

Test Report

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

< LED PERFORMANCE TESTING -[SLTB27027XX]>

REPORT NUMBER

2501B0461SHA-013

ISSUE DATE

2025-01-08

[REVISED DATE]

[None]

PAGES

17

DOCUMENT CONTROL NUMBER

General Report Format (2018-08-15)

© 2018 INTERTEK



This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Test Report

Report No. 2501B0461SHA-013

Date: 2025-01-08

TEST OF Doppia Accent Rechargeable Table Lamp
MODEL NO. SLTB27027XX

RENDERED TO
Visual Comfort & Co.
7400 LINDER AVE SKOKIE, IL 60077

TEST: Electrical and Photometric as required to the IESNA LM-79 test standard.

LABORATORY NOTE: The laboratory that conducted the testing detailed in this report has been Qualified, Verified, and Recognized for LM-79 Testing for ENERGY STAR for Luminaires by NVLAP program.

AUTHORIZATION: The testing performed was authorized by signed quote number QSH241224053.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

NEMA ANSI C78.377: 2015	Specifications of the Chromaticity of Solid-State Lighting Products
IESNA LM-79: 2019	Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI C82.77-2002	Harmonic Emission Limits – Related Power Quality Requirements for Lighting Equipment
CIE No. 13.3 – 1995	Method of Measuring and Specifying Colour Rendering Properties of Light Sources
IESNA LM-16: 1993	Practical Guide to Colorimetry of Light Sources

DESCRIPTION OF SAMPLE: The client submitted one sample of model SLTB27027XX. The sample was received by Intertek on December 20, 2024, in undamaged condition, and one sample was tested as received. The sample designations was 0241220-12-013.

DATES OF TESTS: December 20, 2024 to January 08, 2025

ISSUED BY: Intertek Testing Services (Shanghai FTZ) Co., Ltd.

TEST LOCATION: Building No 86, 1198 Qinzhou Road North Shanghai, 200233 China

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

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Prepared and checked by:



(Heven Liu)
(Sr. Certification Engineer)

Reviewed by:



(Jordan Rao)
(Reviewer)

Note: This report must not be used by the clients to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government. Not all standards were covered in NVLAP accreditation.

Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

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

Summary

Report No: 2501B0461SHA-013

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	SLTB27027XX
Product Description:	Doppia Accent Rechargeable Table Lamp
LED Model No.:	DTG-AT03a-0220-05-02-B0003-230701
Driver Model No.:	D-TL-A78-01-A-V2.2
Light Source:	LED

Criteria	Result			
	Goniophotometer	Integrating Sphere (LOW-Output)	Integrating Sphere (MIDDLE-Output)	Integrating Sphere (HIGH-Output)
Light Output(lumens)	188.317	45.535	93.484	188.37
Input Power(W)	2.10	0.49	0.98	2.08
Lumen Efficacy(lm/w)	89.67	92.93	95.39	90.56

Criteria	Integrating Sphere (LOW-Output)	Integrating Sphere (MIDDLE-Output)	Integrating Sphere (HIGH-Output)
Correlated Color Temperature(K)	2720	2720	2727
Color Reding Index-Ra()	91.3	91.1	93.0
Color Reding Index-R9()	57.0	56.5	55.9
Duv()	0.00174	0.00168	0.00183
Chromaticity Coordinate(x)	0.4613	0.4611	0.4608
Chromaticity Coordinate(y)	0.4157	0.4155	0.4158
Chromaticity Coordinate(u')	0.2611	0.2611	0.2608
Chromaticity Coordinate(v')	0.5295	0.5294	0.5295

Note: the luminaire has three outputs by switch regulating (LOW-Output, Middle Output, High-Output).

EQUIPMENT LIST

Report No: 2501B0461SHA-013

Date last used	Equipment Used	Model Number	Control Number	Last Calibration Date	Calibration
2025.03.26	Fluke Temperature Meter	52	EC4842	2024.03.28	2025.03.27
2025.03.12	Everfine- AC power source for Integrating Sphere System	DPS1010	EC4760-12	2024.03.14	2025.03.13
/	Two meter integrating sphere unit	Everfine – 2M	EC4760	/	/
2025.07.09	Everfine - Digital Power Meter	PF-2010A	EC4760-10	2024.07.11	2025.07.10
2025.02.21	High Accurate Array Spectroradiometer	HASS-2000	EC4760-1	2024.02.23	2025.02.22
2025.08.11	High Accurate Array Spectroradiometer	HASS-2000	EC4753-9	2024.08.13	2025.08.12
2025.07.08	AC Power Source	DPS1060	EC4753-8	2024.07.10	2025.07.09
2025.01.13	Digital power meter	PF-2010A	EC4753-6	2024.01.15	2025.01.14
2025.08.11	High Accurate Intelligent Photometer Head	ID-1000	EC4753-2	2024.08.13	2025.08.12
2025.08.11	FULL-FIELD SPEED GONIOPHOTOMETER	GO-R5000	EC4753-11	2024.08.13	2025.08.12
2025.09.16	Standard Lamp	SCL-1400	EC6449	2024.09.18	2025.09.17

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

TEST METHOD

Report No: 2501B0461SHA-013

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79

Type C Goniophotometer Distribution Testing

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. Stabilization can be judged that stability is reached when the variation (maximum - minimum) of at least 3 readings of the light output and electrical power over a period of 30 min, taken 15 minutes apart, is less than 0.5%.

Integrating sphere testing

Chromaticity was measured using a 2 meters integrating sphere spectral lamp measurement system. 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 (bandwidth: 2nm) 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 NIST. 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 everfine - Digital Power Meter., model PF-2010A.

Standard lamp used:
Model: Labsphere SCL-1400
Current: 2.679A

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

RESULTS OF TESTS

Report No: 2501B0461SHA-013

Test Condition: Type C Goniophotometer Distribution Testing

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vdc)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
0241220-12-013	N/A	5.04	409.8	2.10	/	188.32	89.67

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	Zonal Luminaire Density (%)
0-30	31.21	16.6
0-40	57.01	30.3
0-60	114.6	60.9
60-90	57	30.2
70-100	39.9	21.2
90-120	14	7.5
0-90	171.6	91.1
90-180	16.72	8.9
0-180	188.32	100

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
Beam (50%)	360	360
Average Beam Angle (50%): 360 °		

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

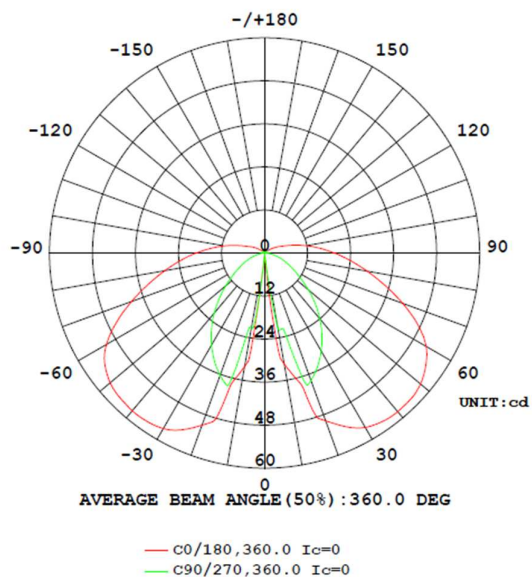
RESULTS OF TESTS

Report No: 2501B0461SHA-013

Intensity (Candlepower) Summary at 25°C – Candelas

C \ G(°)	0	22.5	45	67.5	90
0	0.0	0.0	0.0	0.0	0.0
5	0.5	0.0	0.0	0.0	0.0
10	31.3	29.9	10.7	8.1	20.9
15	37.2	40.9	42.5	39.8	25.6
20	49.8	46.9	42.0	38.5	37.8
25	53.4	48.6	40.8	35.7	34.9
30	56.1	50.4	39.3	32.5	31.6
35	57.3	51.2	37.8	29.0	27.9
40	57.8	50.9	35.8	25.3	24.0
45	57.6	49.6	33.2	22.1	20.0
50	56.8	47.8	30.2	19.2	16.0
55	54.9	44.7	27.1	16.2	12.4
60	52.0	40.7	24.4	13.2	9.4
65	47.1	36.3	21.6	10.3	7.1
70	41.0	31.7	18.7	7.6	5.3
75	34.7	27.3	15.9	5.6	3.5
80	29.0	23.1	13.0	4.3	2.0
85	24.0	19.1	10.3	3.3	0.9
90	19.5	15.5	7.7	2.4	0.3

Luminous Intensity Distribution Diagram

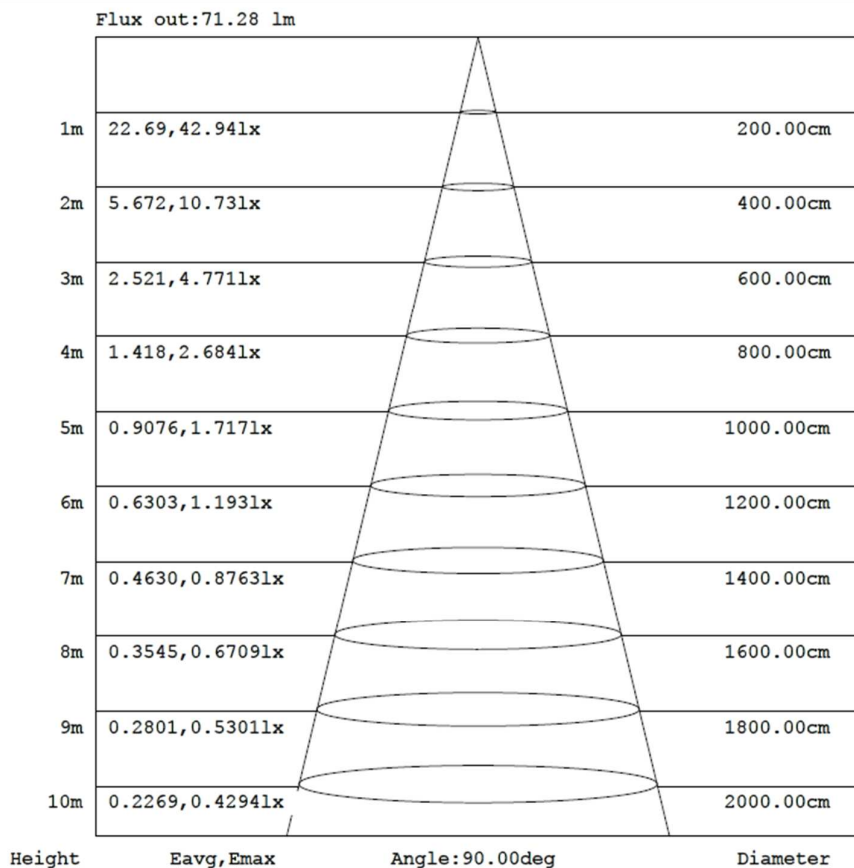


***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-013

Mount Height: 10 m
Illuminance - AAI Figure



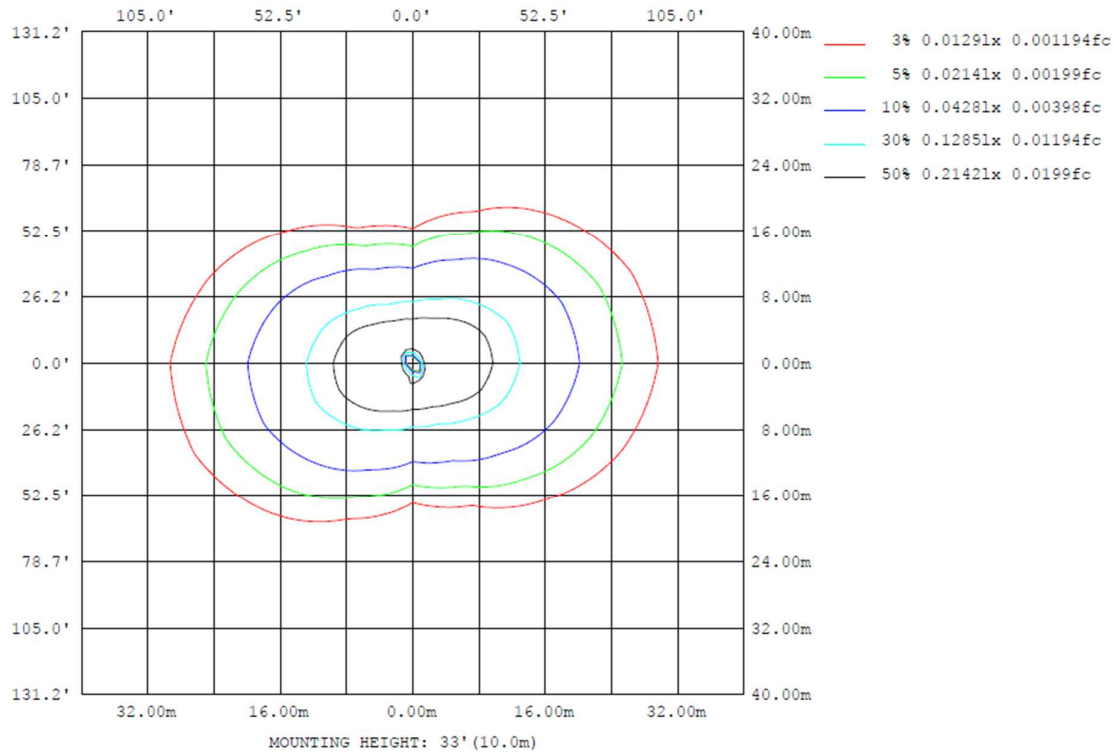
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

RESULTS OF TESTS

Report No: 2501B0461SHA-013

Mount Height: 10 m
Illuminance – ISOLUX DIAGRAM



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

RESULTS OF TESTS

Report No: 2501B0461SHA-013

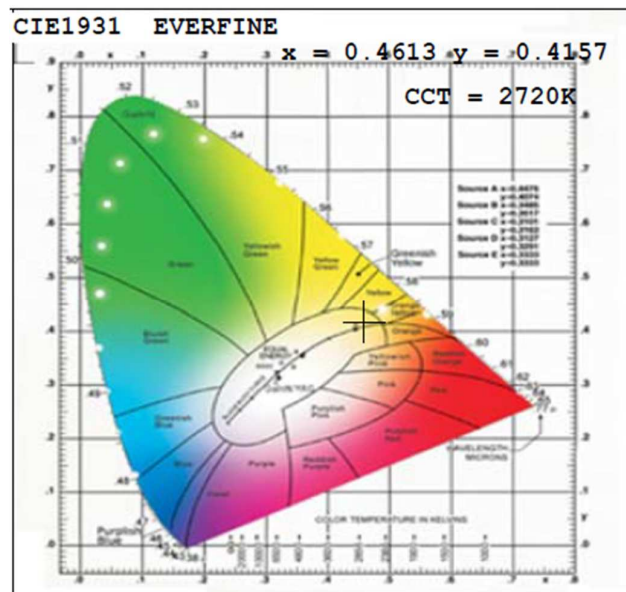
Test Condition: Integrating Sphere Testing (LOW-Output)

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
0241220-12-013	N/A	2720	91.3	0.4613	0.4157	0.2611	0.5295

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vdc)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
0241220-12-013	N/A	5.10	96.6	0.49	/	45.54	92.93



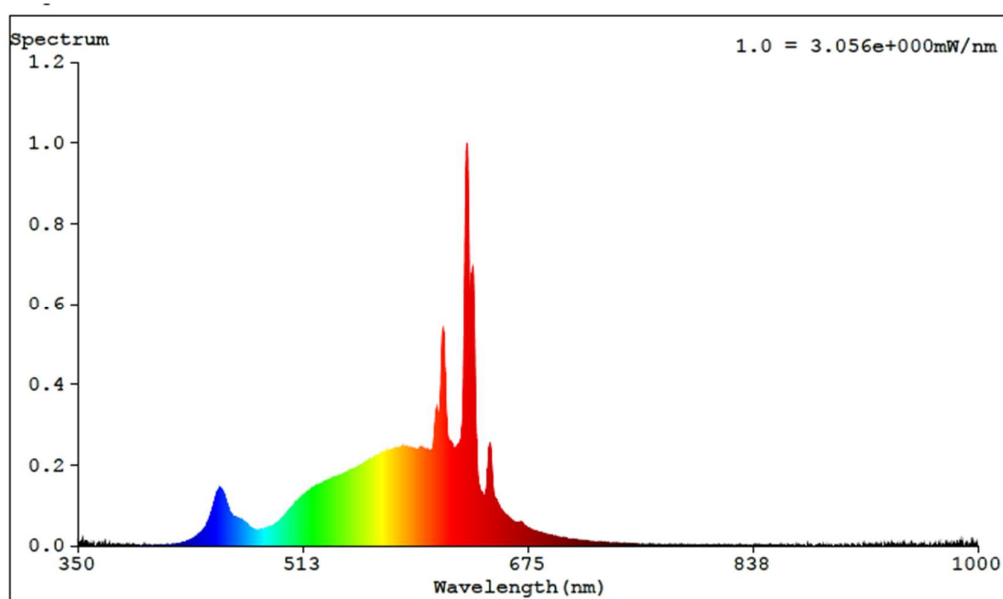
***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-013

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0006	480	0.0382	580	0.2402	680	0.0361	780	0.0013
385	0.0002	485	0.0432	585	0.2449	685	0.0305		
390	0.0025	490	0.0484	590	0.2408	690	0.0271		
395	0.0000	495	0.0607	595	0.2376	695	0.0237		
400	0.0000	500	0.0786	600	0.2383	700	0.0191		
405	0.0008	505	0.0976	605	0.2357	705	0.0167		
410	0.0015	510	0.1162	610	0.3267	710	0.0147		
415	0.0026	515	0.1311	615	0.4290	715	0.0119		
420	0.0031	520	0.1434	620	0.2540	720	0.0105		
425	0.0065	525	0.1532	625	0.2522	725	0.0094		
430	0.0129	530	0.1613	630	0.8810	730	0.0081		
435	0.0232	535	0.1682	635	0.6906	735	0.0065		
440	0.0377	540	0.1750	640	0.1446	740	0.0065		
445	0.0684	545	0.1825	645	0.1439	745	0.0051		
450	0.1274	550	0.1912	650	0.1362	750	0.0046		
455	0.1319	555	0.2002	655	0.0921	755	0.0033		
460	0.0811	560	0.2116	660	0.0746	760	0.0033		
465	0.0682	565	0.2198	665	0.0596	765	0.0034		
470	0.0595	570	0.2279	670	0.0579	770	0.0030		
475	0.0435	575	0.2345	675	0.0435	775	0.0025		



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

RESULTS OF TESTS

Report No: 2501B0461SHA-013

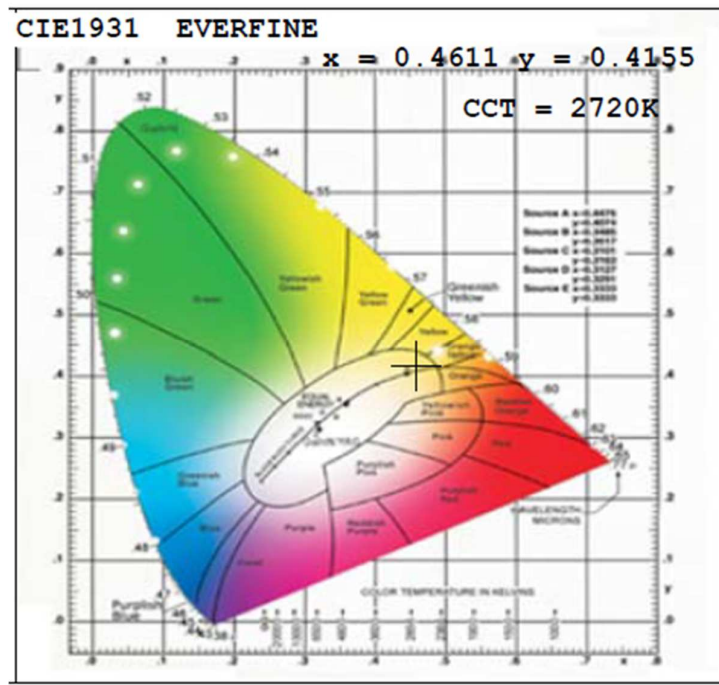
Test Condition: Integrating Sphere Testing (Middle-Output)

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
0241220-12-013	N/A	2720	91.1	0.4611	0.4155	0.2611	0.5294

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vdc)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
0241220-12-013	N/A	5.3	195.4	0.98	/	93.48	95.39



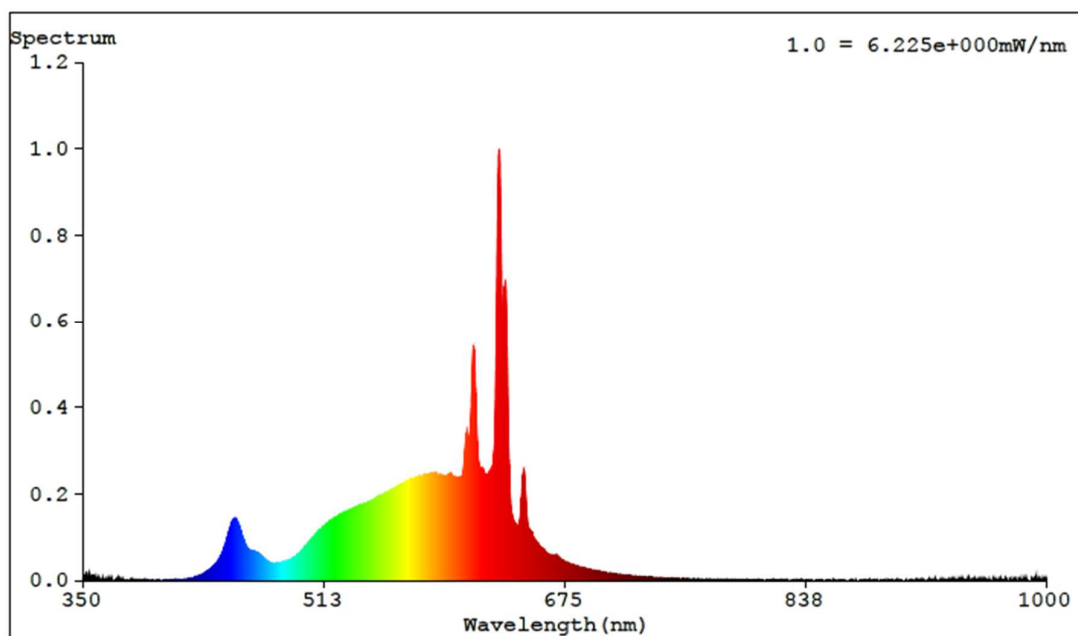
***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-013

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0007	480	0.0391	580	0.2433	680	0.0363	780	0.0018
385	0.0004	485	0.0433	585	0.2462	685	0.0312		
390	0.0010	490	0.0486	590	0.2436	690	0.0273		
395	0.0004	495	0.0601	595	0.2392	695	0.0235		
400	0.0003	500	0.0791	600	0.2400	700	0.0196		
405	0.0005	505	0.0984	605	0.2368	705	0.0164		
410	0.0015	510	0.1172	610	0.3318	710	0.0147		
415	0.0017	515	0.1320	615	0.4336	715	0.0126		
420	0.0037	520	0.1450	620	0.2561	720	0.0105		
425	0.0072	525	0.1536	625	0.2528	725	0.0094		
430	0.0140	530	0.1622	630	0.8772	730	0.0078		
435	0.0238	535	0.1696	635	0.6915	735	0.0068		
440	0.0394	540	0.1770	640	0.1459	740	0.0056		
445	0.0736	545	0.1840	645	0.1438	745	0.0050		
450	0.1291	550	0.1935	650	0.1362	750	0.0042		
455	0.1306	555	0.2027	655	0.0954	755	0.0041		
460	0.0820	560	0.2121	660	0.0755	760	0.0036		
465	0.0681	565	0.2223	665	0.0593	765	0.0032		
470	0.0595	570	0.2308	670	0.0588	770	0.0022		
475	0.0424	575	0.2374	675	0.0441	775	0.0020		



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

RESULTS OF TESTS

Report No: 2501B0461SHA-013

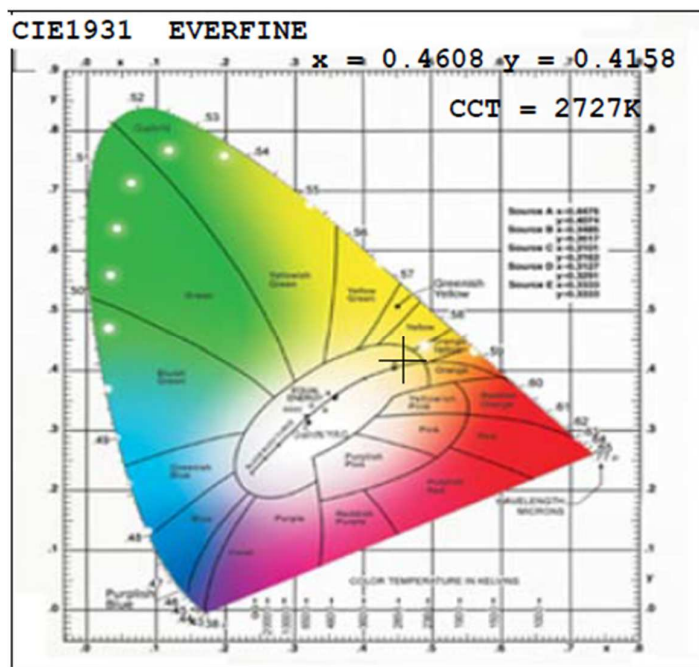
Test Condition: Integrating Sphere Testing (HIGH-Output)

Photometric Measurements at 25°C

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	CIE 31' Chromaticity Coordinate (x)	CIE 31' Chromaticity Coordinate (y)	CIE 76' Chromaticity Coordinate (u')	CIE 76' Chromaticity Coordinate (v')
0241220-12-013	N/A	2727	90.9	0.4608	0.4158	0.2608	0.5295

Photometric and Electrical Measurements at 25°C

Intertek Sample No.	Base Orientation	Input Voltage (Vdc)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
0241220-12-013	N/A	5.10	409.8	2.10	/	188.37	90.56



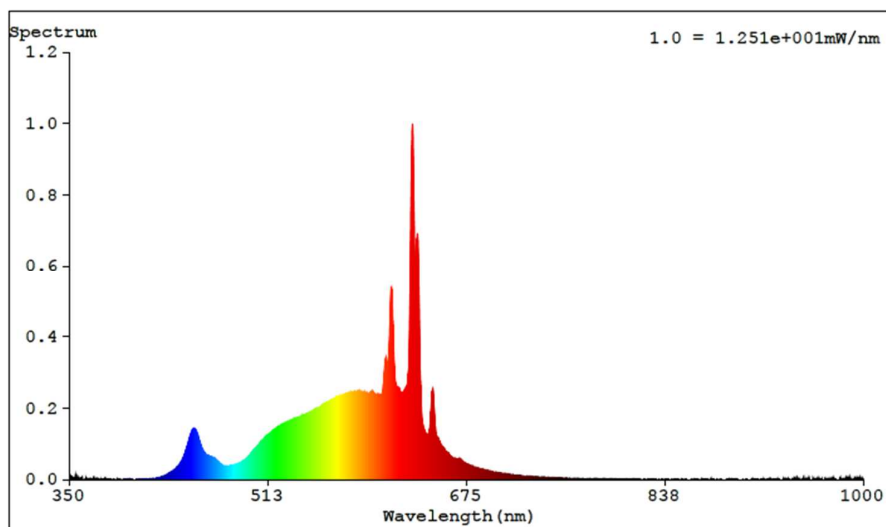
***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-013

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.0374	580	0.2444	680	0.0367	780	0.0022
385	0.0000	485	0.0421	585	0.2458	685	0.0314		
390	0.0008	490	0.0475	590	0.2456	690	0.0278		
395	0.0002	495	0.0598	595	0.2400	695	0.0234		
400	0.0012	500	0.0790	600	0.2399	700	0.0198		
405	0.0004	505	0.0977	605	0.2376	705	0.0166		
410	0.0011	510	0.1172	610	0.3276	710	0.0148		
415	0.0020	515	0.1321	615	0.4325	715	0.0122		
420	0.0040	520	0.1444	620	0.2553	720	0.0107		
425	0.0078	525	0.1546	625	0.2538	725	0.0091		
430	0.0144	530	0.1624	630	0.8787	730	0.0078		
435	0.0252	535	0.1699	635	0.6902	735	0.0067		
440	0.0417	540	0.1763	640	0.1464	740	0.0059		
445	0.0768	545	0.1853	645	0.1446	745	0.0053		
450	0.1336	550	0.1927	650	0.1363	750	0.0047		
455	0.1268	555	0.2025	655	0.0937	755	0.0034		
460	0.0771	560	0.2116	660	0.0752	760	0.0036		
465	0.0649	565	0.2234	665	0.0595	765	0.0029		
470	0.0567	570	0.2307	670	0.0572	770	0.0027		
475	0.0416	575	0.2373	675	0.0438	775	0.0016		



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

RESULTS OF TESTS

Report No: 2501B0461SHA-013

Product Picture (not to scale)



External view

Attachment: None

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