

# IES LM-79-08

## MEASUREMENT AND TEST REPORT

For

### GREEN CREATIVE LTD

Room 3603, Level 36, Tower 1, Enterprise Square Five, 38 Wang Chiu Road, Kowloon Bay, KL, Hong Kong, China

**Test Model: 11PAR30/930FL40/277V/SL+SL15D**

<b>Report Type:</b>	Electrical and Photometric tests including: Luminous Flux, Chromaticity, Luminous Intensity Distribution, THD
<b>Reviewed By:</b>	Hill Liu <i>Hill Liu</i>
<b>Report Number:</b>	KS2230727-43635E-EE-1
<b>Test Date:</b>	2023-08-21
<b>Report Date:</b>	2023-08-25
<b>Approved by:</b>	Blake Zhang / EE Engineer
<b>Prepared By:</b>	Bay Area Compliance Laboratories Corp. (Shenzhen) 5/F(B-West) -7/F, the 3rd Phase of Wan Li Industrial Building D, Shihua Road, Futian Free Trade Zone Shenzhen, Guangdong, China. Tel: +86-755-33320018 Fax: +86-755-33320008
<b>Test Facility:</b>	Test facility was located at No.12, Pulong East 1 <sup>st</sup> Road, Tangxia Town, Dongguan, Guangdong, China.

**Note:** This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.(Shenzhen). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S. Government.

## 1. Product Description#

### General Information:

Two test sample was in good condition and received on date 2023-07-27, and used for testing. One was tested in integrating sphere and the other was tested in goniophotometer

Model Tested: 11PAR30/930FL40/277V/SL+SL15D

Manufacturer: GREEN CREATIVE LTD

Brand Name: GREEN CREATIVE

Product Designation: Directional LED Lamp

Burning Time Before Test: 0hour(For New Products)

### Rated Values:

Rated Voltage/Frequency: AC 120-277V 60Hz

Rated Power: 11W

Nominal CCT: 3000K

Nominal Lumen Output: 990 lm

### Family Declaration

The Model	Multiple Models	Differences Items	Details
11PAR30/930FL40/277V/SL+SL15D	11PAR30/930SP15/277V/SL	Model Number	11PAR30/930FL40/277V/SL+SL15D & 11PAR30/930SP15/277V/SL are the same product except for the model number.

## 2. Standards Used

- 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
- \*IES TM-30-18: IES Method for Evaluating Light Source Color Rendition (This method is not in NVLAP accreditation scope)

## 3. Description of Test Equipment

Device	Manufacture	Model No	Serial No	Calibration date	Calibration due date
1.5m temperature integrating sphere	SENSING	SPR-600	S09008	2022-11-10	2023-11-09
High-precision rapid spectral analysis system	EVERFINE	HAAS-2000	M112048CA1361125	2022-11-10	2023-11-09
Digital power meter	YOKOGAWA	WT310	13398	2022-11-10	2023-11-09
Programmable Precision DC Power Supply	EVERFINE	WY5015	11060010	2022-11-10	2023-11-09
thermometer	SENSING	NA	NA	2022-11-10	2023-11-09
Standard Light Source	EVERFINE	D204	N/A	2023-05-12	2025-05-11
Precision frequency power supply	ALL Power	APW-105N	970613	2022-11-10	2023-11-09
AC POWER SUPPLY	EVERFINE	VPS1030 PWM	1012017	2022-11-16	2023-11-15

Device	Manufacture	Model No	Serial No	Calibration date	Calibration due date
Digital CC&CV DC Power Supply	EVERFINE	WY12010	1009009	2022-11-10	2023-11-09
Digital power meter	YOKOGAWA	WT-210	91j926132	2022-11-10	2023-11-09
full-field speed goniophotometer	EVERFINE	GO-R5000	YG108492N10120001	2022-11-10	2023-11-09
wireless remote thermohygrometer	N/A	AOK-5017B	N/A	2022-11-10	2023-11-09
Standard Light Source	EVERFINE	D908	1012003	2023-05-12	2025-05-11

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

## 4. Test Method

Product was tested with no seasoning. All stabilization and measurements were made in compliance with IES LM-79-08. The product was operated at rated voltage or at voltage required by manufacturer. The ambient temperature of the sample was maintained at  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$  during measurement. And relative humidity is less than 65%.

### 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.

$4\pi$  geometry was used during measurement. The product was operated in its intended orientation in application and was recorded in this report.

The uncertainty of the light output (luminous flux) measurements is  $U=2.1\%$  ( $K=2$ ), at the 95% confidence level. The uncertainty of the correlated color temperature measurements is  $U=22\text{K}$  ( $K=2$ ), at the 95% confidence level. The uncertainty of the CRI is  $U=2.1(K=2)$ , at the 95% confidence level.

The uncertainty of power meter AC current  $U=0.39\%$  of rdg, AC Voltage  $U=0.25\%$  of rdg, Power  $U=0.42\%$  ( $K=2$ ), at the 95% confidence level. The uncertainty of power meter AC current  $U=0.19\%$  of rdg, AC Voltage  $U=0.18\%$  of rdg, Power  $U=0.46\%$  ( $K=2$ ), at the 95% confidence level.

### Goniophotometer System

The goniophotometer system is calibrated by standard light source before measurement.

Type C goniophotometer was used for measuring total luminous flux, luminous intensity distribution, and color spatial uniformity. The product was operated in its intended orientation in application and was recorded in this report. The vertical angle ( $\gamma$ ) test intervals were set no more than 1 degree while data for 5 degree intervals is reported. The horizontal angle (C plane) test intervals were set no more than 22.5 degree.

The uncertainty of the luminous intensity is  $U=2.00\%$  ( $K=2$ ), at the 95% confidence level.

### Additional Test

The Additional Test item may not be covered by IESNA LM-79-2008. Additional test including power factor, off-state power and THD, was measured by Digital Power Meter after stabilized at  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ . Test voltage for THD and power factor test would be equal to rated voltage or, in case of a voltage range, maximum value of that range.

The uncertainty of power meter AC current  $U=0.19\%$  of rdg, AC Voltage  $U=0.18\%$  of rdg, Power  $U=0.46\%$  ( $K=2$ ), at the 95% confidence level.

### Fidelity Index and Gamut Index Calculation

The  $R_i$ ,  $R_g$  was calculated according to IES TM-30-18 by using calculation tools. The calculation was based on the measured SPD from 380nm to 780nm with 1nm intervals. All the colors in this report is for reference only.

## 5. Test Result

### [Integrating Sphere System]

The Stabilization time: **30 minutes**

Total operating time for integrating sphere test: **1.0 hour**

Test orientation: **Base Up**

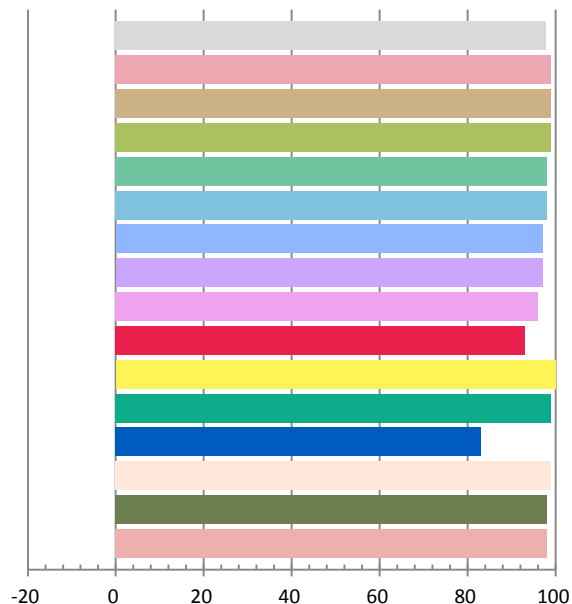
### Photometric and Electrical Measurement Result

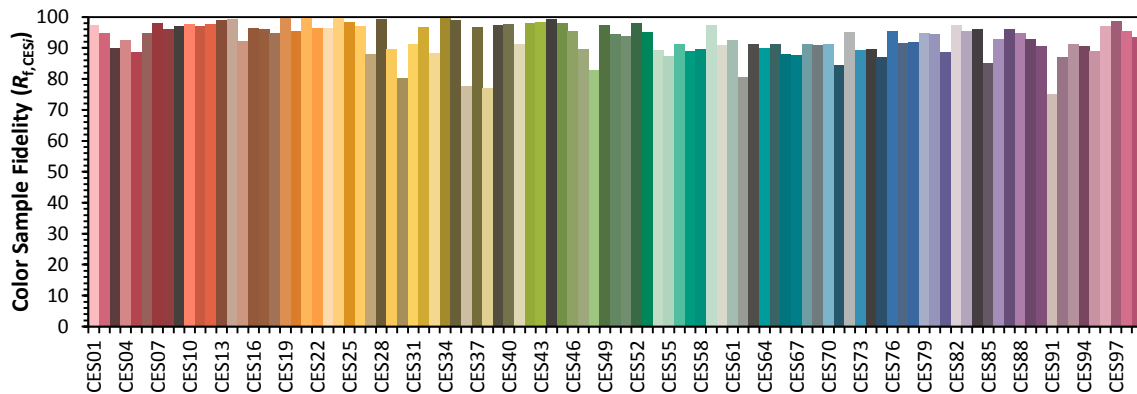
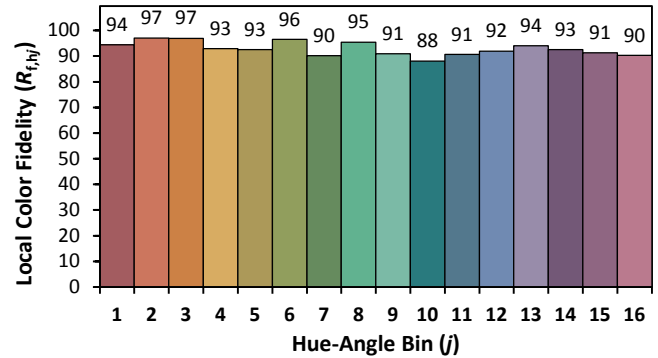
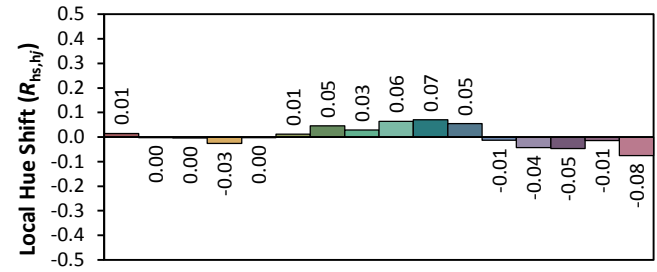
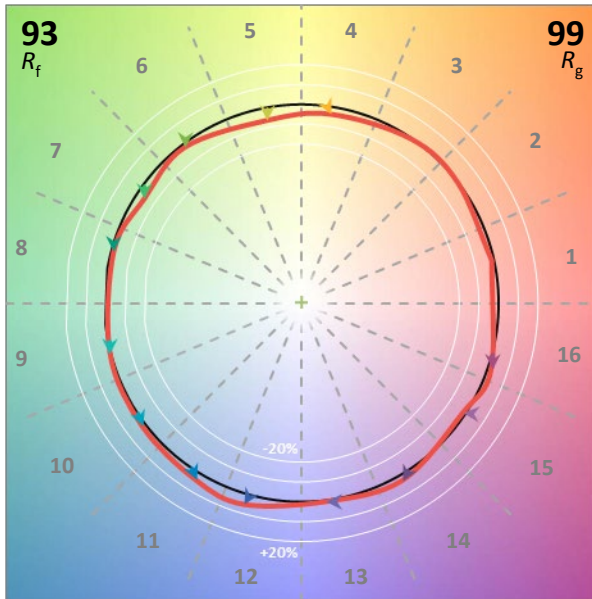
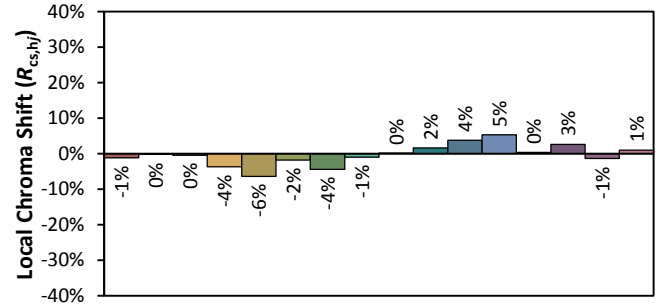
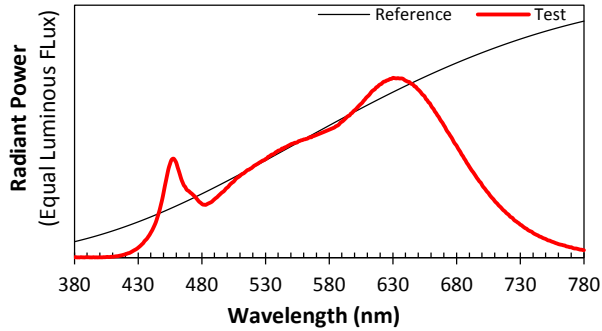
Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Luminous Flux(lm)	Efficacy (lm/W)
120.0	60	0.09153	10.72	0.9759	1050.1	97.97

Radiant Flux (W)	CCT (K)	Duv	x	y	u'	v'
3.9123	3086	-0.000645	0.4300	0.4000	0.2479	0.5187

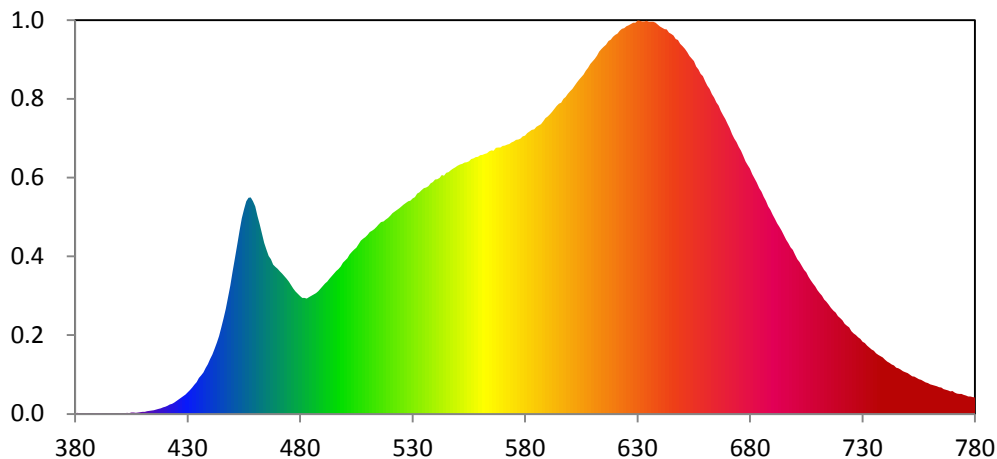
### Color Rendering Index

Ra			
97.9			
R1	R2	R3	R4
99	100	98	99
R5	R6	R7	R8
98	99	97	94
R9	R10	R11	R12
86	97	99	88
R13	R14	R15	
100	98	97	





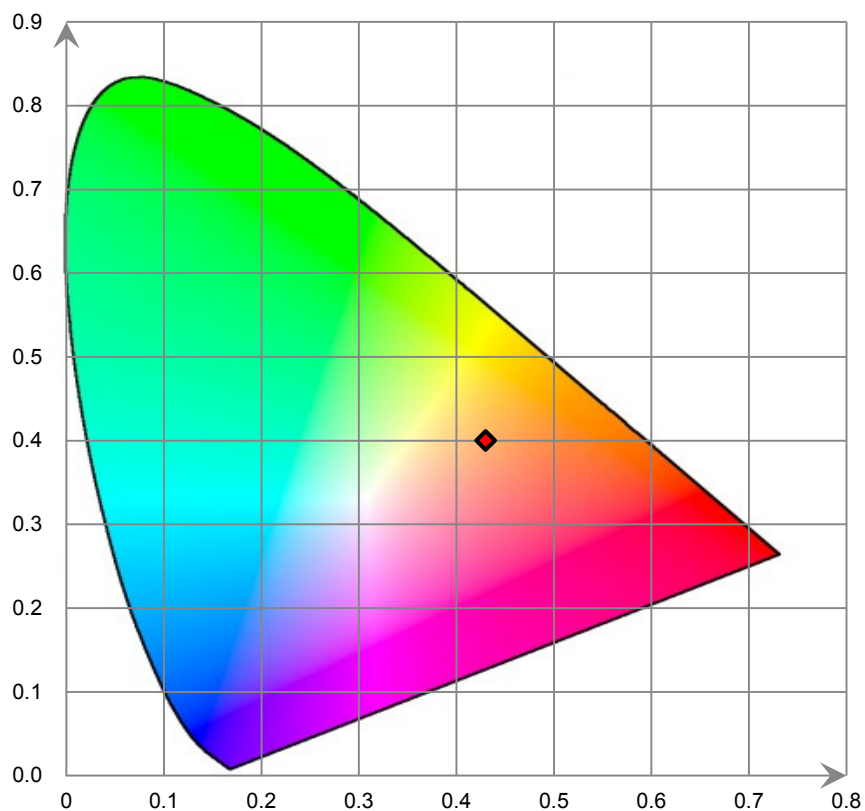
### Relative Spectral Power Distribution



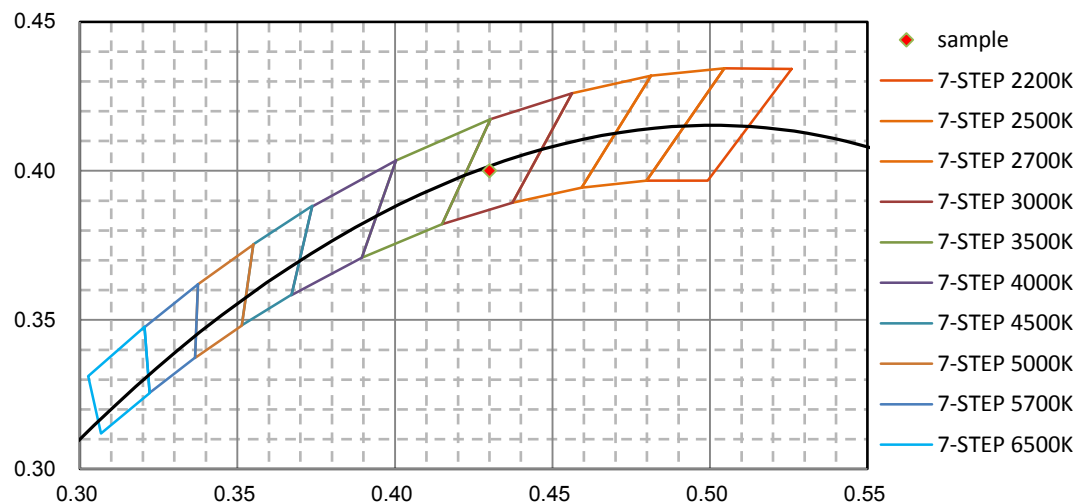
nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	3.515E-02	421	4.615E-01	462	1.054E+01	503	9.019E+00	544	1.325E+01
381	6.131E-02	422	5.243E-01	463	1.003E+01	504	9.147E+00	545	1.341E+01
382	2.177E-02	423	5.585E-01	464	9.520E+00	505	9.252E+00	546	1.346E+01
383	3.317E-02	424	6.291E-01	465	9.142E+00	506	9.441E+00	547	1.355E+01
384	2.047E-02	425	7.176E-01	466	8.786E+00	507	9.631E+00	548	1.364E+01
385	5.105E-02	426	8.097E-01	467	8.611E+00	508	9.741E+00	549	1.372E+01
386	3.539E-02	427	9.014E-01	468	8.305E+00	509	9.837E+00	550	1.381E+01
387	3.334E-02	428	9.817E-01	469	8.176E+00	510	9.955E+00	551	1.387E+01
388	2.298E-02	429	1.079E+00	470	8.077E+00	511	1.011E+01	552	1.391E+01
389	4.869E-02	430	1.197E+00	471	7.923E+00	512	1.020E+01	553	1.399E+01
390	4.409E-02	431	1.329E+00	472	7.808E+00	513	1.028E+01	554	1.400E+01
391	4.856E-02	432	1.463E+00	473	7.662E+00	514	1.041E+01	555	1.404E+01
392	2.943E-02	433	1.621E+00	474	7.520E+00	515	1.055E+01	556	1.418E+01
393	2.921E-02	434	1.764E+00	475	7.355E+00	516	1.067E+01	557	1.421E+01
394	2.462E-02	435	1.996E+00	476	7.172E+00	517	1.071E+01	558	1.429E+01
395	4.941E-02	436	2.152E+00	477	6.978E+00	518	1.082E+01	559	1.431E+01
396	2.481E-02	437	2.314E+00	478	6.801E+00	519	1.090E+01	560	1.439E+01
397	3.591E-02	438	2.549E+00	479	6.689E+00	520	1.103E+01	561	1.441E+01
398	2.557E-02	439	2.770E+00	480	6.553E+00	521	1.117E+01	562	1.446E+01
399	3.288E-02	440	3.049E+00	481	6.454E+00	522	1.126E+01	563	1.450E+01
400	3.763E-02	441	3.310E+00	482	6.447E+00	523	1.135E+01	564	1.460E+01
401	3.437E-02	442	3.631E+00	483	6.420E+00	524	1.144E+01	565	1.466E+01
402	3.381E-02	443	3.967E+00	484	6.500E+00	525	1.155E+01	566	1.465E+01
403	5.450E-02	444	4.342E+00	485	6.582E+00	526	1.164E+01	567	1.479E+01
404	4.757E-02	445	4.822E+00	486	6.653E+00	527	1.174E+01	568	1.481E+01
405	7.249E-02	446	5.317E+00	487	6.725E+00	528	1.183E+01	569	1.481E+01
406	8.697E-02	447	5.854E+00	488	6.821E+00	529	1.187E+01	570	1.491E+01
407	6.630E-02	448	6.491E+00	489	6.975E+00	530	1.200E+01	571	1.492E+01
408	7.819E-02	449	7.134E+00	490	7.115E+00	531	1.207E+01	572	1.499E+01
409	1.014E-01	450	7.901E+00	491	7.246E+00	532	1.226E+01	573	1.502E+01
410	1.125E-01	451	8.709E+00	492	7.356E+00	533	1.233E+01	574	1.511E+01
411	1.143E-01	452	9.443E+00	493	7.519E+00	534	1.245E+01	575	1.516E+01
412	1.471E-01	453	1.020E+01	494	7.662E+00	535	1.255E+01	576	1.524E+01
413	1.651E-01	454	1.089E+01	495	7.812E+00	536	1.259E+01	577	1.527E+01
414	1.795E-01	455	1.138E+01	496	7.946E+00	537	1.267E+01	578	1.532E+01
415	2.132E-01	456	1.183E+01	497	8.047E+00	538	1.283E+01	579	1.545E+01
416	2.478E-01	457	1.202E+01	498	8.204E+00	539	1.290E+01	580	1.547E+01
417	2.787E-01	458	1.204E+01	499	8.408E+00	540	1.303E+01	581	1.562E+01
418	3.203E-01	459	1.183E+01	500	8.527E+00	541	1.306E+01	582	1.571E+01
419	3.611E-01	460	1.154E+01	501	8.668E+00	542	1.313E+01	583	1.580E+01
420	4.064E-01	461	1.101E+01	502	8.876E+00	543	1.329E+01	584	1.584E+01

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
585	1.597E+01	626	2.161E+01	667	1.685E+01	708	7.254E+00	749	2.321E+00
586	1.604E+01	627	2.168E+01	668	1.661E+01	709	7.098E+00	750	2.263E+00
587	1.612E+01	628	2.177E+01	669	1.641E+01	710	6.880E+00	751	2.174E+00
588	1.627E+01	629	2.177E+01	670	1.613E+01	711	6.713E+00	752	2.092E+00
589	1.646E+01	630	2.189E+01	671	1.589E+01	712	6.575E+00	753	2.078E+00
590	1.655E+01	631	2.187E+01	672	1.556E+01	713	6.371E+00	754	2.002E+00
591	1.667E+01	632	2.184E+01	673	1.532E+01	714	6.231E+00	755	1.937E+00
592	1.682E+01	633	2.183E+01	674	1.512E+01	715	6.079E+00	756	1.888E+00
593	1.697E+01	634	2.186E+01	675	1.486E+01	716	5.893E+00	757	1.823E+00
594	1.713E+01	635	2.182E+01	676	1.464E+01	717	5.739E+00	758	1.759E+00
595	1.725E+01	636	2.182E+01	677	1.436E+01	718	5.628E+00	759	1.711E+00
596	1.731E+01	637	2.182E+01	678	1.405E+01	719	5.442E+00	760	1.646E+00
597	1.753E+01	638	2.177E+01	679	1.383E+01	720	5.324E+00	761	1.605E+00
598	1.762E+01	639	2.165E+01	680	1.364E+01	721	5.203E+00	762	1.572E+00
599	1.782E+01	640	2.155E+01	681	1.335E+01	722	5.004E+00	763	1.543E+00
600	1.795E+01	641	2.148E+01	682	1.310E+01	723	4.906E+00	764	1.490E+00
601	1.808E+01	642	2.141E+01	683	1.287E+01	724	4.815E+00	765	1.473E+00
602	1.826E+01	643	2.138E+01	684	1.256E+01	725	4.609E+00	766	1.380E+00
603	1.843E+01	644	2.121E+01	685	1.236E+01	726	4.482E+00	767	1.350E+00
604	1.859E+01	645	2.114E+01	686	1.207E+01	727	4.391E+00	768	1.313E+00
605	1.873E+01	646	2.105E+01	687	1.185E+01	728	4.268E+00	769	1.262E+00
606	1.887E+01	647	2.085E+01	688	1.155E+01	729	4.173E+00	770	1.269E+00
607	1.909E+01	648	2.081E+01	689	1.134E+01	730	4.015E+00	771	1.191E+00
608	1.925E+01	649	2.059E+01	690	1.108E+01	731	3.945E+00	772	1.131E+00
609	1.946E+01	650	2.045E+01	691	1.084E+01	732	3.805E+00	773	1.110E+00
610	1.961E+01	651	2.030E+01	692	1.060E+01	733	3.689E+00	774	1.105E+00
611	1.975E+01	652	2.012E+01	693	1.041E+01	734	3.581E+00	775	1.062E+00
612	1.993E+01	653	1.990E+01	694	1.018E+01	735	3.512E+00	776	1.020E+00
613	2.015E+01	654	1.977E+01	695	9.947E+00	736	3.369E+00	777	9.737E-01
614	2.031E+01	655	1.962E+01	696	9.697E+00	737	3.281E+00	778	9.679E-01
615	2.042E+01	656	1.931E+01	697	9.496E+00	738	3.207E+00	779	9.316E-01
616	2.053E+01	657	1.917E+01	698	9.271E+00	739	3.149E+00	780	9.081E-01
617	2.074E+01	658	1.891E+01	699	9.129E+00	740	3.013E+00		
618	2.081E+01	659	1.880E+01	700	8.848E+00	741	2.906E+00		
619	2.098E+01	660	1.850E+01	701	8.604E+00	742	2.832E+00		
620	2.109E+01	661	1.826E+01	702	8.440E+00	743	2.755E+00		
621	2.116E+01	662	1.809E+01	703	8.227E+00	744	2.694E+00		
622	2.132E+01	663	1.779E+01	704	8.020E+00	745	2.576E+00		
623	2.143E+01	664	1.760E+01	705	7.869E+00	746	2.538E+00		
624	2.146E+01	665	1.733E+01	706	7.626E+00	747	2.458E+00		
625	2.156E+01	666	1.714E+01	707	7.430E+00	748	2.373E+00		

### CIE 1931 x y Chromaticity Diagram



### 7-Step Chromaticity Quadrangles





## [Goniophotometer System]

The Stabilization time: **30 minutes**

Total operating time for luminous intensity distribution: **1.0hour**

Test orientation: **Base Up**

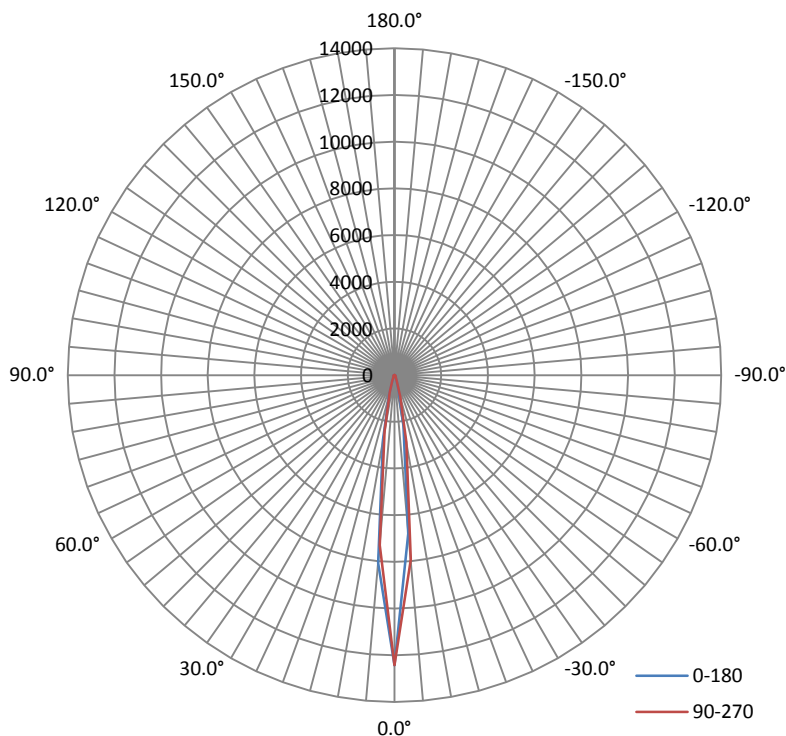
### Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.06	60	0.0923	10.820	0.9764

### Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I <sub>max</sub> (cd)	S/MH (C0/180)	S/MH (C90/270)
1082.4	100.04	12557.0	0.19	0.22

### Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I <sub>max</sub> ):	11.8	11.9	12.2	12.1	12.0
Field Angle (10% I <sub>max</sub> ):	26.1	26.5	27.0	26.6	26.6

**Luminous Intensity (cd) Distribution Data**

C y	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0.0°	12419	12419	12419	12419	12419	12419	12419	12419
5.0°	8080	7911	7738	7560	7307	6972	6680	6475
10.0°	2824	2741	2674	2589	2457	2295	2147	2058
15.0°	880	862	844	826	778	720	672	639
20.0°	292	289	284	280	271	246	227	219
25.0°	141	141	139	137	132	127	125	125
30.0°	105	105	103	102	100	99	99	100
35.0°	88	89	87	84	82	80	80	82
40.0°	77	77	75	72	70	68	68	69
45.0°	65	65	64	62	60	59	58	59
50.0°	55	54	54	53	52	52	53	53
55.0°	47	47	46	45	44	44	44	45
60.0°	36	36	36	36	35	35	35	35
65.0°	28	28	28	28	28	28	27	27
70.0°	22	22	22	22	21	21	21	21
75.0°	16	16	16	16	15	15	15	15
80.0°	11	11	11	11	10	10	10	10
85.0°	5	5	5	5	5	5	5	5
90.0°	2	2	2	2	1	1	1	1
95.0°	0	0	0	0	0	0	0	0
100.0°	0	0	0	0	0	0	0	0
105.0°	0	0	0	0	0	0	0	0
110.0°	0	0	0	0	0	0	0	0
115.0°	0	0	0	0	0	0	0	0
120.0°	0	0	0	0	0	0	0	0
125.0°	0	0	0	0	0	0	0	0
130.0°	0	0	0	0	0	0	0	0
135.0°	0	0	0	0	0	0	0	0
140.0°	1	1	1	1	1	1	1	1
145.0°	2	2	2	2	2	2	2	2
150.0°	3	3	3	3	3	3	3	3
155.0°	4	4	4	4	4	4	4	4
160.0°	4	4	4	4	4	4	4	4
165.0°	4	4	4	4	4	4	4	4
170.0°	3	3	3	3	3	3	3	3
175.0°	2	2	2	2	2	2	2	2
180.0°	1	1	1	1	1	1	1	1

Luminous Intensity (cd) Distribution Data (cont.)

$\begin{matrix} C \\ \backslash \\ \gamma \end{matrix}$	180°	202.5°	225°	247.5°	270°	292.5°	315°	337.5°
0.0°	12419	12419	12419	12419	12419	12419	12419	12419
5.0°	6816	6990	7227	7542	7930	8357	8595	8688
10.0°	2204	2307	2472	2682	2909	3105	3173	3153
15.0°	691	728	799	876	958	1017	1022	1005
20.0°	231	245	270	301	332	344	338	327
25.0°	126	130	133	142	151	153	152	155
30.0°	100	100	102	102	105	107	108	107
35.0°	83	84	84	83	84	86	87	88
40.0°	69	71	72	72	72	74	75	77
45.0°	60	62	63	63	63	64	65	66
50.0°	52	54	55	55	56	56	56	56
55.0°	45	46	46	46	47	47	47	47
60.0°	35	36	36	36	37	37	37	37
65.0°	27	28	28	28	29	29	29	29
70.0°	21	21	22	22	22	22	22	22
75.0°	15	15	16	16	16	16	16	16
80.0°	10	10	11	11	11	11	11	11
85.0°	5	5	5	5	5	6	6	6
90.0°	1	1	2	2	2	2	2	2
95.0°	0	0	0	0	0	0	0	0
100.0°	0	0	0	0	0	0	0	0
105.0°	0	0	0	0	0	0	0	0
110.0°	0	0	0	0	0	0	0	0
115.0°	0	0	0	0	0	0	0	0
120.0°	0	0	0	0	0	0	0	0
125.0°	0	0	0	0	0	0	0	0
130.0°	0	0	0	0	0	0	0	0
135.0°	0	0	0	0	0	0	0	0
140.0°	0	0	0	0	0	0	0	0
145.0°	0	0	0	0	0	0	0	0
150.0°	1	1	1	1	1	1	1	1
155.0°	1	1	1	1	1	1	1	1
160.0°	1	1	1	1	1	1	1	1
165.0°	1	1	1	1	1	1	1	1
170.0°	1	1	1	1	1	1	1	1
175.0°	1	1	1	1	1	1	1	1
180.0°	1	1	1	1	1	1	1	1

## Zonal Lumen Density Measurement

Deg	Flux (lm)	%	Deg	Flux (lm)	%
0-5	232.8	21.50	0-5	232.8	21.50
5-10	321.8	29.73	0-10	554.6	51.23
10-15	180.2	16.65	0-15	734.8	67.88
15-20	81.9	7.57	0-20	816.6	75.45
20-25	40.1	3.70	0-25	856.7	79.15
25-30	29.2	2.70	0-30	885.9	81.85
30-35	27.7	2.56	0-35	913.6	84.41
35-40	26.2	2.42	0-40	939.8	86.83
40-45	24.8	2.29	0-45	964.7	89.12
45-50	23.4	2.17	0-50	988.1	91.29
50-55	21.7	2.00	0-55	1009.8	93.29
55-60	18.9	1.75	0-60	1028.7	95.04
60-65	15.4	1.43	0-65	1044.1	96.47
65-70	12.5	1.15	0-70	1056.7	97.62
70-75	9.7	0.89	0-75	1066.3	98.51
75-80	7.0	0.65	0-80	1073.3	99.16
80-85	4.2	0.39	0-85	1077.5	99.55
85-90	1.8	0.17	0-90	1079.3	99.72
90-95	0.4	0.03	0-95	1079.7	99.75
95-100	0.0	0.00	0-100	1079.7	99.75
100-105	0.0	0.00	0-105	1079.7	99.75
105-110	0.0	0.00	0-110	1079.7	99.75
110-115	0.0	0.00	0-115	1079.7	99.75
115-120	0.0	0.00	0-120	1079.7	99.75
120-125	0.0	0.01	0-125	1079.8	99.76
125-130	0.0	0.00	0-130	1079.8	99.76
130-135	0.0	0.00	0-135	1079.8	99.76
135-140	0.1	0.01	0-140	1079.9	99.77
140-145	0.3	0.02	0-145	1080.2	99.79
145-150	0.4	0.05	0-150	1080.6	99.84
150-155	0.5	0.04	0-155	1081.2	99.88
155-160	0.5	0.05	0-160	1081.7	99.93
160-165	0.4	0.04	0-165	1082.0	99.97
165-170	0.2	0.02	0-170	1082.3	99.99
170-175	0.1	0.01	0-175	1082.4	100.00
175-180	0.0	0.00	0-180	1082.4	100.00

**[Additional Test]**

Test Item	Test Voltage (V)	Frequency (Hz)	Test Result
Total Harmonic Distortion:	120.0	60	14.23%

**6. Product Photo**



## 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. This report includes some test methods are not in NVLAP accreditation scope marked \*.
3. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor  $K=2$  with the 95% confidence interval.
6. This report cannot be reproduced except in full, without prior written approval of the Company.
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\*\*\*\*\*END OF REPORT\*\*\*\*\*