



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-WFL-9**

Order Number  
11353040  
Test Number  
11353040.4

Test Date

2016-09-14

Prepared By

Khang Nguyen, Technician

Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.  
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.  
This report must not be used by the client to claim product certification, approval, or endorsement by  
NVLAP, NIST, or any agency of the Federal Government.



**Luminaire Description:** Circular black aluminum housing, white stepped reflector, and glass lens  
**Lamp:** One (1) White LED  
**Mounting:** Surface  
**Ballast/Driver:** PowerSelect PS60U70021T

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 2.75 in.

**Summary of Results**

Total Luminaire Output:	1220 Lumens
Luminaire Efficacy:	55.5 lm/w
Maximum Candela:	1211 Candela

**Test Conditions**

Test Temperature:	25.2 °C
Voltage:	120.1 VAC
Current:	0.1858 A
Power:	22.00 W
Power Factor:	0.986
Frequency:	60 Hz
Current THD:	12.0 %

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	0.1858 A	22.00 W	0.986	60 Hz	12.0 %

### Summary of Results

#### Spacing Criteria

0-180: 0.94

90-270: 0.94

Total Lumen Output:

1220 Lumens

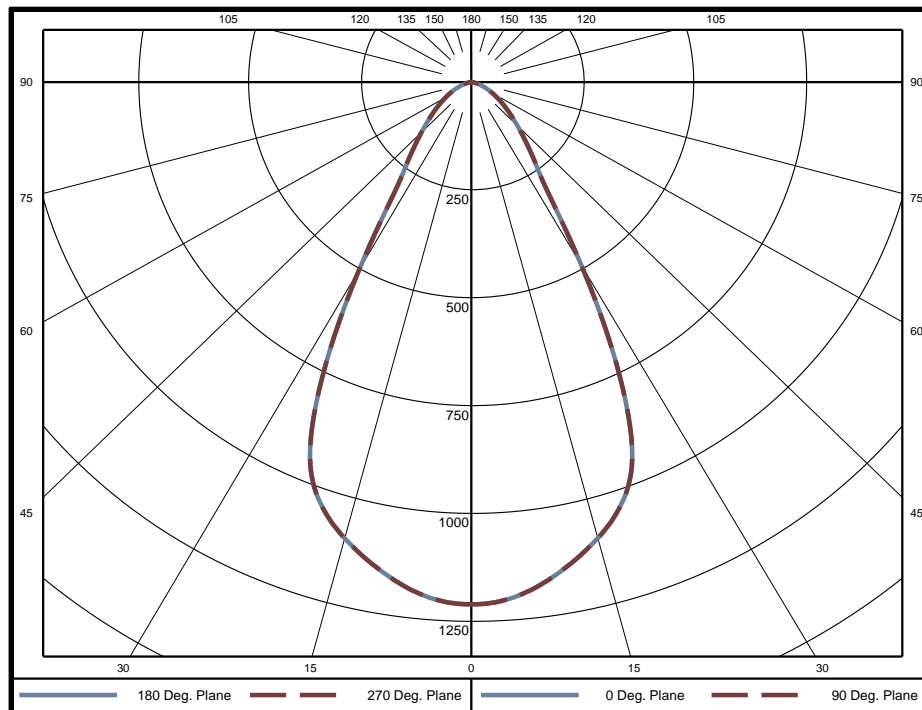
Luminaire Efficacy:

55.5 lm/w

Maximum Candela:

1211 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	28.8	2.4%	60-65	24.4	2.0%	120-125	0	0.0%
5-10	83.9	6.9%	65-70	16.7	1.4%	125-130	0	0.0%
10-15	133.2	10.9%	70-75	10.2	0.8%	130-135	0	0.0%
15-20	174.1	14.3%	75-80	5.4	0.4%	135-140	0	0.0%
20-25	195.2	16.0%	80-85	2.5	0.2%	140-145	0	0.0%
25-30	166.3	13.6%	85-90	0.6	0.0%	145-150	0	0.0%
30-35	108.6	8.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	78.6	6.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	64.4	5.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	52.4	4.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	42.1	3.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	32.9	2.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	969	79.4%
0-60	1161	95.1%
0-90	1220	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	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210
	5	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195	1195
	10	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152
	15	1095	1095	1095	1095	1095	1095	1095	1095	1095	1095	1095	1095	1095	1095	1095
	20	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014	1014
	25	819	819	819	819	819	819	819	819	819	819	819	819	819	819	819
	30	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
	35	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278
	40	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202
	45	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
	50	112	112	112	112	112	112	112	112	112	112	112	112	112	112	112
	55	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	65	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41
	70	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	75	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	80	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	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	315900	315900
	45	55270	55270
	55	37820	37820
	65	25350	25350
	75	14120	14120
	85	8292	8292



### 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	1452	1452	1452	1452	1419	1419	1419	1419	1356	1356	1356	1298	1298	1298	1245	1245	1245	1220
1	1373	1334	1299	1268	1342	1308	1276	1248	1258	1232	1209	1212	1192	1173	1170	1154	1139	1116
2	1293	1225	1168	1121	1265	1203	1152	1108	1163	1120	1083	1126	1091	1060	1092	1063	1038	1016
3	1217	1128	1059	1004	1192	1111	1047	996	1078	1024	979	1047	1002	964	1019	981	949	928
4	1147	1044	967	909	1124	1029	958	904	1002	941	893	977	924	882	953	908	871	851
5	1083	969	890	831	1062	957	883	827	934	869	819	913	856	812	893	844	804	785
6	1024	903	823	765	1004	893	817	762	874	807	756	856	797	751	839	787	746	726
7	969	845	764	708	952	836	760	706	820	752	702	805	744	698	790	736	694	675
8	919	793	713	659	903	785	710	657	772	703	654	758	696	651	746	690	648	630
9	873	746	668	616	859	740	665	614	728	660	612	716	654	610	706	649	608	590
10	831	704	628	577	818	699	626	577	688	621	575	678	617	573	669	612	571	554

#### Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	1210 Candela
Central Cone Intensity:	1206 Candela
Beam Flux:	732.4 Lumens
Beam Angle (0-180):	56.7 Degrees
Beam Angle (90-270):	56.7 Degrees
Field Angle (0-180):	97.3 Degrees
Field Angle (90-270):	97.3 Degrees

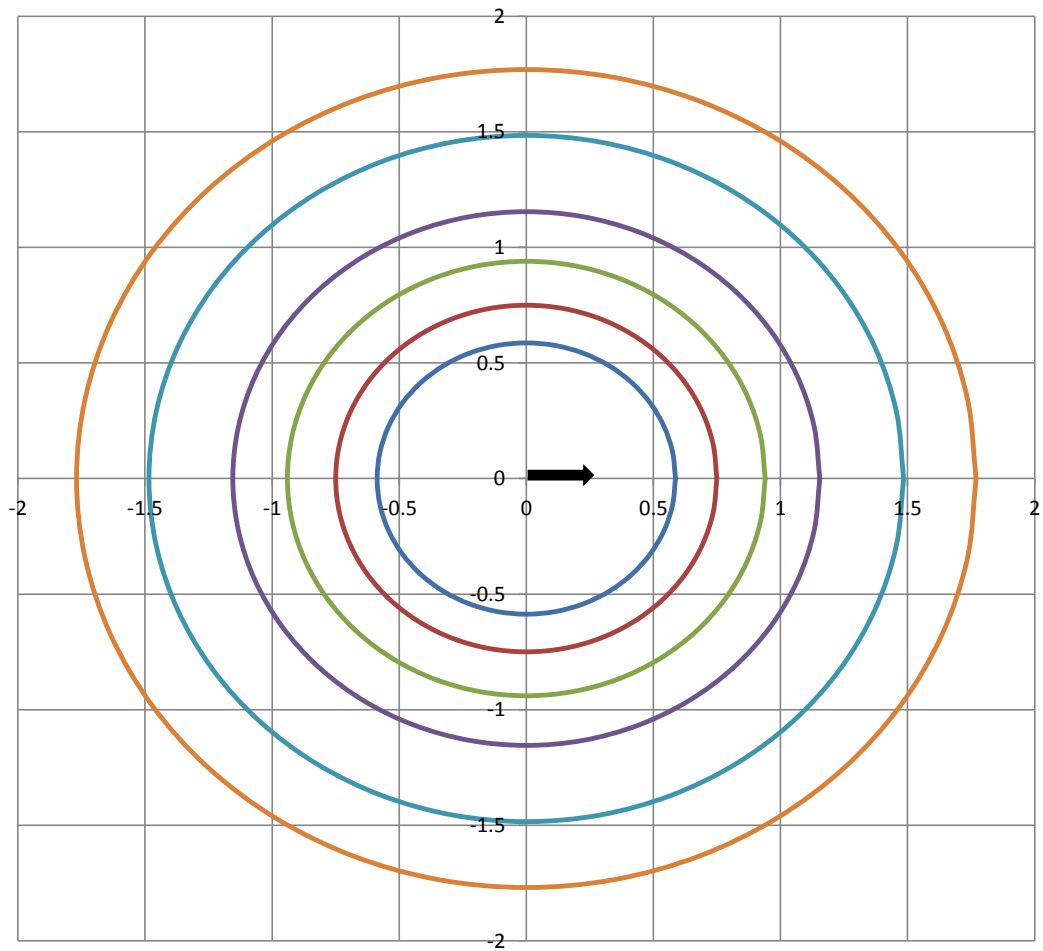
#### Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		75.6	3.74
6.00		33.6	5.62
8.00		18.9	7.49
10.0		12.1	9.36
12.0		8.41	11.2
14.0		6.18	13.1
16.0		4.73	15.0



## 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