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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-WFL-9

Order Number
11353040
Test Number
11353040.48

Test Date

2016-09-27

Prepared By

Tony Rubio, Technician

Approved By

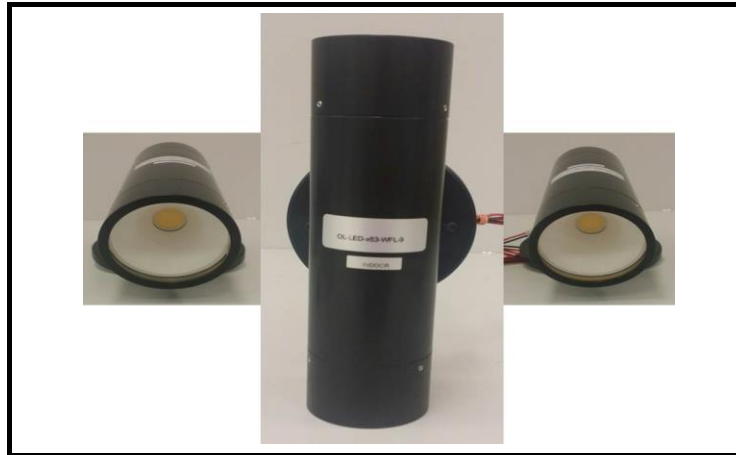
Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Upper glass lens with white stepped reflector below, circular black aluminum housing, lower white stepped reflector above glass lens
Lamp: Two (2) White LED
Mounting: Surface
Ballast/Driver: PowerSelect PS60U700C21T

Luminaire



Luminaire Characteristics

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

Summary of Results

Total Luminaire Output:	2549 Lumens
Luminaire Efficacy:	58.3 lm/w
Maximum Candela:	1308 Candela

Test Conditions

Test Temperature:	25.3 °C
Voltage:	120.0 VAC
Current:	0.3691 A
Power:	43.69 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	120.0 VAC	0.3691 A	43.69 W	0.986	60 Hz	11.7 %

Summary of Results

Spacing Criteria

0-180: 0.93

90-270: 0.93

Total Lumen Output:

2549 Lumens

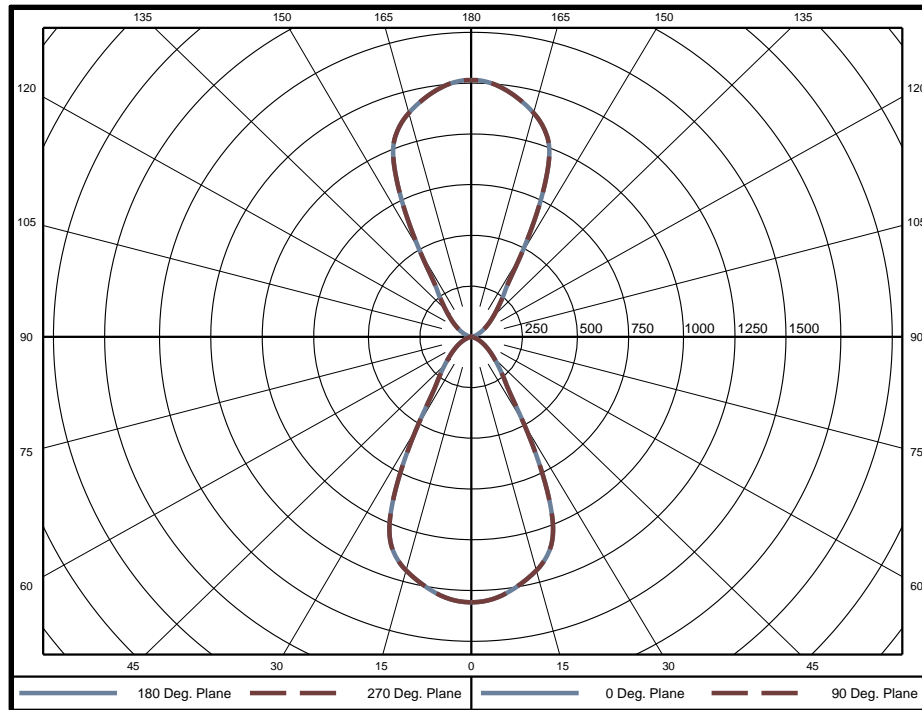
Luminaire Efficacy:

58.3 lm/w

Maximum Candela:

1308 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	31.1	1.2%	60-65	25.0	1.0%	120-125	33.5	1.3%
5-10	90.9	3.6%	65-70	16.7	0.7%	125-130	43.2	1.7%
10-15	144.7	5.7%	70-75	9.8	0.4%	130-135	54.0	2.1%
15-20	189.7	7.4%	75-80	5.1	0.2%	135-140	66.4	2.6%
20-25	210.2	8.2%	80-85	2.5	0.1%	140-145	81.4	3.2%
25-30	173.8	6.8%	85-90	1.2	0.0%	145-150	106.9	4.2%
30-35	112.7	4.4%	90-95	1.0	0.0%	150-155	164.7	6.5%
35-40	84.2	3.3%	95-100	2.3	0.1%	155-160	200.3	7.9%
40-45	68.6	2.7%	100-105	5.0	0.2%	160-165	181.3	7.1%
45-50	55.7	2.2%	105-110	9.8	0.4%	165-170	139.1	5.5%
50-55	44.5	1.7%	110-115	16.5	0.6%	170-175	87.7	3.4%
55-60	34.3	1.3%	115-120	24.6	1.0%	175-180	30.1	1.2%

Zone	Lumens	% of Luminaire
0-40	1037	40.7%
0-60	1240	48.7%
0-90	1301	51.0%
90-180	1248	49.0%



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	1308	1308	1308	1308	1308	1308	1308	1308	1308	1308	1308	1308	1308	1308	1308
	5	1293	1293	1293	1293	1293	1293	1293	1293	1293	1293	1293	1293	1293	1293	1293
	10	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
	15	1192	1192	1192	1192	1192	1192	1192	1192	1192	1192	1192	1192	1192	1192	1192
	20	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103	1103
	25	870	870	870	870	870	870	870	870	870	870	870	870	870	870	870
	30	515	515	515	515	515	515	515	515	515	515	515	515	515	515	515
	35	296	296	296	296	296	296	296	296	296	296	296	296	296	296	296
	40	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215
	45	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
	50	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119
	55	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
	60	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
	65	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
	70	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	75	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	80	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	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	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	105	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	110	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	115	41	41	41	41	41	41	41	41	41	41	41	41	41	41	41
	120	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
	125	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
	130	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
	135	154	154	154	154	154	154	154	154	154	154	154	154	154	154	154
	140	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208
	145	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284
	150	488	488	488	488	488	488	488	488	488	488	488	488	488	488	488
	155	826	826	826	826	826	826	826	826	826	826	826	826	826	826	826
	160	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053
	165	1143	1143	1143	1143	1143	1143	1143	1143	1143	1143	1143	1143	1143	1143	1143
	170	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204	1204
	175	1249	1249	1249	1249	1249	1249	1249	1249	1249	1249	1249	1249	1249	1249	1249
	180	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265	1265

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	341300	341300
	45	58810	58810
	55	39700	39700
	65	25690	25690
	75	13340	13340
	85	9111	9111



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	2737	2737	2737	2737	2528	2528	2528	2528	2139	2139	2139	1782	1782	1782	1455	1455	1455	1301
1	2545	2454	2373	2299	2353	2277	2208	2146	1945	1897	1854	1640	1609	1579	1359	1340	1322	1192
2	2363	2206	2077	1968	2187	2054	1944	1850	1769	1690	1622	1507	1453	1405	1264	1229	1198	1086
3	2195	1993	1837	1713	2034	1862	1728	1619	1616	1517	1436	1387	1318	1260	1175	1129	1090	993
4	2042	1810	1640	1510	1895	1696	1548	1433	1481	1371	1284	1281	1202	1138	1096	1042	997	912
5	1903	1651	1474	1344	1769	1551	1397	1281	1363	1246	1157	1188	1102	1035	1024	965	917	841
6	1778	1514	1336	1208	1655	1426	1269	1155	1260	1140	1050	1105	1016	948	960	896	847	779
7	1666	1394	1218	1095	1553	1317	1161	1050	1169	1048	960	1031	940	872	902	836	786	725
8	1564	1290	1117	999	1461	1221	1067	960	1089	969	883	965	874	807	849	782	732	677
9	1472	1198	1030	916	1377	1136	985	883	1018	899	816	907	815	749	802	734	684	634
10	1389	1116	953	845	1301	1061	914	815	954	837	757	854	763	699	759	691	642	596

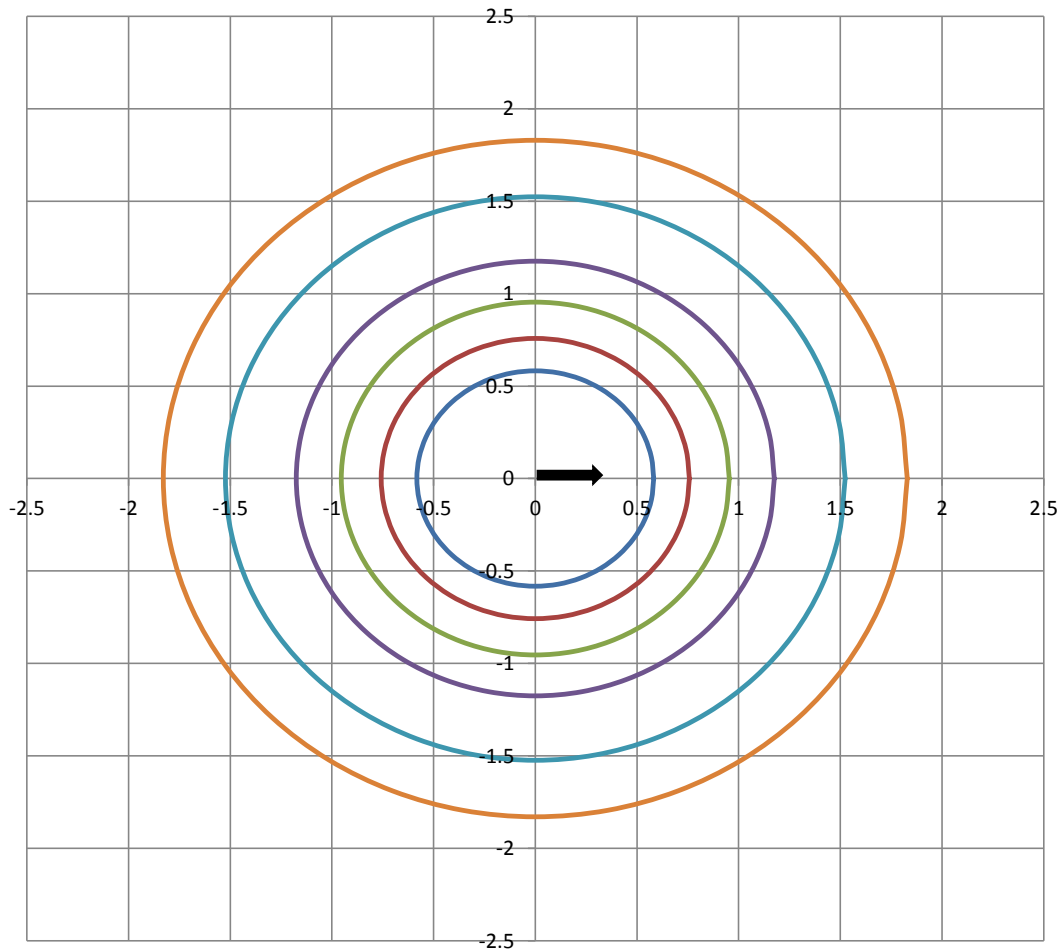
Beam and Field Information	
CIE Type:	Direct/Indirect
Center Beam Intensity:	1308 Candela
Central Cone Intensity:	1303 Candela
Beam Flux:	1509.6 Lumens
Beam Angle (0-180):	56.0 Degrees
Beam Angle (90-270):	56.0 Degrees
Field Angle (0-180):	96.8 Degrees
Field Angle (90-270):	96.8 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		81.7	3.71
6.00		36.3	5.57
8.00		20.4	7.43
10.0		13.1	9.29
12.0		9.08	11.1
14.0		6.67	13.0
16.0		5.11	14.9



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