



TEST REPORT

Of IES LM-79-08

Kunde: <i>Client:</i>	PCI Green Technologies Pty Ltd
Adresse: <i>Address:</i>	[REDACTED]
Hersteller: <i>Manufacturer:</i>	Shenzhen Karming Technologies Co.Ltd
Adresse: <i>Address:</i>	1A401 R401,1A Bld. Shenzhen Software Industry Base, Yuehai St.Nanshan Dist. Shenzhen, China
Name der Marke: <i>Brand Name:</i>	PCI Green Light
Beschreibung des Produkts: <i>Product Description:</i>	LED street lamp
Modelle: <i>Models:</i>	JML-120
Bewertung: <i>Rating:</i>	AC220-240V, 50/60Hz, 120W
Verfahren: <i>Method:</i>	IES LM-79-08: Approved Method for Electrical and Photometric Measurements of Solid-State Lighting Products
Prüfergebnis*: <i>Test result*:</i>	Please see the following test data

Datum der Prüfung: <i>Date of Test:</i>	Datum der Emission: <i>Date of Issue:</i>	Klassifizierung: <i>Classification:</i>	Gegenstand der Prüfung: <i>Test item:</i>
2022-02-16-2022-02-18	2023-01-07	Commission Test	IES LM-79-08

Prüflabor (Testlabor) / Testing Laboratory:
Shenzhen Southern LCS Compliance Testing Laboratory Ltd.

Compiled von/Compiled by: Zero Huang Zero Huang/ Project Engineer	Check von/Check by: Ian Luo Ian Luo/ Director	Genehmigt von/Approved by: Jesse Liu Jesse Liu/ Manager
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Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

Remark: The duplication of this report or parts of it and its use for advertising purposes is only allowed with permission of the testing laboratory. This report contains the result of examination of the product sample submitted by the appliance. A general statement concerning the quality of the products from the series manufacturer cannot be derived therefore.

This report can be used by the customer to claim product certification, approval or endorsement by NVLAP,NIST,or any agency of the Federal Government.





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1. Test Method

Test Item.....	: Integrating Sphere Test
Ambient Condition	: 24.9°C
Stabilization time	(h): 0.5h
Orientation(burning position) of SSL product during test	down
Test Method	: The sample was tested according to the IES LM-79-2008. 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 rated voltage and 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.
Test Item.....	: Goniophotometer Test
Ambient Condition.....	: 24.9°C
Total operated time of the product for measurements including stabilization.....	1.0h (h):
Orientation(burning position) of SSL product during test	down
Test Method.....	: The sample was tested according to the IES LM-79-2008. Photometric paramters were measured using a type C goniophotometer and software. The sample reference plane was located at the center of the sample goniometer at a test distance of 26m from the detectors. The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, Luminous efficacy, zonal flux were calculated from the software taken at 1° vertical intervals and 22.5°horizontal intervals.





2. Product Information

Product description.....	LED street lamp
Model Number.....	JML-120
Rated Inputs.....	AC220-240V, 50/60Hz
Rated Power.....	120W
Declared CCT.....	4000K
LED Manufacturer.....	N/A
LED Model.....	N/A
Forward current of the LED chip.....	N/A
Date of Receipt Samples.....	February 14, 2022
Quantity of Receipt Samples.....	1 unit

3. Test equipment list

Manufacturer	Description	Equipment ID	Model	Calibration Date	Calibration Due Date
EVERFINE	Full-field Speed Goniophotometer	SLCS-S-112	GO-R5000	2021/06/21	2022/06/20
EVERFINE	Digital Power Meter	SLCS-S-103	PF2010	2021/06/21	2022/06/20
EVERFINE	AC Testing Power Source	SLCS-S-115	DPS1060	2021/06/21	2022/06/20
EVERFINE	Total Spectral Radiant Flux Standard Lamp	SLCS-S-143	D908S	2021/07/02	2022/07/01
SENSING	2 Meter Integrating Sphere	SLCS-S-038	SPR-3000	2021/06/21	2022/06/20
YOKOGAWA	Digital Power Meter	SLCS-S-058	WT310	2021/06/21	2022/06/20
ALL POWER ELECTRONIC	AC Testing Power Source	SLCS-S-111	APW-105N	2021/06/21	2022/06/20
SENSING	Standard Lamp	SLCS-S-118	S11010017	2021/07/02	2022/07/01





