



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
OL-LED-x63-FL-9

Order Number
11353040
Test Number
11353040.01

Test Date

2016-09-01

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 formed black aluminum cylinder housing with dual sided specular faceted reflectors and dual sided clear plastic lenses
Lamp: Two (2) White LEDs
Mounting: Surface
Ballast/Driver: Two (2) POWERSELECT PS60U700C21T Drivers

Luminaire



Luminaire Characteristics

Luminous Diameter: 2.50 in.
Luminous Height: 10.250 in.

Summary of Results

Total Luminaire Output:	2527 Lumens
Luminaire Efficacy:	58.1 lm/w
Maximum Candela:	3040 Candela

Test Conditions

Test Temperature:	24.7 °C
Voltage:	120.1 VAC
Current:	0.3676 A
Power:	43.53 W
Power Factor:	0.987
Frequency:	60 Hz
Current THD:	11.6 %

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
24.7 °C	120.1 VAC	0.3676 A	43.53 W	0.987	60 Hz	11.6 %

Summary of Results

Spacing Criteria

0-180: 0.60

90-270: 0.60

Total Lumen Output:

2527 Lumens

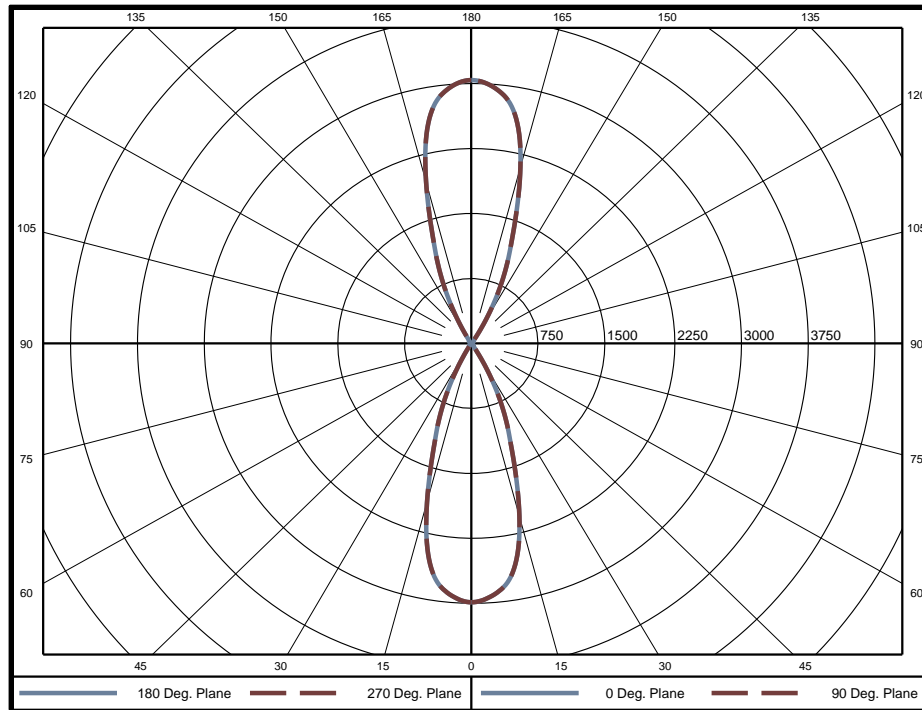
Luminaire Efficacy:

58.1 lm/w

Maximum Candela:

3040 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	70.4	2.8%	60-65	3.9	0.2%	120-125	6.5	0.3%
5-10	199.3	7.9%	65-70	2.9	0.1%	125-130	10.9	0.4%
10-15	275.4	10.9%	70-75	2.4	0.1%	130-135	14.6	0.6%
15-20	260.2	10.3%	75-80	1.7	0.1%	135-140	14.4	0.6%
20-25	206.2	8.2%	80-85	0.9	0.0%	140-145	15.8	0.6%
25-30	126.8	5.0%	85-90	0.1	0.0%	145-150	42.5	1.7%
30-35	39.6	1.6%	90-95	0.2	0.0%	150-155	129.8	5.1%
35-40	13.8	0.5%	95-100	1.2	0.0%	155-160	210.7	8.3%
40-45	12.9	0.5%	100-105	2.1	0.1%	160-165	266.4	10.5%
45-50	13.5	0.5%	105-110	2.8	0.1%	165-170	280.9	11.1%
50-55	9.9	0.4%	110-115	3.5	0.1%	170-175	202.8	8.0%
55-60	5.5	0.2%	115-120	4.6	0.2%	175-180	71.7	2.8%

Zone	Lumens	% of Luminaire
0-40	1192	47.2%
0-60	1234	48.8%
0-90	1245	49.3%
90-180	1281	50.7%



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	2987	2987	2987	2987	2987	2987	2987	2987	2987	2987	2987	2987	2987	2987	2987
	5	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904
	10	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
	15	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982
	20	1244	1244	1244	1244	1244	1244	1244	1244	1244	1244	1244	1244	1244	1244	1244
	25	745	745	745	745	745	745	745	745	745	745	745	745	745	745	745
	30	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284
	35	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
	40	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	45	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	50	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	55	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	60	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	65	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	100	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	105	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	110	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	115	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	120	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	125	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	130	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
	135	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
	140	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41
	145	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	150	296	296	296	296	296	296	296	296	296	296	296	296	296	296	296
	155	761	761	761	761	761	761	761	761	761	761	761	761	761	761	761
	160	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275	1275
	165	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
	170	2688	2688	2688	2688	2688	2688	2688	2688	2688	2688	2688	2688	2688	2688	2688
	175	2957	2957	2957	2957	2957	2957	2957	2957	2957	2957	2957	2957	2957	2957	2957
	180	3040	3040	3040	3040	3040	3040	3040	3040	3040	3040	3040	3040	3040	3040	3040

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

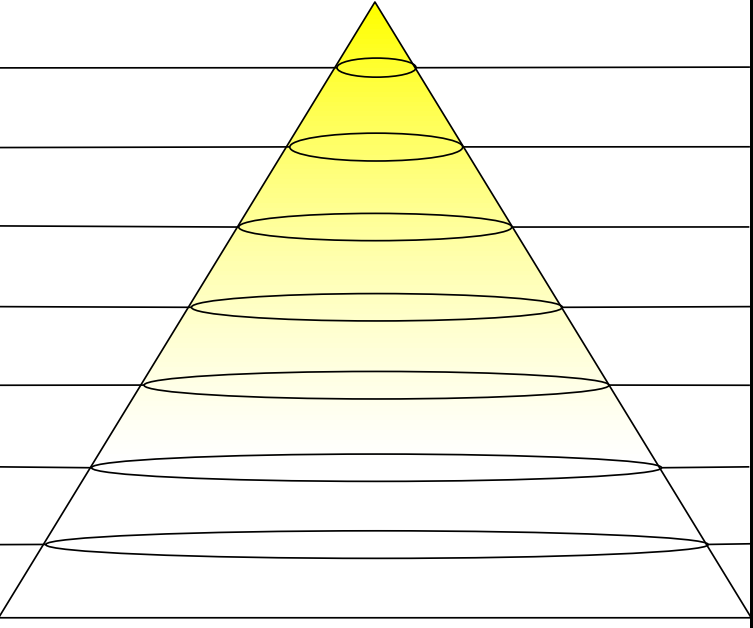
Vertical Angle (Degrees)	0	45	90
	0	943300	943300
	45	15520	15520
	55	8571	8571
	65	4931	4931
	75	4713	4713
	85	3541	3541



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																	
Ceiling Cavity Reflectance	80				70				50			30			10		
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																
0	2703	2703	2703	2703	2491	2491	2491	2491	2096	2096	2096	1734	1734	1734	1402	1402	1402
1	2534	2452	2379	2314	2340	2273	2212	2157	1937	1896	1859	1628	1602	1579	1343	1329	1316
2	2377	2238	2124	2028	2200	2085	1989	1907	1797	1731	1674	1531	1489	1451	1286	1261	1238
3	2233	2056	1919	1810	2073	1924	1807	1713	1675	1593	1526	1445	1390	1344	1231	1198	1170
4	2102	1899	1750	1636	1956	1784	1656	1557	1567	1476	1403	1366	1304	1254	1179	1140	1108
5	1983	1761	1607	1493	1849	1661	1528	1428	1472	1375	1300	1296	1228	1175	1131	1088	1053
6	1874	1642	1487	1375	1752	1554	1419	1321	1387	1287	1213	1232	1161	1107	1086	1039	1003
7	1776	1538	1384	1276	1665	1460	1325	1230	1312	1211	1138	1173	1101	1047	1043	995	958
8	1686	1446	1295	1191	1584	1377	1244	1151	1244	1144	1072	1120	1047	993	1003	954	916
9	1605	1364	1217	1117	1511	1302	1172	1083	1183	1084	1014	1072	998	946	966	916	878
10	1531	1291	1148	1052	1444	1235	1108	1022	1128	1030	962	1027	954	902	931	880	843

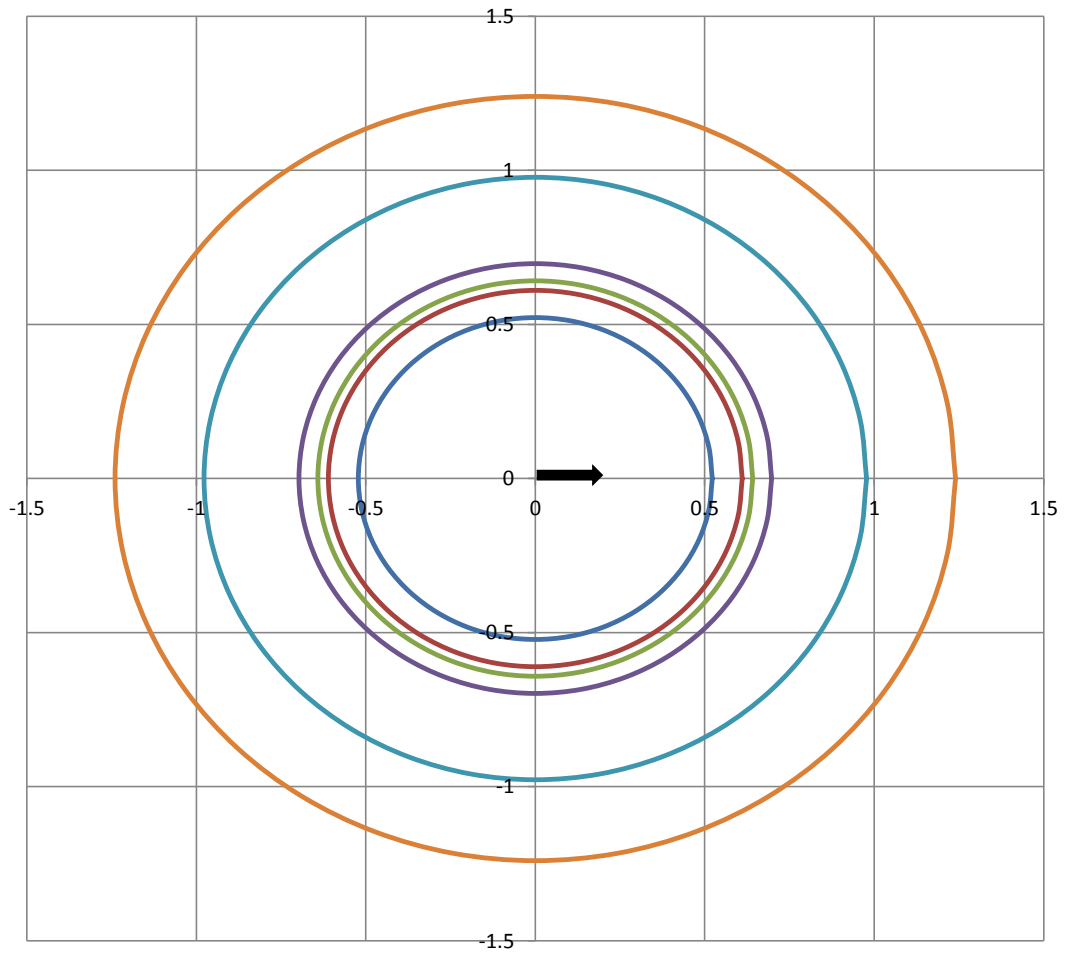
Beam and Field Information	
CIE Type:	Direct/Indirect
Center Beam Intensity:	2987 Candela
Central Cone Intensity:	2956 Candela
Beam Flux:	1453.9 Lumens
Beam Angle (0-180):	36.3 Degrees
Beam Angle (90-270):	36.3 Degrees
Field Angle (0-180):	59.6 Degrees
Field Angle (90-270):	59.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		187	2.41
6.00		83.0	3.61
8.00		46.7	4.82
10.0		29.9	6.02
12.0		20.7	7.23
14.0		15.2	8.43
16.0		11.7	9.64



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