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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
Mercury Lighting

John Andrews
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United States

Catalog Number
LR315-22G-3800-35K-A401-UNI-XXXX

Order Number
11540194
Test Number
11540194.06

Test Date

2016-11-29

Prepared By

Daniel Booth, Technician

Approved By

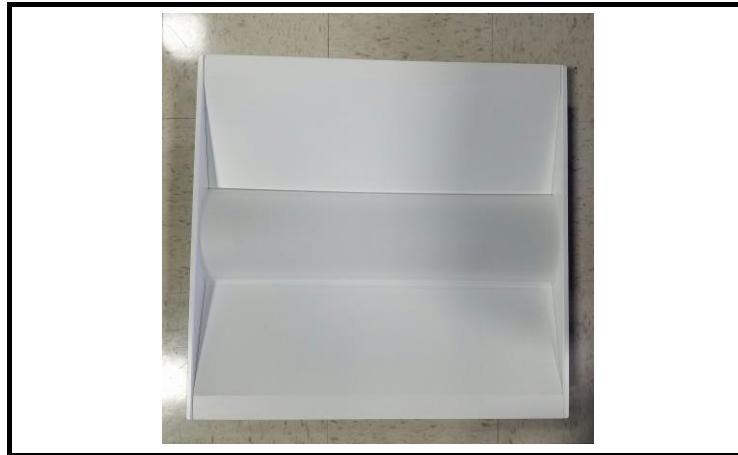
Timothy Wagner, Project Handler

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Luminaire Description: Formed steel housing, formed steel reflectors, frosted linear patterned plastic lens enclosure
Lamp: 44 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance Xitanium XI040C110V054BST1

Luminaire



Luminaire Characteristics

Luminous Length: 23.00 in.
Luminous Width: 20.50 in.

Summary of Results

Total Luminaire Output: 3504 Lumens
Luminaire Efficacy: 98 lm/w
Maximum Candela: 1219 Candela

Test Conditions

Test Temperature: 25.2 °C
Voltage: 120.0 VAC
Current: 0.2989 A
Power: 35.77 W
Power Factor: 0.997
Frequency: 60 Hz
Current THD: 5.93 %

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

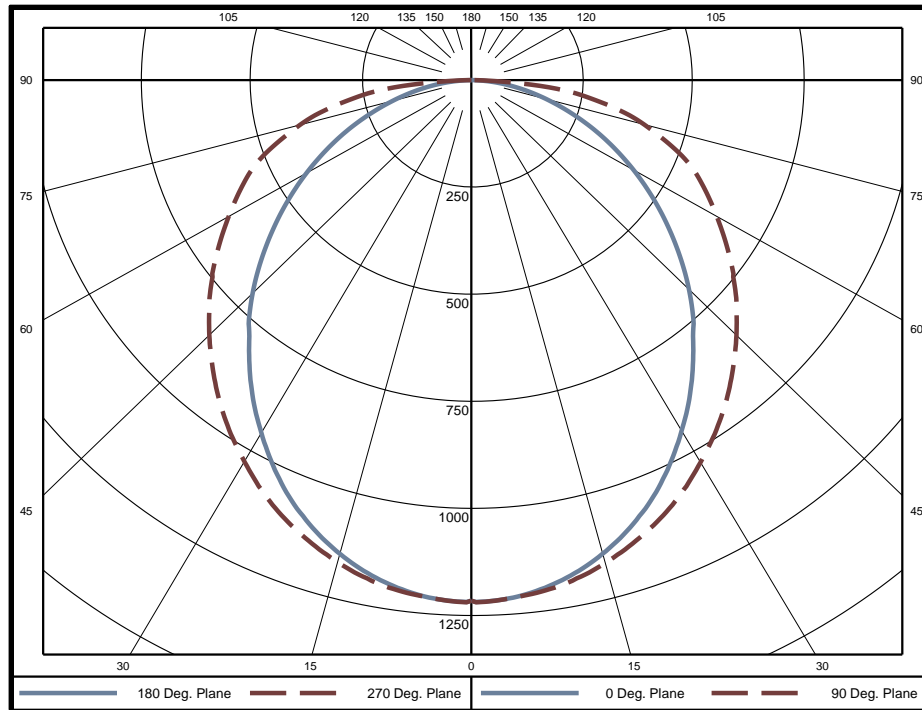
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.2989 A	35.77 W	0.997	60 Hz	5.93 %

