}$ Purity=3.8%

Ratio: $R=13.8\%$ $G=81.0\%$ $B=5.5\%$; Peak WL: $L_p=456.4\text{nm}$ FWHM=24.3nm

Render Index: $R_a=71.5$ $AvgR=68.4$

R1 =71	R2 =75	R3 =79	R4 =70	R5 =68	R6 =63	R7 =78	
R8 =68	R9 =0	R10=66	R11=77	R12=73	R13=79	R14=84	R15=75

Tested by:	Reviewed by:	Approved by / Authorized Signatory:
Sr. Testing Engineer (Himanshu Sharma)	Deputy Technical Manager (Surendra Kumar)	Deputy Technical Manager (Surendra Kumar)
Dated: 18/05/2022	Dated: 18/05/2022	Dated: 18/05/2022



CLASSIC INSTRUMENTATION PVT. LTD.

C-45, Sector-65, Noida-201 307 (U.P.)

Ph.: 0120-4279394, Contact : 9717699751

Email : classiclab@gmail.com, Website : www.classiclabindia.com



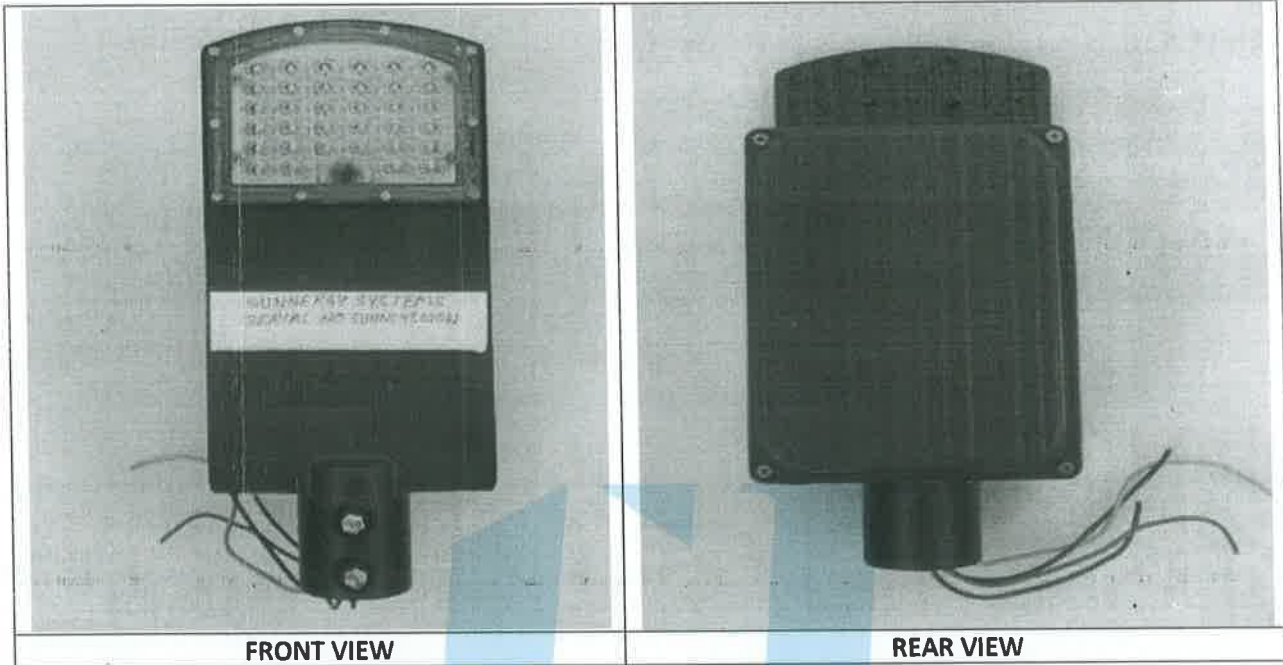
TC-5099

U L R - T C 5 0 9 9 2 2 1 0 0 0 0 0 5 0 0 F

PART C – TEST RESULT

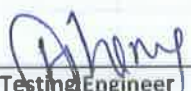


Test Report No.: CI/TES/2K22/05/073

Photograph:



PART D:

Remarks: 1. The observations given in part A of the cover page of the test report are taken from the marking on the sample given by customer.

Tested by:	Reviewed by:	Approved by / Authorized Signatory:
		
Sr. Testing Engineer (Himanshu Sharma)	Deputy Technical Manager (Surendra Kumar)	Deputy Technical Manager (Surendra Kumar)
Dated: 18/05/2022	Dated: 18/05/2022	Dated: 18/05/2022