



P. M. Electro Auto Pvt. Ltd. (Photometry Laboratory)

Survey No.102/1/2, Nagar Parishad House,
Opp. ISKCON Food Relief Foundation,
Near Sukhsagar Lane, Mahim Road, Palghar (W) 401 404



TEST REPORT

Format No. PL-30-A I03R01

Test Report Number	PM/1920/04/PAC/006	ULR No.	TC576219000000084P
Date of Report	17.04.2019	Date of receipt	16.04.2019
Name of the Customer	Stanjo LED Corporation		
Address of the Customer	Sy No. 279, Apuroopa Colony, Jeedimetla, Hyderabad, Telangana- 500055		
Name of Manufacturer	Stanjo LED Corporation		
Test started on	17.04.2019	Test ended on	17.04.2019
Name of Product	SLC-SL20		
Condition while receipt	Good		
Standard Applied	IES LM 79-08, Clause No. 8, 9, 10, 11 & 12		
Ambient Conditions	Temp. (oC)	25±1°C	Humd. (%RH) ≤ 70%

Description of Item Under Test (IUT)

Rated Input Voltage	Frequency	Rated Input Current	Rated Input Power
220Vac (100-300V AC)	50Hz	96mA	20W

Light Source		Driver / Ballast	
Make/Specifications	Quantity	Make/Specifications	Quantity
Osram/ 9V, 1W, 2835 SMD Package	01	Stanjo/ 20W, Output: 36V, 600mA	01

 Mr. Sameer Adhikari Testing Officer Tested By	 Mr. Hardik Save Quality & Technical Assistant Checked By	 Mr. Yogesh Chandane Technical Manager/Quality Manager Authorized By
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*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting



Report No. PM/1920/04/PAC/006
Report Date: 17.04.2019

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Photometric & Colorimetric Test Report

1. Master Equipment and Calibration Details

S No.	Test Equipment	Serial No	Lab ID	Calibration Date
1	Goniophotometer	GMS 3000	PM-I-010	17.04.2018
2	Measured Standard Lamp	S10151002	PM-SL-001	06.01.2019
3	Spectroradiometer	SL 300	PM-I-006	17.04.2018
4	Measured Standard Lamp	S013095	PM-SL-002	01.04.2019

2. Test Methodology Adopted:

- The sample was tested according to the IES LM-79-2008.
- The ambient temperature was maintained as $25 \pm 1^\circ\text{C}$ during testing.
- The condition of the sample tested was new. Stabilization time before testing was minimum 30 minutes.
- Photometric parameters were obtained using a Type-C Goniophotometer and software.
- The sample was operated at 220Volts AC. It is stabilized before measurement. Luminous Flux, Luminous Efficacy, Luminous Intensity etc were calculated from the software.
- Colorimetric parameters were measured using an integrating sphere, a Spectroradiometer and software.
- The sample measurements were made using a Spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 220Volts AC. It was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

3. Test Observations:

Test Discipline		Photometry	Test Group		Luminaire
Electrical Parameters					
Voltage (V)	Current (A)	Power (W)	Power Factor	Frequency (Hz)	
220.42	0.095	19.119	0.9145	50	
Photometric Parameter					
Luminous Flux (lm)	Luminous Efficacy (lm/W)	Central Luminous Intensity (cd)	Maximum Luminous Intensity (cd)		
2044.96	106.96	515.201	1057.853		
Colorimetric Parameter					
Correlated Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate (x)	Chromaticity Coordinate (y)		
6350	80.8	0.3148	0.3356		

