



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**

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

**Catalog Number**  
**OL-LED-X66-SP-9**

Order Number  
11353040  
Test Number  
11353040.46

Test Date

2016-09-30

Prepared By

Tony Rubio, 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:** Glass lens, silver linear reflector, circular black aluminum housing, silver linear reflector, and glass lens  
**Lamp:** Two (2) White LED  
**Mounting:** Surface  
**Ballast/Driver:** Two (2) Thomas Research Products LED25W-36-C0700-LE

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 2.75 in.  
Luminous Height: 10.250 in.

#### Summary of Results

Total Luminaire Output:	3879 Lumens
Luminaire Efficacy:	70.5 lm/w
Maximum Candela:	16713 Candela

#### Test Conditions

Test Temperature:	24.3 °C
Voltage:	120.0 VAC
Current:	0.4660 A
Power:	55.05 W
Power Factor:	0.984
Frequency:	60 Hz
Current THD:	14.7 %

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
24.3 °C	120.0 VAC	0.4660 A	55.05 W	0.984	60 Hz	14.7 %

### Summary of Results

#### Spacing Criteria

0-180: 0.24

90-270: 0.24

**Total Lumen Output:**

3879 Lumens

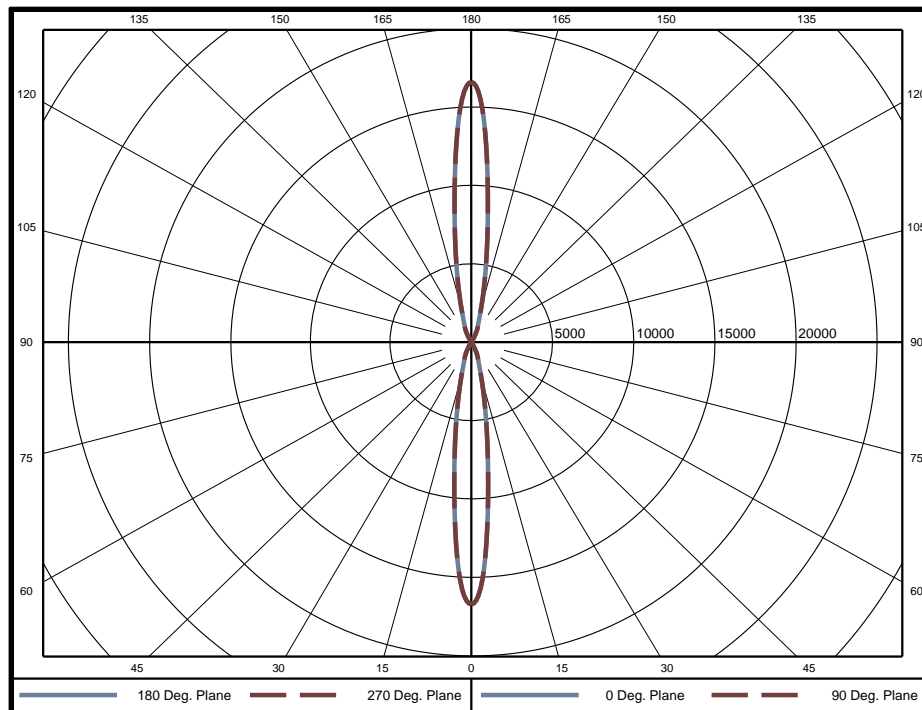
**Luminaire Efficacy:**

70.5 lm/w

**Maximum Candela:**

16713 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	329.5	8.5%	60-65	8.1	0.2%	120-125	9.4	0.2%
5-10	529.5	13.7%	65-70	6.8	0.2%	125-130	10.3	0.3%
10-15	400.7	10.3%	70-75	5.4	0.1%	130-135	12.3	0.3%
15-20	261.3	6.7%	75-80	4.1	0.1%	135-140	16.1	0.4%
20-25	195.6	5.0%	80-85	3.0	0.1%	140-145	22.0	0.6%
25-30	98.7	2.5%	85-90	2.1	0.1%	145-150	31.2	0.8%
30-35	33.0	0.9%	90-95	1.7	0.0%	150-155	98.0	2.5%
35-40	23.1	0.6%	95-100	2.6	0.1%	155-160	194.3	5.0%
40-45	16.5	0.4%	100-105	3.8	0.1%	160-165	260.4	6.7%
45-50	12.3	0.3%	105-110	5.2	0.1%	165-170	401.0	10.3%
50-55	10.2	0.3%	110-115	6.8	0.2%	170-175	522.6	13.5%
55-60	9.3	0.2%	115-120	8.3	0.2%	175-180	324.4	8.4%

Zone	Lumens	% of Luminaire
0-40	1871	48.2%
0-60	1920	49.5%
0-90	1949	50.3%
90-180	1930	49.8%



### 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	16710	16710	16710	16710	16710	16710	16710	16710	16710	16710	16710	16710	16710	16710	16710
	5	11150	11150	11150	11150	11150	11150	11150	11150	11150	11150	11150	11150	11150	11150	11150
	10	5061	5061	5061	5061	5061	5061	5061	5061	5061	5061	5061	5061	5061	5061	5061
	15	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248
	20	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185	1185
	25	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674
	30	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176
	35	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
	40	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
	45	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	50	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	55	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
	60	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	65	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	70	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	75	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	80	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	85	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	90	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	95	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	100	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	105	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	110	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	115	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	120	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	125	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
	130	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	135	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	140	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
	145	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
	150	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168
	155	672	672	672	672	672	672	672	672	672	672	672	672	672	672	672
	160	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173	1173
	165	2259	2259	2259	2259	2259	2259	2259	2259	2259	2259	2259	2259	2259	2259	2259
	170	5032	5032	5032	5032	5032	5032	5032	5032	5032	5032	5032	5032	5032	5032	5032
	175	10950	10950	10950	10950	10950	10950	10950	10950	10950	10950	10950	10950	10950	10950	10950
	180	16590	16590	16590	16590	16590	16590	16590	16590	16590	16590	16590	16590	16590	16590	16590

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

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	4361000	4361000
	45	13410	13410
	55	9880	9880
	65	9311	9311
	75	9052	9052
	85	13600	13600



### 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	4159	4159	4159	4159	3837	3837	3837	3837	3238	3238	3238	2689	2689	2689	2186	2186	2186	1949
1	3911	3791	3683	3587	3618	3519	3430	3349	3010	2951	2897	2543	2507	2473	2112	2092	2074	1877
2	3685	3483	3315	3175	3418	3251	3110	2991	2815	2720	2638	2414	2353	2300	2043	2008	1978	1812
3	3481	3223	3024	2865	3239	3024	2855	2719	2648	2531	2435	2301	2224	2160	1978	1933	1895	1753
4	3296	3002	2786	2622	3076	2829	2645	2502	2503	2372	2269	2200	2113	2043	1918	1866	1822	1700
5	3129	2811	2589	2425	2929	2660	2469	2326	2375	2238	2132	2110	2016	1943	1862	1804	1758	1652
6	2979	2647	2424	2264	2797	2515	2322	2181	2264	2123	2018	2029	1932	1858	1810	1749	1700	1607
7	2845	2505	2285	2131	2678	2388	2196	2060	2166	2024	1921	1957	1858	1784	1762	1698	1649	1566
8	2723	2381	2165	2017	2570	2276	2088	1957	2078	1937	1837	1892	1792	1719	1716	1651	1602	1528
9	2613	2271	2062	1921	2473	2178	1994	1868	2000	1861	1764	1832	1732	1661	1674	1608	1559	1493
10	2512	2174	1971	1836	2383	2090	1911	1790	1929	1793	1699	1778	1679	1609	1634	1568	1520	1460

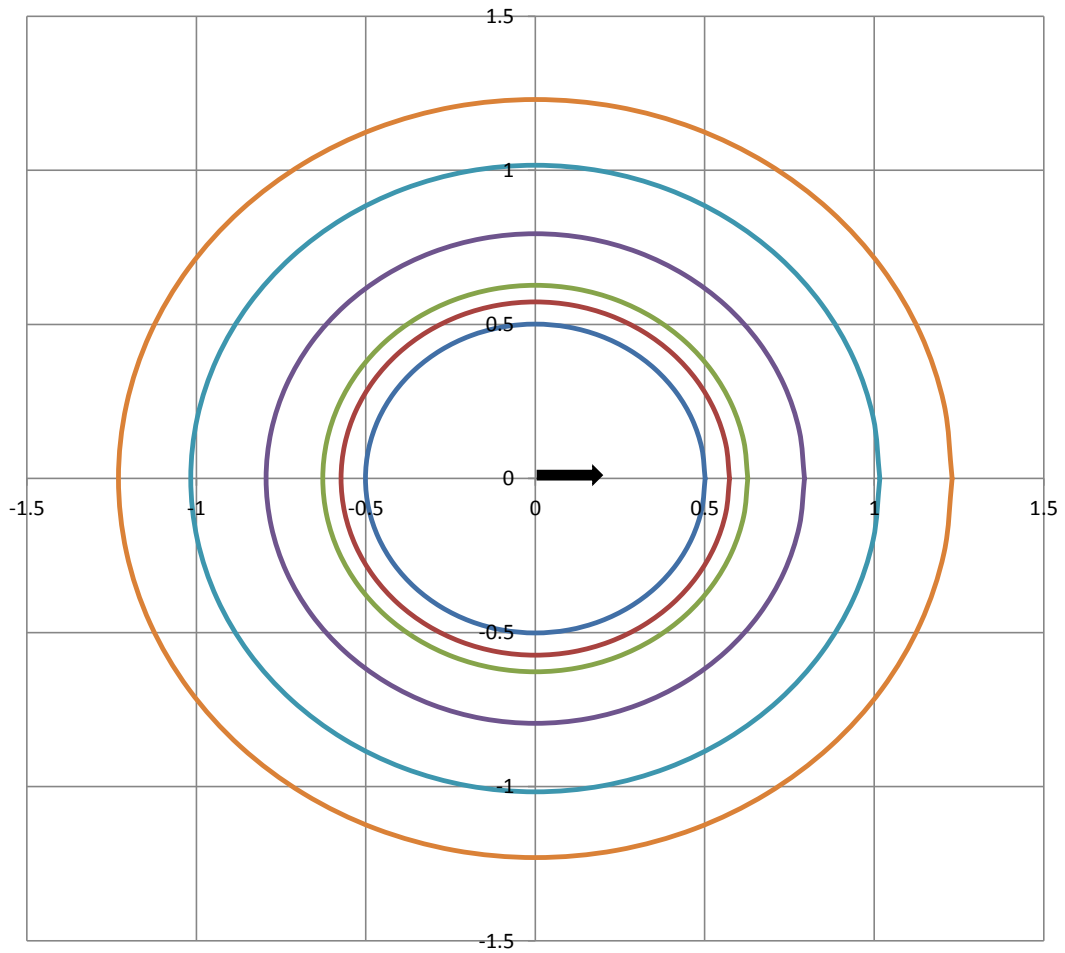
Beam and Field Information	
CIE Type:	Direct/Indirect
Center Beam Intensity:	16710 Candela
Central Cone Intensity:	14635 Candela
Beam Flux:	1040.7 Lumens
Beam Angle (0-180):	13.7 Degrees
Beam Angle (90-270):	13.7 Degrees
Field Angle (0-180):	33.9 Degrees
Field Angle (90-270):	33.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		1040	0.943
6.00		464	1.41
8.00		261	1.89
10.0		167	2.36
12.0		116	2.83
14.0		85.3	3.30
16.0		65.3	3.77



## 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