



UL LLC  
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## Indoor Distribution Test Report

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

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

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United States

**Catalog Number**  
**SM-APII-x48-BW-12-C**

Order Number

11708270

Test Number

11708270.10

Test Date

2017-08-01

Prepared By

Approved By

Tony Rubio, Technician

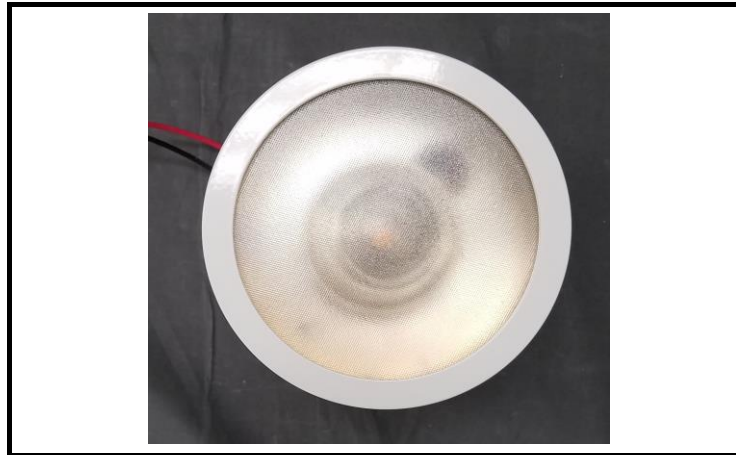
Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Circular white metal housing and outer patterned glass lens  
**Lamp:** One (1) white LED with optic attached  
**Mounting:** VBU  
**Ballast/Driver:** SOLO DRIVE 561/S

**Luminaire**



**Luminaire Characteristics**  
Luminous Diameter: 4.50 in.

**Summary of Results**

Total Luminaire Output:	3117 Lumens
Luminaire Efficacy:	74.6 lm/w
Maximum Candela:	1619 Candela

**Test Conditions**

Test Temperature:	24.6 °C
Voltage:	120.0 VAC
Current:	0.3507 A
Power:	41.77 W
Power Factor:	0.992
Frequency:	60 Hz
Current THD:	5.03 %

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
24.6 °C	120.0 VAC	0.3507 A	41.77 W	0.992	60 Hz	5.03 %

### Summary of Results

#### Spacing Criteria

0-180: 1.25

90-270: 1.25

Total Lumen Output:

Luminaire Efficacy:

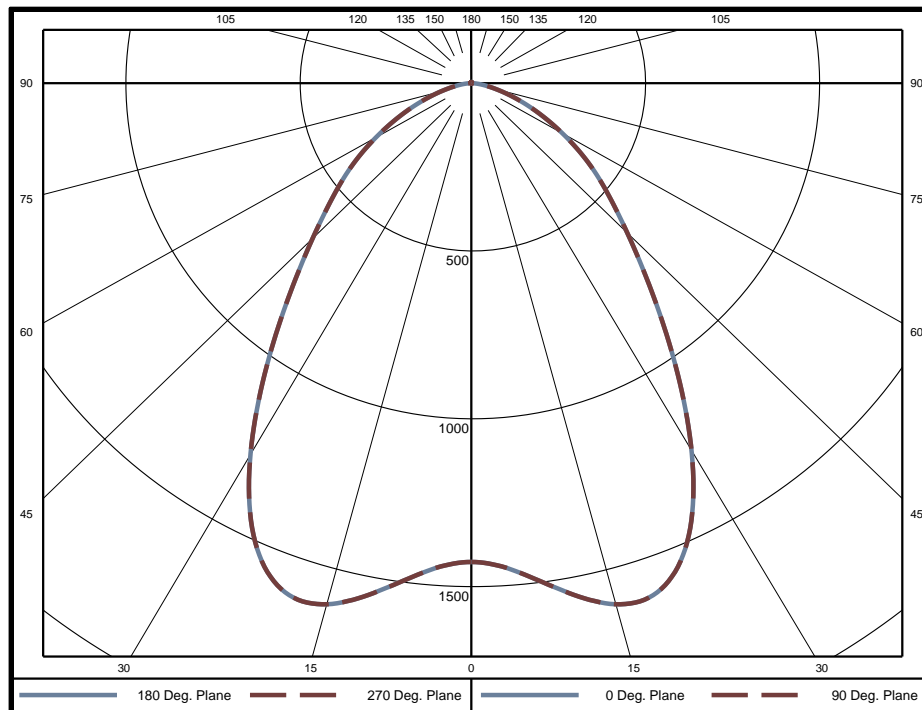
Maximum Candela:

3117 Lumens

74.6 lm/w

1619 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	34.5	1.1%	60-65	128.5	4.1%	120-125	0	0.0%
5-10	107.3	3.4%	65-70	91.8	2.9%	125-130	0	0.0%
10-15	187.2	6.0%	70-75	59.2	1.9%	130-135	0	0.0%
15-20	266.2	8.5%	75-80	33.4	1.1%	135-140	0	0.0%
20-25	325.8	10.5%	80-85	16.1	0.5%	140-145	0	0.0%
25-30	350.1	11.2%	85-90	5.2	0.2%	145-150	0	0.0%
30-35	338.2	10.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	305.1	9.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	267.0	8.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	232.6	7.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	201.5	6.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	166.7	5.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1914	61.4%
0-60	2782	89.3%
0-90	3116	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	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427	1427
	5	1459	1459	1459	1459	1459	1459	1459	1459	1459	1459	1459	1459	1459	1459	1459
	10	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536
	15	1608	1608	1608	1608	1608	1608	1608	1608	1608	1608	1608	1608	1608	1608	1608
	20	1604	1604	1604	1604	1604	1604	1604	1604	1604	1604	1604	1604	1604	1604	1604
	25	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487
	30	1274	1274	1274	1274	1274	1274	1274	1274	1274	1274	1274	1274	1274	1274	1274
	35	1029	1029	1029	1029	1029	1029	1029	1029	1029	1029	1029	1029	1029	1029	1029
	40	811	811	811	811	811	811	811	811	811	811	811	811	811	811	811
	45	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642
	50	517	517	517	517	517	517	517	517	517	517	517	517	517	517	517
	55	412	412	412	412	412	412	412	412	412	412	412	412	412	412	412
	60	311	311	311	311	311	311	311	311	311	311	311	311	311	311	311
	65	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221
	70	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
	75	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
	80	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
	85	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	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	139100	139100
	45	88520	88520
	55	70070	70070
	65	50910	50910
	75	31960	31960
	85	20160	20160



### 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	3710	3710	3710	3710	3624	3624	3624	3624	3463	3463	3463	3316	3316	3316	3180	3180	3180	3117
1	3454	3332	3223	3125	3372	3263	3164	3074	3133	3052	2978	3014	2948	2888	2904	2852	2803	2742
2	3195	2980	2803	2653	3119	2924	2761	2622	2817	2680	2563	2718	2605	2506	2627	2534	2451	2390
3	2956	2676	2459	2287	2884	2629	2428	2267	2540	2369	2228	2458	2313	2191	2382	2260	2155	2094
4	2740	2416	2179	1998	2674	2377	2155	1985	2302	2111	1959	2233	2068	1934	2169	2027	1909	1849
5	2545	2193	1947	1765	2485	2160	1929	1756	2097	1894	1739	2039	1861	1721	1985	1829	1704	1645
6	2371	2001	1754	1576	2316	1973	1739	1569	1920	1712	1557	1871	1686	1544	1824	1660	1532	1474
7	2214	1836	1590	1418	2164	1812	1579	1414	1766	1557	1404	1724	1535	1395	1684	1515	1386	1330
8	2073	1691	1451	1286	2028	1671	1442	1282	1632	1424	1275	1595	1406	1269	1560	1390	1262	1208
9	1947	1565	1331	1173	1906	1547	1324	1171	1514	1309	1165	1482	1294	1160	1452	1280	1155	1103
10	1833	1454	1227	1077	1795	1439	1221	1074	1409	1209	1070	1382	1197	1066	1355	1185	1062	1012

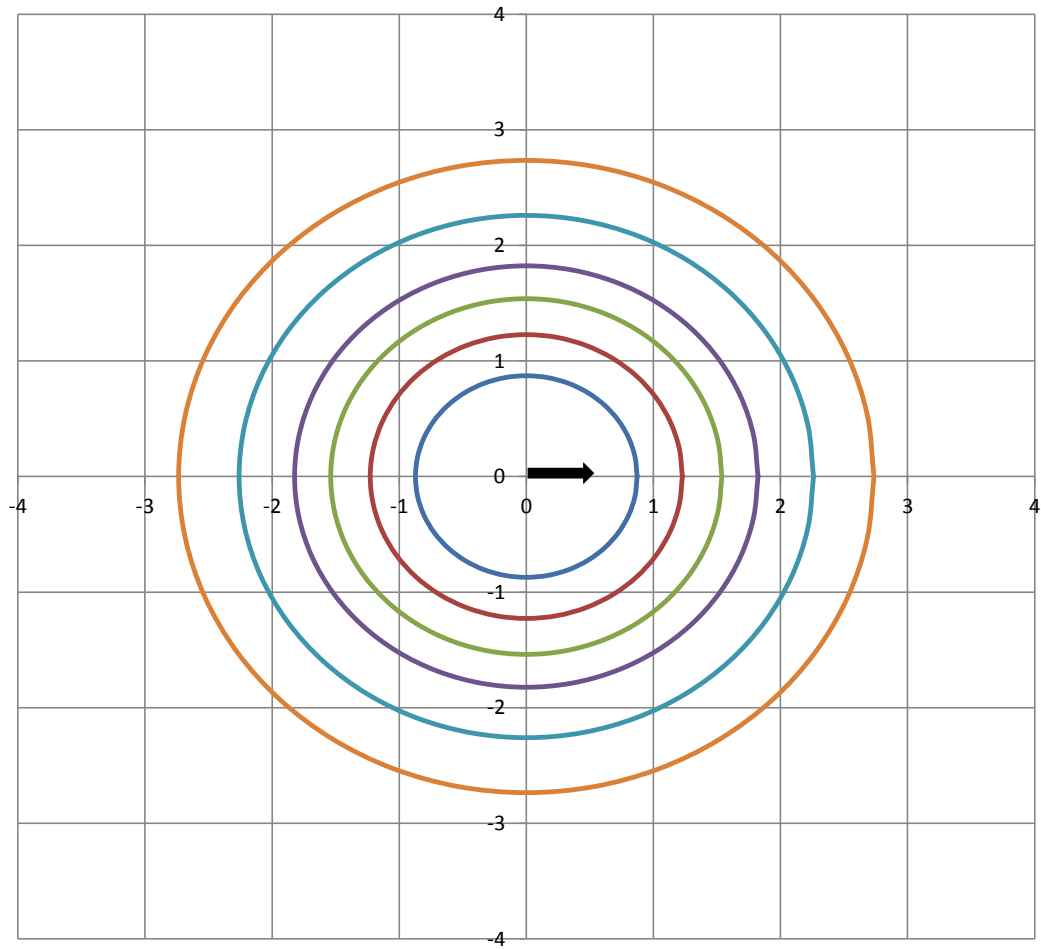
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1427 Candela
Central Cone Intensity:	1438 Candela
Beam Flux:	2065.6 Lumens
Beam Angle (0-180):	85.4 Degrees
Beam Angle (90-270):	85.4 Degrees
Field Angle (0-180):	140.3 Degrees
Field Angle (90-270):	140.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		89.2	5.01
6.00		39.6	7.52
8.00		22.3	10.0
10.0		14.3	12.5
12.0		9.91	15.0
14.0		7.28	17.5
16.0		5.57	20.0



## 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