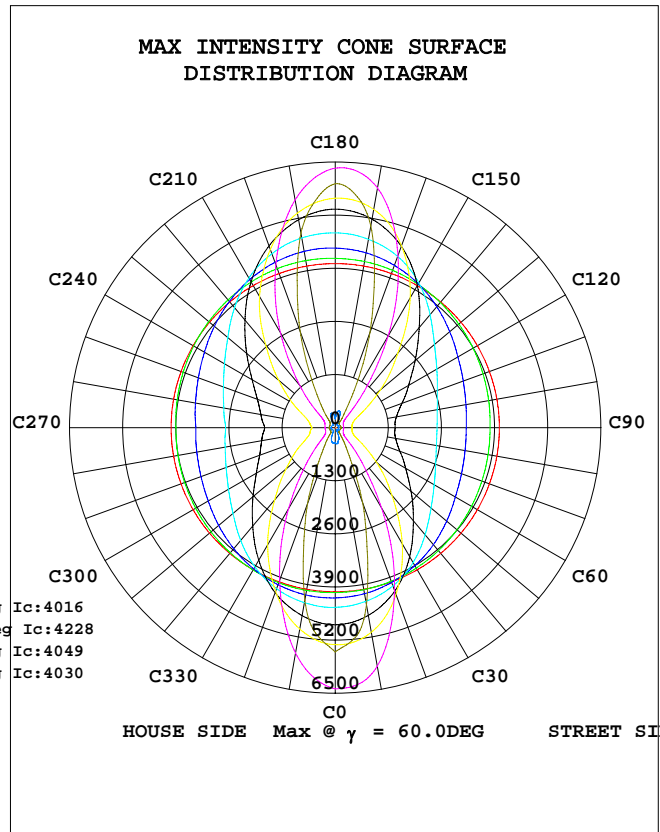
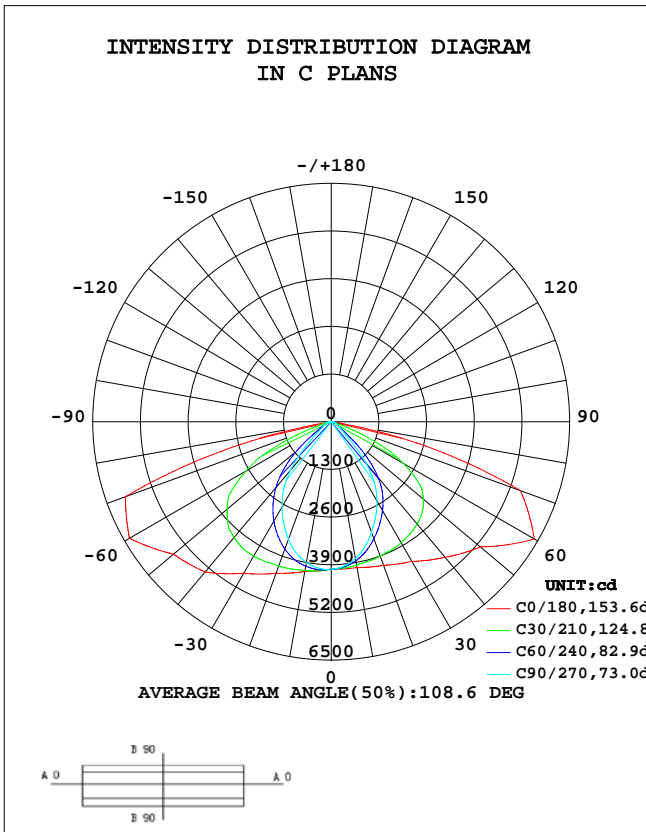


STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 139.87 lm/W			
MODEL	SPL-H80	I _{max} (cd)	6393	η street_up(%)	0.0
NOMINAL POWER(W)	80	LOR(%)	100.0	η street_down(%)	49.0
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	11777	η house_up(%)	0.0
NOMINAL FLUX(lm)	11777	MAXIMUM @(C,γ)	0,60.0	η house_down(%)	51.0
LAMPS INSIDE	1	η up(%)	0.0	76 FLASHAREA(m2)	0.05000
TEST VOLTAGE(V)	220.4	η down(%)	100.0	SLI	0.000



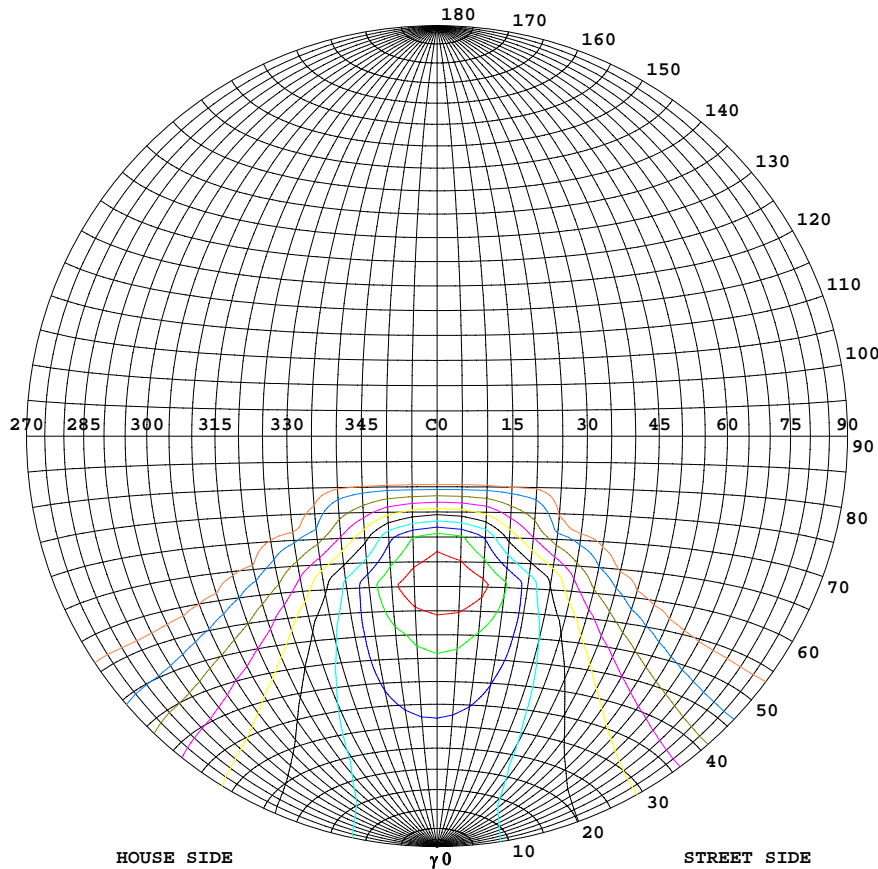
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:

Note: SLI:Specific Luminaire Index

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:



Classification:

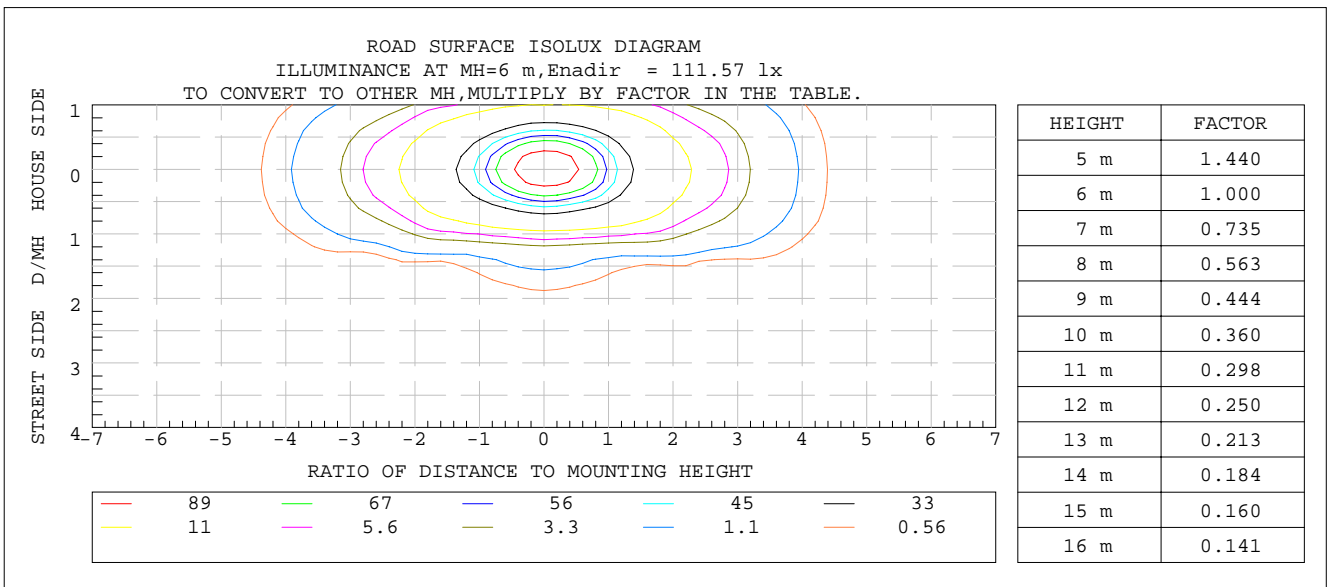
IES:Type I - Short
 CIE:Narrow - Intermediate
 IES:Cut-off
 CIE:Semi-cut-off
 Max.At80:35.54cd/klm
 Max.At90:0.2566cd/klm
 Max.80-90:35.54cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	6393
90%	5754
80%	5115
70%	4475
60%	3836
50%	3197
40%	2557
30%	1918
20%	1279
10%	639
5%	320

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Grace
 Test Date: 2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 10.600m [K=1.0000]
 Remarks:



ZONAL FLUX DIAGRAM

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	*lum,lamp
5	4026	3990	3954	4026	4080	4068	4006	4029	0- 5	96.27	96.27	0.82,0.82
10	4036	3908	3789	3972	4144	4062	3900	3982	5- 10	286.4	382.6	3.25,3.25
15	4101	3786	3531	3877	4270	4021	3703	3903	10- 15	467.6	850.2	7.22,7.22
20	4166	3648	3207	3761	4396	3948	3412	3795	15- 20	634.5	1485	12.6,12.6
25	4281	3454	2863	3577	4582	3805	3065	3631	20- 25	781.7	2266	19.2,19.2
30	4395	3232	2493	3375	4768	3630	2683	3429	25- 30	908.6	3175	27,27
35	4610	2984	2067	3137	5058	3406	2266	3181	30- 35	1012	4187	35.6,35.6
40	4825	2690	1467	2851	5348	3121	1730	2873	35- 40	1083	5270	44.7,44.7
45	5067	2261	786.4	2432	5482	2709	1078	2437	40- 45	1101	6371	54.1,54.1
50	5309	1730	419.4	1901	5616	2203	572.1	1918	45- 50	1064	7434	63.1,63.1
55	5851	1017	280.3	1151	5983	1563	358.0	1266	50- 55	1015	8449	71.7,71.7
60	6393	403.3	209.9	475.2	6351	887.6	249.6	637.7	55- 60	969.2	9418	80,80
65	5942	202.0	170.0	219.4	6161	367.2	187.0	281.1	60- 65	880.9	10299	87.5,87.5
70	5490	131.7	143.6	139.6	5970	176.8	153.7	153.2	65- 70	716.3	11015	93.5,93.5
75	2922	91.77	131.7	95.91	3092	108.1	130.9	100.1	70- 75	490.1	11505	97.7,97.7
80	353.3	65.69	91.10	70.49	213.4	79.72	122.9	74.91	75- 80	217.0	11722	99.5,99.5
85	0	20.85	43.03	23.26	0.0000	27.44	67.12	26.05	80- 85	48.45	11771	99.9,99.9
90	0	0	3.022	0	0	0	0	0	85- 90	6.130	11777	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

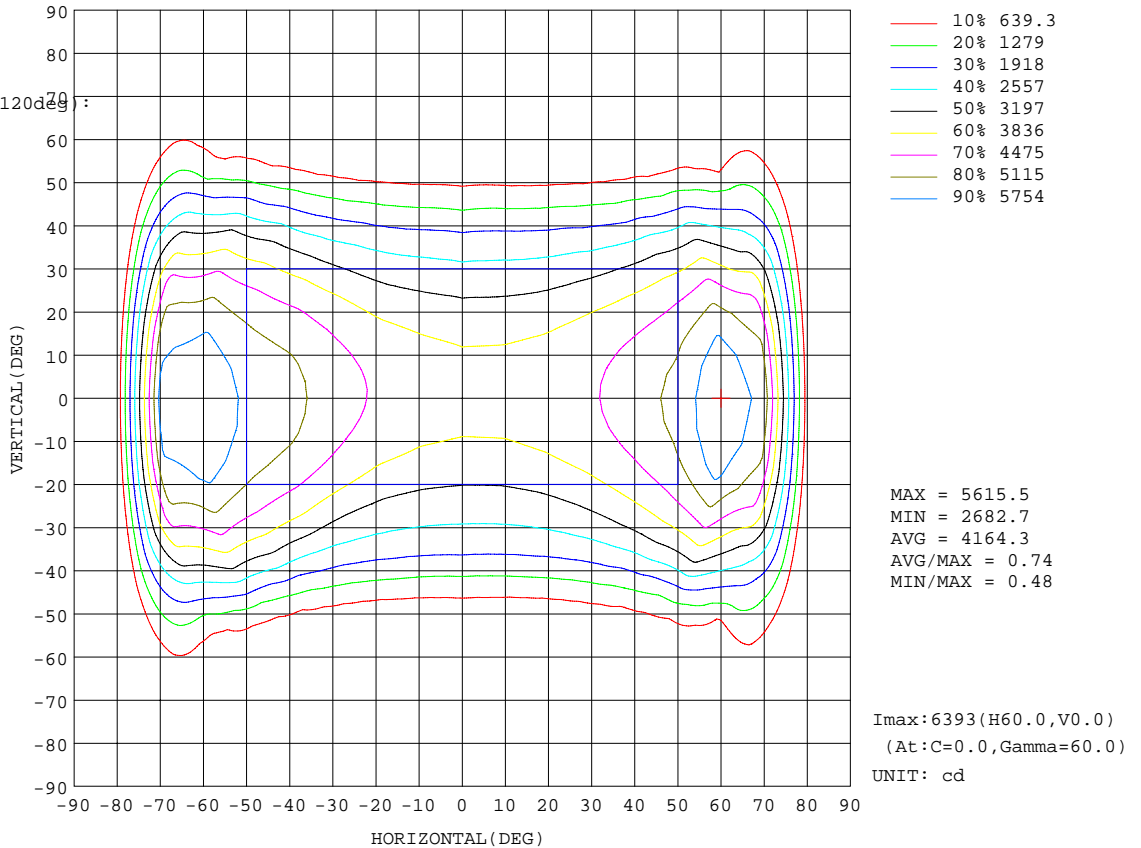
Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

Conical surface Flux(90deg):

6370.6 lm
 %lum = 54.1%
 %lamp = 54.1%

Conical surface Flux(120deg):

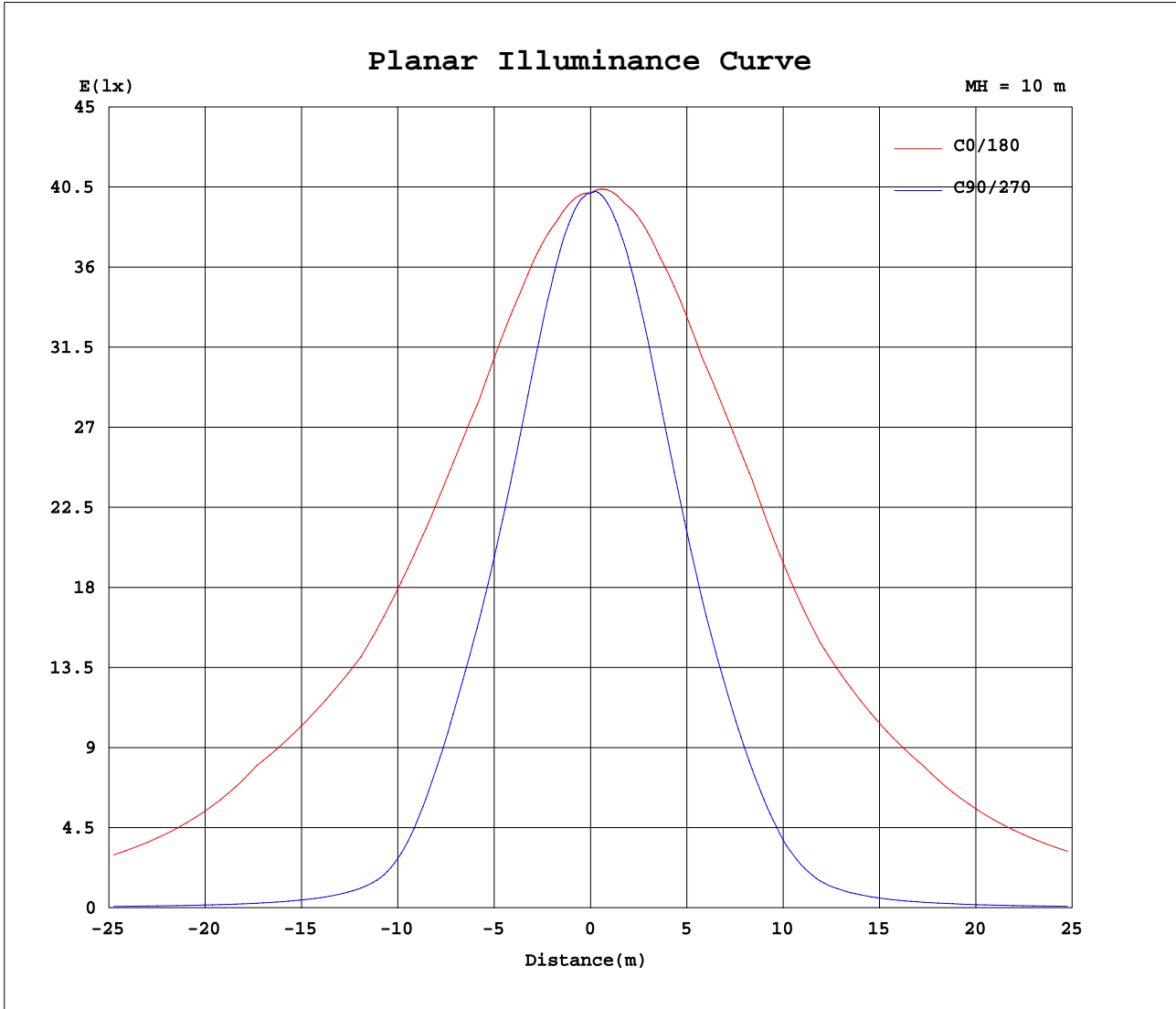
9418.2 lm
 %lum = 80.0%
 %lamp = 80.0%



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:

Planar Illuminance Curve



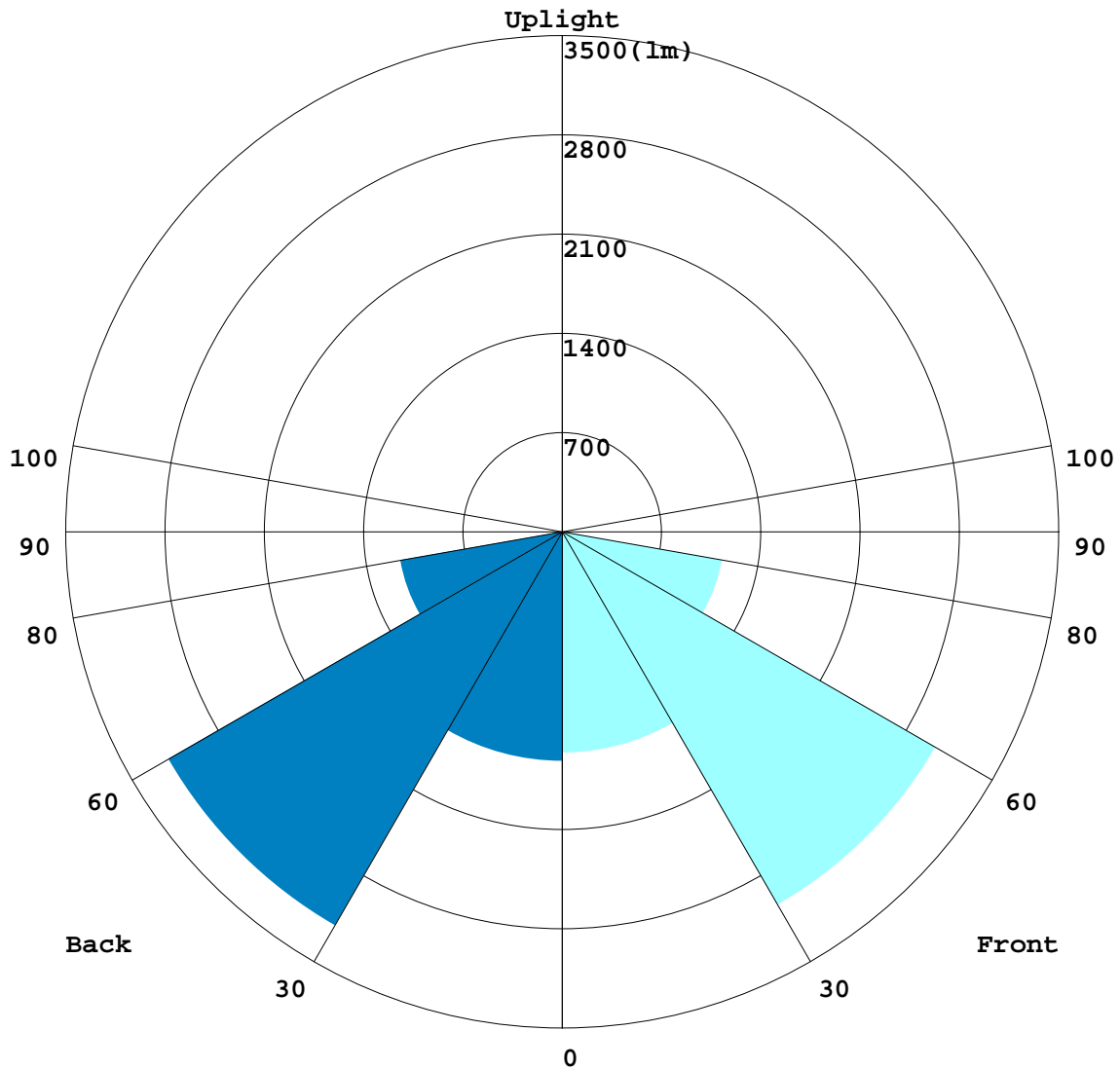
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Grace
 Test Date: 2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity: 65.0%
 Test Distance: 10.600m [K=1.0000]
 Remarks:

LCS REPORT

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:

BUG REPORT

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	1558.4	13.2
FM - Front-Medium(30-60)	3038	25.8
FH - Front-High(60-80)	1145	9.7
FVH - Front-Very High(80-90)	26.142	0.2
Total Forward Light	5767.6	49.0

BL - Back-Low(0-30)	1616.6	13.7
BM - Back-Medium(30-60)	3205.1	27.2
BH - Back-High(60-80)	1159.3	9.8
BVH - Back-Very High(80-90)	28.437	0.2
Total Back Light	6009.5	51.0

UL - Uplight-Low(90-100)	0	0.0
UH - Uplight-High(100-180)	0	0.0
Total Up Light	0	0.0

BUG(Back,Up,Glare) Rating	B3-U0-G3
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	5767.6	0	5767.6
Street Side	6009.5	0	6009.5

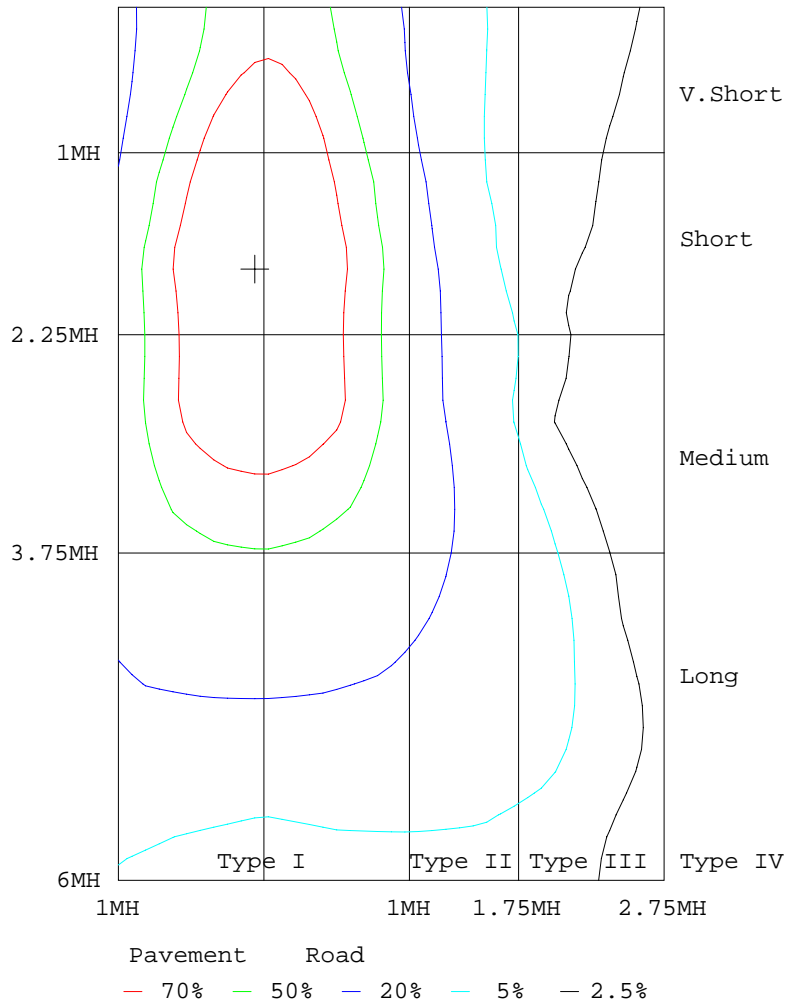
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:

ROAD ISOCANDELA REPORT

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016
5	3959	3966	3973	3981	3990	3999	4008	4017	4026	4035	4044	4052	4058	4065	4070	4075	4078	4080	4084
10	3799	3813	3829	3849	3871	3895	3920	3946	3972	4001	4027	4054	4080	4099	4116	4130	4137	4144	4151
15	3546	3567	3595	3629	3669	3714	3763	3813	3877	3942	4005	4062	4118	4167	4209	4239	4258	4270	4275
20	3223	3249	3286	3335	3395	3467	3559	3658	3761	3867	3969	4067	4153	4229	4294	4345	4379	4396	4399
25	2876	2904	2946	3005	3085	3183	3299	3431	3577	3733	3906	4073	4218	4340	4437	4511	4560	4582	4578
30	2505	2536	2588	2661	2757	2871	3007	3170	3375	3612	3859	4092	4297	4463	4590	4681	4745	4768	4758
35	2072	2109	2172	2262	2380	2522	2692	2899	3137	3421	3754	4076	4363	4604	4794	4934	5025	5058	5032
40	1470	1521	1609	1736	1903	2076	2289	2551	2851	3197	3605	4021	4400	4728	4987	5184	5304	5348	5298
45	781	827	912	1068	1250	1477	1757	2063	2432	2877	3416	3916	4361	4762	5084	5312	5445	5482	5418
50	412	421	444	491	583	774	1062	1443	1901	2387	3019	3671	4239	4739	5151	5424	5583	5616	5528
55	276	278	287	295	313	356	461	733	1151	1732	2514	3300	4001	4660	5257	5695	5939	5983	5825
60	207	209	210	212	218	229	252	303	475	957	1644	2586	3566	4489	5324	5957	6294	6351	6116
65	167	165	161	162	163	167	173	187	219	326	819	1659	2672	3631	4613	5537	6039	6161	5874
70	143	141	134	129	126	127	127	137	140	156	319	597	1400	2486	3693	5018	5721	5970	5578
75	137	118	110	107	104	108	111	106	95.9	96.5	108	155	598	1364	2048	2747	3019	3092	2943
80	82.1	80.3	80.9	81.3	85.5	110	103	84.0	70.5	70.2	78.5	94.3	191	352	419	415	316	213	306
85	46.1	45.5	48.8	50.2	47.9	54.9	57.6	36.6	23.3	17.6	14.9	12.4	13.2	15.7	12.4	7.95	2.99	0.00	2.84
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

Table--3

UNIT: cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016
5	4086	4088	4088	4086	4083	4079	4074	4068	4061	4054	4047	4040	4033	4026	4019	4012	4006	4008	4009
10	4153	4150	4144	4132	4119	4102	4083	4062	4041	4021	4000	3980	3961	3943	3928	3914	3900	3904	3908
15	4270	4255	4229	4198	4158	4117	4071	4021	3971	3927	3885	3845	3808	3775	3747	3725	3703	3710	3718
20	4383	4350	4309	4251	4187	4112	4033	3948	3861	3778	3696	3627	3566	3514	3473	3443	3412	3426	3440
25	4548	4496	4418	4323	4211	4079	3937	3805	3674	3550	3439	3342	3260	3193	3141	3103	3065	3086	3106
30	4715	4643	4531	4397	4228	4038	3835	3630	3433	3270	3130	3011	2913	2834	2770	2726	2683	2709	2735
35	4947	4815	4650	4443	4208	3955	3678	3406	3166	2951	2770	2625	2512	2428	2358	2312	2266	2299	2330
40	5169	4975	4737	4451	4122	3783	3437	3121	2830	2570	2349	2171	2028	1923	1847	1788	1730	1780	1828
45	5260	5023	4725	4363	3975	3558	3108	2709	2373	2107	1831	1607	1438	1303	1225	1152	1078	1147	1213
50	5332	5040	4646	4186	3705	3185	2648	2203	1810	1476	1208	968	797	692	635	604	572	602	627
55	5503	5045	4491	3913	3340	2724	2079	1563	1147	808	592	474	415	389	373	366	358	364	365
60	5661	5008	4250	3463	2682	1942	1355	888	531	377	312	286	270	260	255	252	250	251	248
65	5289	4374	3494	2628	1837	1133	614	367	259	224	212	200	195	193	191	189	187	188	186
70	4839	3598	2517	1494	821	476	254	177	163	159	152	147	146	148	150	152	154	151	148
75	2621	1988	1377	697	276	148	117	108	112	115	115	114	118	122	127	129	131	129	126
80	345	368	314	196	117	94.1	82.9	79.7	83.9	91.6	98.7	92.9	97.1	99.5	102	112	123	109	100
85	6.27	10.4	12.8	11.6	13.0	16.8	21.0	27.4	40.7	62.7	77.3	71.8	71.6	71.1	69.7	68.4	67.1	54.4	62.5
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.4V I:0.3920A P:84.20W PF:0.9730 Lamp Flux:11777x1 lm		
NAME: LED Street Light	TYPE:Pure White	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SPARK	SUR.:	Shielding Angle:

Table--4

UNIT: cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016	4016				
5	4011	4014	4017	4019	4022	4025	4029	4031	4033	4035	4036	4036	4035	4032	4030				
10	3914	3922	3932	3943	3956	3969	3982	3997	4009	4021	4031	4038	4044	4045	4042				
15	3732	3752	3775	3803	3833	3865	3903	3942	3978	4012	4043	4068	4089	4102	4106				
20	3463	3497	3539	3590	3655	3724	3795	3865	3931	3992	4046	4092	4128	4156	4169				
25	3139	3186	3248	3326	3419	3520	3631	3742	3856	3967	4062	4143	4207	4252	4278				
30	2782	2842	2919	3017	3131	3266	3429	3601	3773	3934	4078	4194	4286	4348	4391				
35	2383	2446	2536	2658	2804	2980	3181	3407	3643	3867	4076	4256	4400	4514	4588				
40	1890	1968	2087	2230	2410	2629	2873	3142	3442	3744	4037	4299	4508	4671	4783				
45	1270	1374	1516	1702	1933	2156	2437	2789	3185	3572	3946	4303	4606	4842	5001				
50	659	742	875	1079	1300	1574	1918	2305	2795	3307	3798	4270	4686	5004	5223				
55	369	386	424	510	664	930	1266	1712	2299	2930	3544	4167	4788	5313	5682				
60	248	252	261	275	318	408	638	1014	1548	2282	3116	3982	4841	5601	6129				
65	186	185	186	191	198	219	281	387	807	1464	2248	3116	4010	4997	5640				
70	145	142	139	141	144	147	153	175	334	550	1056	1996	2986	4294	5091				
75	121	116	113	111	109	106	100	102	123	155	412	1061	1638	2342	2735				
80	98.0	95.7	92.3	105	92.6	82.4	74.9	74.8	83.4	92.7	148	278	346	374	386				
85	69.2	69.6	69.0	76.7	61.4	40.1	26.0	19.2	15.6	12.0	10.9	12.6	10.4	7.23	3.85				
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Grace
 Test Date:2017-04-19

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.295
 Humidity:65.0%
 Test Distance:10.600m [K=1.0000]
 Remarks: