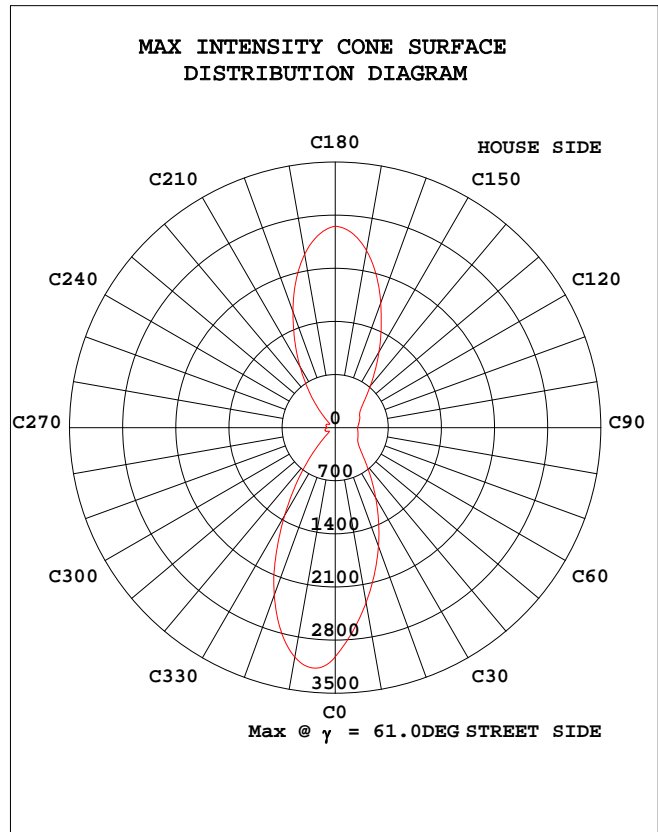
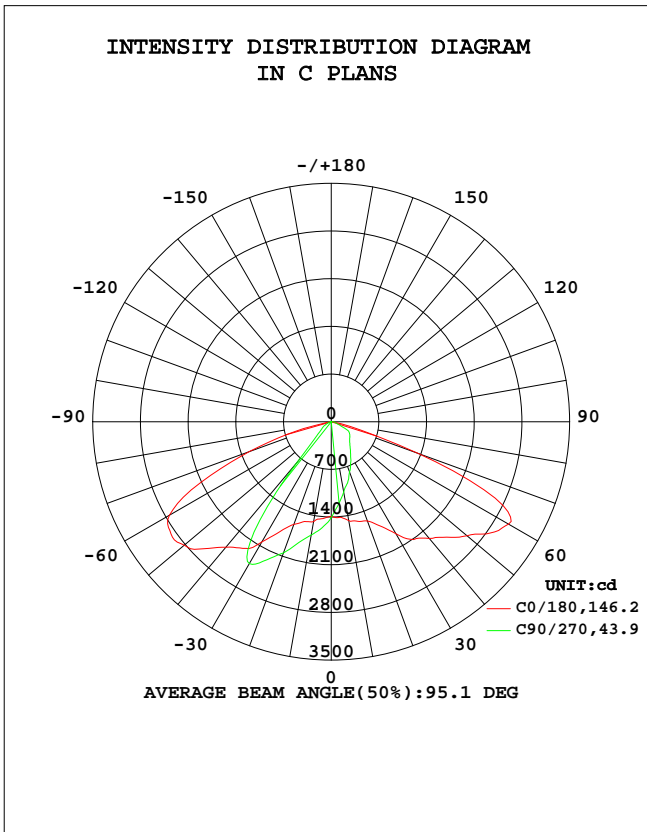


**STREETLIGHT PHOTOMETRIC TEST REPORT**

Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.71x1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 131.68 lm/W			
MODEL	LRC40W	I <sub>max</sub> (cd)	3019	η street_up(%)	0.1
NOMINAL POWER(W)	40	LOR(%)	100.0	η street_down(%)	53.2
RATED VOLTAGE(V)	28	TOTAL FLUX(lm)	5280	η house_up(%)	0.1
NOMINAL FLUX(lm)	5279.71	MAXIMUM @(C,γ )	0,61.0	η house_down(%)	46.6
LAMPS INSIDE	1	η up(%)	0.2	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	28	η down(%)	99.8	SLI	17.677

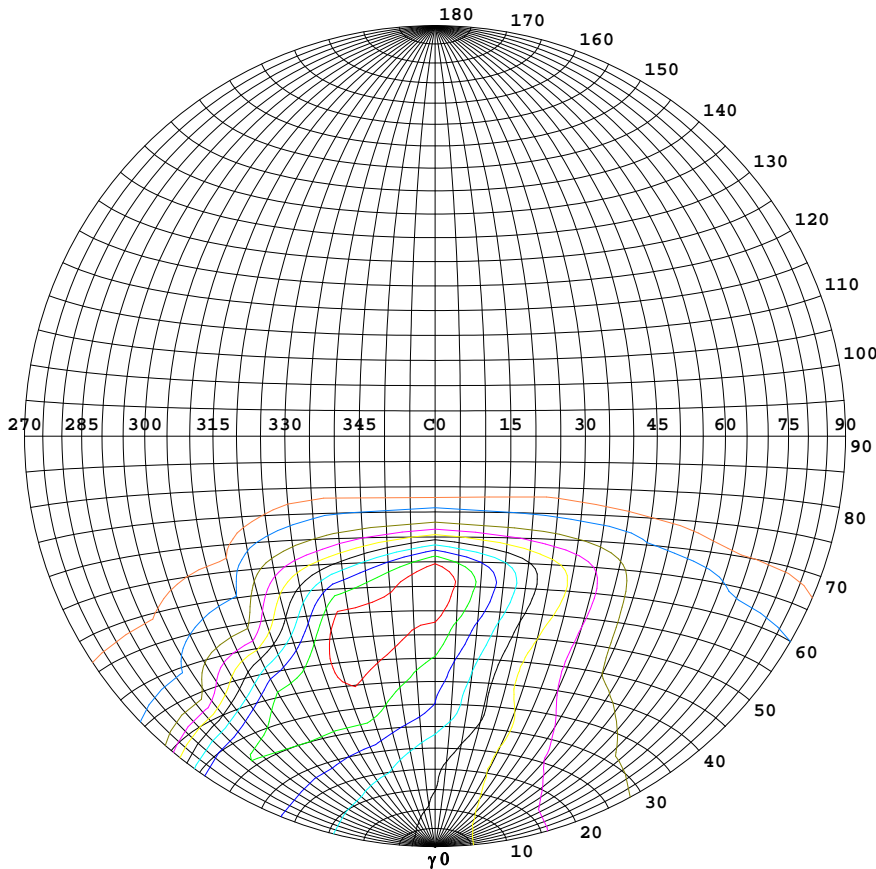


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-22

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
 Humidity:65.7%  
 Test Distance:26.000m [K=1.3361]  
 Remarks:

**STREETLIGHT ISOCANDELA DIAGRAM**

Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.7lx1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A



**Classification:**

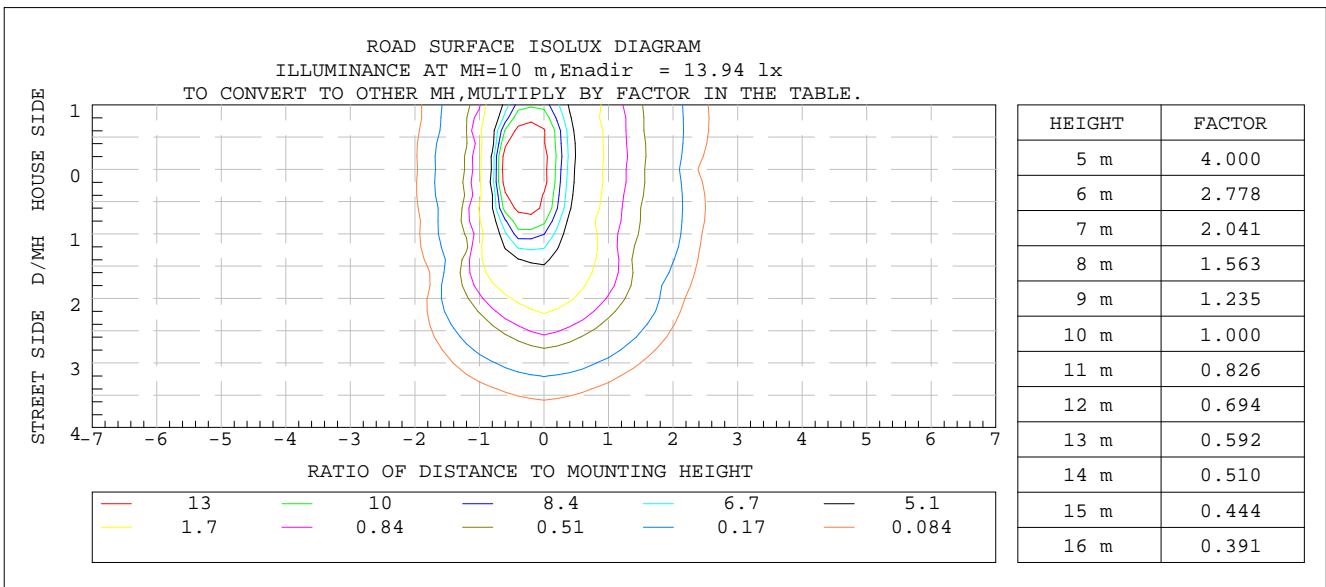
IES:Type III - Short  
 CIE:Broad - Intermediate  
 IES:Cut-off  
 CIE:Full cut-off  
 Max.At80:17.42cd/klm  
 Max.At90:1.054cd/klm  
 Max.80-90:17.42cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	3019
90%	2717
80%	2415
70%	2113
60%	1811
50%	1510
40%	1208
30%	906
20%	604
10%	302
5%	151

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
 Humidity:65.7%  
 Test Distance:26.000m [K=1.3361]  
 Remarks:

COEFFICIENT OF UTILIZATION CURVE  
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.5DEG  
Operators: Seth  
Test Date: 2016-11-22

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
Humidity: 65.7%  
Test Distance: 26.000m [K=1.3361]  
Remarks:

## ZONAL FLUX DIAGRAM

Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.71x1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A

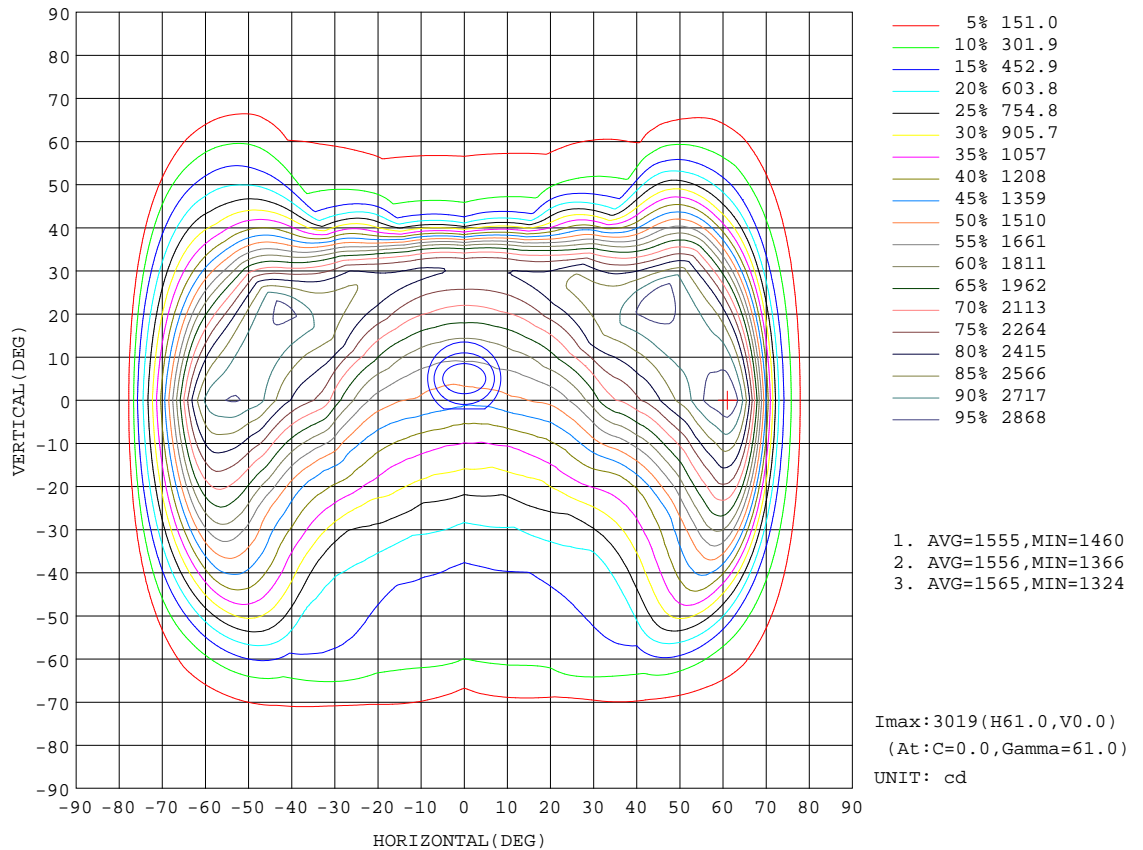
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	1473	1156	1052	1199	1486	1629	1687	1651	0- 10	134.3	134.3	2.54,2.54
20	1552	982.6	784.2	1046	1604	1974	2048	1952	10- 20	410.5	544.8	10.3,10.3
30	1897	842.7	572.9	921.1	2039	2434	2405	2414	20- 30	736.5	1281	24.3,24.3
40	2236	669.4	428.2	741.0	2405	2343	803.2	2492	30- 40	1035	2316	43.9,43.9
50	2604	561.5	358.6	635.9	2819	773.2	209.2	1150	40- 50	1017	3333	63.1,63.1
60	3006	515.1	301.5	583.2	2744	244.7	116.9	310.5	50- 60	973.3	4306	81.6,81.6
70	1347	316.1	105.0	340.6	1270	128.1	43.67	117.9	60- 70	741.2	5048	95.6,95.6
80	63.20	73.70	58.64	87.58	42.54	31.63	2.597	19.61	70- 80	210.5	5258	99.6,99.6
90	0.1435	0.4613	0.1362	0.1372	1.343	0.3204	5.563	2.558	80- 90	12.48	5271	99.8,99.8
100	0.2052	0.3032	0	0	2.947	0.4778	0.2720	0.5723	90-100	0.6382	5271	99.8,99.8
110	1.363	2.039	0.3381	1.018	4.360	0.5223	0.2705	0.7564	100-110	0.8740	5272	99.9,99.9
120	1.431	4.212	2.652	2.239	3.832	0.5669	0.2705	0.7771	110-120	1.411	5274	99.9,99.9
130	1.338	4.955	3.183	3.265	1.506	0.6152	0.2705	0.7977	120-130	1.762	5275	99.9,99.9
140	1.260	4.882	1.318	3.336	1.408	0.6770	0.2898	0.8184	130-140	1.520	5277	99.9,99.9
150	1.186	4.763	2.091	3.166	1.330	0.8876	0.6086	1.023	140-150	1.252	5278	100,100
160	1.128	3.606	2.232	2.997	1.319	1.292	1.015	1.133	150-160	0.9415	5279	100,100
170	1.100	2.860	2.245	2.662	1.308	1.428	1.152	1.363	160-170	0.5358	5280	100,100
180	1.095	2.244	1.760	2.178	1.232	1.565	2.236	2.041	170-180	0.1741	5280	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.5DEG  
Operators:Seth  
Test Date:2016-11-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
Humidity:65.7%  
Test Distance:26.000m [K=1.3361]  
Remarks:

ISOCANDELA DIAGRAM

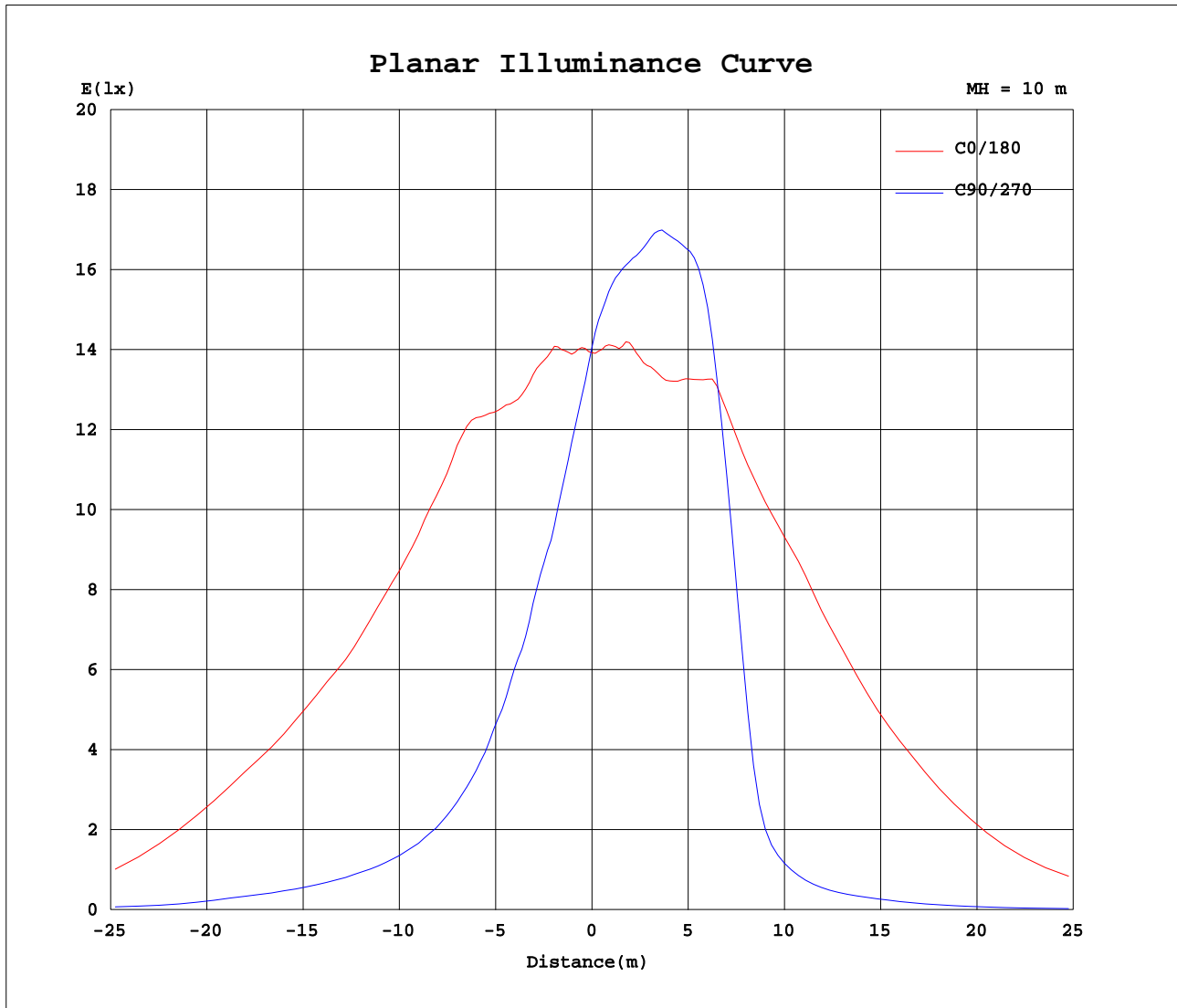
Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.7lx1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-22

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
 Humidity:65.7%  
 Test Distance:26.000m [K=1.3361]  
 Remarks:

### Planar Illuminance Curve



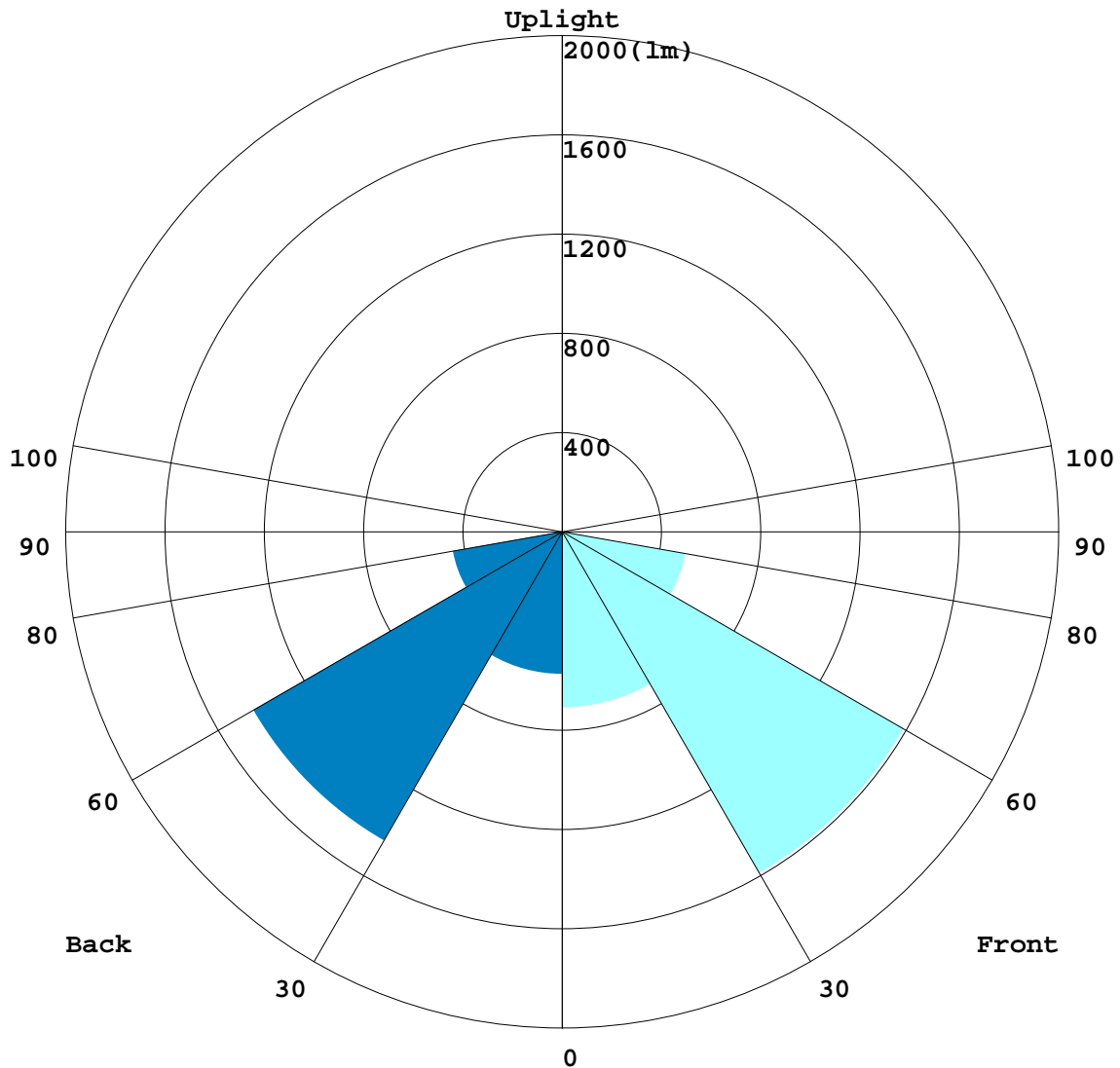
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.5DEG  
Operators: Seth  
Test Date: 2016-11-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
Humidity: 65.7%  
Test Distance: 26.000m [K=1.3361]  
Remarks:

LCS REPORT

Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.71x1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-22

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
 Humidity:65.7%  
 Test Distance:26.000m [K=1.3361]  
 Remarks:

## BUG REPORT

Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.71x1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A

## IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	708.09	13.4
FM - Front-Medium(30-60)	1588.7	30.1
FH - Front-High(60-80)	504.86	9.6
FVH - Front-Very High(80-90)	7.3328	0.1
Total Forward Light	2814.1	53.3

BL - Back-Low(0-30)	573.16	10.9
BM - Back-Medium(30-60)	1436.5	27.2
BH - Back-High(60-80)	446.84	8.5
BVH - Back-Very High(80-90)	5.145	0.1
Total Back Light	2465.6	46.7

UL - Uplight-Low(90-100)	0.63819	0.0
UH - Uplight-High(100-180)	8.4711	0.2
Total Up Light	9.1093	0.2

BUG(Back,Up,Glare) Rating	B2-U1-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	2461.6	3.9589	2465.6
Street Side	2809	5.1504	2814.1

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.5DEG  
Operators:Seth  
Test Date:2016-11-22

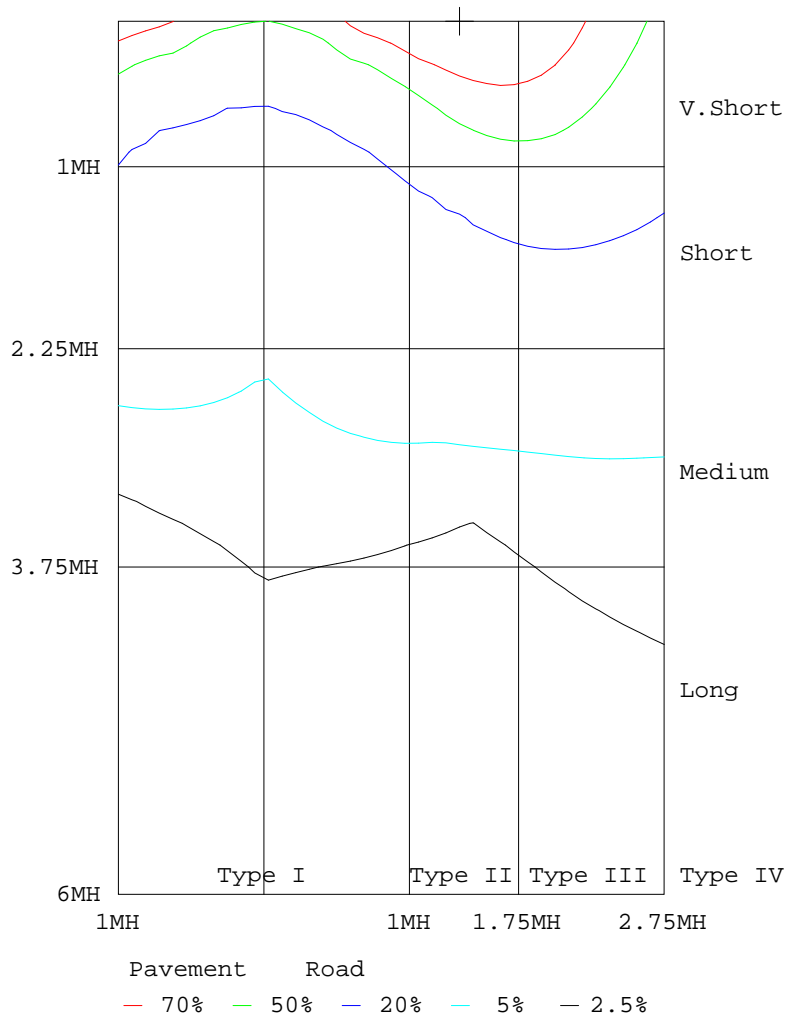
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
Humidity:65.7%  
Test Distance:26.000m [K=1.3361]  
Remarks:



ROAD ISOCANDELA REPORT

Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.71x1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-22

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
 Humidity:65.7%  
 Test Distance:26.000m [K=1.3361]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:28.66V I:1.399A P:40.09W PF:1.000 Freq:0Hz Lamp Flux:5279.71x1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A

Table--1

UNIT: cd

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	1392	1394	1400	1403	1406	1407	1409	1409	1392	1394	1400	1403	1406	1407	1409	1409			
5	1409	1338	1276	1237	1220	1250	1307	1373	1428	1471	1510	1535	1563	1547	1536	1485			
10	1473	1300	1156	1071	1052	1098	1199	1338	1486	1562	1629	1669	1687	1676	1651	1576			
15	1514	1266	1056	941	930	977	1101	1307	1517	1676	1773	1830	1836	1824	1781	1667			
20	1552	1235	983	831	784	876	1046	1293	1604	1853	1974	2047	2048	2032	1952	1818			
25	1685	1239	912	722	673	765	990	1321	1780	2087	2227	2227	2234	2216	2180	2024			
30	1897	1277	843	628	573	668	921	1374	2039	2392	2434	2433	2405	2399	2414	2316			
35	2111	1255	756	544	489	576	829	1401	2269	2621	2561	2196	1976	2217	2577	2559			
40	2236	1203	669	476	428	501	741	1396	2405	2785	2343	1237	803	1381	2492	2728			
45	2396	1221	602	424	383	454	676	1450	2635	2915	1651	416	328	484	1954	2914			
50	2604	1293	561	387	359	419	636	1524	2819	2767	773	243	209	277	1150	2987			
55	2848	1405	539	359	333	393	618	1620	2873	2241	378	172	163	187	527	2754			
60	3006	1500	515	334	302	361	583	1608	2744	1568	245	133	117	140	310	2256			
65	2654	1399	460	290	191	303	500	1362	2117	1007	182	85.4	70.8	88.5	204	1462			
70	1347	786	316	161	105	208	341	829	1270	630	128	50.6	43.7	49.7	118	681			
75	373	276	153	58.9	73.3	71.4	182	337	539	305	77.8	30.8	24.5	32.0	59.2	280			
80	63.2	82.8	73.7	43.0	58.6	43.4	87.6	92.0	42.5	62.3	31.6	1.59	2.60	1.32	19.6	84.6			
85	0.82	0.82	2.02	24.0	31.6	23.1	1.37	0.96	1.97	1.15	0.29	0.81	1.12	0.79	4.64	1.08			
90	0.14	0.50	0.46	0.14	0.14	0.14	0.14	0.33	1.34	1.06	0.32	3.84	5.56	0.81	2.56	0.84			
95	0.20	0.29	0.38	0.00	0.00	0.00	0.00	0.28	1.58	1.00	0.40	0.47	1.35	0.34	1.05	0.83			
100	0.21	1.08	0.30	0.07	0.00	0.00	0.00	0.42	2.95	1.22	0.48	0.27	0.27	0.34	0.57	0.89			
105	0.88	2.03	0.75	0.07	0.07	0.07	0.13	0.95	4.33	1.27	0.50	0.27	0.27	0.34	0.68	1.04			
110	1.36	2.65	2.04	0.27	0.34	0.20	1.02	1.22	4.36	1.24	0.52	0.27	0.27	0.34	0.76	1.08			
115	1.48	3.20	3.12	1.56	1.28	0.66	1.29	1.50	4.38	1.15	0.54	0.27	0.27	0.34	0.77	1.11			
120	1.43	3.24	4.21	2.78	2.65	1.28	2.24	1.54	3.83	1.07	0.57	0.27	0.27	0.34	0.78	1.14			
125	1.38	3.17	4.76	4.20	4.39	3.04	2.52	2.04	2.52	1.08	0.59	0.27	0.27	0.34	0.79	1.11			
130	1.34	2.94	4.96	4.47	3.18	3.71	3.27	2.17	1.51	1.17	0.62	0.34	0.27	0.34	0.80	1.10			
135	1.30	2.87	4.92	4.73	1.30	4.00	3.33	2.17	1.46	1.22	0.66	0.38	0.27	0.36	0.81	1.12			
140	1.26	2.65	4.88	5.31	1.32	4.26	3.34	2.17	1.41	1.22	0.68	0.41	0.29	0.44	0.82	1.13			
145	1.22	2.38	4.85	5.34	1.42	4.25	3.25	2.17	1.34	1.22	0.76	0.54	0.39	0.53	0.99	1.15			
150	1.19	2.25	4.76	5.22	2.09	4.23	3.17	2.17	1.33	1.22	0.89	0.70	0.61	0.68	1.02	1.16			
155	1.16	2.17	4.09	4.77	2.23	4.21	3.08	2.17	1.32	1.22	1.09	0.95	0.81	0.75	1.08	1.43			
160	1.13	1.97	3.61	4.15	2.23	4.00	3.00	2.17	1.32	1.22	1.29	1.06	1.02	0.95	1.13	1.50			
165	1.10	1.90	3.13	3.54	2.23	3.25	2.79	2.05	1.31	1.22	1.30	1.12	1.11	1.02	1.23	1.55			
170	1.10	1.87	2.86	3.13	2.24	2.65	2.66	2.02	1.31	1.22	1.43	1.29	1.15	1.15	1.36	1.63			
175	1.10	1.84	2.38	2.79	2.10	2.24	2.52	1.98	1.30	1.22	1.41	1.70	1.56	1.36	1.91	1.90			
180	1.10	1.56	2.24	2.38	1.76	2.03	2.18	1.97	1.23	1.09	1.56	2.11	2.24	1.69	2.04	2.31			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-22

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
 Humidity:65.7%  
 Test Distance:26.000m [K=1.3361]  
 Remarks: