



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

**Represented Catalog Numbers**

**LBW-LED-X48-BW-27**

**Catalog Number**  
**LBS-LED-X48-BW-27**

Order Number

12025619

Test Number

12025619.02A

Revised Date:

2017-11-15

Test Date

2017-11-06

Prepared By

Khang Nguyen, Technician

Approved By

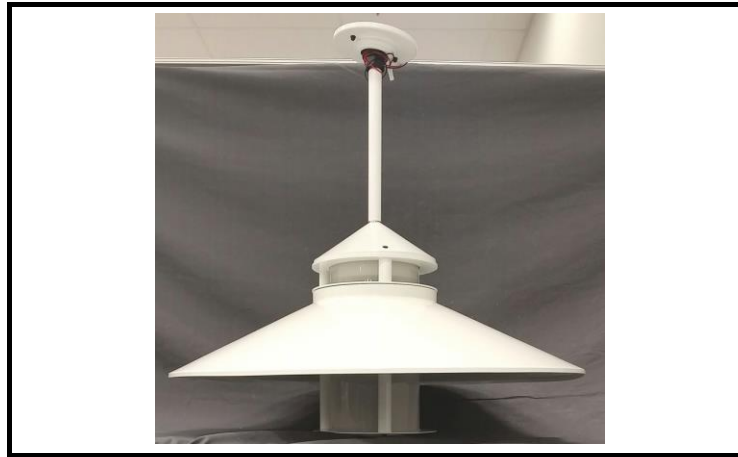
Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Decorative white metal housing, reflector, clear plastic lens, and white metal mounting base.  
**Lamp:** One (1) white LED with optic  
**Mounting:** Pendant  
**Ballast/Driver:** One (1) ECOdrive 561/S

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 27.00 in.  
Luminous Height: 11.50 in.

**Summary of Results**

Total Luminaire Output:	3588 Lumens
Luminaire Efficacy:	88.9 lm/w
Maximum Candela:	1136 Candela

**Test Conditions**

Test Temperature:	25.3 °C
Voltage:	120.1 VAC
Current:	0.3396 A
Power:	40.36 W
Power Factor:	0.990
Frequency:	60 Hz
Current THD:	6.91 %

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
25.3 °C	120.1 VAC	0.3396 A	40.36 W	0.990	60 Hz	6.91 %

### Summary of Results

#### Spacing Criteria

0-180: 1.82

90-270: 1.74

**Total Lumen Output:**

3588 Lumens

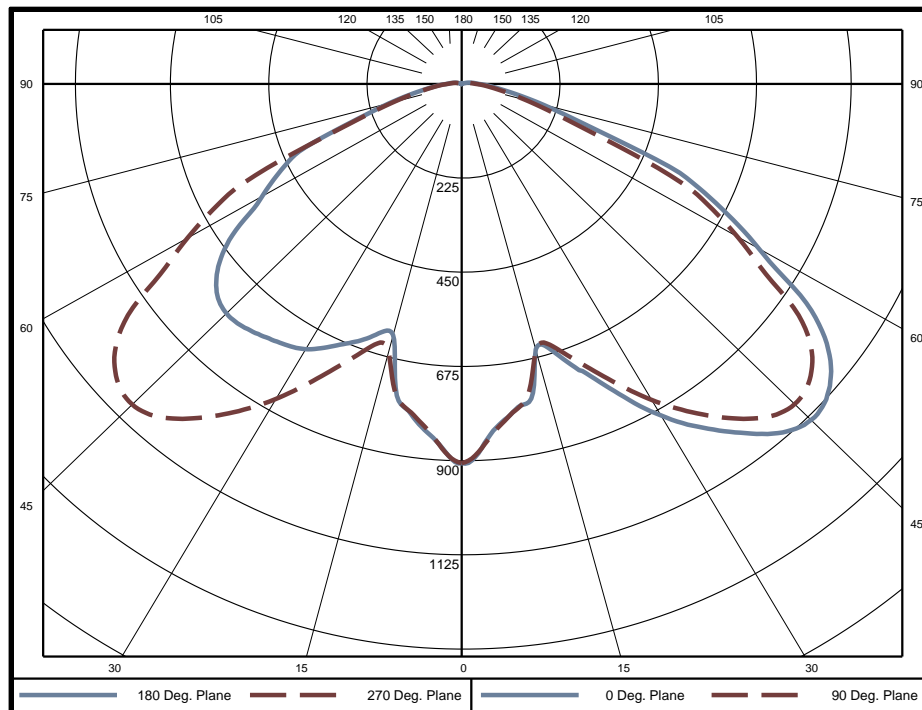
**Luminaire Efficacy:**

88.9 lm/w

**Maximum Candela:**

1136 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	20.7	0.6%	60-65	305.6	8.5%	120-125	0.8	0.0%
5-10	57.5	1.6%	65-70	211.8	5.9%	125-130	0.7	0.0%
10-15	85.7	2.4%	70-75	116.5	3.2%	130-135	0.5	0.0%
15-20	107.3	3.0%	75-80	69.8	1.9%	135-140	0.3	0.0%
20-25	150.6	4.2%	80-85	42.1	1.2%	140-145	0.1	0.0%
25-30	203.8	5.7%	85-90	26.0	0.7%	145-150	0.1	0.0%
30-35	263.0	7.3%	90-95	16.0	0.4%	150-155	0.1	0.0%
35-40	322.1	9.0%	95-100	10.9	0.3%	155-160	0.0	0.0%
40-45	376.4	10.5%	100-105	6.7	0.2%	160-165	0.0	0.0%
45-50	410.7	11.4%	105-110	2.3	0.1%	165-170	0.0	0.0%
50-55	413.3	11.5%	110-115	0.8	0.0%	170-175	0.0	0.0%
55-60	364.6	10.2%	115-120	0.8	0.0%	175-180	0.0	0.0%

Zone	Lumens	% of Luminaire
0-40	1211	33.7%
0-60	2776	77.4%
0-90	3548	98.9%
90-180	40	1.1%



**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	906	906	906	906	906	906	906	906	906	906	906	906	906	906	906
	5	832	830	832	834	837	840	842	844	842	844	842	840	837	834	832
	10	780	776	772	774	781	785	791	792	783	792	791	785	781	774	772
	15	657	643	633	638	660	679	667	640	620	640	667	679	660	638	633
	20	706	683	648	644	683	719	706	670	647	670	706	719	683	644	648
	25	802	778	719	703	770	808	790	747	689	747	790	808	770	703	719
	30	914	885	806	772	871	913	892	845	732	845	892	913	871	772	806
	35	1008	980	879	825	964	1005	978	935	751	935	978	1005	964	825	879
	40	1092	1060	939	867	1043	1075	1045	1011	768	1011	1045	1075	1043	867	939
	45	1135	1099	967	883	1082	1105	1071	1050	776	1050	1071	1105	1082	883	967
	50	1104	1068	937	851	1051	1074	1037	1022	749	1022	1037	1074	1051	851	937
	55	1001	950	834	749	931	945	929	921	669	921	929	945	931	749	834
	60	788	749	667	606	734	755	734	724	539	724	734	755	734	606	667
	65	615	576	521	480	556	576	580	567	452	567	580	576	556	480	521
	70	350	299	279	267	275	294	301	310	291	310	301	294	275	267	279
	75	197	171	162	158	159	172	171	174	171	174	171	172	159	158	162
	80	113	99	95	94	94	101	100	101	101	101	100	101	94	94	95
	85	68	60	58	58	58	62	61	61	61	61	61	62	58	58	60
	90	40	35	34	34	34	37	36	36	36	36	36	37	34	34	35
	95	28	24	24	23	23	24	24	25	25	25	24	24	23	23	24
	100	19	17	16	16	15	16	16	17	17	17	16	16	15	16	16
	105	10	9	8	8	7	8	8	9	9	9	8	8	7	8	9
	110	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	115	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	120	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	125	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	130	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	135	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	140	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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	2452	2452
	45	4236	4040
	55	3776	3514
	65	2421	2187
	75	831	672
	85	318	268



### 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	4262	4262	4262	4262	4158	4158	4158	4158	3964	3964	3964	3787	3787	3787	3624	3624	3624	3548
1	3877	3699	3539	3395	3774	3613	3468	3336	3452	3333	3223	3305	3207	3117	3168	3090	3017	2938
2	3499	3188	2930	2713	3399	3116	2879	2678	2980	2781	2608	2855	2688	2542	2739	2602	2479	2397
3	3160	2759	2449	2201	3065	2698	2410	2178	2583	2336	2133	2477	2267	2090	2378	2201	2048	1965
4	2864	2406	2071	1815	2775	2355	2041	1799	2257	1985	1769	2166	1930	1739	2082	1879	1711	1627
5	2608	2116	1773	1519	2526	2072	1750	1508	1989	1705	1487	1912	1662	1466	1840	1621	1445	1363
6	2386	1877	1535	1290	2312	1839	1517	1282	1768	1481	1266	1702	1446	1250	1640	1413	1235	1156
7	2194	1678	1344	1109	2126	1646	1328	1103	1585	1299	1091	1528	1271	1079	1474	1244	1068	991
8	2027	1512	1188	965	1966	1484	1175	960	1431	1151	951	1382	1128	942	1335	1105	933	860
9	1881	1371	1059	849	1826	1348	1049	845	1302	1029	837	1259	1009	830	1218	990	823	753
10	1753	1252	953	753	1703	1232	944	750	1192	927	744	1154	910	738	1119	894	732	666

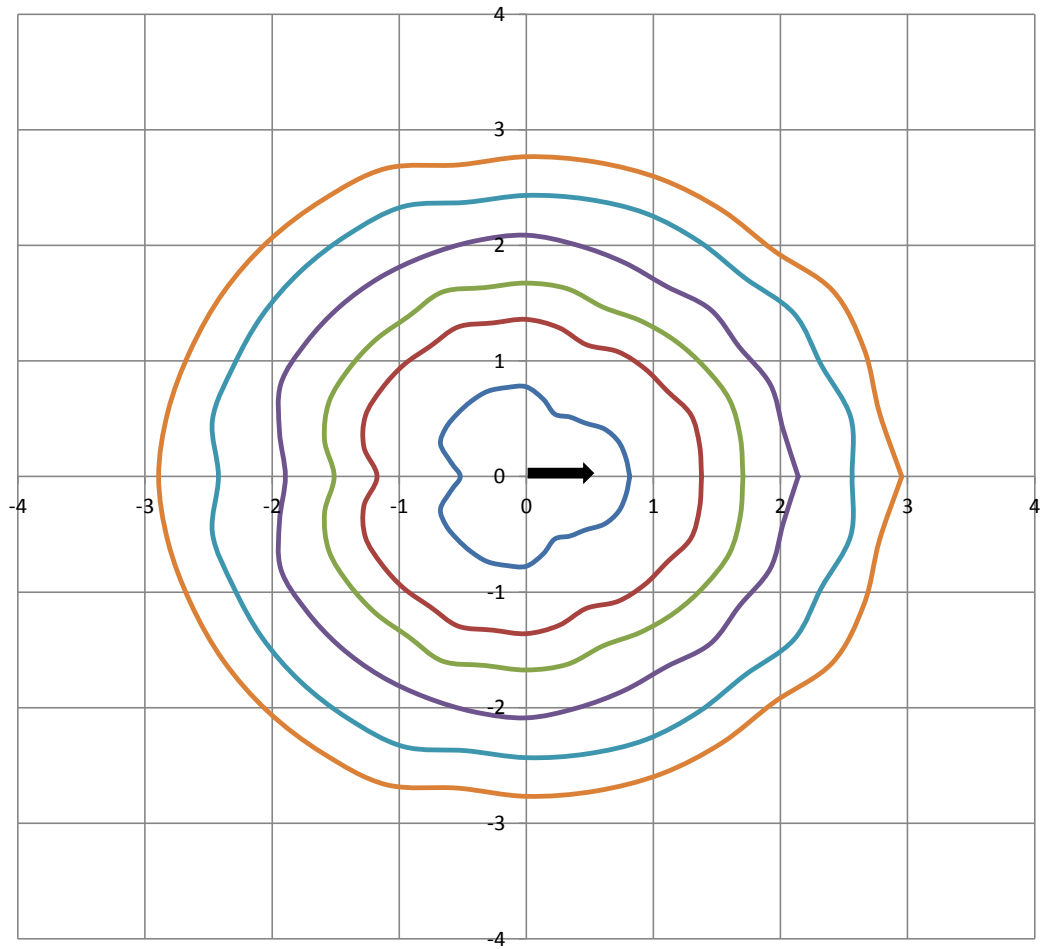
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	906 Candela
Central Cone Intensity:	877 Candela
Beam Flux:	3173.5 Lumens
Beam Angle (0-180):	133.3 Degrees
Beam Angle (90-270):	133.2 Degrees
Field Angle (0-180):	163.1 Degrees
Field Angle (90-270):	160.7 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		56.6	6.63
6.00		25.2	9.94
8.00		14.2	13.3
10.0		9.06	16.6
12.0		6.29	19.9
14.0		4.62	23.2
16.0		3.54	26.5



## ISOFootcandle Plot

Mounting Height - 10 Feet



Grid Lines in Units of Mounting Height

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