

Test Report

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

< LED PERFORMANCE TESTING -[SLTB53427XX]>

REPORT NUMBER

2501B0461SHA-008

ISSUE DATE

2025-01-08

[REVISED DATE]

[None]

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Test Report

Report No. 2501B0461SHA-008

Date: 2025-01-08

TEST OF Doppia 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 SLTB53427XX. The sample was received by Intertek on December 20, 2024, in undamaged condition, and one sample was tested as received. The sample designations was 0241220-12-008.

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

Report No: 2501B0461SHA-008

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	SLTB53427XX
Product Description:	Doppia Short Accent Rechargeable Table Lamp
LED Model No.:	DTG-AT03a-0220-05-02-B0003-230702
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)	176.56	40.24	86.00	176.08
Input Power(W)	2.06	0.441	0.939	2.05
Lumen Efficacy(lm/w)	85.71	91.25	91.59	85.89

Criteria	Integrating Sphere (LOW-Output)	Integrating Sphere (MIDDLE-Output)	Integrating Sphere (HIGH-Output)
Correlated Color Temperature(K)	2637	2638	2644
Color Reding Index-Ra()	91.9	91.9	91.6
Color Reding Index-R9()	60	60	59
Duv()	0.00143	0.00140	0.00146
Chromaticity Coordinate(x)	0.4677	0.4675	0.4671
Chromaticity Coordinate(y)	0.4162	0.4161	0.4162
Chromaticity Coordinate(u')	0.2650	0.2649	0.2647
Chromaticity Coordinate(v')	0.5306	0.5306	0.5305

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

EQUIPMENT LIST

Report No: 2501B0461SHA-008

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

Report No: 2501B0461SHA-008

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-008

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)
0241220-12-008	N/A	5.03	410.2	2.06	/	176.56	85.71

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	Zonal Luminaire Density (%)
0-30	31.64	17.9
0-40	62.81	35.6
0-60	118.0	66.8
60-90	36.5	20.7
70-100	22.4	12.6
90-120	9.9	5.6
0-90	154.5	87.5
90-180	22.06	12.5
0-180	176.56	100

Beam Angle

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

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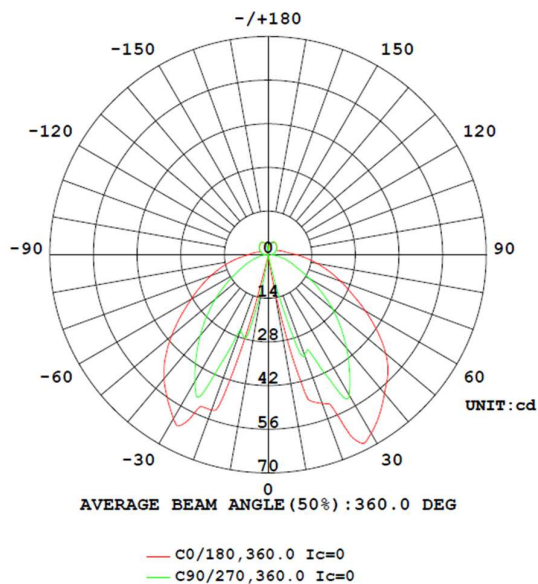
RESULTS OF TESTS

Report No: 2501B0461SHA-008

Intensity (Candlepower) Summary at 25°C – Candelas

C \ G(°)	0	22.5	45	67.5	90
0	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
10	6.46	0.10	0.00	0.00	0.00
15	45.77	27.65	1.69	3.15	14.13
20	50.75	51.00	47.85	31.45	34.48
25	65.14	68.48	65.73	59.00	40.19
30	66.16	65.65	61.74	54.80	52.00
35	62.40	61.67	56.53	48.59	45.58
40	58.11	57.24	50.45	42.21	39.20
45	54.31	52.52	43.99	35.93	33.02
50	49.27	47.03	37.92	29.88	26.98
55	42.83	40.66	32.45	24.29	21.07
60	36.04	34.15	27.15	19.63	15.41
65	29.77	28.06	22.10	15.29	10.81
70	24.68	23.04	17.36	11.20	7.99
75	20.09	18.62	13.50	7.55	5.70
80	15.89	14.59	10.09	4.93	3.68
85	12.24	11.06	7.25	3.78	2.01
90	9.18	8.10	5.39	3.06	1.09

Luminous Intensity Distribution Diagram



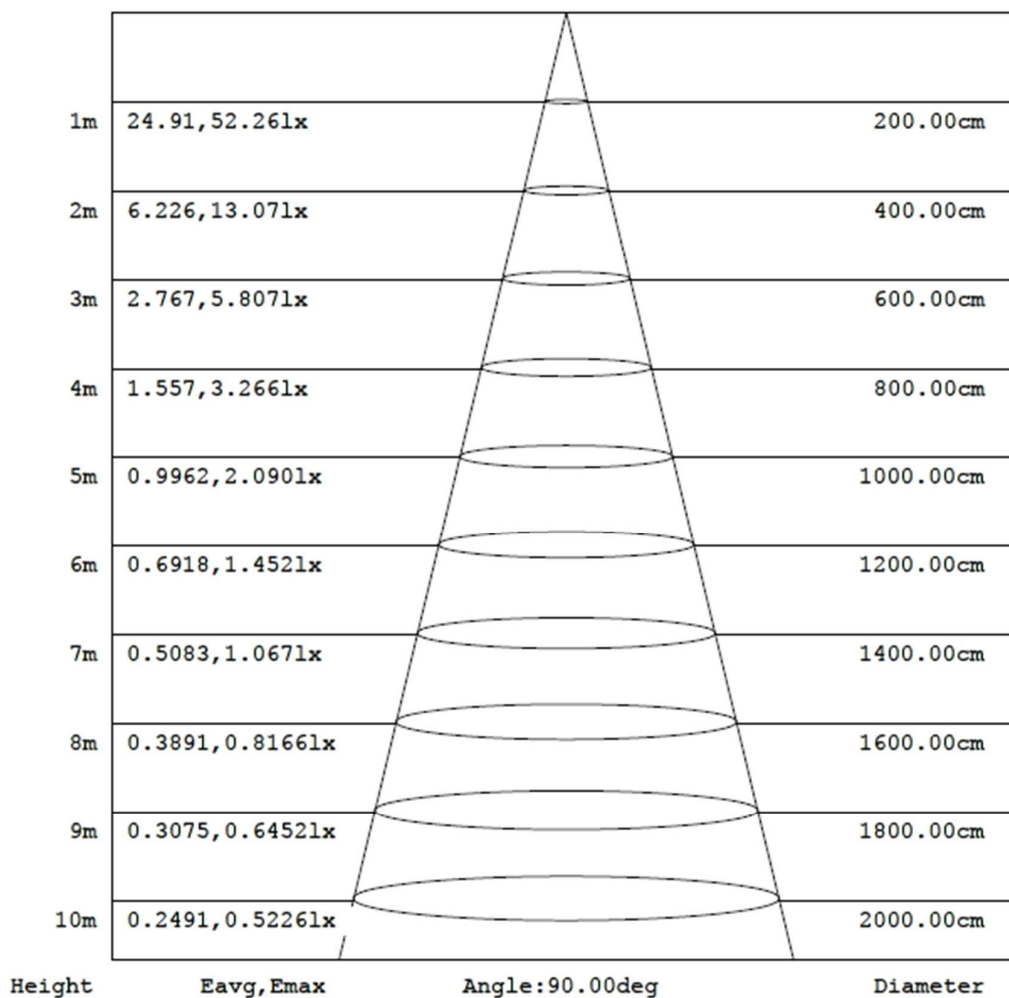
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RESULTS OF TESTS

Report No: 2501B0461SHA-008

Mount Height: 10 m
Illuminance - AAI Figure

Flux out: 78.24 lm



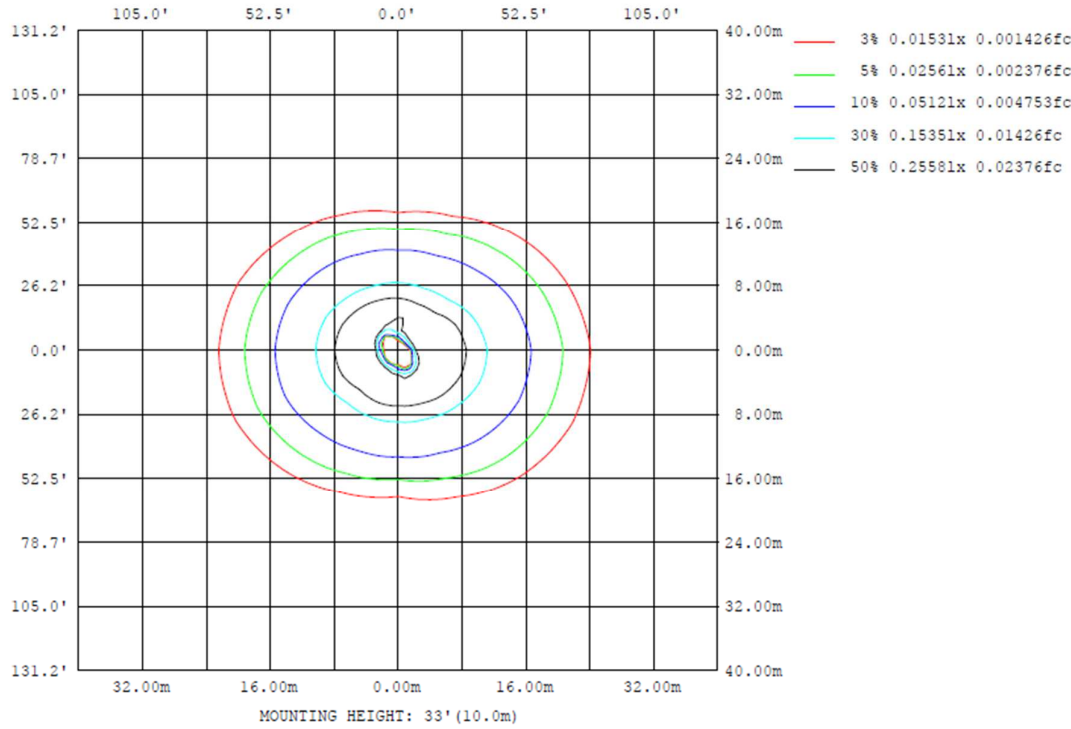
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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RESULTS OF TESTS

Report No: 2501B0461SHA-008

Mount Height: 10 m
<u>Illuminance – ISOLUX DIAGRAM</u>



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RESULTS OF TESTS

Report No: 2501B0461SHA-008

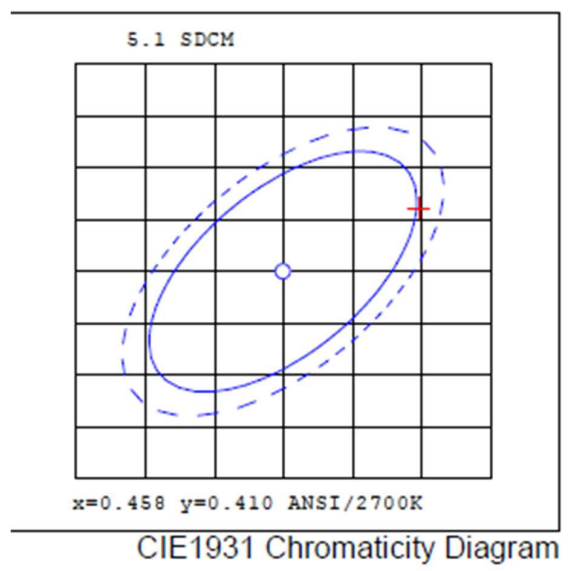
Test Condition: Integrating Sphere Testing (LOW-Output)

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')
0241220-12-008	N/A	2637	91.9	0.4677	0.4162	0.2650	0.5306

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)
0241220-12-008	N/A	5.10	85.6	0.441	/	40.24	91.25



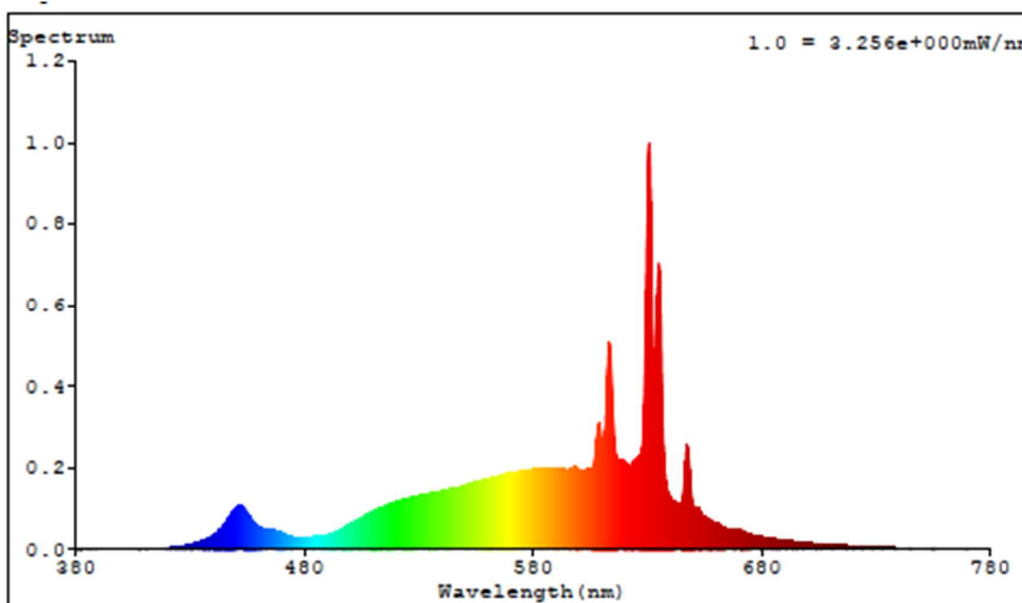
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RESULTS OF TESTS

Report No: 2501B0461SHA-008

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0074	480	0.0958	580	0.6409	680	0.1031	780	0.0067
385	0.0049	485	0.1050	585	0.6512	685	0.0881		
390	0.0031	490	0.1193	590	0.6466	690	0.0760		
395	0.0030	495	0.1533	595	0.6374	695	0.0655		
400	0.0022	500	0.2032	600	0.6389	700	0.0556		
405	0.0031	505	0.2559	605	0.6393	705	0.0478		
410	0.0036	510	0.3046	610	0.8366	710	0.0407		
415	0.0080	515	0.3468	615	1.0200	715	0.0351		
420	0.0146	520	0.3813	620	0.7038	720	0.0303		
425	0.0251	525	0.4081	625	0.7243	725	0.0259		
430	0.0429	530	0.4299	630	2.8440	730	0.0219		
435	0.0705	535	0.4505	635	2.2710	735	0.0195		
440	0.1149	540	0.4692	640	0.4175	740	0.0171		
445	0.2046	545	0.4902	645	0.3792	745	0.0143		
450	0.3348	550	0.5135	650	0.3549	750	0.0128		
455	0.2925	555	0.5381	655	0.2664	755	0.0109		
460	0.1862	560	0.5631	660	0.2167	760	0.0098		
465	0.1628	565	0.5886	665	0.1686	765	0.0086		
470	0.1350	570	0.6102	670	0.1697	770	0.0075		
475	0.1013	575	0.6292	675	0.1232	775	0.0070		



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RESULTS OF TESTS

Report No: 2501B0461SHA-008

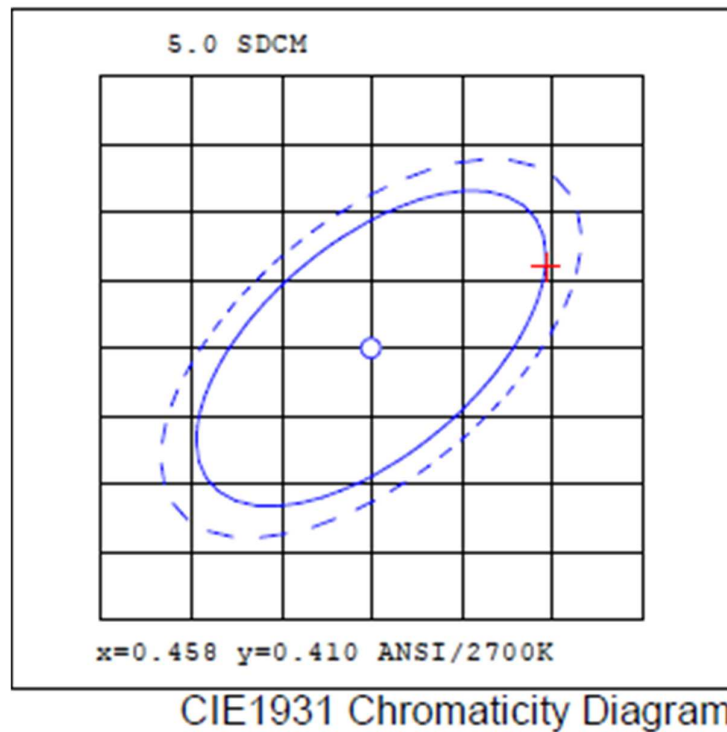
Test Condition: Integrating Sphere Testing (Middle-Output)

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')
0241220-12-008	N/A	2638	91.9	0.4675	0.4161	0.2649	0.5306

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)
0241220-12-008	N/A	5.06	185.6	0.939	/	86.00	91.59



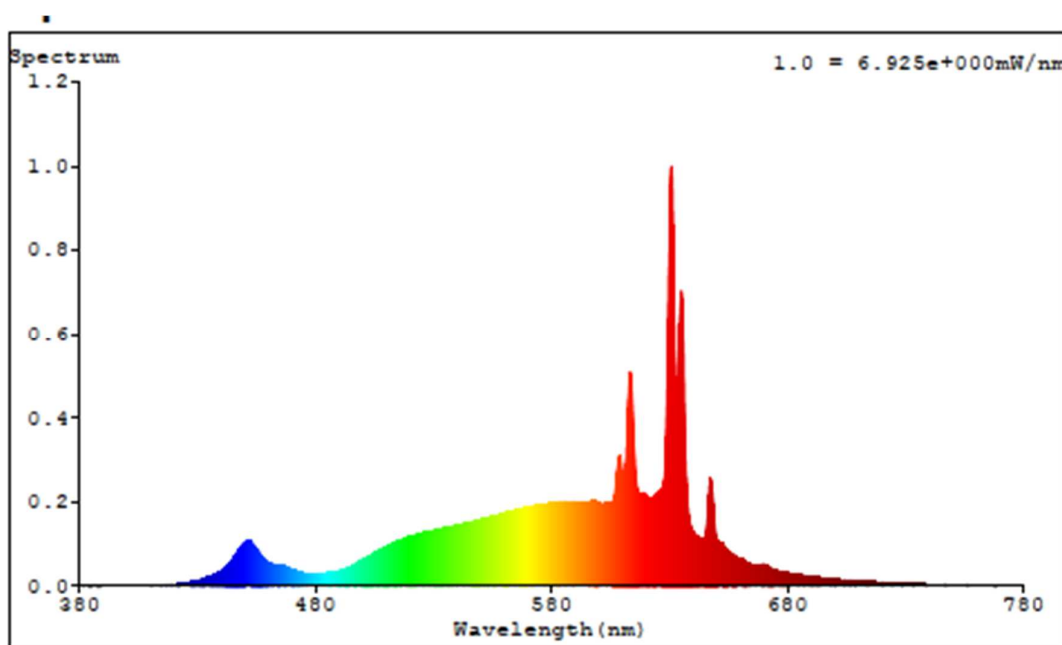
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RESULTS OF TESTS

Report No: 2501B0461SHA-008

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0178	480	0.2036	580	1.3730	680	0.2207	780	0.0138
385	0.0162	485	0.2232	585	1.3920	685	0.1894		
390	0.0075	490	0.2551	590	1.3830	690	0.1631		
395	0.0075	495	0.3265	595	1.3610	695	0.1405		
400	0.0064	500	0.4327	600	1.3670	700	0.1188		
405	0.0058	505	0.5451	605	1.3690	705	0.1016		
410	0.0084	510	0.6492	610	1.7940	710	0.0870		
415	0.0186	515	0.7418	615	2.1890	715	0.0751		
420	0.0325	520	0.8150	620	1.5070	720	0.0651		
425	0.0565	525	0.8749	625	1.5460	725	0.0560		
430	0.0963	530	0.9200	630	6.0370	730	0.0480		
435	0.1564	535	0.9635	635	4.8280	735	0.0416		
440	0.2551	540	1.0030	640	0.8909	740	0.0361		
445	0.4515	545	1.0490	645	0.8100	745	0.0311		
450	0.7201	550	1.0980	650	0.7601	750	0.0273		
455	0.6141	555	1.1500	655	0.5700	755	0.0233		
460	0.3932	560	1.2050	660	0.4622	760	0.0208		
465	0.3447	565	1.2580	665	0.3610	765	0.0186		
470	0.2833	570	1.3050	670	0.3620	770	0.0164		
475	0.2131	575	1.3440	675	0.2646	775	0.0150		



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RESULTS OF TESTS

Report No: 2501B0461SHA-008

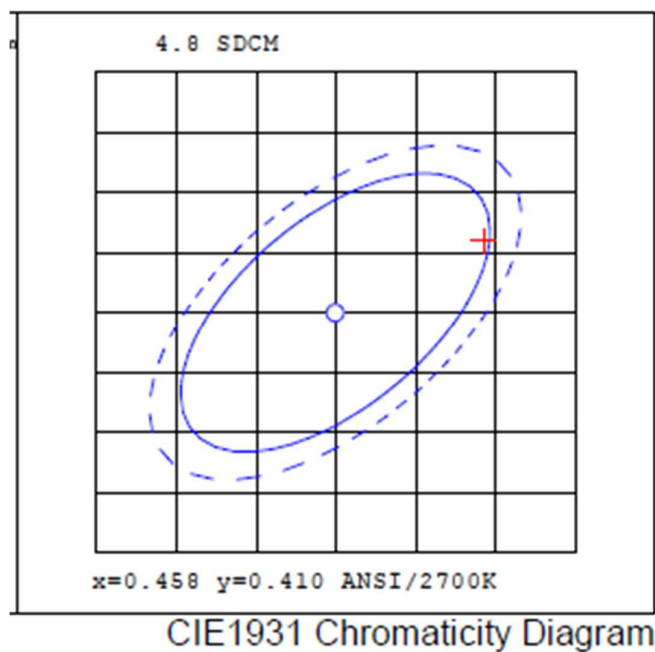
Test Condition: Integrating Sphere Testing (HIGH-Output)

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')
0241220-12-008	N/A	2644	91.6	0.4671	0.4162	0.2647	0.5305

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)
0241220-12-008	N/A	5.0	409.8	2.05	/	176.08	85.89



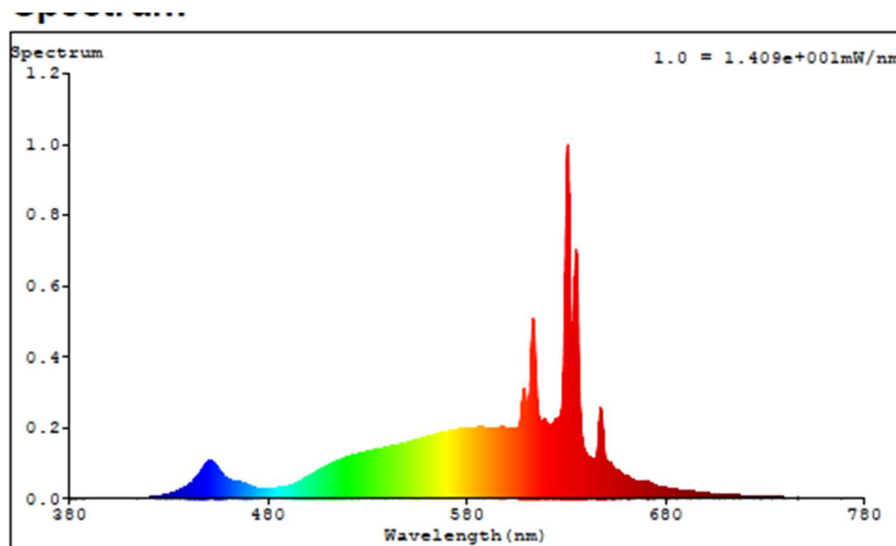
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RESULTS OF TESTS

Report No: 2501B0461SHA-008

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0326	480	0.4079	580	2.8130	680	0.4516	780	0.0270
385	0.0192	485	0.4489	585	2.8500	685	0.3869		
390	0.0162	490	0.5157	590	2.8370	690	0.3322		
395	0.0125	495	0.6695	595	2.7910	695	0.2857		
400	0.0126	500	0.8889	600	2.8040	700	0.2449		
405	0.0158	505	1.1200	605	2.8010	705	0.2098		
410	0.0214	510	1.3320	610	3.6610	710	0.1792		
415	0.0391	515	1.5210	615	4.4660	715	0.1547		
420	0.0701	520	1.6690	620	3.0780	720	0.1331		
425	0.1223	525	1.7890	625	3.1570	725	0.1140		
430	0.2073	530	1.8880	630	12.2900	730	0.0981		
435	0.3347	535	1.9770	635	9.8340	735	0.0846		
440	0.5535	540	2.0600	640	1.8200	740	0.0744		
445	0.9741	545	2.1500	645	1.6610	745	0.0636		
450	1.4870	550	2.2530	650	1.5530	750	0.0558		
455	1.2120	555	2.3560	655	1.1660	755	0.0484		
460	0.7871	560	2.4730	660	0.9458	760	0.0448		
465	0.6870	565	2.5800	665	0.7371	765	0.0391		
470	0.5567	570	2.6740	670	0.7418	770	0.0338		
475	0.4237	575	2.7540	675	0.5403	775	0.0313		



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

RESULTS OF TESTS

Report No: 2501B0461SHA-008

Product Picture (not to scale)



External view

Attachment: None

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