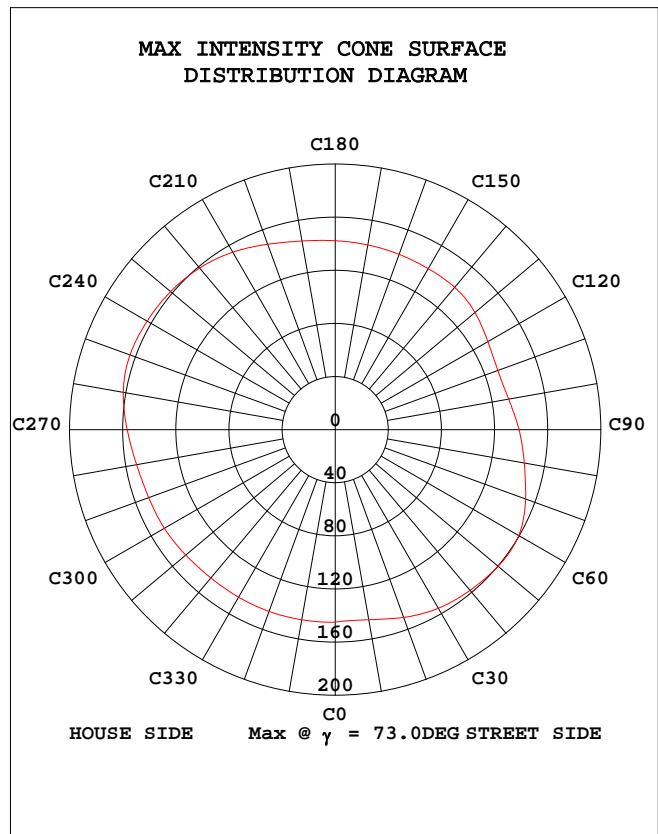
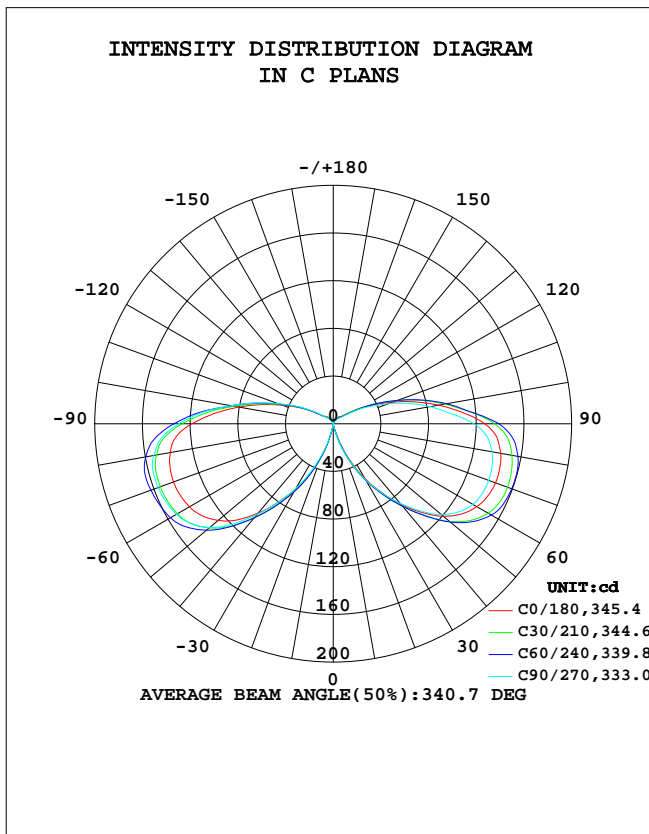


PHOTOMETRIC TEST REPORT

NAME: Round Integrated LED Bollard with Louvers	TYPE:	WEIGHT:
PART NUMBER: BLRK-FL1-xK25BR740	DIM.:	SERIAL No.:
MFR.: Super Bright LEDs	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	C-14FG	Imax(cd)	163.8	η street_up(%)	12.6
NOMINAL POWER(W)	25	LOR(%)	100.0	η street_down(%)	36.4
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	979.5	η house_up(%)	12.6
NOMINAL FLUX(lm)	979.5	MAXIMUM @(C, γ)	255,73.0	η house_down(%)	38.4
LAMPS INSIDE	1	η up(%)	25.2	76 FLASHAREA(m2)	0.00100
TEST VOLTAGE(V)	220	η down(%)	74.8	SLI	17.362

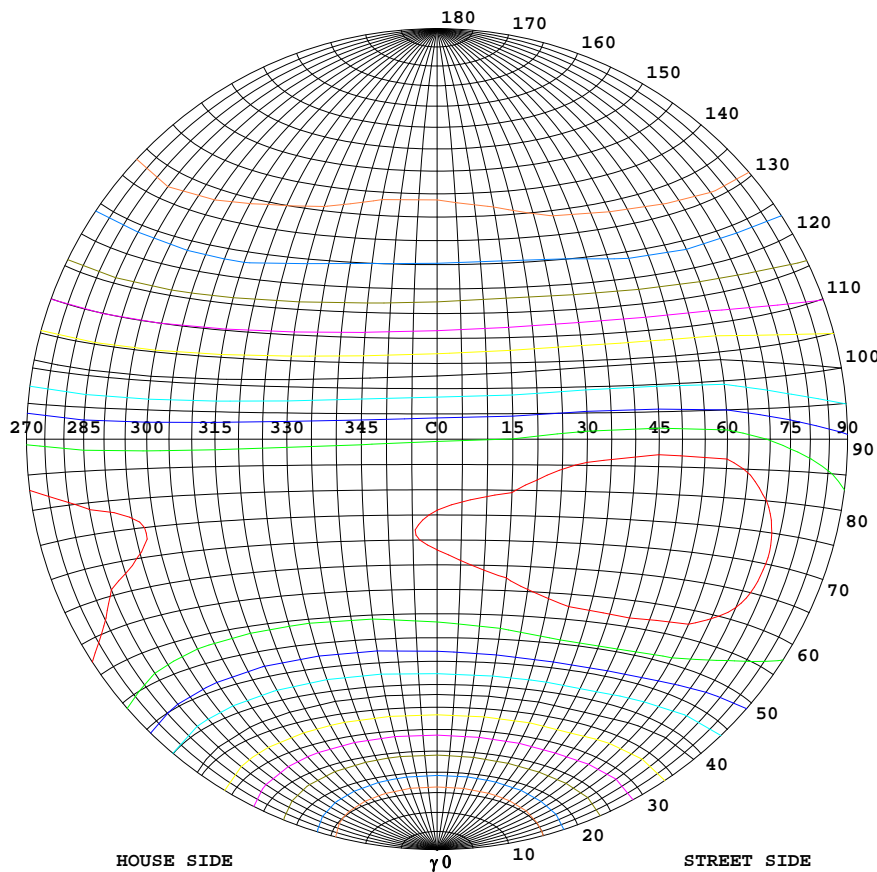


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date: 2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance: 1.825m [K=1.0000]
 Remarks:

STREETLIGHT ISOCANDELA DIAGRAM

NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



Classification:

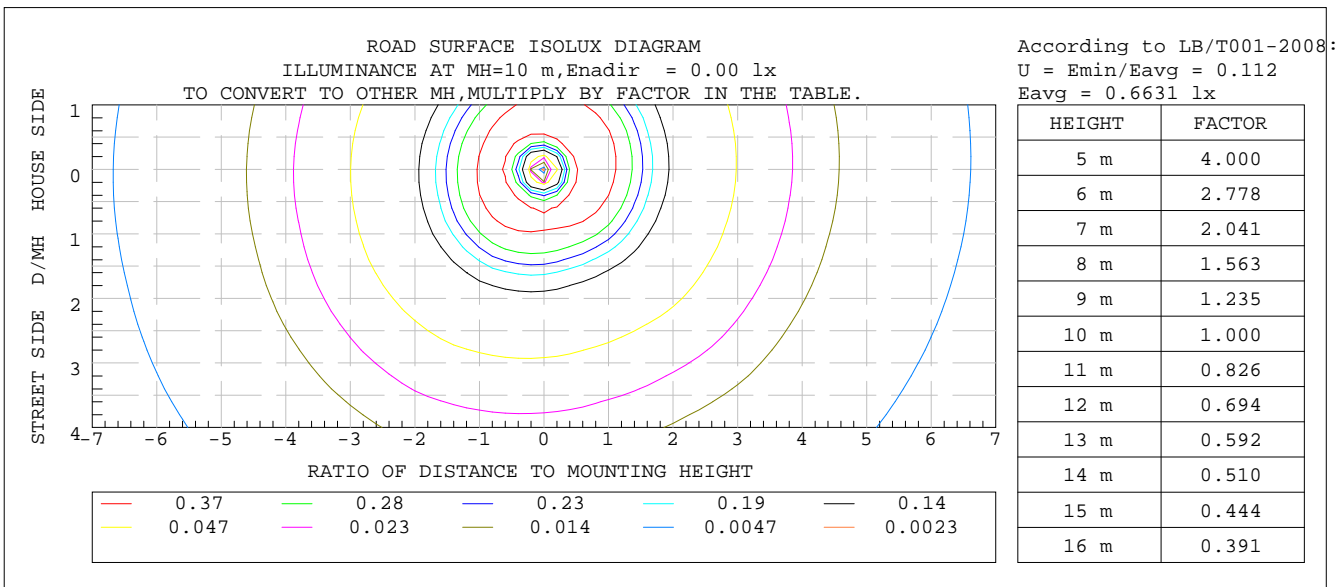
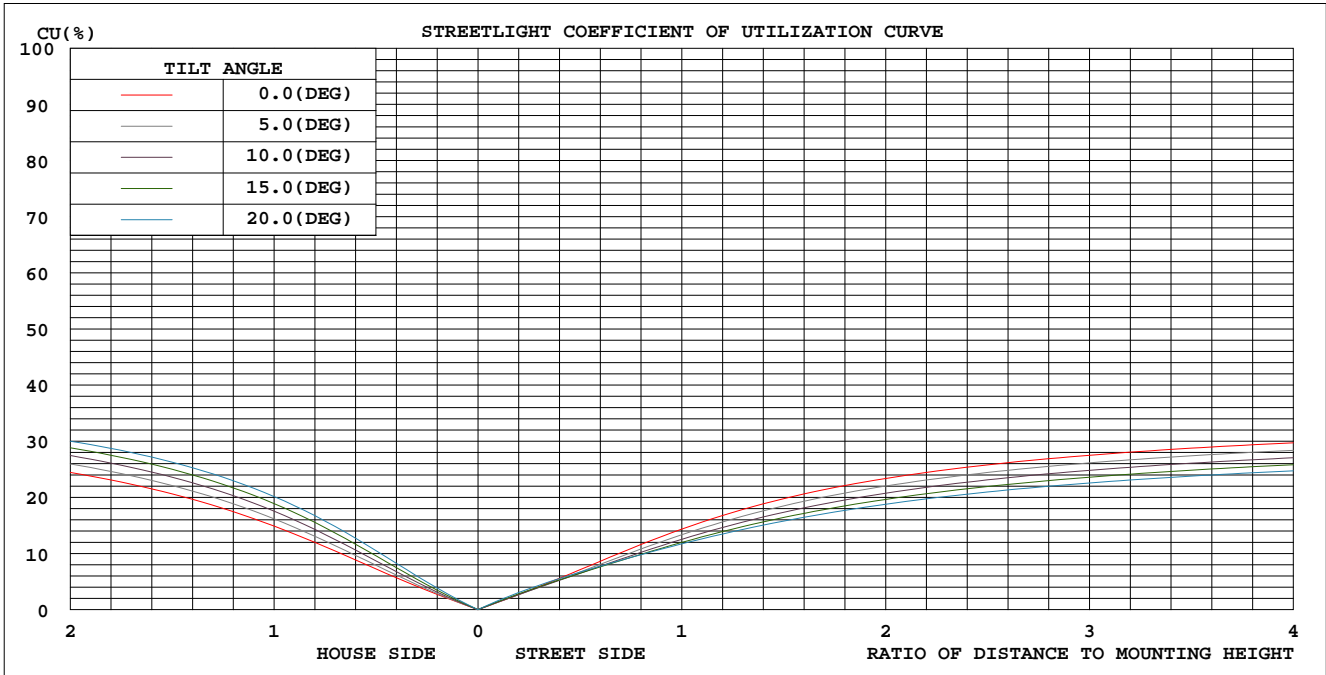
IES:Type V - Very Short
 CIE:Broad - Long
 IES:None cut-off
 CIE:Non-cut-off
 Max.At80:163.1cd/klm
 Max.At90:141.9cd/klm
 Max.80-90:163.1cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
Imax=100%	164
90%	147
80%	131
70%	115
60%	98
50%	82
40%	66
30%	49
20%	33
10%	16
5%	8

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date:2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance:1.825m [K=1.0000]
 Remarks:

COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM



C Range: 0 - 360DEG C
Interval: 15.0DEG
Test Speed: HIGH
Temperature: 21.5DEG
Test Date: 2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Humidity: 50.3%
Test Distance: 1.825m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

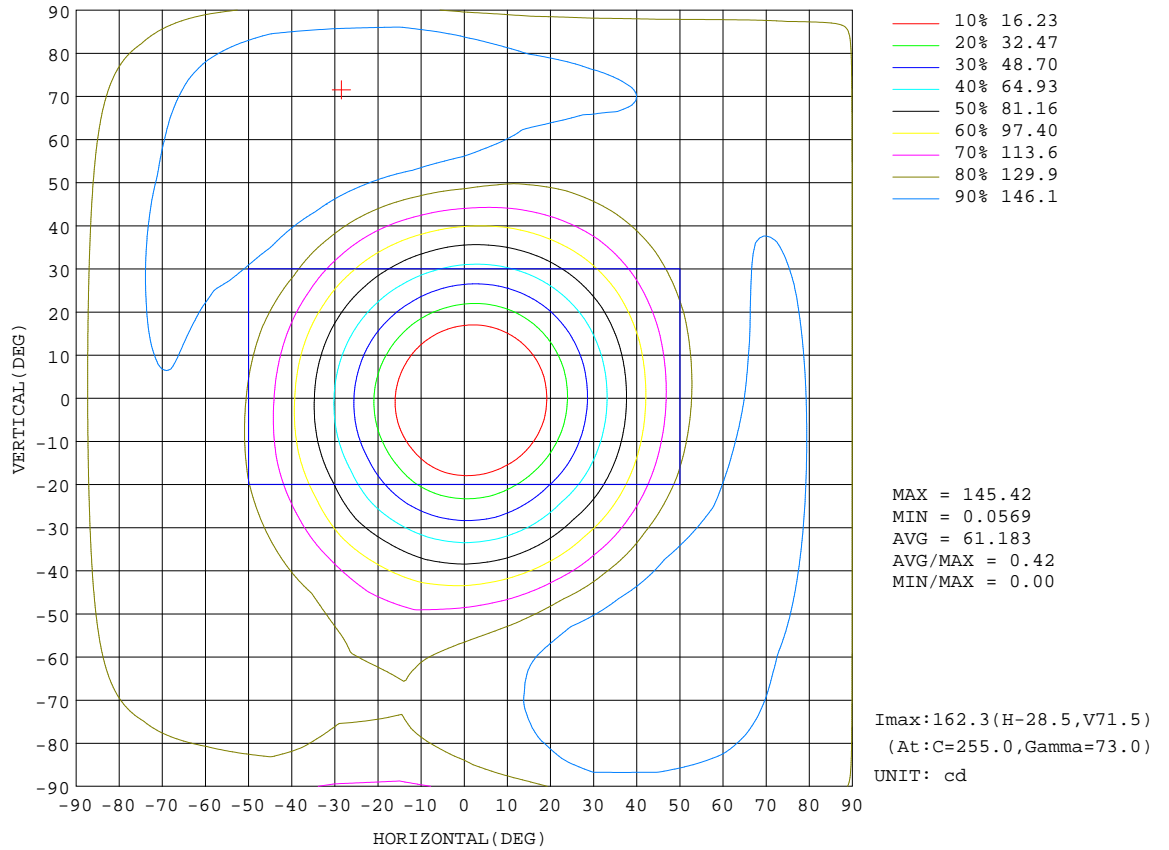
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	0.7074	0.7698	0.8569	1.703	2.657	2.406	0.8501	0.5711	0- 10	0.0444	0.0444	0.00,0.00
20	18.68	20.65	22.61	26.27	28.82	30.23	26.94	21.43	10- 20	3.341	3.385	0.35,0.35
30	52.66	55.74	54.41	59.03	62.96	65.98	62.25	55.95	20- 30	19.69	23.08	2.36,2.36
40	88.03	91.32	87.19	91.38	97.75	102.9	99.13	91.60	30- 40	48.32	71.40	7.29,7.29
50	120.9	128.7	118.7	121.2	126.1	137.8	135.2	123.4	40- 50	86.34	157.7	16.1,16.1
60	139.0	152.7	135.3	135.8	139.3	155.4	152.0	140.5	50- 60	122.5	280.3	28.6,28.6
70	144.9	159.0	138.8	139.4	142.6	160.2	156.4	145.7	60- 70	145.6	425.9	43.5,43.5
80	142.6	156.4	135.2	136.0	138.7	156.5	152.8	144.0	70- 80	156.1	582.0	59.4,59.4
90	127.1	138.7	118.3	117.9	118.6	131.3	129.6	125.6	80- 90	150.4	732.4	74.8,74.8
100	89.71	96.54	82.73	81.00	80.59	85.83	87.21	85.50	90-100	116.0	848.4	86.6,86.6
110	53.26	57.72	49.14	47.22	45.78	47.71	49.47	49.96	100-110	72.01	920.4	94,94
120	26.17	25.54	23.44	20.69	21.97	21.69	23.88	23.56	110-120	35.99	956.4	97.6,97.6
130	10.70	9.455	8.528	8.386	9.961	9.497	9.381	9.401	120-130	13.42	969.8	99,99
140	7.747	6.237	5.403	5.615	7.590	6.233	5.851	6.564	130-140	6.088	975.9	99.6,99.6
150	4.497	2.409	1.952	1.848	3.925	2.024	1.718	2.207	140-150	2.861	978.7	99.9,99.9
160	1.246	0.6696	0.4500	0.4985	1.019	0.5063	0.3356	0.4752	150-160	0.7014	979.4	100,100
170	0.1414	0.0753	0.0187	0.0275	0.0776	0.0380	0.0048	0.0264	160-170	0.0840	979.5	100,100
180	0	0	0	0	0	0	0	0	170-180	0.0015	979.5	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG C
 Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date:2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance:1.825m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

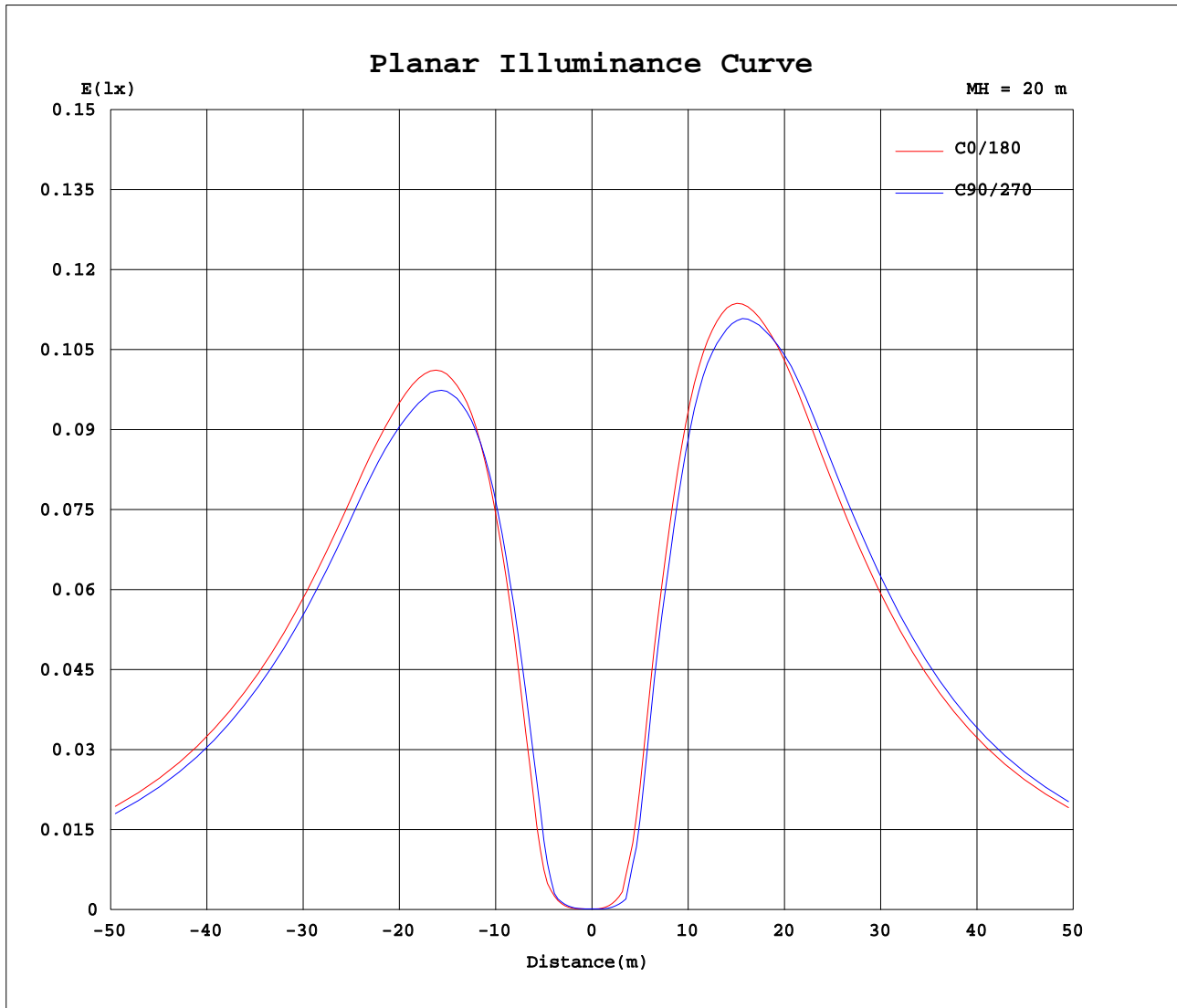
NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date: 2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance: 1.825m [K=1.0000]
 Remarks:

Planar Illuminance Curve



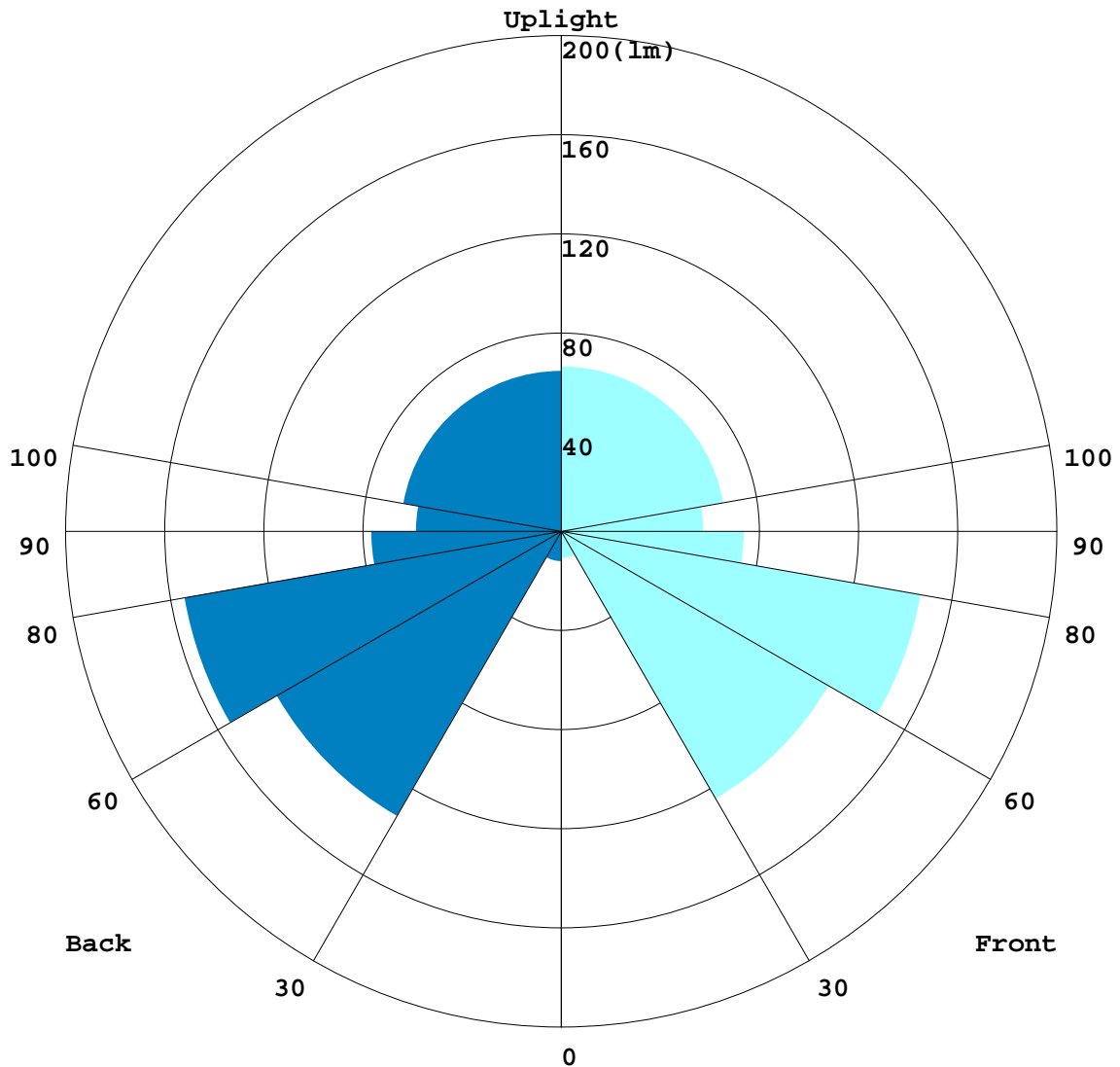
C Range: 0 - 360DEG C
 Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date: 2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance: 1.825m [K=1.0000]
 Remarks:

LCS REPORT

NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH



C Range: 0 - 360DEG C
 Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date:2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance:1.825m [K=1.0000]
 Remarks:

BUG REPORT

NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

IESNA Luminaire Flux Distribution Table:

Zone	Lumens	Luminaire %
FL - Front-Low(0-30)	10.934	1.1
FM - Front-Medium(30-60)	124.56	12.7
FH - Front-High(60-80)	147.39	15.0
FVH - Front-Very High(80-90)	73.798	7.5
Total Forward Light	480.57	49.1

BL - Back-Low(0-30)	12.144	1.2
BM - Back-Medium(30-60)	132.64	13.5
BH - Back-High(60-80)	154.35	15.8
BVH - Back-Very High(80-90)	76.587	7.8
Total Back Light	498.95	50.9

UL - Uplight-Low(90-100)	115.95	11.8
UH - Uplight-High(100-180)	131.16	13.4
Total Up Light	247.11	25.2

BUG(Back,Up,Glare) Rating	B1-U3-G1
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Zone	Downward Lumens	Upward Lumens	Total Lumens
House Side	375.72	123.23	498.95
Street Side	356.68	123.88	480.57

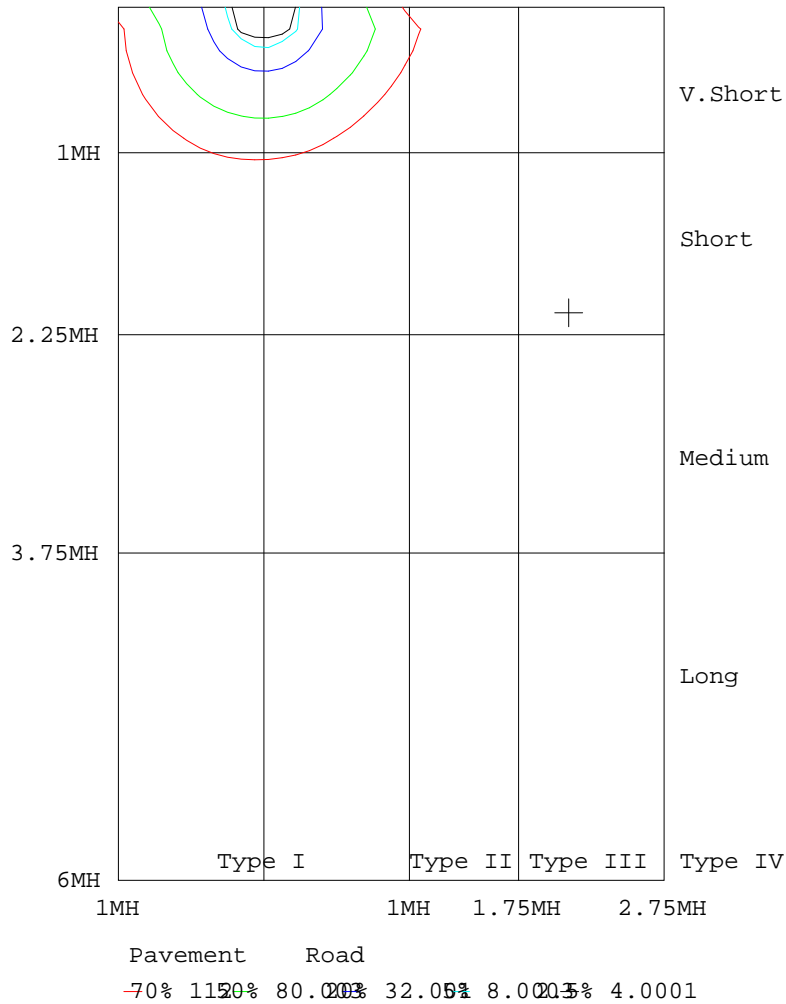
C Range: 0 - 360DEG C
 Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date:2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance:1.825m [K=1.0000]
 Remarks:

ROAD ISOCANDELA REPORT

NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date: 2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance: 1.825m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding 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	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
5	0.09	0.09	0.09	0.09	0.10	0.11	0.13	0.16	0.21	0.26	0.29	0.31	0.30	0.29	0.27	0.24	0.21	0.17	0.13
10	0.71	0.75	0.78	0.77	0.73	0.73	0.86	1.13	1.49	1.70	1.82	1.91	2.66	2.66	2.59	2.41	1.43	1.14	0.85
15	4.86	4.87	5.18	5.92	6.97	8.04	8.38	8.80	9.76	10.8	11.7	12.6	12.7	13.4	13.7	13.3	12.8	11.7	10.3
20	18.7	18.9	19.9	20.6	21.7	22.1	22.6	23.1	24.1	26.3	27.7	28.6	28.8	29.7	30.3	30.2	29.7	28.7	26.9
25	35.3	36.0	37.3	38.3	38.5	38.1	38.3	38.9	40.5	42.7	44.9	45.6	45.7	46.9	47.8	48.1	48.0	46.5	44.2
30	52.7	53.5	54.5	55.7	55.2	54.5	54.4	55.2	57.2	59.0	62.3	62.9	63.0	64.2	65.5	66.0	66.2	64.8	62.3
35	70.0	70.7	71.8	73.1	72.2	71.2	70.5	71.1	74.0	75.1	79.2	80.1	80.4	81.8	83.4	83.9	84.3	83.0	80.1
40	88.0	88.8	90.2	91.3	90.4	88.8	87.2	86.9	90.2	91.4	95.7	96.8	97.8	99.9	102	103	103	102	99.1
45	105	107	109	110	109	107	104	102	105	108	111	112	114	117	121	122	122	122	119
50	121	123	128	129	128	123	119	114	117	121	124	125	126	130	136	138	139	139	135
55	132	135	141	143	143	136	129	122	125	130	132	133	134	138	146	149	151	150	146
60	139	142	150	153	153	144	135	128	130	136	137	138	139	143	151	155	158	158	152
65	143	147	154	158	158	147	138	130	132	139	140	141	142	145	153	159	161	161	155
70	145	148	156	159	159	148	139	131	133	139	141	141	143	146	154	160	163	163	156
75	145	147	155	159	159	148	138	130	132	139	139	140	142	146	154	160	164	164	156
80	143	145	152	156	157	145	135	127	130	136	137	137	139	142	150	157	160	160	153
85	138	140	147	151	152	140	130	122	125	131	131	132	133	136	143	148	151	151	145
90	127	129	135	139	139	128	118	111	113	118	118	118	119	121	127	131	134	134	130
95	109	111	115	116	116	107	99.0	92.8	93.9	97.4	97.9	98.7	100	102	107	110	112	113	110
100	89.7	91.6	95.2	96.5	96.7	89.8	82.7	77.6	79.3	81.0	80.3	80.2	80.6	81.7	84.4	85.8	87.3	88.4	87.2
105	71.1	73.4	76.3	77.2	77.1	71.9	66.0	62.0	63.5	64.0	63.1	62.4	62.3	63.2	64.8	65.8	67.1	67.9	67.6
110	53.3	55.4	57.3	57.7	57.5	53.9	49.1	46.3	47.5	47.2	46.4	45.9	45.8	46.1	47.2	47.7	48.6	49.4	49.5
115	37.7	39.5	40.6	40.8	40.4	38.3	34.8	32.9	33.7	33.6	32.9	32.8	32.7	33.0	33.5	33.7	34.4	35.0	35.3
120	26.2	27.3	27.1	25.5	25.4	25.6	23.4	22.4	22.1	20.7	20.9	21.8	22.0	22.2	21.9	21.7	22.3	23.5	23.9
125	16.5	16.9	16.3	14.0	13.6	13.7	13.0	12.1	11.6	11.2	12.6	13.5	13.9	14.3	14.0	12.6	12.7	14.0	14.3
130	10.7	10.8	10.2	9.46	9.28	8.83	8.53	8.02	7.95	8.39	8.80	9.40	9.96	10.1	9.87	9.50	9.37	9.22	9.38
135	8.58	8.35	7.92	7.66	7.31	6.95	6.92	6.73	6.63	7.19	7.70	8.21	8.80	8.78	8.38	8.05	7.76	7.62	7.66
140	7.75	7.40	6.76	6.24	5.69	5.31	5.40	5.17	5.00	5.62	6.26	6.93	7.59	7.47	6.85	6.23	5.71	5.69	5.85
145	6.38	6.05	5.16	4.35	3.78	3.63	3.68	3.44	3.23	3.65	4.35	5.30	5.91	5.72	4.88	3.96	3.42	3.57	3.75
150	4.50	4.27	3.47	2.41	1.89	1.96	1.95	1.81	1.68	1.85	2.60	3.47	3.93	3.76	3.06	2.02	1.51	1.63	1.72
155	2.63	2.47	1.96	1.33	0.92	0.87	0.86	0.80	0.81	1.00	1.46	1.82	2.13	2.05	1.66	1.16	0.77	0.64	0.67
160	1.25	1.18	0.90	0.67	0.52	0.47	0.45	0.42	0.43	0.50	0.63	0.88	1.02	1.00	0.81	0.51	0.36	0.31	0.34
165	0.52	0.49	0.38	0.23	0.13	0.10	0.08	0.06	0.08	0.11	0.21	0.33	0.39	0.39	0.32	0.19	0.08	0.03	0.03
170	0.14	0.14	0.11	0.08	0.05	0.03	0.02	0.00	0.00	0.03	0.04	0.07	0.08	0.08	0.06	0.04	0.01	0.00	0.00
175	0.01	0.01	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
180	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: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date:2020-07-04

γ Range: 0 - 180DEG
 γInterval: 1.0DEG
 Humidity: 50.3%
 Test Distance:1.825m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: LED GARDEN LIGHTING	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: KLED	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	0.06	0.06	0.06	0.06	0.06														
5	0.10	0.10	0.09	0.08	0.08														
10	0.70	0.63	0.57	0.57	0.62														
15	8.88	7.62	6.49	5.61	4.98														
20	24.9	23.2	21.4	20.2	19.1														
25	41.6	40.1	38.1	36.9	35.9														
30	59.7	58.0	55.9	54.5	53.5														
35	77.6	75.9	73.7	72.2	71.2														
40	95.8	94.2	91.6	90.1	89.1														
45	114	112	108	107	106														
50	129	126	123	122	122														
55	139	136	134	133	132														
60	145	143	140	140	140														
65	148	146	144	144	144														
70	150	148	146	145	145														
75	150	149	146	146	145														
80	147	146	144	144	144														
85	140	140	138	138	139														
90	126	126	126	127	128														
95	108	108	107	108	110														
100	85.5	85.5	85.5	87.3	89.3														
105	66.8	67.3	67.5	68.9	70.4														
110	49.2	49.7	50.0	51.1	52.5														
115	35.1	35.3	35.6	36.3	37.2														
120	23.7	23.4	23.6	24.3	25.7														
125	14.1	13.2	12.8	15.0	16.2														
130	9.02	9.18	9.40	10.0	10.8														
135	7.44	7.72	8.11	8.37	8.75														
140	5.60	5.84	6.56	7.20	7.82														
145	3.54	3.65	4.35	5.34	6.30														
150	1.66	1.65	2.21	3.34	4.31														
155	0.61	0.67	1.08	1.74	2.37														
160	0.31	0.32	0.48	0.76	1.10														
165	0.03	0.04	0.11	0.26	0.43														
170	0.00	0.00	0.03	0.07	0.11														
175	0.00	0.00	0.00	0.00	0.00														
180	0.00	0.00	0.00	0.00	0.00														

C Range: 0 - 360DEG C
 Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 21.5DEG
 Test Date:2020-07-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Humidity: 50.3%
 Test Distance:1.825m [K=1.0000]
 Remarks: