

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+SL25D

Report Type:	Electrical and Photometric tests including: Luminous Flux, Chromaticity, Luminous Intensity Distribution, THD
Reviewed By:	Hill Liu <i>Hill Liu</i>
Report Number:	KS2230727-43639E-EE-1
Test Date:	2023-08-22 to 2023-08-23
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+SL25D
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+SL25D	11PAR30/940NF25/277V/SL	Model Number	11PAR30/940FL40/277V/SL+SL25D & 11PAR30/940NF25/277V/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 $U=0.15\%$ of rdg, Power $U=0.46\%$ ($K=2$), 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**

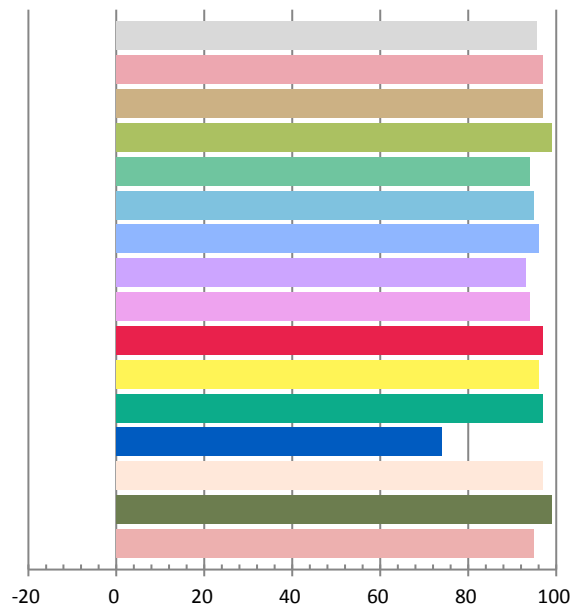
Photometric and Electrical Measurement Result

