

Test Report

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

< LED PERFORMANCE TESTING -[SLTB53127XX]>

REPORT NUMBER

2501B0461SHA-006

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-006

Date: 2025-01-08

TEST OF Nevis Short Accent Rechargeable Table Lamp

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 SLTB53127XX. The sample was received by Intertek on December 20, 2024, in undamaged condition, and one sample was tested as received. The sample designations was 0241220-12-006.

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-006

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	SLTB53127XX
Product Description:	Nevis Short Accent Rechargeable Table Lamp
LED Model No.:	DTG-AT03a-0220-05-02-B0002-230701
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)	257.94	59.33	126.36	257.82
Input Power(W)	2.06	0.49	1.00	2.06
Lumen Efficacy(lm/w)	125.21	121.08	126.36	125.16

Criteria	Integrating Sphere (LOW-Output)	Integrating Sphere (MIDDLE-Output)	Integrating Sphere (HIGH-Output)
Correlated Color Temperature(K)	2702	2703	2706
Color Reding Index-Ra()	93.2	93.1	93.0
Color Reding Index-R9()	58.5	58.5	58.0
Duv()	0.00102	0.00107	0.00114
Chromaticity Coordinate(x)	0.4615	0.4615	0.4614
Chromaticity Coordinate(y)	0.4137	0.4139	0.4141
Chromaticity Coordinate(u')	0.2621	0.2621	0.2619
Chromaticity Coordinate(v')	0.5288	0.5288	0.5289

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

EQUIPMENT LIST

Report No: 2501B0461SHA-006

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-006

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-006

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)
0241220-12-006	N/A	5.0	411	2.06	/	257.94	125.16

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	Zonal Luminaire Density (%)
0-30	172.4	66.9
0-40	207.1	80.3
0-60	232.5	90.1
60-90	8.0	3.1
70-100	7.6	2.9
90-120	10.4	4.1
0-90	240.5	93.2
90-180	17.44	6.8
0-180	257.94	100

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
Beam (50%)	32.3	34.6
Average Beam Angle (50%): 33.5 °		

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

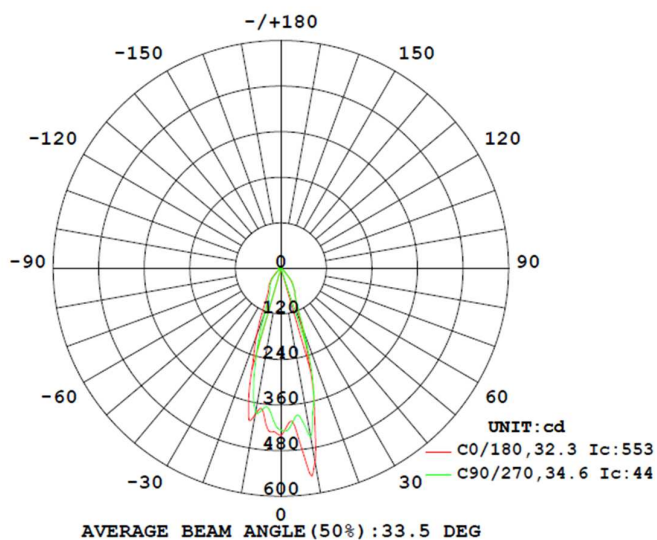
RESULTS OF TESTS

Report No: 2501B0461SHA-006

Intensity (Candlepower) Summary at 25°C – Candelas

C \ G(°)	0	22.5	45	67.5	90
0	456	455	454	454	455
5	449	422	406	408	419
10	443	391	358	375	416
15	273	245	216	245	285
20	147	127	114	126	146
25	92	83	71	80	82
30	73	68	59	62	62
35	64	60	53	54	56
40	42	41	38	37	37
45	25	25	23	20	19
50	15	16	15	13	11
55	10	10	9	8	8
60	6	7	6	6	5
65	5	5	5	4	4
70	4	4	4	3	3
75	3	3	3	3	3
80	3	3	3	3	2
85	2	3	2	2	2
90	2	2	2	2	2

Luminous Intensity Distribution Diagram

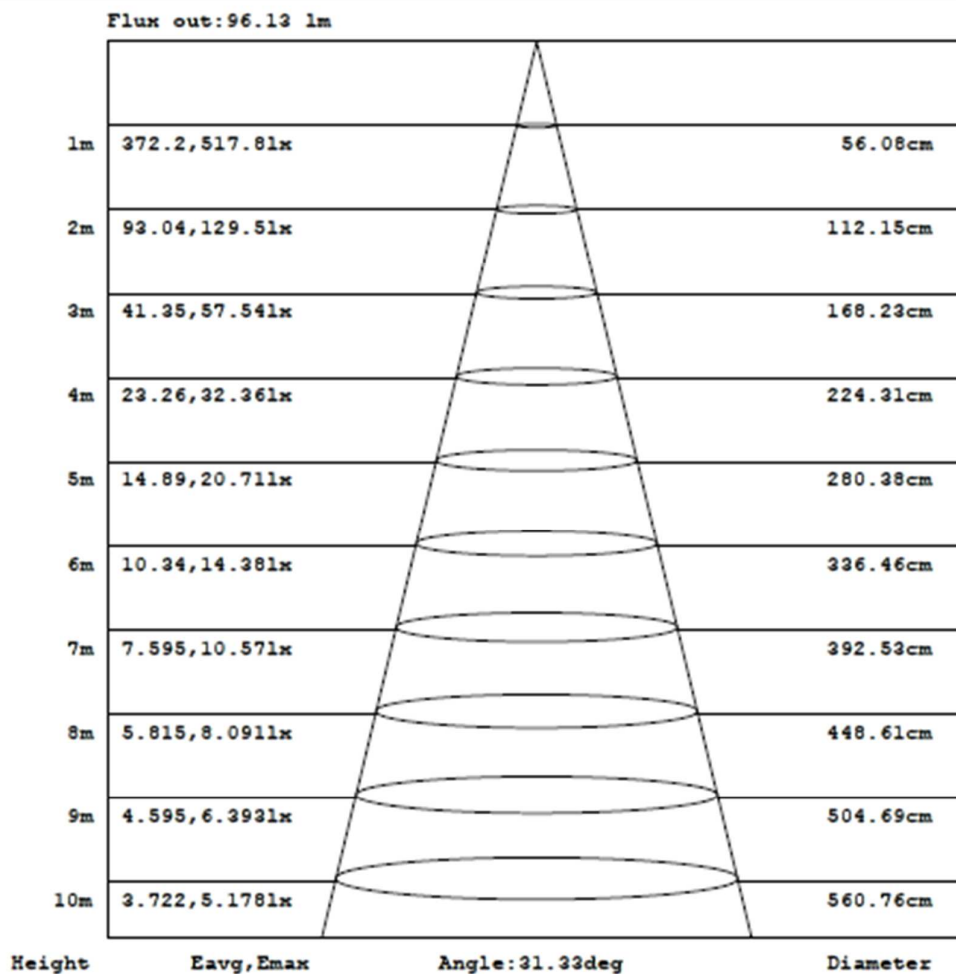


***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-006

Mount Height: 10 m
Illuminance - AAI Figure



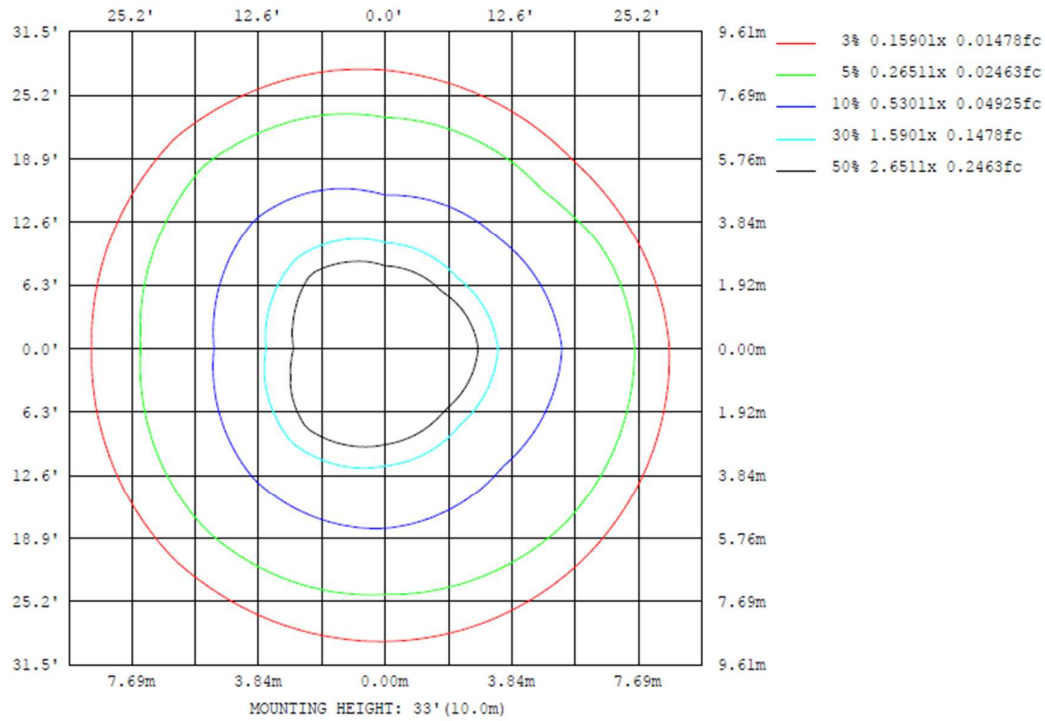
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

RESULTS OF TESTS

Report No: 2501B0461SHA-006

Mount Height: 10 m
Illuminance – ISOLUX DIAGRAM



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

RESULTS OF TESTS

Report No: 2501B0461SHA-006

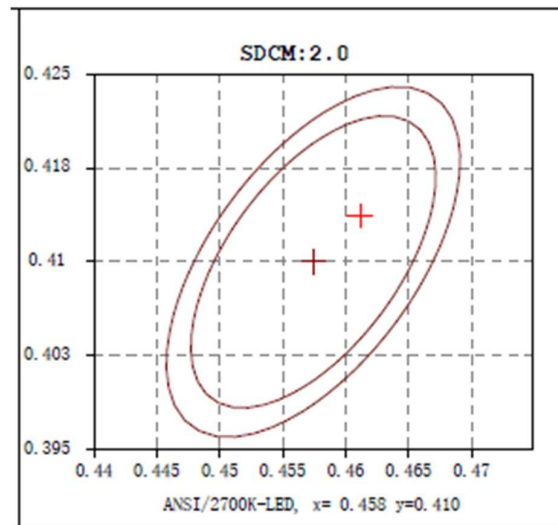
Test Condition: Integrating Sphere Testing (LOW-Output)

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')
0241220-12-006	N/A	2702	93.2	0.4615	0.4137	0.2621	0.5288

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)
0241220-12-006	N/A	5.0	98	0.49	/	59.33	121.08



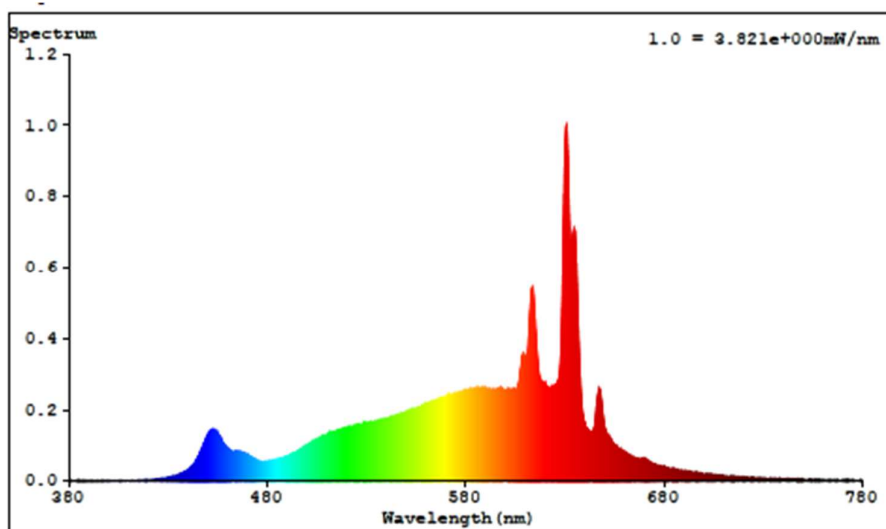
***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-006

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0024	480	0.2027	580	0.9642	680	0.1474	780	0.0059
385	0.0055	485	0.2318	585	0.9870	685	0.1268		
390	0.0007	490	0.2611	590	0.9888	690	0.1057		
395	0.0007	495	0.3132	595	0.9708	695	0.0912		
400	0.0017	500	0.3793	600	0.9743	700	0.0764		
405	0.0018	505	0.4405	605	0.9658	705	0.0623		
410	0.0016	510	0.4935	610	1.2920	710	0.0545		
415	0.0061	515	0.5330	615	1.7010	715	0.0462		
420	0.0099	520	0.5620	620	1.0320	720	0.0420		
425	0.0185	525	0.5872	625	1.0250	725	0.0340		
430	0.0350	530	0.6108	630	3.4770	730	0.0284		
435	0.0642	535	0.6352	635	2.6900	735	0.0260		
440	0.1148	540	0.6660	640	0.6098	740	0.0206		
445	0.2422	545	0.6988	645	0.5911	745	0.0171		
450	0.4831	550	0.7376	650	0.5880	750	0.0143		
455	0.5050	555	0.7757	655	0.3847	755	0.0122		
460	0.3444	560	0.8244	660	0.3092	760	0.0109		
465	0.3118	565	0.8602	665	0.2462	765	0.0118		
470	0.2799	570	0.9010	670	0.2360	770	0.0085		
475	0.2140	575	0.9330	675	0.1782	775	0.0083		



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

RESULTS OF TESTS

Report No: 2501B0461SHA-006

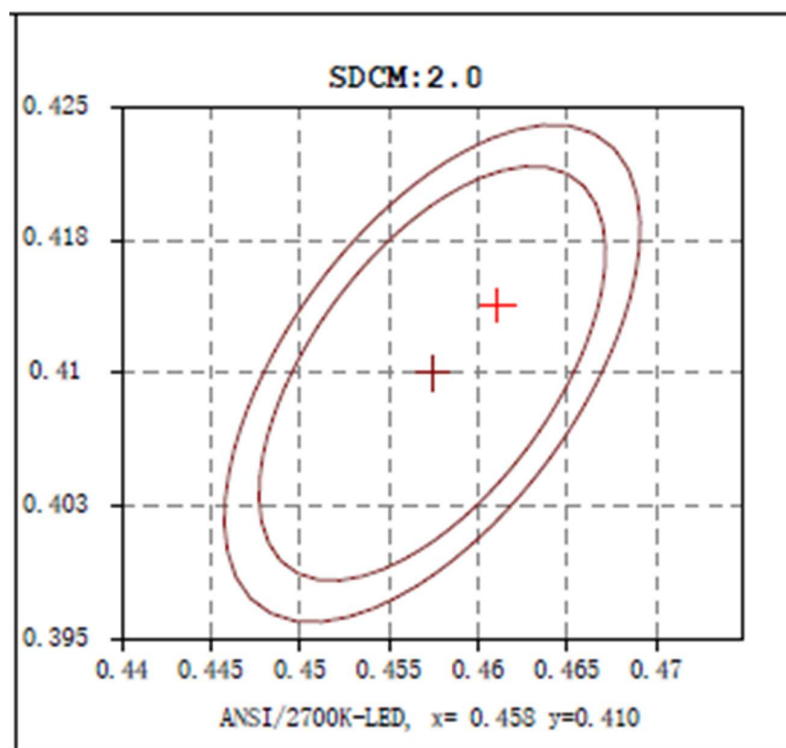
Test Condition: Integrating Sphere Testing (Middle-Output)

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')
0241220-12-006	N/A	2703	93.1	0.4615	0.4139	0.2621	0.5288

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)
0241220-12-006	N/A	5.0	199	1.00	/	126.36	126.36



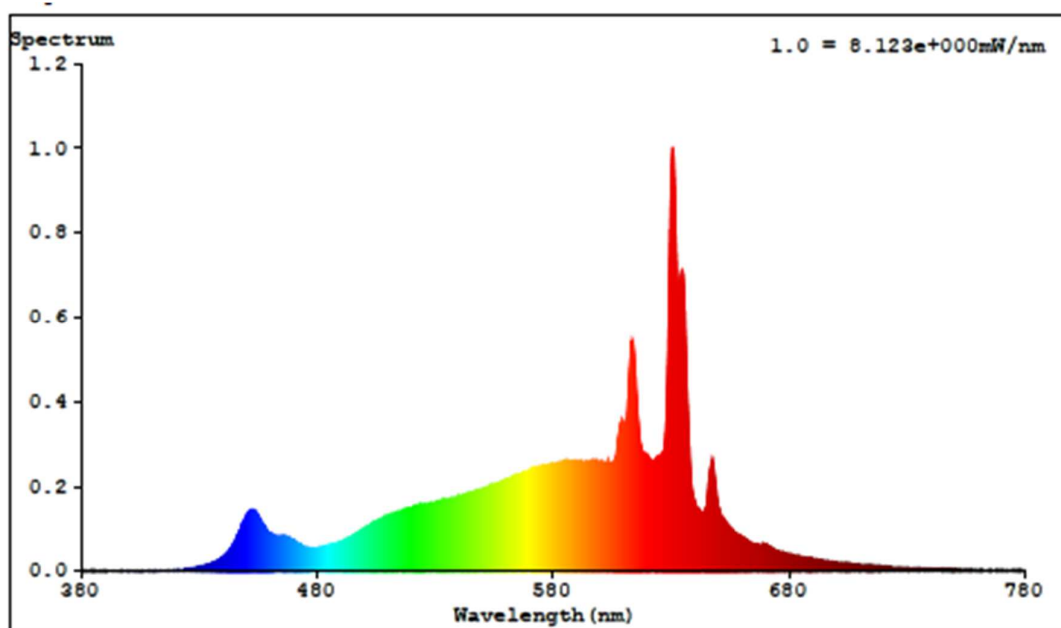
***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-006

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0049	480	0.4317	580	2.0510	680	0.3167	780	0.0142
385	0.0000	485	0.4828	585	2.0960	685	0.2688		
390	0.0057	490	0.5555	590	2.0800	690	0.2282		
395	0.0009	495	0.6675	595	2.0790	695	0.1905		
400	0.0013	500	0.8123	600	2.0740	700	0.1649		
405	0.0013	505	0.9397	605	2.0540	705	0.1405		
410	0.0015	510	1.0520	610	2.7810	710	0.1220		
415	0.0079	515	1.1390	615	3.6300	715	0.0989		
420	0.0215	520	1.2060	620	2.1920	720	0.0851		
425	0.0409	525	1.2650	625	2.1960	725	0.0684		
430	0.0797	530	1.3100	630	7.3640	730	0.0638		
435	0.1398	535	1.3530	635	5.7260	735	0.0523		
440	0.2646	540	1.4300	640	1.3110	740	0.0476		
445	0.5405	545	1.4830	645	1.2600	745	0.0402		
450	1.0350	550	1.5570	650	1.2570	750	0.0281		
455	1.0540	555	1.6500	655	0.8334	755	0.0289		
460	0.7174	560	1.7470	660	0.6519	760	0.0230		
465	0.6637	565	1.8380	665	0.5153	765	0.0195		
470	0.5876	570	1.9280	670	0.5031	770	0.0209		
475	0.4450	575	1.9730	675	0.3819	775	0.0167		



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

RESULTS OF TESTS

Report No: 2501B0461SHA-006

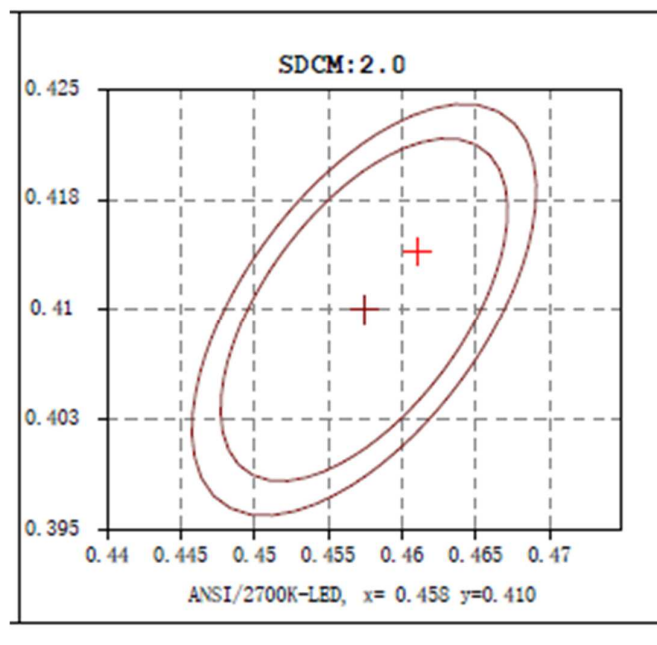
Test Condition: Integrating Sphere Testing (HIGH-Output)

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')
0241220-12-006	N/A	2706	93.0	0.4614	0.4141	0.2619	0.5289

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)
0241220-12-006	N/A	5.0	412	2.06	/	257.82	125.16



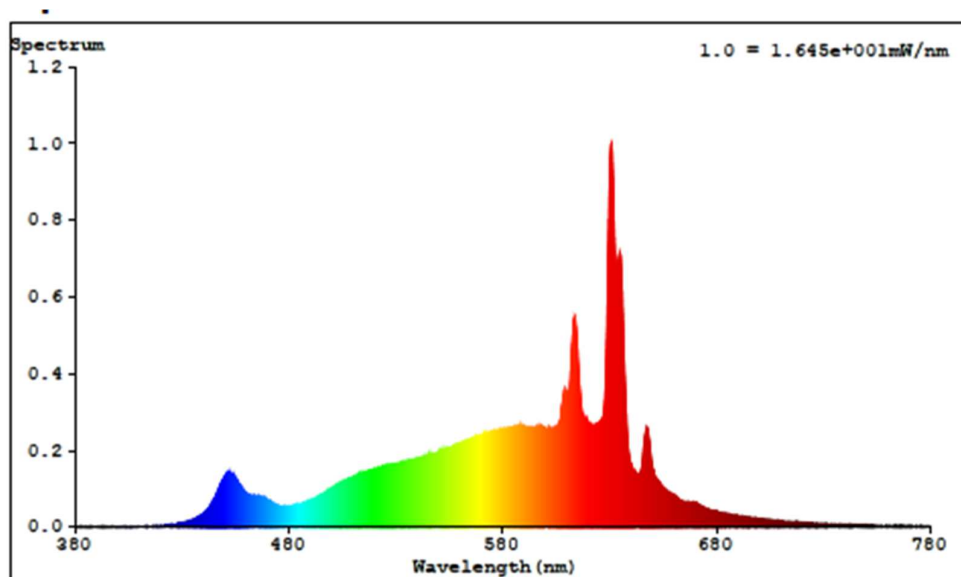
***** End of Page *****

RESULTS OF TESTS

Report No: 2501B0461SHA-006

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0073	480	0.8668	580	4.1880	680	0.6404	780	0.0232
385	0.0055	485	0.9803	585	4.2530	685	0.5595		
390	0.0008	490	1.1190	590	4.2950	690	0.4694		
395	0.0045	495	1.3590	595	4.2400	695	0.3986		
400	0.0033	500	1.6450	600	4.2270	700	0.3258		
405	0.0028	505	1.9260	605	4.2460	705	0.2841		
410	0.0060	510	2.1260	610	5.6370	710	0.2356		
415	0.0249	515	2.3160	615	7.4450	715	0.2030		
420	0.0487	520	2.4830	620	4.4560	720	0.1774		
425	0.1006	525	2.5830	625	4.4770	725	0.1468		
430	0.1650	530	2.6760	630	14.9700	730	0.1203		
435	0.3024	535	2.7770	635	11.6600	735	0.1038		
440	0.5739	540	2.9120	640	2.6420	740	0.0914		
445	1.1500	545	3.0440	645	2.5610	745	0.0766		
450	2.1280	550	3.2300	650	2.5390	750	0.0676		
455	2.0820	555	3.3670	655	1.6600	755	0.0515		
460	1.4420	560	3.5620	660	1.3620	760	0.0420		
465	1.3350	565	3.7670	665	1.0480	765	0.0473		
470	1.1210	570	3.9190	670	1.0250	770	0.0493		
475	0.8987	575	4.0600	675	0.7693	775	0.0336		



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

RESULTS OF TESTS

Report No: 2501B0461SHA-006

Product Picture (not to scale)



External view

Attachment: None

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