



# TEST REPORT

## Of IES LM-79-08

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

<b>Datum der Prüfung:</b> <i>Date of Test:</i>	<b>Datum der Emission:</b> <i>Date of Issue:</i>	<b>Klassifizierung:</b> <i>Classification:</i>	<b>Gegenstand der Prüfung:</b> <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.

<b>Compiled von/Compiled by:</b>	<b>Check von/Check by:</b>	<b>Genehmigt von/Approved by:</b>
Zero Huang/ Project Engineer	Ian Luo/ Director	Jesse Liu/ Manager

**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.**

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*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.....	(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-60
Rated Inputs.....	AC220-240V, 50/60Hz
Rated Power.....	60W
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

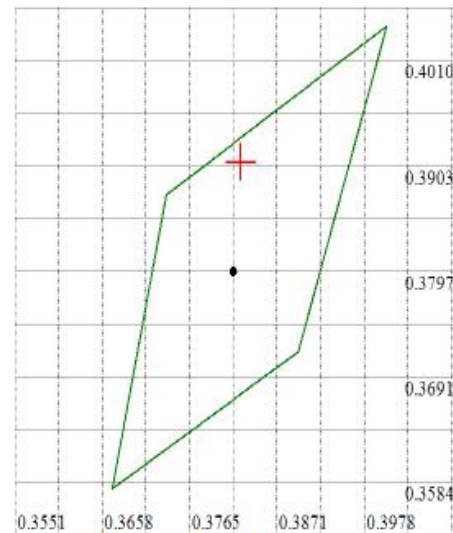
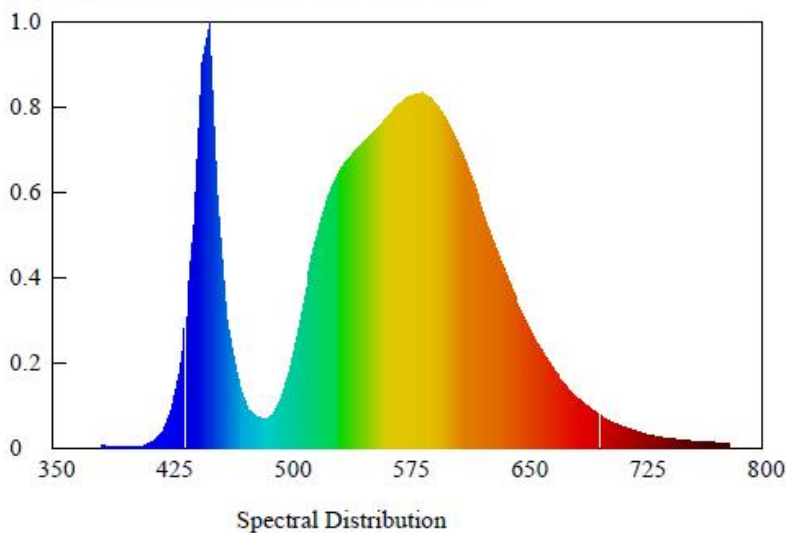
### 4.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	229.90	50.0	0.2565	0.9760	57.57

Test type	CCT (K)	CRI	Duv	Luminous flux (lm)	Luminaire efficacy(lm/W)
Output	4038	68.1	+0.00571	10667.72	185.3

### 4.2 Spectrum

#### Spectroradiometric Parameters



Chromaticity Coordinates: x=0.3827 y=0.3907 u'=0.2212 v'=0.5079

Correlated Color Temperature: 4038 K

Colour Fidelity Index: Rf=68

Luminous Flux: 10667.72 lm

Chromaticity Difference: +0.00571Duv

Color Ratio: Kr=36.2% Kg=57.5% Kb=6.3%

Bandwidth: 18.7nm

Rendering Index: Ra=68.1

R1=65 R2=74 R3=82 R4=68 R5=64 R6=63 R7=80 R8=48

R9=-45 R10=39 R11=63 R12=31 R13=67 R14=90 R15=58 Re=56

Dominant Wavelength: 575.0 nm(E)

Gamut Index: Rg=92

Purity: 0.3211

Peak Wavelength: 450.0 nm

Radiant Flux: 27.765 W



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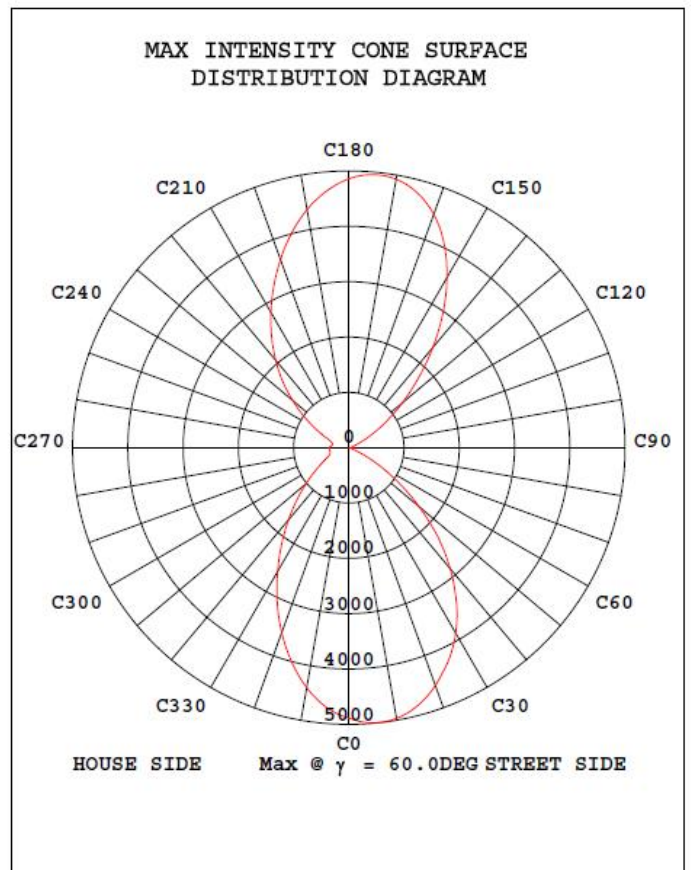
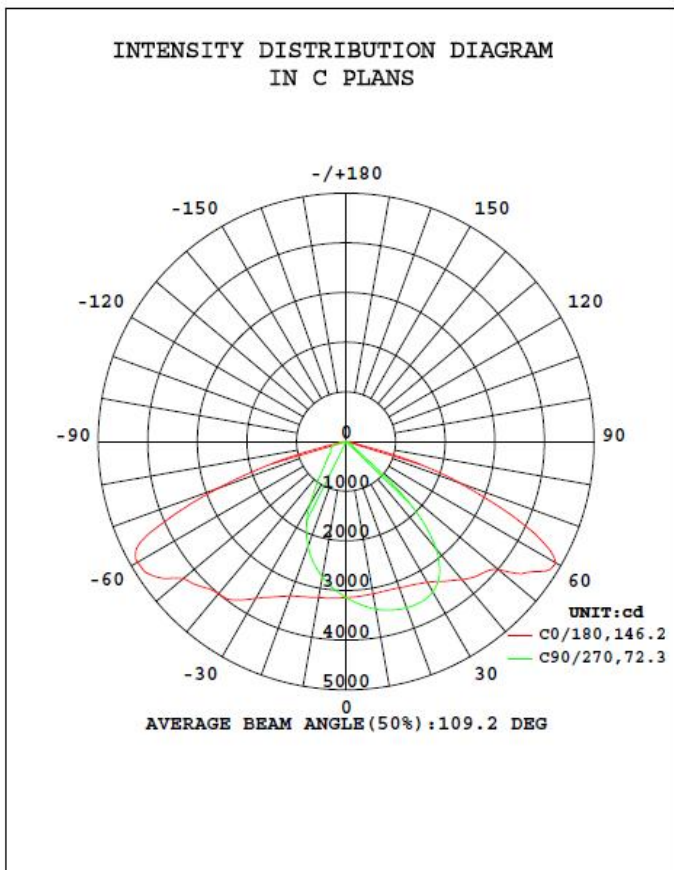
### 5. Goniophotometer Test results

#### 5.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	230.0	50.00	0.2559	0.9764	57.46

Test type	Total Flux (lm)	Luminaire efficacy(lm/W)	ZL (0~90°)	ZL (80~90°)
Output	10660.5	185.53	99.7%	0.5%

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





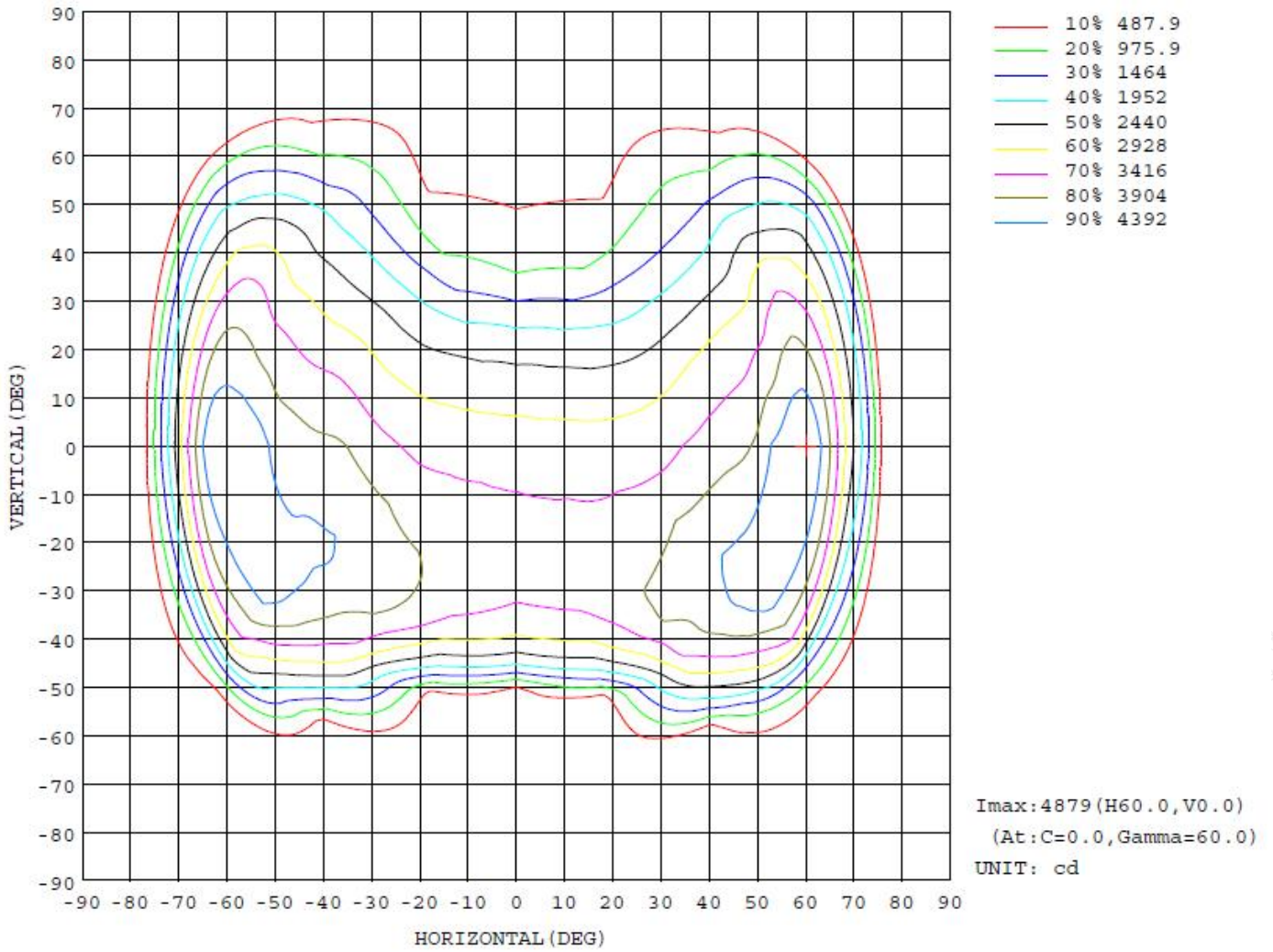
5.3 Zonal Flux Diagram

y	C0	C45	C90	C135	C180	C225	C270	C315	y	Φ zone	Φ total	#lum,lamp
10	3114	3334	3425	3396	3192	2920	2765	2851	0- 10	299.1	299.1	2.81,2.81
20	3133	3488	3565	3601	3308	2671	2249	2507	10- 20	877.1	1176	11.11
30	3272	3674	3491	3922	3645	2424	1458	2128	20- 30	1403	2579	24.2,24.2
40	3629	3924	2823	4120	4005	2294	727.2	1861	30- 40	1865	4444	41.7,41.7
50	4007	3652	467.6	3474	4295	2070	468.6	1601	40- 50	2102	6547	61.4,61.4
60	4884	2280	92.30	1778	4860	1698	363.3	1333	50- 60	2052	8599	80.7,80.7
70	2440	114.0	65.79	79.26	2732	767.5	304.6	611.3	60- 70	1575	10174	95.4,95.4
80	140.4	42.90	26.99	45.40	134.2	101.1	38.66	70.32	70- 80	405.4	10579	99.2,99.2
90	63.07	44.12	10.78	23.71	62.35	31.56	12.06	14.59	80- 90	50.03	10629	99.7,99.7
100	5.592	1.306	0.5901	0.7463	2.890	0.4109	2.292	0.3343	90-100	9.028	10638	99.8,99.8
110	9.259	3.019	0.4932	1.741	6.473	1.798	0	1.664	100-110	2.975	10641	99.8,99.8
120	8.276	3.019	0.4932	1.741	6.473	3.925	0.4932	3.489	110-120	3.189	10644	99.8,99.8
130	8.440	3.339	0.4932	2.239	5.811	4.979	1.729	4.728	120-130	3.325	10648	99.9,99.9
140	8.440	3.999	1.807	2.981	5.326	5.223	4.690	5.889	130-140	3.385	10651	99.9,99.9
150	8.440	5.546	4.109	4.806	5.984	6.285	6.990	7.714	140-150	3.435	10654	99.9,99.9
160	8.440	6.528	5.999	5.886	7.375	7.510	8.631	8.791	150-160	3.126	10658	100,100
170	8.440	7.830	7.719	7.463	7.949	8.079	9.042	9.288	160-170	2.168	10660	100,100
180	9.259	9.140	9.122	8.789	9.341	8.650	9.042	9.041	170-180	0.8193	10661	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			





### 5.4 Isocandela Diagram







5.5 Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) y (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	3144	3144	3144	3144	3144	3144	3144	3144	3144	3144	3144	3144	3144	3144	3144	3144			
5	3126	3184	3239	3273	3294	3293	3270	3222	3165	3101	3037	2994	2968	2977	3003	3069			
10	3114	3224	3334	3392	3425	3426	3396	3310	3192	3055	2920	2818	2765	2783	2851	2988			
15	3110	3276	3416	3474	3513	3518	3505	3409	3238	3023	2803	2616	2533	2565	2685	2899			
20	3133	3358	3488	3533	3565	3585	3601	3523	3308	2998	2671	2382	2249	2308	2507	2831			
25	3183	3460	3576	3571	3567	3615	3711	3706	3452	3028	2532	2093	1904	1999	2321	2797			
30	3272	3601	3674	3565	3491	3612	3922	3969	3645	3092	2424	1767	1458	1639	2128	2794			
35	3438	3856	3806	3466	3281	3523	4080	4281	3898	3212	2359	1418	1029	1239	1979	2842			
40	3629	4130	3924	3184	2823	3191	4120	4355	4005	3286	2294	1097	727	913	1861	2927			
45	3796	4342	3941	2618	1995	2509	3854	4514	4132	3233	2195	790	572	666	1725	3003			
50	4007	4577	3652	1611	468	1349	3474	4559	4295	3272	2070	595	469	552	1601	3029			
55	4575	4737	3184	284	159	266	2828	4618	4732	3264	1908	483	388	459	1493	3080			
60	4884	4414	2280	124	92.3	140	1778	4301	4860	3418	1698	411	363	400	1333	3318			
65	3936	3557	836	86.6	77.0	90.1	483	3444	4388	3052	1257	373	344	358	1003	2859			
70	2440	1344	114	61.9	65.8	63.3	79.3	1569	2732	2199	768	310	305	299	611	2079			
75	747	144	58.3	41.1	42.9	44.1	53.3	127	1009	1061	364	191	182	177	285	586			
80	140	57.9	42.9	21.6	27.0	22.2	45.4	47.0	134	130	101	48.6	38.7	46.4	70.3	109			
85	120	46.8	47.8	11.6	16.4	12.1	31.1	48.4	107	76.8	39.8	23.3	15.0	23.7	25.9	77.8			
90	63.1	35.1	44.1	7.54	10.8	7.17	23.7	48.4	62.4	49.3	31.6	14.2	12.1	13.2	14.6	48.8			
95	3.90	3.39	1.32	1.05	1.37	1.70	0.75	1.83	2.77	1.30	0.41	5.41	3.53	6.43	0.33	1.34			
100	5.59	6.12	1.31	0.74	0.59	0.50	0.75	8.17	2.89	1.71	0.41	0.57	2.29	0.32	0.33	2.12			
105	9.09	6.42	3.41	0.66	0.49	0.49	2.98	6.35	6.64	4.63	0.82	0.00	0.00	0.00	0.75	5.09			
110	9.26	6.42	3.02	0.66	0.49	0.49	1.74	5.35	6.47	4.72	1.80	0.16	0.00	0.00	1.66	5.18			
115	8.28	6.42	3.02	0.66	0.49	0.49	1.74	5.51	6.47	5.78	3.02	0.49	0.00	0.25	2.58	5.93			
120	8.28	6.50	3.02	0.66	0.49	0.49	1.74	5.43	6.47	6.58	3.92	1.31	0.49	0.91	3.49	6.77			
125	8.36	6.50	3.02	0.66	0.49	0.49	1.91	5.43	5.90	6.42	4.41	2.13	0.91	1.32	3.99	6.77			
130	8.44	6.50	3.34	1.23	0.49	0.82	2.24	5.60	5.81	5.76	4.98	2.96	1.73	2.07	4.73	6.77			
135	8.44	6.50	3.92	1.72	1.23	1.40	2.32	5.60	5.33	5.53	5.06	4.10	3.29	3.46	5.40	6.77			
140	8.44	6.50	4.00	2.54	1.81	2.30	2.98	5.60	5.33	5.53	5.22	5.09	4.69	4.94	5.89	6.77			
145	8.44	6.50	4.57	3.76	2.79	3.21	3.90	5.60	5.49	5.77	5.63	6.23	5.84	6.18	6.64	7.10			
150	8.44	6.66	5.55	4.75	4.11	4.19	4.81	5.60	5.98	6.26	6.29	7.06	6.99	7.17	7.71	7.60			
155	8.44	6.99	5.96	5.41	5.10	5.10	5.39	5.76	6.56	6.75	7.02	7.63	8.06	8.23	8.21	8.27			
160	8.44	7.07	6.53	6.06	6.00	5.60	5.89	6.10	7.37	7.16	7.51	8.11	8.63	8.81	8.79	8.52			
165	8.44	7.55	6.94	6.80	6.74	6.42	6.63	6.93	7.46	7.40	7.59	8.12	8.63	8.89	9.04	8.69			
170	8.44	7.88	7.83	7.86	7.72	7.32	7.46	7.76	7.95	7.89	8.08	8.77	9.04	9.30	9.29	8.85			
175	9.18	8.21	8.73	8.69	8.55	8.31	8.54	8.35	9.01	8.86	8.73	9.26	9.04	9.30	9.20	8.85			
180	9.26	8.45	9.14	9.02	9.12	8.89	8.79	8.52	9.34	9.18	8.65	9.18	9.04	9.22	9.04	9.02			

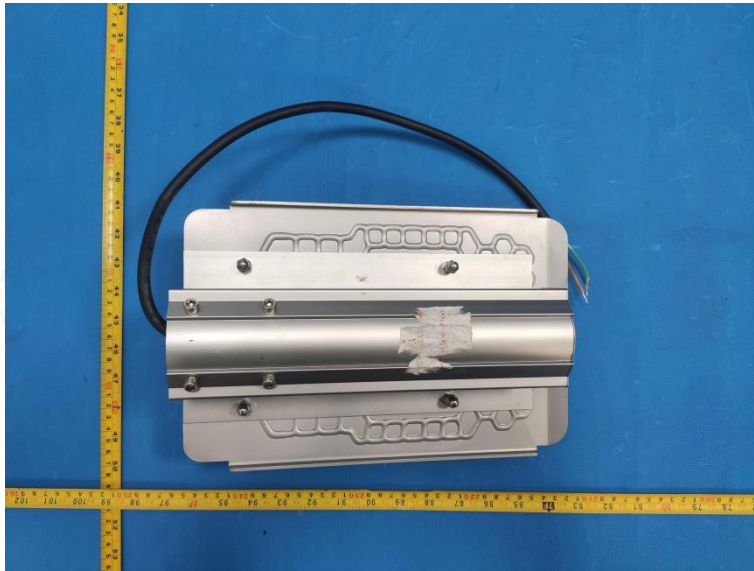




6. Photo of sample

Photo document

Photos of JML-60





**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 -----

