



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-80
Bewertung: <i>Rating:</i>	AC220-240V, 50/60Hz, 80W
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:	Check von/Check by:	Genehmigt von/Approved by:
Zero Huang/ Project Engineer	Ian Luo/ Director	Jesse Liu/ Manager

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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.....	(h): 1.0h
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-80
Rated Inputs.....	AC220-240V, 50/60Hz
Rated Power.....	80W
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

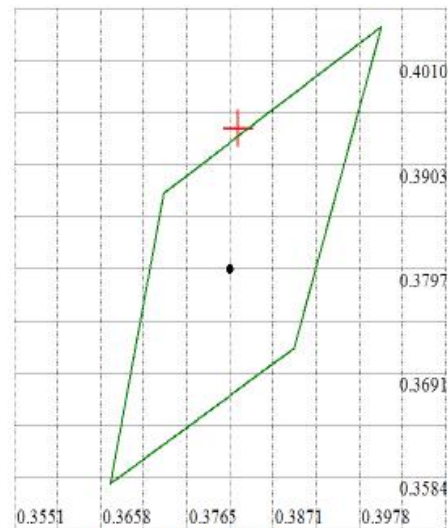
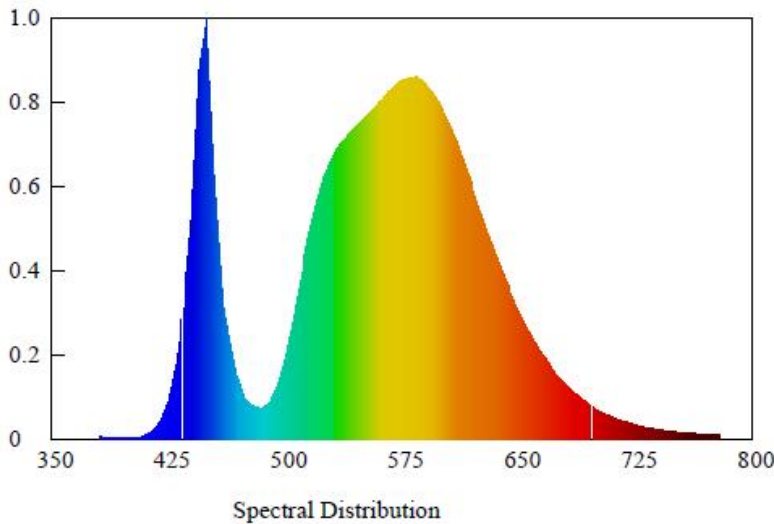
4.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	229.99	50.0	0.3599	0.9740	80.62

Test type	CCT (K)	CRI	Duv	Luminous flux (lm)	Luminaire efficacy(lm/W)
Output	4058	67.8	+0.00717	14447.10	179.2

4.2 Spectrum

Spectroradiometric Parameters



Chromaticity Coordinates: x=0.3828 y=0.3940 u'=0.2199 v'=0.5093

Correlated Color Temperature: 4058 K

Dominant Wavelength: 574.0 nm(E)

Colour Fidelity Index: Rf=68

Gamut Index: Rg=92

Luminous Flux: 14447.10 lm

Purity: 0.3307

Chromaticity Difference: +0.00717Duv

Peak Wavelength: 450.0 nm

Color Ratio: Kr=35.9% Kg=57.8% Kb=6.3%

Bandwidth: 18.1nm

Radiant Flux: 40.653 W

Rendering Index: Ra=67.8

R1=64 R2=74 R3=83 R4=68 R5=63 R6=63 R7=80 R8=48

R9=-48 R10=39 R11=63 R12=30 R13=67 R14=90 R15=57 Re=56





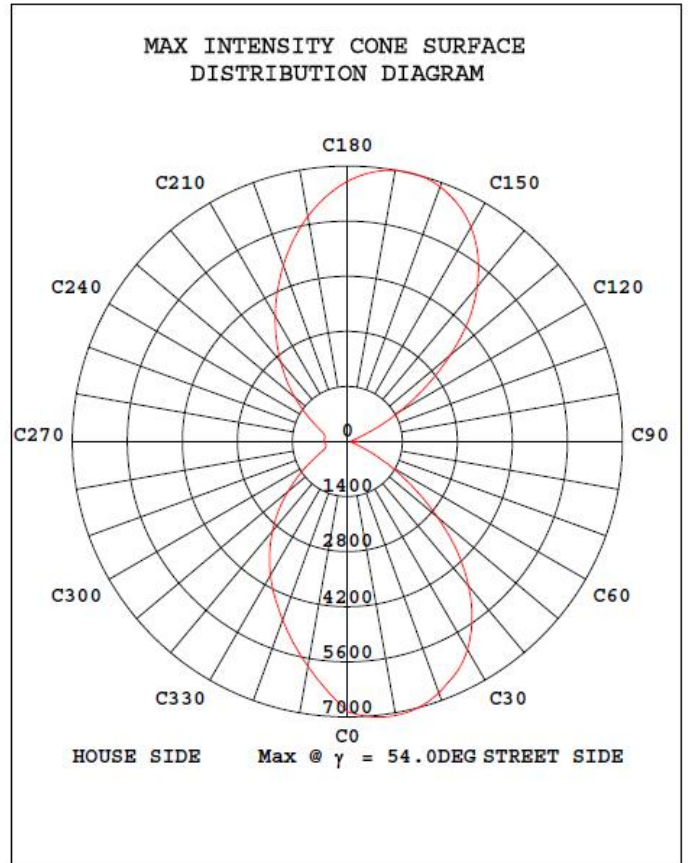
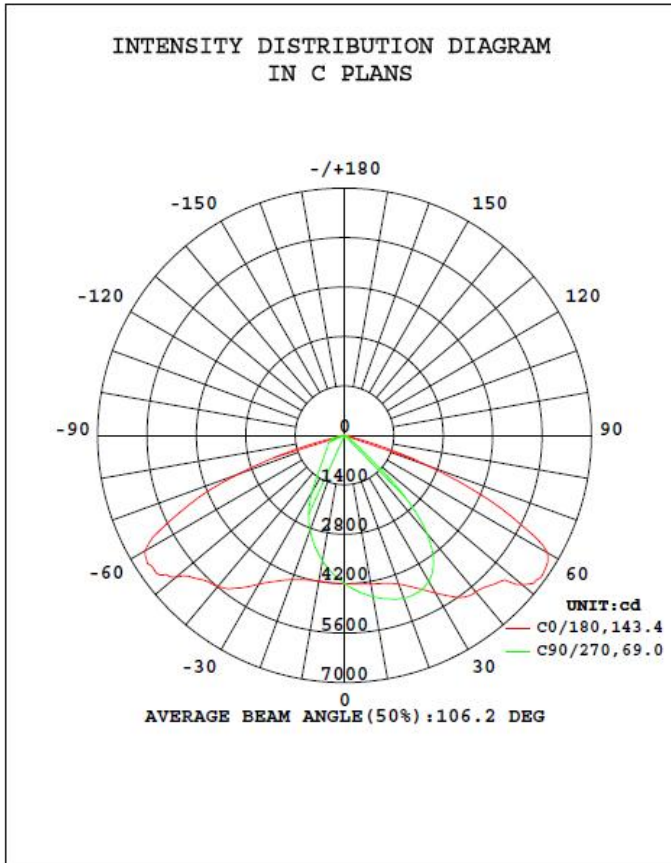
5. Goniophotometer Test results

5.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	230.0	50.01	0.3593	0.9742	80.52

Test type	Total Flux (lm)	Luminaire efficacy(lm/W)	ZL (0~90°)	ZL (80~90°)
Output	14437.5	179.30	99.7%	0.4%

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





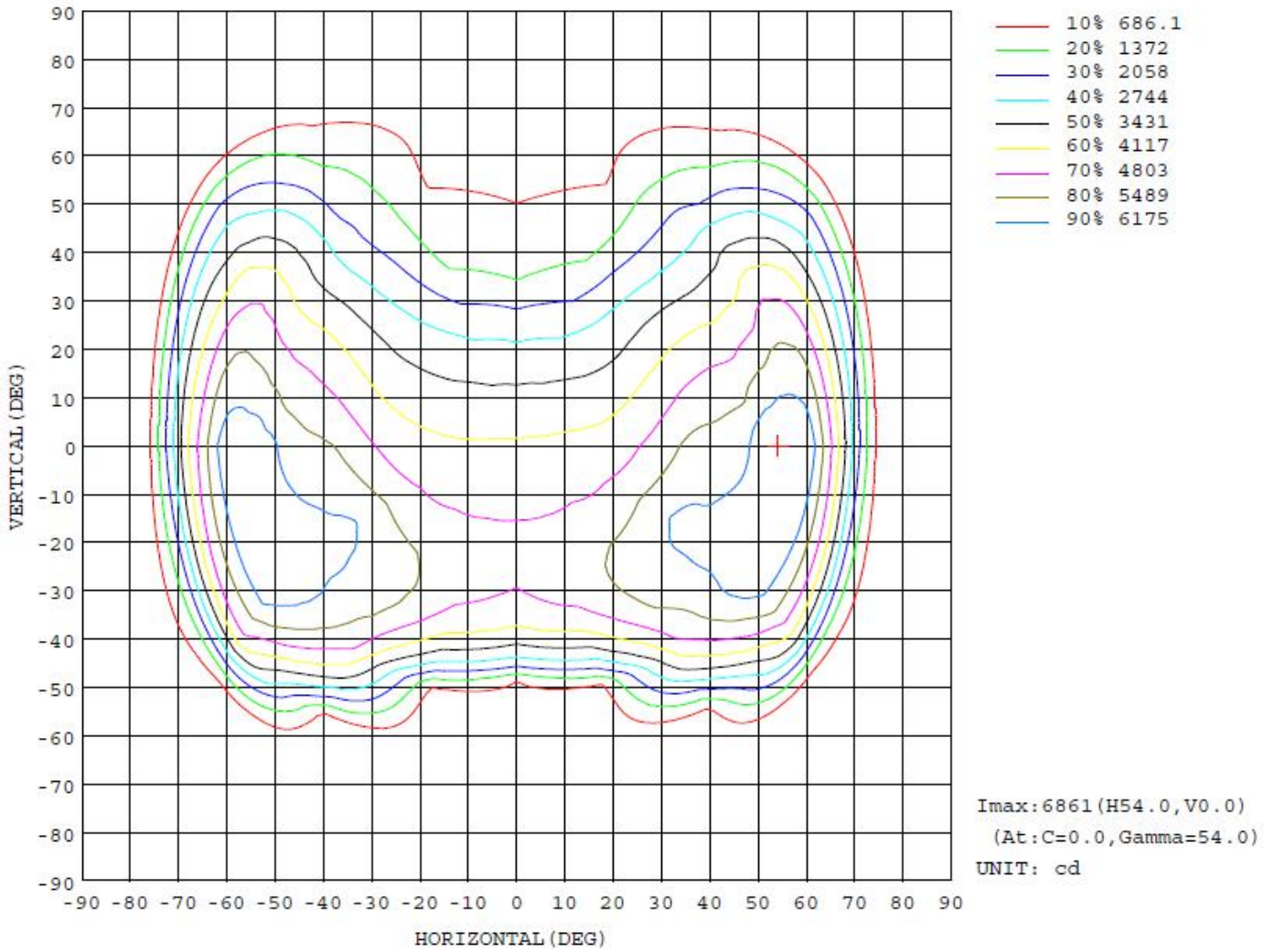
5.3 Zonal Flux Diagram

y	C0	C45	C90	C135	C180	C225	C270	C315	y	Φ zone	Φ total	Flum, lamp
10	4269	4570	4638	4534	4188	3782	3610	3819	0- 10	399.7	399.7	2.77,2.77
20	4482	4954	4904	4870	4346	3382	2865	3431	10- 20	1179	1578	10.9,10.9
30	5154	5624	4776	5501	4863	3031	1855	3204	20- 30	1942	3520	24.4,24.4
40	5784	5709	3641	5813	5584	2736	995.1	3040	30- 40	2661	6181	42.8,42.8
50	6575	4755	546.2	5062	6253	2298	689.7	2617	40- 50	2952	9133	63.3,63.3
60	6645	1944	135.6	2499	6533	1839	556.0	1981	50- 60	2846	11979	83,83
70	2531	99.97	89.12	94.62	3215	953.8	444.1	880.6	60- 70	1927	13906	96.3,96.3
80	170.8	62.52	41.12	53.51	149.5	91.82	42.65	84.86	70- 80	426.9	14333	99.3,99.3
90	74.02	44.42	16.72	46.42	90.94	34.74	22.20	33.03	80- 90	60.97	14394	99.7,99.7
100	3.700	13.36	0.6587	16.09	2.839	0.5780	0.0823	0.5891	90-100	13.56	14408	99.8,99.8
