



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..... : 602Y0048W30L70AY,602Y0048W57L70AY

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 01005

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 602Y0048W30L70AY,602Y0048W57L70AY. Sample 602Y0048W30L70AY was numbered CA2008348L 01005-S01. Sample 602Y0048W57L70AY was numbered CA2008348L 01005-S02. The sample was received on 2020-08-26, is undamaged condition.

Model Tested:	602Y0048W30L70AY,602Y0048W57L70AY
Manufacturer:	Same as client
Address:	Same as client
Product Type:	Outdoor Full-Cutoff Wall-Mounted Area Luminaires
Rated Voltage/Frequency:	100-277V AC,50/60Hz
Rated Power:	48W
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-75E-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° vertical intervals and 22.5° 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 4π 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 # 602Y0048W30L70AY

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	0.3978	47.39	0.9927	5763.6	121.62	2918

Ra	R9	Rf	Rg	x	y	u'	v'	Duv
74.4	-16	75	97	0.4402	0.4008	0.2541	0.5206	-0.00174

Color Rendering Index

Ra				
74.4				
R1	R2	R3	R4	R5
72	83	92	71	70
R6	R7	R8	R9	R10
76	80	50	-16	61
R11	R12	R13	R14	R15
66	51	74	95	66



ANSI/IES TM-30-18 Color Rendition Report

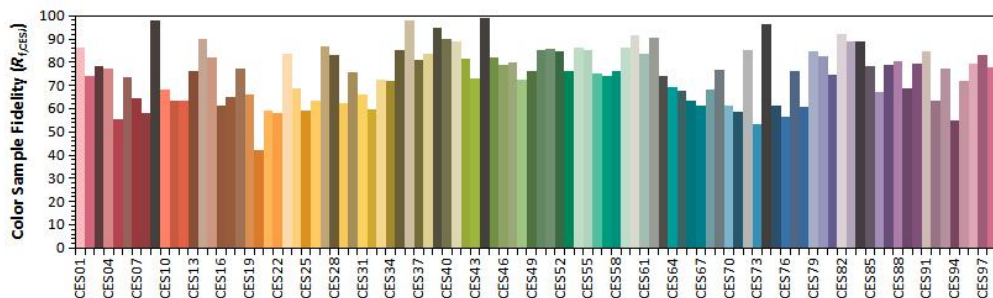
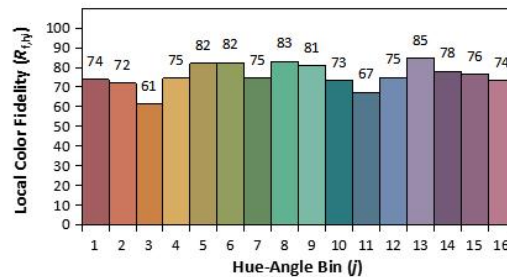
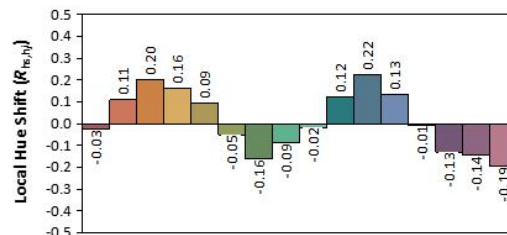
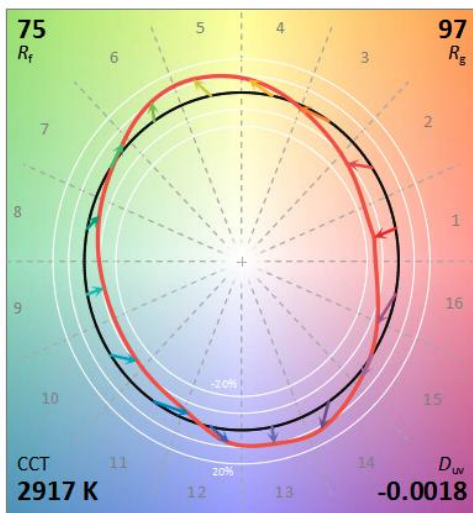
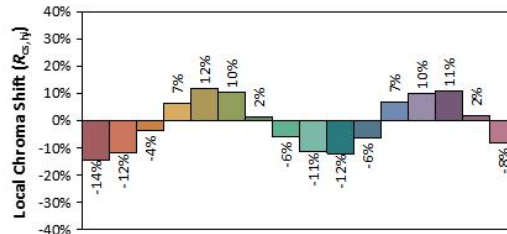
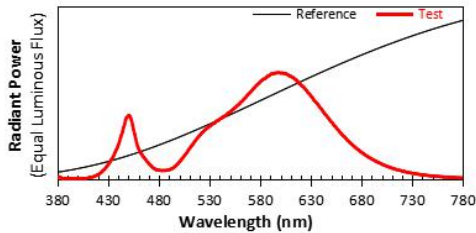
ANSI/IES TM-30-18 Color Rendition Report