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Page 2 of 5



Report No. PM/1920/04/PAC/006
Report Date: 17.04.2019

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4. Intensity Data

C/r(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	
0.0	515.20	517.08	515.58	504.29	500.53	510.31	536.26	586.28	638.92	686.31	774.68	868.70	
22.5	515.20	521.19	524.18	513.34	517.09	524.21	544.04	569.86	577.34	602.01	635.27	685.37	
45.0	515.20	526.80	526.43	530.17	518.20	499.87	471.81	454.60	436.27	395.12	353.21	328.88	
67.5	515.20	530.53	531.66	523.05	488.31	449.84	410.64	352.37	304.91	277.32	263.95	224.80	
90.0	515.20	536.11	534.61	523.41	470.40	427.09	380.05	312.85	281.49	279.25	265.07	214.29	
112.5	515.20	530.53	531.66	523.05	488.31	449.84	410.64	352.37	304.91	277.32	263.95	224.80	
135.0	515.20	526.80	526.43	530.17	518.20	499.87	471.81	454.60	436.27	395.12	353.21	328.88	
157.5	515.20	521.19	524.18	513.34	517.09	524.21	544.04	569.86	577.34	602.01	635.27	685.37	
180.0	515.20	517.08	515.58	504.29	500.53	510.31	536.26	586.28	638.92	686.31	774.68	868.70	
202.5	515.20	503.61	494.25	485.28	473.68	481.90	508.43	533.86	565.65	608.65	681.56	775.04	
225.0	515.20	497.61	487.13	474.41	471.79	476.65	488.61	497.60	506.58	493.50	467.32	391.38	
247.5	515.20	494.30	484.63	476.79	474.56	474.98	481.74	475.77	461.88	424.83	360.58	280.32	
270.0	515.20	495.04	482.35	476.37	471.15	473.39	482.35	469.65	462.19	421.12	352.43	271.79	
292.5	515.20	494.30	484.63	476.79	474.56	474.98	481.74	475.77	461.88	424.83	360.58	280.32	
315.0	515.20	497.61	487.13	474.41	471.79	476.65	488.61	497.60	506.58	493.50	467.32	391.38	
337.5	515.20	503.61	494.25	485.28	473.68	481.90	508.43	533.86	565.65	608.65	681.56	775.04	
360.0	515.20	517.08	515.58	504.29	500.53	510.31	536.26	586.28	638.92	686.31	774.68	868.70	
C/r(°)	60.0	65.0	70.0	75.0	80.0	85.0	90.0	95.0	100.0	105.0	110.0	115.0	
0.0	967.60	1057.85	797.24	204.58	46.26	41.74	13.54	0.38	0.38	1.13	1.50	1.88	
22.5	734.35	785.86	550.19	177.12	47.47	11.58	2.24	0.37	0.75	1.12	1.12	1.12	
45.0	274.24	201.65	92.03	32.92	14.59	5.24	0.75	0.37	0.37	0.37	0.00	0.75	
67.5	165.83	84.40	28.37	17.18	8.96	3.37	0.00	0.38	0.00	0.00	0.00	0.00	
90.0	151.57	47.04	30.61	23.89	11.95	4.48	0.00	0.00	0.00	0.00	0.00	0.00	
112.5	165.83	84.40	28.37	17.18	8.96	3.37	0.00	0.38	0.00	0.00	0.00	0.00	
135.0	274.24	201.65	92.03	32.92	14.59	5.24	0.75	0.37	0.37	0.37	0.00	0.75	
157.5	734.35	785.86	550.19	177.12	47.47	11.58	2.24	0.37	0.75	1.12	1.12	1.12	
180.0	967.60	1057.85	797.24	204.58	46.26	41.74	13.54	0.38	0.38	1.13	1.50	1.88	
202.5	852.83	784.46	506.75	200.53	59.84	13.47	2.99	0.37	0.37	0.75	0.75	0.75	
225.0	294.09	202.42	108.14	43.41	22.45	8.23	1.87	0.37	0.37	0.37	0.37	0.75	
247.5	200.43	114.92	47.00	22.39	12.69	5.97	1.86	0.37	0.37	0.75	0.38	0.75	
270.0	187.41	96.32	28.37	30.61	25.39	12.69	1.49	0.00	0.75	0.75	0.00	0.00	
292.5	200.43	114.92	47.00	22.39	12.69	5.97	1.86	0.37	0.37	0.75	0.38	0.75	
315.0	294.09	202.42	108.14	43.41	22.45	8.23	1.87	0.37	0.37	0.37	0.37	0.75	
337.5	852.83	784.46	506.75	200.53	59.84	13.47	2.99	0.37	0.37	0.75	0.75	0.75	
360.0	967.60	1057.85	797.24	204.58	46.26	41.74	13.54	0.38	0.38	1.13	1.50	1.88	
C/r(°)	120.0	125.0	130.0	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0	180.0
0.0	1.50	1.50	1.13	1.50	1.50	0.75	1.13	0.75	0.75	1.13	0.75	0.75	0.75
22.5	1.12	1.12	1.12	1.50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
45.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.12	1.12	0.75
67.5	0.00	0.75	0.75	1.12	1.12	0.75	0.75	0.75	0.74	0.75	0.75	0.75	0.75
90.0	0.00	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
112.5	0.00	0.75	0.75	1.12	1.12	0.75	0.75	0.75	0.74	0.75	0.75	0.75	0.75
135.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.12	1.12	0.75
157.5	1.12	1.12	1.12	1.50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
180.0	1.50	1.50	1.13	1.50	1.50	0.75	1.13	0.75	0.75	1.13	0.75	0.75	0.75
202.5	0.75	2.99	1.12	1.50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
225.0	0.75	0.37	0.37	0.75	0.75	0.37	0.75	0.75	0.75	0.75	0.75	0.75	0.75
247.5	0.75	0.75	0.37	0.38	0.75	1.12	0.75	0.75	1.12	1.12	1.12	0.75	0.75
270.0	0.75	0.75	0.00	0.75	0.75	0.75	0.75	0.75	1.49	1.49	1.49	0.75	0.75
292.5	0.75	0.75	0.37	0.38	0.75	1.12	0.75	0.75	1.12	1.12	1.12	0.75	0.75
315.0	0.75	0.37	0.37	0.75	0.75	0.37	0.75	0.75	0.75	0.75	0.75	0.75	0.75
337.5	0.75	2.99	1.12	1.50	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
360.0	1.50	1.50	1.13	1.50	1.50	0.75	1.13	0.75	0.75	1.13	0.75	0.75	0.75

