

Test Report

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

< LED PERFORMANCE TESTING -[SLTB27127W]>

REPORT NUMBER

2501B0461SHA-014

ISSUE DATE

2025-01-08

[REVISED DATE]

[None]

PAGES

17

DOCUMENT CONTROL NUMBER

General Report Format (2018-08-15)

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Test Report

Report No. 2501B0461SHA-014

Date: 2025-01-08

TEST OF Moneta Accent Rechargeable Table Lamp
MODEL NO. SLTB27127W

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 SLTB27127W. The sample was received by Intertek on December 20, 2024, in undamaged condition, and one sample was tested as received. The sample designations was 0241220-12-014.

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.:	SLTB27127W
Product Description:	Moneta Accent Rechargeable Table Lamp
LED Model No.:	DTG-AT03a-0220-05-02-B0004-230701
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)	194.814	46.096	95.877	194.34
Input Power(W)	2.11	0.54	1.03	2.09
Lumen Efficacy(lm/w)	92.33	85.36	93.08	92.99

Criteria	Integrating Sphere (LOW-Output)	Integrating Sphere (MIDDLE-Output)	Integrating Sphere (HIGH-Output)
Correlated Color Temperature(K)	2701	2699	2700
Color Reding Index-Ra()	90.7	90.7	90.5
Color Reding Index-R9()	55.4	55.2	54.5
Duv()	0.00204	0.00193	0.00186
Chromaticity Coordinate(x)	0.4634	0.4633	0.4631
Chromaticity Coordinate(y)	0.4170	0.4166	0.4164
Chromaticity Coordinate(u')	0.2619	0.2620	0.2620
Chromaticity Coordinate(v')	0.5303	0.5301	0.5300

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)
0241220-12-014	N/A	5.03	413.5	2.11	/	194.81	92.33

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	Zonal Luminaire Density (%)
0-30	40.14	20.6
0-40	73.64	37.8
0-60	139.5	71.6
60-90	43.1	22.1
70-100	22.0	11.4
90-120	7.0	3.6
0-90	182.6	93.7
90-180	12.21	6.3
0-180	194.81	100

Beam Angle

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

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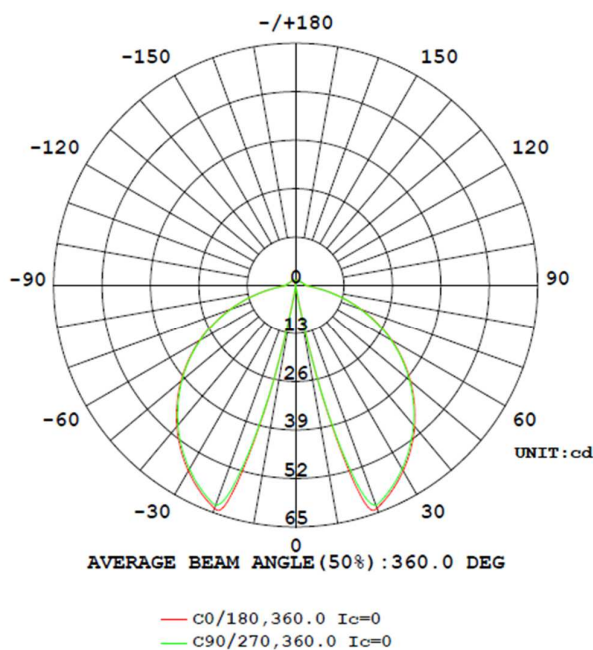
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Intensity (Candlepower) Summary at 25°C – Candelas

C \ G(°)	0	22.5	45	67.5	90
0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0
10	2.0	1.5	2.2	3.1	3.6
15	43.7	43.3	42.8	42.2	42.0
20	63.8	63.6	63.3	63.1	63.0
25	61.0	60.8	60.6	60.5	60.4
30	57.7	57.4	57.3	57.2	57.1
35	53.9	53.7	53.5	53.4	53.4
40	49.7	49.5	49.4	49.2	49.2
45	45.1	44.9	44.8	44.7	44.7
50	40.2	40.1	40.0	39.9	39.9
55	35.1	35.0	35.0	34.9	34.8
60	29.8	29.7	29.6	29.6	29.5
65	24.3	24.2	24.2	24.1	24.0
70	18.7	18.7	18.6	18.5	18.5
75	13.3	13.2	13.1	13.1	13.1
80	8.3	8.2	8.2	8.2	8.2
85	4.4	4.4	4.4	4.5	4.5
90	2.8	2.8	2.8	2.8	2.8

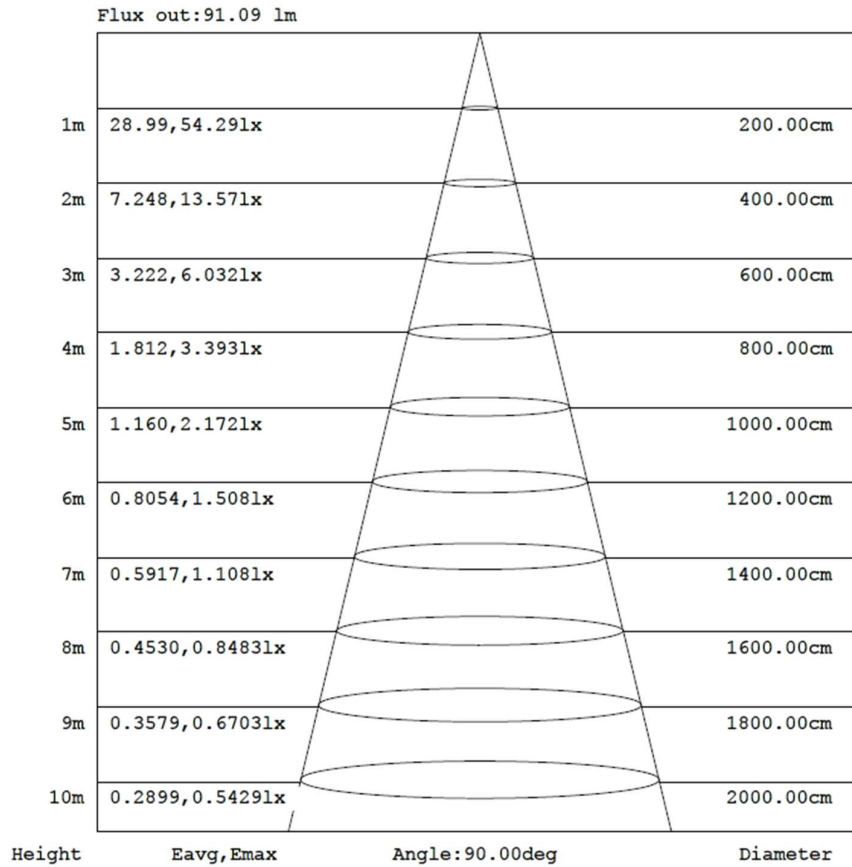
Luminous Intensity Distribution Diagram



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Mount Height: 10 m
Illuminance - AAI Figure



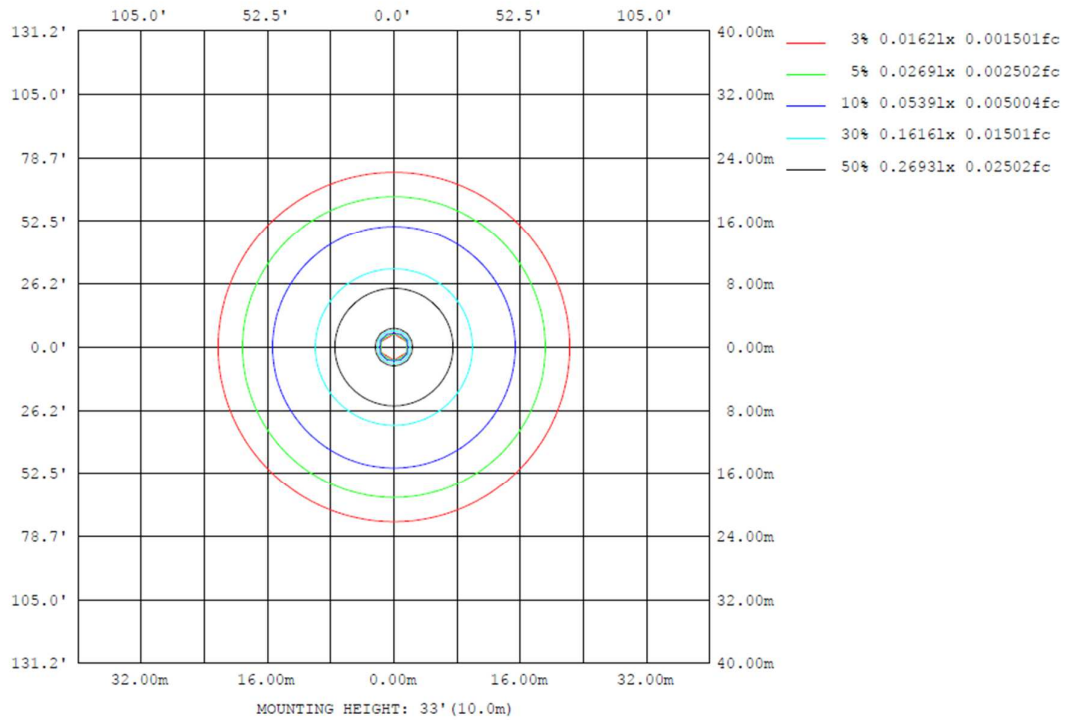
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Mount Height: 10 m
Illuminance – ISOLUX DIAGRAM



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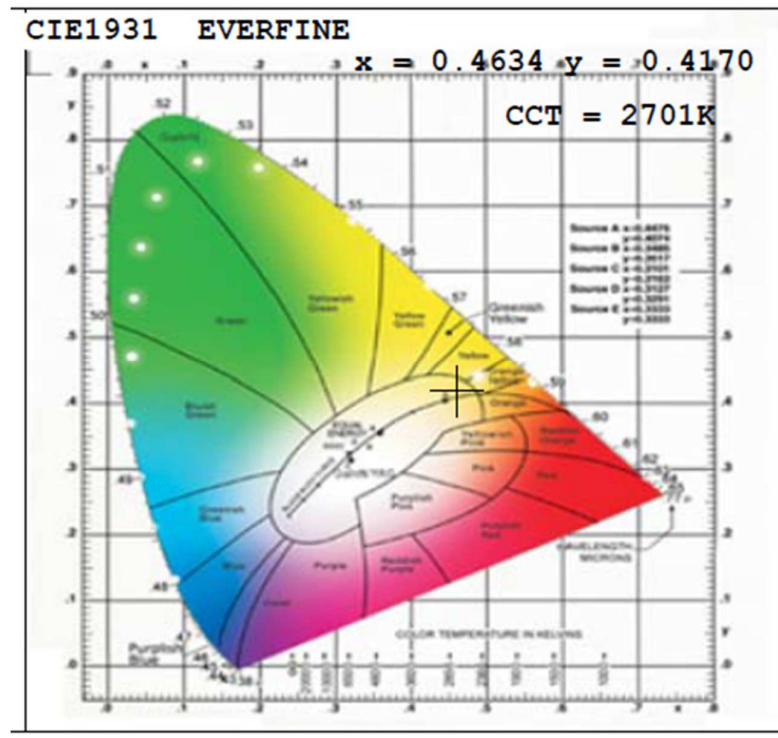
Test Condition: Integrating Sphere Testing (LOW-Output)

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')
0241220-12-014	N/A	2701	90.7	0.4634	0.4170	0.2619	0.5303

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)
0241220-12-014	N/A	5.06	107.1	0.54	/	46.10	85.36



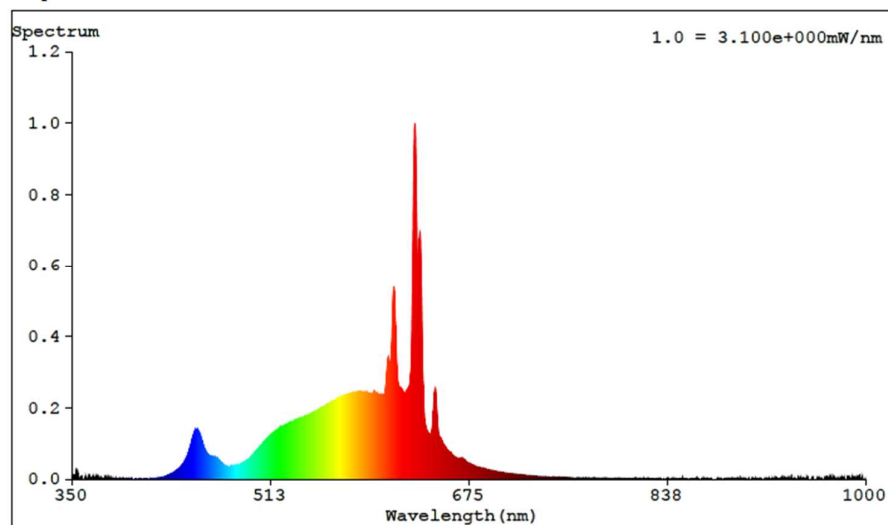
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.0360	580	0.2412	680	0.0369	780	0.0009
385	0.0004	485	0.0403	585	0.2447	685	0.0316		
390	0.0005	490	0.0468	590	0.2433	690	0.0272		
395	0.0016	495	0.0578	595	0.2387	695	0.0237		
400	0.0000	500	0.0762	600	0.2407	700	0.0201		
405	0.0009	505	0.0958	605	0.2355	705	0.0166		
410	0.0004	510	0.1136	610	0.3269	710	0.0150		
415	0.0011	515	0.1286	615	0.4282	715	0.0120		
420	0.0022	520	0.1407	620	0.2533	720	0.0101		
425	0.0061	525	0.1514	625	0.2510	725	0.0090		
430	0.0123	530	0.1608	630	0.8809	730	0.0079		
435	0.0229	535	0.1676	635	0.6934	735	0.0071		
440	0.0383	540	0.1746	640	0.1445	740	0.0056		
445	0.0693	545	0.1812	645	0.1435	745	0.0048		
450	0.1272	550	0.1909	650	0.1351	750	0.0047		
455	0.1245	555	0.2007	655	0.0937	755	0.0043		
460	0.0753	560	0.2095	660	0.0745	760	0.0035		
465	0.0638	565	0.2208	665	0.0590	765	0.0031		
470	0.0545	570	0.2309	670	0.0584	770	0.0023		
475	0.0398	575	0.2366	675	0.0443	775	0.0020		



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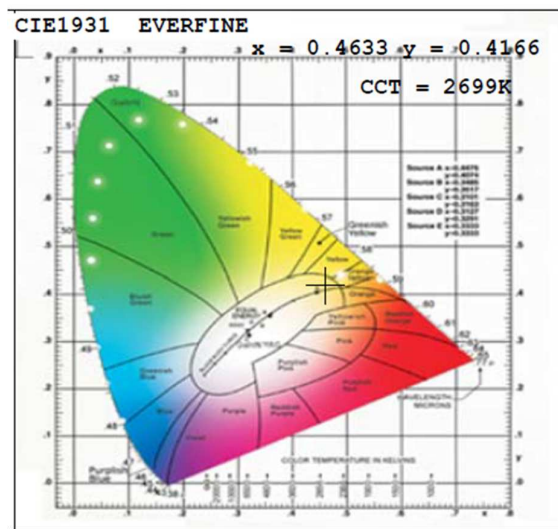
Test Condition: Integrating Sphere Testing (Middle-Output)

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')
0241220-12-014	N/A	2699	90.7	0.4633	0.4166	0.2620	0.5301

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)
0241220-12-014	N/A	5.02	204.7	1.03	/	95.88	93.08



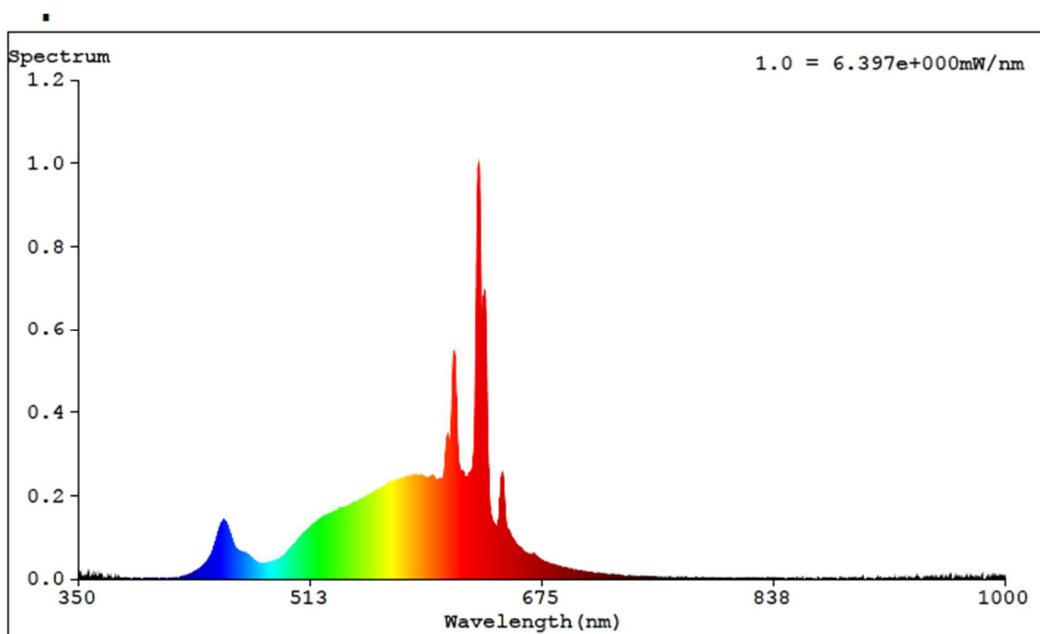
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0011	480	0.0359	580	0.2444	680	0.0378	780	0.0019
385	0.0002	485	0.0397	585	0.2464	685	0.0315		
390	0.0009	490	0.0460	590	0.2449	690	0.0271		
395	0.0000	495	0.0562	595	0.2399	695	0.0239		
400	0.0010	500	0.0759	600	0.2389	700	0.0199		
405	0.0007	505	0.0963	605	0.2403	705	0.0173		
410	0.0000	510	0.1152	610	0.3313	710	0.0150		
415	0.0010	515	0.1300	615	0.4355	715	0.0121		
420	0.0024	520	0.1432	620	0.2562	720	0.0109		
425	0.0071	525	0.1531	625	0.2558	725	0.0092		
430	0.0135	530	0.1604	630	0.8793	730	0.0080		
435	0.0236	535	0.1693	635	0.6957	735	0.0073		
440	0.0401	540	0.1764	640	0.1458	740	0.0061		
445	0.0739	545	0.1842	645	0.1446	745	0.0053		
450	0.1296	550	0.1922	650	0.1372	750	0.0046		
455	0.1242	555	0.2017	655	0.0959	755	0.0036		
460	0.0762	560	0.2119	660	0.0737	760	0.0029		
465	0.0640	565	0.2217	665	0.0595	765	0.0020		
470	0.0549	570	0.2305	670	0.0581	770	0.0022		
475	0.0403	575	0.2382	675	0.0448	775	0.0018		



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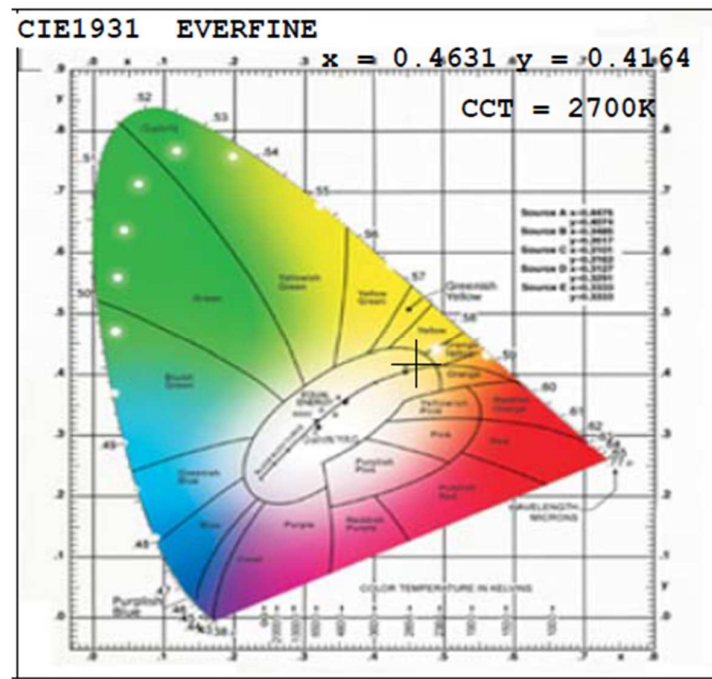
Test Condition: Integrating Sphere Testing (HIGH-Output)

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')
0241220-12-014	N/A	2700	90.5	0.4631	0.4164	0.2620	0.5300

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)
0241220-12-014	N/A	5.07	413.2	2.09	/	194.34	92.99



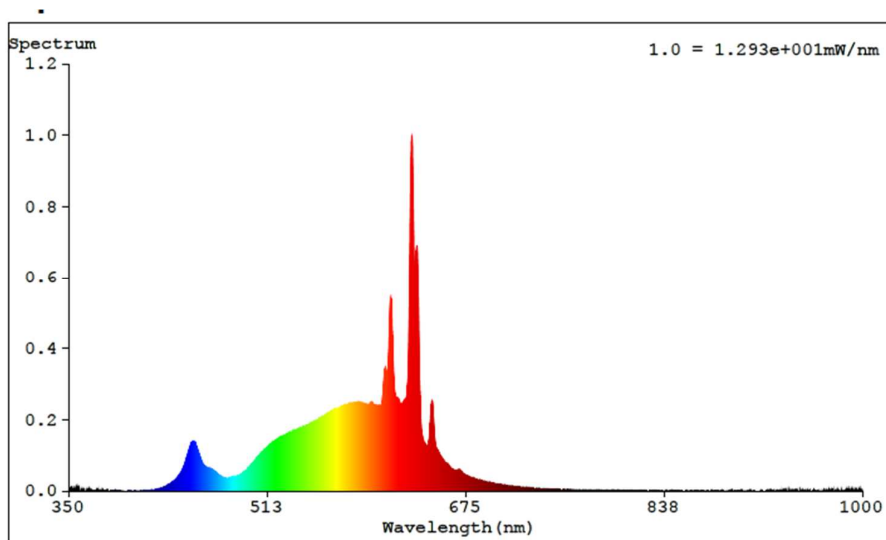
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Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.0355	580	0.2454	680	0.0366	780	0.0021
385	0.0005	485	0.0396	585	0.2469	685	0.0314		
390	0.0011	490	0.0459	590	0.2468	690	0.0278		
395	0.0005	495	0.0580	595	0.2404	695	0.0235		
400	0.0004	500	0.0761	600	0.2415	700	0.0198		
405	0.0000	505	0.0960	605	0.2386	705	0.0173		
410	0.0005	510	0.1162	610	0.3348	710	0.0143		
415	0.0012	515	0.1315	615	0.4372	715	0.0124		
420	0.0031	520	0.1434	620	0.2574	720	0.0109		
425	0.0064	525	0.1525	625	0.2560	725	0.0095		
430	0.0144	530	0.1618	630	0.8782	730	0.0084		
435	0.0260	535	0.1682	635	0.6922	735	0.0074		
440	0.0424	540	0.1765	640	0.1446	740	0.0062		
445	0.0773	545	0.1848	645	0.1445	745	0.0052		
450	0.1315	550	0.1928	650	0.1383	750	0.0047		
455	0.1214	555	0.2039	655	0.0955	755	0.0038		
460	0.0750	560	0.2121	660	0.0753	760	0.0035		
465	0.0634	565	0.2238	665	0.0596	765	0.0029		
470	0.0539	570	0.2309	670	0.0581	770	0.0023		
475	0.0385	575	0.2376	675	0.0450	775	0.0024		



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Product Picture (not to scale)



External view

Attachment: None

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