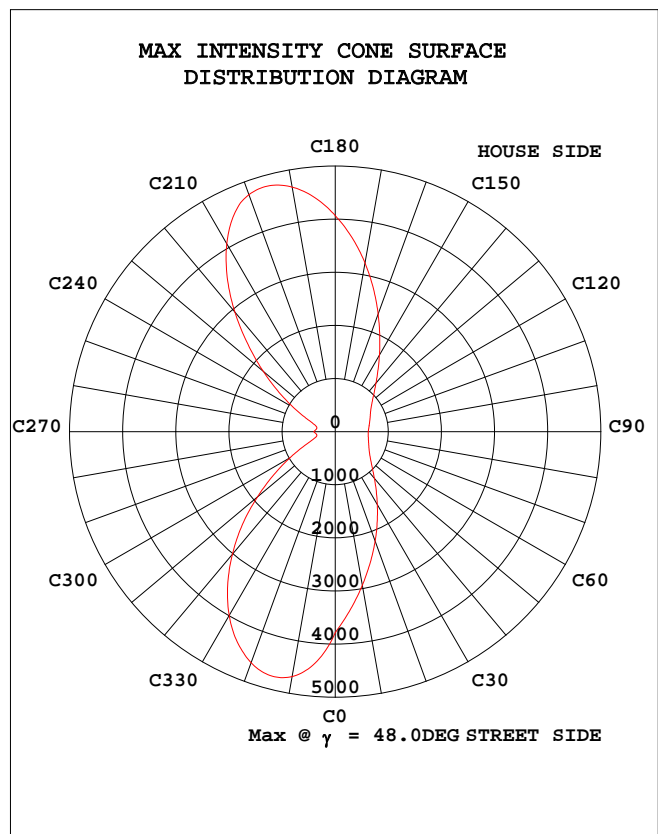
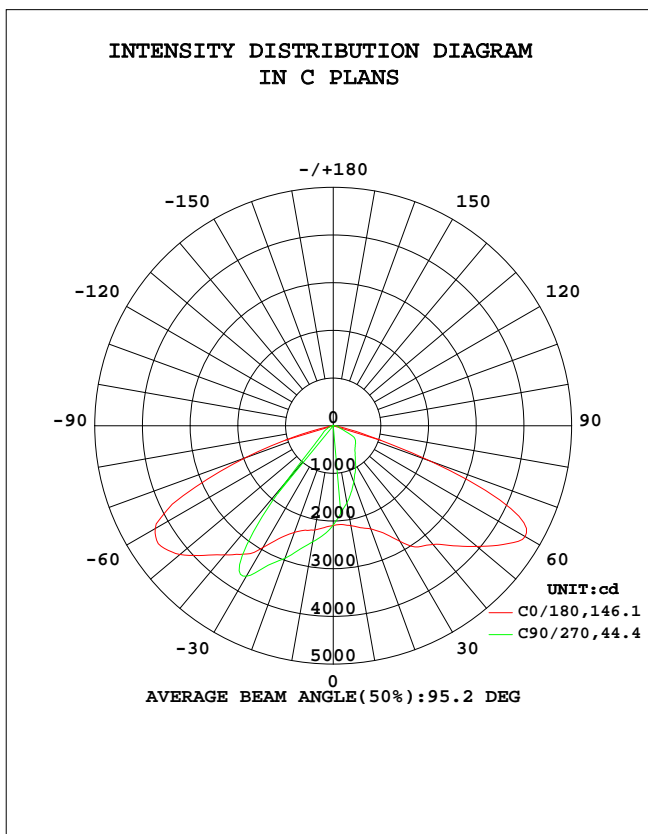


**STREETLIGHT PHOTOMETRIC TEST REPORT**

Test:U:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 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: 135.97 lm/W			
MODEL	LRC60W-001G	I <sub>max</sub> (cd)	4663	η street_up(%)	0.1
NOMINAL POWER(W)	60	LOR(%)	100.0	η street_down(%)	53.0
RATED VOLTAGE(V)	27.7	TOTAL FLUX(lm)	8291	η house_up(%)	0.1
NOMINAL FLUX(lm)	8291.28	MAXIMUM @(C,γ )	203,48.0	η house_down(%)	46.8
LAMPS INSIDE	1	η up(%)	0.2	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	27.7	η down(%)	99.8	SLI	18.554

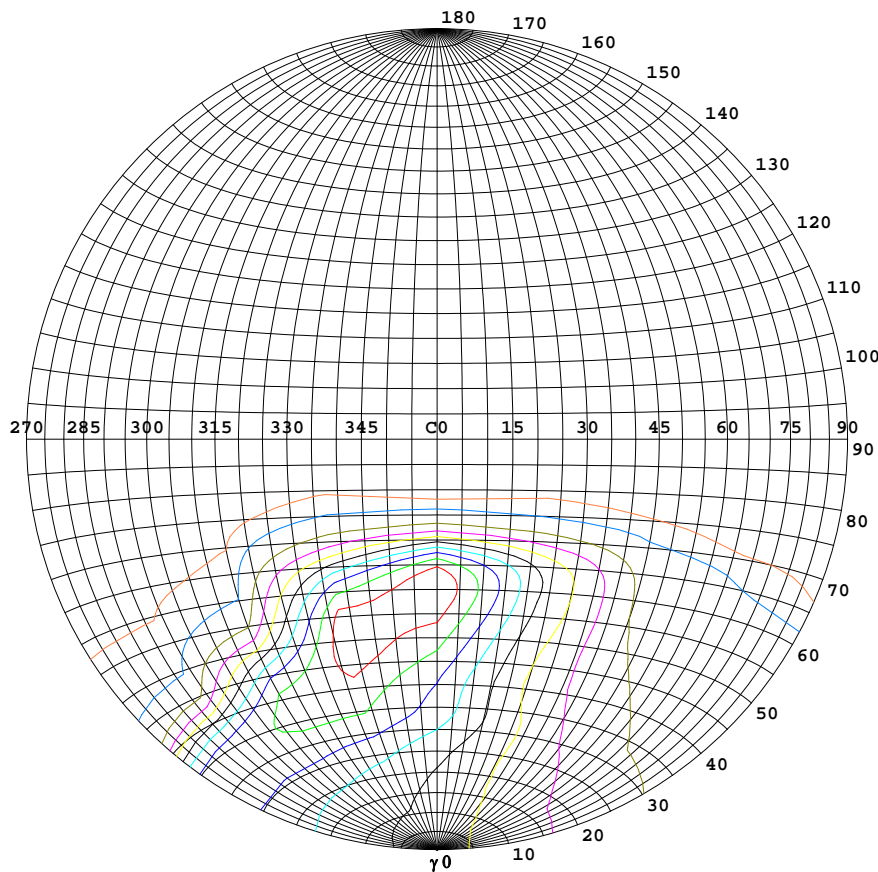


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-02

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:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 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:**