4. Integrating Sphere Test Results

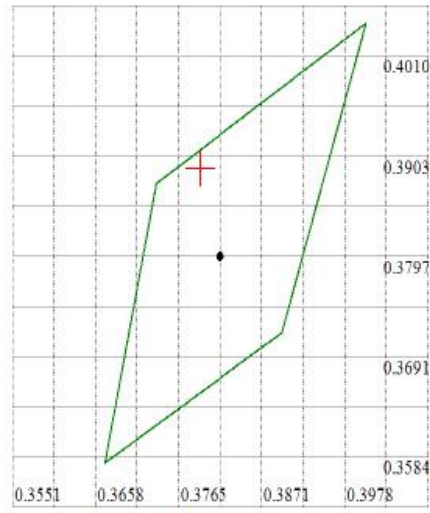
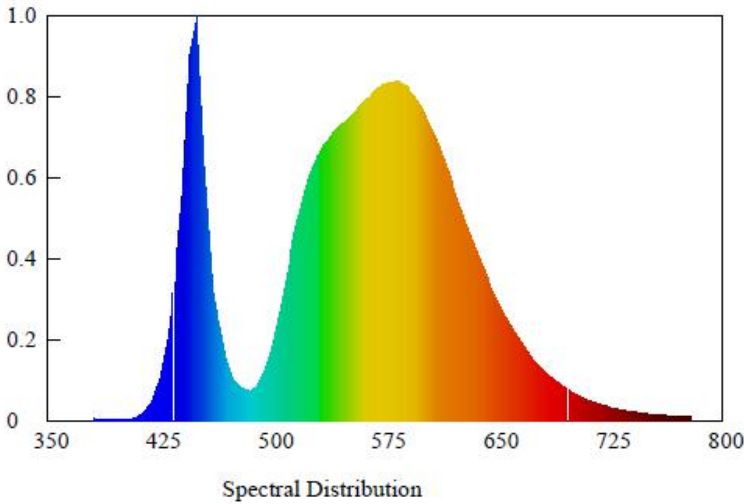
4.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	229.99	50.0	0.5324	0.9810	120.11

Test type	CCT (K)	CRI	Duv	Luminous flux (lm)	Luminaire efficacy(lm/W)
Output	4120	67.9	+0.00601	20646.91	171.9

4.2 Spectrum

Spectroradiometric Parameters



Nominal CCT:LED_4000K
 x0=0.3818 y0=0.3797

Chromaticity Coordinates: $x=0.3792$ $y=0.3890$ $u'=0.2195$ $v'=0.5067$
 Correlated Color Temperature: 4120 K Dominant Wavelength: 574.0 nm(E)
 Colour Fidelity Index: $R_f=67$ Gamut Index: $R_g=92$
 Luminous Flux: 20646.91 lm Purity: 0.3047
 Chromaticity Difference: $+0.00601Duv$ Peak Wavelength: 450.0 nm
 Color Ratio: $K_r=35.7%$ $K_g=57.9%$ $K_b=6.4%$
 Bandwidth: 18.9nm Radiant Flux: 65.133 W
 Rendering Index: $R_a=67.9$
 $R_1=64$ $R_2=74$ $R_3=82$ $R_4=68$ $R_5=63$ $R_6=63$ $R_7=80$ $R_8=49$
 $R_9=-46$ $R_{10}=39$ $R_{11}=63$ $R_{12}=31$ $R_{13}=67$ $R_{14}=89$ $R_{15}=57$ $R_e=56$





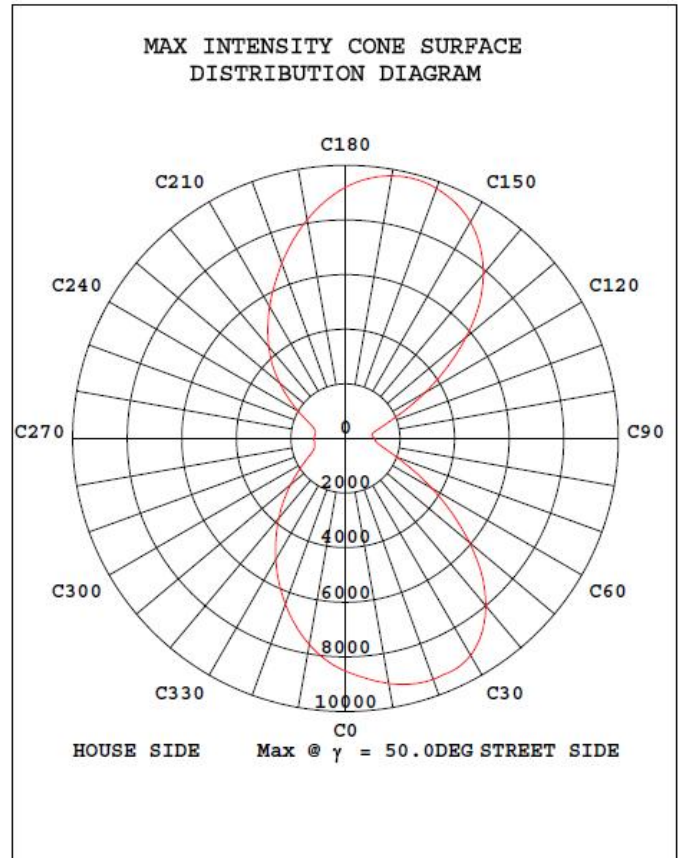
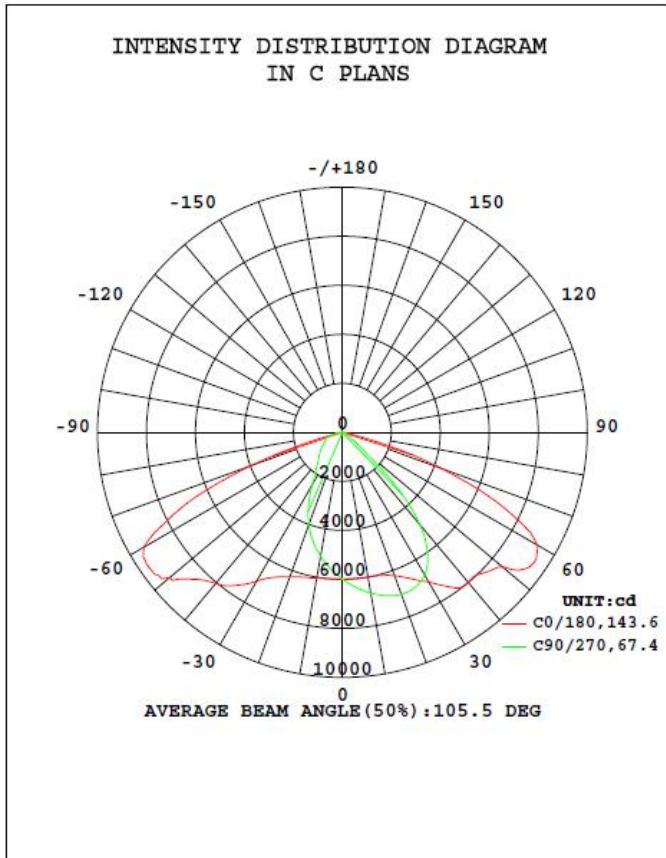
5. Goniophotometer Test results

5.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	230.1	50.00	0.5315	0.9811	120.0

Test type	Total Flux (lm)	Luminaire efficacy(lm/W)	ZL (0~90°)	ZL (80~90°)
Output	20635.4	172.01	99.7%	0.5%

