



TEST REPORT

For

Beyond LED Technology

Model Number:	BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)	
Report Type:	Electrical, Photometric and ISTMT tests according to the following standards and show the compliance to DLC Program SSL Technical Requirements V5.1	
Standards:	IES LM-79-08: Approved Method: Electrical & Photometric Measurement of Solid-state Lighting Products ANSI C82.77-10-2014: Harmonic Emission Limits – Related Power Quality Requirements for Lighting ANSI/UL 1598-2008: Standard for Safety of Luminaires CIE 190:2010 Calculation and presentation of unified glare rating tables for indoor lighting luminaires IES TM-30-18: IES Method for Evaluating Light Source Color Rendition	
Project Engineer:	Bay Wang	
Report Number:	RKSB220606011-10-2	
Sample Size:	One sample was received on 2022-06-06 and used for testing.	
Test Date:	2022-06-19 to 2022-06-20	
Report Date:	2022-06-20	
Reviewed By:	Seven Xia / EE Engineer	
Prepared By:	Bay Area Compliance Laboratories Corp. (Kunshan). No. 248 Chenghu Road, Kunshan, Jiangsu, People's Republic of China Tel: +86-0512-86175000 Fax: +86-0512-88934268	

1. Product Information and Description[#]

Product Primary Use: Direct Linear Ambient
 Voltage and Frequency: Luminaires 120-277VAC, 50/60Hz
 LED Source Manufacturer: Beyond LED Technology
 LED Source Model: BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)
 Driver Model: SIE46-I1000-42 120-277 W D1 B
 Luminaire length: 8ft
 Auxiliary Ballast Model: NA
 Auxiliary Housing Model: NA
 White Tunable: No
 Field-Adjustable Light Output: No

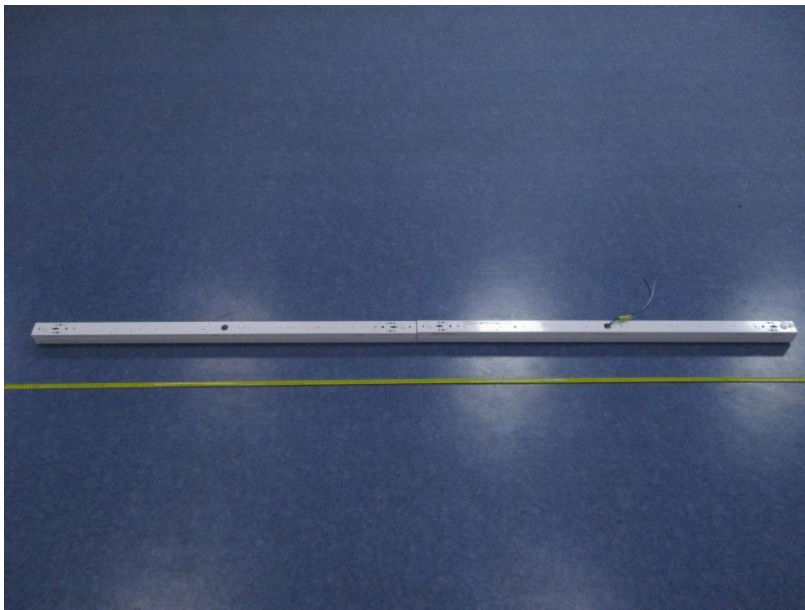
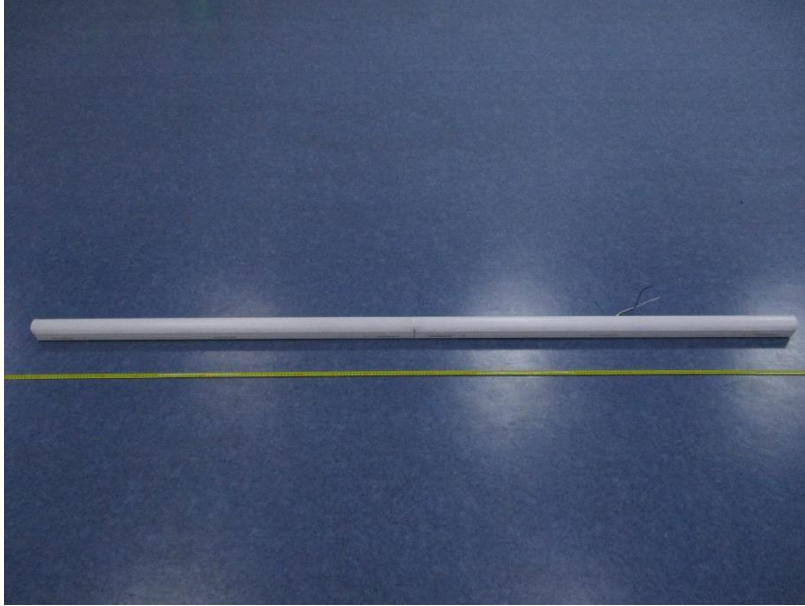
2. Product Rated Values[#]

Test Model	CCT(K)	Light Output (lm)	Power(W)	Luminous Efficacy (lm/W)
BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)	3500	5888	46	128
BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)	4000	5934	46	129
BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)	5000	5980	46	130

3. Test List

Test Model	Test Item			
	Goniophotometer Test	Integrating Sphere Test	THDi and PF Test	In-Situ Temperature Measurement Test
BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)	NA	Yes	Yes	Yes

4. Product Photo



5. Test Result

Test Model: BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)

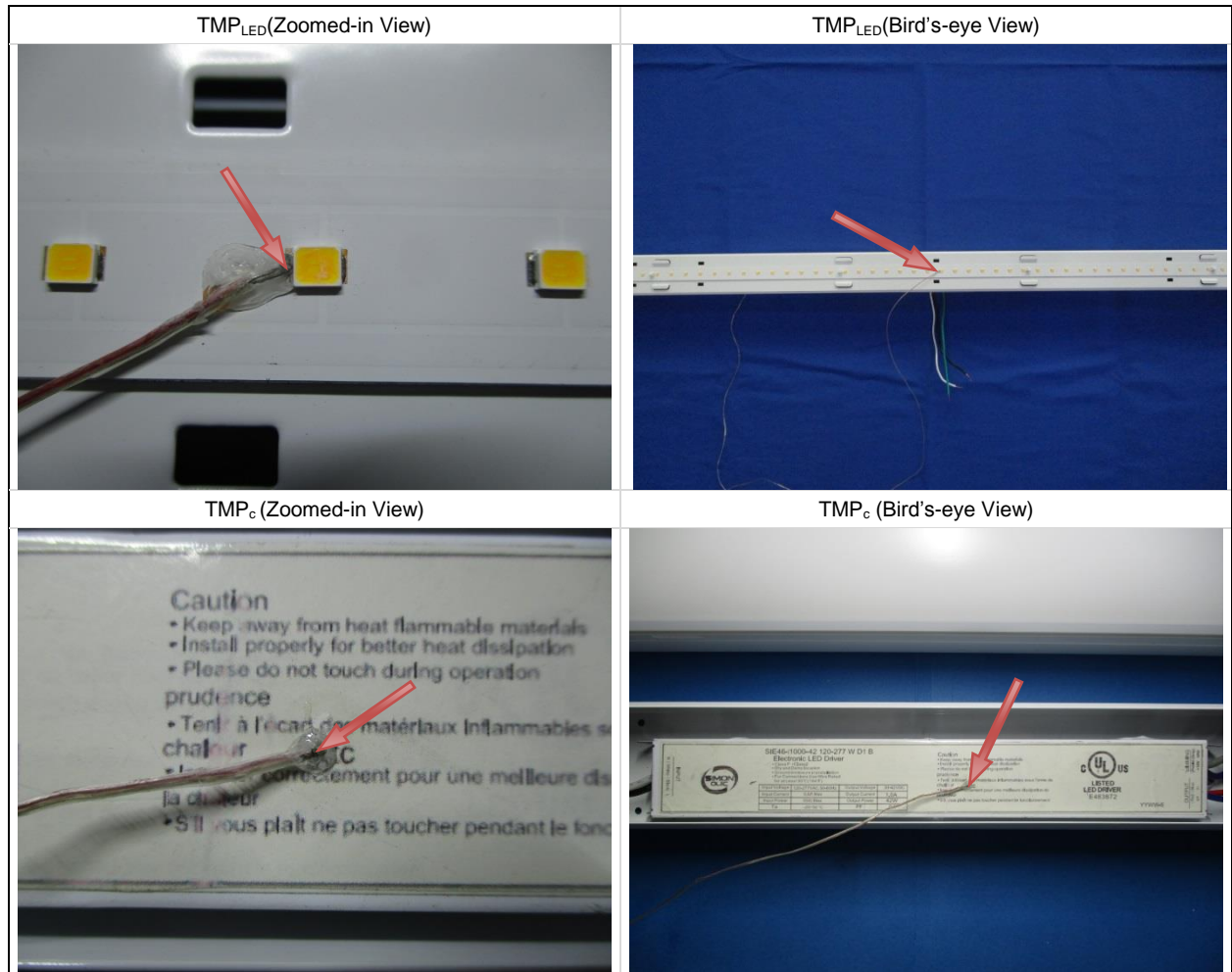
Integrating Sphere Test; Orientation: Downward; Test Voltage: 120V 60Hz:				
Test Item	Test Result	DLC Requirements	DLC Requirements(With tolerances only)	Conclusion
Light Output(lm)	6065.5	≥1500	≥1350	Pass
Power(W)	46.65	None.	None.	N/A
Total Efficacy(lm/W)	130.02	≥115	≥111.55	Pass
CCT(K)	3483	3220~3710	No tolerances	Pass
Duv	0.0000392	-0.0055~0.0065	No tolerances	Pass
IES R _f	84	70	69	Pass
IES R _g	96	89	88	
IES Rcs,h1	-12%	-12%~23%	-13%~24%	
R _a	82.2	≥80	≥79	
R ₉	5	≥0	≥-1	

Integrating Sphere THDi, PF Test; Orientation: Downward:					
Test Voltage	Test Item	Test Result	DLC Requirements	DLC Requirements(With tolerances and/or allowances)	Conclusion
120	Power Factor	0.9916	≥0.9	≥0.87	Pass
120	THDi	10.87%	≤20%	≤25%	Pass
277	Power Factor	0.9742	≥0.9	≥0.87	Pass
277	THDi	16.16%	≤20%	≤25%	Pass

In-Situ Temperature Measurement Test: Test Voltage: 120V 60Hz;				
Test Item	Test Result	DLC Requirements	DLC Requirements(With tolerances and/or allowances)	Conclusion
TMP _{LED1} (°C)	49.7	≤105	With tolerance of ≤ 1.1°C or 0.4%, whichever is greater due to thermocouple tolerance	Pass
TMP _c (°C)	39.6	≤90	With tolerance of ≤ 1.1°C or 0.4%, whichever is greater due to thermocouple tolerance	Pass
Drive Current/Individual LED source(mA)	104.3	≤150	With +5% tolerance	Pass
L ₇₀ Lumen Maintenance Life (Hours)	>60000	≥50000	None.	Pass
Color Maintenance	0.0017	≤0.004	≤0.0044	Pass

Note:

1. The test results were measured directly from the test equipment.
2. The DLC requirements were listed according to DLC Technical Requirements V5.1.
3. The conclusion is for reference only. Test report that indicate product performance meets DLC Technical Requirements do not represent official DLC product qualification. All decisions regarding product qualification are made by the DLC.



Test Data

[Integrating Sphere System]

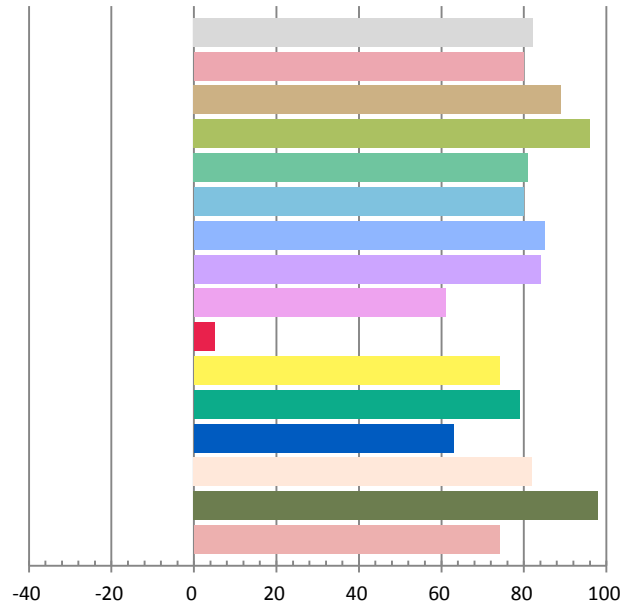
Photometric and Electrical Measurement Result

Voltage(V)	Frequency (Hz)	Current(A)	Power (W)	Power Factor	Luminous Flux(lm)	Efficacy(lm/W)
120.0	60	0.3921	46.65	0.9916	6065.5	130.02

Radiant Flux (W)	CCT (K)	Duv	x	y	u'	v'
18.216	3483	0.0000392	0.4063	0.3913	0.2361	0.5117

Color Rendering Index

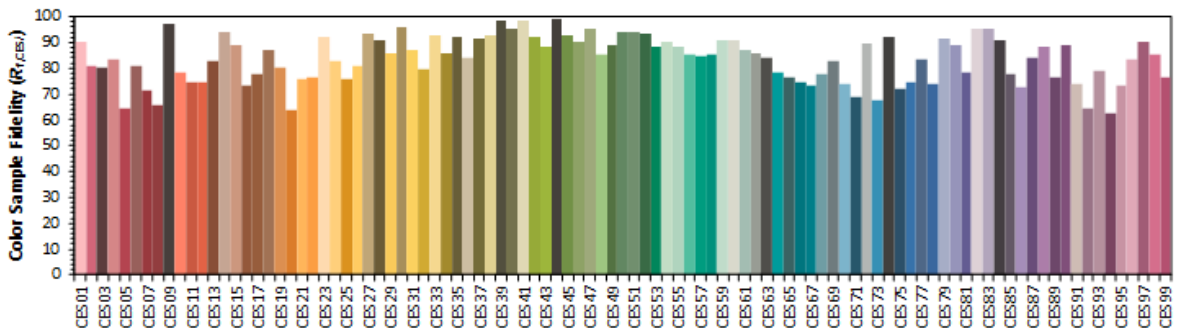
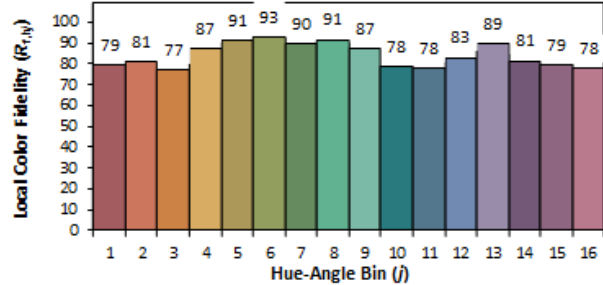
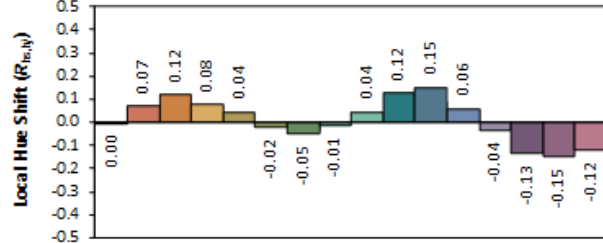
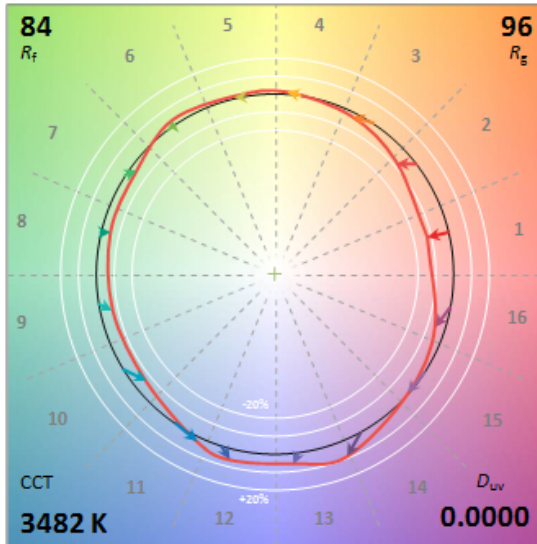
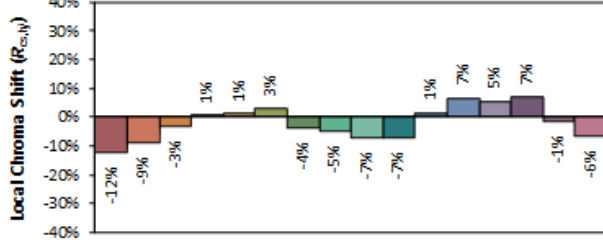
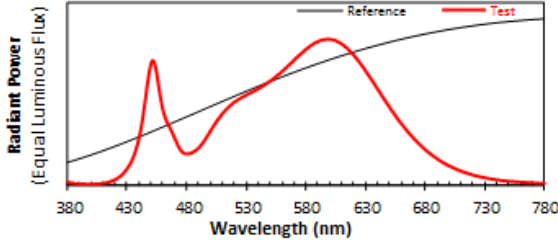
Ra			
82.2			
R1	R2	R3	R4
80	89	96	81
R5	R6	R7	R8
80	85	84	61
R9	R10	R11	R12
5	74	79	63
R13	R14	R15	
82	98	74	



ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD
Date: 2022/6/20

Manufacturer: Beyond LED Technology
Model: BLT-SN-V-8FT/FE/46/YDM 850 (A3+B7)

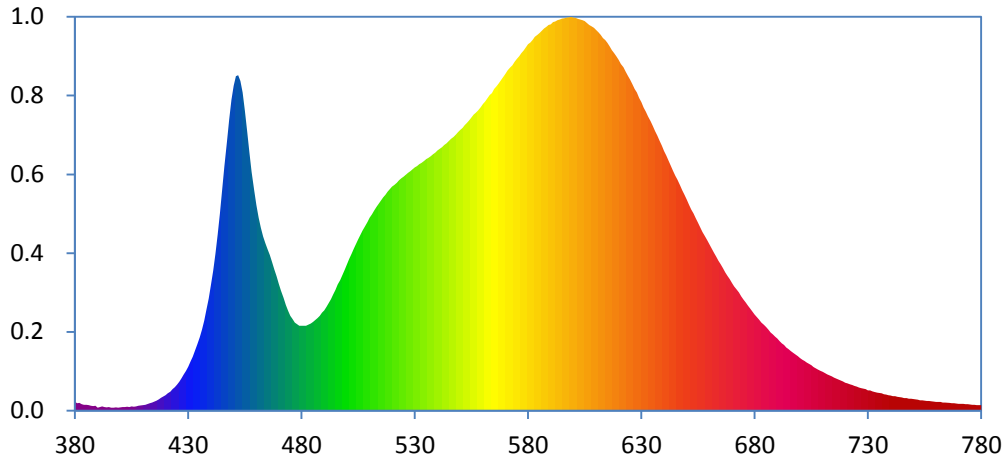


Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

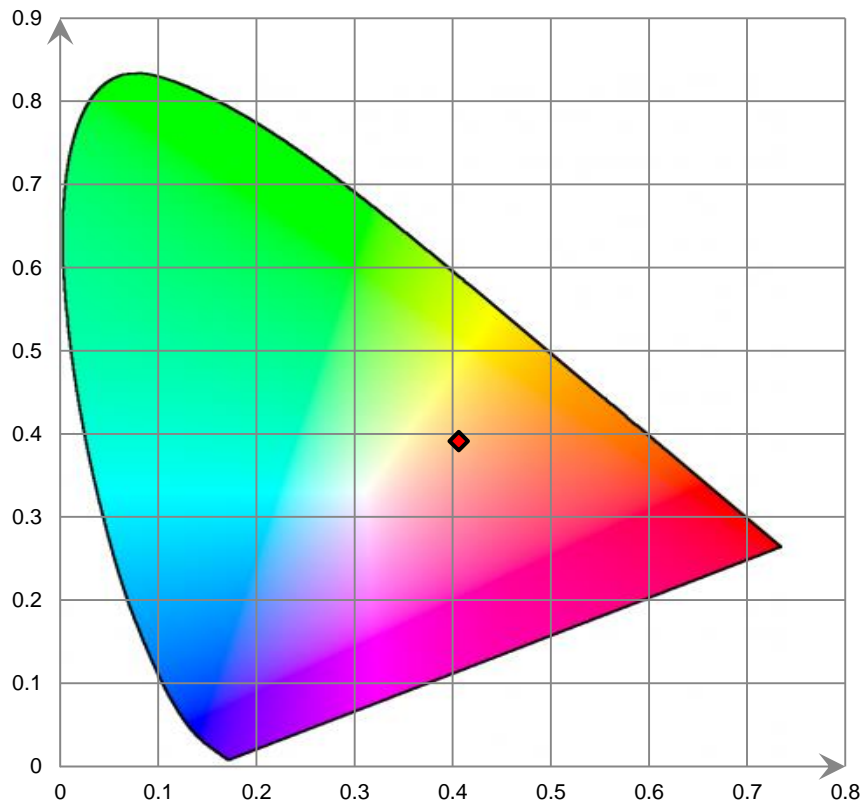
x	0.4063	CIE 13.3-1995 (CRI) R_a 82 R_g 5
y	0.3912	
u'	0.2362	
v'	0.5116	

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

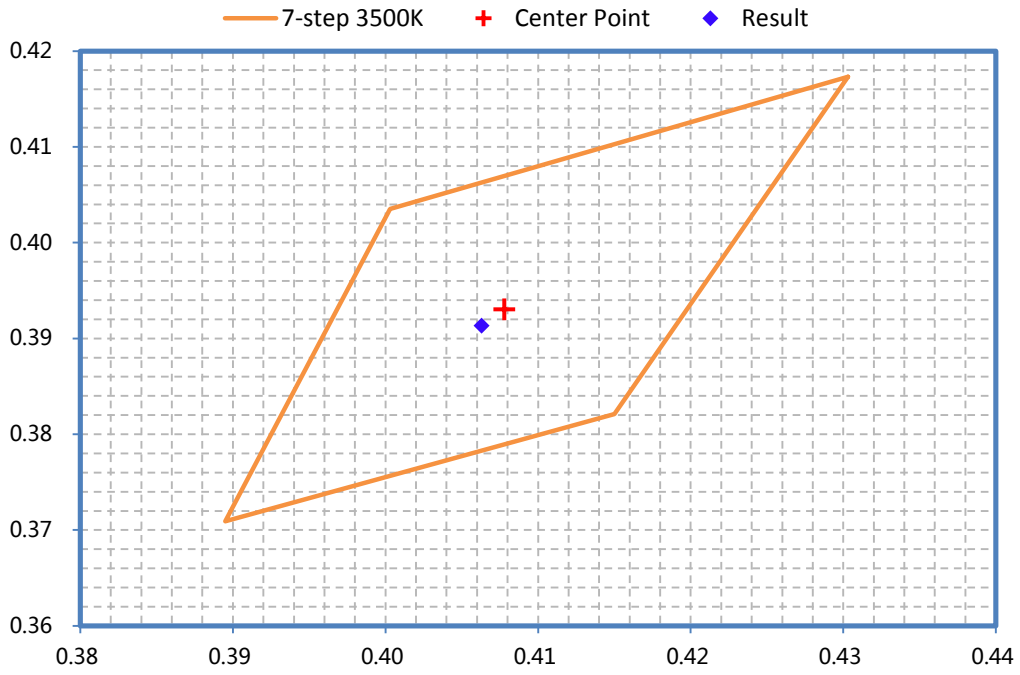
Relative Spectral Power Distribution



CIE 1931xy Chromaticity Diagram



ANSI C78.377-2017 Chromaticity Quadrangles



6. Description of Test Equipment

Device	Manufacturer	Model No	Serial No	Calibration date	Calibration due date
2.0m integrating sphere	EVERFINE	R98	G121960CS1361154D	2021-11-02	2022-11-01
spectroradiometer	EVERFINE	HAAS-2000	M12048CS1361148	2021-11-02	2022-11-01
Digital CC&CV DC Power Supply	EVERFINE	WY305	G115986CN1361134	2021-11-02	2022-11-01
Thermal Meter	ANYMETRE	TH-20E	N/A	2021-12-01	2022-11-30
Standard Light Source	Osram	24V/50W	JWWCR020106	2021-09-15	2022-09-14
Digital Power Meter	YOKOGAWA	WT210	91KB35700	2021-11-13	2022-11-12
Intelligence ac power supply	EVERFINE	DPS1005	G119890CS1361121	2021-11-02	2022-11-01
Digital Multimeter	FLUKE	115C	37840512WS	2021-07-28	2022-07-27
Hybrid Recorder	YOKOGAWA	DR230	47JH0903	2021-11-02	2022-11-01
Power Supply	SC	SC/BP-11003	1608110030553	2021-11-15	2022-11-14

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) attested that all calibration has been performed using suitable standards traceable to National Primary Standards and International System of Units (SI).

7. Test Method

Product was tested with no seasoning. All stabilization and measurements were made in compliance with IES LM-79-08. The ambient temperature of the sample was maintained at 25°C±1°C during measurement. And relative humidity is less than 65%. The product was operated in its intended orientation in application during all testing.

Integrating Sphere System

The system includes AC power source, digital power meter, DC power supply, Spectroradiometer, and integrating sphere. The integrating sphere system is calibrated by standard spectrum light source before measurement. 4π geometry was used during measurement.

ISTMT Test

The LED which has the highest temperature was measured at the location of LED case which is specified by LED source manufacturer and detailed by LM-80 report. The drive current of LED package/module/ array was calculated as the total output current of the driver measured by multimeter, divided by the number of branches in parallel of LEDs.

Directions

1. The information marked "superscript #" is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.
2. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
3. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.
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*****END OF REPORT*****