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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
OL-LED-x63-SP-9

Order Number
11353040
Test Number
11353040.02

Test Date

2016-08-31

Prepared By

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Approved By

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The results contained in this report pertain only to the tested sample.
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Luminaire Description: Circular formed black aluminum cylinder housing with dual sided specular linear reflectors and dual sided clear plastic lenses
Lamp: Two (2) White LEDs
Mounting: Surface
Ballast/Driver: Two (2) POWERSELECT PS60U700C21T

Luminaire



Luminaire Characteristics

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

Summary of Results

Total Luminaire Output:	2617 Lumens
Luminaire Efficacy:	59.9 lm/w
Maximum Candela:	7450 Candela

Test Conditions

Test Temperature:	25.3 °C
Voltage:	120.1 VAC
Current:	0.3691 A
Power:	43.71 W
Power Factor:	0.986
Frequency:	60 Hz
Current THD:	11.7 %

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
25.3 °C	120.1 VAC	0.3691 A	43.71 W	0.986	60 Hz	11.7 %

Summary of Results

Spacing Criteria

0-180: 0.29

90-270: 0.29

Total Lumen Output:

2617 Lumens

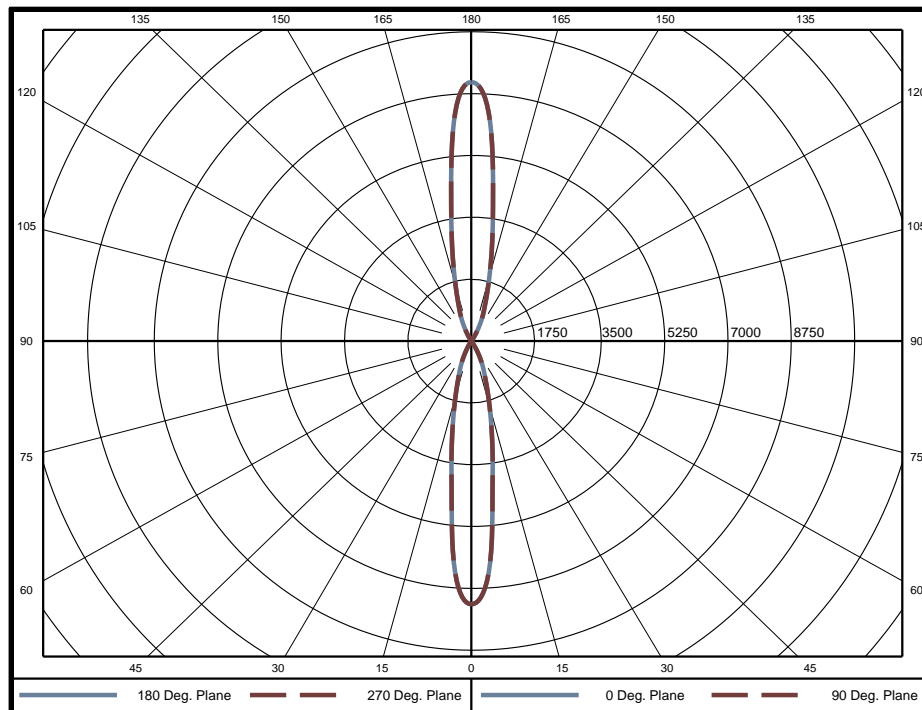
Luminaire Efficacy:

59.9 lm/w

Maximum Candela:

7450 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	161.9	6.2%	60-65	4.0	0.2%	120-125	4.3	0.2%
5-10	303.3	11.6%	65-70	3.2	0.1%	125-130	4.4	0.2%
10-15	284.4	10.9%	70-75	2.2	0.1%	130-135	5.4	0.2%
15-20	222.8	8.5%	75-80	1.5	0.1%	135-140	7.6	0.3%
20-25	165.5	6.3%	80-85	1.0	0.0%	140-145	11.8	0.5%
25-30	96.1	3.7%	85-90	0.2	0.0%	145-150	30.8	1.2%
30-35	31.3	1.2%	90-95	0.2	0.0%	150-155	94.9	3.6%
35-40	11.6	0.4%	95-100	1.0	0.0%	155-160	164.0	6.3%
40-45	7.2	0.3%	100-105	1.6	0.1%	160-165	220.7	8.4%
45-50	5.0	0.2%	105-110	2.2	0.1%	165-170	284.2	10.9%
50-55	4.2	0.2%	110-115	3.2	0.1%	170-175	307.6	11.8%
55-60	4.4	0.2%	115-120	4.0	0.2%	175-180	160.0	6.1%

Zone	Lumens	% of Luminaire
0-40	1277	48.8%
0-60	1298	49.6%
0-90	1310	50.0%
90-180	1308	50.0%



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	7450	7450	7450	7450	7450	7450	7450	7450	7450	7450	7450	7450	7450	7450	7450
	5	5970	5970	5970	5970	5970	5970	5970	5970	5970	5970	5970	5970	5970	5970	5970
	10	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207
	15	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804
	20	1021	1021	1021	1021	1021	1021	1021	1021	1021	1021	1021	1021	1021	1021	1021
	25	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581
	30	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214
	35	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
	40	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	45	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	50	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	55	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	60	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	65	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	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	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	105	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	110	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	115	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	120	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	125	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	130	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	135	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	140	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	145	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
	150	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212
	155	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573
	160	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012
	165	1791	1791	1791	1791	1791	1791	1791	1791	1791	1791	1791	1791	1791	1791	1791
	170	3221	3221	3221	3221	3221	3221	3221	3221	3221	3221	3221	3221	3221	3221	3221
	175	5955	5955	5955	5955	5955	5955	5955	5955	5955	5955	5955	5955	5955	5955	5955
	180	7328	7328	7328	7328	7328	7328	7328	7328	7328	7328	7328	7328	7328	7328	7328

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	2352000	2352000
	45	6861	6861
	55	5176	5176
	65	5751	5751
	75	4313	4313
	85	4523	4523



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	2804	2804	2804	2804	2587	2587	2587	2587	2182	2182	2182	1811	1811	1811	1470	1470	1470
1	2636	2555	2482	2416	2438	2371	2311	2256	2027	1987	1950	1710	1686	1663	1419	1405	1393
2	2482	2344	2230	2134	2301	2187	2092	2010	1892	1827	1771	1621	1579	1543	1369	1346	1325
3	2341	2166	2030	1921	2177	2030	1915	1822	1776	1696	1630	1541	1488	1444	1322	1291	1265
4	2213	2012	1865	1752	2064	1895	1769	1672	1674	1585	1514	1469	1409	1360	1278	1242	1211
5	2097	1879	1727	1614	1962	1777	1646	1548	1584	1489	1417	1404	1339	1289	1236	1196	1163
6	1993	1765	1611	1502	1869	1675	1542	1446	1505	1408	1335	1346	1278	1227	1197	1154	1120
7	1898	1665	1513	1407	1785	1585	1453	1359	1434	1336	1265	1293	1224	1172	1160	1115	1081
8	1812	1577	1428	1326	1709	1506	1376	1285	1371	1274	1204	1245	1175	1124	1126	1080	1045
9	1735	1499	1354	1257	1639	1435	1308	1221	1315	1218	1151	1201	1131	1081	1094	1047	1012
10	1663	1429	1289	1196	1575	1372	1248	1164	1263	1168	1103	1160	1091	1042	1063	1016	982

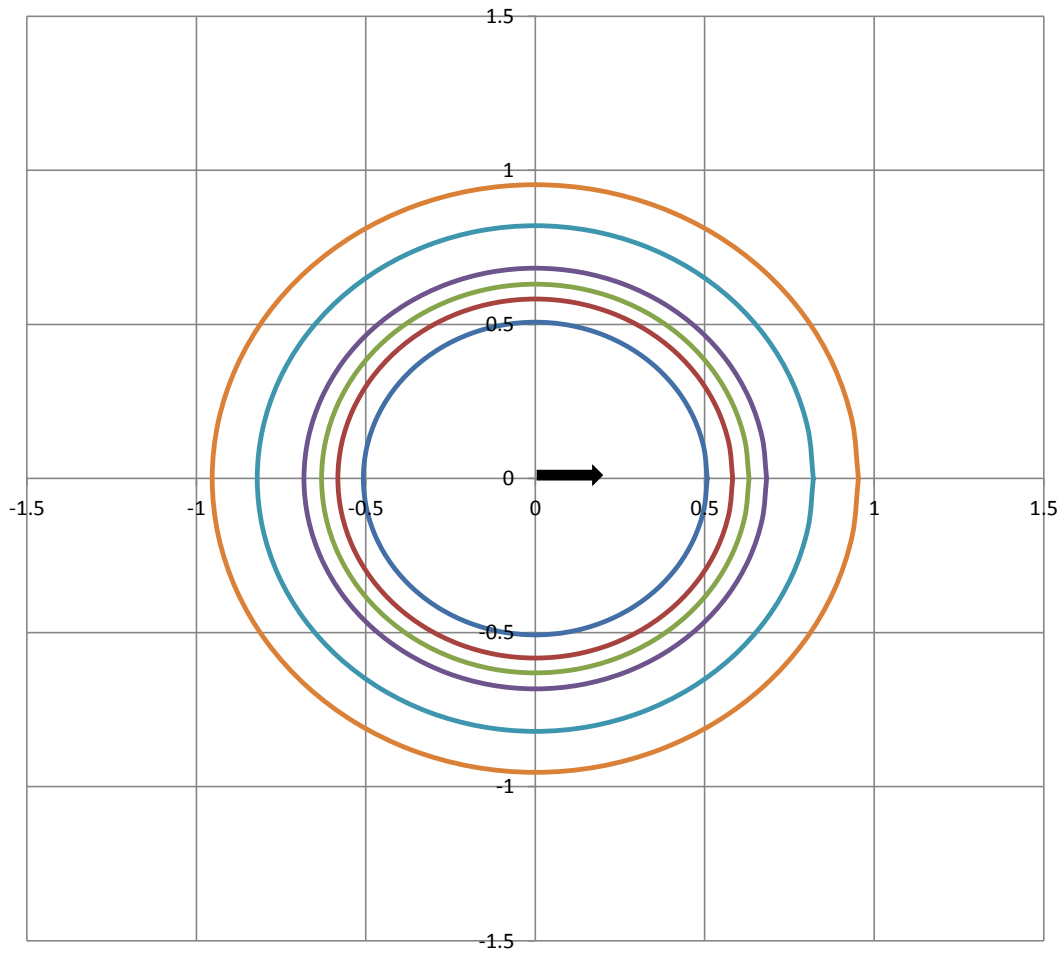
Beam and Field Information	
CIE Type:	Direct/Indirect
Center Beam Intensity:	7450 Candela
Central Cone Intensity:	6964 Candela
Beam Flux:	771.4 Lumens
Beam Angle (0-180):	17.3 Degrees
Beam Angle (90-270):	17.3 Degrees
Field Angle (0-180):	46.2 Degrees
Field Angle (90-270):	46.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		466	1.17
6.00		207	1.76
8.00		116	2.35
10.0		74.5	2.94
12.0		51.7	3.52
14.0		38.0	4.11
16.0		29.1	4.70



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