5.2 Luminous Intensity Distribution Diagram and C0 Plane Isolux Diagram (Unit : lx)





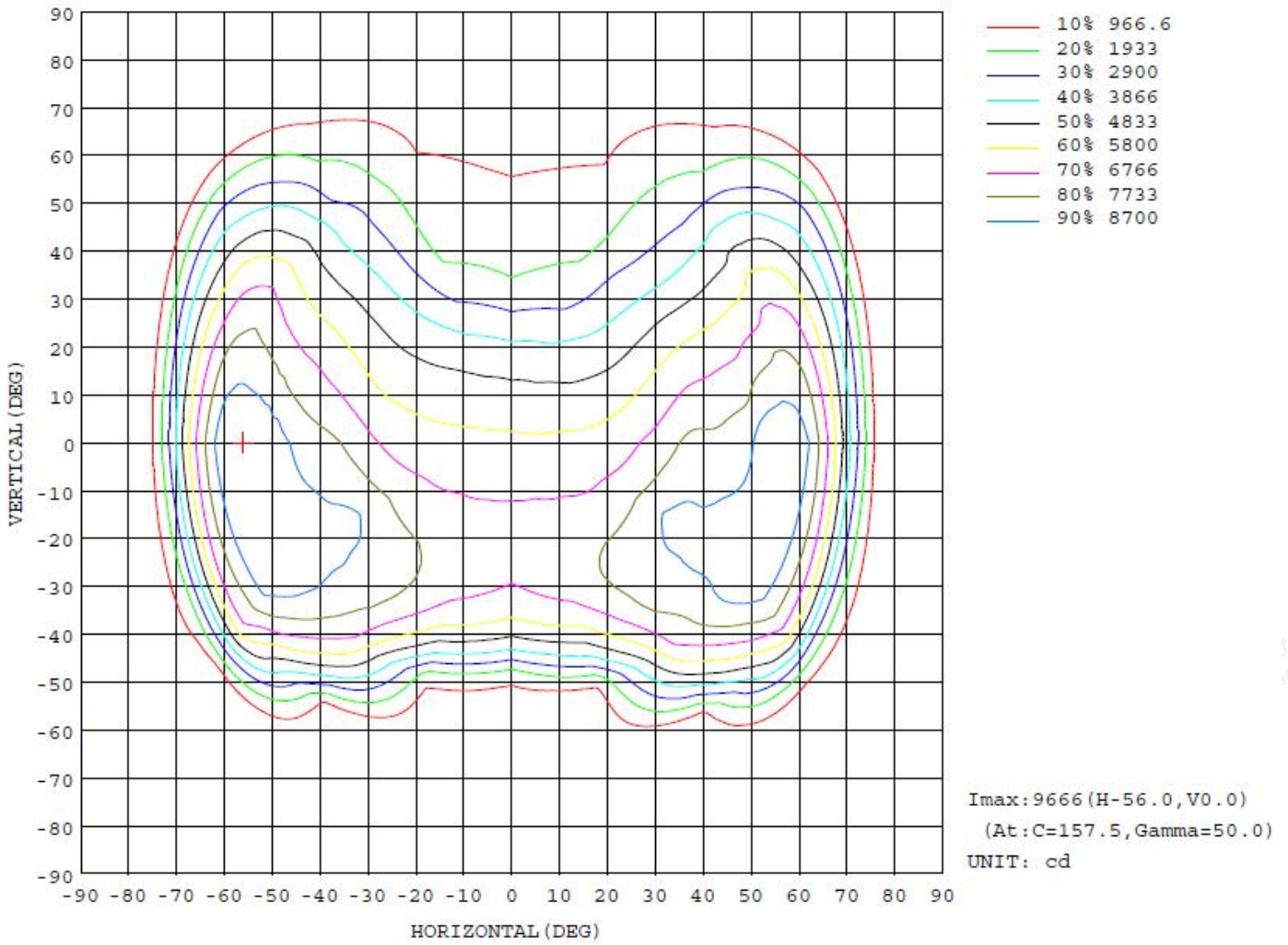
5.3 Zonal Flux Diagram

y	C0	C45	C90	C135	C180	C225	C270	C315	y	Φ zone	Φ total	#lum, lamp
10	5994	6481	6656	6519	6039	5451	5134	5365	0- 10	569.8	569.8	2.76, 2.76
20	6225	6960	7031	7101	6275	4941	4010	4681	10- 20	1679	2249	10.9, 10.9
30	7052	7939	6717	7916	7004	4474	2466	4163	20- 30	2739	4988	24.2, 24.2
40	7986	8110	4943	8168	8045	4209	1550	3830	30- 40	3742	8730	42.3, 42.3
50	8520	7071	1083	6930	9200	3786	1179	3199	40- 50	4187	12917	62.6, 62.6
60	9191	3807	242.5	2837	9362	2868	852.1	2518	50- 60	4107	17024	82.5, 82.5
70	4274	169.5	136.7	163.3	3999	1426	691.0	1285	60- 70	2799	19822	96.1, 96.1
80	266.8	88.44	63.82	103.8	260.0	165.8	85.06	151.4	70- 80	649.8	20472	99.2, 99.2
90	146.1	72.78	27.54	61.09	114.2	56.10	37.45	58.73	80- 90	100.4	20572	99.7, 99.7
100	5.577	4.090	1.401	2.909	4.693	0.7393	0.3297	0.7480	90-100	21.11	20594	99.8, 99.8
110	12.46	5.257	1.483	3.158	10.42	3.298	0.4945	2.745	100-110	3.908	20598	99.8, 99.8
120	15.75	6.653	1.813	4.319	13.13	7.646	1.320	6.568	110-120	6.064	20604	99.8, 99.8
130	17.55	7.462	2.222	5.311	12.87	9.532	3.222	8.565	120-130	6.825	20610	99.9, 99.9
140	16.90	7.885	4.034	6.056	11.65	10.03	8.738	10.31	130-140	6.841	20617	99.9, 99.9
150	16.08	10.43	7.330	9.389	12.14	12.74	13.11	13.64	140-150	6.630	20624	99.9, 99.9
160	15.59	12.08	10.45	11.13	14.03	14.79	16.48	16.71	150-160	5.922	20630	100, 100
170	15.75	15.27	13.60	13.96	14.93	15.53	16.48	16.87	160-170	4.066	20634	100, 100
180	17.72	17.09	16.22	15.88	17.31	17.25	16.15	15.87	170-180	1.525	20635	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		





5.4 Isocandela Diagram





5.5 Luminous Distribution Intensity Data

Table--1

UNIT: cd

Table with 18 columns (C (DEG) and 17 rows (gamma (DEG) from 0 to 180) containing luminous intensity data in cd.

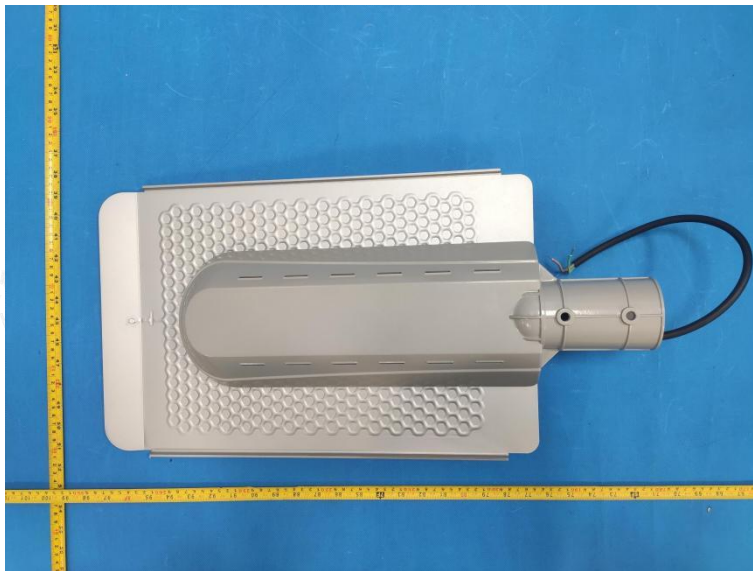




6. Photo of sample

Photo document

Photos of JML-120



Revision History

Revision	Issue Date	Revision Content	Revised By
001	January 07, 2023	At the request of the customer, Change the original report Luminous efficacy to Luminaire efficacy, other information remains unchanged, the original report is invalid.	Zero Huang

----- End of test report -----

