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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
CK-LED-X66-FL-9

Order Number
11353040
Test Number
11353040.37

Test Date

2016-09-12

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 black aluminum housing, specular linear reflector, and glass lens
Lamp: One (1) White LED
Mounting: Surface
Ballast/Driver: Thomas Research Products LED25W-36-C0700-LE

Luminaire



Luminaire Characteristics

Luminous Diameter: 2.75 in.

Summary of Results

Total Luminaire Output:	1657 Lumens
Luminaire Efficacy:	59.6 lm/w
Maximum Candela:	4978 Candela

Test Conditions

Test Temperature:	24.9 °C
Voltage:	120.1 VAC
Current:	0.2345 A
Power:	27.79 W
Power Factor:	0.987
Frequency:	60 Hz
Current THD:	12.7 %

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
24.9 °C	120.1 VAC	0.2345 A	27.79 W	0.987	60 Hz	12.7 %

Summary of Results

Spacing Criteria

0-180: 0.52

90-270: 0.52

Total Lumen Output:

1657 Lumens

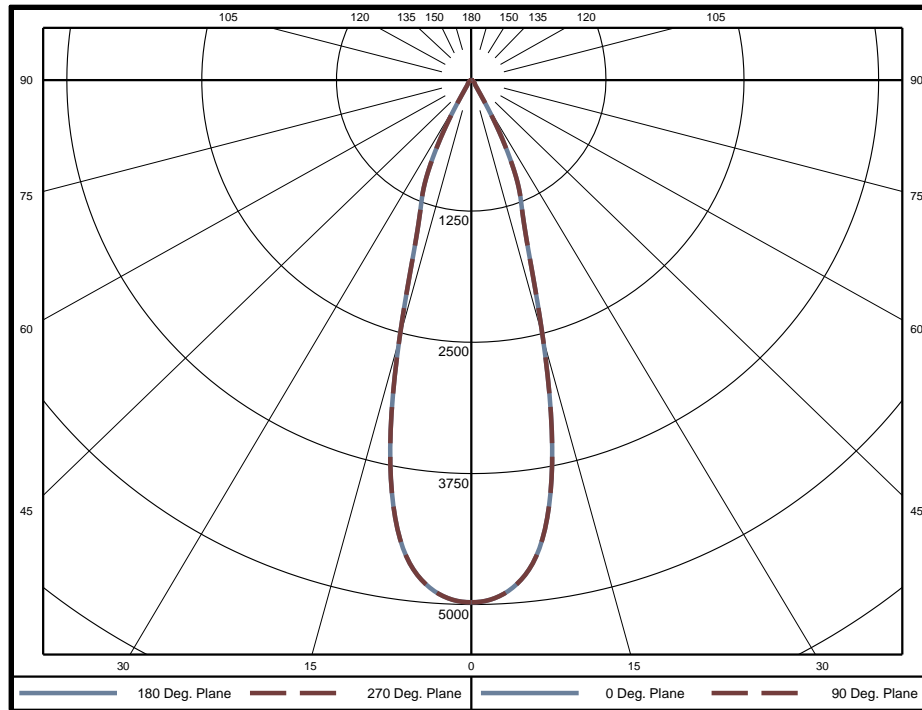
Luminaire Efficacy:

59.6 lm/w

Maximum Candela:

4978 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	117.3	7.1%	60-65	6.6	0.4%	120-125	0	0.0%
5-10	322.4	19.5%	65-70	5.1	0.3%	125-130	0	0.0%
10-15	396.2	23.9%	70-75	4.1	0.2%	130-135	0	0.0%
15-20	301.9	18.2%	75-80	3.0	0.2%	135-140	0	0.0%
20-25	240.7	14.5%	80-85	1.8	0.1%	140-145	0	0.0%
25-30	140.3	8.5%	85-90	0.5	0.0%	145-150	0	0.0%
30-35	41.9	2.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	21.1	1.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	17.5	1.1%	100-105	0	0.0%	160-165	0	0.0%
45-50	16.0	1.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	12.3	0.7%	110-115	0	0.0%	170-175	0	0.0%
55-60	8.6	0.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1582	95.5%
0-60	1636	98.7%
0-90	1657	100.0%
90-180	0	0.0%



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	4978	4978	4978	4978	4978	4978	4978	4978	4978	4978	4978	4978	4978	4978	4978
	5	4821	4821	4821	4821	4821	4821	4821	4821	4821	4821	4821	4821	4821	4821	4821
	10	4120	4120	4120	4120	4120	4120	4120	4120	4120	4120	4120	4120	4120	4120	4120
	15	2546	2546	2546	2546	2546	2546	2546	2546	2546	2546	2546	2546	2546	2546	2546
	20	1394	1394	1394	1394	1394	1394	1394	1394	1394	1394	1394	1394	1394	1394	1394
	25	889	889	889	889	889	889	889	889	889	889	889	889	889	889	889
	30	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269
	35	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
	40	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
	45	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
	50	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	55	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
	60	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	65	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	70	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	75	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	80	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	85	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

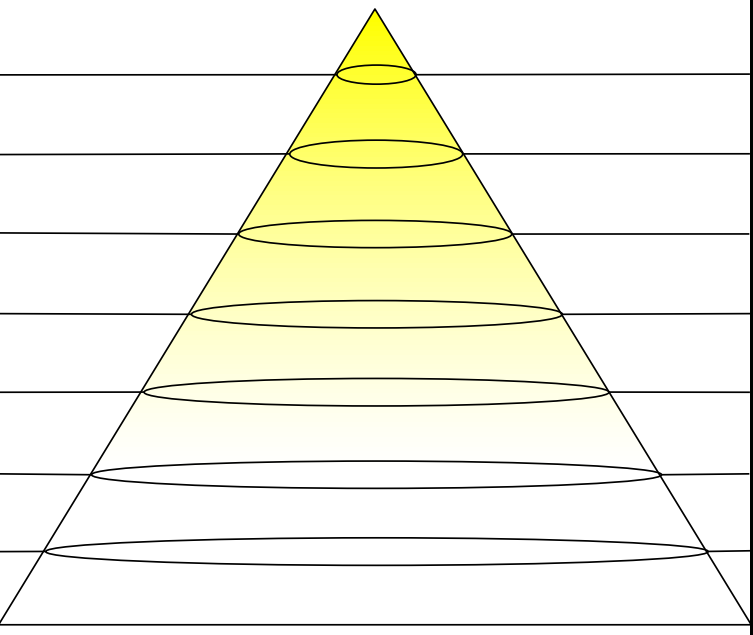
Vertical Angle (Degrees)	0	45	90
	0	1299000	1299000
	45	15910	15910
	55	10050	10050
	65	7052	7052
	75	6841	6841
	85	6983	6983



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	1973	1973	1973	1973	1927	1927	1927	1927	1841	1841	1841	1763	1763	1763	1691	1691	1691	1657
1	1897	1857	1822	1790	1857	1822	1790	1762	1755	1731	1708	1694	1675	1657	1638	1623	1610	1581
2	1824	1756	1701	1654	1789	1729	1678	1635	1676	1636	1600	1628	1595	1566	1584	1558	1534	1509
3	1756	1669	1601	1548	1725	1646	1585	1535	1605	1554	1511	1566	1524	1488	1530	1496	1466	1443
4	1692	1591	1517	1461	1665	1573	1505	1453	1540	1482	1436	1508	1459	1420	1479	1438	1404	1383
5	1632	1522	1445	1388	1608	1507	1436	1382	1480	1418	1370	1454	1401	1359	1430	1384	1348	1327
6	1576	1459	1381	1325	1555	1447	1374	1321	1425	1360	1312	1403	1347	1304	1383	1334	1296	1276
7	1523	1403	1324	1270	1504	1393	1319	1267	1374	1308	1260	1356	1297	1254	1339	1287	1248	1229
8	1474	1351	1273	1220	1457	1342	1269	1218	1326	1260	1213	1311	1252	1208	1297	1243	1204	1186
9	1427	1303	1227	1175	1412	1296	1223	1173	1282	1216	1170	1269	1209	1166	1257	1202	1163	1145
10	1383	1259	1184	1134	1370	1252	1181	1133	1241	1175	1130	1229	1169	1127	1219	1164	1124	1108

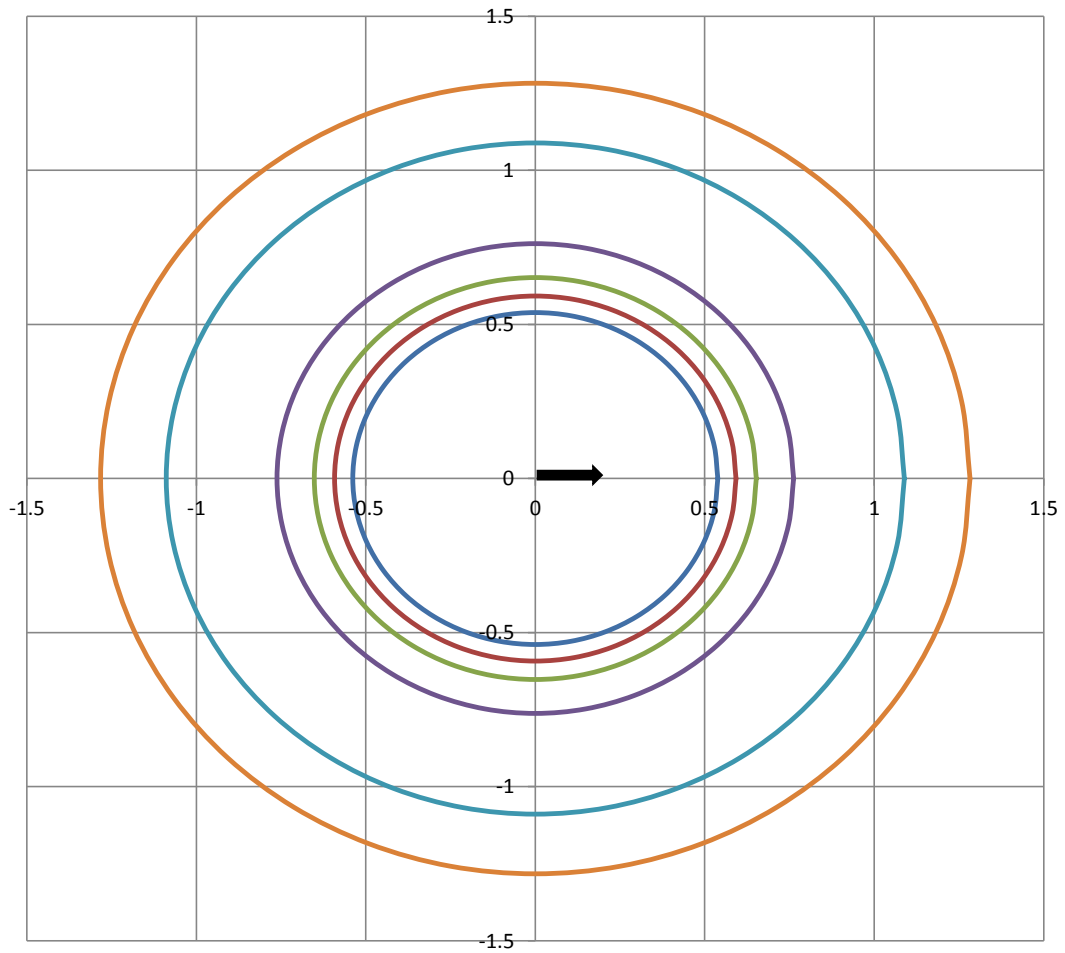
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	4978 Candela
Central Cone Intensity:	4926 Candela
Beam Flux:	846.0 Lumens
Beam Angle (0-180):	30.3 Degrees
Beam Angle (90-270):	30.3 Degrees
Field Angle (0-180):	55.9 Degrees
Field Angle (90-270):	55.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		311	2.06
6.00		138	3.09
8.00		77.8	4.12
10.0		49.8	5.15
12.0		34.6	6.18
14.0		25.4	7.21
16.0		19.4	8.25



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