



Guangdong Meide Testing Technology Co., Ltd.



# TEST REPORT OF ANSI/IES LM-79-19

## APPROVED METHOD FOR OPTICAL AND ELECTRICAL MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS

**Client**..... : ROYALUX EXPORTS

**Address**..... : SDF BLOCK M-13, M-14, M-15 & M-16,NOIDA SPECIAL ECONOMIC ZONE,NOIDA  
DADRI ROAD, PHASE-II,NOIDA, DSTT. GAUTAM BUDH NAGAR, UP-201305

**Test Model**..... : 601Y0100W30L70DY,601Y0100W57L70DY

**Brand Name**..... : 

**Testing Laboratory**..... : Guangdong Meide Testing Technology Co., Ltd.

**Address**..... : 1st floor, B Area, Jinbaisheng Industrial Park, Headquarters 2 Road,  
Songshan Lake Hi-tech Industrial Development Zone,Dongguan City,  
Guangdong Pr., China.

**Testing location**..... : As above

**Report No**..... : CA2008348L 01004

**Test Date**..... : August.26,2020-August.28,2020

**Report Date**..... : August.31,2020

**Tested by:**

Tim Qian/ Test Engineer

**Checked by:**

Luke Lei/ Project Engineer

**Approved by:**

Jessie Li/ Technical Manager



Note 1: The test data was only valid for the test sample(s). This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or use in part without prior written consent from Guangdong Meide Testing Technology Co., Ltd. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Note 2: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.



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## 1. Product Description for Equipment under Test(EUT)

The client submitted 2 sample of model 601Y0100W30L70DY,601Y0100W57L70DY. Sample 601Y0100W30L70DY was numbered CA2008348L 01004-S01. Sample 601Y0100W57L70DY was numbered CA2008348L 01004-S02. The sample was received on 2020-08-26, is undamaged condition.

Model Tested:	601Y0100W30L70DY,601Y0100W57L70DY
Manufacturer:	Same as client
Address:	Same as client
Product Type:	Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires
Rated Voltage/Frequency:	100-277V AC,50/60Hz
Rated Power:	100W
Nominal CCT:	3000K,5700K
LED Manufacturer:	Shenzhen Smalite Semiconductor Co.,Ltd
LED Model No:	SL-IB3030YEA-21EAI
LED Driver Manufacturer:	SHENZHEN SOSEN ELECTRONICS CO., LTD
LED Driver Model:	SS-100E-58B

### Model Similarity:

Model designation: 6XXDyyyyWCVRXY

"6" denotes Wallpack Series;

"XX" can be 01 or 02, which denotes luminaires shell Shape and Overall dimension, where 01= L361mm X W235mm X H180mm or 02= L320mm X W130mm X H175mm;

"D" can be Y or N, which denotes Dimmable or Non-dimmable;

"yyyy" denotes the wattage of luminaires, can be from 0048 to 0070; each 1W gradually increase max. 70W, from 0070 to 0130, each 5 W gradually increase, max. 130W, for example 0048=48W;

"C" can be two arbitrary numbers, which denotes LED Color Temperature, for example 50=5000K;

"V" can be L or H, which denotes range of input voltage; where L=Low voltage range, H=High voltage range or same as LED Driver input;

"R" can be two arbitrary numbers, which denotes CRI, for example 80=80CRI;

"X" can be A, B, C or D, which denotes Light Distribution, where A = T3, B = T4FT, C = 5WQ or D = Other;

"Y" can be an arbitrary number, letter or blank, which denote the company's internal information.



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## 2. Standards Used

- ANSI/IES LM-79-19:APPROVED METHOD:OPTICAL AND ELECTRICAL MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS
- IES TM-30-18 IES Method for Evaluating Light Source Color Rendition (This Method is not in Nvlap accreditation scope)
- ANSI C82.77-10:2014 Harmonic Emission Limits – Related Power Quality Requirements for Lighting Equipment-Solid State

## 3. Test equipment list

Test Equipment	Serial No	Model No	Calibration due date
Full-field Speed Goniophotometer	MD-E028	GO-R5000	2020/10/06
Digital Power Meter	MD-E001	PF2010	2020/10/06
AC Testing Power Source	MD-E002	DPS1060	2020/10/06
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2020/10/06
Integrating Sphere System	MD-E029	2M	2020/10/06
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2020/10/06
Digital Power Meter	MD-E008	PF310	2020/10/06
AC Testing Power Source	MD-E010	DPS1010	2020/10/06
Standard Lamp	MD-E012	D204	2021/06/09

Statement of Traceability: Guangdong Meide Testing Technology Co., Ltd. attested that all calibration has been performed using suitable standards traceable to national primary standards and International System of Unit(SI).



