



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**..... : 304Y0400W30LY,304Y0400W40LY,304Y0400W50LY

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

**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**..... : CA2005479L 02013

**Test Date**..... : June.30,2020-July.08,2020

**Report Date**..... : July.09,2020

**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.



Guangdong Meide Testing Technology Co., Ltd.



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

The client submitted 3 sample of model 304Y0400W30LY,304Y0400W40LY,304Y0400W50LY. Sample 304Y0400W30LY was numbered CA2005479L 02013-S01. Sample 304Y0400W40LY was numbered CA2005479L 02013-S02. Sample 304Y0400W50LY was numbered CA2005479L 02013-S03. The sample was received on 2020-06-29, is undamaged condition.

Model Tested:	304Y0400W30LY,304Y0400W40LY,304Y0400W50LY
Manufacturer:	Same as client
Address:	Same as client
Product Type:	High Bay Luminaires for Commercial and Industrial Buildings
Rated Voltage/Frequency:	100-277V AC,50/60Hz
Rated Power:	400W
Nominal CCT:	3000K,4000K,5000K
LED Manufacturer:	Edison Opto Corporation
LED Model No:	2T03X8WW23000001
LED Driver Manufacturer:	MEANWELL
LED Driver Model:	XLG-200-H-AB*2

### Model Similarity:

Model designation: XXXDyyyyWCVY

"X" can be 3, denotes Product Series Name, 3=Linear high bay series;

"XX" can be 02 or 04, which denotes luminaires shell Shape and Overall dimension, where 02= 2FT or 04= 4FT;

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

"yyyy" & "W" denotes the wattage of luminaires, can be from 0075 to 0400; max. 400W, for example 0075W=75W;

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

"V" can be letter L or blank, which denotes range of input voltage; where L=Low voltage range or blank = No description of this item;

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



Guangdong Meide Testing Technology Co., Ltd.



## 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).



## 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

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

#### Model # 304Y0400W30LY 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	3.419	377.1	0.9979	49576	131.47	2953

Ra	R9	Rf	Rg	x	y	u'	v'	Duv
84.1	12	86	96	0.4379	0.4002	0.2529	0.5200	-0.00218

#### Model # 304Y0400W40LY 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	3.186	381.7	0.9983	50836	133.18	4017

Ra	R9	Rf	Rg	x	y	u'	v'	Duv
84.1	12	85	95	0.3804	0.3790	0.2242	0.5025	0.00105

#### Model # 304Y0400W50LY 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	3.184	381.3	0.9981	52200	136.89	4974

Ra	R9	Rf	Rg	x	y	u'	v'	Duv
82.9	1	83	93	0.3465	0.3594	0.2094	0.4886	0.00313



5.2 Model # 304Y0400W30LY Color Rendering Index

<b>Ra</b>				
84.1				
<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>	<b>R5</b>
83	93	95	82	84
<b>R6</b>	<b>R7</b>	<b>R8</b>	<b>R9</b>	<b>R10</b>
92	82	60	12	85
<b>R11</b>	<b>R12</b>	<b>R13</b>	<b>R14</b>	<b>R15</b>
82	78	86	98	76



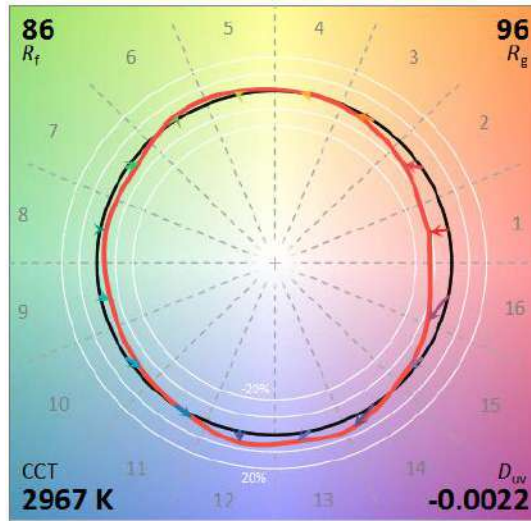


5.3 Model # 304Y0400W30LY ANSI/IES TM-30-18 Full Report

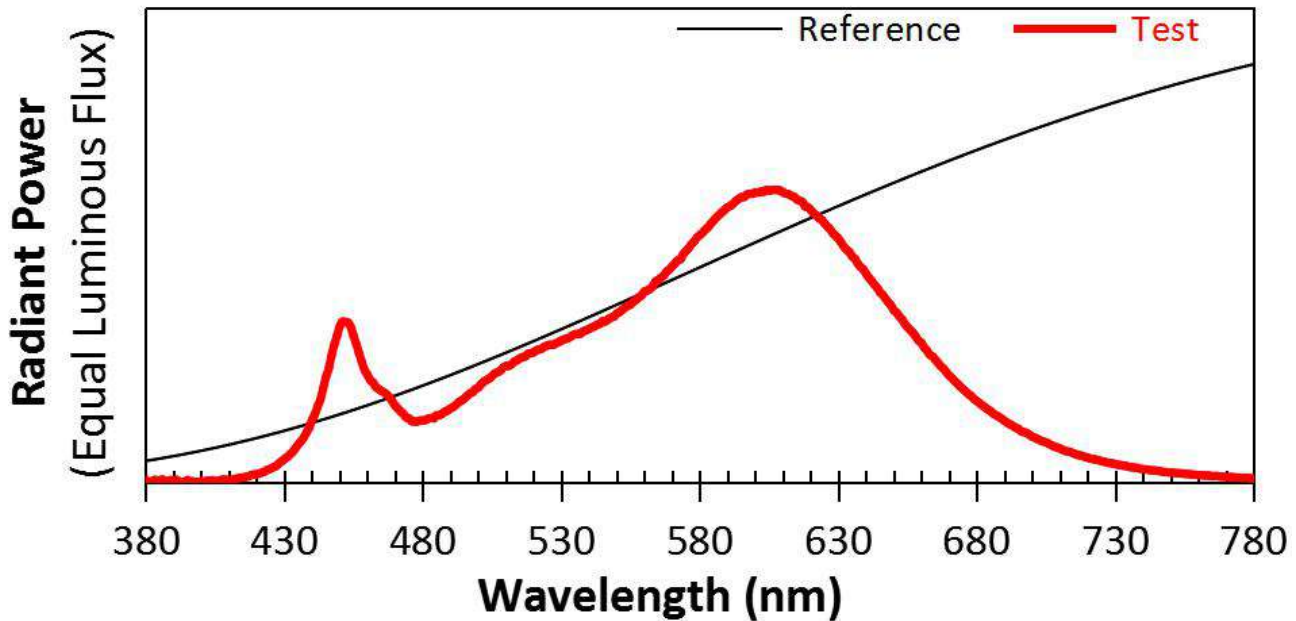
Fidelity Index (R<sub>f</sub>) and Gamut Index (R<sub>g</sub>)

Fidelity Index (R <sub>f</sub> )	86
Gamut Index (R <sub>g</sub> )	96

Color Vector Graphic

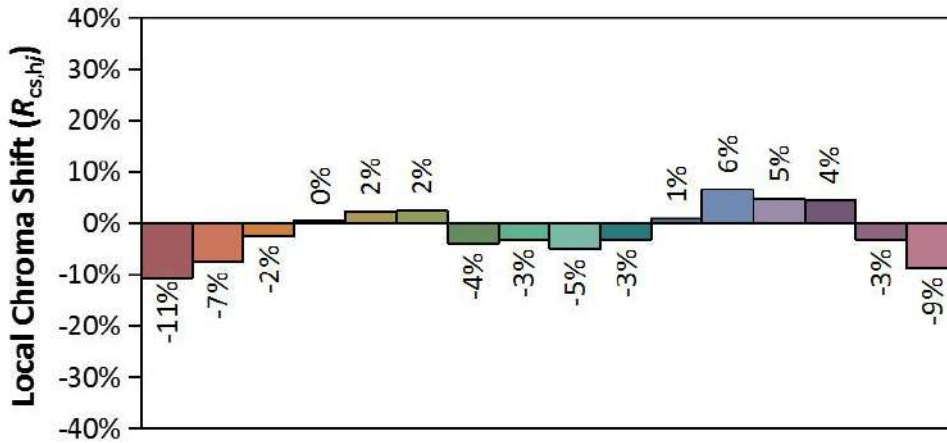


Spectral Power Distribution Comparison

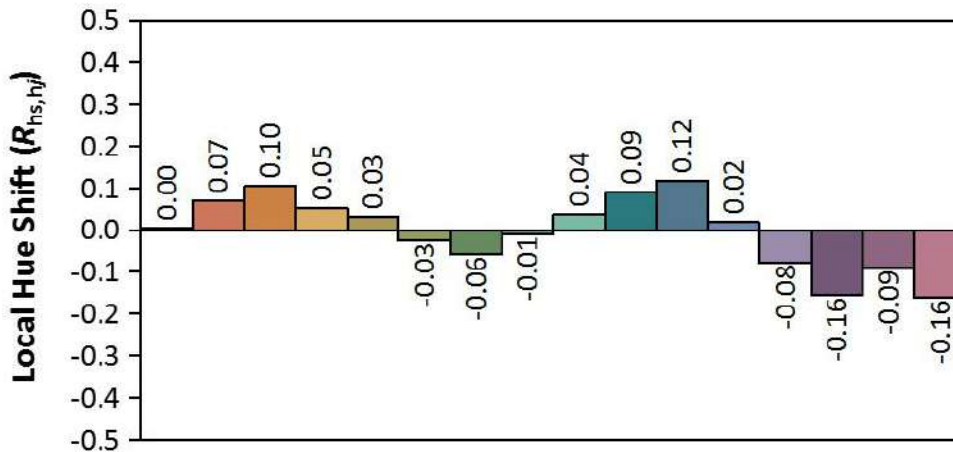




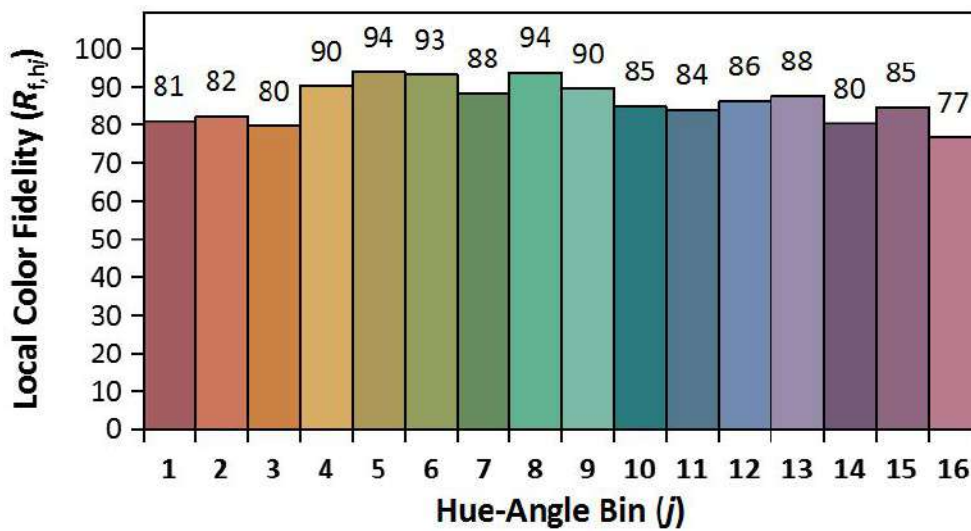
Local Chroma Shift ( $R_{cs,hj}$ )



Local Hue Shift ( $R_{hs,hj}$ )



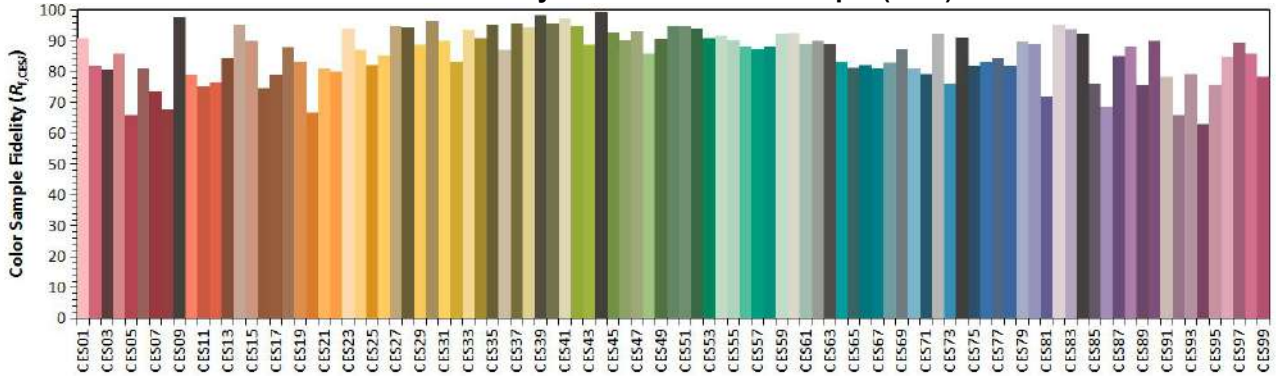
Local Color Fidelity ( $R_{f,j}$ )







Color Rendition by Color Evaluation Sample (CES)



Chromaticity

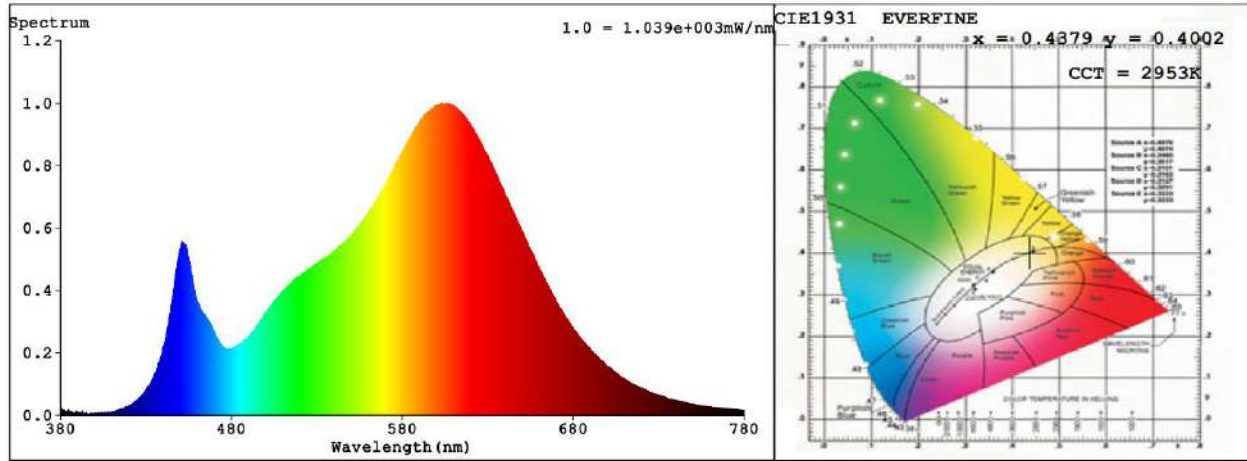
x 0.4360
y 0.3982
u' 0.2525
v' 0.5189

CIE 13.3-1995 (CRI) Ra 84 Rg 12

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



5.4 Model # 304Y0400W30LY Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.0116	414	0.0175	448	0.4693	482	0.219	516	0.4275
381	0	415	0.018	449	0.5003	483	0.2209	517	0.4301
382	0	416	0.0201	450	0.5321	484	0.2196	518	0.4392
383	0.0096	417	0.0218	451	0.5489	485	0.23	519	0.442
384	0.0094	418	0.0262	452	0.548	486	0.2309	520	0.444
385	0.0073	419	0.0285	453	0.5456	487	0.2351	521	0.4506
386	0.0114	420	0.029	454	0.5298	488	0.2429	522	0.4546
387	0.0046	421	0.0316	455	0.4998	489	0.2463	523	0.457
388	0.006	422	0.0355	456	0.4722	490	0.2535	524	0.464
389	0.0093	423	0.0389	457	0.4407	491	0.2582	525	0.4677
390	0.0044	424	0.0448	458	0.4112	492	0.2659	526	0.4703
391	0.0104	425	0.0481	459	0.3837	493	0.2752	527	0.4695
392	0.0039	426	0.0528	460	0.3676	494	0.2802	528	0.4742
393	0.0009	427	0.0571	461	0.3505	495	0.2871	529	0.4791
394	0.0028	428	0.0659	462	0.3416	496	0.2957	530	0.4844
395	0.0096	429	0.0733	463	0.3269	497	0.3043	531	0.4883
396	0.0041	430	0.0807	464	0.3195	498	0.3088	532	0.4912
397	0.0051	431	0.0872	465	0.3129	499	0.3193	533	0.4951
398	0.0017	432	0.0964	466	0.3081	500	0.3241	534	0.5015
399	0.0029	433	0.1052	467	0.3002	501	0.3357	535	0.5062
400	0.0049	434	0.1178	468	0.2904	502	0.3442	536	0.5073
401	0.0042	435	0.1305	469	0.2772	503	0.3502	537	0.5081
402	0.0072	436	0.1409	470	0.2627	504	0.3546	538	0.5162
403	0.0069	437	0.1542	471	0.2527	505	0.3637	539	0.5195
404	0.009	438	0.1712	472	0.2428	506	0.3728	540	0.5236
405	0.0045	439	0.1882	473	0.2343	507	0.3766	541	0.5293
406	0.0064	440	0.2139	474	0.2224	508	0.3818	542	0.5326
407	0.0096	441	0.2328	475	0.2197	509	0.3924	543	0.5392
408	0.011	442	0.2593	476	0.2095	510	0.3977	544	0.5415
409	0.0103	443	0.2831	477	0.2092	511	0.3981	545	0.5509
410	0.0092	444	0.321	478	0.2084	512	0.4037	546	0.55
411	0.0102	445	0.3593	479	0.2121	513	0.4129	547	0.5573
412	0.0129	446	0.3881	480	0.2122	514	0.417	548	0.5628
413	0.0148	447	0.432	481	0.2138	515	0.4239	549	0.5656



Guangdong Meide Testing Technology Co., Ltd.



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.5763	599	0.9837	648	0.6148	697	0.1726	746	0.0397
551	0.581	600	0.9888	649	0.6038	698	0.1693	747	0.0376
552	0.5893	601	0.9884	650	0.5881	699	0.1637	748	0.0369
553	0.5967	602	0.9915	651	0.5796	700	0.1566	749	0.0358
554	0.6031	603	0.9906	652	0.5663	701	0.1535	750	0.0351
555	0.6069	604	0.9971	653	0.5562	702	0.1488	751	0.0343
556	0.6167	605	0.9943	654	0.541	703	0.1443	752	0.0329
557	0.6232	606	0.9967	655	0.5297	704	0.1404	753	0.0329
558	0.6313	607	0.9976	656	0.5198	705	0.1378	754	0.0318
559	0.6382	608	0.9964	657	0.5102	706	0.1328	755	0.0306
560	0.6511	609	0.9953	658	0.4969	707	0.128	756	0.03
561	0.6548	610	0.989	659	0.4837	708	0.1229	757	0.0294
562	0.6598	611	0.9845	660	0.4766	709	0.1207	758	0.028
563	0.6697	612	0.9826	661	0.4606	710	0.1167	759	0.0273
564	0.6853	613	0.9773	662	0.4504	711	0.1123	760	0.0261
565	0.6906	614	0.9742	663	0.4363	712	0.1081	761	0.0262
566	0.6981	615	0.9647	664	0.4303	713	0.1064	762	0.025
567	0.706	616	0.9606	665	0.4192	714	0.1039	763	0.0249
568	0.719	617	0.9565	666	0.4082	715	0.1002	764	0.0243
569	0.726	618	0.9409	667	0.3964	716	0.0959	765	0.0225
570	0.7371	619	0.9381	668	0.3883	717	0.0939	766	0.023
571	0.7466	620	0.9293	669	0.3769	718	0.0921	767	0.0225
572	0.7576	621	0.918	670	0.3651	719	0.0878	768	0.0212
573	0.7613	622	0.9109	671	0.3565	720	0.0862	769	0.0209
574	0.7783	623	0.9009	672	0.3458	721	0.0823	770	0.0201
575	0.7895	624	0.8954	673	0.3378	722	0.0808	771	0.0196
576	0.7992	625	0.8836	674	0.3272	723	0.079	772	0.0199
577	0.813	626	0.8729	675	0.3194	724	0.0774	773	0.0183
578	0.8224	627	0.8634	676	0.3109	725	0.0733	774	0.0182
579	0.8352	628	0.8498	677	0.3018	726	0.072	775	0.0175
580	0.8433	629	0.8416	678	0.295	727	0.0692	776	0.0167
581	0.8518	630	0.8317	679	0.2849	728	0.0675	777	0.0173
582	0.8623	631	0.8178	680	0.2782	729	0.0663	778	0.0163
583	0.8703	632	0.804	681	0.2709	730	0.0637	779	0.0152
584	0.883	633	0.7937	682	0.2633	731	0.0615	780	0.0152
585	0.8932	634	0.7854	683	0.2572	732	0.0602		
586	0.9039	635	0.7708	684	0.2489	733	0.058		
587	0.9128	636	0.7624	685	0.244	734	0.0572		
588	0.9213	637	0.7469	686	0.235	735	0.0539		
589	0.9293	638	0.7349	687	0.2298	736	0.0529		
590	0.9384	639	0.7269	688	0.224	737	0.0521		
591	0.9425	640	0.7118	689	0.2188	738	0.0507		
592	0.9502	641	0.6982	690	0.2111	739	0.0479		
593	0.9596	642	0.6873	691	0.2042	740	0.0461		
594	0.9662	643	0.675	692	0.199	741	0.0457		
595	0.9722	644	0.6643	693	0.1942	742	0.0445		
596	0.9733	645	0.649	694	0.1874	743	0.0428		
597	0.9814	646	0.6404	695	0.1839	744	0.0424		
598	0.9842	647	0.6271	696	0.1753	745	0.0414		



6. Goniophotometer Test results for model # 304Y0400W30LY

6.1 Test Data

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

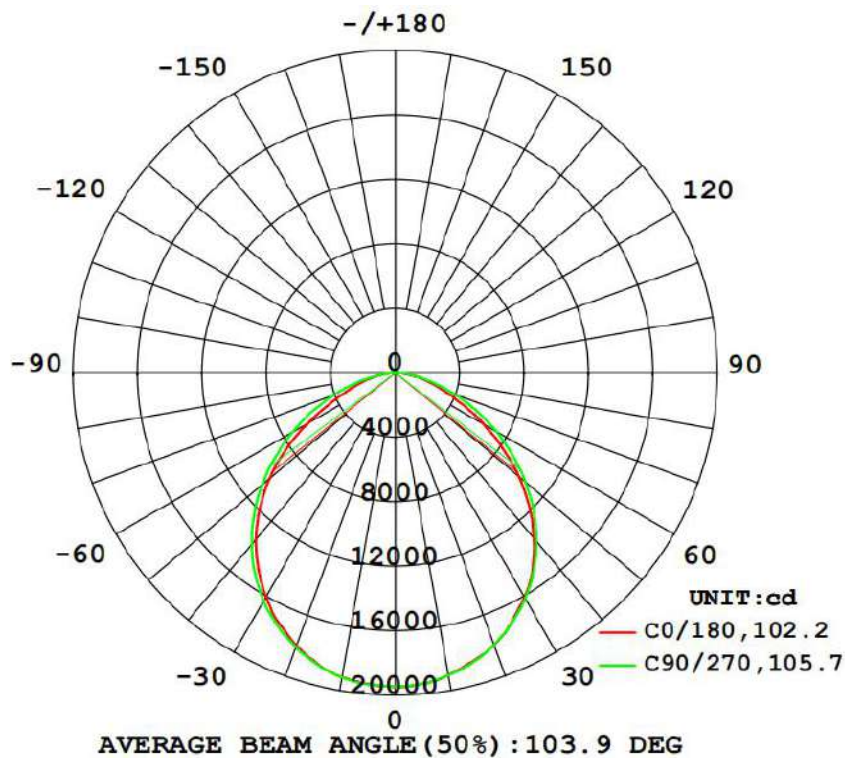
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
120.0	60	3.1489	0.9974	376.9

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	ZL (20-50°)	Spacing Criteria (C0/180°)	Spacing Criteria (C90/270°)
49554.6	131.49	53.6%	1.23	1.25

6.2 Luminous Intensity Distribution







Guangdong Meide Testing Technology Co., Ltd.



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1902	1906	1903	1901	1917	1913	1917	1911	0- 10	1841	1841	3.71, 3.71
20	1795	1788	1794	1798	1800	1816	1811	1801	10- 20	5263	7104	14.3, 14.3
30	1605	1610	1614	1608	1606	1628	1636	1630	20- 30	7918	15023	30.3, 30.3
40	1338	1349	1362	1349	1348	1367	1388	1368	30- 40	9356	24379	49.2, 49.2
50	1005	1025	1056	1031	1019	1046	1079	1046	40- 50	9291	33669	67.9, 67.9
60	629.9	684.5	718.9	685.9	631.6	699.6	741.3	700.4	50- 60	7713	41382	83.5, 83.5
70	320.0	347.6	399.7	342.8	308.6	349.4	414.5	360.5	60- 70	5079	46460	93.8, 93.8
80	121.8	122.9	132.9	116.4	115.0	120.2	139.8	127.8	70- 80	2458	48919	98.7, 98.7
90	0.2894	0.3745	0.4878	0.2999	0.2103	0.2479	0.3365	0.2302	80- 90	537.0	49456	99.8, 99.8
100	0.3672	0.5742	1.282	0.4247	0.5089	0.7255	1.336	0.5679	90-100	4.959	49461	99.8, 99.8
110	0.7262	1.158	1.954	0.8925	0.9643	1.327	2.468	1.046	100-110	10.30	49471	99.8, 99.8
120	1.086	1.617	1.566	1.662	1.421	1.884	2.413	1.505	110-120	14.52	49486	99.9, 99.9
130	1.313	1.945	1.295	1.991	1.691	2.044	2.026	1.567	120-130	15.01	49501	99.9, 99.9
140	1.454	2.060	1.415	1.984	1.806	2.273	1.365	1.718	130-140	14.87	49515	99.9, 99.9
150	1.840	2.493	1.592	2.416	2.331	2.874	1.933	2.455	140-150	14.31	49530	99.9, 99.9
160	2.234	2.803	2.167	2.956	2.961	3.246	2.707	3.268	150-160	12.39	49542	100, 100
170	3.110	4.082	2.539	4.008	3.531	3.909	3.841	3.966	160-170	8.811	49551	100, 100
180	4.118	4.999	2.978	4.397	4.118	4.271	4.264	3.842	170-180	3.659	49555	100, 100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		



6.4 Luminous Distribution Intensity Data

Table--1

UNIT: ×10cd

C (DEG) \ γ (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	1946	1946	1946	1946	1946	1946	1946	1946	1946	1946	1946	1946	1946	1946	1946	1946			
5	1935	1936	1941	1938	1933	1937	1928	1937	1936	1936	1937	1939	1940	1944	1938	1944			
10	1902	1903	1906	1909	1903	1908	1901	1911	1917	1913	1913	1915	1917	1921	1911	1914			
15	1853	1853	1855	1865	1859	1861	1864	1869	1871	1874	1875	1872	1874	1880	1865	1866			
20	1795	1794	1788	1794	1794	1799	1798	1797	1800	1807	1816	1810	1811	1815	1801	1810			
25	1708	1709	1711	1711	1713	1719	1714	1712	1713	1719	1731	1735	1731	1733	1729	1731			
30	1605	1600	1610	1608	1614	1624	1608	1609	1606	1619	1628	1638	1636	1631	1630	1620			
35	1486	1488	1482	1490	1497	1503	1490	1485	1485	1494	1509	1520	1520	1514	1504	1505			
40	1338	1339	1349	1359	1362	1366	1349	1342	1348	1353	1367	1384	1388	1383	1368	1359			
45	1179	1184	1195	1211	1215	1213	1195	1189	1192	1200	1210	1232	1239	1237	1217	1201			
50	1005	1011	1025	1042	1056	1049	1031	1018	1019	1030	1046	1068	1079	1071	1046	1030			
55	814	829	856	870	888	880	860	837	832	846	873	895	910	896	876	849			
60	630	645	684	706	719	705	686	648	632	659	700	726	741	730	700	659			
65	452	468	511	539	554	542	510	459	440	466	520	559	574	561	525	480			
70	320	325	348	388	400	390	343	313	309	316	349	400	414	405	361	332			
75	212	216	222	246	257	247	214	204	205	208	220	253	269	259	229	221			
80	122	123	123	124	133	121	116	113	115	116	120	126	140	131	128	125			
85	49.0	47.5	43.9	41.1	39.9	38.9	39.9	42.1	45.2	44.6	42.7	41.7	43.3	44.4	47.0	49.8			
90	0.29	0.32	0.37	0.54	0.49	0.36	0.30	0.28	0.21	0.22	0.25	0.33	0.34	0.27	0.23	0.20			
95	0.27	0.29	0.34	0.56	0.84	0.56	0.29	0.27	0.29	0.32	0.40	0.67	0.83	0.43	0.31	0.29			
100	0.37	0.41	0.57	0.88	1.28	0.89	0.42	0.34	0.51	0.57	0.73	1.07	1.34	0.64	0.57	0.51			
105	0.53	0.61	0.87	1.23	1.67	1.17	0.59	0.54	0.72	0.80	1.00	1.55	1.92	0.91	0.80	0.70			
110	0.73	0.85	1.16	1.49	1.95	1.48	0.89	0.69	0.96	1.03	1.33	1.98	2.47	1.22	1.05	0.97			
115	0.92	1.12	1.42	1.81	2.00	1.71	1.27	0.94	1.18	1.34	1.63	2.10	2.67	1.44	1.29	1.21			
120	1.09	1.25	1.62	1.59	1.57	1.45	1.66	1.08	1.42	1.58	1.88	2.06	2.41	1.55	1.50	1.38			
125	1.17	1.31	1.71	1.74	1.60	1.91	1.83	1.17	1.58	1.78	1.93	2.16	2.02	1.59	1.51	1.53			
130	1.31	1.45	1.94	2.31	1.29	2.21	1.99	1.20	1.69	1.79	2.04	2.64	2.03	2.03	1.57	1.60			
135	1.42	1.66	2.05	2.58	1.16	2.54	2.03	1.31	1.78	1.84	2.22	2.63	1.66	2.49	1.70	1.66			
140	1.45	1.74	2.06	2.61	1.42	2.55	1.98	1.48	1.81	1.92	2.27	3.05	1.37	3.16	1.72	1.74			
145	1.70	1.99	2.24	2.88	1.57	2.69	1.96	1.65	2.08	2.16	2.57	3.65	1.53	4.05	1.97	1.95			
150	1.84	2.17	2.49	2.93	1.59	2.83	2.42	1.73	2.33	2.36	2.87	4.10	1.93	4.63	2.45	2.22			
155	2.03	2.31	2.64	2.89	1.75	2.84	2.67	1.91	2.67	2.63	3.07	4.10	2.39	3.38	2.85	2.52			
160	2.23	2.43	2.80	3.09	2.17	2.98	2.96	2.12	2.96	2.92	3.25	4.04	2.71	2.56	3.27	2.70			
165	2.77	2.99	3.36	3.23	2.23	2.91	3.40	2.66	3.13	3.16	3.33	4.05	3.13	2.63	3.45	3.05			
170	3.11	3.51	4.08	3.84	2.54	3.54	4.01	3.12	3.53	3.57	3.91	4.75	3.84	2.81	3.97	4.03			
175	3.66	3.95	4.62	4.14	2.72	3.78	4.25	3.44	3.94	3.95	4.27	4.94	4.16	2.91	4.02	4.38			
180	4.12	4.23	5.00	4.34	2.98	3.78	4.40	3.61	4.12	4.12	4.27	4.95	4.26	2.98	3.84	4.41			

7. THD and PF Test for model # 304Y0400W30LY

Voltage (V AC)	Frequency (Hz)	Power Factor	THD (%)
100.0	60	0.9981	4.99
120.0	60	0.9974	4.23
277.0	60	0.9325	5.63





## 8.Photo of sample



Figure 1



Figure 2

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