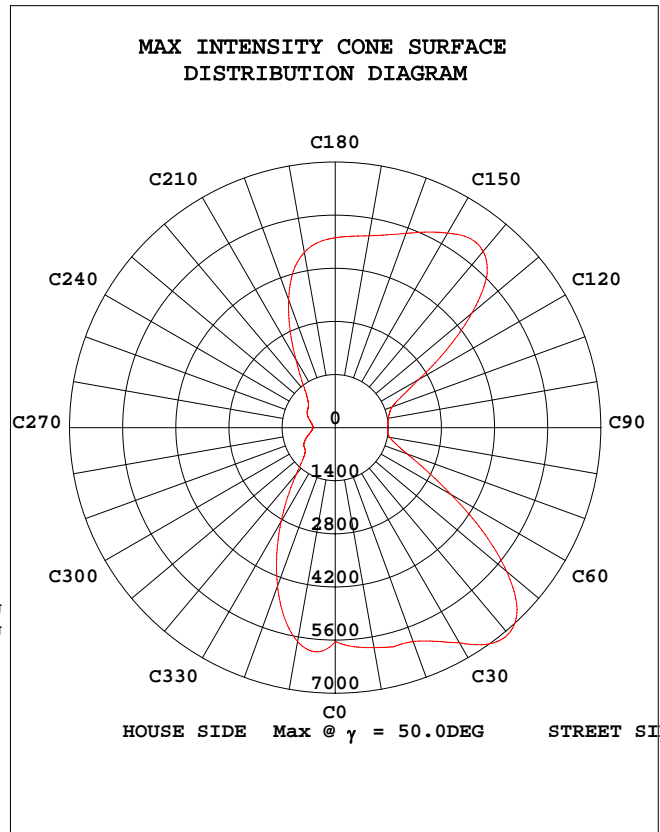
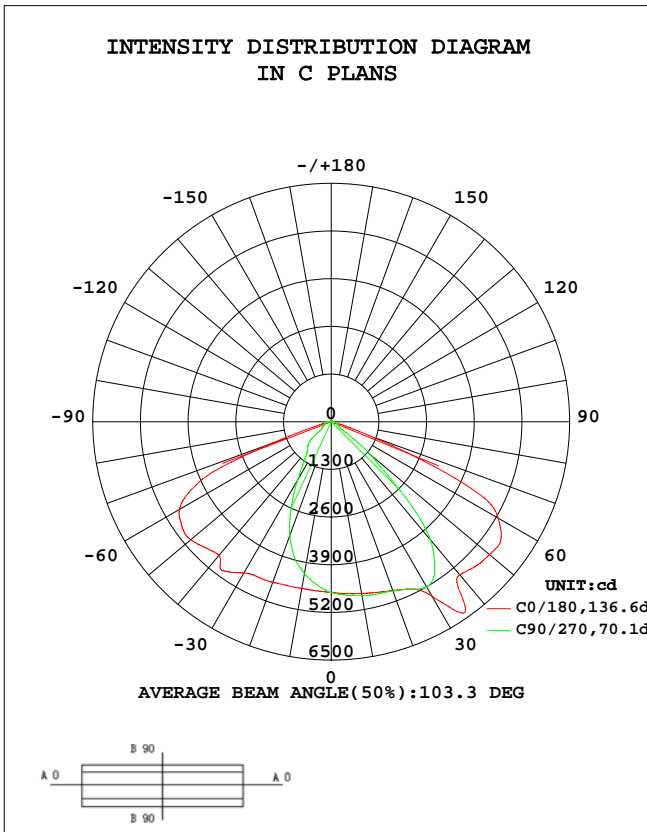


STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:220.3V I:0.4830A P:100.3W PF:0.9410 Lamp Flux:14002.5x1 lm		
NAME: LED STREET LIGHT	TYPE:IP66	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 139.61 lm/W			
MODEL	QH-STL-LD90S-100W	I _{max} (cd)	6779	η street_up(%)	0.3
NOMINAL POWER(W)	100	LOR(%)	100.0	η street_down(%)	60.8
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	14002	η house_up(%)	0.4
NOMINAL FLUX(lm)	14002.5	MAXIMUM @(C,γ)	45,50.0	η house_down(%)	38.4
LAMPS INSIDE	1	η up(%)	0.7	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	220.1	η down(%)	99.3	SLI	17.380

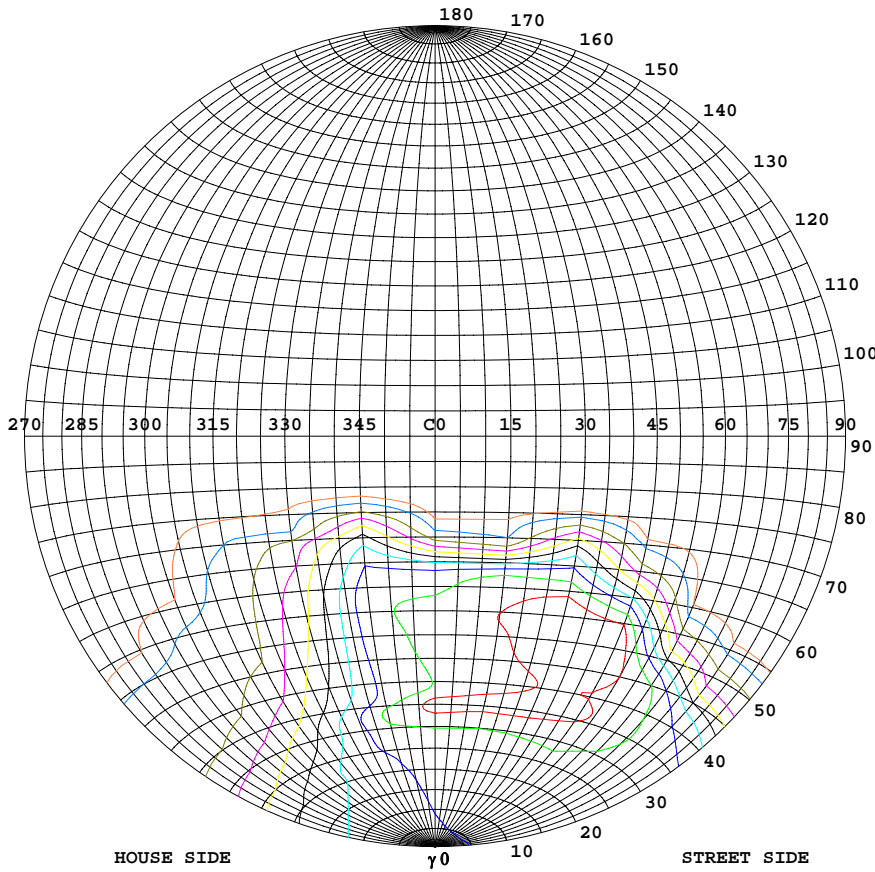


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-01-08

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:220.3V I:0.4830A P:100.3W PF:0.9410 Lamp Flux:14002.5x1 lm		
NAME: LED STREET LIGHT	TYPE:IP66	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:



Classification:

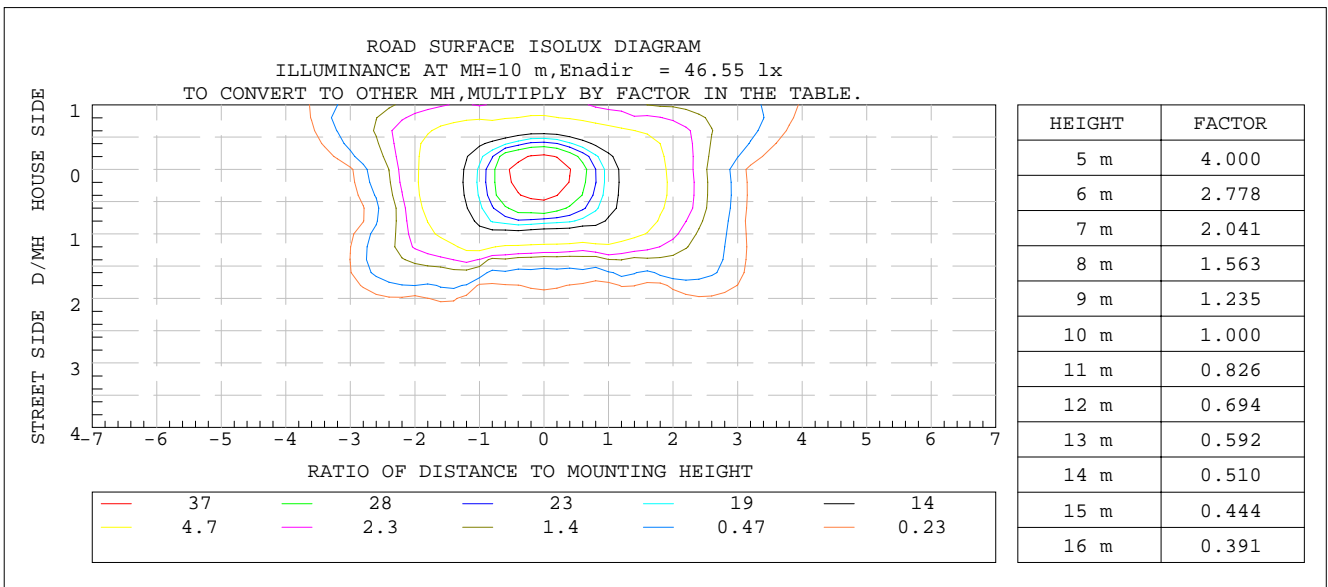
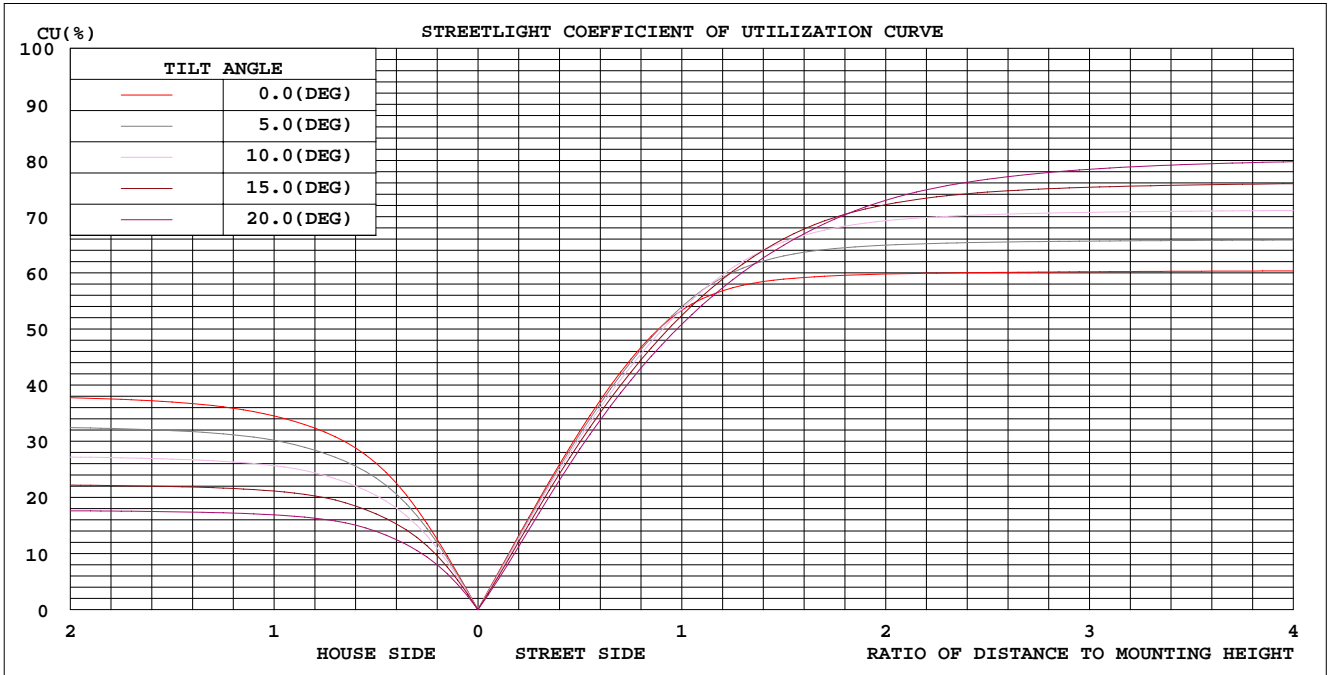
IES:Type II - Very Short
 CIE:Narrow - Short
 IES:Cut-off
 CIE:Semi-cut-off
 Max.At80:35.73cd/klm
 Max.At90:3.354cd/klm
 Max.80-90:35.73cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	6779
90%	6101
80%	5423
70%	4745
60%	4067
50%	3390
40%	2712
30%	2034
20%	1356
10%	678
5%	339

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-01-08

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2016-01-08

γ Range: 0 - 180DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.287
Humidity: 65.0%
Test Distance: 8.000m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

Test:U:220.3V I:0.4830A P:100.3W PF:0.9410 Lamp Flux:14002.5x1 lm		
NAME: LED STREET LIGHT	TYPE:IP66	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	4704	4756	4747	4704	4627	4507	4466	4563	0- 5	111.0	111.0	0.79,0.79
10	4756	4845	4812	4747	4617	4330	4201	4438	5- 10	330.0	441.1	3.15,3.15
15	4816	4942	4863	4786	4626	4134	3849	4271	10- 15	541.5	982.6	7.02,7.02
20	4897	5061	4913	4823	4661	3853	3302	4057	15- 20	739.5	1722	12.3,12.3
25	5031	5271	5039	4906	4682	3460	2584	3721	20- 25	921.0	2643	18.9,18.9
30	5490	5566	5199	5036	4762	2918	1836	3174	25- 30	1082	3726	26.6,26.6
35	6349	6152	4916	5198	4983	2285	1262	2510	30- 35	1241	4967	35.5,35.5
40	5449	6086	4206	5368	4765	1695	1012	1929	35- 40	1340	6306	45,45
45	5569	6429	2677	5622	4856	1277	890.1	1503	40- 45	1389	7695	55,55
50	5632	6779	1382	5651	5003	1024	588.1	1226	45- 50	1386	9081	64.9,64.9
55	5640	6020	314.9	4363	4970	920.1	310.5	1096	50- 55	1317	10397	74.3,74.3
60	5250	4016	221.3	2322	4781	850.4	269.3	1005	55- 60	1196	11593	82.8,82.8
65	3988	1797	211.7	749.1	4060	767.9	222.5	900.0	60- 65	1029	12622	90.1,90.1
70	1089	550.7	208.2	245.6	1688	555.8	212.7	676.8	65- 70	721.4	13343	95.3,95.3
75	211.6	149.6	193.2	155.8	332.7	308.6	159.7	280.8	70- 75	352.5	13696	97.8,97.8
80	99.11	96.31	124.3	104.8	105.7	116.0	114.7	116.6	75- 80	126.7	13823	98.7,98.7
85	56.77	56.87	68.56	67.28	66.02	56.00	167.6	53.23	80- 85	51.33	13874	99.1,99.1
90	27.79	21.07	12.06	30.46	31.84	23.07	15.18	18.51	85- 90	25.64	13900	99.3,99.3
95	24.89	9.301	3.403	12.42	23.33	9.577	1.064	8.212	90- 95	9.067	13909	99.3,99.3
100	24.87	7.055	1.398	8.742	19.48	8.993	1.342	6.856	95-100	5.612	13914	99.4,99.4
105	35.15	6.345	2.082	7.934	33.88	9.822	1.982	8.758	100-105	5.605	13920	99.4,99.4
110	20.36	7.551	3.180	9.657	21.29	13.18	5.644	10.44	105-110	6.025	13926	99.5,99.5
115	19.71	8.462	6.125	10.98	18.79	15.64	11.12	13.38	110-115	6.060	13932	99.5,99.5
120	20.07	10.78	9.150	13.21	19.14	18.06	15.51	15.92	115-120	6.710	13939	99.5,99.5
125	20.92	12.99	9.922	15.84	20.08	19.74	18.00	17.83	120-125	7.249	13946	99.6,99.6
130	21.52	14.58	11.81	17.25	21.00	21.11	20.60	19.86	125-130	7.596	13954	99.7,99.7
135	21.90	15.97	14.22	18.24	21.75	21.69	21.67	21.73	130-135	7.691	13961	99.7,99.7
140	22.04	17.16	15.52	18.95	22.75	22.38	23.01	23.04	135-140	7.446	13969	99.8,99.8
145	22.12	18.32	16.91	19.58	24.01	23.52	23.85	24.31	140-145	7.011	13976	99.8,99.8
150	22.31	19.54	18.70	20.33	24.76	25.23	24.04	24.88	145-150	6.457	13982	99.9,99.9
155	22.74	20.69	20.34	20.94	25.24	26.43	24.81	25.53	150-155	5.784	13988	99.9,99.9
160	23.16	22.10	21.93	21.77	25.54	26.89	25.96	26.29	155-160	4.973	13993	99.9,99.9
165	23.90	23.37	23.13	22.72	26.13	27.26	27.31	26.81	160-165	4.051	13997	100,100
170	24.79	24.56	24.53	24.24	26.71	27.28	28.11	27.21	165-170	3.022	14000	100,100
175	25.83	25.64	25.63	25.43	27.00	27.16	27.86	27.42	170-175	1.873	14002	100,100
180	26.40	26.52	26.74	26.39	26.69	26.65	26.94	26.69	175-180	0.6336	14002	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-01-08

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.3V I:0.4830A P:100.3W PF:0.9410 Lamp Flux:14002.5x1 lm		
NAME: LED STREET LIGHT	TYPE:IP66	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

Conical surface Flux(90deg):

7695 lm

%lum = 55.0%

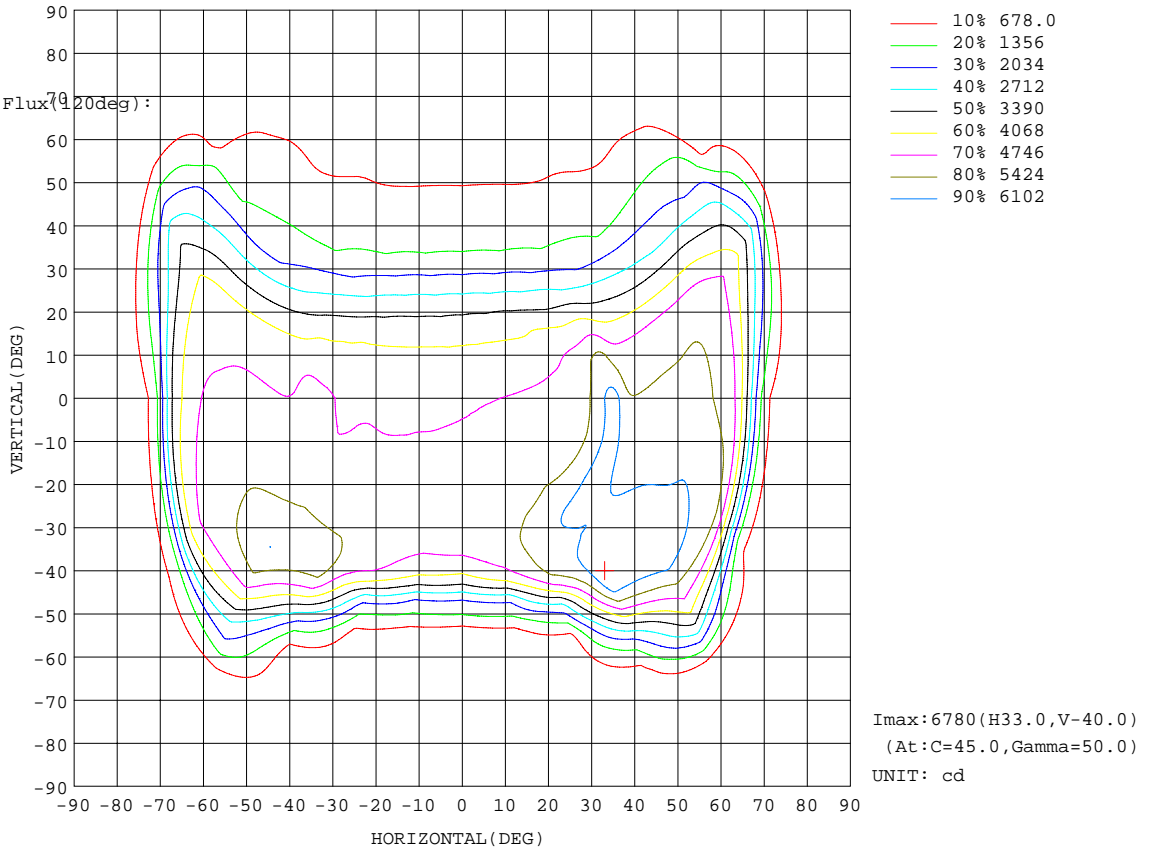
%lamp = 55.0%

Conical surface Flux(70deg):

11593 lm

%lum = 82.8%

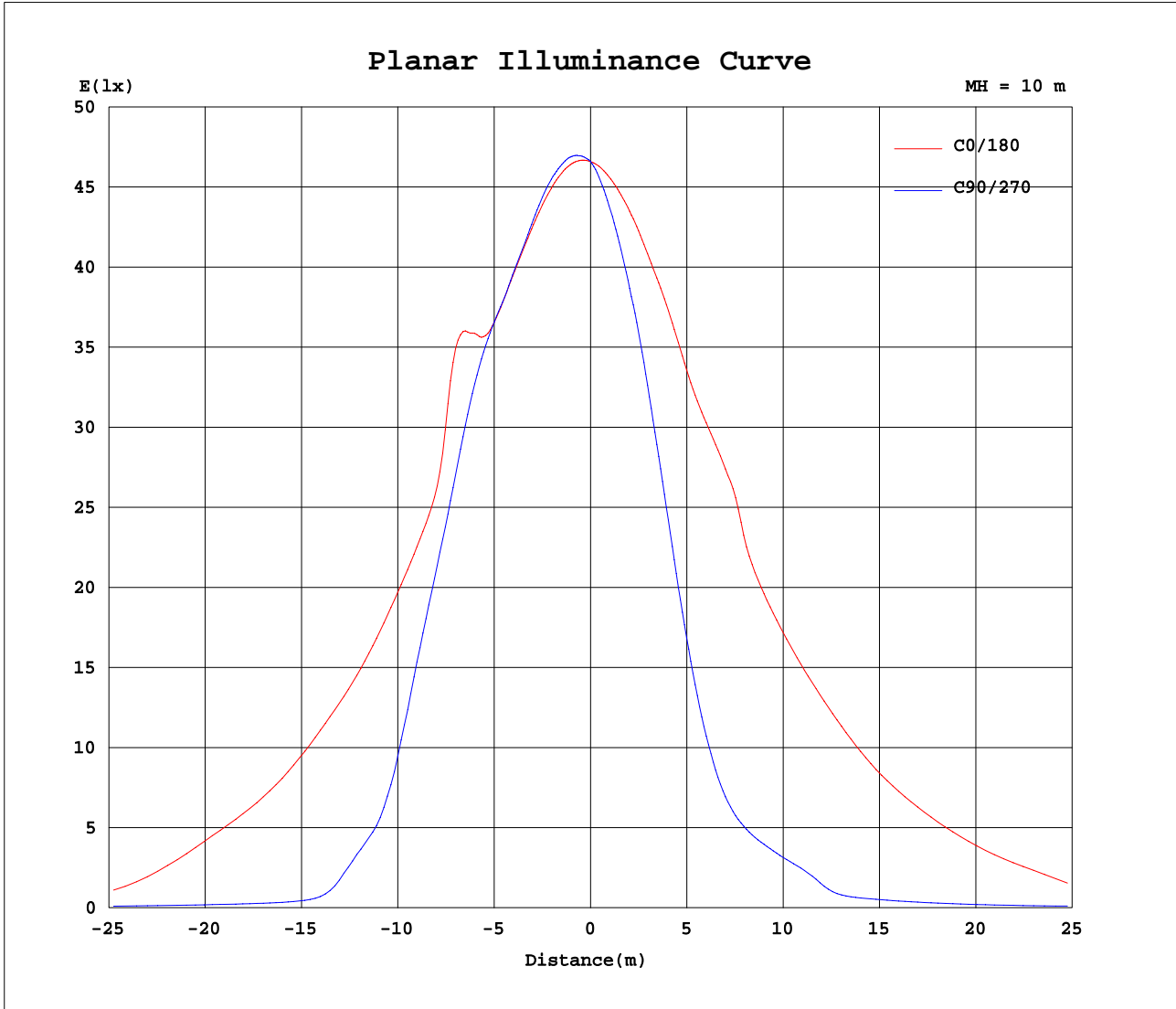
%lamp = 82.8%



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-01-08

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2016-01-08

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 8.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.3V I:0.4830A P:100.3W PF:0.9410 Lamp Flux:14002.5x1 lm		
NAME: LED STREET LIGHT	TYPE:IP66	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657	4657
5	4704	4728	4746	4756	4758	4756	4747	4736	4720	4704	4684	4660	4627	4588	4547	4507	4479	4463	4466
10	4756	4806	4831	4845	4843	4833	4812	4796	4773	4747	4712	4673	4617	4532	4427	4330	4252	4202	4201
15	4816	4880	4913	4942	4934	4901	4863	4841	4810	4786	4742	4698	4626	4491	4315	4134	3979	3861	3849
20	4897	4970	5025	5061	5049	4971	4913	4872	4835	4823	4773	4731	4661	4464	4190	3853	3543	3334	3302
25	5031	5096	5190	5271	5197	5030	5039	4953	4881	4906	4850	4762	4682	4444	4024	3460	2985	2659	2584
30	5490	5429	5510	5566	5380	5110	5199	5064	4942	5036	4944	4756	4762	4541	3716	2918	2300	1925	1836
35	6349	6352	6420	6152	5650	5077	4916	4901	5014	5198	5151	4889	4983	4482	3372	2285	1612	1314	1262
40	5449	5719	6137	6086	5693	4772	4206	4414	5032	5368	5342	5035	4765	4270	2928	1695	1160	1016	1012
45	5569	5872	6348	6429	5434	3400	2677	3084	4540	5622	5530	5029	4856	4262	2482	1277	974	884	890
50	5632	5979	6547	6779	3515	1655	1382	1487	2530	5651	5918	5262	5003	4277	2075	1024	858	684	588
55	5640	6084	6519	6020	1658	512	315	459	1136	4363	6085	5263	4970	4296	1747	920	700	309	311
60	5250	5891	5853	4016	386	218	221	217	310	2322	5382	5201	4781	4301	1510	850	354	264	269
65	3988	3897	4655	1797	215	193	212	194	200	749	3946	4688	4060	4029	1300	768	255	220	223
70	1089	678	2907	551	182	208	208	175	174	246	2356	2236	1688	3412	1049	556	203	181	213
75	212	227	496	150	143	138	193	158	141	156	835	496	333	2177	330	309	156	177	160
80	99.1	108	92.6	96.3	107	107	124	113	112	105	117	181	106	500	200	116	116	114	115
85	56.8	64.3	62.7	56.9	60.3	64.1	68.6	66.9	66.0	67.3	70.6	89.9	66.0	111	77.3	56.0	56.0	56.9	168
90	27.8	29.1	25.9	21.1	20.7	16.6	12.1	22.4	27.8	30.5	40.8	47.0	31.8	41.7	35.6	23.1	21.8	16.8	15.2
95	24.9	21.3	15.1	9.30	6.66	4.00	3.40	5.16	8.79	12.4	18.8	26.4	23.3	24.2	16.6	9.58	4.91	1.50	1.06
100	24.9	21.2	12.7	7.05	3.33	1.64	1.40	1.66	3.81	8.74	15.3	22.4	19.5	18.4	14.1	8.99	3.72	1.39	1.34
105	35.2	20.9	11.4	6.34	3.31	2.35	2.08	2.37	3.83	7.93	13.9	22.7	33.9	21.3	14.7	9.82	5.25	2.54	1.98
110	20.4	16.5	11.9	7.55	4.60	3.42	3.18	3.47	4.96	9.66	14.8	20.9	21.3	20.4	16.6	13.2	10.6	7.48	5.64
115	19.7	16.4	13.1	8.46	6.61	5.77	6.13	6.00	7.41	11.0	15.9	19.9	18.8	19.7	18.0	15.6	12.7	9.89	11.1
120	20.1	17.0	14.4	10.8	7.98	7.17	9.15	7.64	9.14	13.2	17.1	20.5	19.1	20.6	19.2	18.1	16.4	13.9	15.5
125	20.9	18.2	16.1	13.0	9.84	8.48	9.92	9.07	11.2	15.8	18.9	21.5	20.1	22.1	20.7	19.7	18.9	17.9	18.0
130	21.5	19.4	17.6	14.6	12.3	10.8	11.8	11.0	13.8	17.3	20.1	22.7	21.0	23.3	22.5	21.1	20.8	20.1	20.6
135	21.9	20.2	18.7	16.0	13.5	13.2	14.2	13.7	15.2	18.2	20.6	23.0	21.7	23.9	23.2	21.7	21.9	22.0	21.7
140	22.0	20.6	19.4	17.2	15.1	14.6	15.5	15.3	16.7	18.9	20.7	22.8	22.7	24.3	23.9	22.4	22.5	23.2	23.0
145	22.1	21.1	20.0	18.3	16.7	16.4	16.9	16.9	18.0	19.6	20.8	22.5	24.0	25.2	25.2	23.5	22.8	23.3	23.8
150	22.3	21.6	20.7	19.5	18.5	18.2	18.7	18.9	19.4	20.3	21.1	22.6	24.8	25.8	26.2	25.2	23.8	23.5	24.0
155	22.7	22.2	21.5	20.7	20.3	20.1	20.3	20.6	20.7	20.9	21.6	22.8	25.2	26.0	26.8	26.4	25.3	24.7	24.8
160	23.2	22.9	22.4	22.1	21.7	21.8	21.9	21.7	21.7	21.8	22.1	23.2	25.5	26.1	26.7	26.9	26.5	26.1	26.0
165	23.9	23.9	23.5	23.4	23.2	23.3	23.1	22.9	22.7	22.7	23.2	24.1	26.1	26.4	26.9	27.3	27.2	27.3	27.3
170	24.8	24.9	24.7	24.6	24.6	24.7	24.5	24.2	24.3	24.2	24.4	25.0	26.7	26.8	27.1	27.3	27.6	28.1	28.1
175	25.8	25.8	25.6	25.6	25.7	25.8	25.6	25.5	25.5	25.4	25.4	25.6	27.0	27.0	27.0	27.2	27.4	27.8	27.9
180	26.4	26.4	26.5	26.5	26.6	26.8	26.7	26.6	26.6	26.4	26.1	26.0	26.7	26.7	26.6	26.6	26.7	27.0	26.9

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-01-08

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.3V I:0.4830A P:100.3W PF:0.9410 Lamp Flux:14002.5x1 lm		
NAME: LED STREET LIGHT	TYPE:IP66	WEIGHT:4
SPEC.:PHILIPS 3030	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	4657	4657	4657	4657	4657														
5	4483	4518	4563	4615	4668														
10	4240	4326	4438	4560	4679														
15	3912	4070	4271	4493	4689														
20	3421	3721	4057	4417	4728														
25	2720	3114	3721	4538	4895														
30	1989	2420	3174	4297	5347														
35	1366	1723	2510	3861	5301														
40	1075	1264	1929	3419	4917														
45	943	1072	1503	3111	5040														
50	729	960	1226	2857	5182														
55	328	785	1096	2628	5302														
60	281	395	1005	2394	5193														
65	231	286	900	2012	4693														
70	184	224	677	1307	3633														
75	168	161	281	392	1450														
80	105	110	117	159	145														
85	55.5	52.1	53.2	65.1	76.0														
90	13.6	18.6	18.5	29.5	28.9														
95	1.30	3.85	8.21	16.3	20.8														
100	1.39	2.71	6.86	13.3	18.4														
105	2.15	3.71	8.76	12.8	20.1														
110	6.09	8.84	10.4	14.1	16.8														
115	8.25	10.6	13.4	15.7	17.5														
120	12.7	13.9	15.9	17.1	18.5														
125	14.7	16.4	17.8	18.7	19.8														
130	17.8	18.5	19.9	20.7	21.1														
135	20.1	20.2	21.7	22.3	21.9														
140	21.8	22.1	23.0	23.4	22.5														
145	23.4	23.5	24.3	24.2	23.3														
150	24.0	24.2	24.9	25.0	24.1														
155	25.0	25.1	25.5	25.6	24.6														
160	25.8	25.9	26.3	25.9	24.8														
165	27.0	27.0	26.8	26.3	25.2														
170	27.8	27.8	27.2	26.6	25.8														
175	27.7	27.8	27.4	26.5	26.2														
180	26.8	26.9	26.7	26.2	26.1														

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2016-01-08

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:8.000m [K=1.0000]
 Remarks: