

Test Report

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

< LED PERFORMANCE TESTING -[SLTB25927XX]>

REPORT NUMBER

2501B0461SHA-011

ISSUE DATE

2025-01-08

[REVISED DATE]

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Test Report

Report No. 2501B0461SHA-011

Date: 2025-01-08

TEST OF Tapa Accent Rechargeable Table Lamp
MODEL NO. SLTB25927XX

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 SLTB25927XX. The sample was received by Intertek on December 20, 2024, in undamaged condition, and one sample was tested as received. The sample designations was 0241220-12-011.

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.:	SLTB25927XX
Product Description:	Tepa Accent Rechargeable Table Lamp
LED Model No.:	DTG-AT03a-0220-05-02-B0001-230701
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)	276.93	72.00	140.59	277.42
Input Power(W)	2.35	0.56	1.08	2.34
Lumen Efficacy(lm/w)	117.84	128.57	130.18	118.56

Criteria	Integrating Sphere (LOW-Output)	Integrating Sphere (MIDDLE-Output)	Integrating Sphere (HIGH-Output)
Correlated Color Temperature(K)	2699	2698	2699
Color Reding Index-Ra()	95.1	95.1	95.0
Color Reding Index-R9()	68.7	68.4	67.8
Duv()	-0.000642	-0.000580	-0.000462
Chromaticity Coordinate(x)	0.4588	0.4590	0.4592
Chromaticity Coordinate(y)	0.4086	0.4088	0.4092
Chromaticity Coordinate(u')	0.2627	0.2627	0.2627
Chromaticity Coordinate(v')	0.5264	0.5265	0.5267

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)
0241220-12-011	N/A	5.03	464.8	2.35	/	276.93	117.84

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	Zonal Luminaire Density (%)
0-30	67.74	24.5
0-40	118.3	42.7
0-60	212.6	76.8
60-90	52.0	18.8
70-100	22.5	8.8
90-120	5.5	1.9
0-90	264.6	95.6
90-180	12.33	4.4
0-180	276.93	100

Beam Angle

	Horizontal Spread (°)	Vertical Spread (°)
Beam (50%)	341.6	341.0
Average Beam Angle (50%): 341.3 °		

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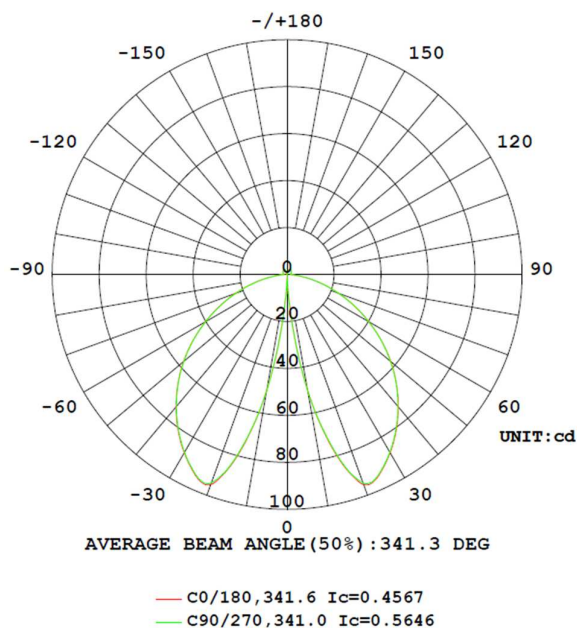
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Intensity (Candlepower) Summary at 25°C – Candelas

C \ G(°)	0	22.5	45	67.5	90
0	0.5	0.9	0.9	0.5	0.6
5	14.9	15.4	15.6	15.6	15.9
10	49.7	49.5	49.5	49.8	49.6
15	78.4	78.3	77.9	77.6	77.5
20	95.1	94.8	94.5	94.9	94.4
25	93.5	93.5	93.3	93.4	93.2
30	87.7	87.7	87.5	87.6	87.4
35	81.0	81.0	80.8	80.9	80.7
40	73.6	73.6	73.5	73.5	73.4
45	65.8	65.8	65.7	65.7	65.6
50	57.6	57.6	57.5	57.5	57.4
55	48.9	48.9	48.8	48.8	48.7
60	40.1	40.2	40.0	40.0	40.0
65	31.5	31.5	31.5	31.4	31.4
70	23.2	23.2	23.2	23.2	23.2
75	15.5	15.5	15.5	15.5	15.5
80	8.7	8.8	8.7	8.7	8.7
85	3.5	3.5	3.4	3.4	3.5
90	1.4	1.4	1.4	1.4	1.4

Luminous Intensity Distribution Diagram

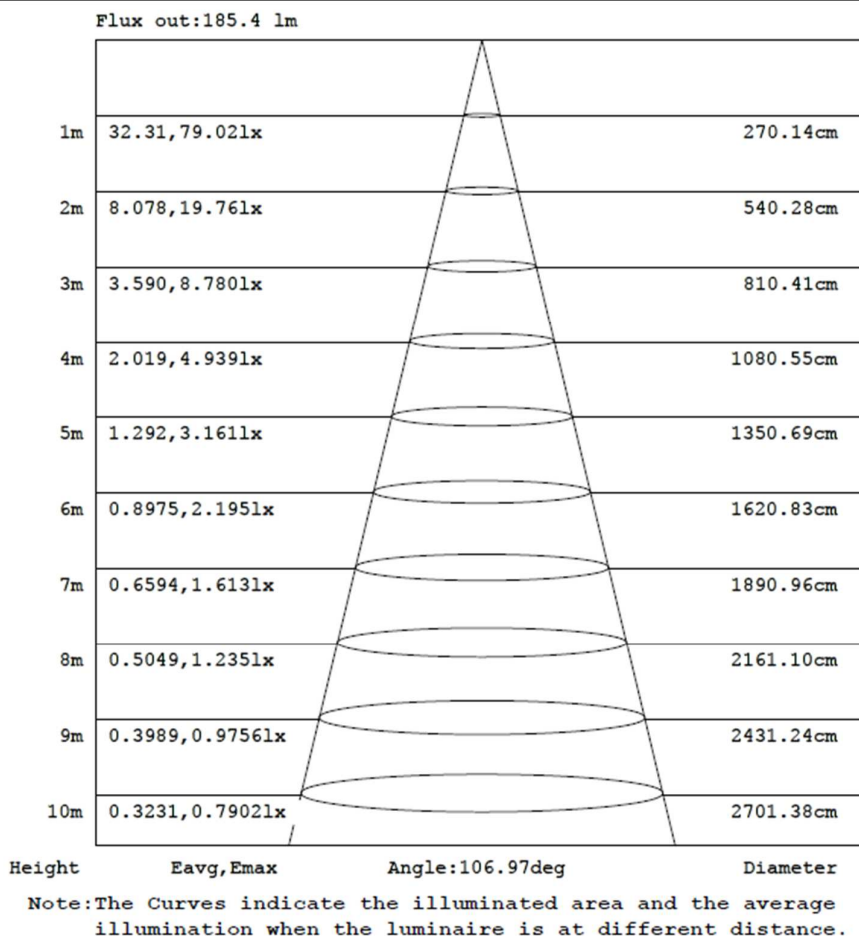


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Mount Height: 10 m
Illuminance - AAI Figure

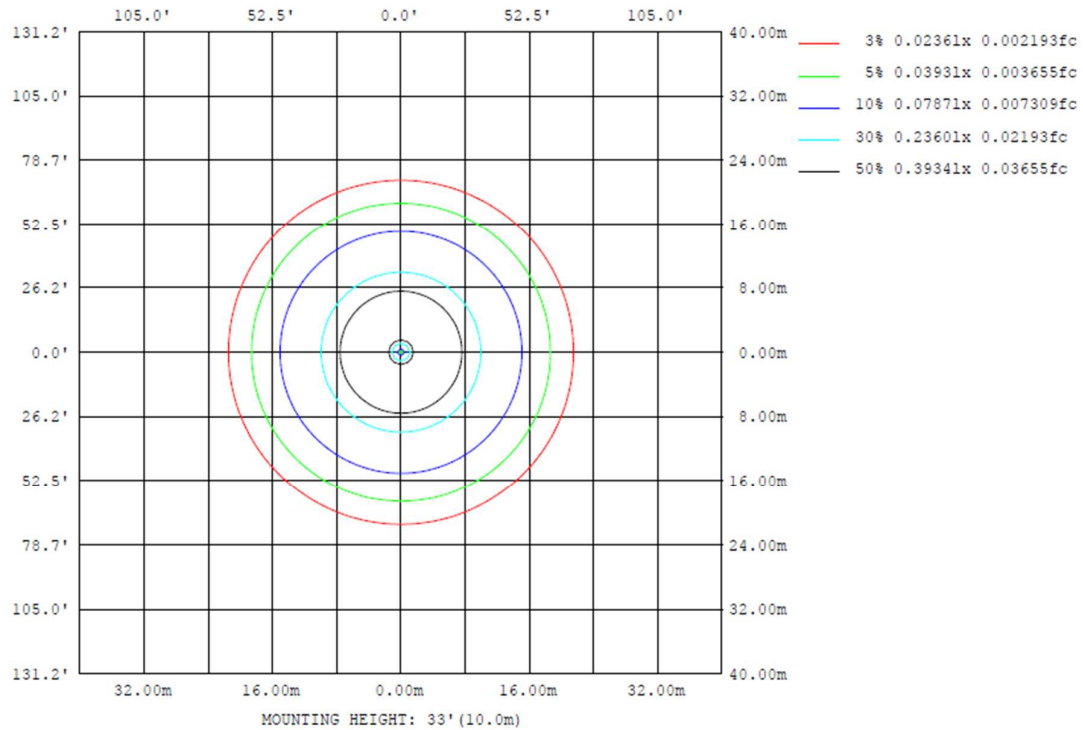


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Mount Height: 10 m
Illuminance – ISOLUX DIAGRAM



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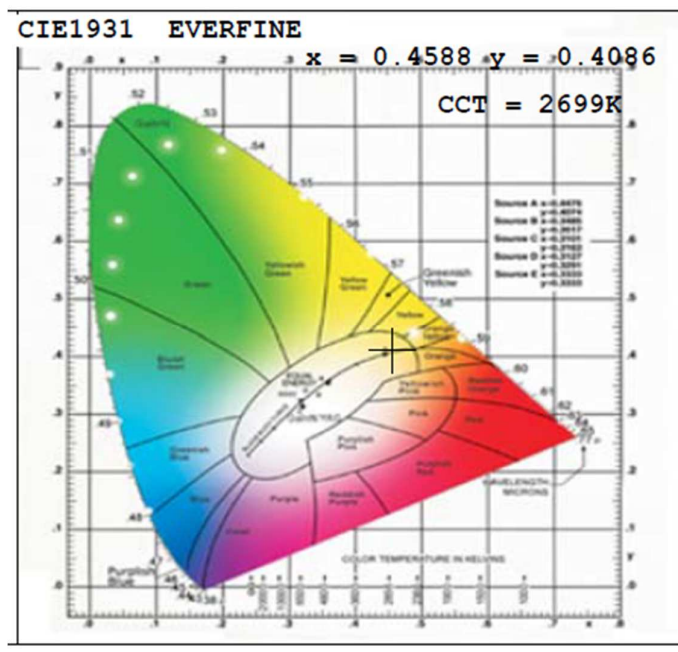
Test Condition: Integrating Sphere Testing (LOW-Output)

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')
0241220-12-011	N/A	2699	95.1	0.4588	0.4086	0.2627	0.5264

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)
0241220-12-011	N/A	5.03	111.8	0.56	/	72.00	128.57



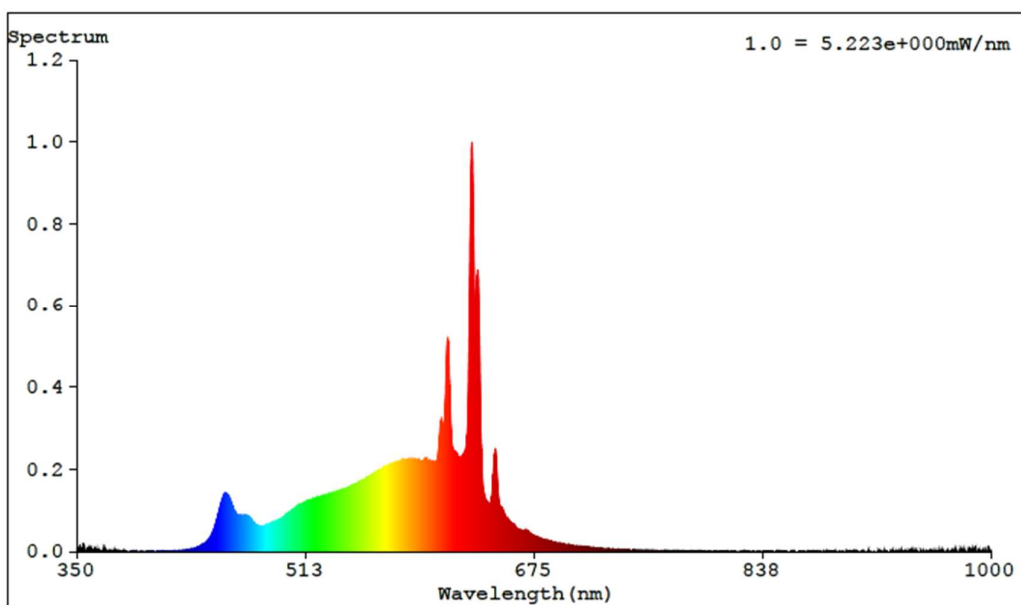
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0006	480	0.0602	580	0.2205	680	0.0316	780	0.0016
385	0.0002	485	0.0645	585	0.2242	685	0.0269		
390	0.0003	490	0.0724	590	0.2229	690	0.0226		
395	0.0010	495	0.0807	595	0.2202	695	0.0198		
400	0.0000	500	0.0937	600	0.2204	700	0.0166		
405	0.0006	505	0.1058	605	0.2195	705	0.0135		
410	0.0006	510	0.1161	610	0.3101	710	0.0121		
415	0.0003	515	0.1246	615	0.4065	715	0.0108		
420	0.0014	520	0.1305	620	0.2386	720	0.0087		
425	0.0029	525	0.1350	625	0.2380	725	0.0066		
430	0.0049	530	0.1403	630	0.8800	730	0.0059		
435	0.0098	535	0.1469	635	0.6856	735	0.0052		
440	0.0188	540	0.1507	640	0.1330	740	0.0044		
445	0.0365	545	0.1607	645	0.1374	745	0.0042		
450	0.0859	550	0.1672	650	0.1273	750	0.0035		
455	0.1397	555	0.1755	655	0.0855	755	0.0030		
460	0.1177	560	0.1864	660	0.0676	760	0.0026		
465	0.0873	565	0.1991	665	0.0515	765	0.0022		
470	0.0881	570	0.2065	670	0.0517	770	0.0019		
475	0.0738	575	0.2142	675	0.0388	775	0.0018		



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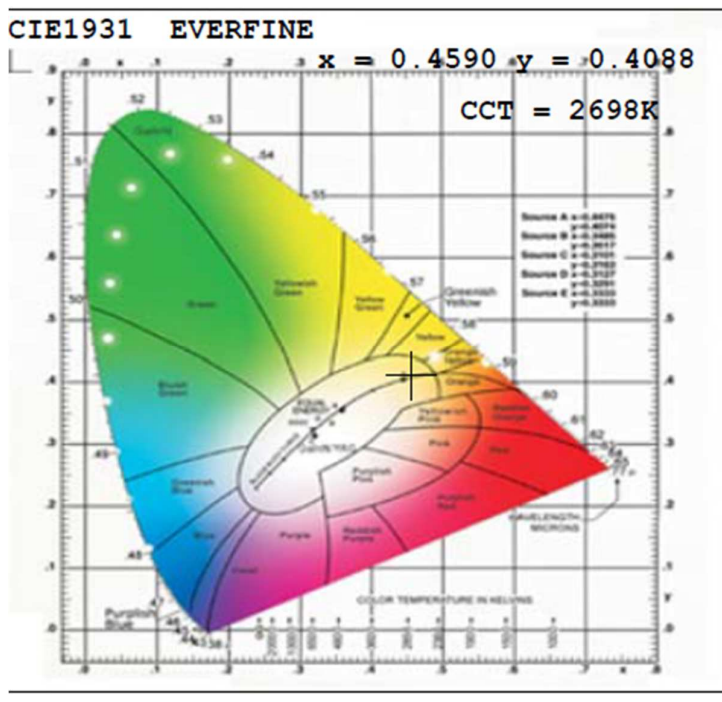
Test Condition: Integrating Sphere Testing (Middle-Output)

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')
0241220-12-011	N/A	2698	95.1	0.4590	0.4088	0.2627	0.5265

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)
0241220-12-011	N/A	5.0	217.4	1.08	/	140.59	130.18



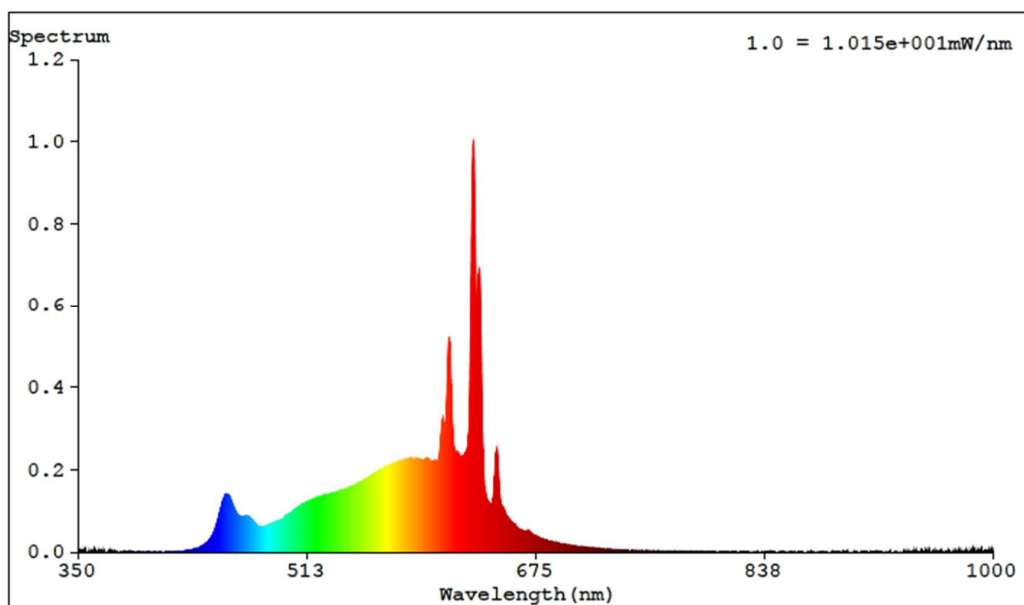
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0011	480	0.0601	580	0.2214	680	0.0320	780	0.0018
385	0.0005	485	0.0649	585	0.2237	685	0.0270		
390	0.0000	490	0.0725	590	0.2266	690	0.0230		
395	0.0007	495	0.0802	595	0.2204	695	0.0192		
400	0.0003	500	0.0933	600	0.2214	700	0.0165		
405	0.0007	505	0.1063	605	0.2200	705	0.0141		
410	0.0004	510	0.1171	610	0.3104	710	0.0117		
415	0.0007	515	0.1254	615	0.4086	715	0.0099		
420	0.0016	520	0.1329	620	0.2410	720	0.0087		
425	0.0030	525	0.1364	625	0.2407	725	0.0075		
430	0.0053	530	0.1411	630	0.8818	730	0.0059		
435	0.0106	535	0.1469	635	0.6887	735	0.0049		
440	0.0191	540	0.1525	640	0.1346	740	0.0040		
445	0.0386	545	0.1590	645	0.1360	745	0.0034		
450	0.0878	550	0.1683	650	0.1269	750	0.0037		
455	0.1400	555	0.1772	655	0.0864	755	0.0028		
460	0.1133	560	0.1870	660	0.0668	760	0.0020		
465	0.0864	565	0.1980	665	0.0541	765	0.0022		
470	0.0871	570	0.2087	670	0.0531	770	0.0019		
475	0.0725	575	0.2154	675	0.0391	775	0.0015		



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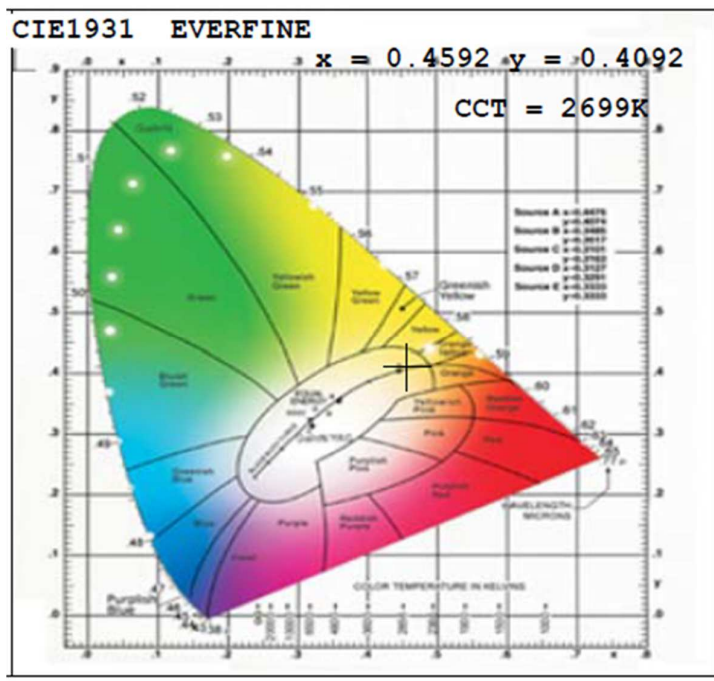
Test Condition: Integrating Sphere Testing (HIGH-Output)

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')
0241220-12-011	N/A	2699	99.4	0.4592	0.4092	0.2627	0.5267

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)
0241220-12-011	N/A	5.03	464.6	2.34	/	277.42	118.56



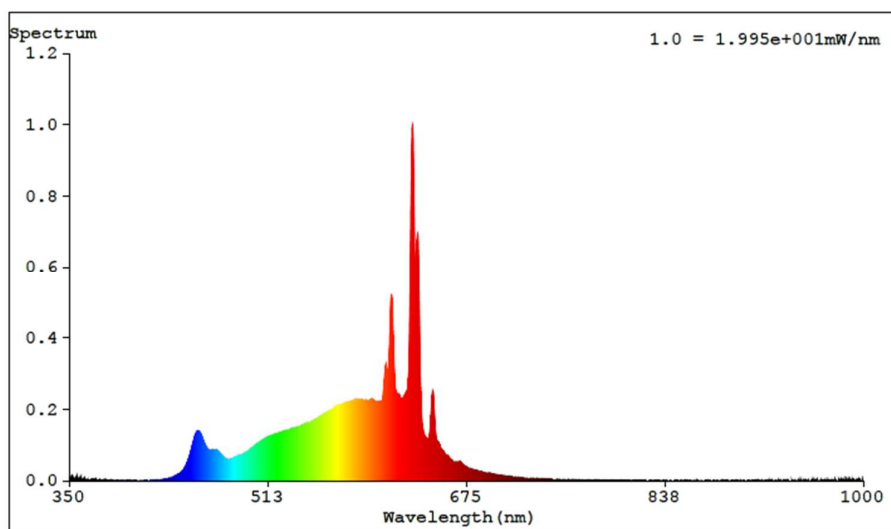
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0001	480	0.0594	580	0.2223	680	0.0315	780	0.0013
385	0.0000	485	0.0644	585	0.2251	685	0.0270		
390	0.0008	490	0.0716	590	0.2265	690	0.0226		
395	0.0002	495	0.0804	595	0.2228	695	0.0197		
400	0.0011	500	0.0931	600	0.2227	700	0.0163		
405	0.0003	505	0.1061	605	0.2199	705	0.0142		
410	0.0003	510	0.1183	610	0.3101	710	0.0122		
415	0.0005	515	0.1259	615	0.4090	715	0.0099		
420	0.0017	520	0.1325	620	0.2409	720	0.0083		
425	0.0033	525	0.1374	625	0.2417	725	0.0071		
430	0.0056	530	0.1423	630	0.8849	730	0.0062		
435	0.0104	535	0.1486	635	0.6926	735	0.0052		
440	0.0196	540	0.1531	640	0.1336	740	0.0046		
445	0.0413	545	0.1619	645	0.1368	745	0.0037		
450	0.0915	550	0.1700	650	0.1276	750	0.0028		
455	0.1378	555	0.1793	655	0.0864	755	0.0031		
460	0.1089	560	0.1879	660	0.0682	760	0.0026		
465	0.0853	565	0.1995	665	0.0519	765	0.0020		
470	0.0856	570	0.2113	670	0.0539	770	0.0022		
475	0.0708	575	0.2171	675	0.0384	775	0.0017		



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Product Picture (not to scale)



External view

Attachment: None

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