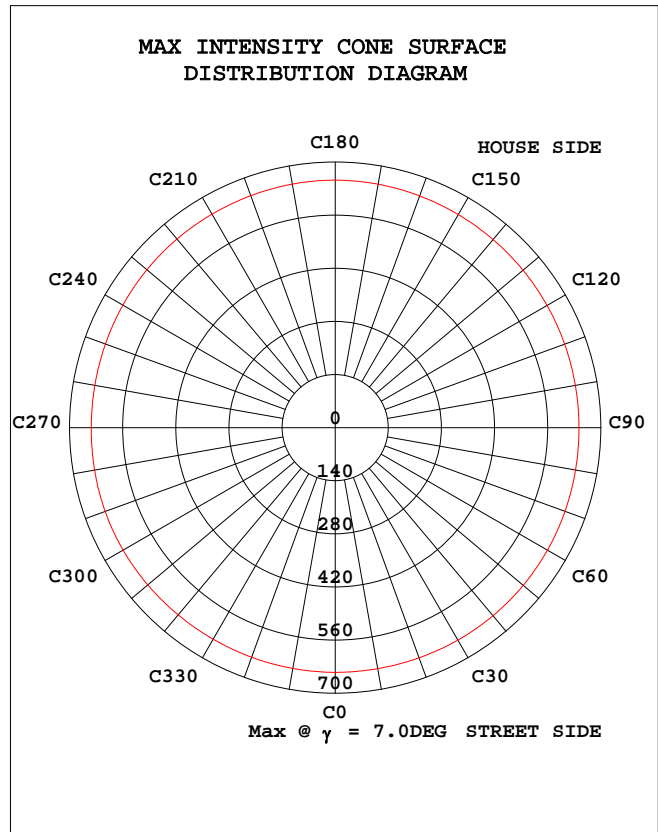
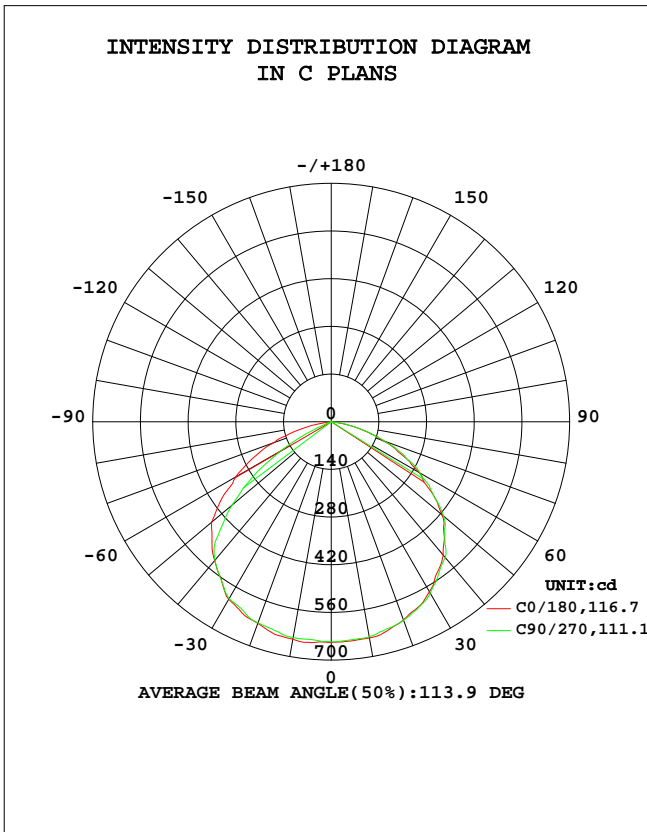


**STREETLIGHT PHOTOMETRIC TEST REPORT**

Test:U:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 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: 119.94 lm/W			
MODEL	LRC15W	I <sub>max</sub> (cd)	652.4	η street_up(%)	0.1
NOMINAL POWER(W)	15	LOR(%)	100.0	η street_down(%)	55.0
RATED VOLTAGE(V)	26	TOTAL FLUX(lm)	1843	η house_up(%)	0.1
NOMINAL FLUX(lm)	1843.45	MAXIMUM @(C,γ )	180,7.0	η house_down(%)	44.8
LAMPS INSIDE	1	η up(%)	0.1	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	26	η down(%)	99.9	SLI	17.179

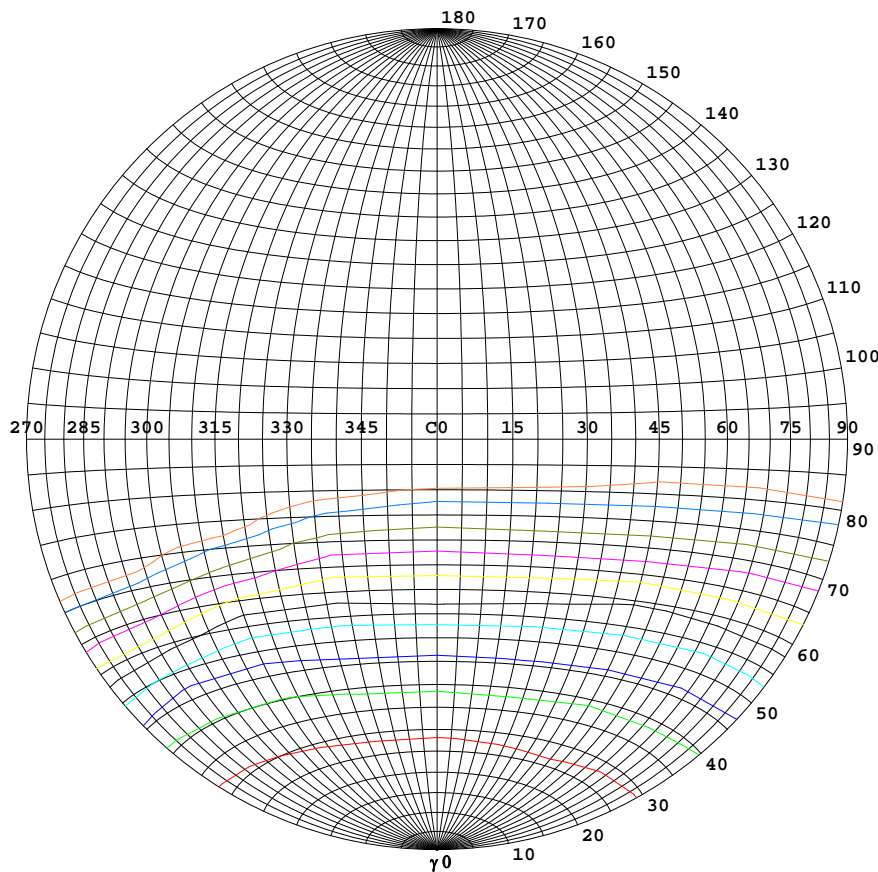


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.5DEG  
 Operators:Seth  
 Test Date:2016-11-22

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:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 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:**

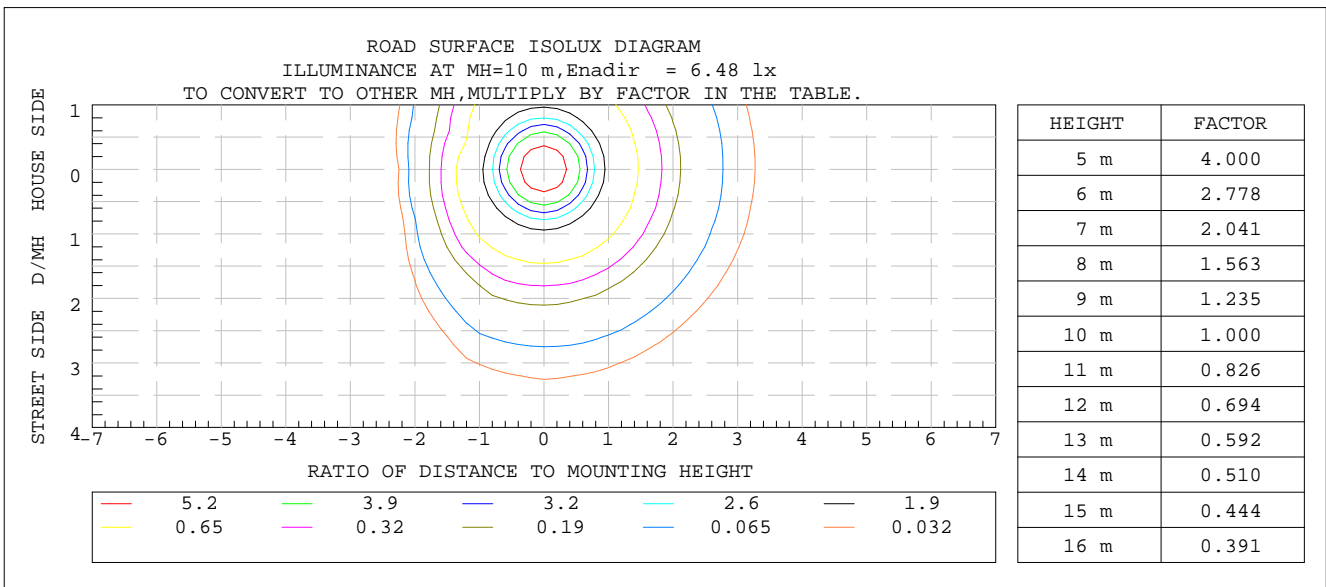
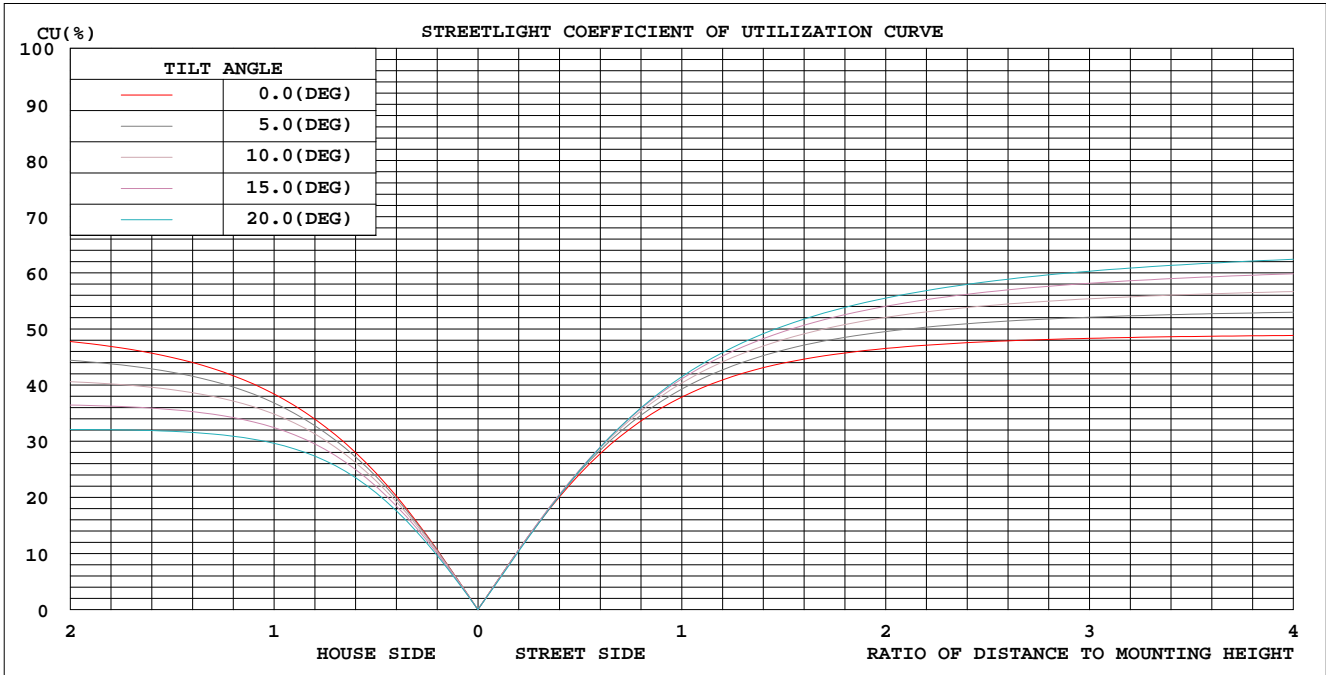
IES:Type II - Very Short  
 CIE:Narrow - Short  
 IES:Cut-off  
 CIE:Full cut-off  
 Max.At80:26.53cd/klm  
 Max.At90:3.172cd/klm  
 Max.80-90:26.53cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	652
90%	587
80%	522
70%	457
60%	391
50%	326
40%	261
30%	196
20%	130
10%	65
5%	33

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

$\gamma$  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:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 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

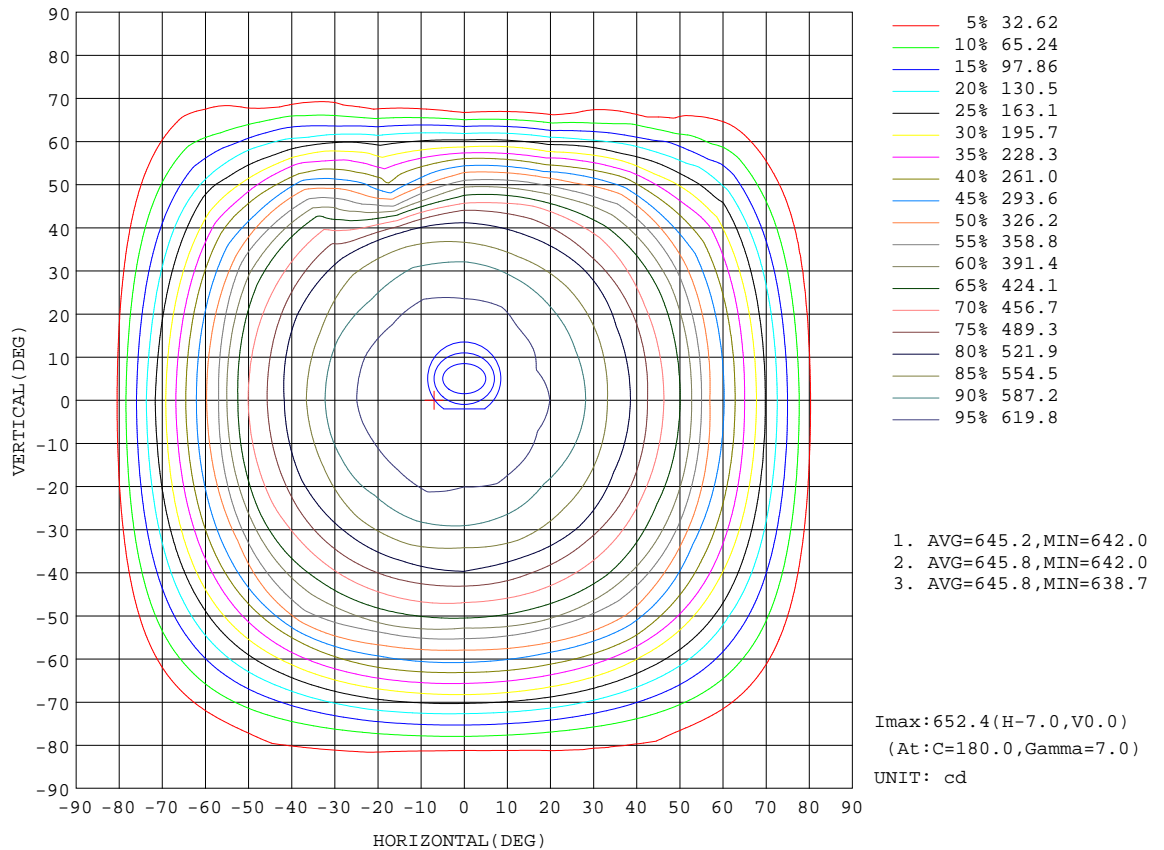
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum,lamp
10	644.7	642.4	641.0	645.9	648.7	650.0	643.7	642.1	0- 10	61.65	61.65	3.34,3.34
20	619.1	617.5	620.1	628.5	630.3	635.6	628.3	621.9	10- 20	180.2	241.9	13.1,13.1
30	576.3	575.6	580.8	586.8	602.1	595.4	600.1	583.1	20- 30	280.7	522.6	28.4,28.4
40	511.5	511.8	520.6	523.8	532.7	544.8	530.7	523.9	30- 40	349.0	871.6	47.3,47.3
50	424.9	427.5	431.1	439.0	458.3	450.5	380.0	425.6	40- 50	366.9	1238	67.2,67.2
60	298.2	312.1	301.0	336.8	323.4	295.8	170.0	272.7	50- 60	317.2	1556	84.4,84.4
70	158.5	161.2	166.8	172.7	178.3	102.8	8.392	75.65	60- 70	201.5	1757	95.3,95.3
80	39.13	44.47	43.55	48.91	43.59	1.410	0.6062	0.4736	70- 80	76.38	1834	99.5,99.5
90	4.674	4.932	0.0059	4.532	1.110	0.5425	1.224	0.8731	80- 90	7.348	1841	99.9,99.9
100	0.0681	0.6113	0	1.221	0.4770	0.2716	0.1347	0.2706	90-100	1.143	1842	99.9,99.9
110	0.0681	0.4074	0	0.3383	0.4770	0.2716	0.1347	0.2706	100-110	0.3302	1842	99.9,99.9
120	0.1363	0.4074	0	0.2706	0.4770	0.2716	0.1347	0.2706	110-120	0.2466	1843	100,100
130	0.1363	0.4074	0	0.2706	0.4770	0.2716	0.1347	0.2706	120-130	0.2288	1843	100,100
140	0.1363	0.4074	0	0.2706	0.4770	0.2716	0.1347	0.2706	130-140	0.1970	1843	100,100
150	0.1363	0.4074	0.0674	0.2706	0.4770	0.2716	0.1347	0.2706	140-150	0.1623	1843	100,100
160	0.1363	0.4074	0.0674	0.2706	0.4770	0.2716	0.1347	0.2030	150-160	0.1179	1843	100,100
170	0.1363	0.4074	0.0674	0.2706	0.4770	0.2716	0.1347	0.2030	160-170	0.0688	1843	100,100
180	0.4088	0.4074	0.0674	0.2706	0.4088	0.2716	0.1347	0.0677	170-180	0.0241	1843	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

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

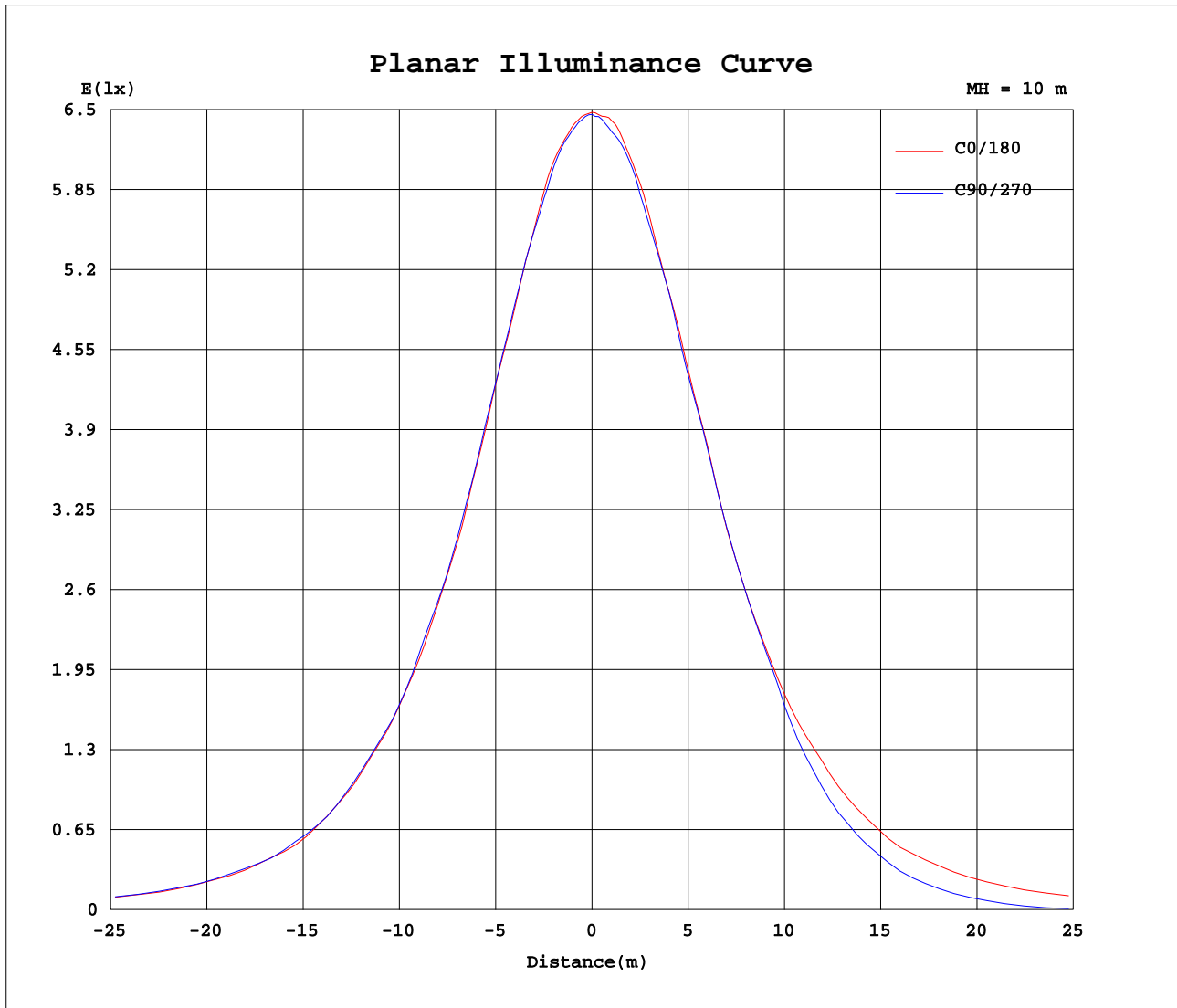
Test:U:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 lm		
NAME: Integrated Solar Led Street Light	TYPE:	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: SHENZHEN LEADRAY OPTOELECTRONIC CO.,LTD.	SUR.:	Shielding Angle:N/A



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



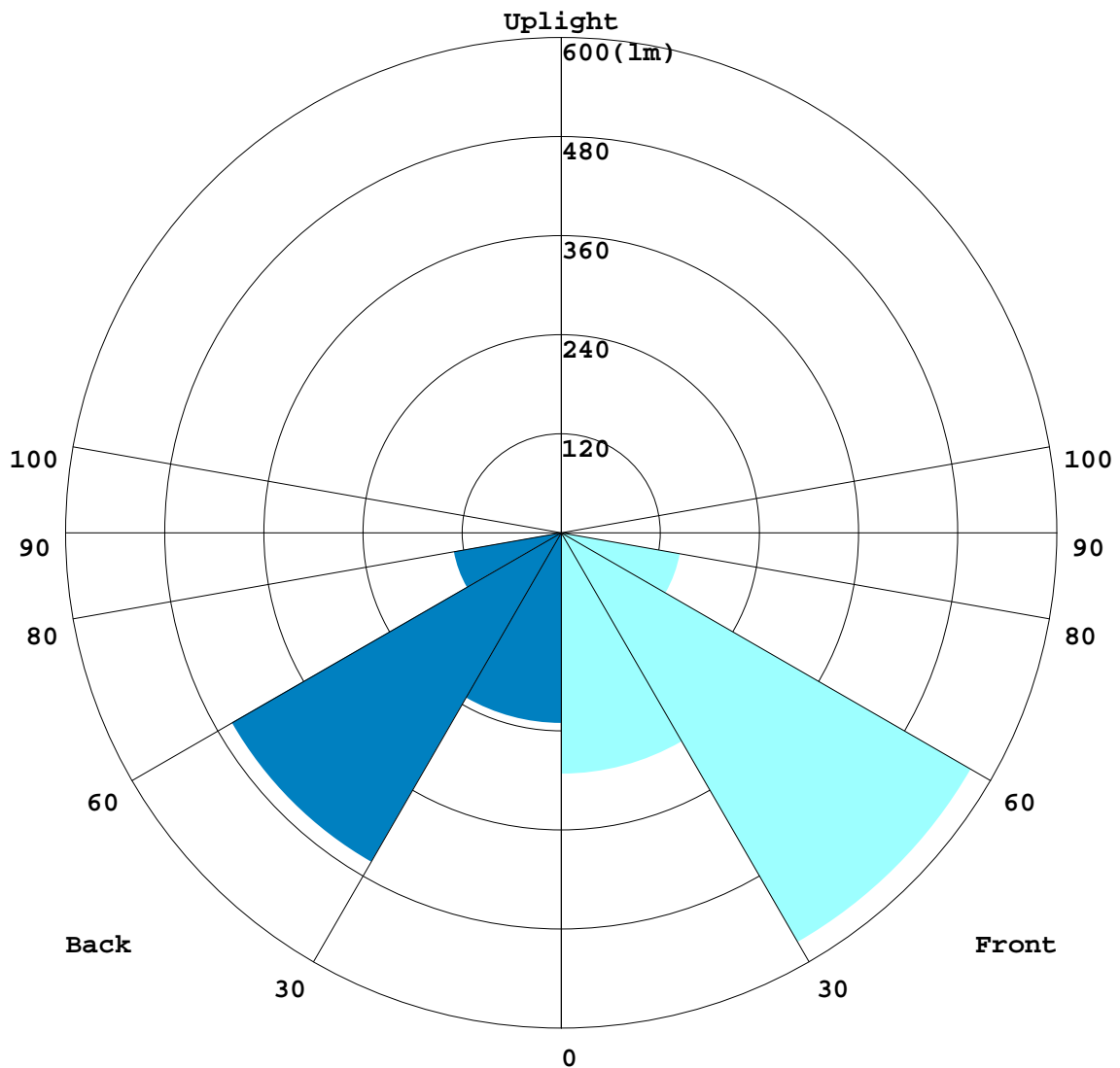
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.5DEG  
Operators: Seth  
Test Date: 2016-11-22

$\gamma$  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:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 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:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 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)	292.01	15.8
FM - Front-Medium(30-60)	572.61	31.1
FH - Front-High(60-80)	145.96	7.9
FVH - Front-Very High(80-90)	3.7826	0.2
Total Forward Light	1015.6	55.1

BL - Back-Low(0-30)	230.6	12.5
BM - Back-Medium(30-60)	460.45	25.0
BH - Back-High(60-80)	131.94	7.2
BVH - Back-Very High(80-90)	3.5652	0.2
Total Back Light	827.89	44.9

UL - Uplight-Low(90-100)	1.1427	0.1
UH - Uplight-High(100-180)	1.3756	0.1
Total Up Light	2.5184	0.1

BUG(Back,Up,Glare) Rating	B1-U1-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	826.56	1.3261	827.89
Street Side	1014.4	1.1923	1015.6

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

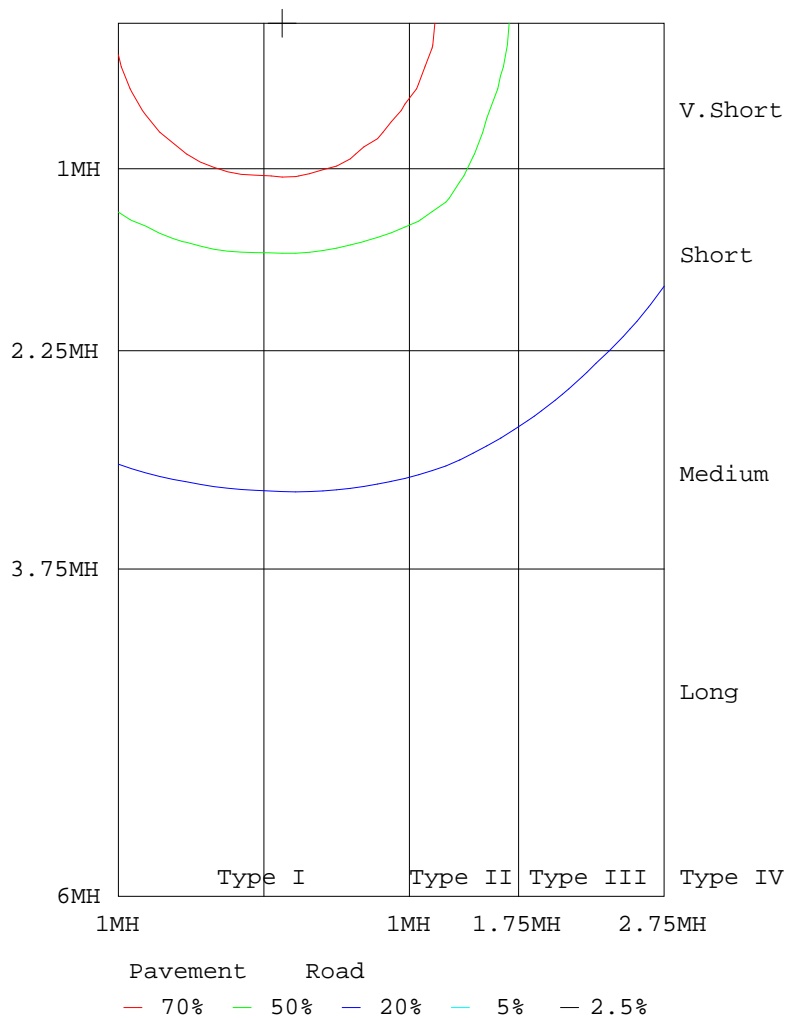
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.352  
Humidity:65.7%  
Test Distance:26.000m [K=1.3361]  
Remarks:



ROAD ISOCANDELA REPORT

Test:U:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 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:26.22V I:0.5861A P:15.37W PF:1.000 Freq:0Hz Lamp Flux:1843.45x1 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	648	648	648	647	646	646	646	646	648	648	648	647	646	646	646	646			
5	646	647	646	644	643	644	646	649	651	650	648	645	642	645	646	645			
10	645	643	642	642	641	642	646	650	649	650	650	647	644	645	642	640			
15	635	631	634	634	630	638	641	644	646	646	645	640	636	639	638	631			
20	619	615	618	621	620	626	629	628	630	632	636	635	628	628	622	615			
25	601	597	595	605	604	610	608	613	619	620	616	620	612	613	602	601			
30	576	576	576	579	581	587	587	594	602	597	595	600	600	590	583	577			
35	541	542	545	551	548	558	560	560	563	567	571	575	565	556	553	547			
40	511	511	512	507	521	518	524	532	533	543	545	534	531	525	524	515			
45	469	467	469	470	471	482	485	489	495	499	496	428	469	481	477	469			
50	425	421	427	428	431	440	439	450	458	455	450	298	380	400	426	429			
55	359	365	370	362	362	374	390	389	392	401	383	237	280	297	362	369			
60	298	291	312	302	301	311	337	317	323	323	296	178	170	187	273	297			
65	228	234	237	233	238	247	241	249	256	247	191	101	65.8	85.2	162	237			
70	158	164	161	165	167	174	173	178	178	172	103	20.4	8.39	9.83	75.6	159			
75	97.2	94.4	95.7	99.8	102	105	103	106	112	89.4	19.1	2.27	1.08	2.02	8.20	75.8			
80	39.1	39.4	44.5	43.3	43.5	47.2	48.9	45.3	43.6	34.0	1.41	0.27	0.61	1.01	0.47	16.7			
85	0.36	1.18	5.20	4.00	3.40	5.11	6.51	2.00	0.81	0.61	0.27	0.27	0.61	1.01	0.47	0.34			
90	4.67	5.85	4.93	0.01	0.01	0.16	4.53	3.62	1.11	0.60	0.54	0.70	1.22	2.09	0.87	1.22			
95	0.82	0.90	1.09	0.14	0.00	0.41	1.56	1.37	1.01	0.41	0.27	0.67	0.61	1.82	0.27	0.41			
100	0.07	0.34	0.61	0.14	0.00	0.07	1.22	0.75	0.48	0.41	0.27	0.47	0.13	1.14	0.27	0.41			
105	0.07	0.27	0.41	0.14	0.00	0.00	0.41	0.48	0.48	0.41	0.27	0.41	0.13	0.27	0.27	0.41			
110	0.07	0.27	0.41	0.07	0.00	0.00	0.34	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
115	0.07	0.27	0.41	0.07	0.00	0.00	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
120	0.14	0.27	0.41	0.07	0.00	0.00	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
125	0.14	0.27	0.41	0.07	0.07	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
130	0.14	0.27	0.41	0.07	0.00	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
135	0.14	0.27	0.41	0.07	0.00	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
140	0.14	0.27	0.41	0.07	0.00	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
145	0.14	0.27	0.41	0.07	0.07	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
150	0.14	0.27	0.41	0.07	0.07	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.27	0.41			
155	0.14	0.27	0.41	0.07	0.07	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.20	0.34	0.41			
160	0.14	0.27	0.41	0.07	0.07	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.07	0.20	0.41			
165	0.14	0.27	0.41	0.07	0.07	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.07	0.20	0.34			
170	0.14	0.27	0.41	0.14	0.07	0.07	0.27	0.27	0.48	0.41	0.27	0.41	0.13	0.07	0.20	0.27			
175	0.41	0.27	0.41	0.14	0.07	0.07	0.27	0.34	0.48	0.41	0.27	0.41	0.13	0.07	0.14	0.27			
180	0.41	0.27	0.41	0.14	0.07	0.07	0.27	0.41	0.41	0.41	0.27	0.41	0.13	0.07	0.07	0.27			

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: