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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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Fairfield, NJ 07004-3416
United States

Catalog Number
LR315-24G-5700-35K-A541-UNI-XXXX

Order Number
11540194
Test Number
11540194.02

Test Date

2016-11-28

Prepared By

Dane Hernandez-Adams, Technician

Approved By

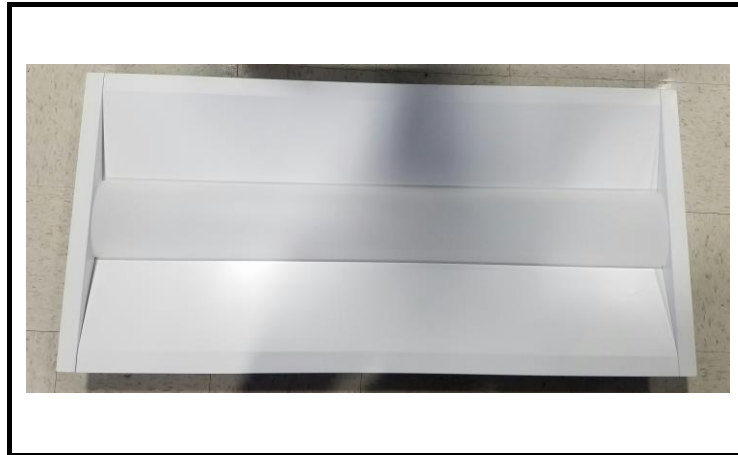
Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed steel housing, formed steel reflectors, frosted linear patterned plastic lens enclosure
Lamp: 88 white LEDs, two boards with 44 LEDs each
Mounting: Recessed
Ballast/Driver: One Philips Advance Xitanium XI054C150V054BST1

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 20.50 in.

Summary of Results

Total Luminaire Output:	5613 Lumens
Luminaire Efficacy:	111.7 lm/w
Maximum Candela:	1974 Candela

Test Conditions

Test Temperature:	24.9 °C
Voltage:	119.9 VAC
Current:	0.4203 A
Power:	50.26 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	5.74 %

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



Distribution - Goniophotometer

Distribution Test Conditions

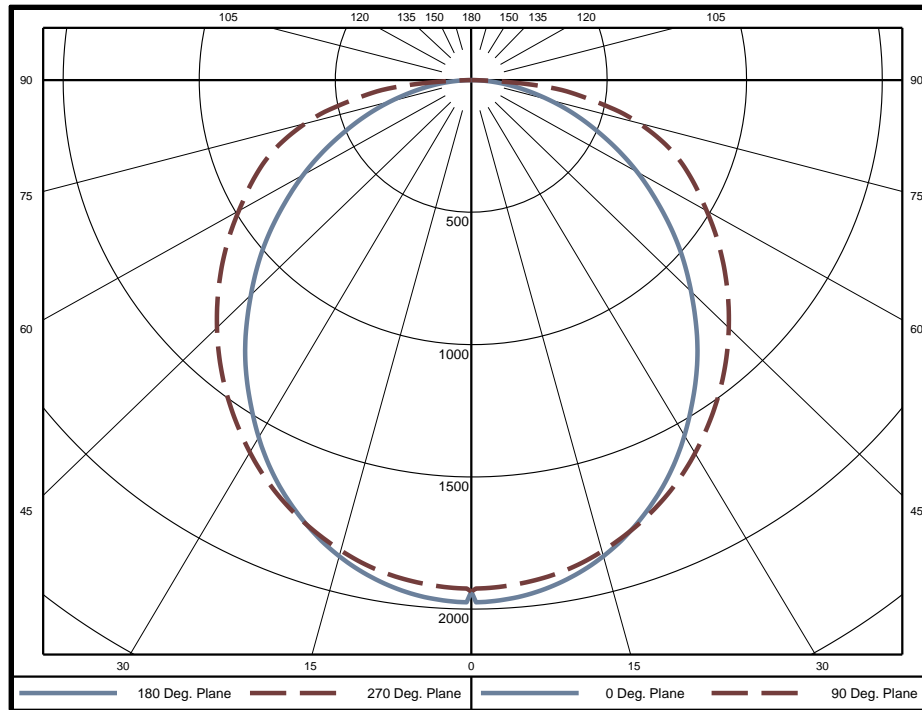
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	119.9 VAC	0.4203 A	50.26 W	0.997	60 Hz	5.74 %

Summary of Results

Spacing Criteria
 0-180: 1.20
 90-270: 1.20

Total Lumen Output: 5613 Lumens
Luminaire Efficacy: 111.7 lm/w
Maximum Candela: 1974 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	46.1	0.8%	60-65	379.0	6.8%	120-125	0	0.0%
5-10	136.4	2.4%	65-70	334.0	6.0%	125-130	0	0.0%
10-15	221.3	3.9%	70-75	281.6	5.0%	130-135	0	0.0%
15-20	297.4	5.3%	75-80	218.5	3.9%	135-140	0	0.0%
20-25	362.2	6.5%	80-85	143.4	2.6%	140-145	0	0.0%
25-30	413.4	7.4%	85-90	45.9	0.8%	145-150	0	0.0%
30-35	449.4	8.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	470.8	8.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	477.0	8.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	469.3	8.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	449.3	8.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	418.5	7.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2397	42.7%
0-60	4211	75.0%
0-90	5614	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	1933	1933	1933	1933	1933	1933	1933	1933	1933	1933	1933	1933	1933	1933	1933	1933
5	1962	1930	1911	1911	1913	1911	1911	1930	1962	1930	1911	1911	1913	1911	1911	1930
10	1924	1895	1879	1884	1888	1884	1879	1895	1924	1895	1879	1884	1888	1884	1879	1895
15	1864	1837	1829	1839	1844	1839	1829	1837	1864	1837	1829	1839	1844	1839	1829	1837
20	1780	1759	1759	1777	1785	1777	1759	1759	1780	1759	1759	1777	1785	1777	1759	1759
25	1678	1662	1675	1703	1714	1703	1675	1662	1678	1662	1675	1703	1714	1703	1675	1662
30	1557	1550	1575	1613	1629	1613	1575	1550	1557	1550	1575	1613	1629	1613	1575	1550
35	1424	1424	1465	1515	1535	1515	1465	1424	1424	1424	1465	1515	1535	1515	1465	1424
40	1286	1291	1346	1409	1434	1409	1346	1291	1286	1291	1346	1409	1434	1409	1346	1291
45	1139	1153	1221	1297	1327	1297	1221	1153	1139	1153	1221	1297	1327	1297	1221	1153
50	996	1013	1093	1181	1216	1181	1093	1013	996	1013	1093	1181	1216	1181	1093	1013
55	848	874	964	1065	1104	1065	964	874	848	874	964	1065	1104	1065	964	874
60	706	735	837	948	991	948	837	735	706	735	837	948	991	948	837	735
65	563	601	714	837	886	837	714	601	563	601	714	837	886	837	714	601
70	429	474	600	728	775	728	600	474	429	474	600	728	775	728	600	474
75	301	356	485	594	634	594	485	356	301	356	485	594	634	594	485	356
80	185	245	356	429	455	429	356	245	185	245	356	429	455	429	356	245
85	86	133	194	245	255	245	194	133	86	133	194	245	255	245	194	133
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)

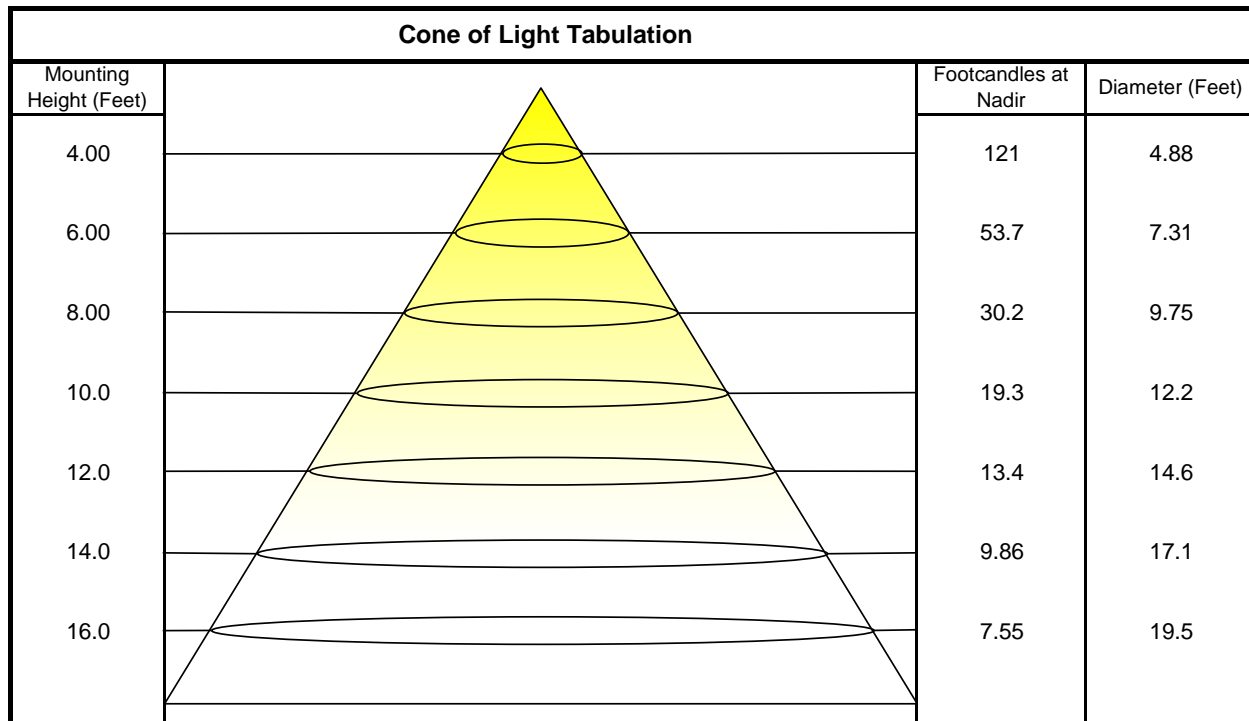
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	3249	3249	3249
45	2706	2900	3152
55	2484	2824	3234
65	2239	2839	3523
75	1955	3147	4117
85	1661	3748	4906



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	6683	6683	6683	6683	6527	6527	6527	6527	6237	6237	6237	5972	5972	5972	5728	5728	5728	5613
1	6049	5757	5496	5260	5893	5628	5390	5173	5387	5189	5009	5165	5003	4854	4960	4830	4708	4587
2	5477	4985	4578	4236	5325	4877	4502	4184	4675	4358	4085	4488	4223	3991	4315	4096	3900	3774
3	4981	4360	3880	3498	4838	4270	3824	3465	4100	3717	3402	3942	3616	3342	3796	3520	3283	3156
4	4554	3855	3343	2952	4422	3779	3301	2931	3636	3219	2889	3503	3141	2848	3379	3067	2809	2683
5	4186	3441	2921	2537	4065	3377	2888	2522	3256	2824	2493	3143	2763	2465	3038	2705	2437	2314
6	3865	3097	2582	2212	3755	3043	2556	2201	2940	2505	2181	2844	2456	2161	2754	2410	2141	2022
7	3584	2808	2305	1953	3484	2762	2284	1945	2674	2243	1930	2591	2204	1915	2514	2166	1900	1786
8	3337	2563	2076	1742	3247	2523	2059	1736	2448	2025	1724	2377	1993	1713	2310	1962	1702	1593
9	3118	2353	1884	1567	3037	2319	1870	1563	2254	1842	1554	2192	1816	1545	2134	1790	1537	1432
10	2925	2172	1721	1422	2851	2142	1710	1418	2086	1687	1411	2032	1664	1404	1982	1643	1397	1298

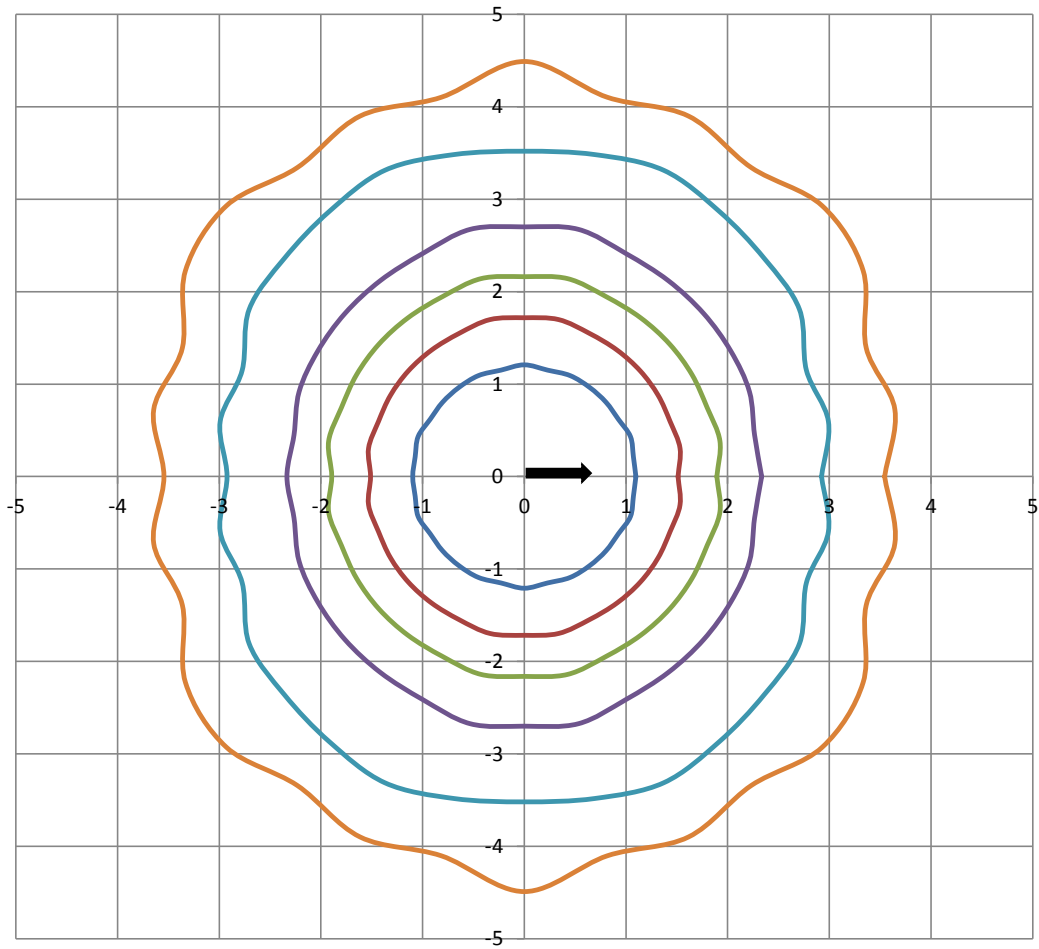
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1933 Candela
Central Cone Intensity:	1930 Candela
Beam Flux:	3853.2 Lumens
Beam Angle (0-180):	102.0 Degrees
Beam Angle (90-270):	122.2 Degrees
Field Angle (0-180):	159.2 Degrees
Field Angle (90-270):	171.9 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

