



TEST REPORT

Of IES LM-82-12

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-82-12: Approved Method for the Characterization of LED Light Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature
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>
2023-06-29	2023-09-19	Commission Test	IES LM-82-12

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.

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1. Test Method

Ambient Condition.....	24.9°C
Number of hours operated prior to Measurement	(h): 0h
Stabilization time	(h): 1h/time
Orientation(burning position) of SSL product during test.....	Down
Test Item.....	Room Temperature Initial Measurement $T_b = T_{b,0}$ (76.2° C)
Test Method	The sample was tested according to the IES LM-79-2008. Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25° C ±1°C. 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.....	Measurement at First Elevated Temperature $T_{b,1} = T_{b,0} + 25^\circ\text{C}$ (101.2° C)
Test Method.....	The sample was tested with a device that controls the temperature T_b of the UUT, so that T_b reaches no lower than $T_b = T_{b,0} + 25^\circ\text{C}$. Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 60° C ± 1° C. 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.....	Measurement at Second Elevated Temperature $T_{b,2} = 88.5^\circ\text{C}$
Test Method.....	The sample was tested with a device that controls the temperature T_b of the UUT, so that T_b reaches no lower than $T_{b,0} = 76.2^\circ\text{C}$. Photometric paramters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 40° C ± 1° C. 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.





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.....:	June 27, 2023
Quantity of Receipt Samples.....:	1 unit

3. Test equipment list

Description	Equipment ID	Model	Calibration Date	Calibration Due Date
2 Meter Integrating Sphere	SLCS-S-312	HAAS2000	2023/06/15	2024/06/14
Digital Power Meter	SLCS-S-309	PF9810	2023/06/15	2024/06/14
AC Testing Power Source	SLCS-S-310	DPS1005	2023/06/15	2024/06/14
DC Testing Power Source	SLCS-S-311	WY605	2023/06/15	2024/06/14
Standard Lamp	SLCS-S-313	DC24V/50W	2022/10/09	2023/10/08





4. Test results

4.1 Room Temperature Initial Measurement $T_{b,0} = T_{b,0} (76.2^\circ \text{C})$:Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	220.05	50.0	0.0646	0.4828	6.868

Test type	Luminous Flux (lm)	Luminous efficacy(lm/w)	CCT(K)	Color Rendering Index (Ra)
Output	515.66	75.08	2962	91.9

4.2 Measurement at First Elevated Temperature $T_{b,1} = T_{b,0} + 25^\circ \text{C} (101.2^\circ \text{C})$:Test Data

Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	220.05	50.0	0.0605	0.4831	6.428

Test type	Luminous Flux (lm)	Luminous efficacy(lm/w)	CCT(K)	Color Rendering Index (Ra)
Output	455.68	70.89	2967	92.0

4.3 Measurement at Second Elevated Temperature $T_{b,2} = 88.5^\circ \text{C}$: Test Data

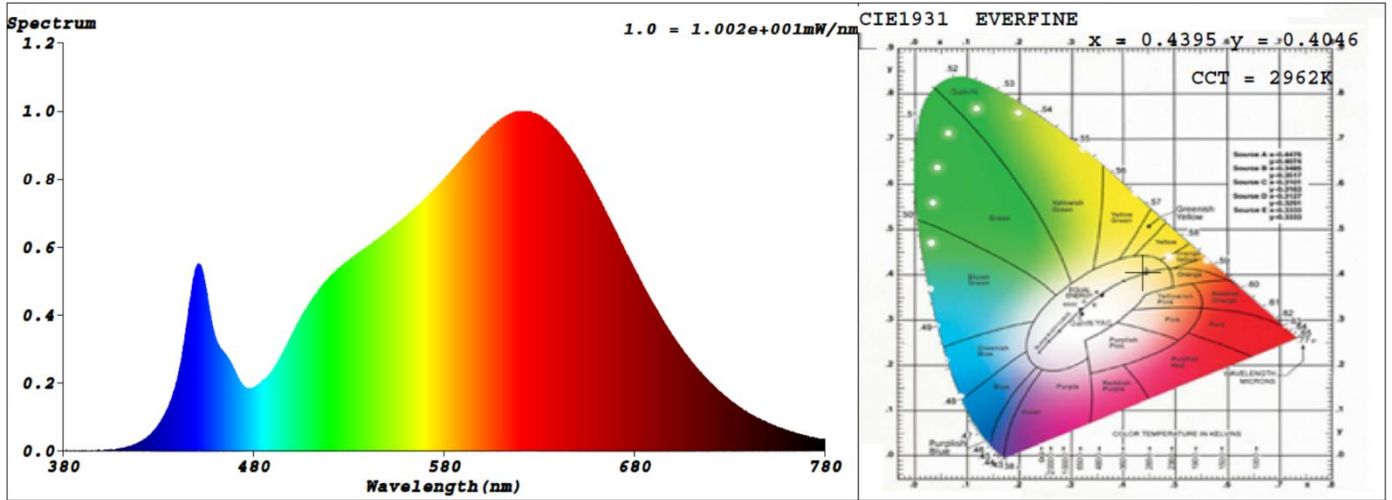
Test type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power Factor	Power (W)
Input	220.05	50.0	0.0627	0.4830	6.659

Test type	Luminous Flux (lm)	Luminous efficacy(lm/w)	CCT(K)	Color Rendering Index (Ra)
Output	487.84	73.26	2965	91.9





4.4 Spectrum



4.5 Result Summary

	Room Temperature Initial Measurement $T_{b,0}$	First Elevated Temperature $T_{b,1} = T_{b,0} + 25^\circ\text{C}$	Second Elevated Temperature $T_{b,2} = 88.5^\circ\text{C}$
Measured Temperature of T_b ($^\circ\text{C}$)	76.2	101.2	88.5
Input Power (W)	6.868	6.428	6.659
Input Voltage (V)	220.05	220.05	220.05
Input Current (A)	0.0646	0.0605	0.0627
Luminous Flux (lm)	515.66	455.68	487.84
Luminous Efficacy (lm/W)	75.08	70.89	73.26
CIE Chromaticity (u')	0.2520	0.2517	0.2518
CIE Chromaticity (v')	0.5220	0.5226	0.5223
Correlated Color Temperature (CCT)	2962	2967	2965





5. UUT temperature monitoring point, Tb

Photo document

Photos of IS0002-LED07-3090-36D

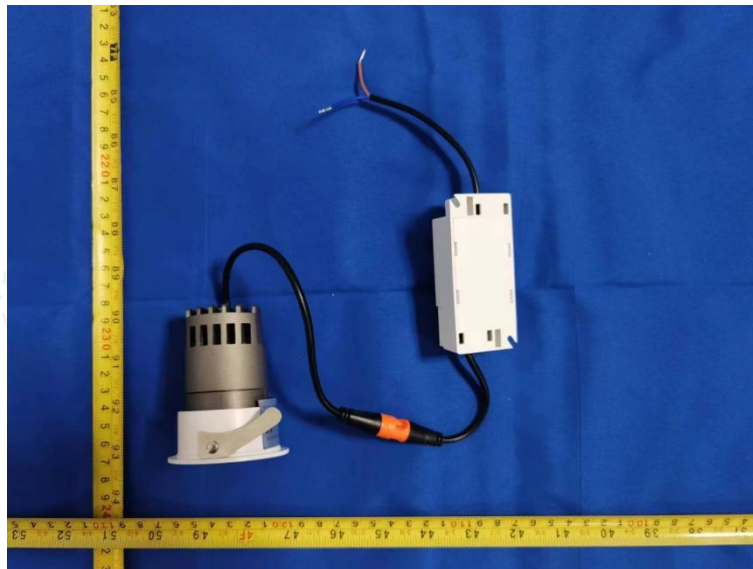




6. Photo of sample

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(LCSB051823023S) is invalid.	Zero Huang

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