Summary of Results

Spacing Criteria
 0-180: 1.17
 90-270: 1.17

Total Lumen Output: 3504 Lumens
Luminaire Efficacy: 98.0 lm/w
Maximum Candela: 1219 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	29.0	0.8%	60-65	238.1	6.8%	120-125	0	0.0%
5-10	85.7	2.4%	65-70	209.4	6.0%	125-130	0	0.0%
10-15	138.8	4.0%	70-75	174.2	5.0%	130-135	0	0.0%
15-20	186.4	5.3%	75-80	133.9	3.8%	135-140	0	0.0%
20-25	226.8	6.5%	80-85	85.7	2.4%	140-145	0	0.0%
25-30	258.4	7.4%	85-90	24.7	0.7%	145-150	0	0.0%
30-35	280.8	8.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	293.9	8.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	298.6	8.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	294.7	8.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	282.3	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	262.6	7.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1500	42.8%
0-60	2638	75.3%
0-90	3504	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal 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	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216
5	1210	1208	1205	1206	1211	1206	1205	1208	1210	1208	1205	1206	1211	1206	1205	1208
10	1185	1185	1185	1189	1195	1189	1185	1185	1185	1185	1185	1189	1195	1189	1185	1185
15	1146	1147	1151	1160	1167	1160	1151	1147	1146	1147	1151	1160	1167	1160	1151	1147
20	1093	1097	1107	1120	1129	1120	1107	1097	1093	1097	1107	1120	1129	1120	1107	1097
25	1027	1034	1052	1073	1085	1073	1052	1034	1027	1034	1052	1073	1085	1073	1052	1034
30	950	962	987	1016	1030	1016	987	962	950	962	987	1016	1030	1016	987	962
35	868	882	917	955	973	955	917	882	868	882	917	955	973	955	917	882
40	781	799	842	889	909	889	842	799	781	799	842	889	909	889	842	799
45	698	719	768	819	843	819	768	719	698	719	768	819	843	819	768	719
50	607	630	689	749	776	749	689	630	607	630	689	749	776	749	689	630
55	516	542	606	676	707	676	606	542	516	542	606	676	707	676	606	542
60	428	455	525	603	637	603	525	455	428	455	525	603	637	603	525	455
65	342	370	447	534	571	534	447	370	342	370	447	534	571	534	447	370
70	258	289	371	460	497	460	371	289	258	289	371	460	497	460	371	289
75	181	213	296	371	403	371	296	213	181	213	296	371	403	371	296	213
80	111	143	209	268	294	268	209	143	111	143	209	268	294	268	209	143
85	49	70	108	143	156	143	108	70	49	70	108	143	156	143	108	70
90	0	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	0
100	0	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	0
110	0	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	0
120	0	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	0
130	0	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	0
140	0	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	0
150	0	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	0
160	0	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	0
170	0	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	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

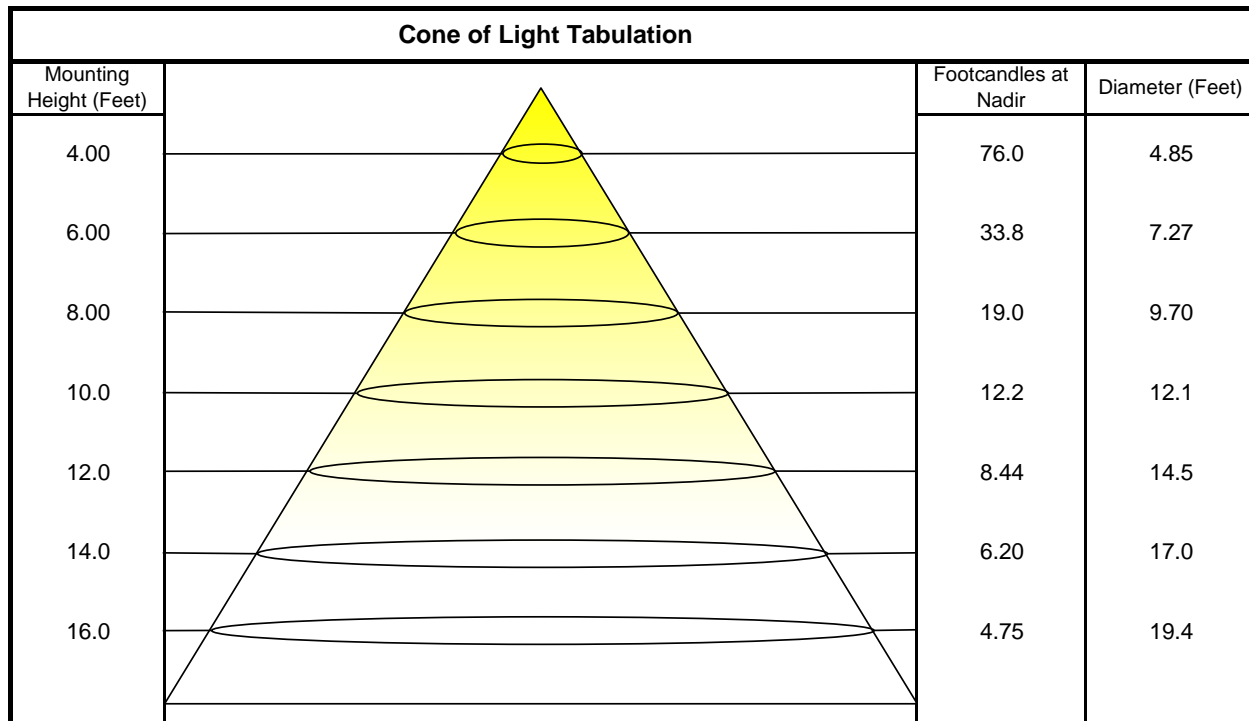
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	3996	3996	3996
45	3246	3568	3917
55	2959	3475	4049
65	2657	3478	4444
75	2298	3755	5117
85	1850	4071	5870



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	4172	4172	4172	4172	4075	4075	4075	4075	3894	3894	3894	3728	3728	3728	3576	3576	3576	3504
1	3780	3599	3437	3291	3682	3518	3371	3237	3368	3246	3134	3229	3129	3037	3102	3021	2946	2870
2	3423	3117	2864	2651	3328	3050	2817	2619	2924	2727	2557	2807	2643	2498	2700	2563	2442	2363
3	3113	2727	2428	2190	3024	2670	2393	2170	2564	2326	2130	2466	2263	2092	2375	2203	2056	1976
4	2846	2411	2092	1849	2764	2363	2066	1835	2274	2014	1809	2191	1966	1784	2114	1919	1759	1680
5	2616	2152	1828	1588	2541	2112	1807	1579	2036	1767	1561	1966	1729	1543	1900	1693	1526	1450
6	2415	1937	1615	1385	2347	1903	1599	1378	1839	1568	1365	1779	1537	1353	1723	1508	1340	1266
7	2239	1756	1442	1222	2178	1727	1429	1218	1672	1404	1208	1621	1379	1199	1572	1355	1190	1119
8	2085	1602	1299	1090	2029	1578	1288	1087	1531	1267	1080	1486	1247	1073	1445	1228	1066	997
9	1949	1471	1179	981	1898	1450	1170	978	1409	1153	973	1371	1136	968	1335	1120	962	897
10	1828	1358	1077	890	1782	1340	1070	888	1304	1055	884	1271	1041	879	1240	1028	875	813

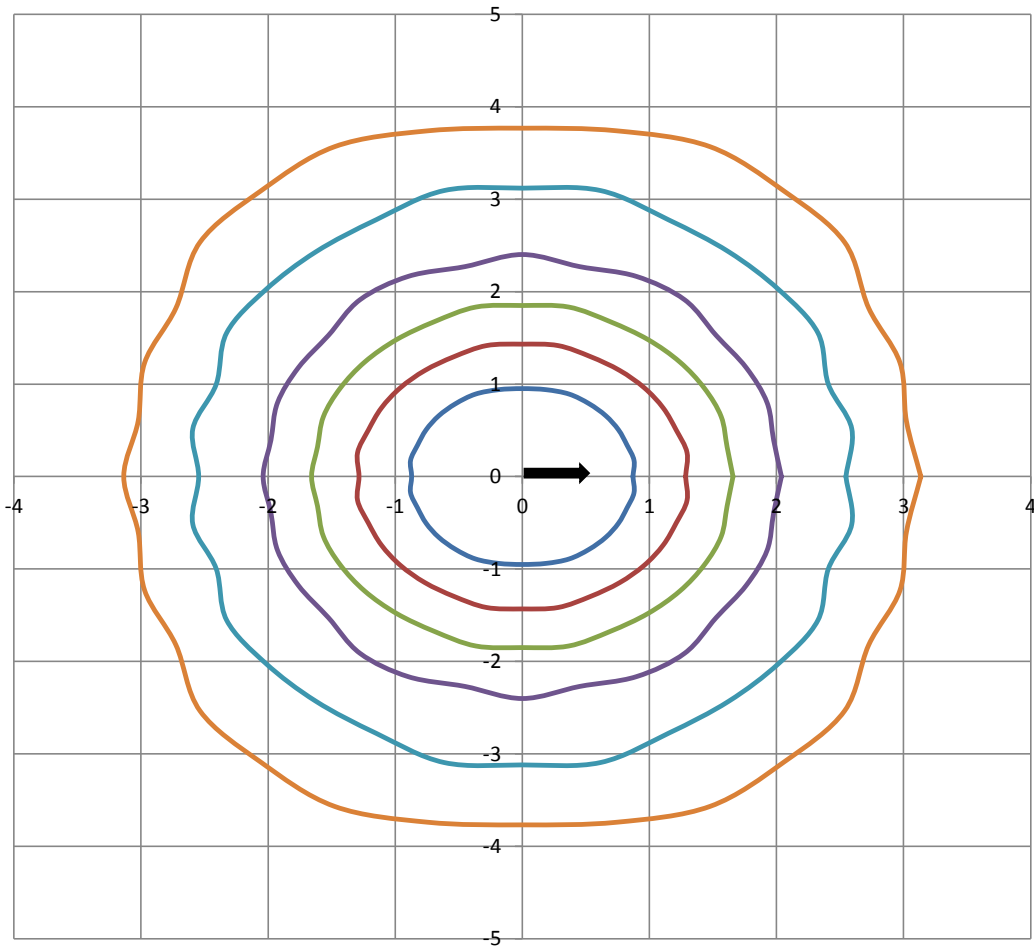
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1216 Candela
Central Cone Intensity:	1213 Candela
Beam Flux:	2420.9 Lumens
Beam Angle (0-180):	99.9 Degrees
Beam Angle (90-270):	124.4 Degrees
Field Angle (0-180):	158.5 Degrees
Field Angle (90-270):	171.6 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