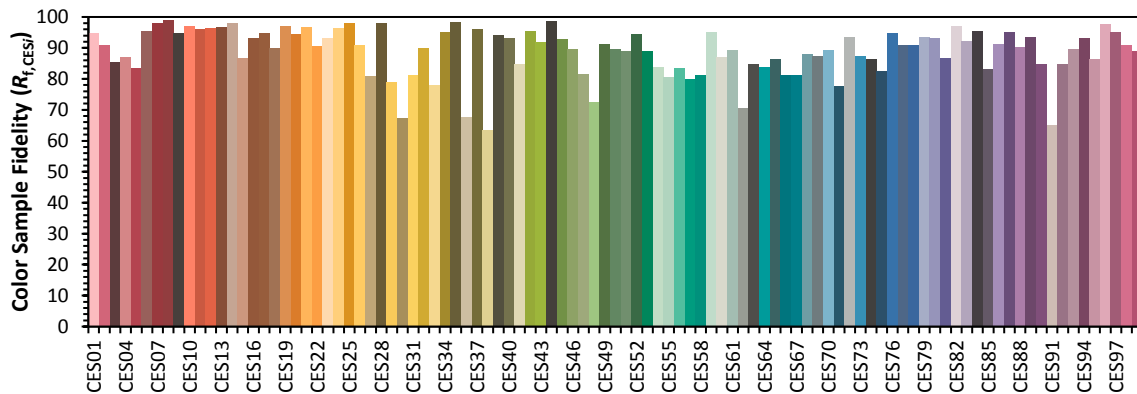
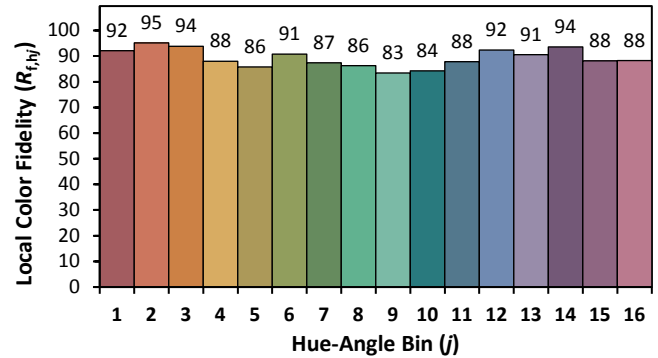
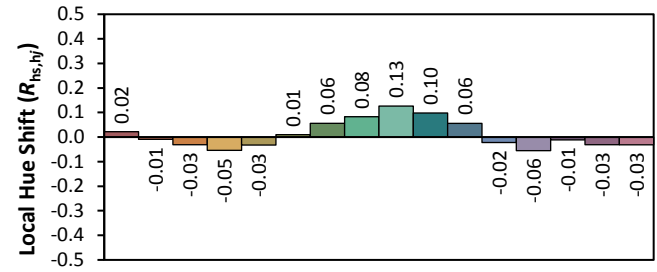
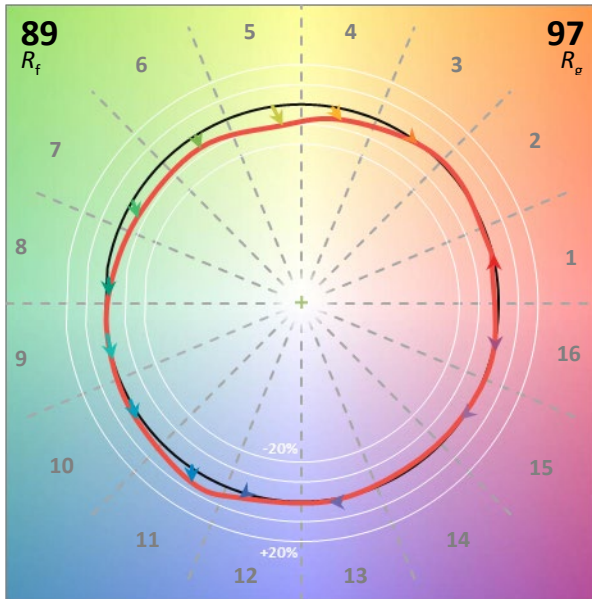
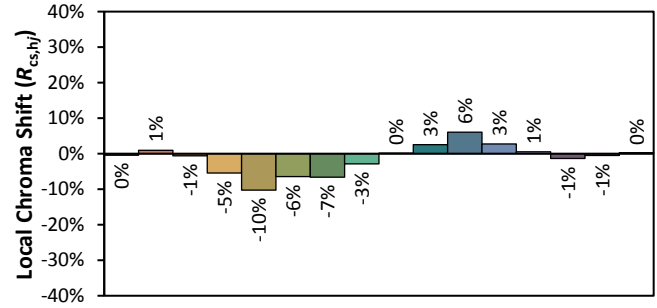
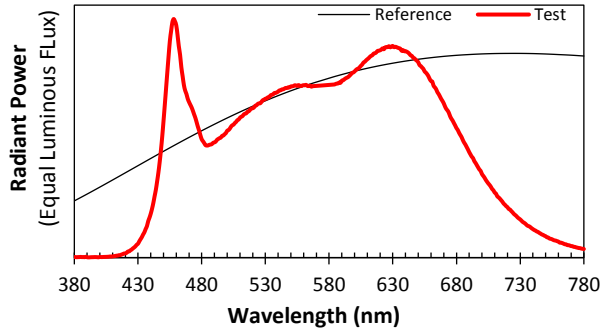
Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Luminous Flux(lm)	Efficacy (lm/W)
120.0	60	0.08982	10.44	0.9688	1083.7	103.75

Radiant Flux (W)	CCT (K)	Duv	x	y	u'	v'
3.972	4001	0.000128	0.3805	0.3771	0.2250	0.5017

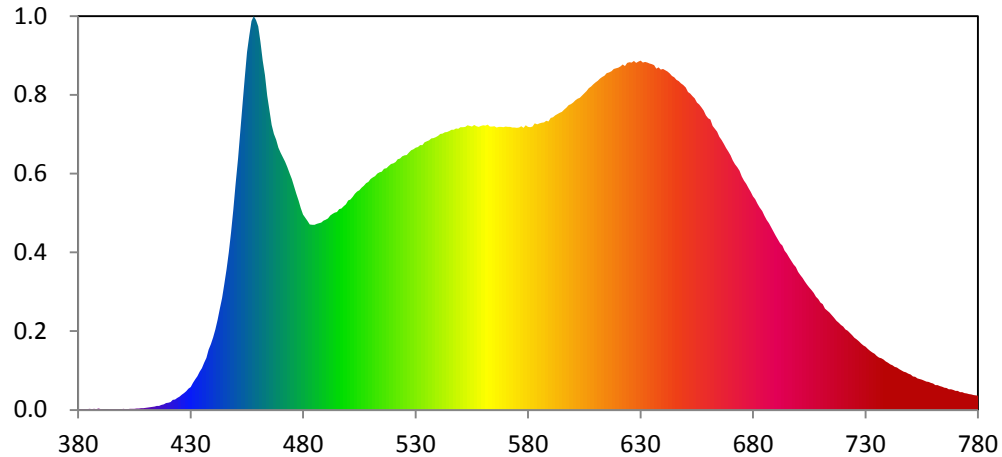
Color Rendering Index

Ra			
95.6			
R1	R2	R3	R4
97	97	99	94
R5	R6	R7	R8
95	96	93	94
R9	R10	R11	R12
97	96	97	74
R13	R14	R15	
97	99	95	





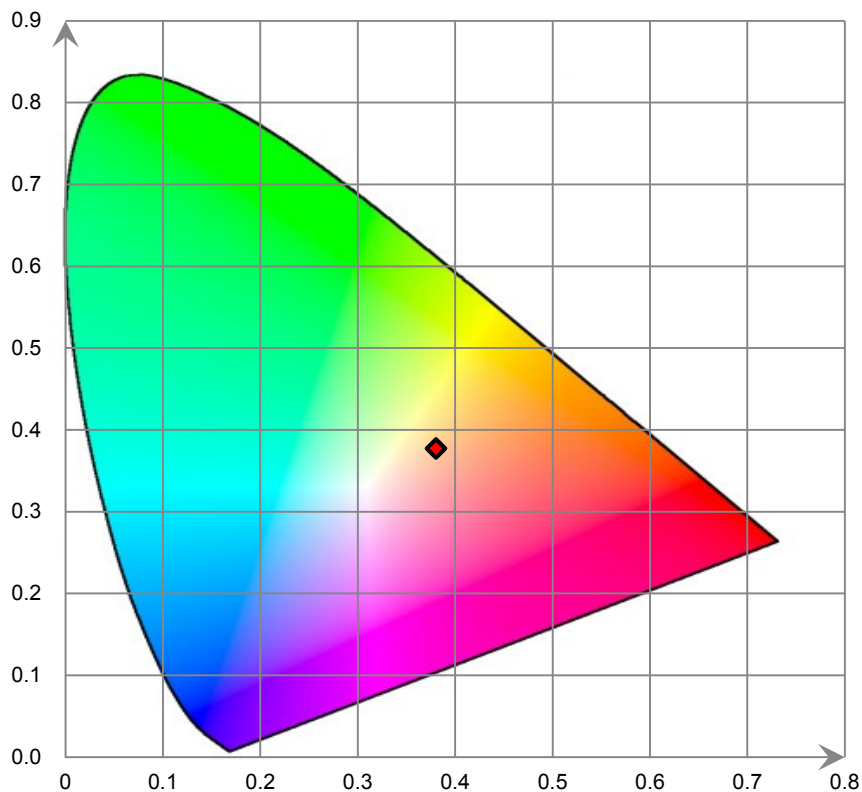
Relative Spectral Power Distribution



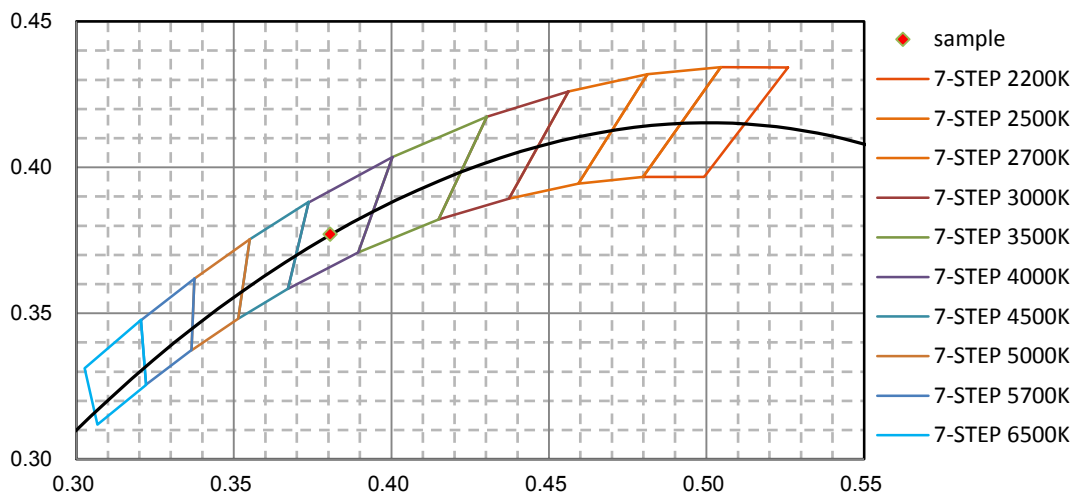
nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	4.936E-02	421	4.238E-01	462	1.861E+01	503	1.152E+01	544	1.481E+01
381	4.479E-02	422	5.368E-01	463	1.785E+01	504	1.164E+01	545	1.487E+01
382	3.606E-02	423	5.469E-01	464	1.675E+01	505	1.170E+01	546	1.493E+01
383	4.671E-02	424	6.419E-01	465	1.597E+01	506	1.184E+01	547	1.492E+01
384	4.799E-02	425	7.110E-01	466	1.519E+01	507	1.194E+01	548	1.499E+01
385	6.185E-02	426	8.124E-01	467	1.470E+01	508	1.209E+01	549	1.497E+01
386	4.479E-02	427	8.955E-01	468	1.440E+01	509	1.215E+01	550	1.506E+01
387	5.246E-02	428	1.001E+00	469	1.398E+01	510	1.230E+01	551	1.507E+01
388	3.707E-02	429	1.133E+00	470	1.370E+01	511	1.239E+01	552	1.509E+01
389	7.227E-02	430	1.228E+00	471	1.346E+01	512	1.245E+01	553	1.516E+01
390	3.494E-02	431	1.435E+00	472	1.323E+01	513	1.259E+01	554	1.514E+01
391	2.133E-02	432	1.622E+00	473	1.294E+01	514	1.266E+01	555	1.510E+01
392	2.573E-02	433	1.804E+00	474	1.261E+01	515	1.270E+01	556	1.518E+01
393	3.449E-02	434	2.035E+00	475	1.230E+01	516	1.284E+01	557	1.512E+01
394	3.888E-02	435	2.229E+00	476	1.191E+01	517	1.288E+01	558	1.509E+01
395	4.118E-02	436	2.519E+00	477	1.151E+01	518	1.301E+01	559	1.514E+01
396	4.826E-02	437	2.769E+00	478	1.116E+01	519	1.311E+01	560	1.517E+01
397	4.544E-02	438	3.207E+00	479	1.075E+01	520	1.314E+01	561	1.516E+01
398	3.859E-02	439	3.513E+00	480	1.041E+01	521	1.321E+01	562	1.520E+01
399	2.597E-02	440	3.867E+00	481	1.024E+01	522	1.336E+01	563	1.510E+01
400	6.135E-02	441	4.296E+00	482	1.007E+01	523	1.340E+01	564	1.510E+01
401	4.972E-02	442	4.797E+00	483	9.892E+00	524	1.352E+01	565	1.513E+01
402	4.993E-02	443	5.393E+00	484	9.862E+00	525	1.357E+01	566	1.504E+01
403	5.736E-02	444	5.968E+00	485	9.871E+00	526	1.358E+01	567	1.508E+01
404	6.134E-02	445	6.706E+00	486	9.925E+00	527	1.372E+01	568	1.509E+01
405	6.518E-02	446	7.491E+00	487	9.948E+00	528	1.385E+01	569	1.508E+01
406	7.184E-02	447	8.408E+00	488	9.989E+00	529	1.390E+01	570	1.510E+01
407	7.976E-02	448	9.466E+00	489	1.010E+01	530	1.398E+01	571	1.509E+01
408	9.707E-02	449	1.065E+01	490	1.014E+01	531	1.400E+01	572	1.508E+01
409	9.477E-02	450	1.200E+01	491	1.021E+01	532	1.411E+01	573	1.504E+01
410	1.092E-01	451	1.341E+01	492	1.036E+01	533	1.412E+01	574	1.504E+01
411	1.259E-01	452	1.486E+01	493	1.044E+01	534	1.427E+01	575	1.503E+01
412	1.428E-01	453	1.631E+01	494	1.051E+01	535	1.432E+01	576	1.506E+01
413	1.678E-01	454	1.773E+01	495	1.056E+01	536	1.436E+01	577	1.511E+01
414	1.783E-01	455	1.907E+01	496	1.071E+01	537	1.448E+01	578	1.503E+01
415	2.109E-01	456	1.995E+01	497	1.074E+01	538	1.449E+01	579	1.517E+01
416	2.203E-01	457	2.072E+01	498	1.086E+01	539	1.454E+01	580	1.509E+01
417	2.683E-01	458	2.099E+01	499	1.096E+01	540	1.461E+01	581	1.507E+01
418	3.072E-01	459	2.078E+01	500	1.116E+01	541	1.471E+01	582	1.510E+01
419	3.600E-01	460	2.044E+01	501	1.122E+01	542	1.472E+01	583	1.527E+01
420	3.757E-01	461	1.960E+01	502	1.134E+01	543	1.480E+01	584	1.523E+01

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
585	1.527E+01	626	1.852E+01	667	1.418E+01	708	6.036E+00	749	1.928E+00
586	1.531E+01	627	1.860E+01	668	1.396E+01	709	5.917E+00	750	1.881E+00
587	1.532E+01	628	1.850E+01	669	1.378E+01	710	5.720E+00	751	1.789E+00
588	1.541E+01	629	1.857E+01	670	1.357E+01	711	5.628E+00	752	1.770E+00
589	1.538E+01	630	1.862E+01	671	1.330E+01	712	5.400E+00	753	1.679E+00
590	1.557E+01	631	1.851E+01	672	1.308E+01	713	5.304E+00	754	1.652E+00
591	1.560E+01	632	1.855E+01	673	1.294E+01	714	5.192E+00	755	1.614E+00
592	1.569E+01	633	1.851E+01	674	1.274E+01	715	5.057E+00	756	1.554E+00
593	1.577E+01	634	1.846E+01	675	1.244E+01	716	4.924E+00	757	1.514E+00
594	1.583E+01	635	1.842E+01	676	1.222E+01	717	4.759E+00	758	1.493E+00
595	1.589E+01	636	1.837E+01	677	1.205E+01	718	4.653E+00	759	1.446E+00
596	1.600E+01	637	1.819E+01	678	1.183E+01	719	4.527E+00	760	1.411E+00
597	1.611E+01	638	1.826E+01	679	1.162E+01	720	4.437E+00	761	1.318E+00
598	1.624E+01	639	1.815E+01	680	1.139E+01	721	4.284E+00	762	1.314E+00
599	1.629E+01	640	1.816E+01	681	1.123E+01	722	4.228E+00	763	1.278E+00
600	1.638E+01	641	1.811E+01	682	1.099E+01	723	4.098E+00	764	1.232E+00
601	1.650E+01	642	1.804E+01	683	1.079E+01	724	3.987E+00	765	1.177E+00
602	1.659E+01	643	1.793E+01	684	1.060E+01	725	3.851E+00	766	1.168E+00
603	1.664E+01	644	1.780E+01	685	1.034E+01	726	3.756E+00	767	1.101E+00
604	1.675E+01	645	1.774E+01	686	1.012E+01	727	3.659E+00	768	1.094E+00
605	1.688E+01	646	1.759E+01	687	9.944E+00	728	3.535E+00	769	1.059E+00
606	1.699E+01	647	1.753E+01	688	9.728E+00	729	3.444E+00	770	1.016E+00
607	1.716E+01	648	1.740E+01	689	9.514E+00	730	3.361E+00	771	1.007E+00
608	1.723E+01	649	1.731E+01	690	9.278E+00	731	3.253E+00	772	9.496E-01
609	1.735E+01	650	1.718E+01	691	9.077E+00	732	3.141E+00	773	9.405E-01
610	1.745E+01	651	1.694E+01	692	8.880E+00	733	3.069E+00	774	8.979E-01
611	1.754E+01	652	1.685E+01	693	8.749E+00	734	2.990E+00	775	8.740E-01
612	1.766E+01	653	1.672E+01	694	8.490E+00	735	2.879E+00	776	8.419E-01
613	1.775E+01	654	1.660E+01	695	8.324E+00	736	2.794E+00	777	8.354E-01
614	1.781E+01	655	1.638E+01	696	8.129E+00	737	2.756E+00	778	7.969E-01
615	1.795E+01	656	1.627E+01	697	7.935E+00	738	2.680E+00	779	7.779E-01
616	1.798E+01	657	1.613E+01	698	7.749E+00	739	2.583E+00	780	7.580E-01
617	1.805E+01	658	1.595E+01	699	7.619E+00	740	2.507E+00		
618	1.818E+01	659	1.571E+01	700	7.353E+00	741	2.431E+00		
619	1.820E+01	660	1.554E+01	701	7.195E+00	742	2.378E+00		
620	1.824E+01	661	1.548E+01	702	7.035E+00	743	2.301E+00		
621	1.830E+01	662	1.513E+01	703	6.841E+00	744	2.256E+00		
622	1.841E+01	663	1.498E+01	704	6.676E+00	745	2.177E+00		
623	1.833E+01	664	1.482E+01	705	6.522E+00	746	2.113E+00		
624	1.849E+01	665	1.456E+01	706	6.389E+00	747	2.039E+00		
625	1.852E+01	666	1.439E+01	707	6.229E+00	748	1.996E+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**

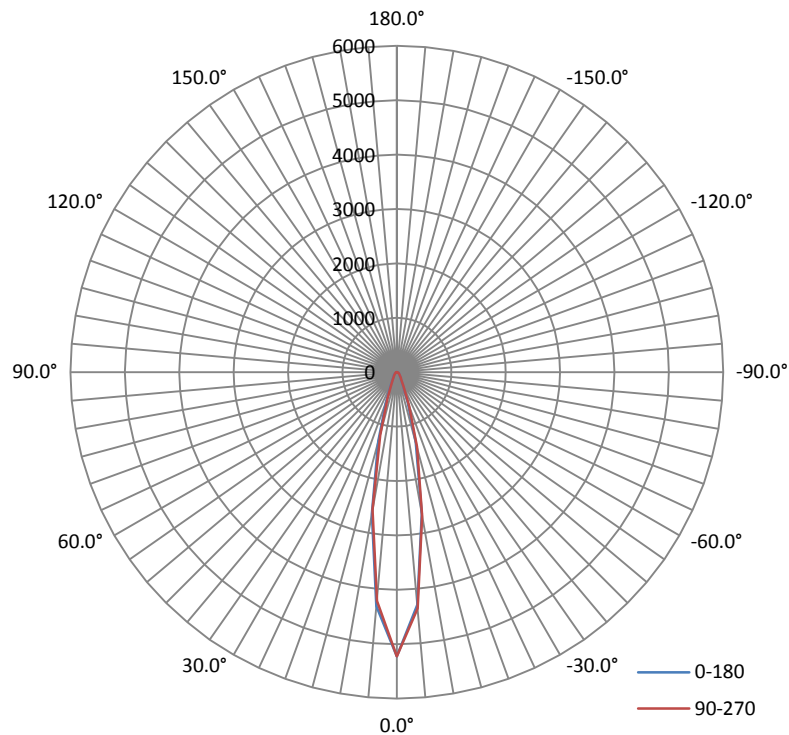
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.09	60	0.0899	10.400	0.9633

Photometric Measurement

Luminous Flux (lm)	Efficacy (lm/W)	I _{max} (cd)	S/MH (C0/180)	S/MH (C90/270)
1085.73	104.40	5221.0	0.35	0.35

Luminous Intensity Distribution



	C0/180	C45/225	C90/270	C135/315	AVG.
Beam Angle (50% I _{max}):	20.2	20.1	20.1	20.1	20.1
Field Angle (10% I _{max}):	41.5	41.3	41.2	41.5	41.4

Luminous Intensity (cd) Distribution Data

C y	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°
0.0°	5221	5221	5221	5221	5221	5221	5221	5221
5.0°	4314	4283	4275	4258	4223	4221	4186	4187
10.0°	2641	2622	2613	2583	2566	2548	2518	2515
15.0°	1317	1269	1236	1217	1197	1189	1183	1200
20.0°	585	566	540	524	506	506	524	540
25.0°	263	248	233	224	220	223	231	241
30.0°	155	151	148	145	142	143	146	151
35.0°	115	114	112	111	107	107	110	112
40.0°	91	91	91	90	87	88	90	91
45.0°	75	75	75	73	71	72	73	75
50.0°	61	59	58	58	58	59	58	59
55.0°	48	47	47	47	47	47	47	47
60.0°	38	38	38	38	38	38	38	38
65.0°	30	30	30	30	30	30	30	29
70.0°	23	23	23	22	22	22	22	22
75.0°	16	16	16	16	16	16	16	15
80.0°	11	11	11	10	11	10	10	10
85.0°	5	5	5	5	5	5	5	5
90.0°	2	2	2	2	2	2	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°	2	2	2	2	2	2	2	2
155.0°	3	3	3	3	3	3	3	3
160.0°	3	3	3	3	3	3	3	3
165.0°	3	3	3	3	3	3	3	3
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°	5221	5221	5221	5221	5221	5221	5221	5221
5.0°	4292	4324	4343	4355	4357	4393	4397	4410
10.0°	2638	2646	2657	2661	2682	2717	2744	2763
15.0°	1329	1354	1382	1404	1421	1443	1448	1451
20.0°	587	608	625	635	650	664	661	656
25.0°	265	272	279	284	289	296	297	295
30.0°	156	157	161	161	161	165	165	164
35.0°	114	115	117	117	116	118	119	117
40.0°	92	91	92	92	91	92	92	92
45.0°	75	75	76	74	75	76	76	77
50.0°	61	61	62	61	60	61	61	62
55.0°	49	49	50	50	49	49	50	50
60.0°	39	39	39	39	39	39	39	39
65.0°	30	30	30	30	30	30	31	31
70.0°	23	23	23	22	22	23	23	23
75.0°	16	16	16	16	16	16	16	17
80.0°	11	10	10	11	11	11	11	11
85.0°	5	5	5	5	5	5	5	6
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°	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	113.2	10.43	0-5	113.2	10.43
5-10	242.1	22.30	0-10	355.3	32.73
10-15	222.5	20.49	0-15	577.9	53.22
15-20	146.4	13.48	0-20	724.2	66.70
20-25	82.6	7.61	0-25	806.8	74.31
25-30	49.2	4.53	0-30	856.0	78.84
30-35	38.9	3.58	0-35	894.9	82.42
35-40	33.9	3.12	0-40	928.8	85.54
40-45	30.4	2.80	0-45	959.1	88.34
45-50	27.0	2.49	0-50	986.2	90.83
50-55	23.5	2.16	0-55	1009.7	92.99
55-60	20.1	1.85	0-60	1029.7	94.84
60-65	16.6	1.53	0-65	1046.3	96.37
65-70	13.3	1.22	0-70	1059.6	97.59
70-75	10.1	0.93	0-75	1069.6	98.52
75-80	7.1	0.65	0-80	1076.7	99.17
80-85	4.3	0.39	0-85	1081.0	99.56
85-90	1.8	0.17	0-90	1082.8	99.73
90-95	0.4	0.03	0-95	1083.2	99.76
95-100	0.0	0.01	0-100	1083.2	99.77
100-105	0.0	0.00	0-105	1083.2	99.77
105-110	0.0	0.00	0-110	1083.2	99.77
110-115	0.0	0.00	0-115	1083.2	99.77
115-120	0.0	0.00	0-120	1083.2	99.77
120-125	0.0	0.00	0-125	1083.3	99.77
125-130	0.0	0.01	0-130	1083.3	99.78
130-135	0.1	0.00	0-135	1083.4	99.78
135-140	0.1	0.01	0-140	1083.5	99.79
140-145	0.3	0.03	0-145	1083.7	99.82
145-150	0.4	0.03	0-150	1084.1	99.85
150-155	0.4	0.04	0-155	1084.6	99.89
155-160	0.4	0.04	0-160	1085.0	99.93
160-165	0.3	0.04	0-165	1085.4	99.97
165-170	0.2	0.02	0-170	1085.6	99.99
170-175	0.1	0.01	0-175	1085.7	100.00
175-180	0.0	0.00	0-180	1085.7	100.00

Test Item	Test Voltage (V)	Frequency (Hz)	Test Result
Total Harmonic Distortion:	120.0	60	13.95%

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*****