



UL LLC  
1075 W Lambert Rd Suite B  
Brea, CA 92821

## Indoor Distribution Test Report

Relevant Standards  
IES LM-79-2008  
ANSI C82.77-2002

**Prepared For**  
**B-K LIGHTING INC**

Chris McCarthy  
40429 Brickyard Dr  
Madera, CA 93636-9515  
United States

**Catalog Number**  
**CK-LED-X63-FL-9**

Order Number  
11353040  
Test Number  
11353040.42

Test Date

2016-09-19

Prepared By

Jeremy Lewis, Technician

Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Circular black aluminum housing, specular faceted reflector, and glass lens  
**Lamp:** One (1) White LED  
**Mounting:** Surface  
**Ballast/Driver:** PowerSelect PS60U700C21T

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 2.75 in.

**Summary of Results**

Total Luminaire Output:	1299 Lumens
Luminaire Efficacy:	59.5 lm/w
Maximum Candela:	3001 Candela

**Test Conditions**

Test Temperature:	25.2 °C
Voltage:	120.1 VAC
Current:	0.1842 A
Power:	21.83 W
Power Factor:	0.986
Frequency:	60 Hz
Current THD:	11.5 %

Laboratory results may not be representative of field performance  
Ballast factors have not been applied



## Distribution - Goniophotometer

### Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.1 VAC	0.1842 A	21.83 W	0.986	60 Hz	11.5 %

### Summary of Results

#### Spacing Criteria

0-180: 0.61

90-270: 0.61

#### Total Lumen Output:

1299 Lumens

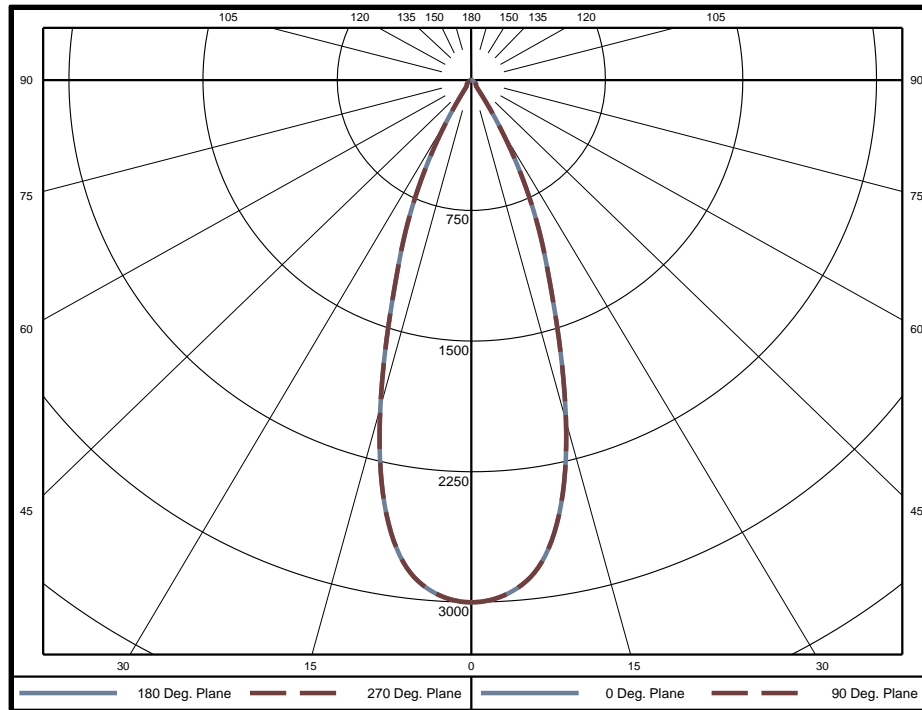
#### Luminaire Efficacy:

59.5 lm/w

#### Maximum Candela:

3001 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	70.9	5.5%	60-65	4.9	0.4%	120-125	0	0.0%
5-10	200.2	15.4%	65-70	3.8	0.3%	125-130	0	0.0%
10-15	277.1	21.3%	70-75	3.1	0.2%	130-135	0	0.0%
15-20	268.4	20.7%	75-80	2.4	0.2%	135-140	0	0.0%
20-25	215.0	16.6%	80-85	1.5	0.1%	140-145	0	0.0%
25-30	138.5	10.7%	85-90	0.4	0.0%	145-150	0	0.0%
30-35	50.5	3.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	16.0	1.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	14.2	1.1%	100-105	0	0.0%	160-165	0	0.0%
45-50	14.0	1.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	11.0	0.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	6.9	0.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1237	95.2%
0-60	1283	98.7%
0-90	1299	100.0%
90-180	0	0.0%



### Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	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	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001	3001
	5	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930	2930
	10	2641	2641	2641	2641	2641	2641	2641	2641	2641	2641	2641	2641	2641	2641	2641
	15	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
	20	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295
	25	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789
	30	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332
	35	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
	45	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
	50	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	55	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	60	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	65	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	70	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	75	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	85	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	783100	783100
	45	13620	13620
	55	8712	8712
	65	5283	5283
	75	5308	5308
	85	5784	5784



### Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	1546	1546	1546	1546	1510	1510	1510	1510	1443	1443	1443	1382	1382	1382	1325	1325	1325	1299
1	1484	1451	1423	1397	1452	1424	1398	1375	1372	1351	1333	1324	1308	1293	1279	1267	1256	1233
2	1423	1368	1323	1284	1396	1346	1305	1270	1305	1272	1243	1267	1240	1216	1232	1210	1191	1171
3	1366	1295	1240	1196	1342	1278	1227	1186	1245	1202	1168	1214	1179	1150	1186	1157	1132	1114
4	1313	1230	1169	1123	1291	1216	1160	1116	1189	1141	1104	1164	1124	1091	1141	1107	1079	1061
5	1263	1172	1108	1061	1243	1160	1101	1057	1138	1087	1048	1118	1073	1039	1099	1061	1030	1013
6	1215	1119	1054	1008	1198	1109	1049	1004	1091	1038	998	1074	1027	991	1058	1017	985	969
7	1171	1071	1006	961	1155	1063	1001	958	1047	993	953	1033	985	948	1020	977	944	928
8	1129	1027	962	918	1115	1020	959	916	1007	952	913	995	945	909	983	939	906	891
9	1089	986	923	880	1077	980	920	878	969	914	876	958	909	873	949	903	870	856
10	1052	948	886	845	1041	943	884	844	934	879	842	925	875	839	916	870	837	823

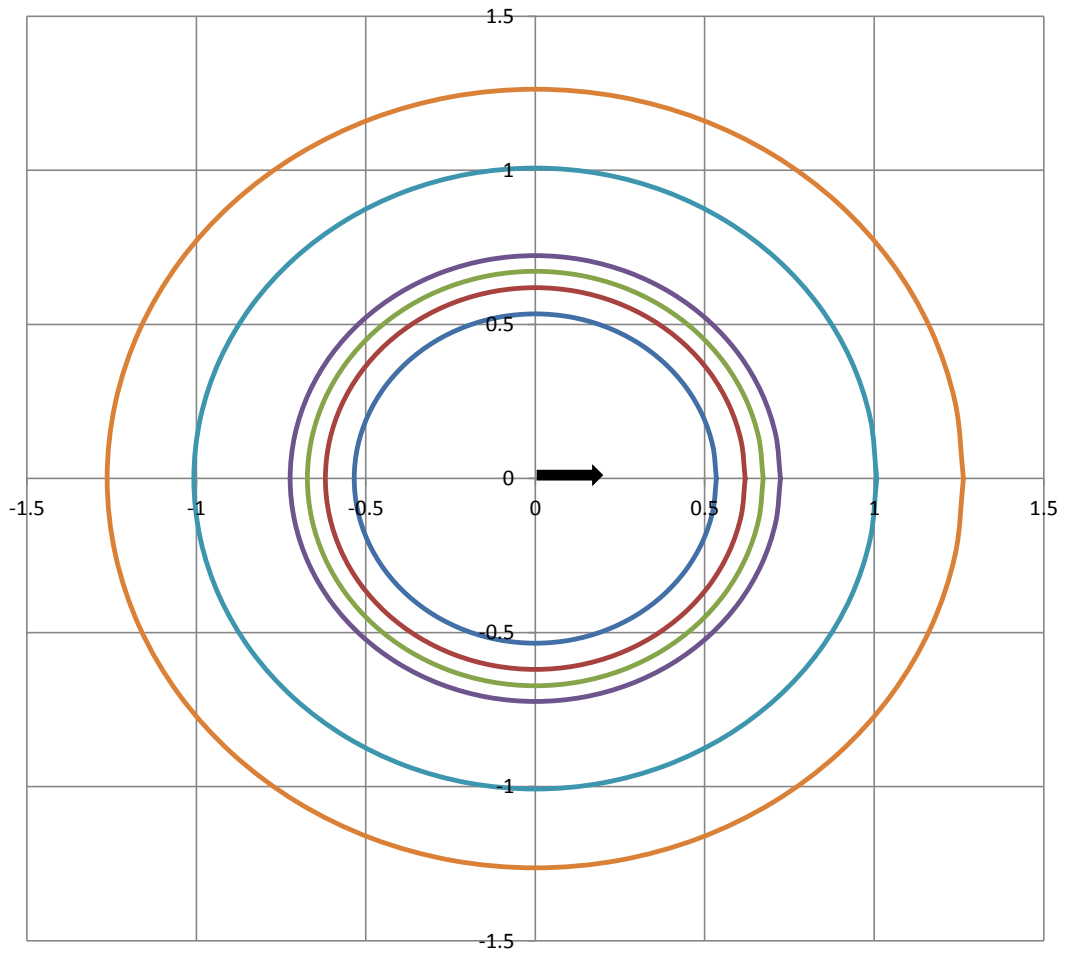
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	3001 Candela
Central Cone Intensity:	2976 Candela
Beam Flux:	738.2 Lumens
Beam Angle (0-180):	36.9 Degrees
Beam Angle (90-270):	36.9 Degrees
Field Angle (0-180):	60.8 Degrees
Field Angle (90-270):	60.8 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		188	2.45
6.00		83.4	3.67
8.00		46.9	4.89
10.0		30.0	6.11
12.0		20.8	7.34
14.0		15.3	8.56
16.0		11.7	9.78



## ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc    2 fc    1 fc    0.5 fc    0.2 fc    0.1 fc