

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

240729032GZU-012

ISSUE DATE

09 October 2024

REVISION DATE

Modification 1: 28 November 2024

NUMBER OF PAGES

10

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 240729032GZU-012
Modification 1: 28 November 2024

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLTB34227XX

Remark: "XX" are denoted appearance color.

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

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<u>TEST:</u>	Electrical and Photometric as required to the IES LM-79 test standard.
<u>AUTHORIZATION:</u>	The testing performed was authorized by signed quote number: QGZ240726006.
<u>STANDARDS USED:</u>	The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:
IES LM-79-19	Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI C78.377-2017 (R2022)	Specifications of the Chromaticity of Solid State Lighting Products
<u>DESCRIPTION OF SAMPLE:</u>	The client submitted one sample of model SLTB34227XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S240729032-012.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	Guangzhou Xiongyi Precision Metalworking Co., Ltd Hantang Industrial Zone, Langbian Village, Shiji Town, Panyu District, Guangzhou City, Guangdong Province, China 511450
<u>DATES OF TESTS:</u>	12 August 2024
<u>ISSUED BY:</u>	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
<u>TEST LOCATION:</u>	Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China

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TEST REPORT

SUMMARY

Model Number:	SLTB34227XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLTB34227XX

Criteria	Result
Correlated Color Temperature (CCT)	2604 K
Color Rendering Index (CRI)	93
R9	57
Chromaticity Coordinate (x)	0.4648
Chromaticity Coordinate (y)	0.4070
Chromaticity Coordinate (u')	0.2674
Chromaticity Coordinate (v')	0.5267

Remark:

Modification 1: Based on and superseded the previous report 240729032GZU-012 issued on 09 October 2024, correct the manufacturer information on page 2 of the report, Correct the applicant information on page 1 and 2 of the report.

***** End of Page *****

EQUIPMENT LIST

Equipment Used	Model Number	Control Number
Two Meter Integrating Sphere System	Sensing – 2M	SA063-12
Integration Sphere	Φ2m	SA063-12-01
Frequency power supply	APW-105N	SA063-12-05
High Accuracy Plant Spectroradiometer	PMS-2000P	SA063-12-25
Standard Lamp	D204	SA063-12-27
Power Meter	WT-310E	SA011-234
Temperature Meter	S500-TH	SA047-230

GENERAL REMARK

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When determining for test conclusion, measurement uncertainty of tests has been considered.

Throughout this report a ☐ comma ☒ point is used as the decimal separator.

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TEST METHOD

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IES LM-79

Light Distribution and Output Measurements

Light Distribution and total light output (luminous flux) were measured using a Go-R5000 Type-C Rotating Mirror Goniophotometer. Temperature 25°C and relative humidity of 60% was measured at a position in the testing laboratory.

The lamp rotates only around the fixed vertical axle in the prescribed burning position. The lamp and mirror permit the measurement of luminous intensity at the direction of any horizontal or vertical angle without tilting the lamp. The lamp was allowed to stabilize before measurements were made.

Chromaticity Measurements

Chromaticity was measured using a 2 meters integrating sphere spectral lamp measurement system, 4π geometry, with an interior coating reflectance no less than 95 %. Temperature was measured at a position inside the sphere shielded from direct light. Relative humidity of 65% was measured at a position in the testing laboratory.

Spectral radiant flux measurements were made using spectroradiometer attached to the detector port of the integrating sphere. Each lamp was allowed to stabilise before measurements were made. The calibration of the integrating sphere spectroradiometer system is by the reference/standard lamps which are traceable to National Institute of Metrology P.R. CHINA. Lamp efficacy (lumens per watt) for each lamp model was then computed based on the luminous flux result. Electrical measurements including voltage, power and power factor were measured using YOKOGAWA - Digital Power Meter., model WT310E.

Correction factor (self-absorption) has been considered when doing measurement.

Standard lamp used for Goniophotometer method:

Model: D215S

Current: 4.809A DC

Standard lamp used for integrating sphere:

Model: D204

Current: 3.948A DC

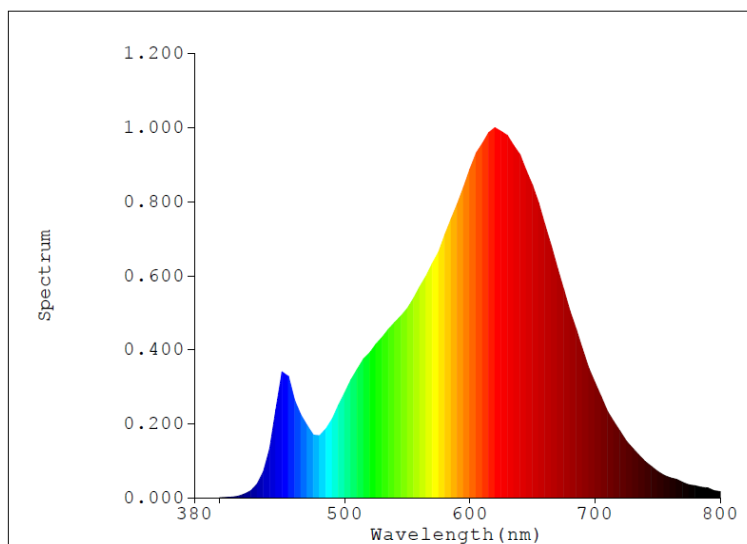
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RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLTB34227XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0006	480	1.2051	580	5.1157	680	3.6254	780	0.2317
385	0.0001	485	1.3424	585	5.4200	685	3.2731		
390	0.0008	490	1.5346	590	5.7121	690	2.8897		
395	0.0011	495	1.7983	595	6.0344	695	2.5134		
400	0.0027	500	2.0372	600	6.3783	700	2.2304		
405	0.0058	505	2.2928	605	6.7024	705	1.9578		
410	0.0147	510	2.4936	610	6.8897	710	1.6736		
415	0.0328	515	2.7019	615	7.0974	715	1.4786		
420	0.0702	520	2.8230	620	7.1913	720	1.2936		
425	0.1401	525	2.9849	625	7.1215	725	1.0993		
430	0.2703	530	3.1173	630	7.0445	730	0.9593		
435	0.5073	535	3.2752	635	6.8433	735	0.8292		
440	0.9472	540	3.4066	640	6.6694	740	0.7019		
445	1.7132	545	3.5383	645	6.3575	745	0.6060		
450	2.4444	550	3.6769	650	6.0794	750	0.5111		
455	2.3581	555	3.8794	655	5.7290	755	0.4364		
460	1.8828	560	4.1051	660	5.3083	760	0.3869		
465	1.6040	565	4.3062	665	4.8882	765	0.3597		
470	1.4040	570	4.5486	670	4.4540	770	0.2958		
475	1.2155	575	4.7827	675	4.0429	775	0.2487		



***** End of Page *****

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB34227XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

Photometric Measurements at 25°C – Integral sphere Method

Intertek Sample No.	Base Orientation	Correlated Color Temperatur e (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit y	Chromaticit y	Chromaticit y	Chromaticit y
					Coordinate (x)	Coordinate (y)	Coordinate (u')	Coordinate (v')
SLTB34227XX								
S2407290 32-012	base-up	2604	93	57	0.4648	0.4070	0.2674	0.5267

Photometric and Electrical Measurements at 25°C – Integral sphere Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute	Lumen
						Luminous Flux (Lumens)	Efficacy (Lumens Per Watt)
SLTB34227XX							
S2407290 32-012	base-up	120.0	102	10.5	0.852	314.4	30

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RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB34227XX

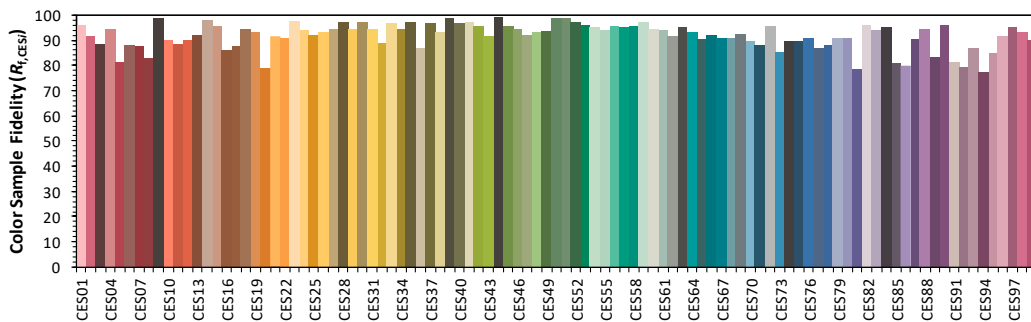
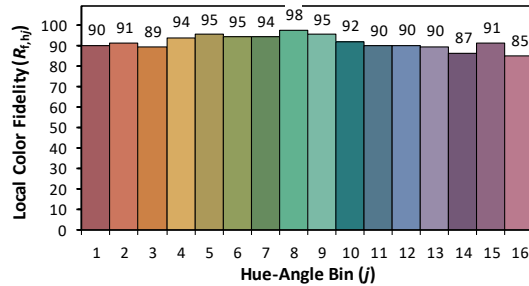
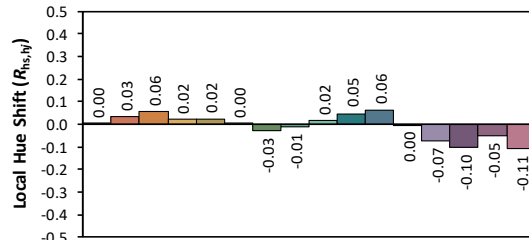
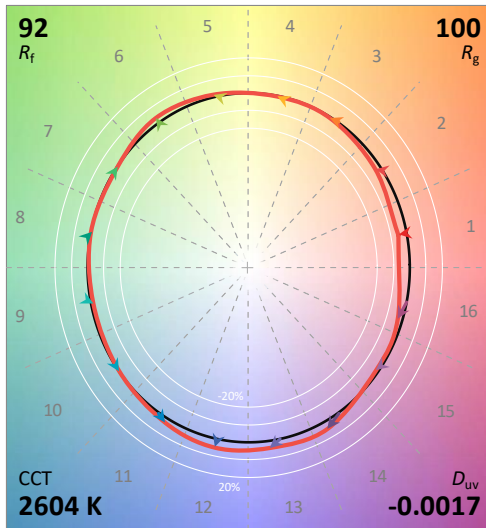
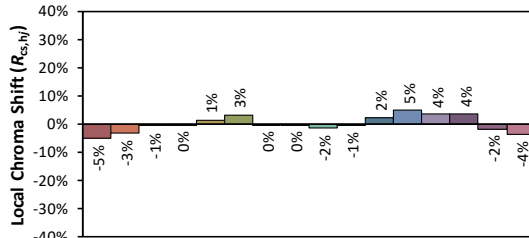
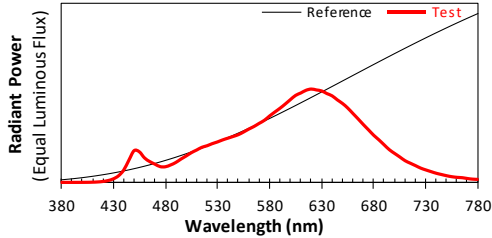
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2024/8/12

Model: SLTB34227XX



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4648
 y 0.4070
 u' 0.2674
 v' 0.5267

CIE 13.3-1995
(CRI)
 R_a 93
 R_g 57

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

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PRODUCT PICTURE (not to scale)



External view of SLTB34227XX



View of LED driver A122-1201000ID

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PRODUCT PICTURE (not to scale)



View of LED

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

***** End of Report *****