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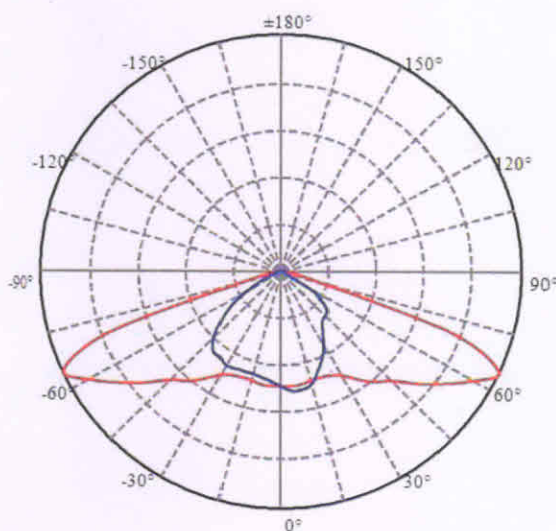


Report No. PM/1920/04/PAC/006
Report Date: 17.04.2019

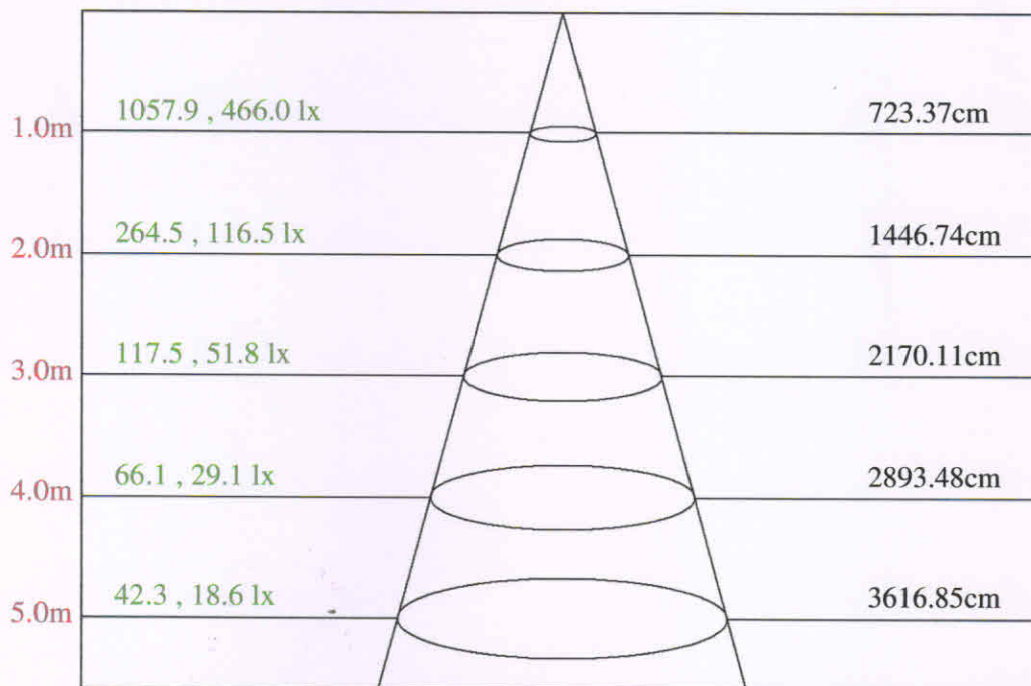
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5. Photometric Graphs

5.1 Light Distribution Curve



5.2 Lux distance Curve



Max, Ave

Beam angle of C0plane149.09

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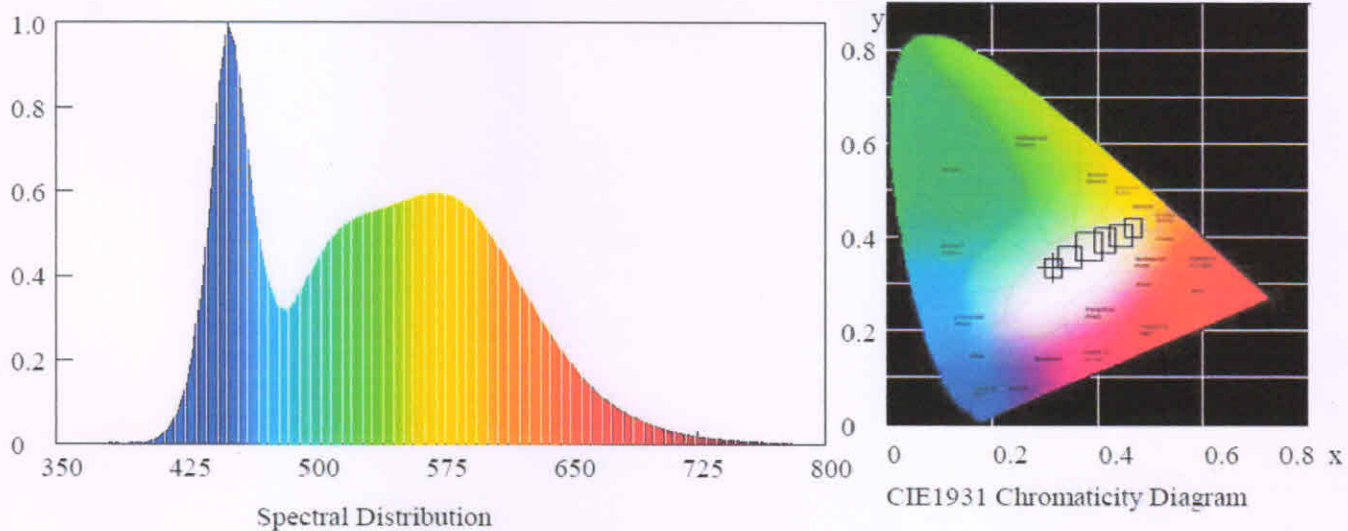


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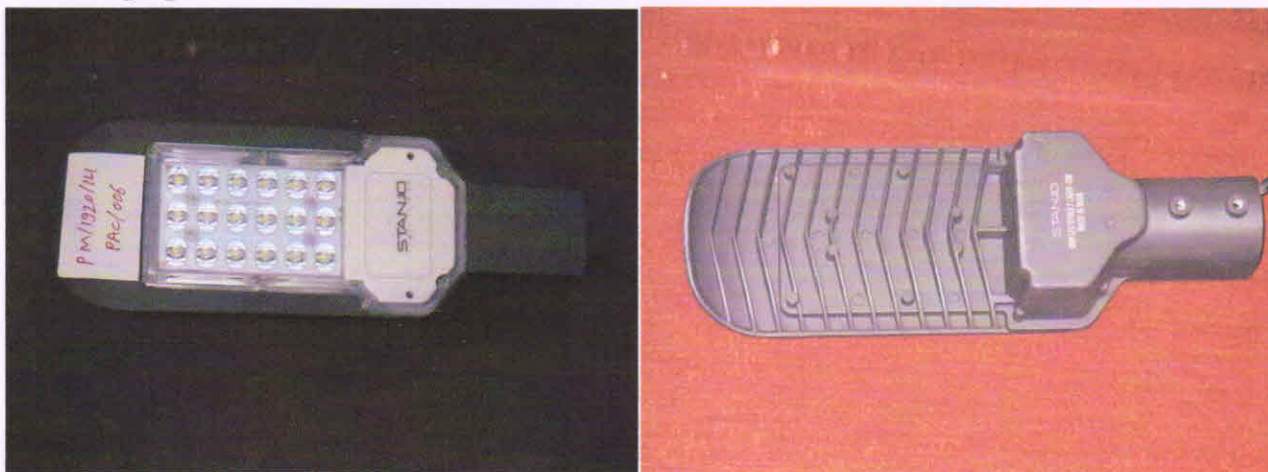
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6. Colorimetric Graphs



7. Photographs



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Page 5 of 5