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## 4. Test Method

### Requirements of Ambient Condition

Product was tested with no seasoning. All stabilization and measurements were made in compliance with ANSI/IES LM-79-19. The product was operated at rated voltage or at voltage required by manufacturer. The ambient temperature of the sample was maintained at  $25^{\circ}\text{C} \pm 1.2^{\circ}\text{C}$  during measurement. And relative humidity between 10% and 65%.

### Goniophotometer System

The sample was tested according to the ANSI/IES LM-79-19.

Photometric parameters were measured using a type C goniophotometer and software. The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, Luminous efficacy, zonal flux were calculated from the software taken at  $1^{\circ}$  vertical intervals and  $22.5^{\circ}$  horizontal intervals. Photometric distance was more than five times of the Largest dimension of the test SSL product.

### Integrating Sphere System

The sample was tested according to the ANSI/IES LM-79-19.

The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. Coating reflectance of the integrating sphere was 90% to 98%. Photometric measurement conditions was using  $4\pi$  geometry. The self-absorption factor is applied in the final test result. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

### Fidelity Index ( $R_f$ ) and Gamut Index ( $R_g$ ) 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.

### THD and PF Test

The sample was tested according to the ANSI C82.77-10:2014.

The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion were calculated from the digital power meter.



### 5.Integrating Sphere Test Results

#### 5.1 Test Data for Model # 601Y0100W30L70DY

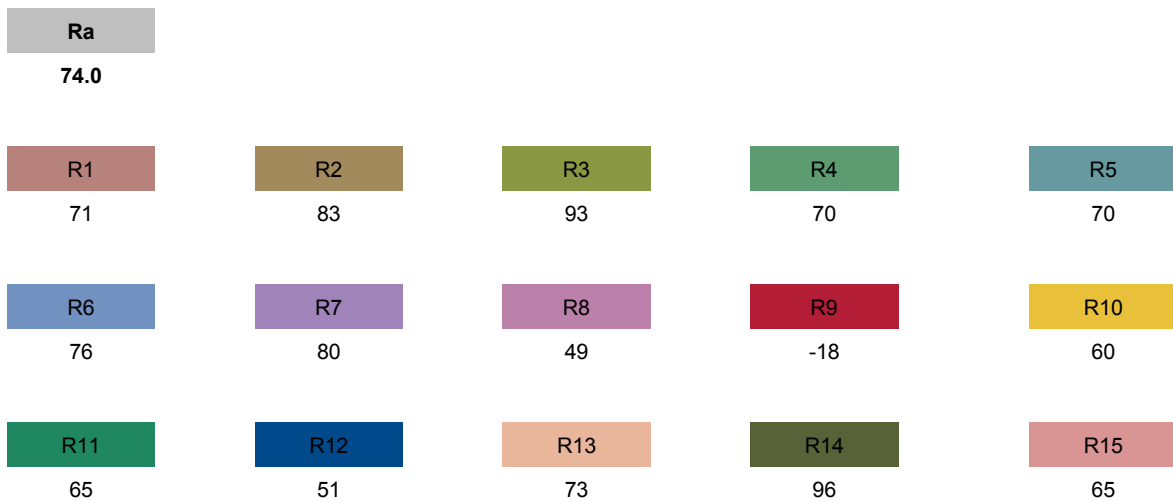
Test Ambient Temperature	25.1℃	Test orientation	Downward
Operate time(Min.)	100	stabilization time(Min.)	90

#### Optical and Electrical Measurement Result

Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Luminous Flux(lm)	Efficacy (lm/W)	CCT (K)
120.0	60	0.8279	99.05	0.9970	11636	117.47	2936

Ra	R9	Rf	Rg	x	y	u'	v'	Duv
74.0	-18	75	96	0.4392	0.4009	0.2534	0.5204	-0.00125

#### Color Rendering Index





ANSI/IES TM-30-18 Color Rendition Report

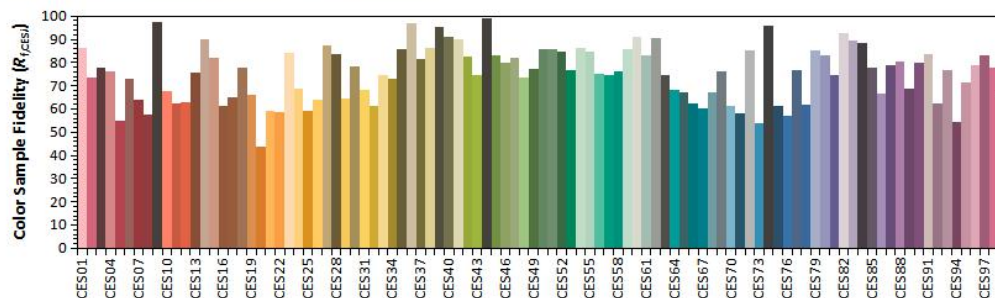
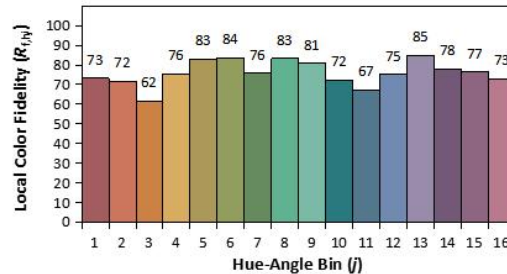
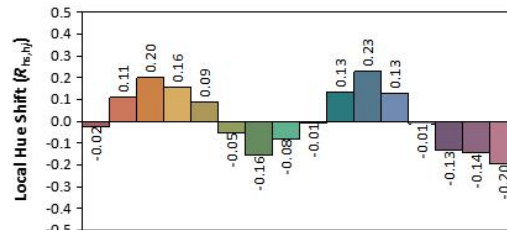
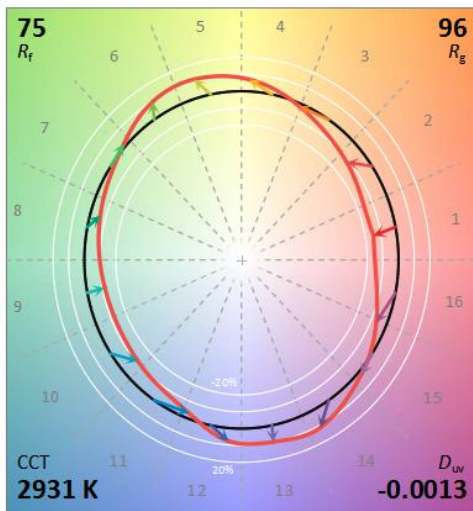
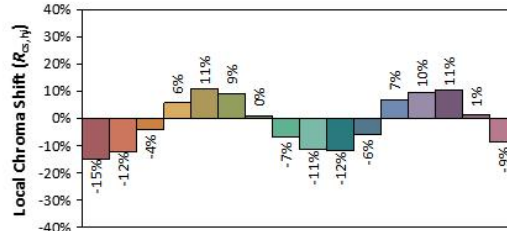
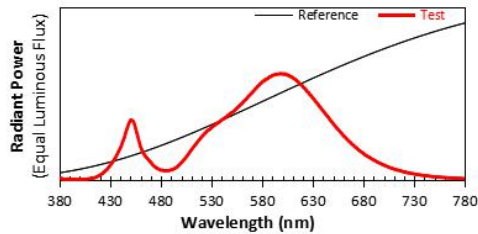
ANSI/IES TM-30-18 Color Rendition Report

Source: SL-IB3030YEA-21EAI

Manufacturer: ROYALUX EXPORTS

Date: 2020/8/31

Model: 601Y0100W30L70DY



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

x 0.4400
y 0.4018
u' 0.2535
v' 0.5209

CIE 13.3-1995 (CRI)
R\_a 74
R\_g -18

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



5.2 Test Data for Model # 601Y0100W57L70DY

Test Ambient Temperature	25.1℃	Test orientation	Downward
Operate time(Min.)	100	stabilization time(Min.)	90

Optical and Electrical Measurement Result

Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Luminous Flux(lm)	Efficacy (lm/W)	CCT (K)
120.0	60	0.8275	98.97	0.9967	12253	123.80	5690

Ra	R9	Rf	Rg	x	y	u'	v'	Duv
75.7	-11	75	95	0.3282	0.3378	0.2053	0.4752	0.000502

Color Rendering Index

<b>Ra</b>				
75.7				
<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>	<b>R5</b>
75	79	80	77	75
<b>R6</b>	<b>R7</b>	<b>R8</b>	<b>R9</b>	<b>R10</b>
71	84	64	-11	49
<b>R11</b>	<b>R12</b>	<b>R13</b>	<b>R14</b>	<b>R15</b>
74	45	75	89	71



ANSI/IES TM-30-18 Color Rendition Report

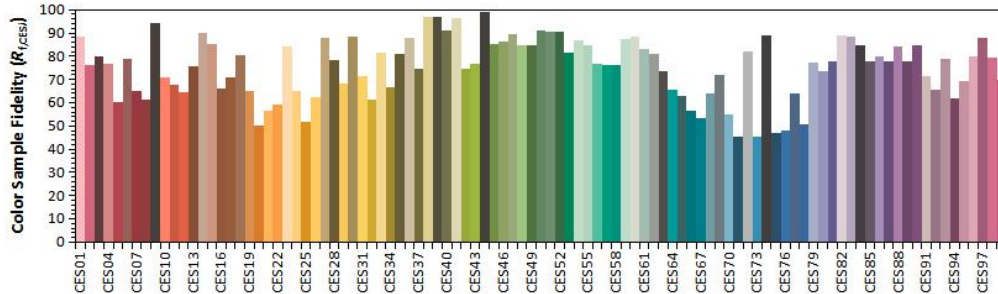
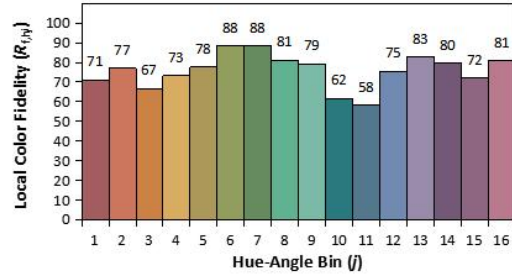
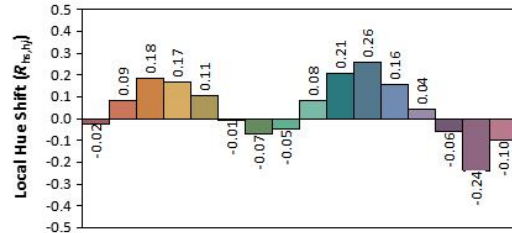
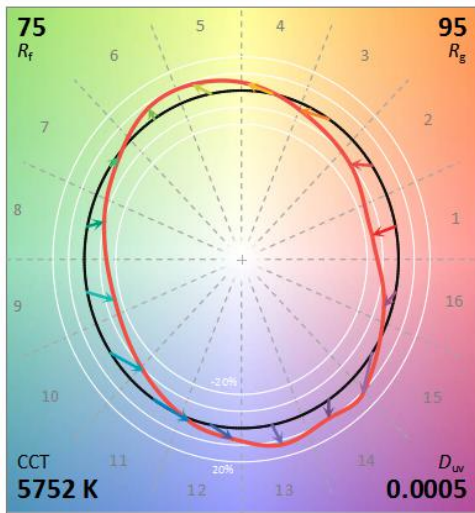
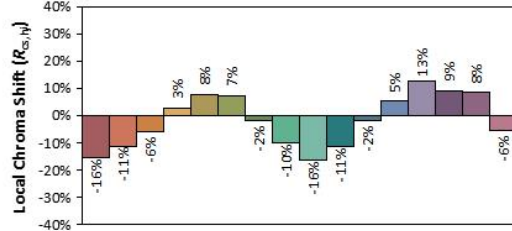
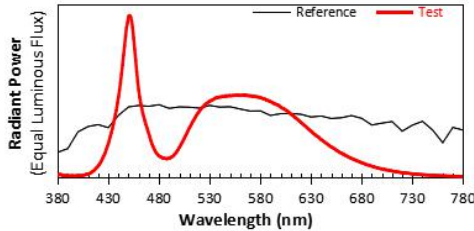
ANSI/IES TM-30-18 Color Rendition Report

