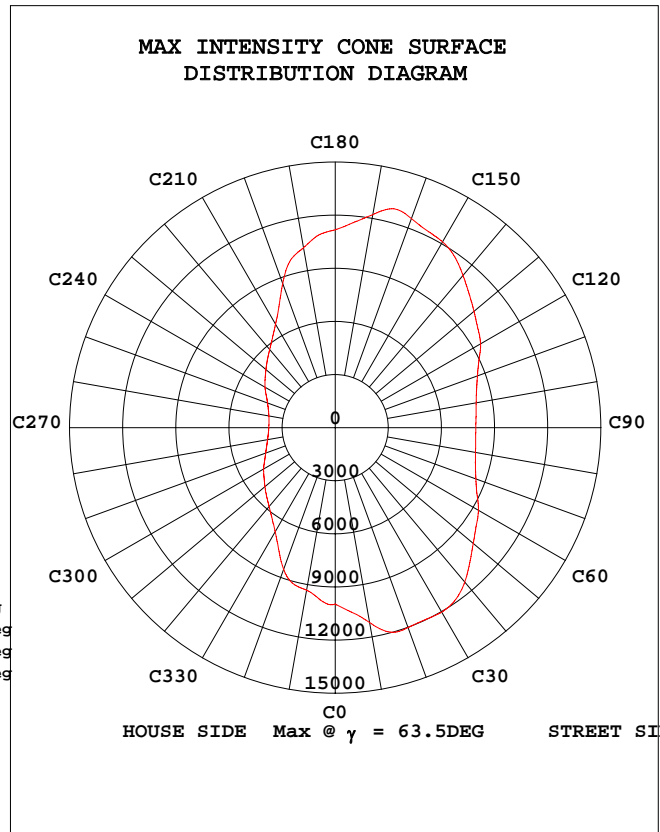
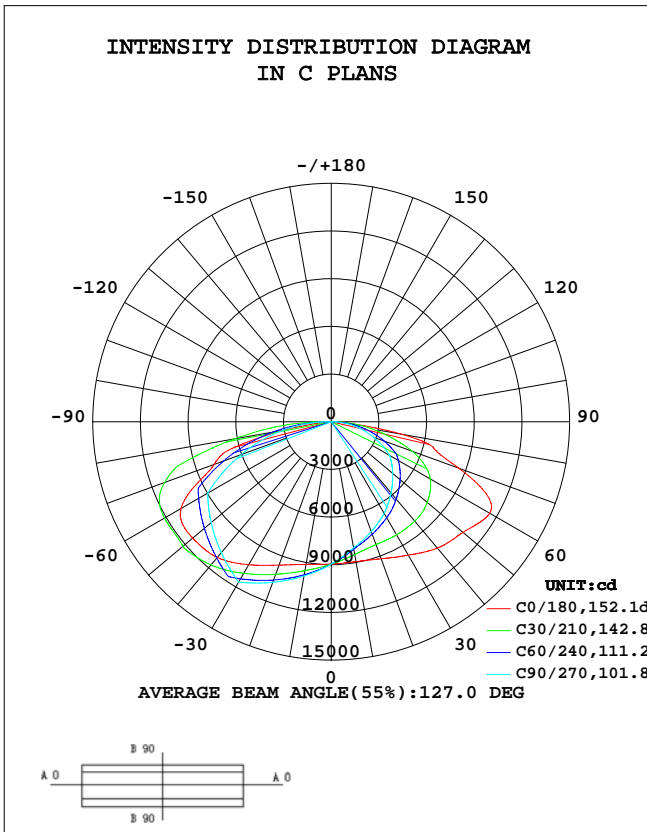


STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm		
NAME: LED Area Lighting	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 139.50 lm/W			
MODEL	KLSBAL320	I _{max} (cd)	12799	η street_up(%)	0.0
NOMINAL POWER(W)	318	LOR(%)	100.0	η street_down(%)	60.6
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	44096	η house_up(%)	0.0
NOMINAL FLUX(lm)	44095.8	MAXIMUM @(C,γ)	165,63.5	η house_down(%)	39.4
LAMPS INSIDE	1	η up(%)	0.0	76 FLASHAREA(m2)	0.05000
TEST VOLTAGE(V)	230.6	η down(%)	100.0	SLI	25.386



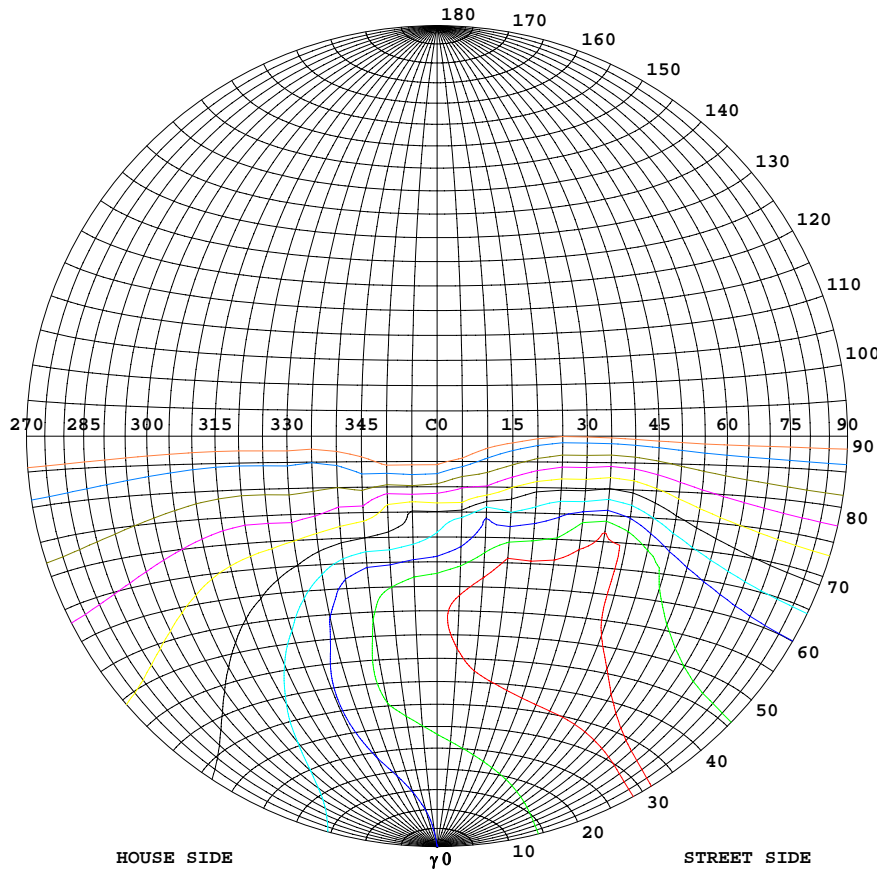
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:31DEG
 Operators:01
 Test Date:2017-07-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9684]
 Remarks:

Note: SLI:Specific Luminaire Index

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm		
NAME: LED Area Lighting	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:



Classification:

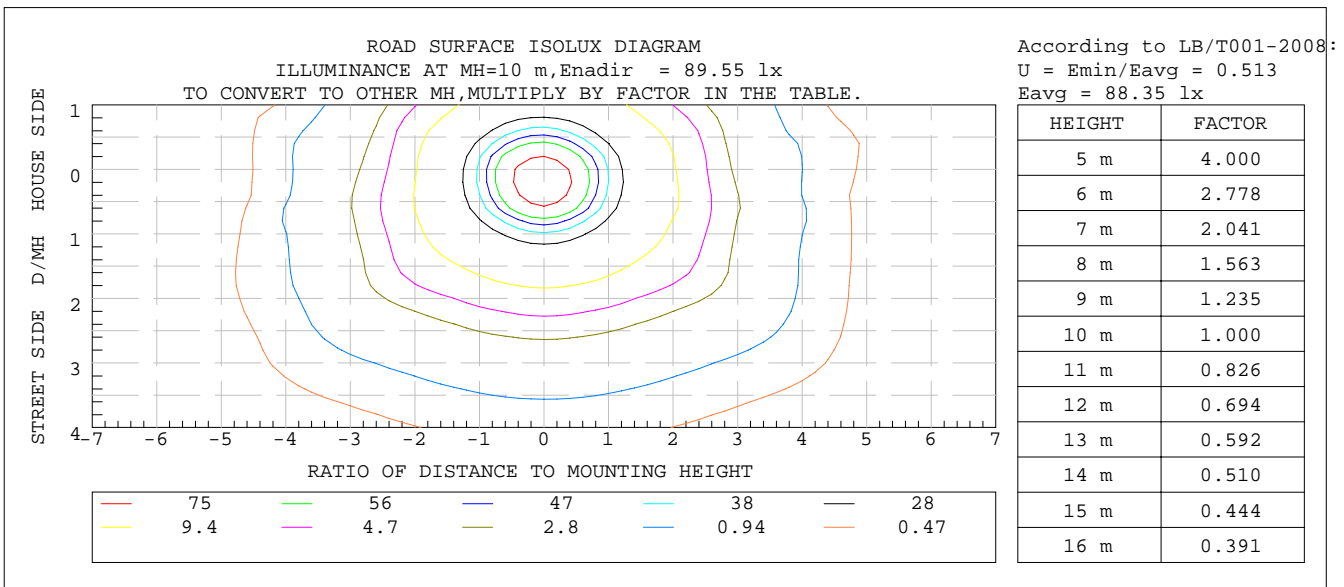
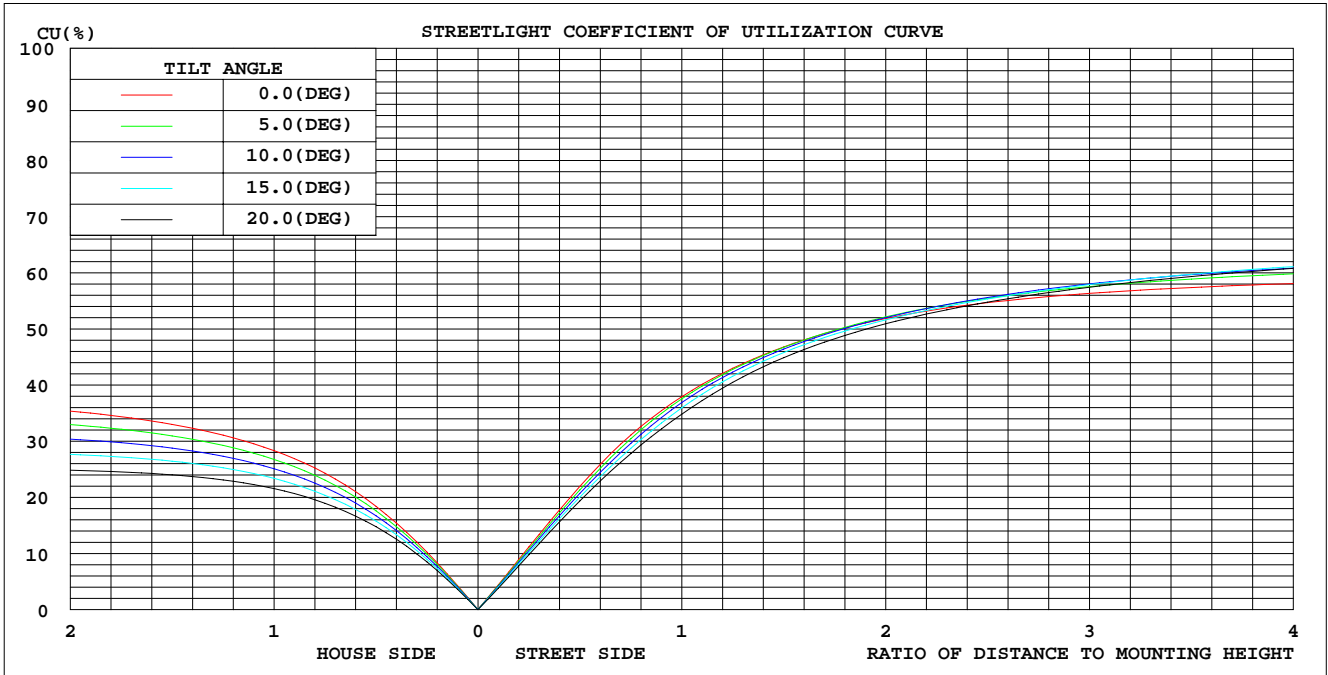
IES:Type IV - Short
 CIE:Broad - Intermediate
 IES:Semi cut-off
 CIE:Non-cut-off
 Max.At80:156.9cd/klm
 Max.At90:14.83cd/klm
 Max.80-90:156.9cd/klm
 NRB 5101:Semi limited[20.2%]

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	12799
90%	11519
80%	10239
70%	8959
60%	7679
50%	6399
40%	5119
30%	3840
20%	2560
10%	1280
5%	640

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:31DEG
 Operators:01
 Test Date:2017-07-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9684]
 Remarks:

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 31DEG
Operators: 01
Test Date: 2017-07-05

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity: %
Test Distance: 9.190m [K=0.9684]
Remarks:

ZONAL FLUX DIAGRAM

Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm		
NAME: LED Area Lighting	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

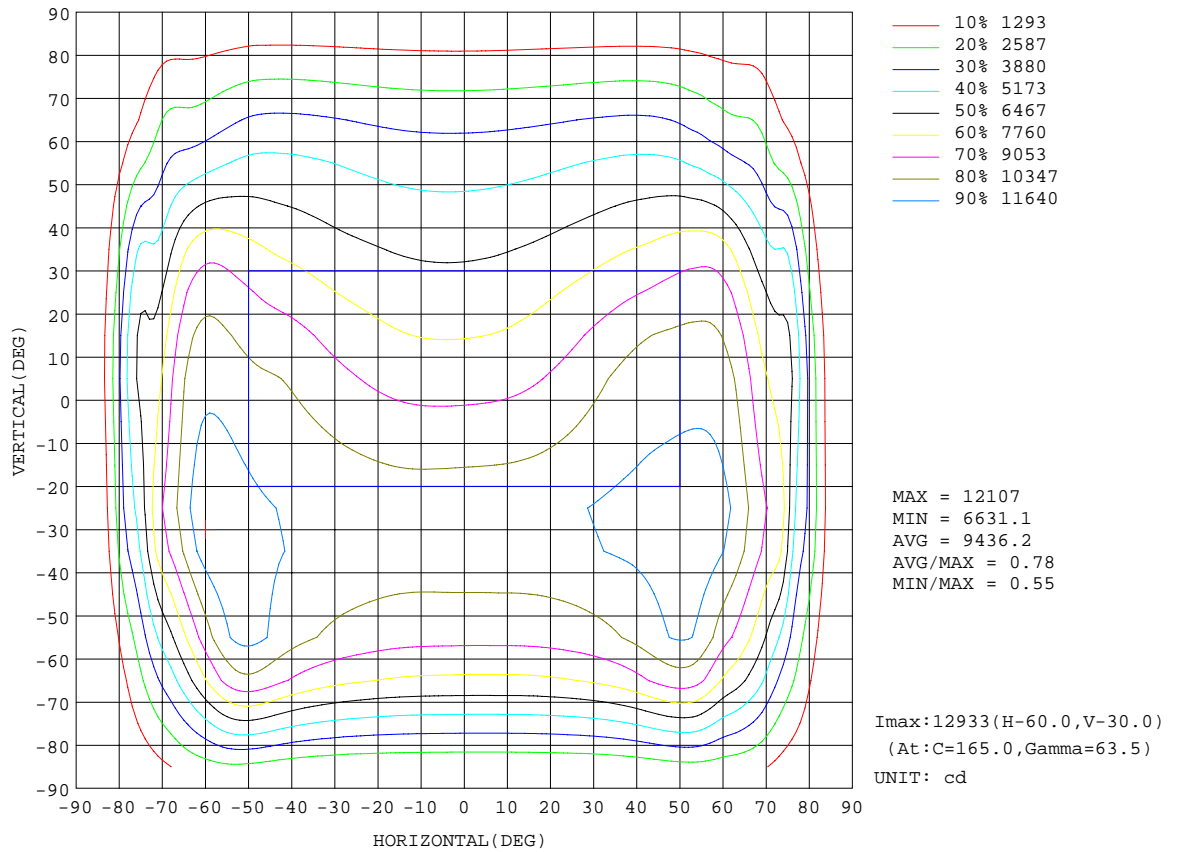
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	900.9	930.5	940.4	925.2	892.9	861.6	850.7	867.6	0- 5	214.2	214.2	0.49,0.49
10	911.5	966.2	985.3	956.1	893.8	829.4	805.8	842.1	5- 10	642.1	856.3	1.94,1.94
15	931.1	1004	1030	988.3	901.3	801.5	770.8	823.8	10- 15	1071	1927	4.37,4.37
20	960.3	1043	1075	1022	917.6	782.3	735.8	813.7	15- 20	1504	3431	7.78,7.78
25	996.7	1082	1120	1059	941.1	765.8	700.8	805.1	20- 25	1943	5375	12.2,12.2
30	1039	1121	1165	1097	969.5	750.0	665.9	795.4	25- 30	2386	7760	17.6,17.6
35	1081	1159	1120	1136	1004	732.2	625.7	781.7	30- 35	2810	10571	24,24
40	1115	1186	1076	1162	1038	709.7	585.6	760.4	35- 40	3179	13750	31.2,31.2
45	1131	1157	1031	1136	1062	683.3	545.4	731.1	40- 45	3489	17239	39.1,39.1
50	1138	1129	986.5	1113	1082	654.2	505.3	694.6	45- 50	3735	20974	47.6,47.6
55	1137	1103	941.9	1092	1121	619.5	465.1	649.1	50- 55	3930	24905	56.5,56.5
60	1091	1084	897.3	1076	1151	577.0	425.0	592.6	55- 60	4079	28983	65.7,65.7
65	939.5	1073	749.4	1068	1078	526.3	354.5	527.1	60- 65	4079	33062	75,75
70	783.4	984.0	601.5	980.3	852.6	449.7	283.9	439.1	65- 70	3752	36814	83.5,83.5
75	645.7	768.7	453.7	765.8	674.3	344.0	213.4	333.3	70- 75	3147	39961	90.6,90.6
80	299.2	531.5	305.8	531.0	439.9	233.4	142.8	223.2	75- 80	2324	42285	95.9,95.9
85	49.74	278.1	157.9	280.2	89.65	119.4	72.27	112.6	80- 85	1350	43635	99,99
90	1.151	16.32	10.06	20.32	0.6321	3.775	1.718	1.303	85- 90	460.5	44096	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:×10cd								UNIT:lm			

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:31DEG
 Operators:01
 Test Date:2017-07-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: %
 Test Distance:9.190m [K=0.9684]
 Remarks:

ISOCANDELA DIAGRAM

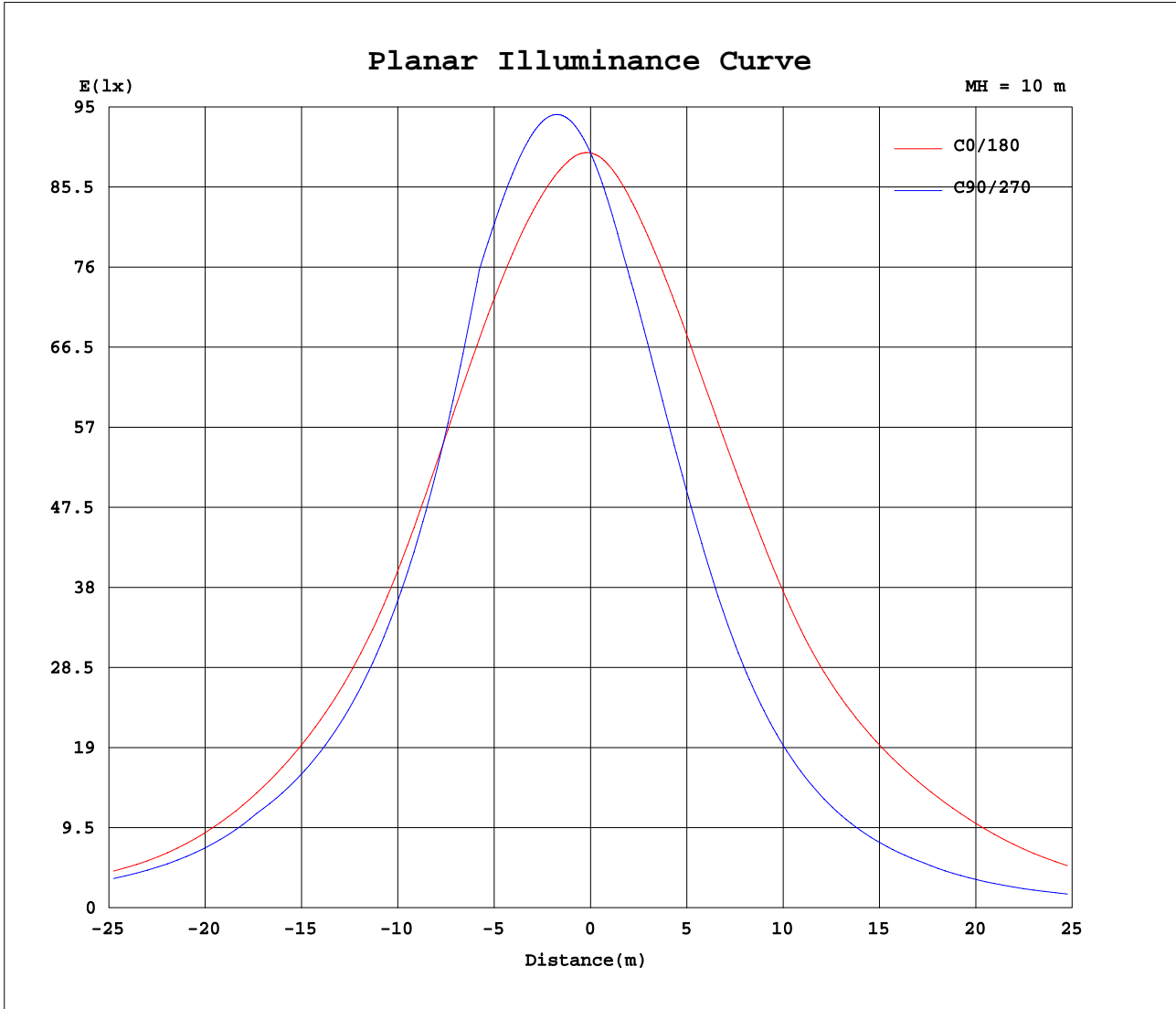
Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm		
NAME: LED Area Lighting	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 31DEG
 Operators: 01
 Test Date: 2017-07-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: %
 Test Distance: 9.190m [K=0.9684]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 31DEG
 Operators: 01
 Test Date: 2017-07-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: %
 Test Distance: 9.190m [K=0.9684]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm		
NAME: LED Area Lighting	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C(DEG) \ γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896
5	901	905	909	912	916	919	922	925	928	930	933	935	936	938	939	940	940	941	940
10	912	919	926	933	939	945	951	957	962	966	970	974	978	980	983	984	985	986	985
15	931	941	951	960	969	977	985	992	998	1004	1009	1014	1019	1023	1026	1028	1030	1030	1030
20	960	973	984	995	1005	1013	1022	1029	1036	1043	1049	1055	1060	1065	1069	1072	1074	1075	1075
25	997	1011	1023	1034	1044	1053	1061	1069	1076	1082	1089	1095	1101	1107	1112	1116	1118	1120	1120
30	1039	1053	1066	1077	1086	1094	1102	1108	1115	1121	1128	1135	1141	1148	1154	1159	1163	1165	1165
35	1081	1095	1107	1117	1127	1135	1142	1148	1153	1159	1166	1173	1180	1187	1193	1200	1205	1210	1215
40	1115	1128	1140	1150	1159	1168	1176	1183	1190	1186	1161	1139	1120	1105	1094	1086	1080	1077	1076
45	1131	1147	1161	1173	1184	1193	1202	1211	1186	1157	1129	1103	1081	1064	1050	1041	1036	1032	1031
50	1138	1159	1177	1193	1204	1214	1217	1191	1161	1129	1097	1067	1042	1022	1006	996	991	987	986
55	1137	1165	1192	1214	1230	1234	1210	1181	1143	1103	1066	1032	1003	980	963	952	946	943	942
60	1091	1129	1177	1223	1250	1228	1211	1182	1137	1084	1037	996	963	938	919	907	901	898	897
65	940	996	1078	1171	1165	1172	1193	1185	1140	1073	1011	953	886	836	799	774	760	752	749
70	783	852	946	988	1008	1033	1116	1169	1128	984	864	779	719	676	645	623	610	603	602
75	646	676	850	769	815	875	932	958	881	769	668	597	547	513	488	471	461	455	454
80	299	376	394	508	586	614	613	646	608	531	458	406	371	347	330	318	311	307	306
85	49.7	84.2	155	226	290	330	329	341	321	278	237	209	190	179	171	165	161	158	158
90	1.15	1.09	1.31	9.22	39.0	59.8	55.3	43.8	27.2	16.3	11.0	8.92	8.50	9.53	11.1	11.3	10.5	9.83	10.1

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:31DEG
 Operators:01
 Test Date:2017-07-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9684]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm		
NAME: LED Area Lighting	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: x10cd

C(DEG)\γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896
5	940	939	938	937	935	933	931	928	925	922	919	916	912	908	905	901	897	893	889
10	984	983	981	978	975	971	966	961	956	950	944	938	931	924	917	909	902	894	886
15	1029	1027	1024	1020	1015	1009	1003	996	988	980	972	963	954	944	934	923	912	901	890
20	1074	1071	1066	1061	1055	1048	1040	1031	1022	1013	1003	993	982	971	958	945	932	918	903
25	1118	1114	1109	1103	1095	1087	1078	1069	1059	1049	1038	1027	1015	1002	988	974	958	941	923
30	1163	1158	1152	1144	1136	1126	1117	1107	1097	1087	1075	1063	1050	1036	1021	1005	988	970	949
35	1120	1121	1124	1129	1136	1146	1156	1166	1176	1184	1191	1197	1202	1205	1207	1208	1208	1207	1204
40	1076	1078	1081	1087	1097	1110	1126	1144	1162	1180	1197	1214	1230	1245	1258	1268	1275	1279	1281
45	1032	1034	1039	1046	1059	1074	1093	1114	1136	1159	1178	1196	1214	1230	1245	1258	1268	1275	1279
50	988	991	997	1006	1021	1040	1062	1086	1113	1137	1157	1174	1188	1198	1205	1209	1211	1212	1212
55	944	948	955	967	984	1006	1031	1061	1092	1120	1149	1177	1201	1220	1235	1246	1253	1257	1258
60	900	905	913	928	948	973	1002	1037	1076	1117	1161	1199	1226	1259	1285	1302	1310	1315	1317
65	754	763	781	808	847	898	965	1017	1068	1127	1184	1214	1219	1238	1275	1302	1310	1315	1317
70	605	613	628	652	685	730	789	870	980	1130	1200	1184	1124	1086	1075	1031	926	853	819
75	456	463	475	493	520	555	604	671	766	892	1005	1034	935	834	791	840	709	674	650
80	308	312	321	333	351	376	412	460	531	622	692	685	626	557	512	440	453	440	473
85	159	162	166	172	181	195	213	240	280	333	373	365	331	279	229	153	109	89.7	108
90	9.88	10.6	10.9	10.3	9.26	11.0	11.8	14.0	20.3	33.0	54.1	65.2	65.4	36.6	5.99	0.64	0.57	0.63	1.22

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:31DEG
 Operators:01
 Test Date:2017-07-05

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:%
 Test Distance:9.190m [K=0.9684]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm
NAME: LED Area Lighting TYPE: WEIGHT:
DIM.: SPEC.: SERIAL No.:
MFR.: KiLi-LED Lighting Limited SUR.: PROTECTION ANGLE:

Table--3 UNIT: x10cd
Grid of luminous intensity data with columns C(DEG) from 190 to 280 and rows gamma (DEG) from 0 to 90.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:31DEG
Operators:01
Test Date:2017-07-05
gamma Range: 0 - 90DEG
gamma Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:%
Test Distance:9.190m [K=0.9684]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.6V I:1.393A P:316.1W PF:0.9840 Lamp Flux:44095.8x1 lm		
NAME: LED Area Lighting	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.: KiLi-LED Lighting Limited	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: x10cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896				
5	853	855	857	859	862	865	868	871	874	878	882	885	889	893	897				
10	812	815	819	824	830	836	842	849	857	864	872	880	888	896	904				
15	779	784	790	797	805	814	824	835	847	860	872	885	897	909	920				
20	747	754	763	773	786	799	814	830	847	865	883	900	917	932	947				
25	716	725	737	751	767	785	805	827	851	875	901	924	945	964	981				
30	685	696	711	728	747	770	795	823	853	885	919	954	982	1003	1022				
35	648	662	680	701	725	752	782	814	851	891	933	976	1020	1045	1064				
40	610	625	644	668	695	726	760	799	841	888	938	989	1042	1081	1099				
45	570	586	607	631	661	693	731	774	821	873	928	986	1044	1099	1115				
50	530	546	567	592	621	655	695	739	788	846	911	973	1032	1087	1117				
55	489	505	525	549	577	611	649	692	742	809	891	962	1017	1070	1110				
60	447	462	480	502	529	559	593	631	681	746	828	933	985	1023	1065				
65	379	396	417	443	473	500	527	556	595	643	718	803	866	874	915				
70	305	319	337	359	384	412	439	462	476	507	555	606	640	674	727				
75	230	241	255	272	292	313	333	347	348	344	367	422	439	548	648				
80	154	162	172	183	197	211	223	231	231	226	241	256	227	286	271				
85	78.4	82.1	87.1	93.0	99.6	107	113	115	115	113	125	110	80.3	51.1	47.8				
90	2.30	2.10	2.09	1.95	1.56	1.39	1.30	1.28	1.38	1.48	1.56	1.60	1.60	1.54	1.46				

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:31DEG
Operators:01
Test Date:2017-07-05

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:%
Test Distance:9.190m [K=0.9684]
Remarks: