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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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Catalog Number
OL-LED-x60-FL-9

Order Number
11353040
Test Number
11353040.04

Test Date

2016-09-01

Prepared By

Khang Nguyen, Technician

Approved By

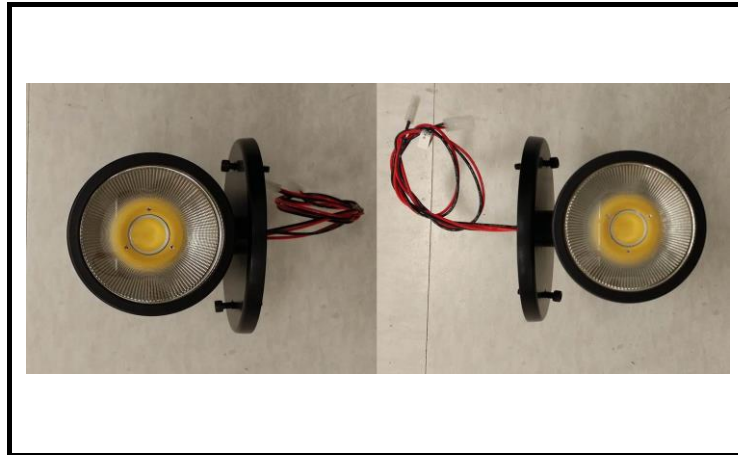
Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.
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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 PS60U700C14T

Luminaire



Luminaire Characteristics

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

Summary of Results

Total Luminaire Output:	1563 Lumens
Luminaire Efficacy:	62.4 lm/w
Maximum Candela:	1878 Candela

Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.1 VAC
Current:	0.2143 A
Power:	25.04 W
Power Factor:	0.973
Frequency:	60 Hz
Current THD:	14.1 %

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
25.0 °C	120.1 VAC	0.2143 A	25.04 W	0.973	60 Hz	14.1 %

Summary of Results

Spacing Criteria

0-180: 0.61

90-270: 0.61

Total Lumen Output:

1563 Lumens

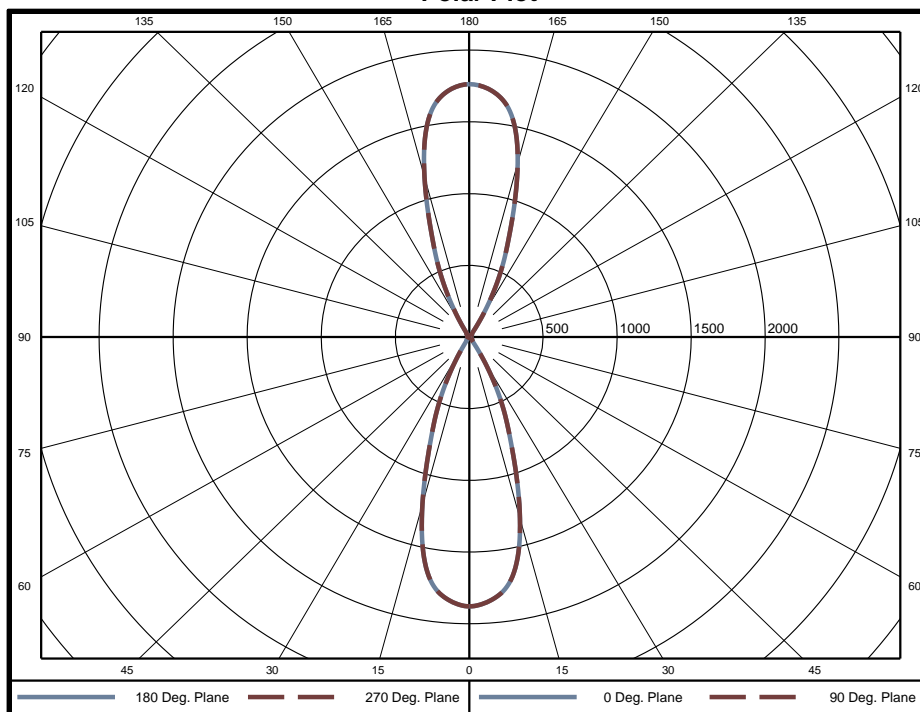
Luminaire Efficacy:

62.4 lm/w

Maximum Candela:

1878 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	44.3	2.8%	60-65	4.0	0.3%	120-125	4.7	0.3%
5-10	125.7	8.0%	65-70	3.3	0.2%	125-130	7.3	0.5%
10-15	174.2	11.1%	70-75	2.9	0.2%	130-135	9.4	0.6%
15-20	165.9	10.6%	75-80	2.4	0.2%	135-140	8.8	0.6%
20-25	129.9	8.3%	80-85	1.8	0.1%	140-145	8.7	0.6%
25-30	80.1	5.1%	85-90	0.9	0.1%	145-150	23.4	1.5%
30-35	27.0	1.7%	90-95	0.9	0.1%	150-155	74.3	4.8%
35-40	9.7	0.6%	95-100	1.7	0.1%	155-160	123.8	7.9%
40-45	9.5	0.6%	100-105	2.2	0.1%	160-165	158.9	10.2%
45-50	10.0	0.6%	105-110	2.7	0.2%	165-170	165.4	10.6%
50-55	7.7	0.5%	110-115	3.1	0.2%	170-175	118.2	7.6%
55-60	5.1	0.3%	115-120	3.7	0.2%	175-180	41.6	2.7%

Zone	Lumens	% of Luminaire
0-40	757	48.4%
0-60	789	50.5%
0-90	804	51.5%
90-180	759	48.5%



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	1878	1878	1878	1878	1878	1878	1878	1878	1878	1878	1878	1878	1878	1878	1878
	5	1831	1831	1831	1831	1831	1831	1831	1831	1831	1831	1831	1831	1831	1831	1831
	10	1665	1665	1665	1665	1665	1665	1665	1665	1665	1665	1665	1665	1665	1665	1665
	15	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260
	20	791	791	791	791	791	791	791	791	791	791	791	791	791	791	791
	25	469	469	469	469	469	469	469	469	469	469	469	469	469	469	469
	30	184	184	184	184	184	184	184	184	184	184	184	184	184	184	184
	35	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
	40	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	45	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	50	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
	55	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	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	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	75	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	95	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	100	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	120	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	125	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	130	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
	135	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
	140	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
	145	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
	150	166	166	166	166	166	166	166	166	166	166	166	166	166	166	166
	155	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441
	160	759	759	759	759	759	759	759	759	759	759	759	759	759	759	759
	165	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203
	170	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
	175	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721
	180	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	593100	593100
	45	11530	11530
	55	7356	7356
	65	5420	5420
	75	6114	6114
	85	9150	9150



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	1681	1681	1681	1681	1553	1553	1553	1553	1315	1315	1315	1098	1098	1098	898	898	898	804
1	1575	1524	1479	1438	1459	1417	1379	1344	1215	1189	1165	1029	1013	998	858	849	840	762
2	1478	1392	1321	1261	1372	1300	1240	1188	1127	1085	1049	967	940	916	820	803	789	722
3	1389	1279	1194	1126	1292	1200	1127	1068	1050	999	956	912	877	848	784	762	744	686
4	1308	1181	1089	1018	1220	1113	1033	971	983	925	880	863	823	790	750	725	704	654
5	1234	1097	1001	930	1154	1037	954	891	923	862	815	818	775	741	719	691	668	625
6	1167	1023	927	858	1094	970	886	825	871	808	761	777	732	698	690	660	636	597
7	1106	959	863	796	1039	912	828	769	824	760	714	741	694	660	663	631	607	573
8	1051	902	808	744	989	860	778	720	781	718	673	707	660	626	637	605	581	550
9	1000	851	760	698	944	814	733	678	743	681	637	676	630	596	613	580	556	528
10	954	806	717	658	902	773	693	640	709	647	604	648	602	569	591	558	534	509

Beam and Field Information

CIE Type:	Direct/Indirect
Center Beam Intensity:	1878 Candela
Central Cone Intensity:	1861 Candela
Beam Flux:	875.0 Lumens
Beam Angle (0-180):	36.6 Degrees
Beam Angle (90-270):	36.6 Degrees
Field Angle (0-180):	59.8 Degrees
Field Angle (90-270):	59.8 Degrees

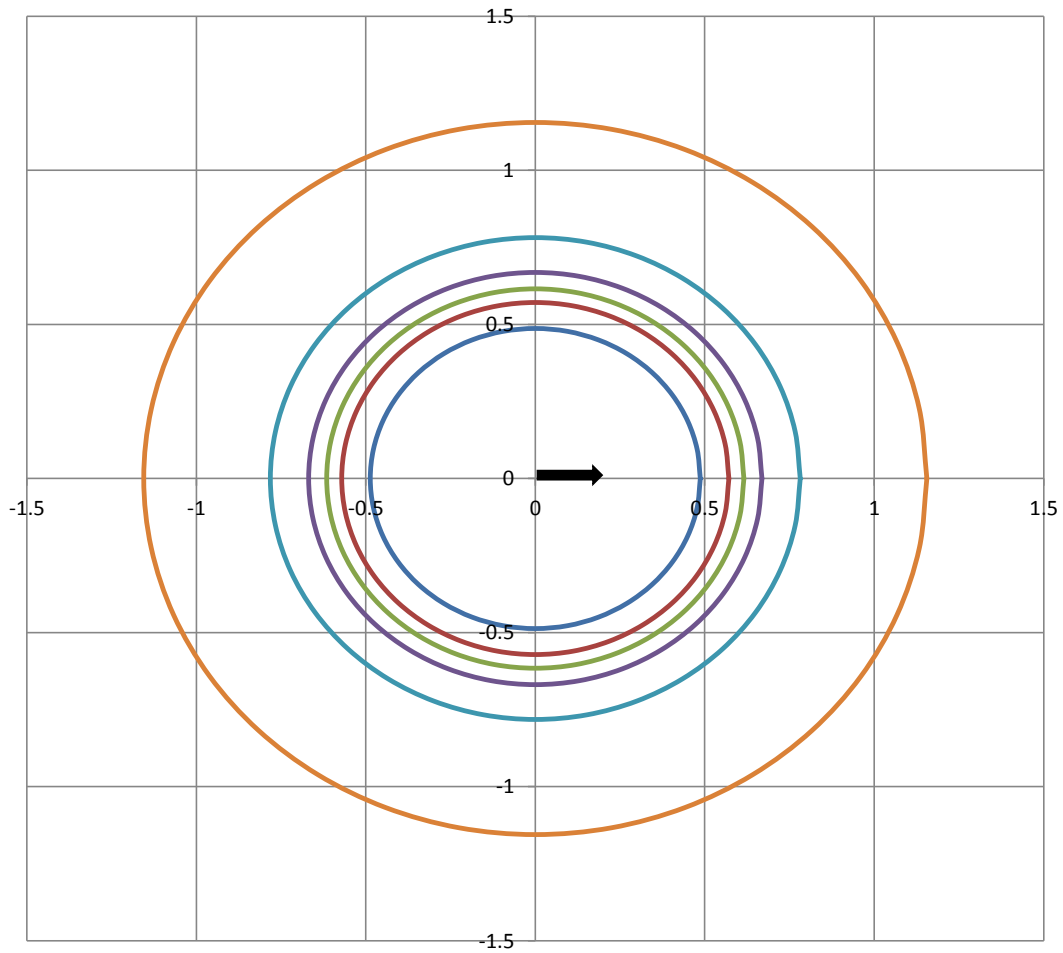
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		117	2.43
6.00		52.2	3.64
8.00		29.3	4.86
10.0		18.8	6.07
12.0		13.0	7.29
14.0		9.58	8.50
16.0		7.34	9.72



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