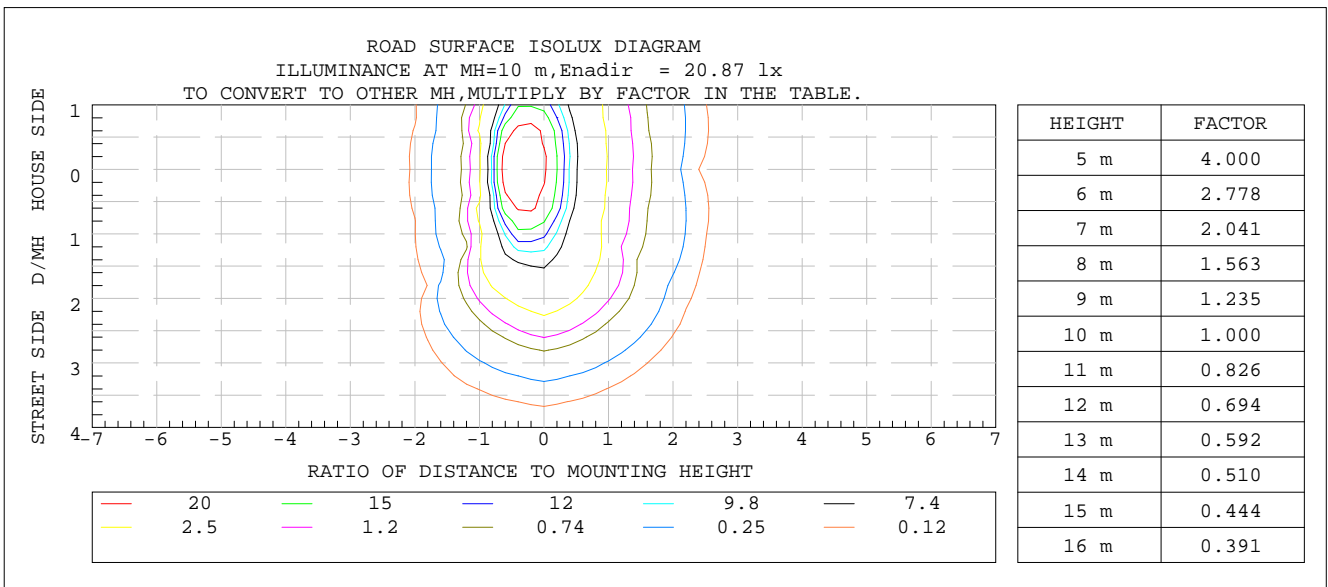
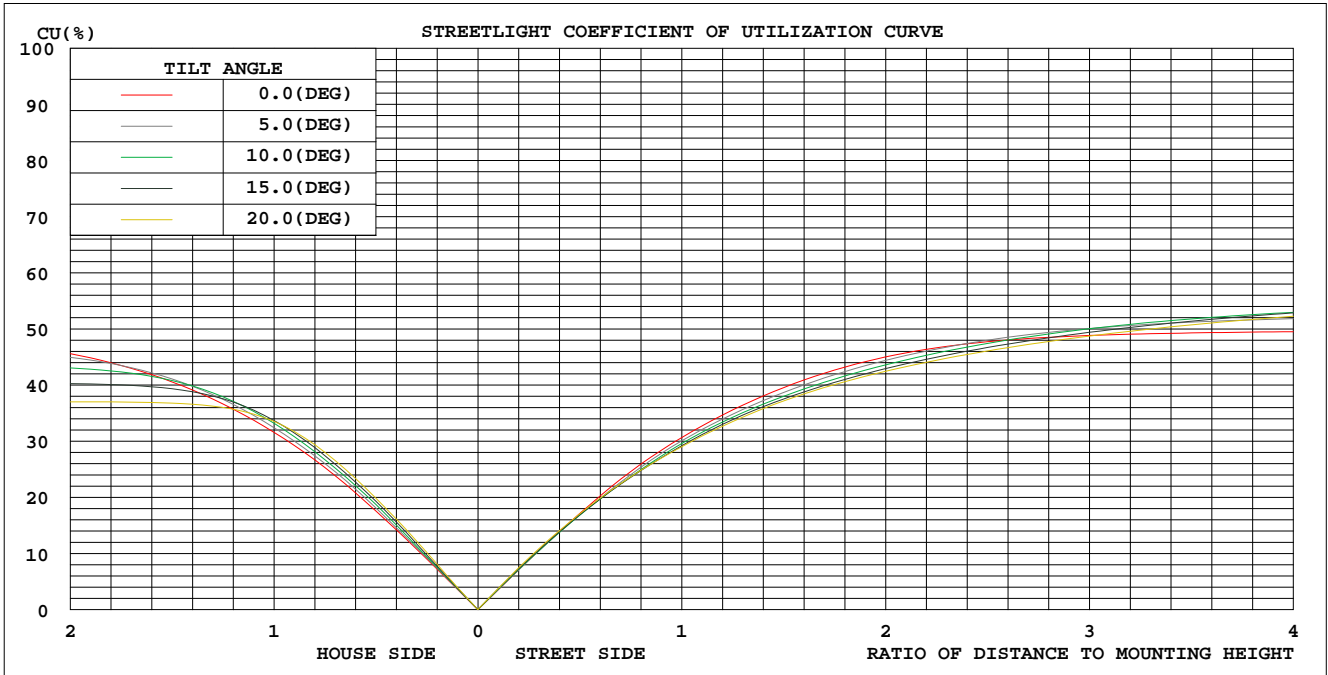
IES:Type II - Short  
 CIE:Broad - Short  
 IES:Cut-off  
 CIE:Full cut-off  
 Max.At80:22.74cd/klm  
 Max.At90:1.012cd/klm  
 Max.80-90:22.74cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	4663
90%	4197
80%	3730
70%	3264
60%	2798
50%	2331
40%	1865
30%	1399
20%	933
10%	466
5%	233

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:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 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