Source: SL-IB3030YEA-21EAI

Manufacturer: ROYALUX EXPORTS

Date: 2020/8/31

Model: 601Y0100W57L70DY



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

$x$  0.3269  
 $y$  0.3371  
 $u'$  0.2046  
 $v'$  0.4747

CIE 13.3-1995 (CRI)  
 $R_a$  76  
 $R_g$  -11

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

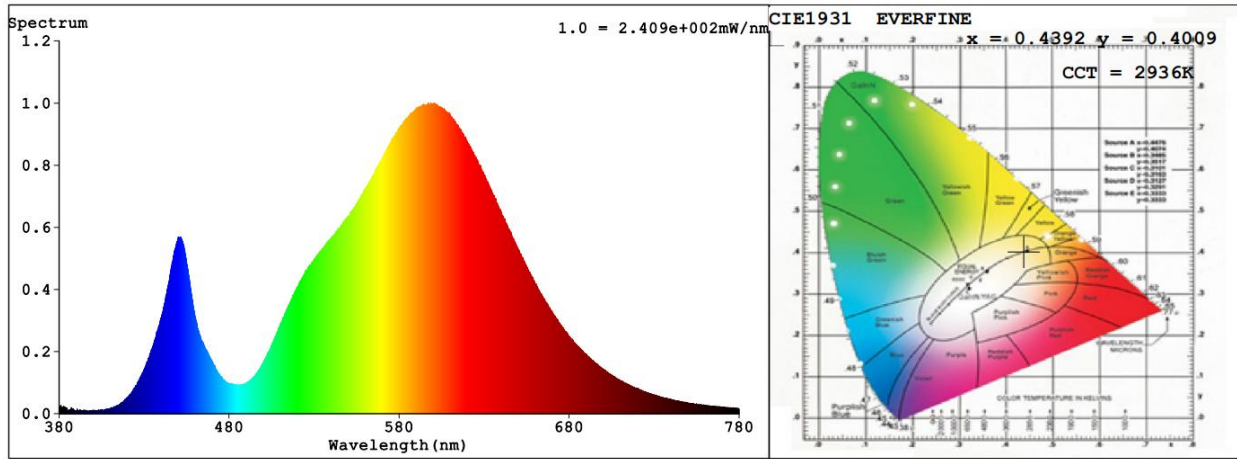




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5.3 Model # 601Y0100W30L70DY Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0211	414	0.0243	448	0.5251	482	0.0955	516	0.3584
381	0.0201	415	0.0262	449	0.5437	483	0.0908	517	0.3708
382	0.0199	416	0.0311	450	0.5629	484	0.0913	518	0.3826
383	0.0118	417	0.0348	451	0.5619	485	0.0923	519	0.3923
384	0.011	418	0.0393	452	0.5565	486	0.0916	520	0.4065
385	0.0084	419	0.0459	453	0.5446	487	0.0921	521	0.4149
386	0.0132	420	0.0502	454	0.5207	488	0.0927	522	0.4244
387	0.0093	421	0.0567	455	0.4846	489	0.0949	523	0.4369
388	0.0149	422	0.0623	456	0.447	490	0.0986	524	0.4437
389	0.0097	423	0.0707	457	0.4132	491	0.0999	525	0.4574
390	0.0051	424	0.0791	458	0.3745	492	0.1039	526	0.4633
391	0.0086	425	0.0868	459	0.3419	493	0.1095	527	0.4721
392	0.0087	426	0.0977	460	0.3111	494	0.1141	528	0.4755
393	0.0088	427	0.1034	461	0.2886	495	0.1189	529	0.4864
394	0.0087	428	0.1183	462	0.2663	496	0.1275	530	0.4952
395	0.0106	429	0.1293	463	0.2496	497	0.1342	531	0.5016
396	0.0067	430	0.1415	464	0.2342	498	0.1441	532	0.5095
397	0.0075	431	0.1546	465	0.2229	499	0.1536	533	0.5166
398	0.0086	432	0.1663	466	0.2104	500	0.1642	534	0.5211
399	0.0075	433	0.182	467	0.2	501	0.1734	535	0.531
400	0.0104	434	0.1981	468	0.1885	502	0.1845	536	0.5349
401	0.0086	435	0.2112	469	0.1763	503	0.1969	537	0.5411
402	0.0095	436	0.2297	470	0.1696	504	0.2057	538	0.549
403	0.0084	437	0.2467	471	0.1555	505	0.2201	539	0.5573
404	0.0107	438	0.2679	472	0.1437	506	0.2313	540	0.5639
405	0.0128	439	0.2854	473	0.1347	507	0.2439	541	0.5698
406	0.0103	440	0.3067	474	0.1278	508	0.259	542	0.5766
407	0.0117	441	0.3269	475	0.1197	509	0.2722	543	0.5841
408	0.015	442	0.3549	476	0.1129	510	0.2855	544	0.587
409	0.0154	443	0.3791	477	0.1099	511	0.2976	545	0.5976
410	0.0155	444	0.4027	478	0.1034	512	0.311	546	0.607
411	0.0175	445	0.4389	479	0.0984	513	0.3217	547	0.6141
412	0.02	446	0.4706	480	0.0953	514	0.3344	548	0.6196
413	0.0217	447	0.4954	481	0.0952	515	0.3471	549	0.6286



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nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.6347	599	0.9965	648	0.5527	697	0.1557	746	0.0378
551	0.6387	600	0.9935	649	0.5413	698	0.1513	747	0.0368
552	0.648	601	0.9909	650	0.5291	699	0.147	748	0.0355
553	0.6559	602	0.9959	651	0.5168	700	0.1435	749	0.0345
554	0.6647	603	0.9881	652	0.5055	701	0.1383	750	0.0336
555	0.6745	604	0.9843	653	0.4967	702	0.134	751	0.0335
556	0.6846	605	0.9854	654	0.482	703	0.1317	752	0.0321
557	0.6908	606	0.977	655	0.4743	704	0.1272	753	0.032
558	0.7044	607	0.9763	656	0.4617	705	0.1229	754	0.03
559	0.7106	608	0.9678	657	0.451	706	0.1182	755	0.031
560	0.7161	609	0.967	658	0.4411	707	0.1165	756	0.0288
561	0.7306	610	0.9603	659	0.4309	708	0.1128	757	0.0281
562	0.7404	611	0.9502	660	0.4169	709	0.1101	758	0.0279
563	0.7485	612	0.9473	661	0.4108	710	0.1053	759	0.0269
564	0.7585	613	0.9398	662	0.4002	711	0.1034	760	0.0262
565	0.767	614	0.9307	663	0.3907	712	0.1014	761	0.0256
566	0.7816	615	0.9219	664	0.3802	713	0.0963	762	0.0256
567	0.7909	616	0.9159	665	0.3717	714	0.0956	763	0.0242
568	0.8016	617	0.9034	666	0.3605	715	0.094	764	0.0236
569	0.8098	618	0.8945	667	0.3547	716	0.0884	765	0.0236
570	0.8203	619	0.8905	668	0.3424	717	0.0886	766	0.0227
571	0.8311	620	0.8746	669	0.3347	718	0.0842	767	0.0223
572	0.8405	621	0.8655	670	0.327	719	0.0822	768	0.0217
573	0.8526	622	0.8587	671	0.3176	720	0.079	769	0.0207
574	0.8622	623	0.8456	672	0.3101	721	0.0776	770	0.0207
575	0.8727	624	0.8322	673	0.3028	722	0.0754	771	0.0201
576	0.8844	625	0.8219	674	0.2928	723	0.0718	772	0.0191
577	0.8897	626	0.8165	675	0.2848	724	0.071	773	0.0194
578	0.9027	627	0.7984	676	0.2776	725	0.0697	774	0.0185
579	0.9096	628	0.7932	677	0.2707	726	0.0662	775	0.0191
580	0.9186	629	0.7792	678	0.264	727	0.0649	776	0.0172
581	0.9276	630	0.7676	679	0.2575	728	0.0633	777	0.0168
582	0.9287	631	0.7571	680	0.2493	729	0.0618	778	0.0165
583	0.9418	632	0.7447	681	0.2411	730	0.0597	779	0.0163
584	0.946	633	0.7307	682	0.2344	731	0.0581	780	0.0154
585	0.9474	634	0.7222	683	0.2294	732	0.056		
586	0.9593	635	0.7107	684	0.2236	733	0.055		
587	0.9661	636	0.6933	685	0.2174	734	0.0527		
588	0.9676	637	0.6865	686	0.2132	735	0.0516		
589	0.9737	638	0.6723	687	0.2062	736	0.0508		
590	0.981	639	0.6594	688	0.2012	737	0.0488		
591	0.9826	640	0.6495	689	0.195	738	0.0478		
592	0.9853	641	0.6347	690	0.1908	739	0.0466		
593	0.9884	642	0.6264	691	0.184	740	0.0456		
594	0.9917	643	0.6124	692	0.1802	741	0.0435		
595	0.9925	644	0.6008	693	0.1735	742	0.0427		
596	0.9921	645	0.5915	694	0.1695	743	0.0409		
597	0.9957	646	0.5764	695	0.1642	744	0.0411		
598	0.9943	647	0.5638	696	0.1609	745	0.0391		



## 6. Goniophotometer Test results for model # 601Y0100W30L70DY

### 6.1 Test Data

Test Ambient Temperature	25.1℃	Test orientation	Downward
Operate time(Min.)	120	stabilization time(Min.)	90

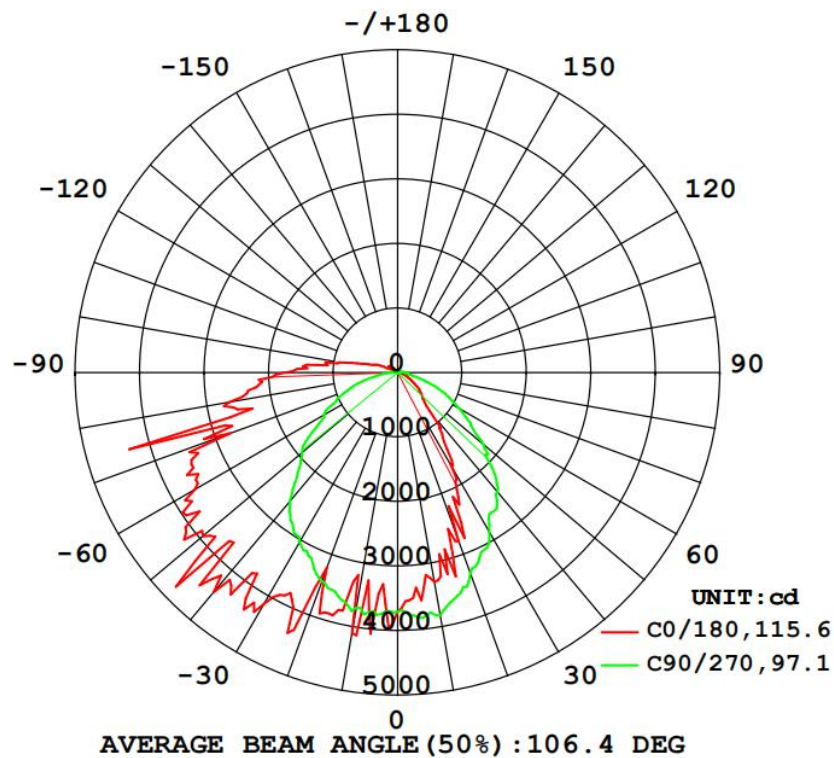
### Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
120.0	60	0.8280	0.9976	99.12

### Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Luminous Flux(lm) (0-90°)	Efficacy(lm/W) (0-90°)	BUG	ZL (80-90°)
11666.6	117.70	11009	111.07	B3-U3-G4	6.2%

### 6.2 Luminous Intensity Distribution





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### 6.3 Zonal Flux Diagram

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\%lum, lamp$
10	3294	3166	3818	3761	4107	3393	3700	3741	0- 10	346.7	346.7	2.97,2.97
20	2787	2882	3305	3819	3223	3873	3445	3130	10- 20	980.0	1327	11.4,11.4
30	1640	2111	2856	3580	4139	3908	3038	2292	20- 30	1446	2773	23.8,23.8
40	778.3	1218	2421	3468	4441	3629	2601	1462	30- 40	1700	4472	38.3,38.3
50	449.7	569.6	1739	3221	3942	3330	1951	690.1	40- 50	1716	6189	53,53
60	250.2	346.1	1090	2992	3633	3185	1321	382.7	50- 60	1615	7804	66.9,66.9
70	135.7	179.4	603.6	2320	2760	2548	836.1	221.8	60- 70	1401	9205	78.9,78.9
80	54.41	67.27	198.2	1544	2655	1788	357.0	95.71	70- 80	1086	10291	88.2,88.2
90	2.451	15.02	118.6	802.8	1737	1029	124.6	24.80	80- 90	718.1	11009	94.4,94.4
100	3.527	8.069	75.71	365.9	920.4	471.2	90.01	13.69	90-100	387.1	11396	97.7,97.7
110	4.042	3.166	39.86	33.36	364.9	88.22	54.22	3.957	100-110	158.0	11554	99,99
120	4.164	3.434	20.03	83.13	39.67	111.4	24.95	4.189	110-120	51.90	11606	99.5,99.5
130	4.014	3.289	10.10	39.03	138.1	64.60	13.43	2.772	120-130	37.06	11643	99.8,99.8
140	3.536	3.328	4.312	5.233	52.18	10.47	3.444	3.360	130-140	16.74	11660	99.9,99.9
150	2.988	3.051	2.779	2.556	2.951	3.074	3.827	3.937	140-150	3.789	11664	100,100
160	2.806	3.023	3.059	2.719	3.492	3.594	3.712	3.995	150-160	1.473	11665	100,100
170	2.707	2.951	3.115	2.970	3.572	3.630	3.820	3.904	160-170	0.9354	11666	100,100
180	3.304	3.380	3.597	3.525	3.339	3.278	3.511	3.598	170-180	0.3195	11667	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



6.4 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) Y (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	3714	3714	3714	3714	3714	3714	3714	3714	3714	3714	3714	3714	3714	3714	3714	3714			
5	3347	3424	3522	3631	3813	4056	3489	3383	3438	3351	3368	3934	3768	3651	3662	3591			
10	3294	3336	3166	3604	3818	3524	3761	3462	4107	4449	3393	3282	3700	3561	3741	3339			
15	2835	3171	3373	3533	3582	3503	3688	3911	3895	3905	3161	4053	3587	3352	3271	3059			
20	2787	2719	2882	3120	3305	3840	3819	3838	3223	3709	3873	3517	3445	3218	3130	2598			
25	2262	2145	2866	2843	3075	3191	3608	4342	3880	4166	3652	3247	3171	2934	2727	2513			
30	1640	1777	2111	2628	2856	3288	3580	3929	4139	3951	3908	3260	3038	2777	2292	1983			
35	1231	1345	1725	2179	2619	2773	3578	4203	3808	4267	3604	3243	2853	2460	1891	1476			
40	778	948	1218	1797	2421	2714	3468	3962	4441	4095	3629	2938	2601	2137	1462	1042			
45	555	585	821	1386	2070	2619	3443	4134	3690	4170	3549	2734	2193	1672	1006	632			
50	450	469	570	1013	1739	2340	3221	3560	3942	3756	3330	2595	1951	1256	690	511			
55	345	366	442	715	1387	1994	3083	3842	3753	4081	3334	2375	1623	936	504	399			
60	250	268	346	471	1090	1708	2992	3545	3633	3717	3185	2019	1321	640	383	300			
65	182	192	260	330	839	1440	2510	3372	3498	3386	2697	1762	1051	434	298	212			
70	136	138	179	258	604	1245	2320	2788	2760	3122	2548	1520	836	305	222	147			
75	90.5	95.0	115	189	351	944	1870	2571	2687	3450	2233	1225	598	240	154	101			
80	54.4	52.2	67.3	131	198	718	1544	2347	2655	2484	1788	1006	357	172	95.7	61.2			
85	19.3	15.2	29.9	86.1	141	499	1140	1874	2160	1978	1411	693	187	122	50.9	23.8			
90	2.45	2.45	15.0	57.1	119	309	803	1433	1737	1584	1029	463	125	86.3	24.8	3.44			
95	2.88	2.77	10.6	42.6	98.6	209	550	987	1417	1177	685	304	102	63.0	18.2	3.64			
100	3.53	3.37	8.07	30.7	75.7	123	366	651	920	770	471	167	90.0	47.8	13.7	4.03			
105	3.92	3.75	6.17	2.76	22.3	42.1	281	424	527	487	345	85.0	27.8	3.29	10.1	4.12			
110	4.04	3.93	3.17	15.9	39.9	79.6	33.4	298	365	318	88.2	126	54.2	22.4	3.96	3.95			
115	4.05	3.98	3.57	11.1	28.4	49.8	76.7	60.9	147	85.9	120	87.7	39.7	16.3	5.08	3.65			
120	4.16	4.10	3.43	7.51	20.0	30.8	83.1	97.3	39.7	82.0	111	53.0	25.0	12.7	4.19	3.39			
125	4.12	4.09	3.37	5.99	13.6	20.3	65.0	134	166	141	94.3	28.2	17.9	9.02	3.24	3.30			
130	4.01	3.97	3.29	4.87	10.1	13.7	39.0	101	138	107	64.6	18.6	13.4	6.88	2.77	3.37			
135	3.60	3.60	3.46	3.89	4.96	9.91	13.3	63.1	95.0	72.8	29.7	13.0	3.17	5.49	3.18	3.26			
140	3.54	3.49	3.33	3.19	4.31	6.19	5.23	28.1	52.2	40.0	10.5	6.72	3.44	3.27	3.36	3.78			
145	3.38	3.31	3.24	3.19	3.55	2.69	2.58	5.54	19.8	14.0	3.38	2.89	4.61	3.70	3.72	3.92			
150	2.99	2.93	3.05	2.67	2.78	2.64	2.56	2.06	2.95	2.99	3.07	3.17	3.83	3.57	3.94	4.00			
155	2.85	2.91	3.02	2.99	2.91	2.87	2.60	2.26	3.30	3.33	3.39	3.47	3.56	3.69	4.03	4.13			
160	2.81	2.97	3.02	3.05	3.06	2.92	2.72	2.47	3.49	3.49	3.59	3.62	3.71	3.86	4.00	4.12			
165	2.64	2.89	2.97	3.08	2.98	2.99	2.81	2.61	3.58	3.54	3.58	3.68	3.77	3.83	3.90	3.90			
170	2.71	2.82	2.95	3.07	3.11	3.14	2.97	2.71	3.57	3.58	3.63	3.67	3.82	3.84	3.90	3.80			
175	2.94	3.04	3.11	3.26	3.36	3.37	3.21	3.05	3.45	3.46	3.51	3.60	3.71	3.76	3.73	3.59			
180	3.30	3.29	3.38	3.52	3.60	3.61	3.52	3.28	3.34	3.36	3.28	3.40	3.51	3.60	3.60	3.50			

7. THD and PF Test for model # 601Y0100W30L70DY

Voltage (V AC)	Frequency (Hz)	Power Factor	THD (%)
100.0	60	0.9982	4.87
120.0	60	0.9976	5.01
277.0	60	0.9595	11.43



8.Photo of sample



Figure 1



Figure 2

\*\*\*\*\* END OF THE TEST REPORT\*\*\*\*\*