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Indoor Distribution Test Report

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

Prepared For
Mercury Lighting

Stephen Bambush
20 Audrey Pl
Fairfield, NJ 07004-3416
United States

Catalog Number
LR305-22G-5300-35K-A75-UNI-XXXX

Order Number
11228120
Test Number
1241930

Test Date

2016-04-27

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, steel reflectors, frosted plastic patterned lens enclosure
Lamp: 88 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance Xitanium XI075C200V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 23.00 in.
Luminous Width: 20.75 in.

Summary of Results

Total Luminaire Output: 5391 Lumens
Luminaire Efficacy: 110 lm/w
Maximum Candela: 1908 Candela

Test Conditions

Test Temperature: 24.4 °C
Voltage: 120.0 VAC
Current: 0.4101 A
Power: 49.03 W
Power Factor: 0.996
Frequency: 60 Hz
Current THD: 7.10 %

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



Distribution - Goniophotometer

Distribution Test Conditions

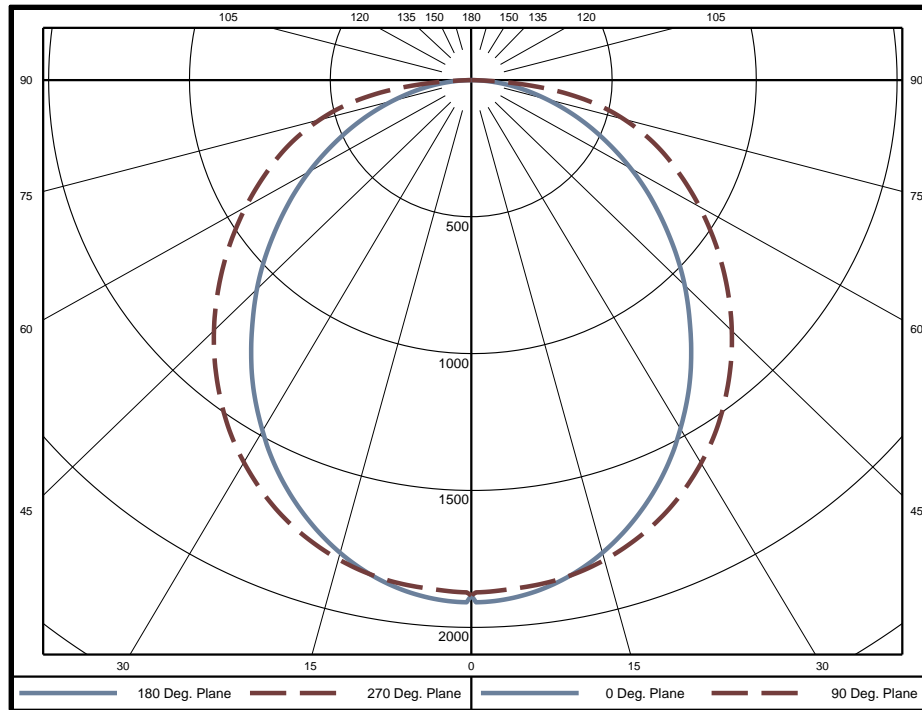
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.4101 A	49.03 W	0.996	60 Hz	7.10 %

Summary of Results

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

Total Lumen Output: 5391 Lumens
Luminaire Efficacy: 110.0 lm/w
Maximum Candela: 1908 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	44.9	0.8%	60-65	360.3	6.7%	120-125	0	0.0%
5-10	133.0	2.5%	65-70	313.5	5.8%	125-130	0	0.0%
10-15	216.0	4.0%	70-75	260.9	4.8%	130-135	0	0.0%
15-20	290.6	5.4%	75-80	200.3	3.7%	135-140	0	0.0%
20-25	354.2	6.6%	80-85	126.5	2.3%	140-145	0	0.0%
25-30	404.3	7.5%	85-90	34.2	0.6%	145-150	0	0.0%
30-35	439.7	8.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	459.3	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	464.1	8.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	455.0	8.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	433.3	8.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	401.0	7.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2342	43.4%
0-60	4095	76.0%
0-90	5391	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	1883	1883	1883	1883	1883	1883	1883	1883	1883	1883	1883	1883	1883	1883	1883	1883
5	1895	1874	1868	1868	1864	1868	1868	1874	1895	1874	1868	1868	1864	1868	1868	1874
10	1855	1836	1840	1849	1849	1849	1840	1836	1855	1836	1840	1849	1849	1849	1840	1836
15	1790	1777	1793	1811	1815	1811	1793	1777	1790	1777	1793	1811	1815	1811	1793	1777
20	1703	1699	1728	1758	1765	1758	1728	1699	1703	1699	1728	1758	1765	1758	1728	1699
25	1600	1604	1647	1687	1700	1687	1647	1604	1600	1604	1647	1687	1700	1687	1647	1604
30	1479	1494	1550	1601	1617	1601	1550	1494	1479	1494	1550	1601	1617	1601	1550	1494
35	1350	1372	1441	1501	1522	1501	1441	1372	1350	1372	1441	1501	1522	1501	1441	1372
40	1210	1243	1322	1390	1413	1390	1322	1243	1210	1243	1322	1390	1413	1390	1322	1243
45	1072	1111	1197	1271	1297	1271	1197	1111	1072	1111	1197	1271	1297	1271	1197	1111
50	931	977	1069	1148	1175	1148	1069	977	931	977	1069	1148	1175	1148	1069	977
55	793	844	941	1023	1052	1023	941	844	793	844	941	1023	1052	1023	941	844
60	659	713	814	897	928	897	814	713	659	713	814	897	928	897	814	713
65	526	585	689	776	808	776	689	585	526	585	689	776	808	776	689	585
70	402	465	571	658	691	658	571	465	402	465	571	658	691	658	571	465
75	284	349	452	528	559	528	452	349	284	349	452	528	559	528	452	349
80	178	239	325	381	403	381	325	239	178	239	325	381	403	381	325	239
85	82	121	164	179	188	179	164	121	82	121	164	179	188	179	164	121
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)