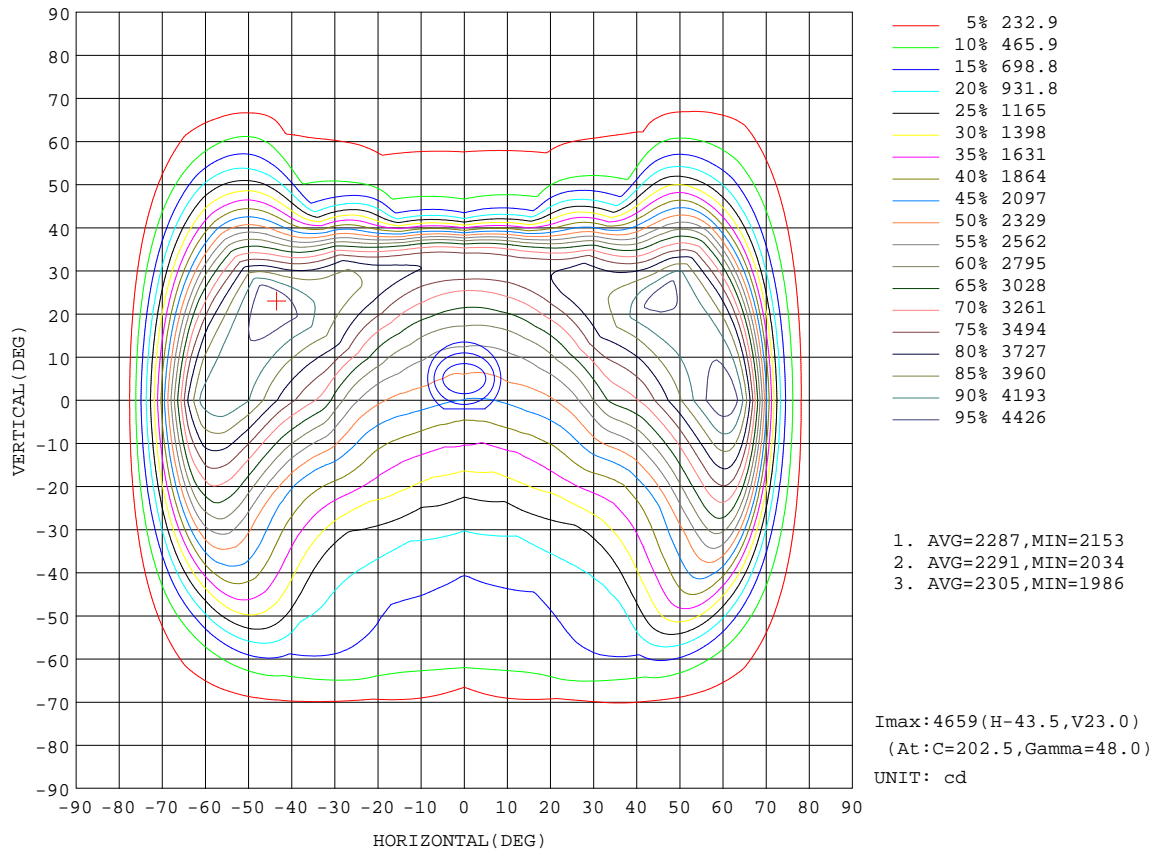
$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	\$lum,lamp
10	2127	1783	1645	1814	2219	2436	2470	2378	0- 10	200.0	200.0	2.41,2.41
20	2303	1574	1262	1617	2379	2927	2960	2798	10- 20	612.5	812.5	9.8,9.8
30	2801	1371	940.4	1438	2945	3671	3645	3510	20- 30	1100	1912	23.1,23.1
40	3252	1124	713.1	1162	3533	3942	1605	3825	30- 40	1600	3512	42.4,42.4
50	3937	977.8	608.4	1020	4202	1730	342.0	1937	40- 50	1619	5130	61.9,61.9
60	4648	904.5	519.1	939.6	4309	441.3	200.1	478.8	50- 60	1572	6703	80.8,80.8
70	2157	527.8	157.5	512.6	1958	215.6	87.36	224.6	60- 70	1214	7917	95.5,95.5
80	112.6	122.4	100.3	129.4	85.62	72.10	21.58	70.22	70- 80	336.1	8253	99.5,99.5
90	4.807	4.052	0.2731	4.283	8.391	1.440	0.9098	1.553	80- 90	25.06	8278	99.8,99.8
100	0.4033	0.2042	0	0.2703	6.093	1.633	2.583	1.216	90-100	1.759	8280	99.9,99.9
110	2.161	1.290	0	0.6727	9.191	0.8834	0.6799	1.216	100-110	1.855	8282	99.9,99.9
120	2.298	3.401	2.039	2.093	6.871	0.8170	0.6799	1.216	110-120	1.998	8284	99.9,99.9
130	2.298	4.357	0.8207	2.635	4.934	0.8170	0.6799	1.216	120-130	1.989	8286	99.9,99.9
140	2.433	4.086	1.559	3.243	4.190	0.8185	0.7497	1.216	130-140	1.785	8288	100,100
150	1.892	4.085	3.398	4.258	3.447	1.498	1.020	1.487	140-150	1.560	8289	100,100
160	1.758	3.404	3.332	4.192	2.501	1.836	1.360	1.757	150-160	1.220	8290	100,100
170	1.756	3.132	3.332	3.784	2.501	1.976	1.768	2.163	160-170	0.7150	8291	100,100
180	2.163	3.269	2.787	3.652	2.501	2.247	2.653	2.973	170-180	0.2563	8291	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

$\gamma$  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

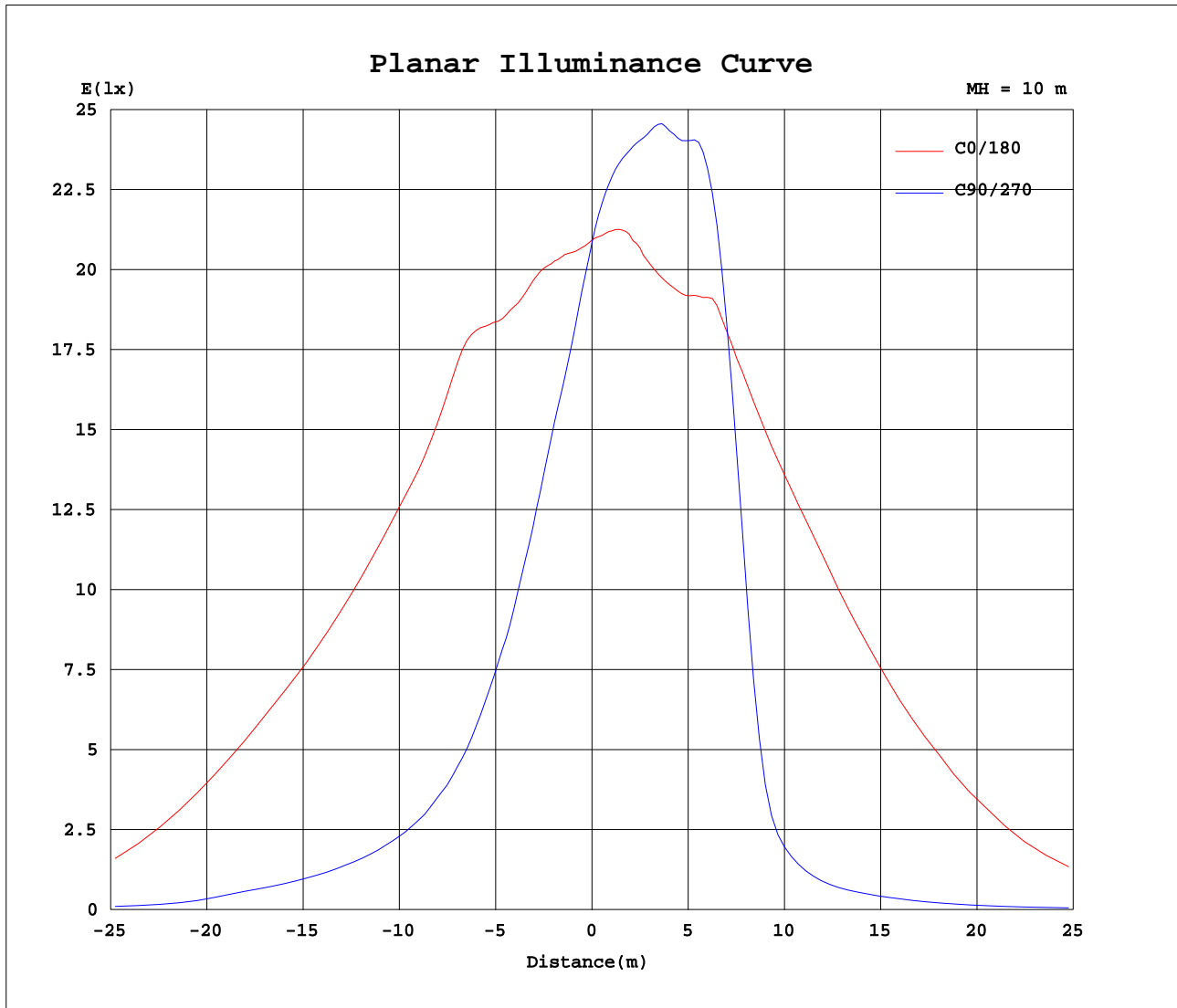
Test:U:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 lm		
NAME: ALL in one Led Solar Street light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTELECTRONIC CO.,LTD	SUR.:	Shielding Angle:N/A



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



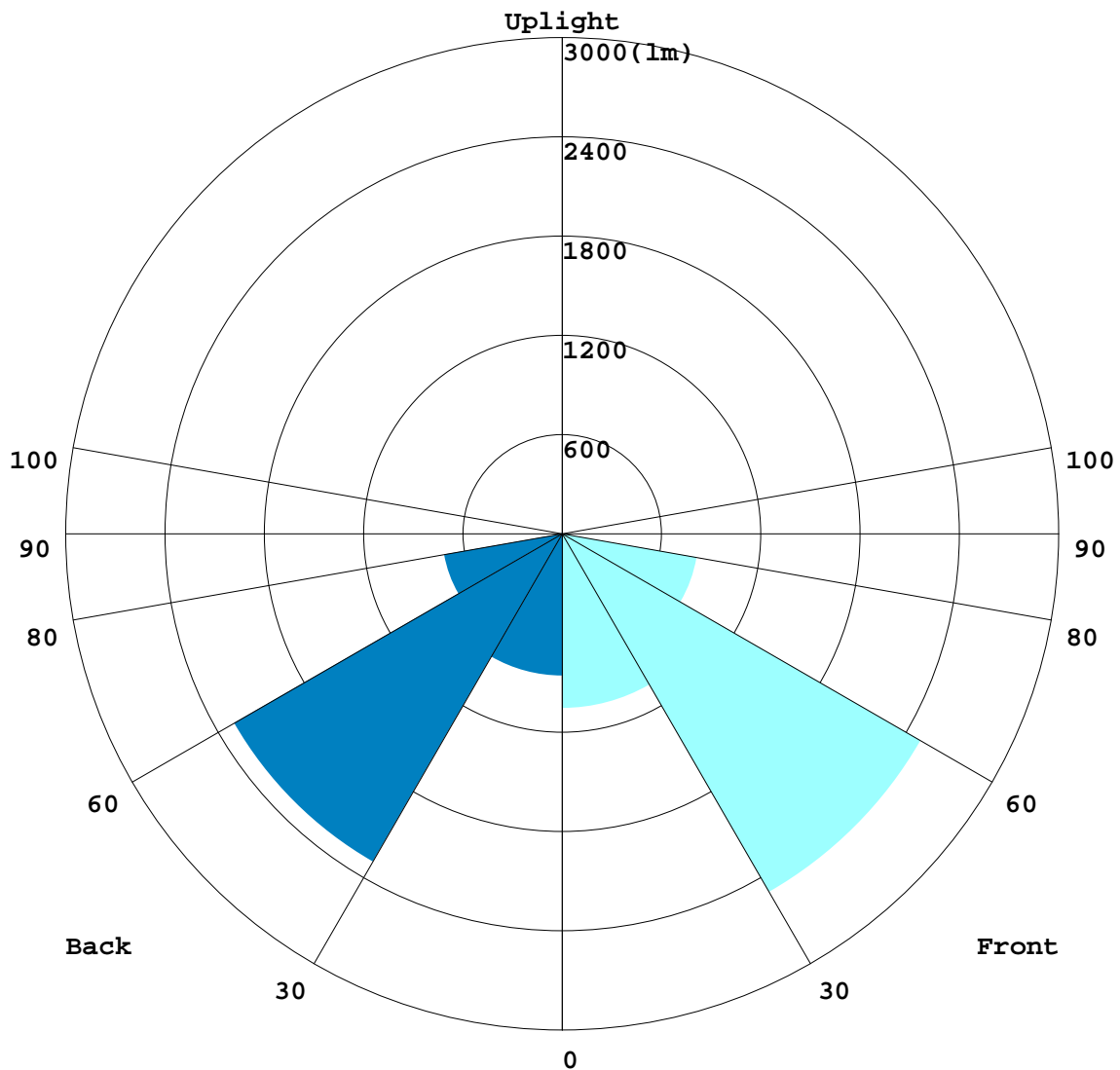
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.5DEG  
Operators: Seth  
Test Date: 2016-11-02

$\gamma$  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:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 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:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 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)	1054.1	12.7
FM - Front-Medium(30-60)	2501.8	30.2
FH - Front-High(60-80)	825.7	10.0
FVH - Front-Very High(80-90)	14.694	0.2
Total Forward Light	4402.7	53.1

BL - Back-Low(0-30)	858.08	10.3
BM - Back-Medium(30-60)	2288.8	27.6
BH - Back-High(60-80)	724.69	8.7
BVH - Back-Very High(80-90)	10.37	0.1
Total Back Light	3888.5	46.9

UL - Uplight-Low(90-100)	1.7586	0.0
UH - Uplight-High(100-180)	11.38	0.1
Total Up Light	13.139	0.2

BUG(Back,Up,Glare) Rating	B2-U2-G2
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	3881.9	6.6192	3888.5
Street Side	4396.2	6.5193	4402.7

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

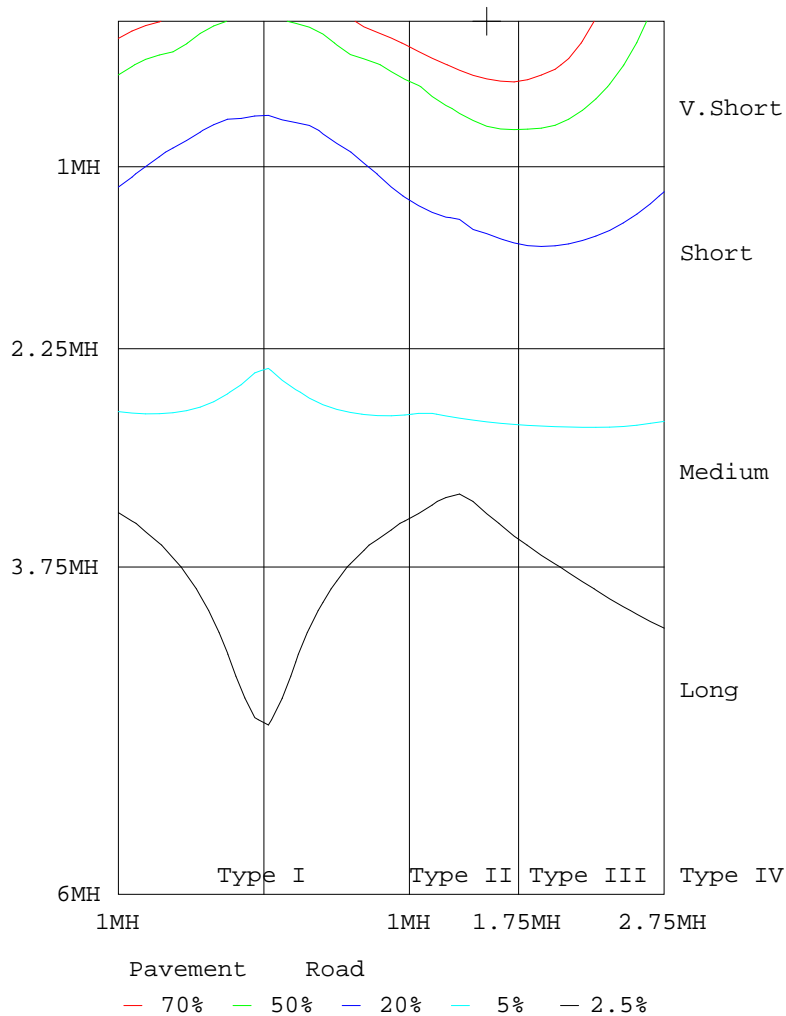
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
Humidity:65.7%  
Test Distance:26.000m [K=1.3361]  
Remarks:



ROAD ISOCANDELA REPORT

Test:U:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 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:27.77V I:2.196A P:60.98W PF:1.000 Freq:0Hz Lamp Flux:8291.28x1 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	2093	2087	2086	2083	2084	2080	2080	2079	2093	2087	2086	2083	2084	2080	2080	2079			
5	2081	2011	1921	1863	1839	1876	1954	2032	2143	2208	2264	2271	2293	2265	2219	2178			
10	2127	1982	1783	1653	1645	1687	1814	2004	2219	2355	2436	2453	2470	2432	2378	2303			
15	2214	1948	1668	1487	1451	1522	1703	1977	2268	2514	2649	2668	2676	2627	2557	2437			
20	2303	1924	1574	1330	1262	1372	1617	1955	2379	2743	2927	2974	2960	2905	2798	2614			
25	2480	1944	1490	1170	1090	1216	1538	1998	2586	3096	3299	3284	3229	3203	3133	2912			
30	2801	2010	1371	1026	940	1062	1438	2090	2945	3585	3671	3641	3645	3558	3510	3348			
35	3102	1985	1241	895	809	925	1292	2094	3287	3966	3965	3625	3332	3517	3839	3760			
40	3252	1932	1124	793	713	816	1162	2071	3533	4276	3942	2384	1605	2401	3825	4045			
45	3560	1971	1033	720	649	749	1070	2116	3844	4569	3140	782	555	870	3180	4372			
50	3937	2088	978	666	608	695	1020	2215	4202	4627	1730	412	342	439	1937	4536			
55	4344	2267	942	627	573	658	994	2352	4407	4118	728	278	262	290	898	4364			
60	4648	2372	904	586	519	598	940	2357	4309	3224	441	218	200	226	479	3641			
65	4109	2200	792	489	287	488	791	1980	3474	2185	299	152	136	159	308	2482			
70	2157	1257	528	272	158	272	513	1148	1958	1228	216	97.3	87.4	98.5	225	1195			
75	618	451	248	96.7	120	97.1	240	430	691	465	133	62.4	69.8	61.2	131	491			
80	113	149	122	68.5	100	67.8	129	137	85.6	143	72.1	26.9	21.6	30.2	70.2	189			
85	1.30	1.45	10.2	38.1	35.8	35.6	5.70	1.10	3.84	2.71	1.01	0.54	0.61	0.74	2.88	2.57			
90	4.81	6.31	4.05	0.27	0.27	0.34	4.28	6.62	8.39	6.01	1.44	0.78	0.91	0.99	1.55	4.68			
95	0.27	0.34	0.20	0.14	0.00	0.27	0.27	0.41	3.59	2.11	2.10	4.34	4.14	3.36	1.22	1.83			
100	0.40	0.95	0.20	0.14	0.00	0.14	0.27	0.67	6.09	2.72	1.63	3.73	2.58	1.82	1.22	2.37			
105	1.28	1.76	0.40	0.14	0.00	0.14	0.27	1.42	9.12	3.27	1.02	2.16	2.24	1.21	1.22	3.25			
110	2.16	2.85	1.29	0.14	0.00	0.14	0.67	2.23	9.19	3.20	0.88	0.54	0.68	0.68	1.22	3.39			
115	2.30	3.27	2.24	0.47	0.27	0.14	1.35	2.64	8.99	3.20	0.82	0.54	0.68	0.68	1.22	3.39			
120	2.30	3.27	3.40	1.42	2.04	1.21	2.09	2.71	6.87	2.31	0.82	0.61	0.68	0.68	1.22	3.25			
125	2.30	3.33	4.28	2.30	2.18	2.30	2.50	3.24	4.93	2.24	0.82	0.68	0.68	0.68	1.22	2.51			
130	2.30	3.33	4.36	3.19	0.82	2.50	2.64	3.32	4.93	2.24	0.82	0.68	0.68	0.68	1.22	2.37			
135	2.50	3.33	4.42	3.39	0.75	3.11	2.64	3.32	4.66	2.24	0.82	0.68	0.68	0.68	1.22	2.37			
140	2.43	3.33	4.09	3.93	1.56	3.25	3.24	3.38	4.19	2.24	0.82	0.81	0.75	0.68	1.22	2.37			
145	2.17	3.20	4.08	4.34	2.44	3.25	3.65	3.39	3.72	2.24	1.09	0.81	0.75	0.74	1.22	2.37			
150	1.89	3.13	4.08	4.41	3.40	3.25	4.26	3.39	3.45	2.24	1.50	1.16	1.02	1.02	1.49	2.30			
155	1.89	2.86	3.75	4.41	3.33	3.25	4.46	3.39	3.24	2.24	1.70	1.36	1.16	1.29	1.69	2.30			
160	1.76	2.38	3.40	4.28	3.33	3.25	4.19	3.25	2.50	2.24	1.84	1.56	1.36	1.62	1.76	2.17			
165	1.62	2.18	3.13	3.80	3.33	3.25	3.79	2.91	2.50	2.24	1.77	1.70	1.56	1.76	1.89	2.37			
170	1.76	2.24	3.13	3.53	3.33	3.25	3.78	2.91	2.50	2.24	1.98	2.04	1.77	1.96	2.16	2.64			
175	2.10	2.24	3.13	3.19	3.26	3.25	3.78	3.18	2.50	2.24	2.25	2.51	2.11	2.30	2.57	3.18			
180	2.16	2.24	3.27	2.52	2.79	3.05	3.65	3.25	2.50	2.24	2.25	3.05	2.65	2.84	2.97	3.73			

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: