



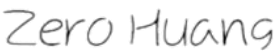

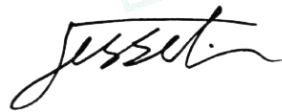
TEST REPORT

Of IES LM-79-08

Kunde: <i>Client:</i>	Aurora (Shanghai) Technology Co., Ltd
Adresse: <i>Address:</i>	Room 221, 2F, Building 6, No.7001, Zhongchun Road, Minhang District, Shanghai
Hersteller: <i>Manufacturer:</i>	Aurora (Shanghai) Technology Co., Ltd
Adresse: <i>Address:</i>	Room 221, 2F, Building 6, No.7001, Zhongchun Road, Minhang District, Shanghai
Name der Marke: <i>Brand Name:</i>	N/A
Beschreibung des Produkts: <i>Product Description:</i>	LED Recessed spot Light
Modelle: <i>Models:</i>	IS0002-LED07-3090-36D
Bewertung: <i>Rating:</i>	AC220V, 50/60Hz, 7W CCT:3000K
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>
2023-05-31-2023-06-05	2023-09-19	Commission Test	IES LM-79-08

Prüflabor (Testlabor) / Testing Laboratory:
Shenzhen Southern LCS Compliance Testing Laboratory Ltd.
Add: 101-201, No.39 Buliding, Xialang Industrial Zone, Heshuikou Community, Matian Street Guangming New District, Shenzhen,Guangdong Prov. 518000 China.

Compiled von/Compiled by:	Check von/Check by:	Genehmigt von/Approved by:
		
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.

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.





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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 self-absorption correction used for integrating sphere, then 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 Recessed spot Light
Model Number.....	IS0002-LED07-3090-36D
Rated Inputs.....	AC220V
Rated Power.....	7W
Declared CCT.....	3000K
LED Manufacturer.....	N/A
LED Model.....	N/A
LED Package, Array or Module.....	N/A
Forward current of the LED chip.....	N/A
Date of Receipt Samples.....	May 29, 2023
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	2022/06/22	2023/06/21
EVERFINE	Digital Power Meter	SLCS-S-103	PF2010	2022/06/22	2023/06/21
EVERFINE	AC Testing Power Source	SLCS-S-115	DPS1060	2022/06/22	2023/06/21
EVERFINE	Total Spectral Radiant Flux Standard Lamp	SLCS-S-143	D908S	2022/07/04	2023/07/03
EVERFINE	2 Meter Integrating Sphere	SLCS-S-312	HAAS2000	2022/09/19	2023/09/18
EVERFINE	Digital Power Meter	SLCS-S-309	PF9810	2022/09/19	2023/09/18
EVERFINE	AC Testing Power Source	SLCS-S-310	DPS1005	2022/09/19	2023/09/18
EVERFINE	DC Testing Power Source	SLCS-S-311	WY605	2022/09/19	2023/09/18
OSRAM	Standard Lamp	SLCS-S-313	DC24V/50W	2022/10/09	2023/10/08





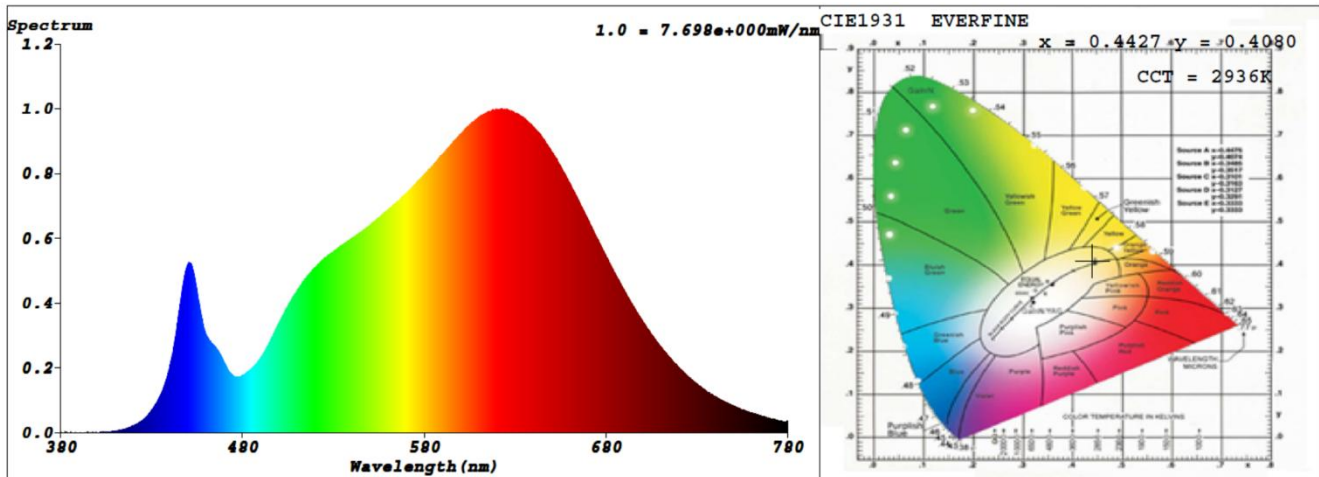
4. Integrating Sphere Test Results

4.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	219.97	50.0	0.0649	0.4828	6.891

Test type	CCT (K)	CRI	Duv	Luminous flux (lm)	Luminous efficacy(lm/W)
Output	2936	91.8	7.79e-04	429.72	62.36

4.2 Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4427, y = 0.4080 / u' = 0.2526, v' = 0.5238$ (duv=7.79e-04) Dx,Dy:0.0012,0.0024
 CCT= 2936K Prcp WL: Ld=582.8nm Purity=55.3%
 Peak WL: Lp=623nm FWHM: =166.0nm Ratio:R=24.5% G=73.1% B=2.4%
 Render Index: Ra = 91.8

R1 =92 R2 =94 R3 =96 R4 =93 R5 =91 R6 =93 R7 =93
 R8 =83 R9 =59 R10=86 R11=93 R12=77 R13=92 R14=97 R15=88
 LEVEL:OUT





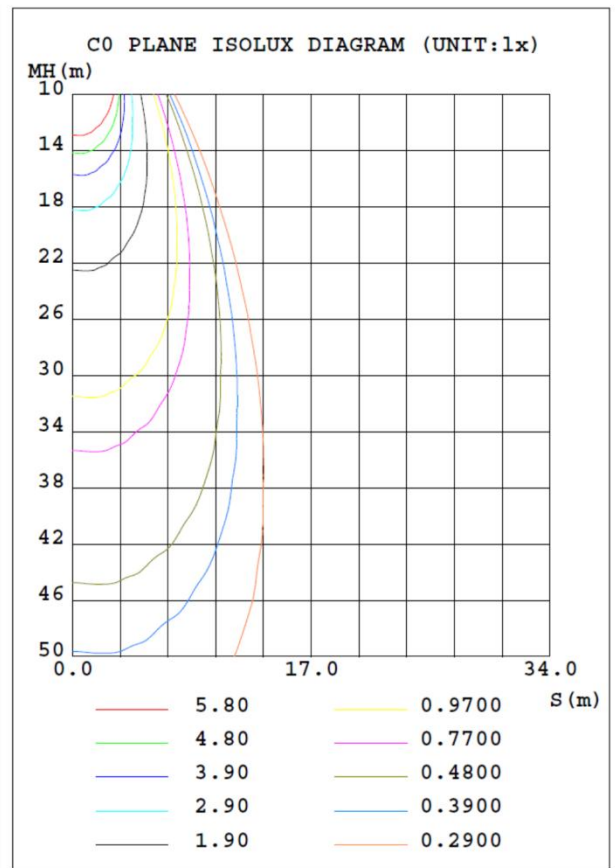
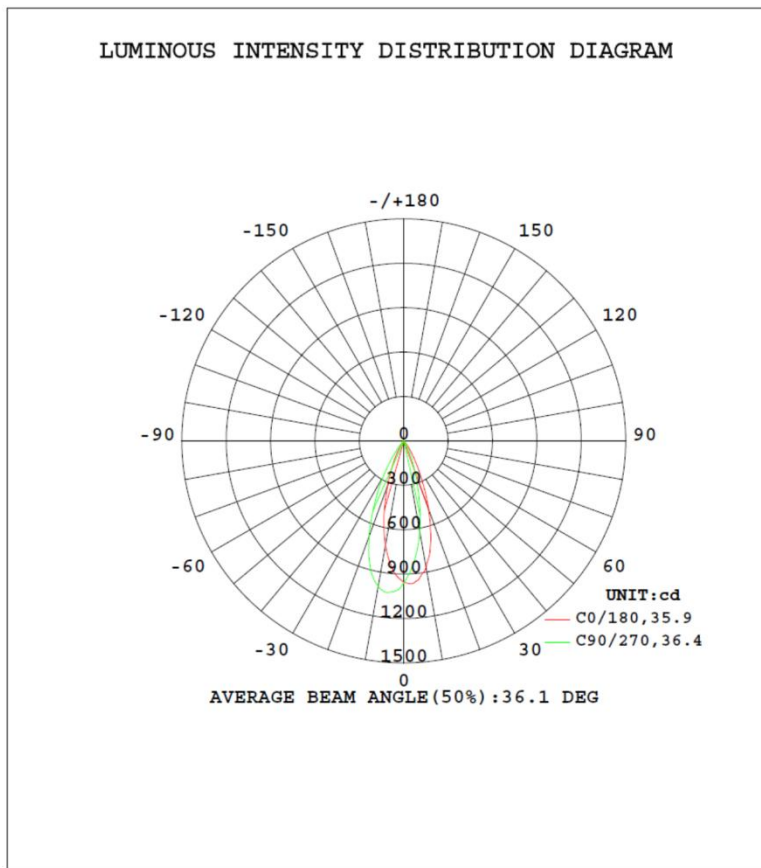
5. Goniophotometer Test results

5.1 Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	220.06	50.00	0.0638	0.4826	6.7815

Test type	Total Flux (lm)	Luminous efficacy(lm/W)	Imax (cd)	Spacing Criteria (0~180°)	Spacing Criteria (90~270°)
Output	423.767	62.49	1034	0.53	0.76

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





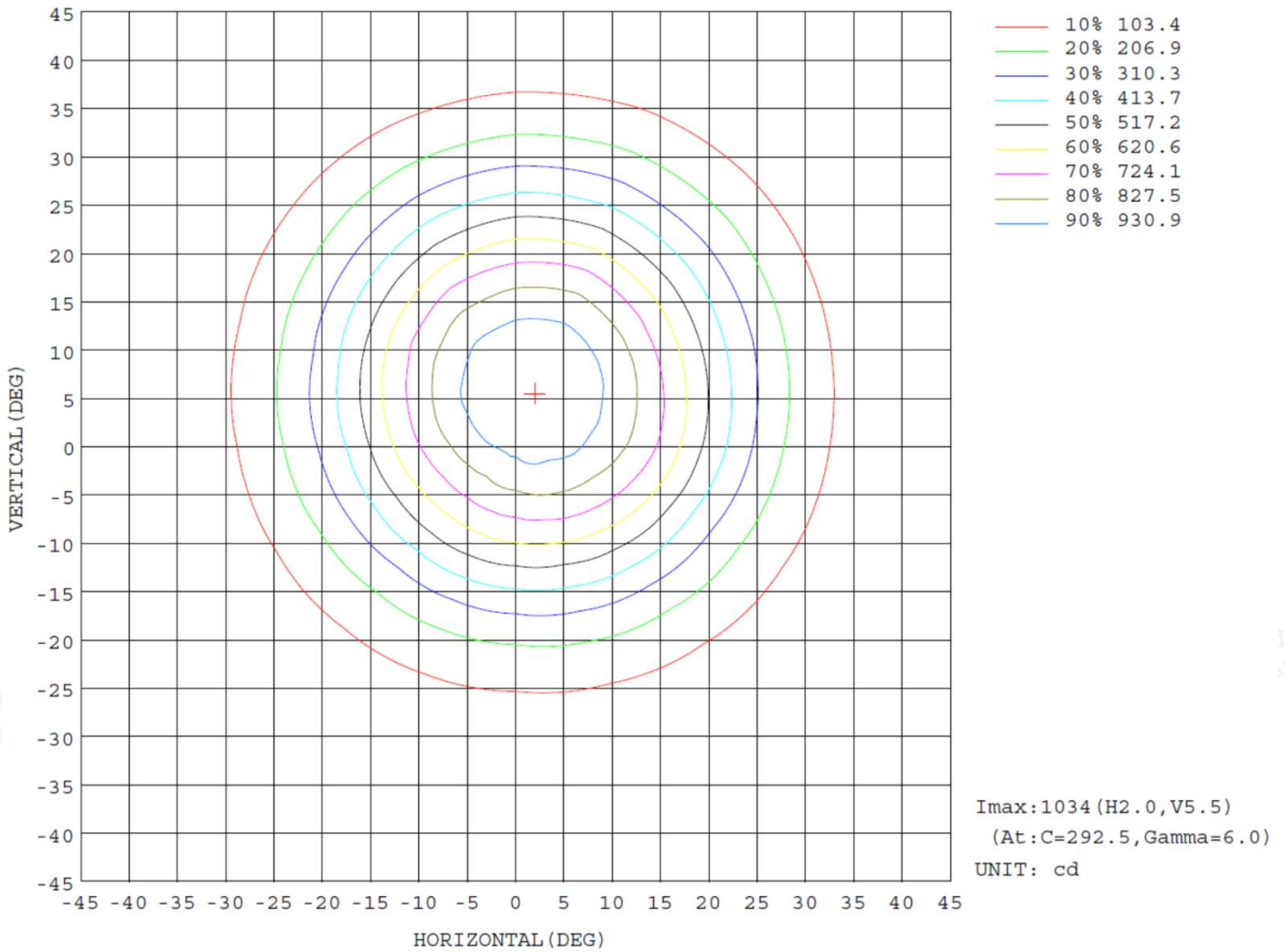
5.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	867.4	705.1	621.3	619.0	716.2	876.8	996.9	981.3	0- 10	83.65	83.65	19.7,19.7
20	486.6	301.7	221.3	228.1	324.3	513.8	691.1	666.0	10- 20	170.4	254.0	59.9,59.9
30	149.8	71.70	47.22	50.53	85.81	173.0	280.0	261.4	20- 30	120.3	374.3	88.3,88.3
40	22.80	8.886	4.685	5.287	11.11	27.48	54.48	49.73	30- 40	42.22	416.6	98.3,98.3
50	1.252	0.9184	0.8575	0.8770	0.0777	0.8358	3.001	2.534	40- 50	6.338	422.9	99.8,99.8
60	0.5448	0.6877	0.5467	0.5581	0	0	0	0	50- 60	0.4358	423.3	99.9,99.9
70	0.2342	0.1555	0.0780	0.0023	0	0	0	0	60- 70	0.1603	423.5	99.9,99.9
80	0	0	0	0	0	0	0	0	70- 80	0.0090	423.5	99.9,99.9
90	0	0	0	0	0	0	0	0	80- 90	0	423.5	99.9,99.9
100	0	0	0	0	0	0	0	0	90-100	0	423.5	99.9,99.9
110	0	0	0	0	0	0	0	0	100-110	0	423.5	99.9,99.9
120	0	0	0	0	0	0	0	0	110-120	0	423.5	99.9,99.9
130	0	0	0	0	0	0	0	0	120-130	0	423.5	99.9,99.9
140	0	0	0	0	0.0003	0	0	0	130-140	0.0000	423.5	99.9,99.9
150	0	0	0	0	0.3114	0	0	0	140-150	0.0046	423.5	99.9,99.9
160	0	0.2273	0.4667	0.4780	1.013	0	0	0	150-160	0.0571	423.6	100,100
170	0.4663	0.9894	1.247	1.354	1.373	0	0	0	160-170	0.1295	423.7	100,100
180	1.244	1.224	1.403	1.276	1.477	0	0	0	170-180	0.0756	423.8	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		





5.4 Isocandela Diagram





5.5 Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) \ γ (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	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958			
5	952	916	866	839	815	803	812	837	874	921	959	1007	1025	1030	1022	989			
10	867	784	705	654	621	606	619	655	716	795	877	956	997	1004	981	926			
15	706	602	502	439	403	392	407	452	519	620	725	827	877	895	861	792			
20	487	381	302	252	221	215	228	267	324	410	514	621	691	705	666	578			
25	290	214	158	125	109	107	115	136	181	244	319	408	468	479	444	373			
30	150	105	71.7	55.6	47.2	45.6	50.5	62.1	85.8	122	173	235	280	288	261	208			
35	66.8	42.8	27.5	19.6	16.4	16.0	18.2	22.6	33.8	52.0	77.8	111	138	145	128	97.6			
40	22.8	14.3	8.89	6.12	4.68	4.23	5.29	7.67	11.1	17.1	27.5	41.9	54.5	57.8	49.7	36.8			
45	6.72	3.35	1.85	1.40	1.25	1.19	1.28	1.61	2.07	4.60	8.23	12.5	16.1	17.2	15.5	11.3			
50	1.25	1.01	0.92	0.85	0.86	0.87	0.88	0.87	0.08	0.15	0.84	1.84	3.00	3.43	2.53	1.18			
55	0.63	0.78	0.77	0.77	0.78	0.79	0.72	0.79	0.08	0.00	0.00	0.00	0.08	0.00	0.00	0.00			
60	0.54	0.70	0.69	0.62	0.55	0.56	0.56	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
65	0.47	0.39	0.31	0.23	0.31	0.16	0.24	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
70	0.23	0.16	0.16	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.23	0.00	0.00	0.00	0.00	0.00	0.00			
155	0.00	0.00	0.00	0.00	0.15	0.16	0.23	0.08	0.70	0.62	0.00	0.00	0.00	0.00	0.00	0.00			
160	0.00	0.08	0.23	0.31	0.47	0.55	0.48	0.32	1.01	1.01	0.00	0.00	0.00	0.00	0.00	0.00			
165	0.16	0.31	0.46	0.54	0.78	0.71	0.96	0.87	1.24	1.41	0.00	0.00	0.00	0.00	0.00	0.00			
170	0.47	0.62	0.99	1.16	1.25	1.10	1.35	1.27	1.37	1.80	0.00	0.00	0.00	0.00	0.00	0.00			
175	1.01	1.17	1.15	1.32	1.25	1.26	1.28	1.35	1.55	2.19	0.00	0.00	0.00	0.00	0.00	0.00			
180	1.24	1.32	1.22	1.32	1.40	1.34	1.28	1.35	1.48	2.58	0.00	0.00	0.00	0.00	0.00	0.00			

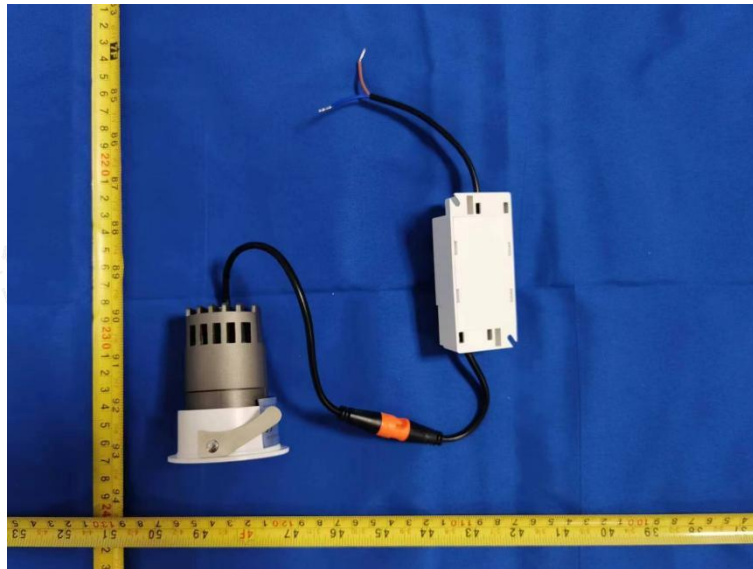




6. Photo of sample

Photo document

Photos of IS0002-LED07-3090-36D





Revision History

Revision	Issue Date	Revision Content	Revised By
001	September 19, 2023	According to the customer's request,Modify the product description,product description: LED Point Light, Modify the product description: LED Recessed spot Light.Other information remains unchanged, the original report(LCSB051823028S) is invalid.	Zero Huang

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

