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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-X66-WFL-9

Order Number
11353040
Test Number
11353040.51

Test Date

2016-09-21

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: upper glass lens, white stepped reflector, circular black aluminum housing,
lower white stepped reflector, and glass lens
Lamp: Two (2) White LEDs
Mounting: Surface
Ballast/Driver: 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:	3255 Lumens
Luminaire Efficacy:	59.5 lm/w
Maximum Candela:	1736 Candela

Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.3 VAC
Current:	0.4634 A
Power:	54.74 W
Power Factor:	0.984
Frequency:	60 Hz
Current THD:	14.6 %

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
25.0 °C	120.3 VAC	0.4634 A	54.74 W	0.984	60 Hz	14.6 %

Summary of Results

Spacing Criteria

0-180: 0.90

90-270: 0.90

Total Lumen Output:

3255 Lumens

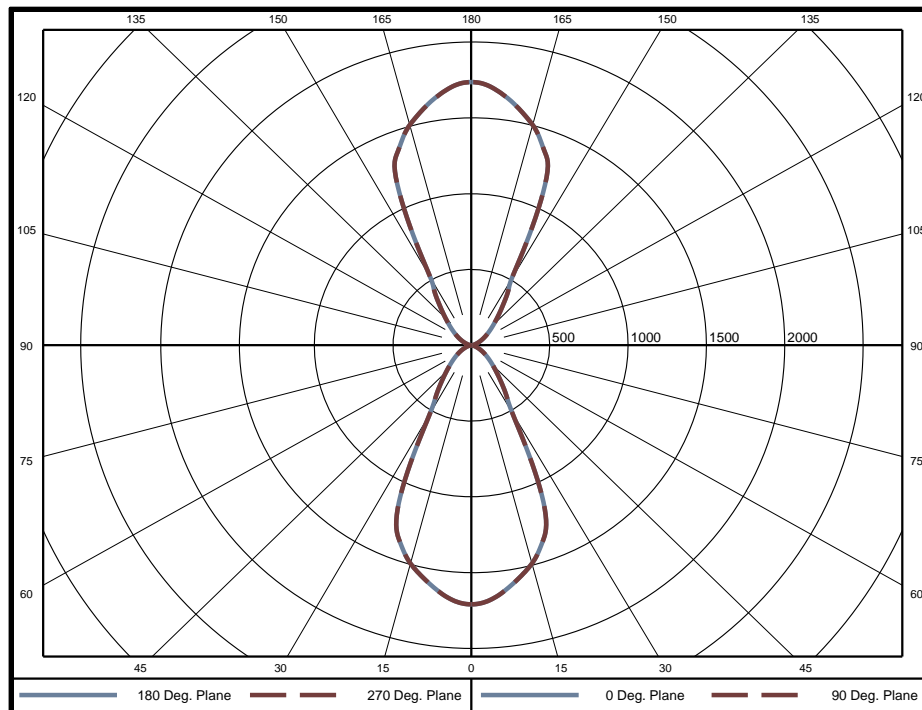
Luminaire Efficacy:

59.5 lm/w

Maximum Candela:

1736 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	40.4	1.2%	60-65	33.0	1.0%	120-125	47.1	1.4%
5-10	116.5	3.6%	65-70	22.8	0.7%	125-130	59.9	1.8%
10-15	182.5	5.6%	70-75	14.5	0.4%	130-135	74.0	2.3%
15-20	234.7	7.2%	75-80	8.7	0.3%	135-140	90.6	2.8%
20-25	257.2	7.9%	80-85	5.0	0.2%	140-145	110.7	3.4%
25-30	192.8	5.9%	85-90	2.8	0.1%	145-150	131.9	4.1%
30-35	130.5	4.0%	90-95	3.6	0.1%	150-155	193.3	5.9%
35-40	107.8	3.3%	95-100	5.9	0.2%	155-160	261.8	8.0%
40-45	87.6	2.7%	100-105	9.9	0.3%	160-165	236.8	7.3%
45-50	71.2	2.2%	105-110	16.0	0.5%	165-170	184.6	5.7%
50-55	57.2	1.8%	110-115	24.7	0.8%	170-175	118.2	3.6%
55-60	44.5	1.4%	115-120	35.3	1.1%	175-180	41.1	1.3%

Zone	Lumens	% of Luminaire
0-40	1262	38.8%
0-60	1523	46.8%
0-90	1610	49.5%
90-180	1645	50.5%



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	1708	1708	1708	1708	1708	1708	1708	1708	1708	1708	1708	1708	1708	1708	1708
	5	1673	1673	1673	1673	1673	1673	1673	1673	1673	1673	1673	1673	1673	1673	1673
	10	1588	1588	1588	1588	1588	1588	1588	1588	1588	1588	1588	1588	1588	1588	1588
	15	1493	1493	1493	1493	1493	1493	1493	1493	1493	1493	1493	1493	1493	1493	1493
	20	1355	1355	1355	1355	1355	1355	1355	1355	1355	1355	1355	1355	1355	1355	1355
	25	1036	1036	1036	1036	1036	1036	1036	1036	1036	1036	1036	1036	1036	1036	1036
	30	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542
	35	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378
	40	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
	45	203	203	203	203	203	203	203	203	203	203	203	203	203	203	203
	50	152	152	152	152	152	152	152	152	152	152	152	152	152	152	152
	55	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113
	60	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
	65	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
	70	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	75	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
	80	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	85	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	90	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	95	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	100	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	105	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
	110	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
	115	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	120	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
	125	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119
	130	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
	135	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211
	140	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284
	145	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
	150	533	533	533	533	533	533	533	533	533	533	533	533	533	533	533
	155	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
	160	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365	1365
	165	1508	1508	1508	1508	1508	1508	1508	1508	1508	1508	1508	1508	1508	1508	1508
	170	1611	1611	1611	1611	1611	1611	1611	1611	1611	1611	1611	1611	1611	1611	1611
	175	1698	1698	1698	1698	1698	1698	1698	1698	1698	1698	1698	1698	1698	1698	1698
	180	1736	1736	1736	1736	1736	1736	1736	1736	1736	1736	1736	1736	1736	1736	1736

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	445700	445700
	45	75070	75070
	55	51300	51300
	65	34350	34350
	75	21430	21430
	85	20790	20790



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	3483	3483	3483	3483	3211	3211	3211	3211	2703	2703	2703	2238	2238	2238	1811	1811	1811	1610
1	3235	3117	3011	2916	2984	2885	2796	2716	2452	2390	2334	2054	2013	1976	1687	1662	1639	1469
2	3000	2798	2630	2490	2770	2599	2457	2335	2227	2125	2038	1883	1814	1753	1565	1521	1482	1336
3	2784	2524	2323	2163	2574	2353	2180	2040	2030	1904	1801	1732	1644	1570	1455	1397	1347	1220
4	2589	2289	2070	1903	2396	2141	1950	1803	1859	1718	1607	1598	1498	1416	1355	1287	1231	1120
5	2411	2086	1860	1692	2235	1956	1758	1609	1710	1561	1446	1480	1372	1287	1266	1191	1131	1033
6	2252	1911	1683	1519	2091	1797	1596	1450	1579	1426	1312	1376	1263	1177	1186	1107	1044	957
7	2108	1760	1534	1376	1961	1658	1458	1316	1465	1311	1199	1284	1169	1083	1115	1032	969	891
8	1979	1627	1406	1254	1844	1537	1340	1203	1364	1211	1101	1202	1086	1001	1050	966	903	832
9	1862	1511	1295	1150	1738	1430	1237	1105	1275	1123	1017	1129	1013	930	992	907	844	780
10	1756	1407	1199	1060	1642	1335	1147	1021	1195	1046	944	1063	949	868	939	854	792	734

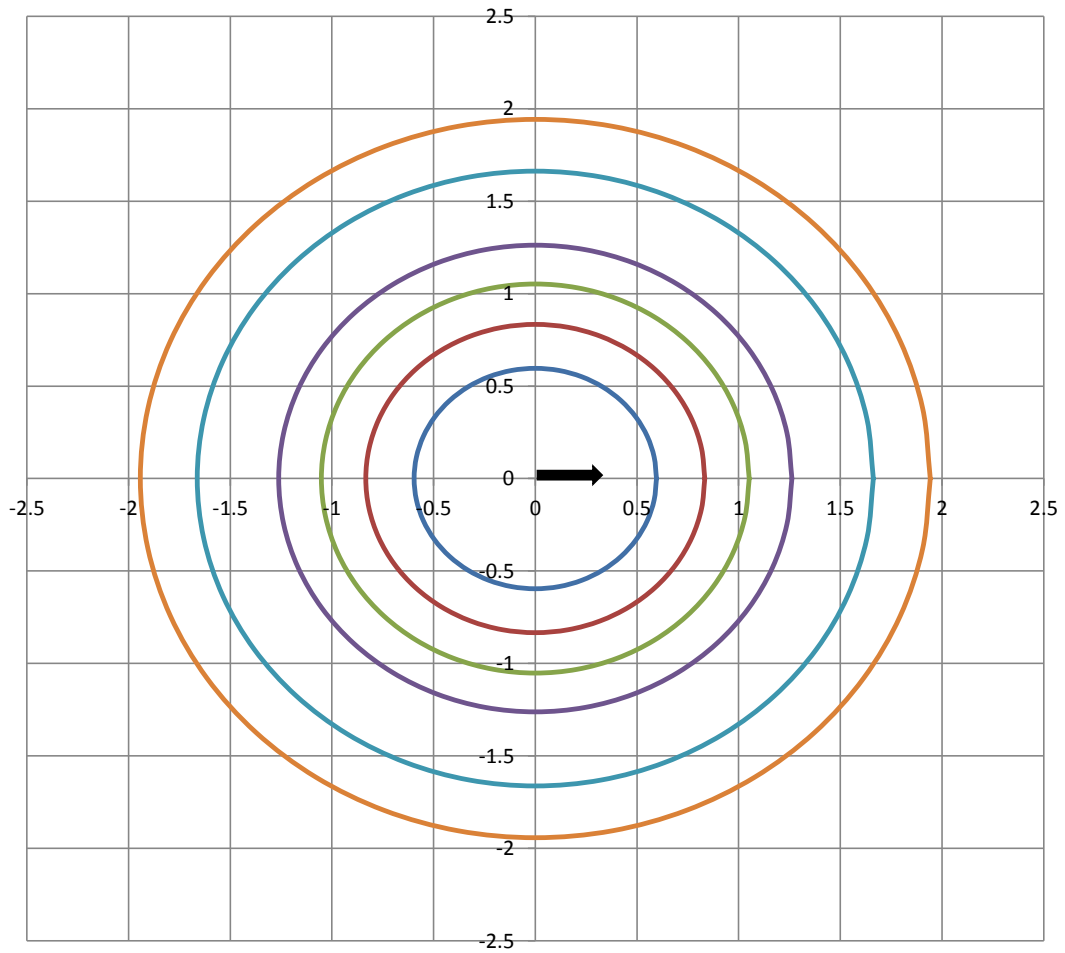
Beam and Field Information	
CIE Type:	Direct/Indirect
Center Beam Intensity:	1708 Candela
Central Cone Intensity:	1696 Candela
Beam Flux:	1822.6 Lumens
Beam Angle (0-180):	53.3 Degrees
Beam Angle (90-270):	53.3 Degrees
Field Angle (0-180):	96.0 Degrees
Field Angle (90-270):	96.0 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		107	3.58
6.00		47.4	5.37
8.00		26.7	7.17
10.0		17.1	8.96
12.0		11.9	10.7
14.0		8.71	12.5
16.0		6.67	14.3



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