

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: 11PAR30/940FL40/277V/SL+SL15D

Report Type:	Electrical and Photometric tests including: Luminous Flux, Chromaticity, Luminous Intensity Distribution, THD
Reviewed By:	Hill Liu 
Report Number:	KS2230727-43638E-EE-1
Test Date:	2023-08-21
Report Date:	2023-08-25
Approved by:	Blake Zhang / EE Engineer
Prepared By:	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
Test Facility:	Test facility was located at No.12, Pulong East 1 st 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 samples were in good condition and received on 2023-07-27. One was tested in integrating sphere and the other was tested in goniophotometer

Model Tested: 11PAR30/940FL40/277V/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: 4000K
Nominal Lumen Output: 1030lm

Family Declaration

The Model	Multiple Models	Differences Items	Details
11PAR30/940FL40/277V/SL+SL15D	11PAR30/940SP15/277V/SL	Model Number	11PAR30/940FL40/277V/SL+SL15D & 11PAR30/940SP15/277V/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.

4π 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 $U=21\text{K}$ ($K=2$), 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 $U=0.19\%$ of rdg, AC Voltage $U=0.17\%$ of rdg, Power $U=0.48\%$ ($K=2$), 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 (γ) 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 $U=0.17\%$ of rdg, Power $U=0.48\%$ ($K=2$), at the 95% confidence level.

Fidelity Index and Gamut Index Calculation

The R_f , 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**

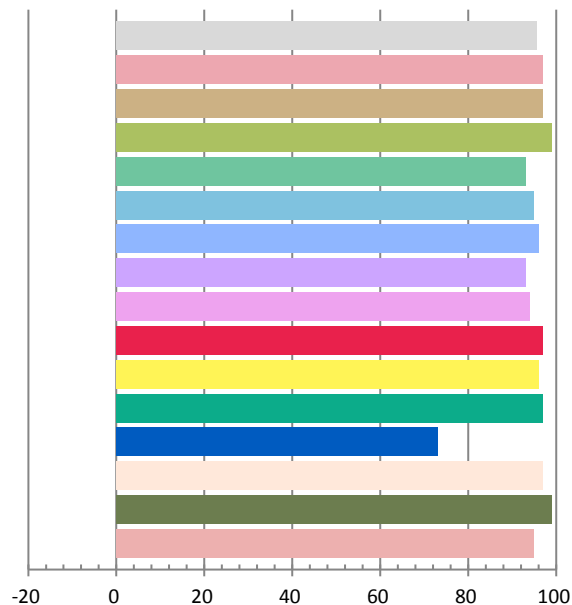
Photometric and Electrical Measurement Result