Source: SL-IB3030YEA-21EAI

Manufacturer: ROYALUX EXPORTS

Date: 2020/8/31

Model: 602Y0048W30L70AY



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

x 0.4402, y 0.4006, u' 0.2542, v' 0.5205

CIE 13.3-1995 (CRI) Ra 74, Rg -16

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 # 602Y0048W57L70AY

Test Ambient Temperature	25.1°C	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	0.3976	47.34	0.9921	5999.5	126.73	5570

Ra	R9	Rf	Rg	x	y	u'	v'	Duv
74.6	-16	75	95	0.3309	0.3448	0.2044	0.4792	0.00198

Color Rendering Index

Ra				
74.6				
R1	R2	R3	R4	R5
73	78	80	76	74
R6	R7	R8	R9	R10
70	83	63	-16	47
R11	R12	R13	R14	R15
73	44	74	89	69



ANSI/IES TM-30-18 Color Rendition Report

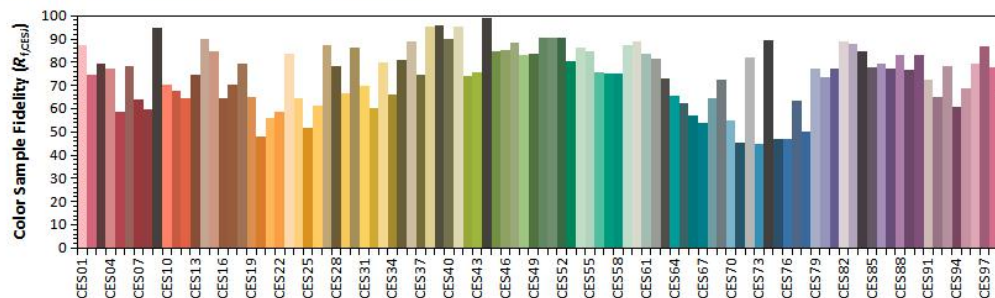
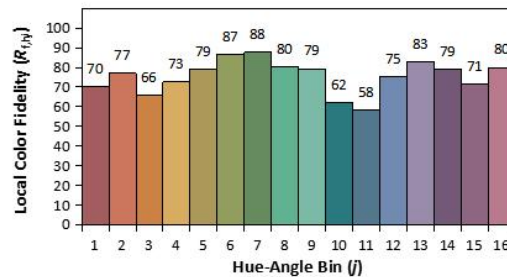
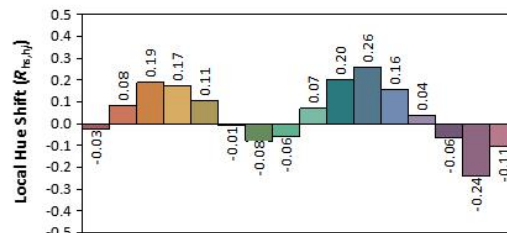
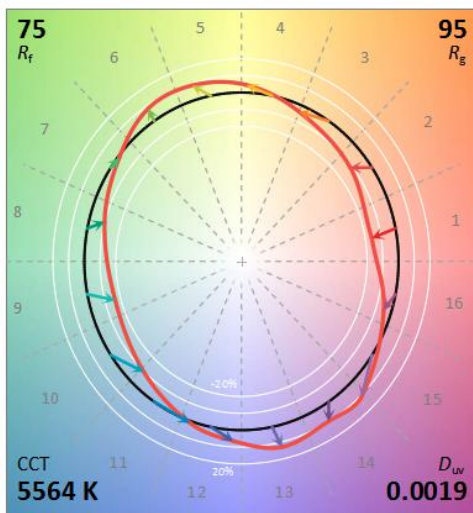
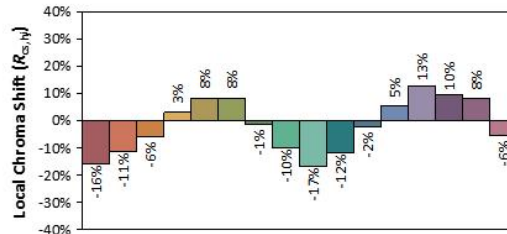
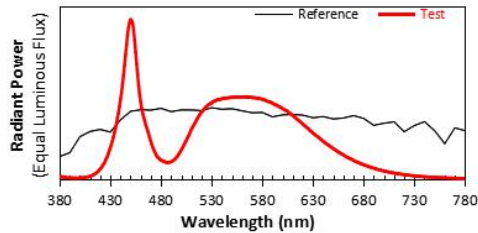
ANSI/IES TM-30-18 Color Rendition Report

Source: SL-IB3030YEA-21EAI

Manufacturer: ROYALUX EXPORTS

Date: 2020/8/31

Model: 602Y0048W57L70AY



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

x 0.3310
y 0.3435
u' 0.2049
v' 0.4786

CIE 13.3-1995 (CRI) Ra 74 Rg -16

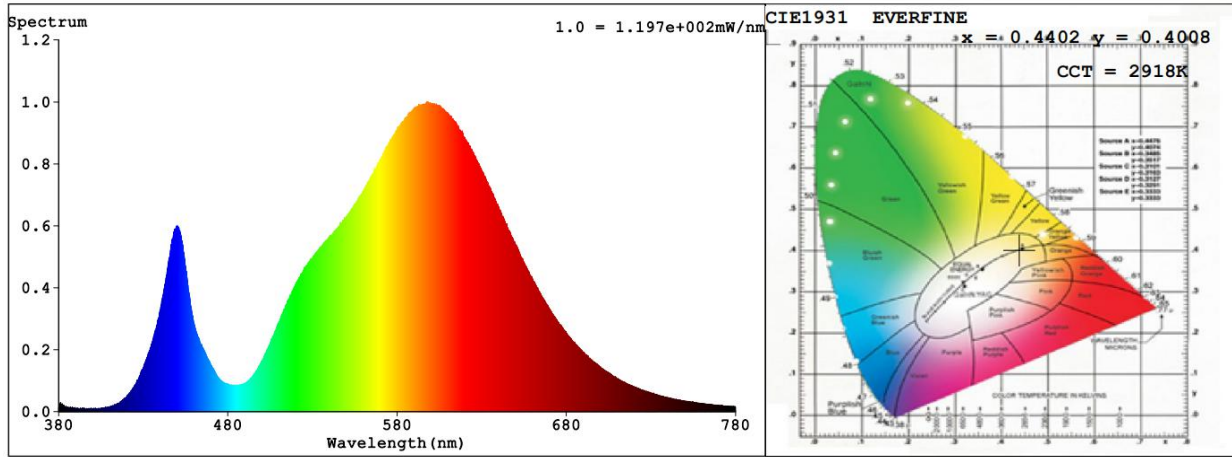
Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.



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5.3 Model # 602Y0048W30L70AY Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.013	414	0.0225	448	0.5778	482	0.0849	516	0.3635
381	0.0258	415	0.0263	449	0.5849	483	0.0832	517	0.3758
382	0.0255	416	0.0291	450	0.5971	484	0.0854	518	0.3872
383	0.0218	417	0.0347	451	0.5937	485	0.0845	519	0.3975
384	0.0091	418	0.037	452	0.574	486	0.0845	520	0.4097
385	0.0071	419	0.0436	453	0.5462	487	0.0862	521	0.4195
386	0.0097	420	0.0463	454	0.5076	488	0.0868	522	0.4326
387	0.0123	421	0.0531	455	0.4615	489	0.087	523	0.4401
388	0.0133	422	0.0601	456	0.4231	490	0.0905	524	0.4498
389	0.0093	423	0.0667	457	0.381	491	0.0948	525	0.4596
390	0.0083	424	0.0774	458	0.34	492	0.0995	526	0.4675
391	0.0085	425	0.0857	459	0.3084	493	0.1031	527	0.4746
392	0.0092	426	0.0942	460	0.2855	494	0.1089	528	0.4813
393	0.0081	427	0.1039	461	0.2634	495	0.1156	529	0.493
394	0.0109	428	0.1164	462	0.2456	496	0.1244	530	0.4948
395	0.0101	429	0.131	463	0.2349	497	0.1316	531	0.5044
396	0.0056	430	0.1395	464	0.2189	498	0.1426	532	0.5108
397	0.0081	431	0.1532	465	0.2082	499	0.1493	533	0.5171
398	0.0098	432	0.1692	466	0.1969	500	0.1646	534	0.5238
399	0.0101	433	0.1881	467	0.1844	501	0.1718	535	0.5266
400	0.0085	434	0.2003	468	0.1712	502	0.1868	536	0.5363
401	0.0096	435	0.2169	469	0.1623	503	0.1966	537	0.5463
402	0.0077	436	0.2375	470	0.1495	504	0.2089	538	0.5476
403	0.0094	437	0.2601	471	0.1386	505	0.2208	539	0.5532
404	0.009	438	0.279	472	0.1318	506	0.2339	540	0.5638
405	0.0104	439	0.2999	473	0.1198	507	0.2447	541	0.5685
406	0.0121	440	0.3273	474	0.1116	508	0.2581	542	0.5736
407	0.0105	441	0.3527	475	0.1047	509	0.2751	543	0.5827
408	0.0125	442	0.3885	476	0.1002	510	0.2876	544	0.5881
409	0.0135	443	0.4153	477	0.0935	511	0.2992	545	0.5919
410	0.0147	444	0.4433	478	0.0902	512	0.314	546	0.5986
411	0.0182	445	0.4841	479	0.0899	513	0.3235	547	0.6068
412	0.0196	446	0.5123	480	0.0884	514	0.3371	548	0.6175
413	0.0219	447	0.5544	481	0.0852	515	0.3519	549	0.6237



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nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.6259	599	0.994	648	0.5629	697	0.1557	746	0.0373
551	0.6374	600	0.9902	649	0.5472	698	0.1536	747	0.0359
552	0.6439	601	0.9919	650	0.5367	699	0.1497	748	0.0356
553	0.6535	602	0.9919	651	0.5306	700	0.1435	749	0.0344
554	0.6579	603	0.9871	652	0.5156	701	0.1388	750	0.0338
555	0.6702	604	0.9894	653	0.5012	702	0.135	751	0.0321
556	0.6763	605	0.989	654	0.4955	703	0.1312	752	0.0327
557	0.6862	606	0.9805	655	0.4811	704	0.1281	753	0.031
558	0.6953	607	0.978	656	0.4689	705	0.1243	754	0.0306
559	0.7013	608	0.969	657	0.4599	706	0.121	755	0.03
560	0.7115	609	0.9634	658	0.4483	707	0.1168	756	0.029
561	0.7232	610	0.9627	659	0.4364	708	0.1129	757	0.0277
562	0.7293	611	0.9549	660	0.4277	709	0.1121	758	0.0272
563	0.7398	612	0.9529	661	0.4162	710	0.1056	759	0.0267
564	0.7505	613	0.9446	662	0.4053	711	0.1046	760	0.0258
565	0.7599	614	0.9349	663	0.3999	712	0.1008	761	0.0253
566	0.769	615	0.9296	664	0.3882	713	0.0974	762	0.0238
567	0.7841	616	0.9235	665	0.3779	714	0.0948	763	0.024
568	0.791	617	0.9099	666	0.3646	715	0.0919	764	0.0235
569	0.8022	618	0.8961	667	0.3588	716	0.0886	765	0.0217
570	0.809	619	0.8914	668	0.3465	717	0.0865	766	0.0214
571	0.8221	620	0.8821	669	0.3413	718	0.0855	767	0.0214
572	0.831	621	0.8713	670	0.3309	719	0.0835	768	0.0216
573	0.845	622	0.8676	671	0.3235	720	0.0799	769	0.0205
574	0.8544	623	0.8574	672	0.3125	721	0.0783	770	0.0202
575	0.8637	624	0.8465	673	0.3072	722	0.0745	771	0.0188
576	0.8756	625	0.8337	674	0.2971	723	0.0736	772	0.0188
577	0.8833	626	0.8257	675	0.2905	724	0.0705	773	0.0186
578	0.8915	627	0.8096	676	0.2804	725	0.0681	774	0.0184
579	0.9017	628	0.8019	677	0.2773	726	0.0671	775	0.0178
580	0.9095	629	0.7911	678	0.2681	727	0.0637	776	0.0166
581	0.9202	630	0.778	679	0.2595	728	0.0633	777	0.0164
582	0.9265	631	0.7658	680	0.2534	729	0.0613	778	0.0163
583	0.9339	632	0.7564	681	0.2468	730	0.0592	779	0.0163
584	0.9376	633	0.7367	682	0.2391	731	0.0578	780	0.0151
585	0.9424	634	0.7288	683	0.2331	732	0.057		
586	0.9505	635	0.7189	684	0.2263	733	0.0549		
587	0.9616	636	0.708	685	0.2205	734	0.0536		
588	0.964	637	0.6981	686	0.214	735	0.0515		
589	0.9708	638	0.6828	687	0.2082	736	0.0505		
590	0.9769	639	0.6688	688	0.2025	737	0.0494		
591	0.9844	640	0.6599	689	0.198	738	0.0459		
592	0.9855	641	0.6485	690	0.1919	739	0.0456		
593	0.9832	642	0.631	691	0.1863	740	0.0442		
594	0.9896	643	0.6209	692	0.1829	741	0.0436		
595	0.9916	644	0.6068	693	0.1757	742	0.0425		
596	0.9915	645	0.5985	694	0.171	743	0.0419		
597	0.9945	646	0.5853	695	0.1667	744	0.0395		
598	0.9956	647	0.5741	696	0.1609	745	0.0391		



6. Goniophotometer Test results for model # 602Y0048W30L70AY

6.1 Test Data

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

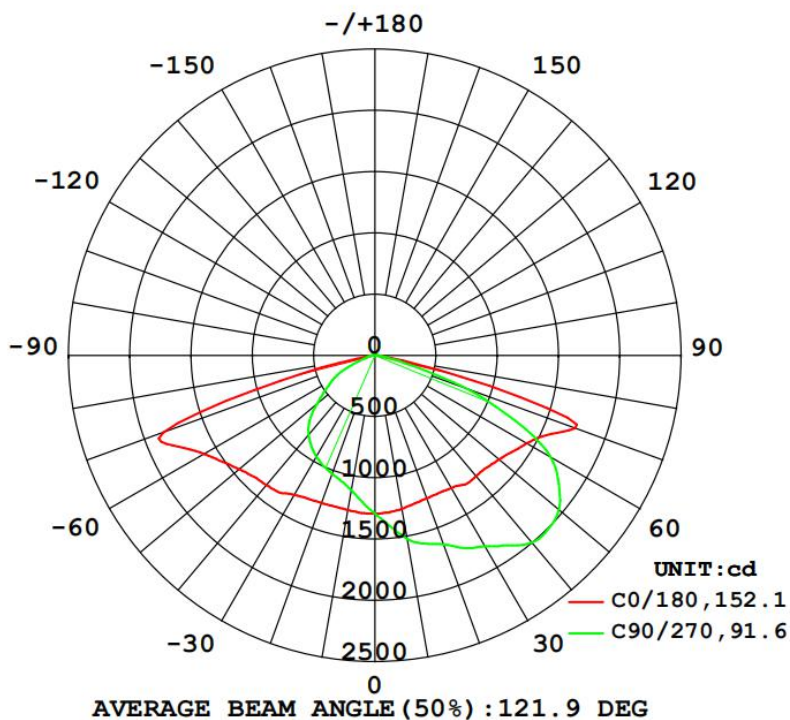
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
120.1	60	0.3977	0.9915	47.37

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	BUG	ZL (0-90°)	ZL (80-90°)
5758.74	121.56	B2-U1-G1	99.9%	0.7%

6.2 Luminous Intensity Distribution





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6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1272	1431	1520	1425	1282	1183	1117	1165	0- 10	123.7	123.7	2.15,2.15
20	1242	1516	1642	1522	1282	1087	1029	1063	10- 20	368.6	492.4	8.55,8.55
30	1251	1573	1799	1609	1315	1003	957.3	975.3	20- 30	605.4	1098	19.1,19.1
40	1286	1649	1993	1699	1382	909.0	844.8	873.5	30- 40	830.9	1929	33.5,33.5
50	1324	1652	1959	1698	1447	757.8	623.1	742.7	40- 50	1011	2940	51,51
60	1435	1690	1654	1721	1609	477.2	396.3	459.8	50- 60	1102	4042	70.2,70.2
70	1739	1422	805.8	1373	1837	189.9	137.6	202.5	60- 70	1106	5148	89.4,89.4
80	143.9	128.3	102.5	124.3	92.31	48.54	49.36	54.41	70- 80	564.6	5712	99.2,99.2
90	1.013	10.98	1.412	6.512	1.072	1.217	4.809	3.840	80- 90	39.70	5752	99.9,99.9
100	0.7309	0.2812	0.1932	0.2512	1.332	1.425	1.109	1.463	90-100	1.025	5753	99.9,99.9
110	0.8398	0.3633	0.2893	0.3549	1.182	1.294	1.217	1.358	100-110	0.9212	5754	99.9,99.9
120	1.091	0.4507	0.4664	0.4866	0.9771	1.147	1.238	1.170	110-120	0.8619	5755	99.9,99.9
130	1.296	0.6538	0.6878	0.6496	1.040	1.300	1.476	1.410	120-130	0.8538	5756	99.9,99.9
140	1.283	0.8612	0.8874	0.7974	1.234	1.581	1.805	1.702	130-140	0.9225	5757	100,100
150	1.004	0.9298	1.001	0.8590	1.374	1.684	1.981	1.838	140-150	0.8283	5758	100,100
160	0.9881	1.160	1.235	1.068	1.422	1.625	2.003	1.919	150-160	0.6463	5758	100,100
170	1.165	1.268	1.424	1.254	1.421	1.439	1.774	1.713	160-170	0.4046	5759	100,100
180	1.343	1.441	1.550	1.377	1.342	1.301	1.595	1.459	170-180	0.1373	5759	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		



6.4 Luminous Distribution Intensity Data

Table--1

UNIT: cd

γ (DEG)	C (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	1292	1292	1292	1292	1292	1292	1292	1292	1292	1292	1292	1292	1292	1292	1292	1292
5	1287	1322	1358	1386	1396	1386	1358	1324	1291	1262	1235	1214	1203	1209	1227	1255
10	1272	1341	1431	1497	1520	1495	1425	1343	1282	1238	1183	1137	1117	1127	1165	1221
15	1253	1348	1485	1571	1591	1572	1481	1365	1278	1222	1134	1079	1063	1070	1109	1192
20	1242	1355	1516	1616	1642	1630	1522	1392	1282	1205	1087	1036	1029	1032	1063	1165
25	1240	1372	1545	1687	1735	1698	1566	1422	1292	1188	1043	999	997	996	1021	1135
30	1251	1396	1573	1742	1799	1739	1609	1458	1315	1172	1003	958	957	954	975	1103
35	1285	1438	1613	1800	1893	1789	1655	1531	1365	1140	959	907	906	903	925	1064
40	1286	1493	1649	1862	1993	1846	1699	1591	1382	1103	909	847	845	846	873	1023
45	1295	1498	1640	1900	2003	1878	1710	1618	1401	1068	848	763	757	768	817	979
50	1324	1542	1652	1874	1959	1837	1698	1688	1447	1026	758	640	623	644	743	929
55	1372	1646	1676	1766	1831	1750	1695	1813	1517	964	624	503	493	504	617	870
60	1435	1821	1690	1649	1654	1645	1721	2015	1609	857	477	394	396	393	460	780
65	1544	2095	1693	1381	1267	1313	1703	2351	1768	703	352	285	280	293	343	635
70	1739	2488	1422	914	806	876	1373	2768	1837	522	190	153	138	161	203	461
75	973	2055	801	333	263	305	640	1374	799	172	92.6	93.5	72.9	93.3	96.9	182
80	144	170	128	115	102	93.7	124	122	92.3	61.0	48.5	57.3	49.4	57.8	54.4	61.0
85	27.2	34.9	45.5	45.8	35.0	34.9	40.7	30.3	24.8	24.5	22.3	27.4	25.3	28.6	25.2	26.2
90	1.01	5.33	11.0	6.04	1.41	5.27	6.51	4.93	1.07	1.50	1.22	2.90	4.81	5.63	3.84	3.50
95	0.61	0.41	0.22	0.17	0.15	0.14	0.19	0.31	1.22	1.50	1.27	0.97	0.86	0.91	1.26	1.50
100	0.73	0.49	0.28	0.22	0.19	0.17	0.25	0.39	1.33	1.57	1.42	1.22	1.11	1.15	1.46	1.62
105	0.77	0.54	0.33	0.26	0.24	0.22	0.30	0.47	1.27	1.46	1.40	1.33	1.24	1.24	1.46	1.52
110	0.84	0.60	0.36	0.30	0.29	0.27	0.35	0.56	1.18	1.32	1.29	1.32	1.22	1.21	1.36	1.37
115	0.97	0.68	0.40	0.38	0.37	0.34	0.41	0.66	1.09	1.18	1.22	1.30	1.20	1.16	1.26	1.24
120	1.09	0.72	0.45	0.48	0.47	0.43	0.49	0.70	0.98	1.08	1.15	1.31	1.24	1.17	1.17	1.11
125	1.12	0.79	0.55	0.60	0.57	0.54	0.57	0.84	0.94	1.05	1.18	1.39	1.32	1.27	1.28	1.09
130	1.30	0.93	0.65	0.72	0.69	0.66	0.65	1.00	1.04	1.20	1.30	1.54	1.48	1.42	1.41	1.23
135	1.42	1.00	0.75	0.83	0.80	0.77	0.72	1.02	1.19	1.33	1.47	1.69	1.65	1.60	1.59	1.45
140	1.28	1.01	0.86	0.90	0.89	0.84	0.80	0.98	1.23	1.37	1.58	1.80	1.81	1.75	1.70	1.55
145	1.17	1.01	0.89	0.97	0.94	0.91	0.82	0.97	1.33	1.45	1.65	1.88	1.90	1.88	1.78	1.66
150	1.00	0.91	0.93	1.02	1.00	0.99	0.86	0.91	1.37	1.51	1.68	1.96	1.98	1.96	1.84	1.70
155	0.97	0.94	1.03	1.14	1.12	1.10	0.95	0.95	1.42	1.51	1.68	1.98	2.02	1.95	1.89	1.75
160	0.99	1.01	1.16	1.24	1.23	1.18	1.07	1.01	1.42	1.47	1.63	1.88	2.00	1.97	1.92	1.76
165	1.07	1.09	1.22	1.32	1.31	1.29	1.16	1.05	1.43	1.43	1.51	1.71	1.88	1.85	1.77	1.68
170	1.17	1.13	1.27	1.42	1.42	1.38	1.25	1.11	1.42	1.42	1.44	1.58	1.77	1.76	1.71	1.62
175	1.24	1.25	1.36	1.55	1.55	1.50	1.39	1.26	1.35	1.36	1.40	1.54	1.72	1.73	1.66	1.55
180	1.34	1.30	1.44	1.61	1.55	1.45	1.38	1.31	1.34	1.35	1.30	1.44	1.59	1.55	1.46	1.38

7. THD and PF Test for model # 602Y0048W30L70AY

Voltage (V AC)	Frequency (Hz)	Power Factor	THD (%)
100.0	60	0.9955	5.99
120.0	60	0.9915	7.96
277.0	60	0.9003	18.58



8.Photo of sample



Figure 1



Figure 2

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