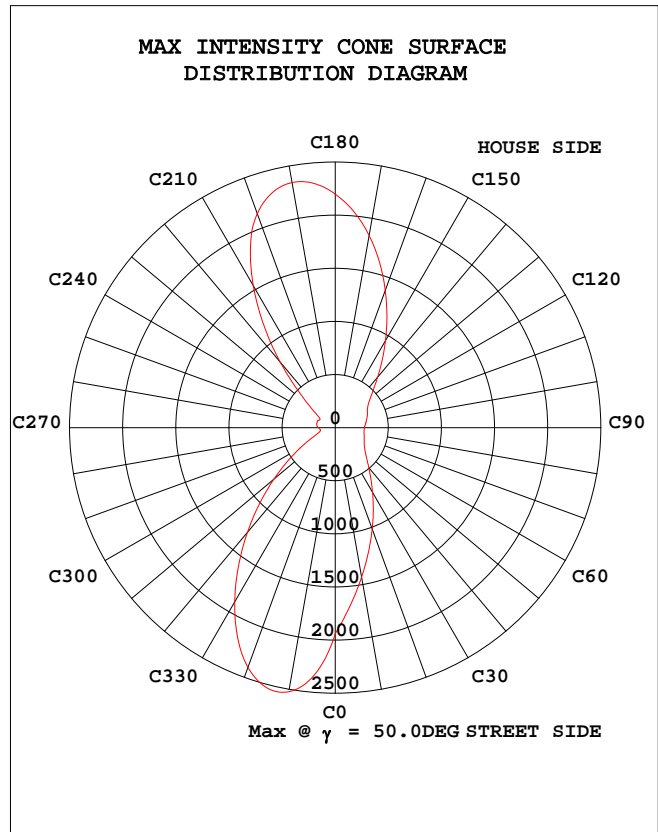
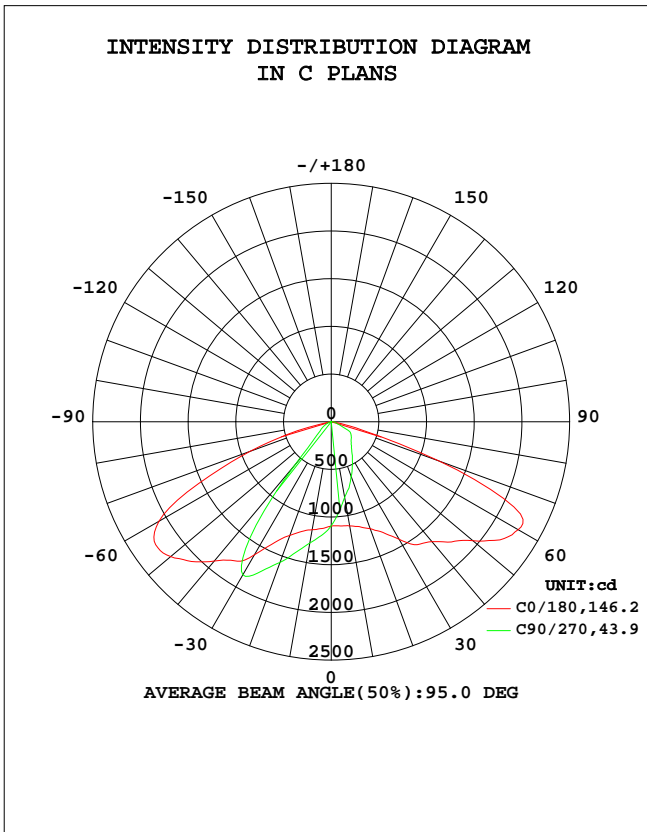


**STREETLIGHT PHOTOMETRIC TEST REPORT**

Test:U:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar 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: 131.50 lm/W			
MODEL	LRB30W-001G	I <sub>max</sub> (cd)	2301	η street_up(%)	0.1
NOMINAL POWER(W)	30	LOR(%)	100.0	η street_down(%)	53.5
RATED VOLTAGE(V)	27.2	TOTAL FLUX(lm)	4065	η house_up(%)	0.1
NOMINAL FLUX(lm)	4064.98	MAXIMUM @(C,γ )	338,50.0	η house_down(%)	46.4
LAMPS INSIDE	1	η up(%)	0.1	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	27.2	η down(%)	99.9	SLI	17.936

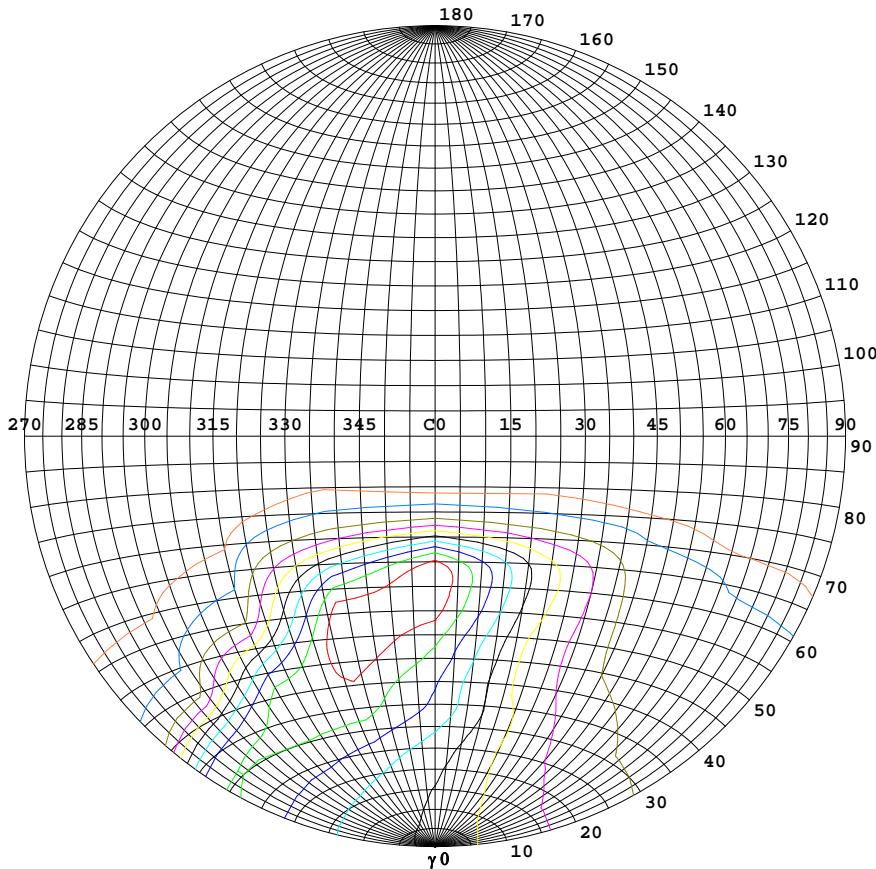


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-02

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:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar Street light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTELECTRONIC CO.,LTD	SUR.:	Shielding Angle:N/A



**Classification:**

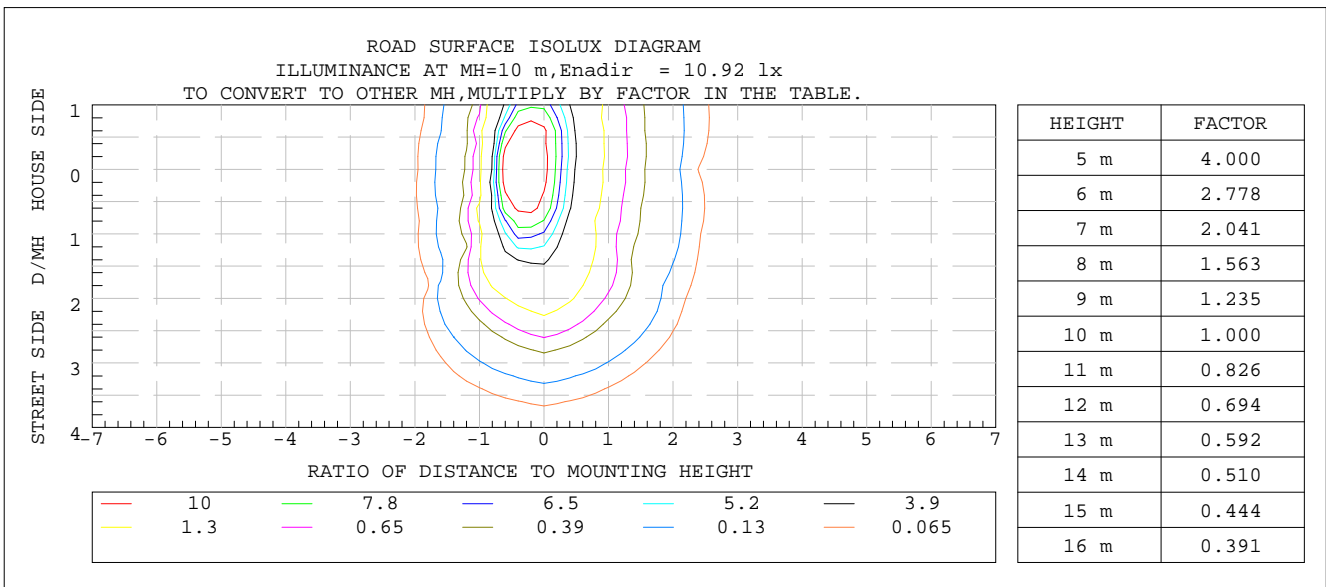
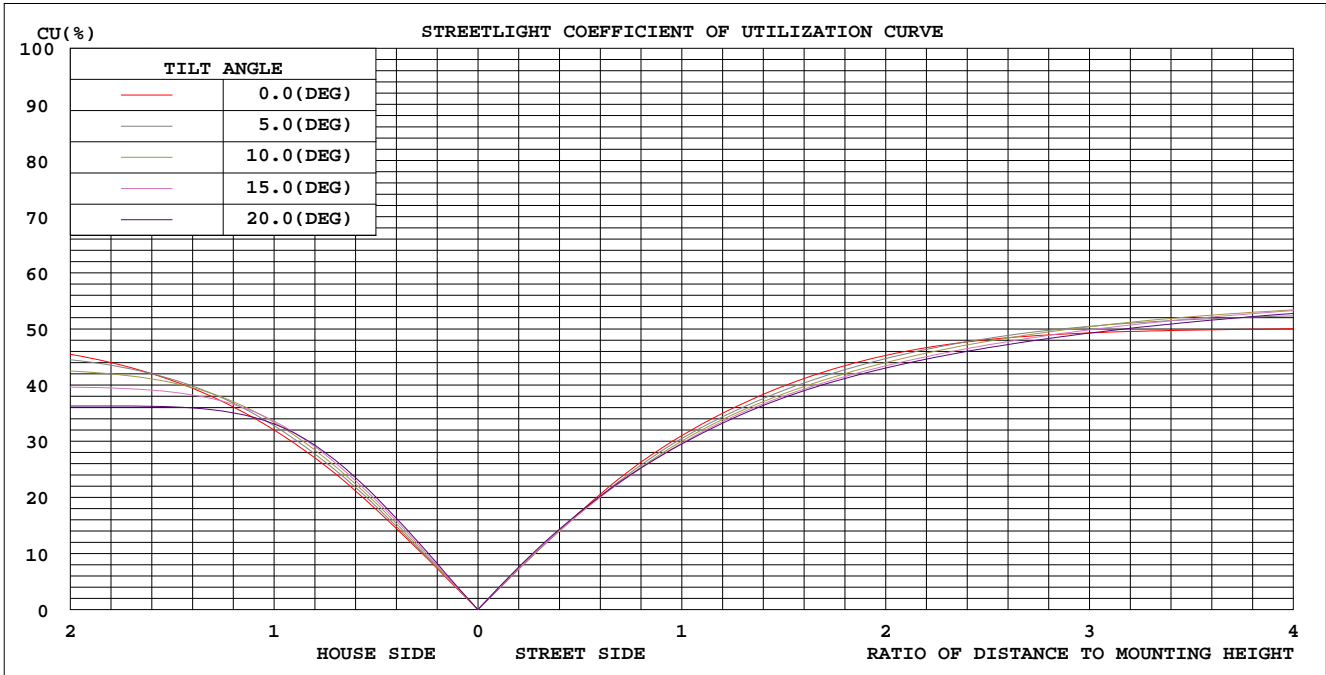
IES:Type II - Short  
 CIE:Broad - Short  
 IES:Cut-off  
 CIE:Full cut-off  
 Max.At80:25.86cd/klm  
 Max.At90:0.4900cd/klm  
 Max.80-90:25.86cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	2301
90%	2071
80%	1841
70%	1611
60%	1380
50%	1150
40%	920
30%	690
20%	460
10%	230
5%	115

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-02

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: 2016-11-02

$\gamma$  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:

ZONAL FLUX DIAGRAM

Test:U:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar Street light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTELECTRONIC CO.,LTD	SUR.:	Shielding Angle:N/A

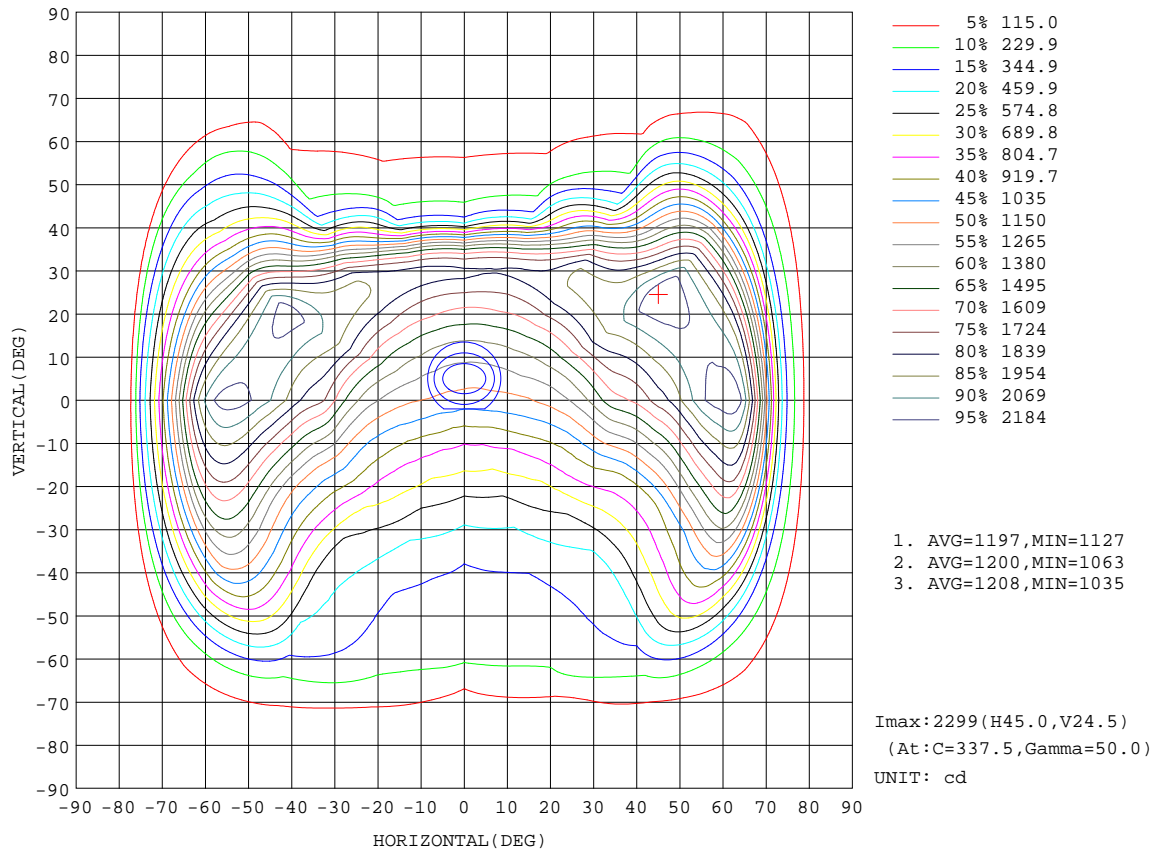
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum,lamp
10	1110	896.5	808.5	938.5	1149	1275	1291	1249	0- 10	103.9	103.9	2.56,2.56
20	1194	755.0	612.8	815.0	1268	1550	1569	1480	10- 20	317.3	421.2	10.4,10.4
30	1423	640.4	445.7	729.5	1612	1899	1853	1834	20- 30	568.9	990.1	24.4,24.4
40	1641	510.0	331.8	589.2	1907	1734	604.2	1952	30- 40	794.2	1784	43.9,43.9
50	1940	421.8	273.9	508.5	2198	494.2	159.5	1004	40- 50	778.9	2563	63.1,63.1
60	2264	388.2	234.2	466.8	2087	170.1	87.92	266.6	50- 60	747.3	3311	81.4,81.4
70	1196	249.0	81.68	261.8	900.3	84.10	32.25	104.7	60- 70	574.1	3885	95.6,95.6
80	69.67	59.69	44.30	65.13	26.11	6.941	0.1345	26.10	70- 80	165.0	4050	99.6,99.6
90	0.0701	0.0023	0.0026	0.0011	0.9508	0.1367	1.992	0.2036	80- 90	9.673	4059	99.9,99.9
100	0	0	0	0	2.318	0.3397	0.1345	0.3393	90-100	0.2958	4060	99.9,99.9
110	0.9508	0.2040	0	0	3.464	0.2734	0.1345	0.4751	100-110	0.5019	4060	99.9,99.9
120	1.087	2.182	0.8723	0.8142	2.299	0.2734	0.1345	0.5429	110-120	0.7379	4061	99.9,99.9
130	1.087	3.554	0.5395	1.425	1.358	0.2734	0.1345	0.6108	120-130	1.001	4062	99.9,99.9
140	1.087	3.622	0.4664	1.561	1.290	0.3417	0.1345	0.6108	130-140	0.9768	4063	99.9,99.9
150	1.019	3.622	1.143	2.239	1.290	0.6151	0.3375	0.8144	140-150	0.8831	4064	100,100
160	0.9508	3.009	1.345	2.172	1.290	0.8201	0.6753	0.8823	150-160	0.7122	4064	100,100
170	0.9508	2.461	1.345	2.036	1.290	0.8885	1.008	1.087	160-170	0.4255	4065	100,100
180	1.019	1.981	1.345	2.036	1.290	1.368	1.752	1.561	170-180	0.1422	4065	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:2016-11-02

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:

ISOCANDELA DIAGRAM

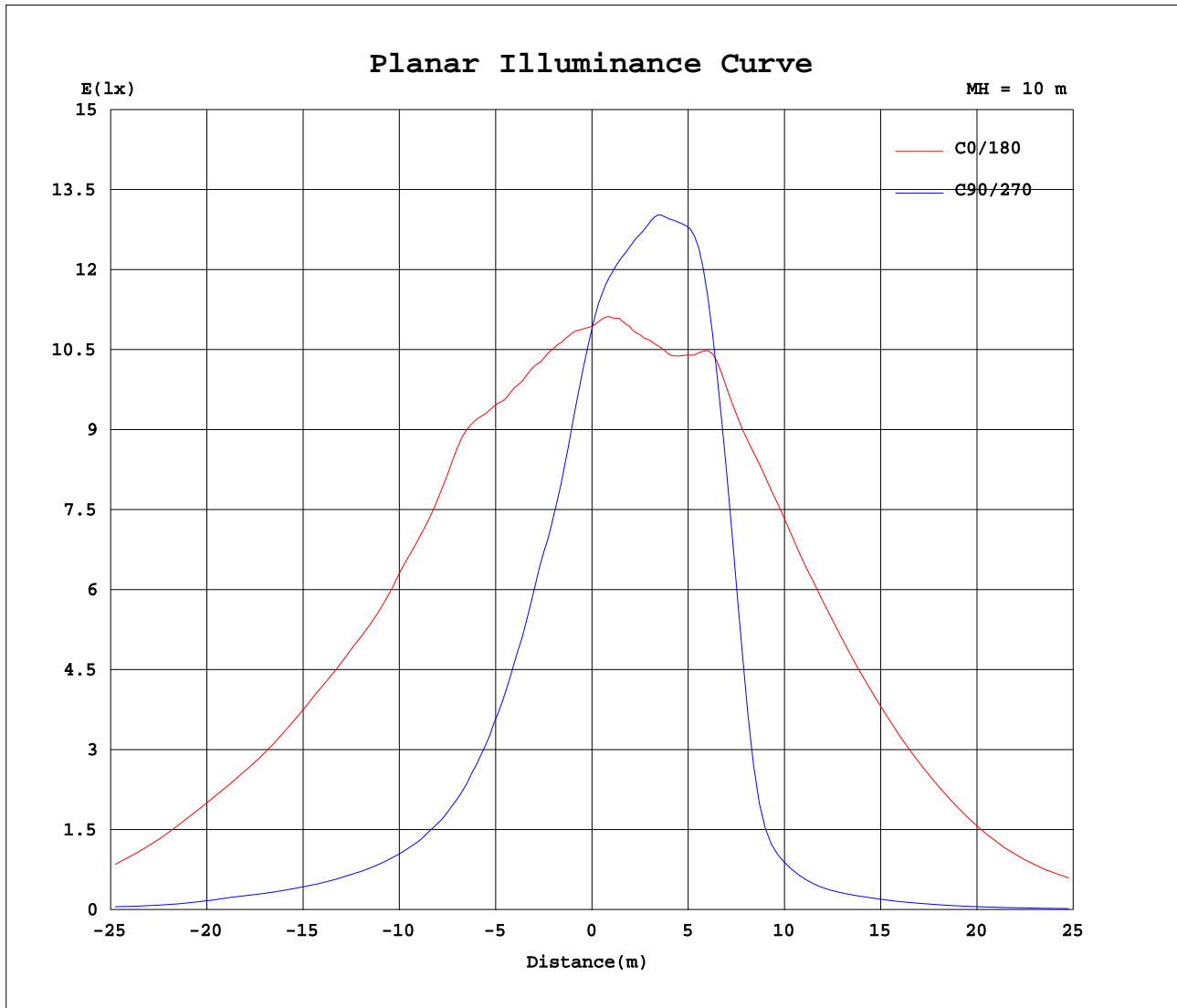
Test:U:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar Street light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTELECTRONIC CO.,LTD	SUR.:	Shielding Angle:N/A



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.5DEG  
 Operators: Seth  
 Test Date: 2016-11-02

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



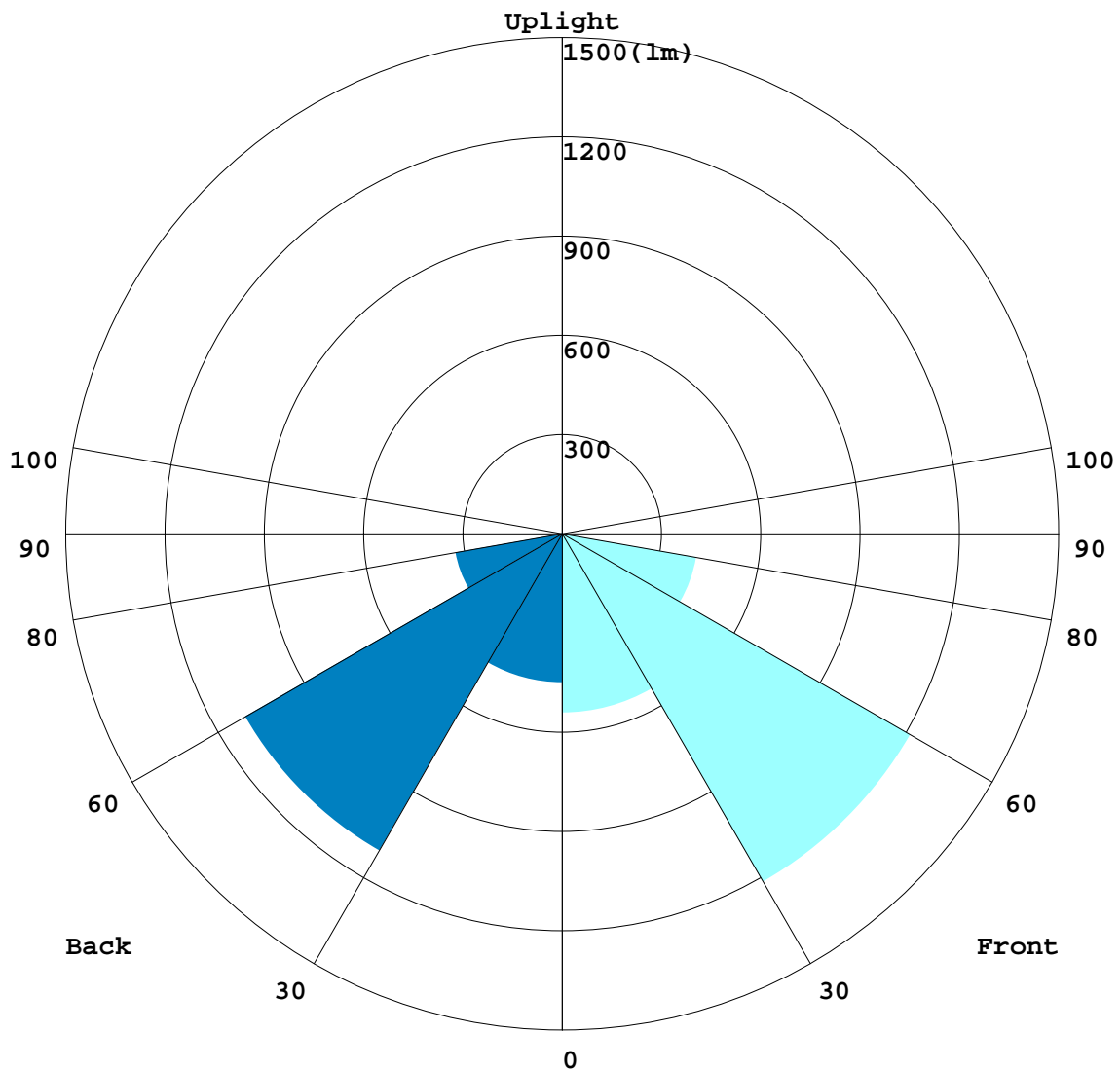
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.5DEG  
Operators: Seth  
Test Date: 2016-11-02

$\gamma$  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:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar Street light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTELECTRONIC 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:2016-11-02

$\gamma$  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:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar Street light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTELECTRONIC CO.,LTD	SUR.:	Shielding Angle:N/A

## IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	540.85	13.3
FM - Front-Medium(30-60)	1214.5	29.9
FH - Front-High(60-80)	411.69	10.1
FVH - Front-Very High(80-90)	6.7	0.2
Total Forward Light	2176.9	53.6

BL - Back-Low(0-30)	449.24	11.1
BM - Back-Medium(30-60)	1105.9	27.2
BH - Back-High(60-80)	327.44	8.1
BVH - Back-Very High(80-90)	2.9734	0.1
Total Back Light	1888.1	46.4

UL - Uplight-Low(90-100)	0.29576	0.0
UH - Uplight-High(100-180)	5.3807	0.1
Total Up Light	5.6764	0.1

BUG(Back,Up,Glare) Rating	B2-U1-G1
---------------------------	----------

Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	1885.6	2.5429	1888.1
Street Side	2173.7	3.1336	2176.9

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.5DEG  
Operators:Seth  
Test Date:2016-11-02

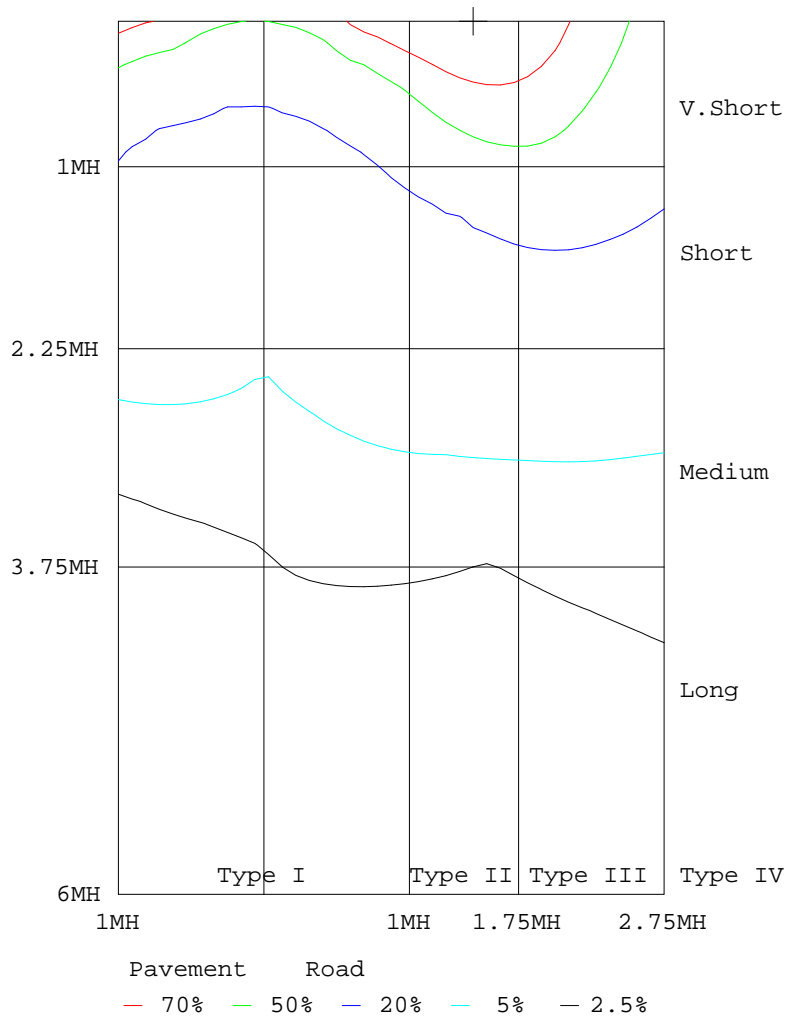
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
Humidity:65.7%  
Test Distance:26.000m [K=1.3361]  
Remarks:



ROAD ISOCANDELA REPORT

Test:U:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar 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:2016-11-02

$\gamma$  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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:27.08V I:1.142A P:30.91W PF:1.000 Freq:0Hz Lamp Flux:4064.98x1 lm		
NAME: ALL in one Led Solar Street light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTELECTRONIC 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	1094	1092	1090	1089	1089	1088	1088	1090	1094	1092	1090	1089	1089	1088	1088	1090			
5	1097	1048	994	960	948	967	1016	1057	1125	1153	1181	1194	1198	1186	1164	1139			
10	1110	1010	896	827	808	849	938	1043	1149	1226	1275	1290	1291	1280	1249	1202			
15	1139	981	815	731	720	760	862	1026	1190	1328	1395	1414	1413	1396	1349	1273			
20	1194	950	755	639	613	680	815	1019	1268	1463	1550	1586	1569	1548	1480	1366			
25	1280	941	697	554	522	600	778	1043	1395	1660	1740	1728	1728	1682	1651	1518			
30	1423	961	640	480	446	526	730	1100	1612	1894	1899	1883	1853	1829	1834	1734			
35	1573	946	576	415	377	453	659	1127	1779	2044	1988	1654	1487	1716	1953	1931			
40	1641	898	510	365	332	394	589	1142	1907	2169	1734	869	604	1101	1952	2048			
45	1784	896	456	325	296	357	539	1182	2073	2242	1144	300	250	394	1581	2198			
50	1940	931	422	296	274	329	509	1262	2198	2037	494	179	160	221	1004	2301			
55	2159	1002	404	276	255	309	494	1347	2247	1579	257	130	124	146	471	2195			
60	2264	1069	388	255	234	284	467	1328	2087	1048	170	97.0	87.9	109	267	1869			
65	2113	1029	349	222	148	236	394	1095	1537	674	123	61.3	54.1	72.5	169	1303			
70	1196	639	249	119	81.7	163	262	643	900	416	84.1	34.1	32.3	40.4	105	629			
75	331	238	127	47.5	55.0	68.9	138	247	369	170	45.1	20.9	16.5	24.3	53.9	246			
80	69.7	76.1	59.7	35.6	44.3	33.7	65.1	58.7	26.1	28.0	6.94	0.07	0.13	0.20	26.1	105			
85	0.61	0.69	4.96	20.0	19.7	14.7	0.55	0.54	1.35	0.54	0.14	0.07	0.20	0.13	0.20	1.07			
90	0.07	0.07	0.00	0.01	0.00	0.00	0.00	0.07	0.95	0.48	0.14	1.22	1.99	0.13	0.20	0.41			
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.55	0.14	0.61	1.01	0.13	0.20	0.41			
100	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.14	2.32	0.89	0.34	0.14	0.13	0.20	0.34	0.74			
105	0.27	0.54	0.00	0.00	0.00	0.00	0.00	0.27	3.46	0.89	0.27	0.14	0.13	0.20	0.41	1.08			
110	0.95	1.23	0.20	0.00	0.00	0.00	0.00	0.81	3.46	0.89	0.27	0.14	0.13	0.20	0.48	1.15			
115	1.09	1.57	1.02	0.00	0.00	0.00	0.34	1.22	3.39	0.89	0.27	0.14	0.13	0.20	0.54	1.15			
120	1.09	1.64	2.18	0.94	0.87	0.13	0.81	1.15	2.30	0.89	0.27	0.14	0.13	0.20	0.54	1.15			
125	1.09	1.64	3.07	2.91	1.68	1.34	1.09	1.22	1.36	0.89	0.27	0.14	0.13	0.20	0.61	1.01			
130	1.09	1.64	3.55	3.33	0.54	2.09	1.43	1.42	1.36	0.89	0.27	0.14	0.13	0.20	0.61	1.01			
135	1.09	1.64	3.62	3.33	0.34	2.22	1.56	1.62	1.36	0.95	0.27	0.20	0.13	0.20	0.61	1.01			
140	1.09	1.64	3.62	3.46	0.47	2.56	1.56	1.83	1.29	1.02	0.34	0.27	0.13	0.20	0.61	1.01			
145	1.09	1.64	3.62	3.60	1.01	2.63	1.63	1.83	1.29	1.09	0.48	0.34	0.20	0.34	0.75	1.01			
150	1.02	1.64	3.62	3.60	1.14	2.77	2.24	1.83	1.29	1.09	0.62	0.54	0.34	0.47	0.81	1.08			
155	0.95	1.64	3.35	3.60	1.41	2.77	2.17	1.83	1.29	1.09	0.82	0.68	0.61	0.61	0.81	1.15			
160	0.95	1.64	3.01	3.54	1.34	2.77	2.17	1.83	1.29	1.09	0.82	0.88	0.68	0.67	0.88	1.15			
165	0.95	1.50	2.67	2.99	1.34	2.57	2.04	1.56	1.29	1.09	0.82	0.82	0.74	0.81	0.95	1.35			
170	0.95	1.50	2.46	2.72	1.34	2.36	2.04	1.56	1.29	1.09	0.89	1.02	1.01	0.95	1.09	1.35			
175	0.95	1.50	1.99	2.31	1.34	1.83	2.04	1.56	1.22	1.09	1.16	1.49	1.28	1.15	1.36	1.62			
180	1.02	1.30	1.98	1.76	1.34	1.48	2.04	1.56	1.29	1.02	1.37	1.83	1.75	1.35	1.56	1.89			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-02

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: