

Test Report

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

< LED PERFORMANCE TESTING -[SLTB25827XX]>

REPORT NUMBER

2501B0461SHA-002

ISSUE DATE

2025-01-08

[REVISED DATE]

[None]

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Test Report

Report No. 2501B0461SHA-002

Date: 2025-01-08

TEST OF Nevis Accent Rechargeable Table Lamp
MODEL NO. SLTB25827XX

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 SLTB25827XX. The sample was received by Intertek on December 20, 2024, in undamaged condition, and one sample was tested as received. The sample designations was 0241220-12-002.

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

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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.

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Summary

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	SLTB25827XX
Product Description:	Nevis 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)	252.34	60.95	125.24	252.12
Input Power(W)	2.06	0.49	1.00	2.06
Lumen Efficacy(lm/w)	122.50	124.39	125.24	122.39

Criteria	Integrating Sphere (LOW-Output)	Integrating Sphere (MIDDLE-Output)	Integrating Sphere (HIGH-Output)
Correlated Color Temperature(K)	2756	2757	2757
Color Reding Index-Ra()	93.9	93.8	93.8
Color Reding Index-R9()	62.0	61.6	61.6
Duv()	-0.00117	-0.00109	-0.00109
Chromaticity Coordinate(x)	0.4534	0.4534	0.4534
Chromaticity Coordinate(y)	0.4059	0.4062	0.4062
Chromaticity Coordinate(u')	0.2604	0.2603	0.2603
Chromaticity Coordinate(v')	0.5246	0.5247	0.5247

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

EQUIPMENT LIST

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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

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TEST METHOD

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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

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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)
0241220-12-002	N/A	5.0	411	2.06	/	252.34	122.50

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	Zonal Luminaire Density (%)
0-30	63.05	25.0
0-40	109.7	43.5
0-60	192.1	76.1
60-90	44.8	17.8
70-100	20.0	7.9
90-120	6.6	2.6
0-90	236.9	93.9
90-180	15.44	6.1
0-180	252.34	100

Beam Angle

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

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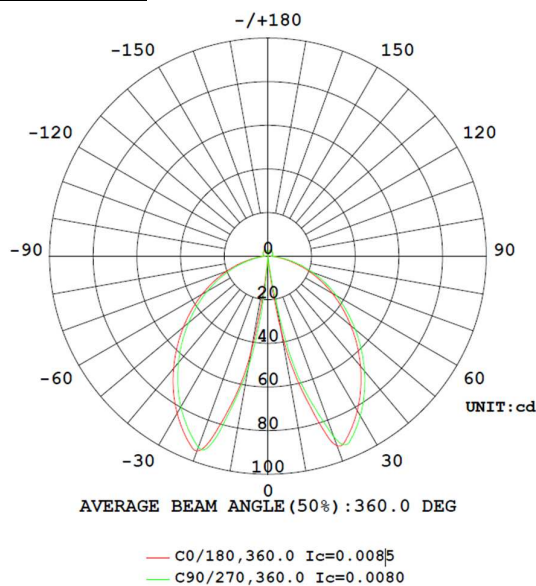
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Intensity (Candlepower) Summary at 25°C – Candelas

C \ G(°)	0	22.5	45	67.5	90
0	0.01	0.01	0.01	0.01	0.01
5	0.21	0.01	0.01	0.01	0.01
10	34.26	28.71	24.12	22.72	19.60
15	67.71	64.98	63.31	63.17	61.91
20	92.46	91.89	90.64	89.46	88.06
25	88.87	89.96	90.40	90.66	91.38
30	81.81	82.98	83.47	83.81	84.56
35	74.08	75.23	75.78	76.10	76.91
40	65.96	67.06	67.63	67.96	68.77
45	57.71	58.74	59.29	59.61	60.42
50	49.57	50.48	51.03	51.33	52.13
55	41.61	42.45	42.97	43.27	44.04
60	34.07	34.72	35.30	35.35	36.05
65	26.75	27.44	27.88	28.13	28.90
70	19.73	20.34	20.75	21.00	21.74
75	13.11	13.63	14.02	14.27	15.00
80	7.24	7.65	7.97	8.18	8.82
85	3.12	3.38	3.58	3.74	4.10
90	1.43	1.41	1.42	1.45	1.55

Luminous Intensity Distribution Diagram

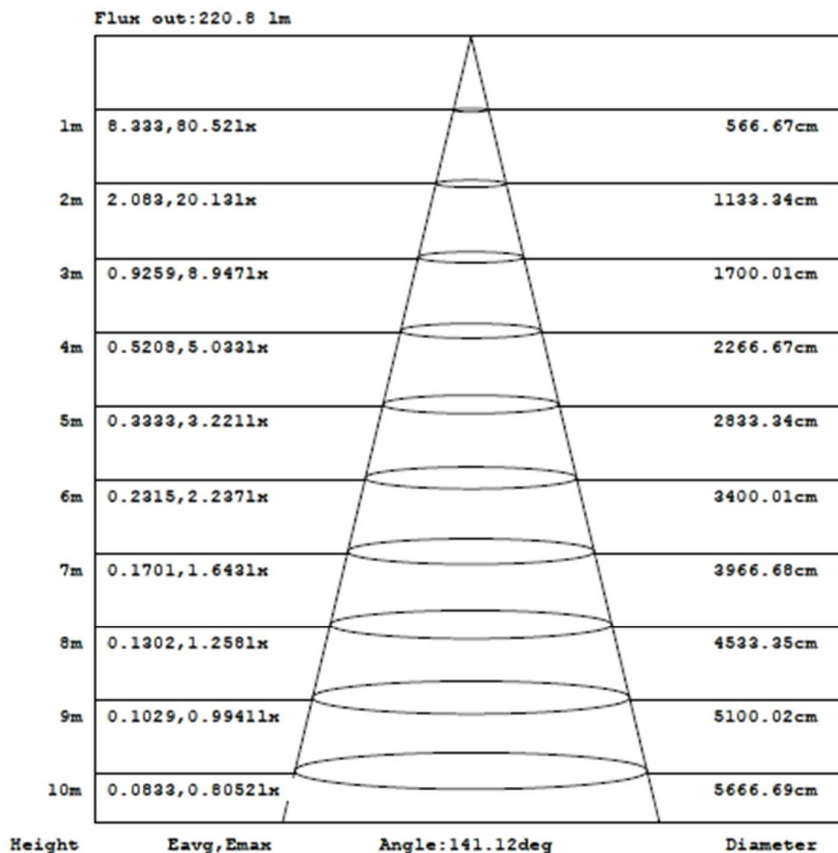


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Mount Height: 10 m
Illuminance - AAI Figure



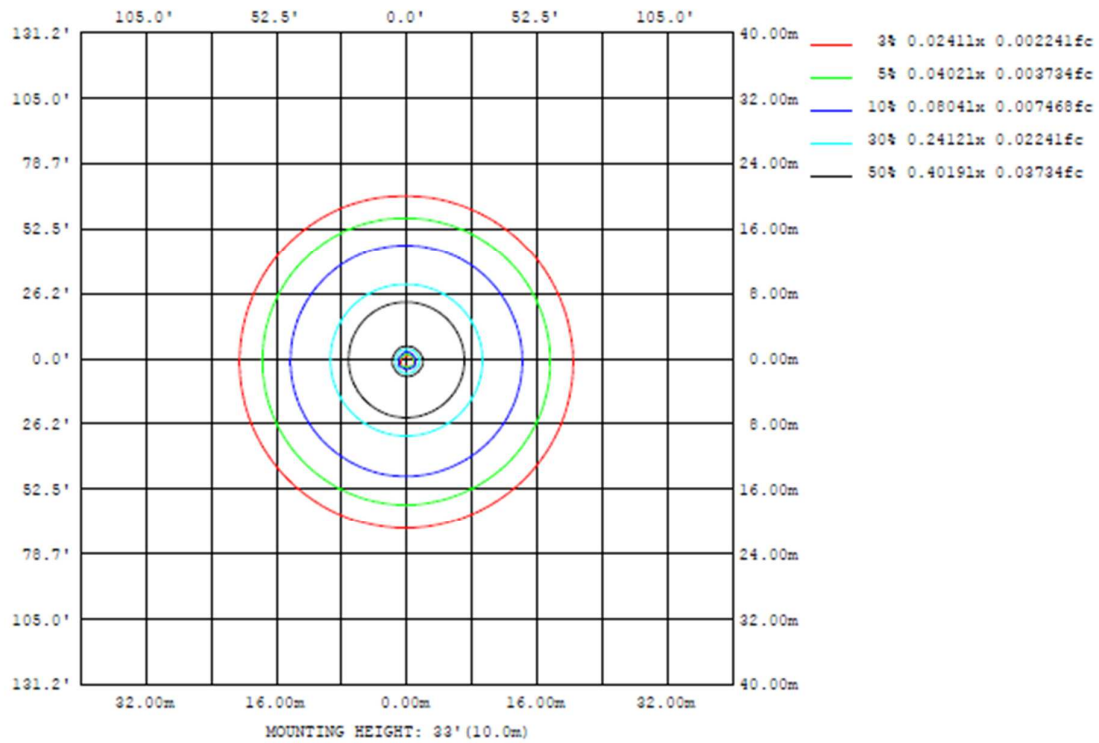
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Mount Height: 10 m
Illuminance – ISOLUX DIAGRAM



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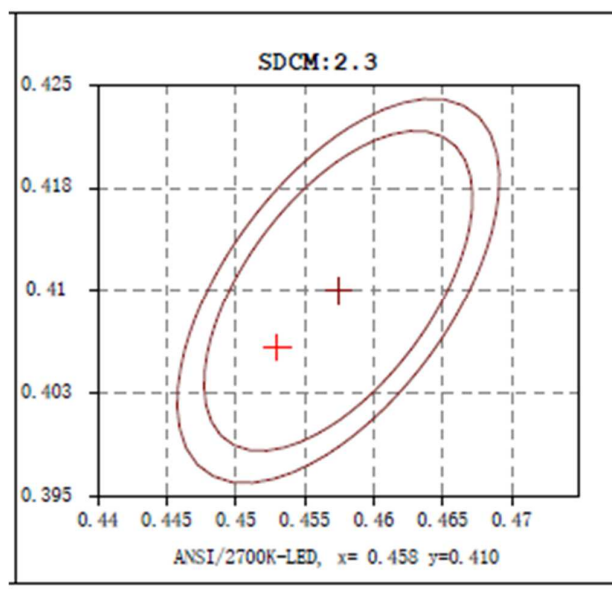
Test Condition: Integrating Sphere Testing (LOW-Output)

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')
0241220-12-002	N/A	2756	93.9	0.4534	0.4059	0.2604	0.5246

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)
0241220-12-002	N/A	5.0	98	0.49	/	60.95	124.39



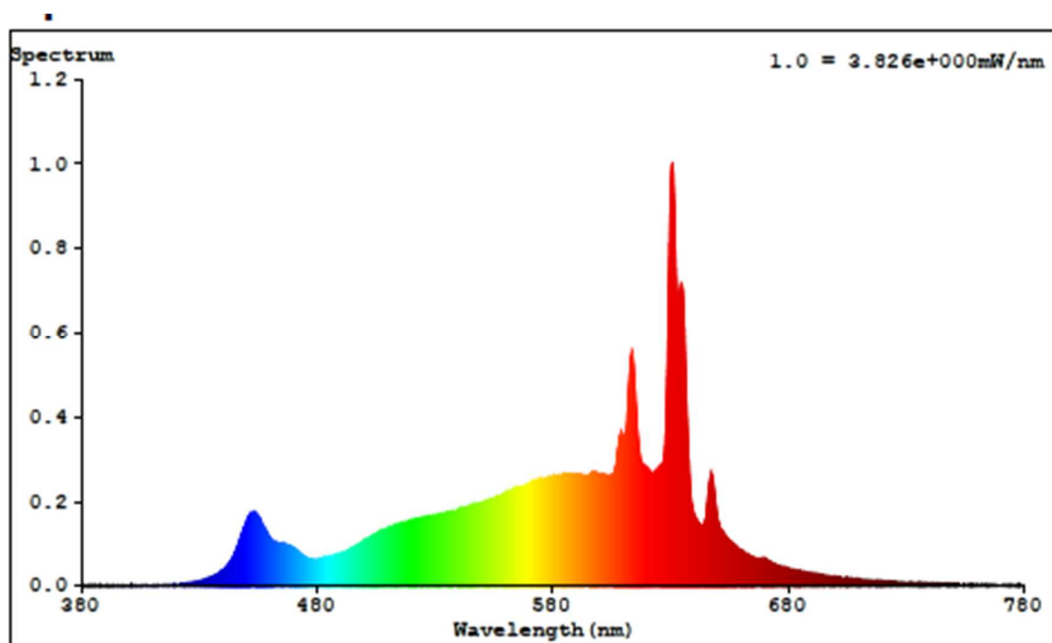
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0030	480	0.2374	580	0.9804	680	0.1559	780	0.0058
385	0.0000	485	0.2601	585	1.0060	685	0.1307		
390	0.0021	490	0.2890	590	1.0090	690	0.1112		
395	0.0012	495	0.3381	595	0.9939	695	0.0936		
400	0.0004	500	0.4094	600	1.0020	700	0.0811		
405	0.0035	505	0.4655	605	1.0000	705	0.0708		
410	0.0022	510	0.5157	610	1.3260	710	0.0573		
415	0.0054	515	0.5566	615	1.7290	715	0.0470		
420	0.0103	520	0.5918	620	1.0620	720	0.0427		
425	0.0248	525	0.6127	625	1.0630	725	0.0355		
430	0.0404	530	0.6315	630	3.4880	730	0.0300		
435	0.0762	535	0.6584	635	2.7060	735	0.0245		
440	0.1395	540	0.6833	640	0.6331	740	0.0217		
445	0.2819	545	0.7055	645	0.6155	745	0.0182		
450	0.5654	550	0.7497	650	0.6077	750	0.0164		
455	0.6262	555	0.7853	655	0.4049	755	0.0135		
460	0.4315	560	0.8375	660	0.3205	760	0.0121		
465	0.3779	565	0.8798	665	0.2545	765	0.0098		
470	0.3383	570	0.9175	670	0.2429	770	0.0074		
475	0.2602	575	0.9459	675	0.1870	775	0.0084		



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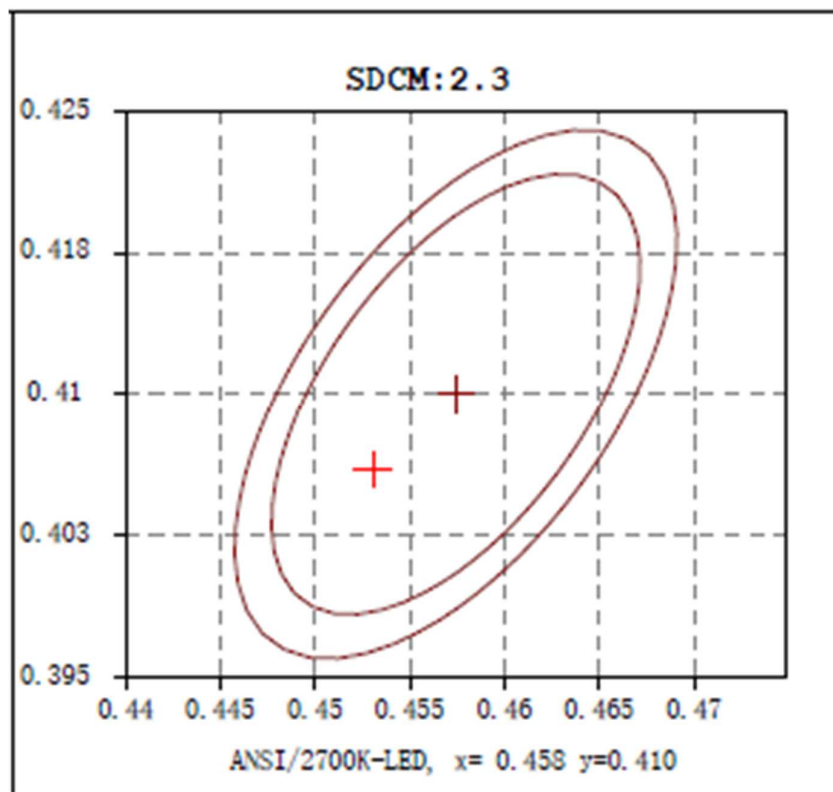
Test Condition: Integrating Sphere Testing (Middle-Output)

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')
0241220-12-002	N/A	2757	93.8	0.4534	0.4062	0.2603	0.5247

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)
0241220-12-002	N/A	5.0	199	1.00	/	125.24	125.24



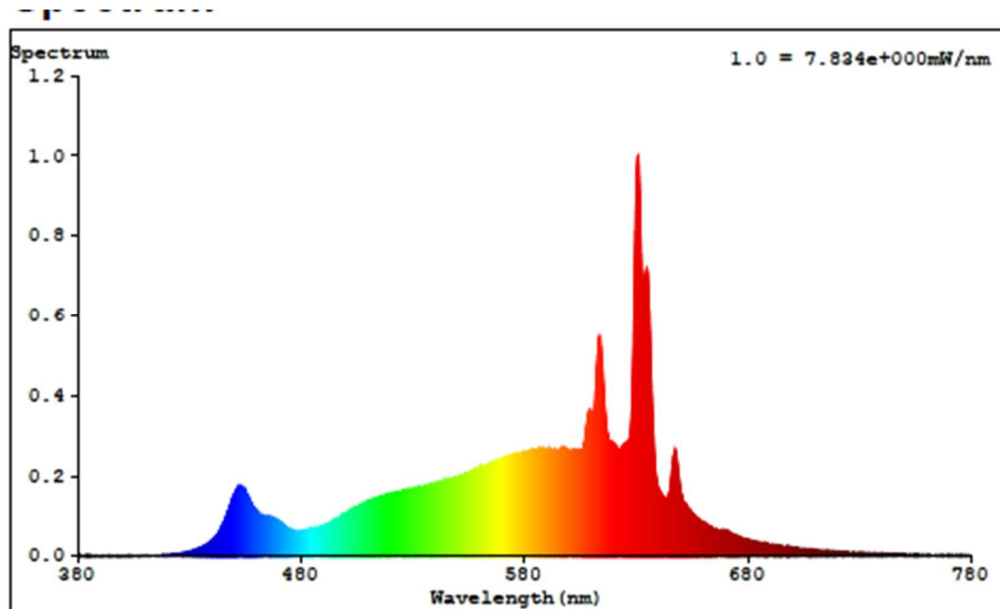
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0022	480	0.4772	580	2.0100	680	0.3168	780	0.0127
385	0.0017	485	0.5292	585	2.0700	685	0.2675		
390	0.0023	490	0.5915	590	2.0710	690	0.2265		
395	0.0057	495	0.6976	595	2.0400	695	0.1938		
400	0.0028	500	0.8238	600	2.0530	700	0.1648		
405	0.0026	505	0.9581	605	2.0470	705	0.1431		
410	0.0074	510	1.0670	610	2.7360	710	0.1170		
415	0.0115	515	1.1500	615	3.5450	715	0.0946		
420	0.0224	520	1.2160	620	2.1820	720	0.0870		
425	0.0493	525	1.2540	625	2.1530	725	0.0731		
430	0.0847	530	1.2980	630	7.1210	730	0.0671		
435	0.1570	535	1.3490	635	5.5780	735	0.0510		
440	0.2941	540	1.4040	640	1.2960	740	0.0464		
445	0.6039	545	1.4630	645	1.2580	745	0.0367		
450	1.1780	550	1.5420	650	1.2400	750	0.0338		
455	1.2690	555	1.6190	655	0.8310	755	0.0275		
460	0.8730	560	1.7140	660	0.6624	760	0.0229		
465	0.7679	565	1.7920	665	0.5142	765	0.0160		
470	0.6683	570	1.8910	670	0.4947	770	0.0173		
475	0.5179	575	1.9740	675	0.3823	775	0.0176		



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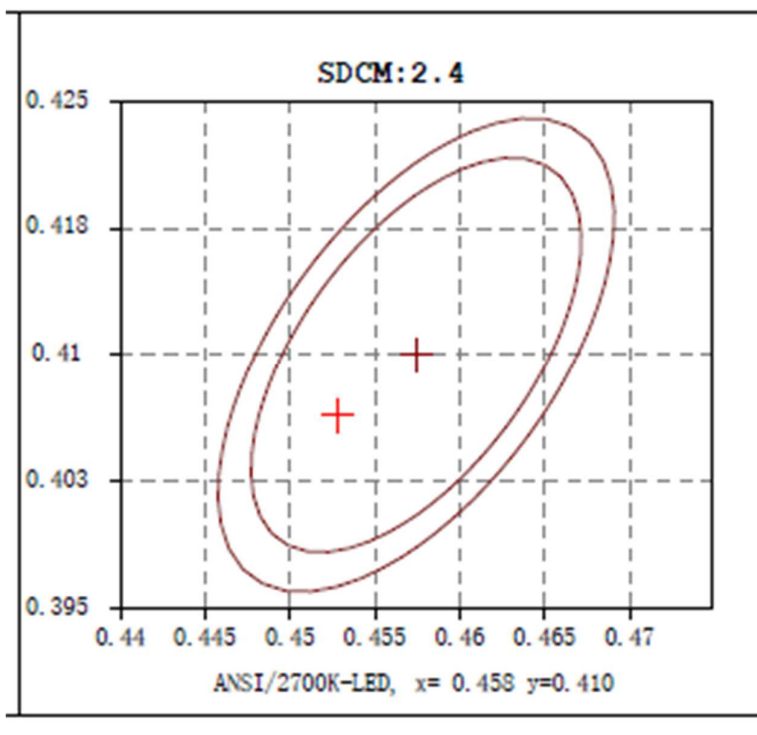
Test Condition: Integrating Sphere Testing (HIGH-Output)

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')
0241220-12-002	N/A	2765	93.6	0.4531	0.4065	0.2600	0.5248

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)
0241220-12-002	N/A	5.0	412	2.06	/	252.12	122.39



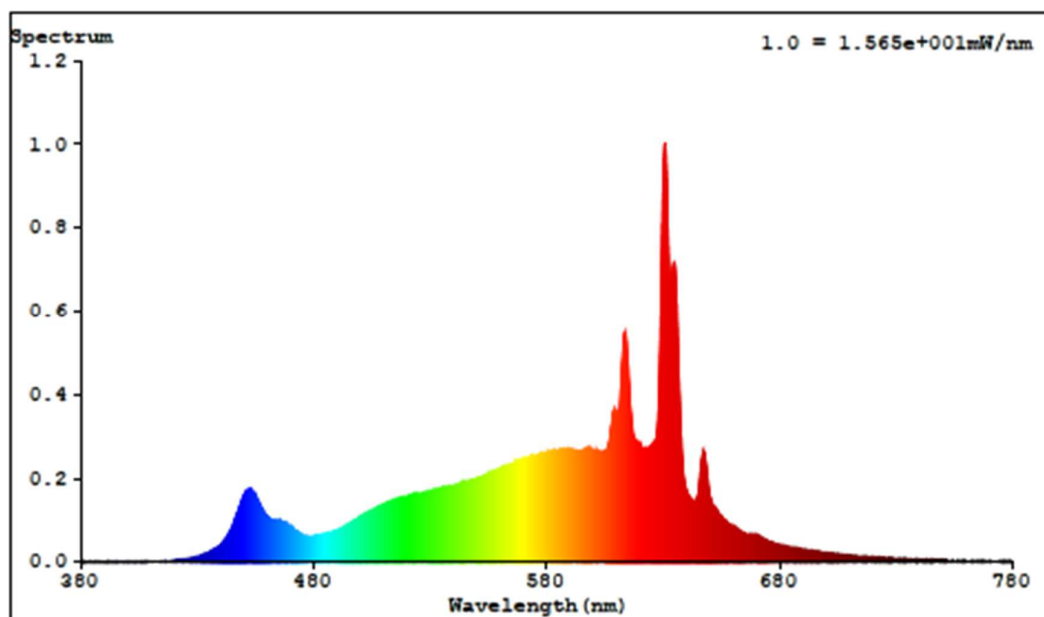
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0110	480	0.9583	580	4.0600	680	0.6281	780	0.0234
385	0.0000	485	1.0390	585	4.1540	685	0.5396		
390	0.0028	490	1.1710	590	4.1570	690	0.4617		
395	0.0050	495	1.3860	595	4.1120	695	0.3897		
400	0.0000	500	1.6740	600	4.1320	700	0.3266		
405	0.0063	505	1.9260	605	4.1270	705	0.2816		
410	0.0088	510	2.1410	610	5.4460	710	0.2350		
415	0.0224	515	2.3240	615	7.1590	715	0.1999		
420	0.0528	520	2.4220	620	4.3910	720	0.1749		
425	0.0993	525	2.5400	625	4.3500	725	0.1393		
430	0.1951	530	2.6270	630	14.2900	730	0.1242		
435	0.3479	535	2.7390	635	11.1100	735	0.1007		
440	0.6181	540	2.8110	640	2.6300	740	0.0891		
445	1.2680	545	2.9680	645	2.5380	745	0.0694		
450	2.4310	550	3.1040	650	2.4760	750	0.0663		
455	2.4790	555	3.2770	655	1.6750	755	0.0540		
460	1.7000	560	3.4670	660	1.3340	760	0.0423		
465	1.5040	565	3.6380	665	1.0490	765	0.0431		
470	1.3380	570	3.8390	670	1.0170	770	0.0384		
475	1.0120	575	3.9340	675	0.7738	775	0.0342		



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Product Picture (not to scale)



External view

Attachment: None

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