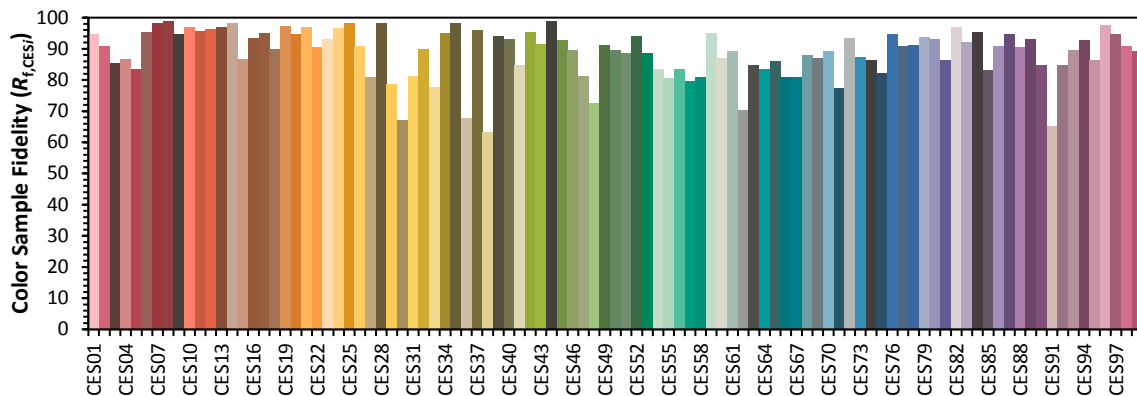
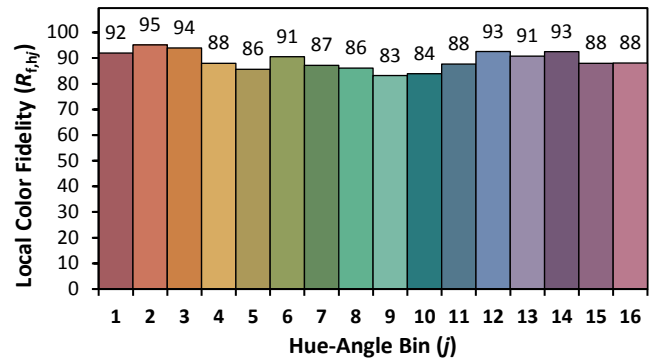
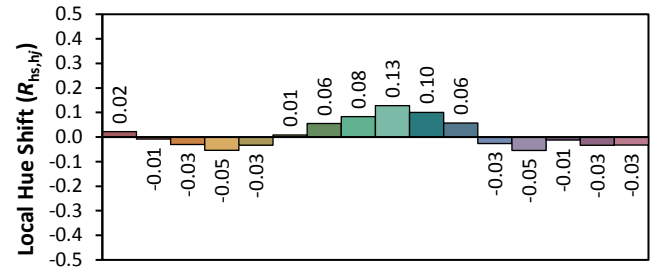
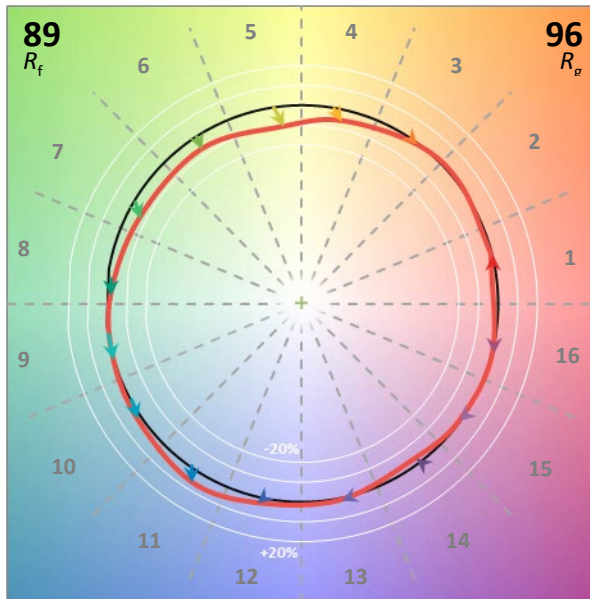
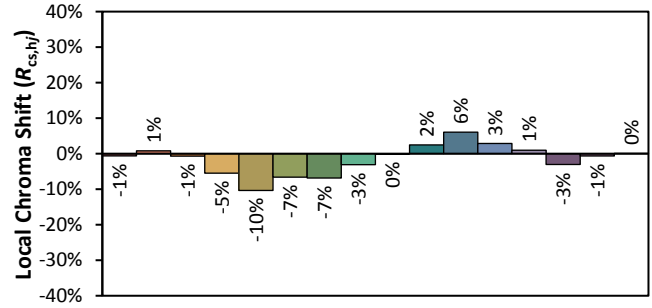
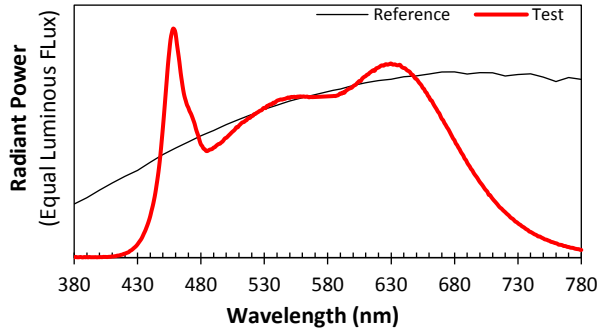
Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Luminous Flux(lm)	Efficacy (lm/W)
120.0	60	0.08969	10.50	0.9751	1138.2	108.44

Radiant Flux (W)	CCT (K)	Duv	x	y	u'	v'
4.154	4095	0.000614	0.3768	0.3757	0.2231	0.5006

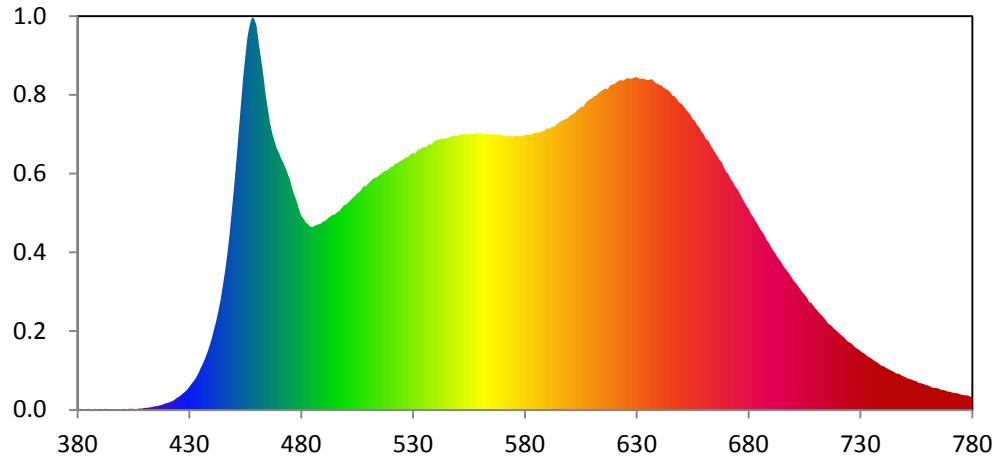
Color Rendering Index

Ra			
95.5			
R1	R2	R3	R4
97	97	99	93
R5	R6	R7	R8
95	96	93	94
R9	R10	R11	R12
97	96	97	73
R13	R14	R15	
97	99	95	





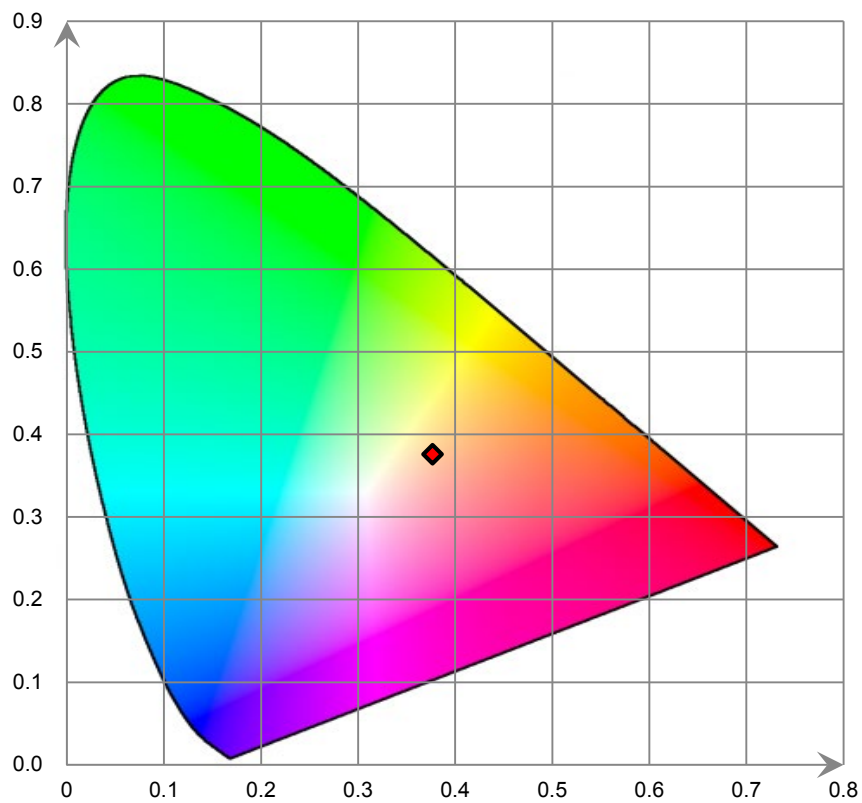
Relative Spectral Power Distribution



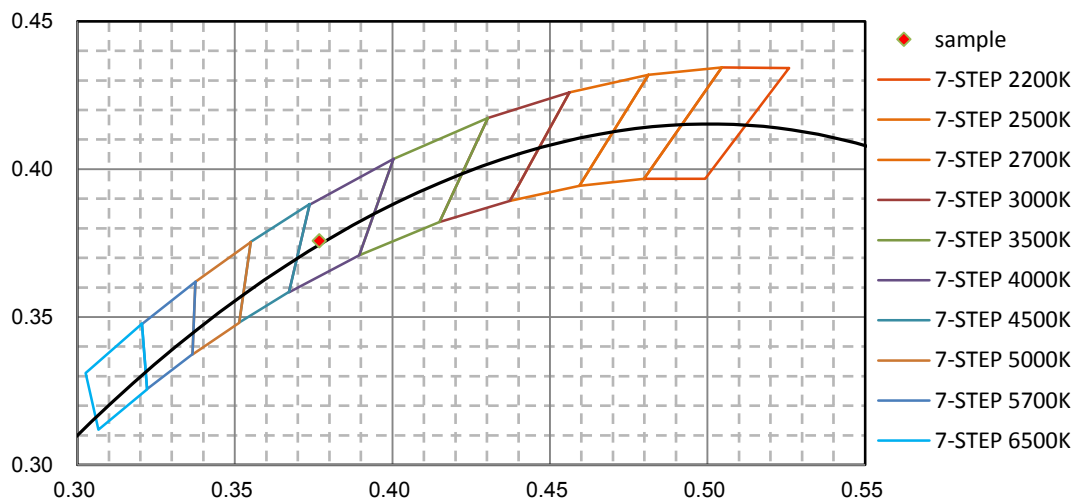
nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	1.569E-02	421	4.433E-01	462	2.029E+01	503	1.223E+01	544	1.564E+01
381	7.306E-02	422	4.969E-01	463	1.936E+01	504	1.236E+01	545	1.569E+01
382	3.939E-02	423	5.426E-01	464	1.829E+01	505	1.248E+01	546	1.571E+01
383	3.456E-02	424	6.607E-01	465	1.742E+01	506	1.258E+01	547	1.576E+01
384	4.175E-02	425	7.251E-01	466	1.660E+01	507	1.272E+01	548	1.581E+01
385	6.224E-02	426	8.210E-01	467	1.597E+01	508	1.291E+01	549	1.586E+01
386	3.247E-02	427	9.364E-01	468	1.554E+01	509	1.290E+01	550	1.580E+01
387	2.487E-02	428	1.043E+00	469	1.511E+01	510	1.307E+01	551	1.590E+01
388	6.061E-02	429	1.164E+00	470	1.486E+01	511	1.319E+01	552	1.590E+01
389	2.913E-02	430	1.319E+00	471	1.451E+01	512	1.332E+01	553	1.591E+01
390	6.575E-02	431	1.499E+00	472	1.427E+01	513	1.340E+01	554	1.592E+01
391	2.246E-02	432	1.674E+00	473	1.396E+01	514	1.343E+01	555	1.587E+01
392	6.183E-02	433	1.858E+00	474	1.361E+01	515	1.356E+01	556	1.595E+01
393	3.829E-02	434	2.105E+00	475	1.325E+01	516	1.361E+01	557	1.591E+01
394	3.863E-02	435	2.387E+00	476	1.276E+01	517	1.378E+01	558	1.596E+01
395	3.814E-02	436	2.646E+00	477	1.237E+01	518	1.381E+01	559	1.595E+01
396	3.998E-02	437	2.969E+00	478	1.201E+01	519	1.387E+01	560	1.594E+01
397	4.588E-02	438	3.301E+00	479	1.155E+01	520	1.402E+01	561	1.596E+01
398	2.908E-02	439	3.676E+00	480	1.120E+01	521	1.404E+01	562	1.592E+01
399	4.306E-02	440	4.103E+00	481	1.104E+01	522	1.421E+01	563	1.593E+01
400	4.247E-02	441	4.631E+00	482	1.080E+01	523	1.423E+01	564	1.594E+01
401	5.678E-02	442	5.125E+00	483	1.073E+01	524	1.434E+01	565	1.587E+01
402	4.314E-02	443	5.713E+00	484	1.057E+01	525	1.440E+01	566	1.589E+01
403	7.204E-02	444	6.381E+00	485	1.055E+01	526	1.450E+01	567	1.590E+01
404	6.499E-02	445	7.193E+00	486	1.062E+01	527	1.456E+01	568	1.589E+01
405	6.809E-02	446	8.041E+00	487	1.069E+01	528	1.461E+01	569	1.589E+01
406	5.355E-02	447	9.014E+00	488	1.072E+01	529	1.477E+01	570	1.583E+01
407	7.352E-02	448	1.016E+01	489	1.077E+01	530	1.483E+01	571	1.580E+01
408	8.123E-02	449	1.151E+01	490	1.089E+01	531	1.480E+01	572	1.580E+01
409	8.932E-02	450	1.289E+01	491	1.094E+01	532	1.501E+01	573	1.582E+01
410	1.183E-01	451	1.439E+01	492	1.107E+01	533	1.503E+01	574	1.580E+01
411	1.166E-01	452	1.597E+01	493	1.117E+01	534	1.513E+01	575	1.578E+01
412	1.366E-01	453	1.755E+01	494	1.125E+01	535	1.517E+01	576	1.583E+01
413	1.559E-01	454	1.913E+01	495	1.128E+01	536	1.517E+01	577	1.579E+01
414	1.956E-01	455	2.040E+01	496	1.140E+01	537	1.534E+01	578	1.581E+01
415	2.042E-01	456	2.157E+01	497	1.149E+01	538	1.531E+01	579	1.579E+01
416	2.331E-01	457	2.223E+01	498	1.165E+01	539	1.542E+01	580	1.588E+01
417	2.777E-01	458	2.266E+01	499	1.181E+01	540	1.553E+01	581	1.588E+01
418	3.015E-01	459	2.258E+01	500	1.186E+01	541	1.558E+01	582	1.588E+01
419	3.619E-01	460	2.217E+01	501	1.198E+01	542	1.562E+01	583	1.589E+01
420	3.971E-01	461	2.118E+01	502	1.211E+01	543	1.566E+01	584	1.599E+01

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
585	1.601E+01	626	1.915E+01	667	1.443E+01	708	6.181E+00	749	1.956E+00
586	1.599E+01	627	1.910E+01	668	1.428E+01	709	5.993E+00	750	1.903E+00
587	1.604E+01	628	1.913E+01	669	1.399E+01	710	5.828E+00	751	1.820E+00
588	1.607E+01	629	1.918E+01	670	1.373E+01	711	5.674E+00	752	1.787E+00
589	1.616E+01	630	1.922E+01	671	1.360E+01	712	5.539E+00	753	1.751E+00
590	1.626E+01	631	1.912E+01	672	1.333E+01	713	5.394E+00	754	1.688E+00
591	1.623E+01	632	1.911E+01	673	1.314E+01	714	5.246E+00	755	1.650E+00
592	1.636E+01	633	1.913E+01	674	1.291E+01	715	5.079E+00	756	1.568E+00
593	1.631E+01	634	1.907E+01	675	1.273E+01	716	4.947E+00	757	1.541E+00
594	1.647E+01	635	1.904E+01	676	1.250E+01	717	4.858E+00	758	1.503E+00
595	1.657E+01	636	1.906E+01	677	1.225E+01	718	4.724E+00	759	1.451E+00
596	1.666E+01	637	1.909E+01	678	1.201E+01	719	4.604E+00	760	1.421E+00
597	1.673E+01	638	1.892E+01	679	1.177E+01	720	4.496E+00	761	1.382E+00
598	1.678E+01	639	1.882E+01	680	1.161E+01	721	4.366E+00	762	1.291E+00
599	1.683E+01	640	1.877E+01	681	1.131E+01	722	4.259E+00	763	1.273E+00
600	1.696E+01	641	1.874E+01	682	1.115E+01	723	4.147E+00	764	1.259E+00
601	1.705E+01	642	1.861E+01	683	1.091E+01	724	3.998E+00	765	1.230E+00
602	1.711E+01	643	1.851E+01	684	1.072E+01	725	3.903E+00	766	1.156E+00
603	1.725E+01	644	1.845E+01	685	1.046E+01	726	3.827E+00	767	1.149E+00
604	1.737E+01	645	1.834E+01	686	1.027E+01	727	3.701E+00	768	1.118E+00
605	1.749E+01	646	1.814E+01	687	1.008E+01	728	3.569E+00	769	1.059E+00
606	1.748E+01	647	1.809E+01	688	9.794E+00	729	3.509E+00	770	1.053E+00
607	1.769E+01	648	1.792E+01	689	9.660E+00	730	3.405E+00	771	1.003E+00
608	1.782E+01	649	1.774E+01	690	9.395E+00	731	3.302E+00	772	9.746E-01
609	1.791E+01	650	1.767E+01	691	9.191E+00	732	3.237E+00	773	9.688E-01
610	1.798E+01	651	1.752E+01	692	9.020E+00	733	3.120E+00	774	9.345E-01
611	1.811E+01	652	1.733E+01	693	8.787E+00	734	3.046E+00	775	8.857E-01
612	1.815E+01	653	1.719E+01	694	8.643E+00	735	2.969E+00	776	8.626E-01
613	1.829E+01	654	1.703E+01	695	8.408E+00	736	2.862E+00	777	8.404E-01
614	1.838E+01	655	1.679E+01	696	8.214E+00	737	2.785E+00	778	8.339E-01
615	1.848E+01	656	1.669E+01	697	8.052E+00	738	2.711E+00	779	7.757E-01
616	1.855E+01	657	1.642E+01	698	7.879E+00	739	2.581E+00	780	7.583E-01
617	1.849E+01	658	1.631E+01	699	7.670E+00	740	2.545E+00		
618	1.871E+01	659	1.604E+01	700	7.477E+00	741	2.470E+00		
619	1.877E+01	660	1.588E+01	701	7.322E+00	742	2.397E+00		
620	1.882E+01	661	1.561E+01	702	7.162E+00	743	2.312E+00		
621	1.890E+01	662	1.554E+01	703	6.972E+00	744	2.266E+00		
622	1.900E+01	663	1.529E+01	704	6.784E+00	745	2.193E+00		
623	1.903E+01	664	1.506E+01	705	6.644E+00	746	2.093E+00		
624	1.900E+01	665	1.486E+01	706	6.498E+00	747	2.096E+00		
625	1.909E+01	666	1.466E+01	707	6.217E+00	748	2.032E+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: **1.0 hour**

Test orientation: **Base up**

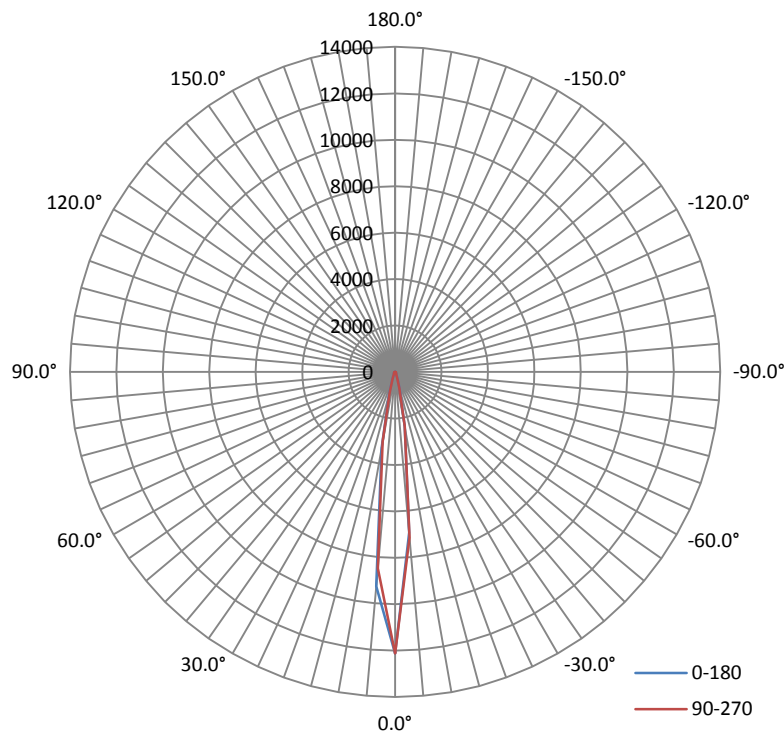
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.10	60	0.0895	10.480	0.9750

Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I _{max} (cd)	S/MH (C0/180)	S/MH (C90/270)
1139.22	108.70	12359.0	0.20	0.20

Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I _{max}):	12.9	12.9	12.7	12.8	12.8
Field Angle (10% I _{max}):	27.2	27.3	26.8	26.6	27.0

Luminous Intensity (cd) Distribution Data

C y	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0.0°	12124	12124	12124	12124	12124	12124	12124	12124
5.0°	9262	9516	9396	9017	8485	7926	8707	8114
10.0°	3312	3516	3527	3359	3048	2766	3231	2926
15.0°	1002	1088	1090	1028	923	834	970	889
20.0°	356	390	383	351	313	291	330	312
25.0°	164	172	171	163	156	149	158	151
30.0°	114	115	118	118	116	114	114	112
35.0°	93	94	95	97	97	94	95	91
40.0°	79	80	81	82	82	81	80	76
45.0°	67	68	69	70	69	69	69	67
50.0°	59	59	59	59	59	58	59	59
55.0°	51	51	51	51	50	50	52	51
60.0°	40	40	40	40	39	38	40	39
65.0°	32	32	32	31	30	30	31	31
70.0°	24	24	24	24	23	23	24	23
75.0°	18	18	18	17	17	16	17	17
80.0°	12	12	12	12	11	11	12	11
85.0°	6	6	7	6	6	5	6	5
90.0°	2	2	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°	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°	12124	12124	12124	12124	12124	12124	12124	12124
5.0°	6934	6724	6640	6835	7155	7719	7079	7731
10.0°	2379	2275	2232	2262	2360	2565	2244	2523
15.0°	748	719	695	688	704	757	674	774
20.0°	273	266	254	244	245	258	240	275
25.0°	142	139	136	138	140	145	141	148
30.0°	108	104	104	106	108	109	107	109
35.0°	86	83	81	84	87	89	88	89
40.0°	73	71	70	72	75	77	76	76
45.0°	63	62	62	63	65	66	65	65
50.0°	57	56	56	56	57	58	57	57
55.0°	49	47	47	48	49	50	49	49
60.0°	37	37	37	37	38	38	38	38
65.0°	29	29	29	29	30	30	30	30
70.0°	22	22	22	22	23	23	23	23
75.0°	15	15	15	16	16	17	17	17
80.0°	10	10	10	10	11	11	11	11
85.0°	4	4	5	5	5	6	5	5
90.0°	1	1	1	1	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°	1	1	1	1	1	0	1	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	236.7	20.78	0-5	236.7	20.78
5-10	344.4	30.23	0-10	581.1	51.01
10-15	188.5	16.54	0-15	769.6	67.55
15-20	84.5	7.42	0-20	854.1	74.97
20-25	43.3	3.80	0-25	897.3	78.77
25-30	31.8	2.79	0-30	929.1	81.56
30-35	29.6	2.60	0-35	958.8	84.16
35-40	27.9	2.44	0-40	986.6	86.60
40-45	26.4	2.32	0-45	1013.0	88.92
45-50	24.9	2.19	0-50	1038.0	91.11
50-55	23.4	2.06	0-55	1061.4	93.17
55-60	20.4	1.79	0-60	1081.8	94.96
60-65	16.6	1.46	0-65	1098.4	96.42
65-70	13.5	1.18	0-70	1111.9	97.60
70-75	10.4	0.91	0-75	1122.3	98.51
75-80	7.4	0.65	0-80	1129.6	99.16
80-85	4.5	0.39	0-85	1134.1	99.55
85-90	1.9	0.17	0-90	1136.0	99.72
90-95	0.4	0.03	0-95	1136.4	99.75
95-100	0.0	0.00	0-100	1136.4	99.75
100-105	0.0	0.01	0-105	1136.4	99.76
105-110	0.0	0.00	0-110	1136.5	99.76
110-115	0.0	0.00	0-115	1136.5	99.76
115-120	0.0	0.00	0-120	1136.5	99.76
120-125	0.0	0.00	0-125	1136.5	99.76
125-130	0.0	0.00	0-130	1136.5	99.76
130-135	0.0	0.01	0-135	1136.6	99.77
135-140	0.1	0.01	0-140	1136.7	99.78
140-145	0.3	0.02	0-145	1136.9	99.80
145-150	0.4	0.04	0-150	1137.4	99.84
150-155	0.5	0.04	0-155	1137.9	99.88
155-160	0.5	0.05	0-160	1138.4	99.93
160-165	0.4	0.03	0-165	1138.8	99.96
165-170	0.3	0.03	0-170	1139.1	99.99
170-175	0.1	0.01	0-175	1139.2	100.00
175-180	0.0	0.00	0-180	1139.2	100.00

Test Item	Test Voltage (V)	Frequency (Hz)	Test Result
Total Harmonic Distortion:	120.0	60	13.79%

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.
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*****END OF REPORT*****