110	9.048	3.128	0.6587	2.238	7.159	1.647	0.2448	2.323	100-110	3.484	14411	99.8,99.8
120	10.53	4.034	0.6587	2.901	9.213	4.860	0.8259	4.894	110-120	3.930	14415	99.8,99.8
130	11.68	4.524	1.233	3.979	9.130	6.593	2.144	6.551	120-130	4.593	14420	99.9,99.9
140	11.68	5.269	2.633	4.635	8.390	7.328	6.261	7.548	130-140	4.747	14424	99.9,99.9
150	11.35	7.077	5.348	6.549	8.966	9.555	9.554	9.617	140-150	4.770	14429	99.9,99.9
160	11.19	8.723	7.567	8.123	10.20	10.70	11.77	11.94	150-160	4.287	14433	100,100
170	11.19	10.69	9.466	9.860	10.94	11.36	11.77	11.85	160-170	2.921	14436	100,100
180	12.50	12.18	11.36	11.27	12.42	12.02	11.19	11.53	170-180	1.086	14437	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.

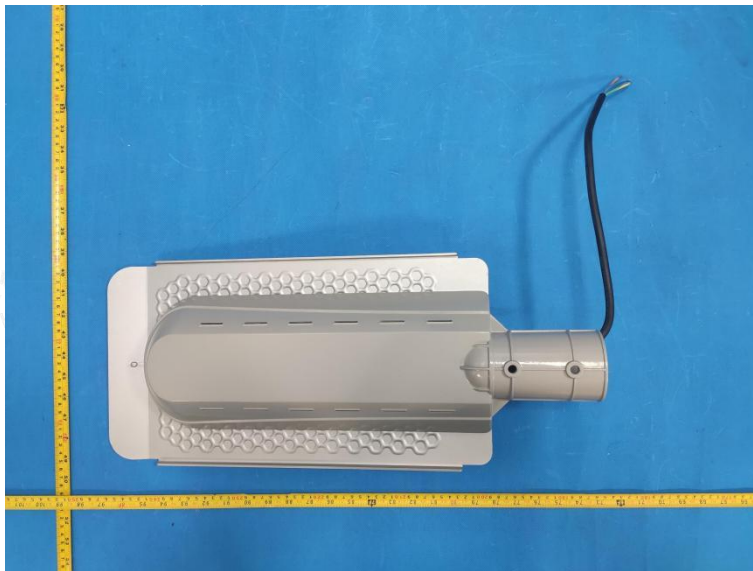




6. Photo of sample

Photo document

Photos of JML-80





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 -----