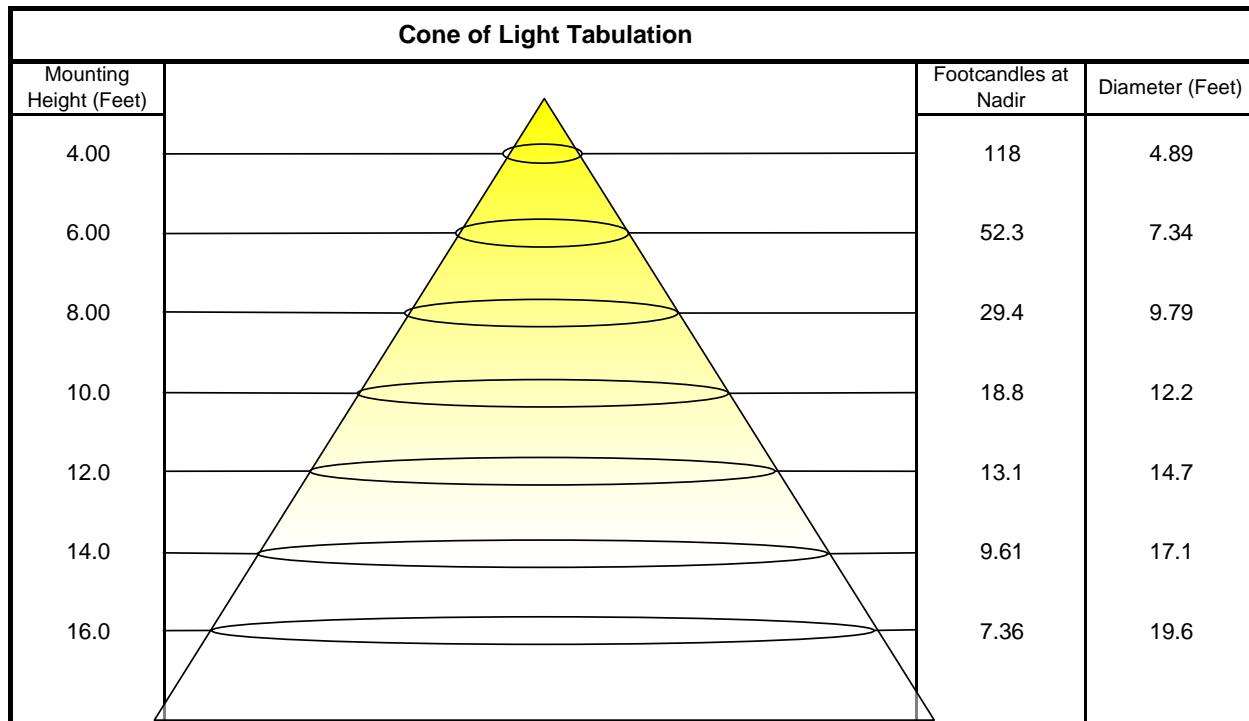
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	6117	6117	6117
45	4924	5500	5957
55	4489	5328	5955
65	4041	5298	6208
75	3560	5677	7013
85	3053	6094	7016



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	6418	6418	6418	6418	6268	6268	6268	6268	5990	5990	5990	5735	5735	5735	5501	5501	5501	5391
1	5822	5547	5301	5079	5673	5424	5199	4995	5192	5007	4837	4980	4828	4687	4784	4662	4547	4431
2	5277	4811	4425	4101	5132	4708	4353	4052	4514	4215	3956	4335	4085	3865	4170	3962	3777	3657
3	4802	4213	3757	3393	4665	4126	3703	3362	3963	3600	3301	3813	3503	3242	3673	3410	3186	3064
4	4393	3727	3240	2868	4266	3655	3199	2847	3517	3121	2807	3390	3046	2767	3271	2975	2729	2609
5	4039	3329	2833	2466	3923	3267	2801	2452	3151	2740	2424	3043	2681	2397	2943	2625	2370	2253
6	3729	2997	2505	2152	3625	2945	2480	2142	2846	2431	2122	2754	2385	2102	2668	2340	2083	1970
7	3459	2717	2237	1901	3364	2673	2217	1893	2589	2178	1879	2510	2140	1864	2436	2104	1850	1741
8	3220	2481	2015	1696	3135	2443	1999	1690	2370	1967	1679	2303	1936	1668	2239	1906	1658	1553
9	3010	2278	1829	1527	2932	2245	1816	1522	2183	1789	1514	2124	1764	1505	2069	1739	1497	1397
10	2823	2103	1672	1385	2753	2074	1660	1381	2020	1638	1375	1969	1617	1368	1921	1596	1362	1266

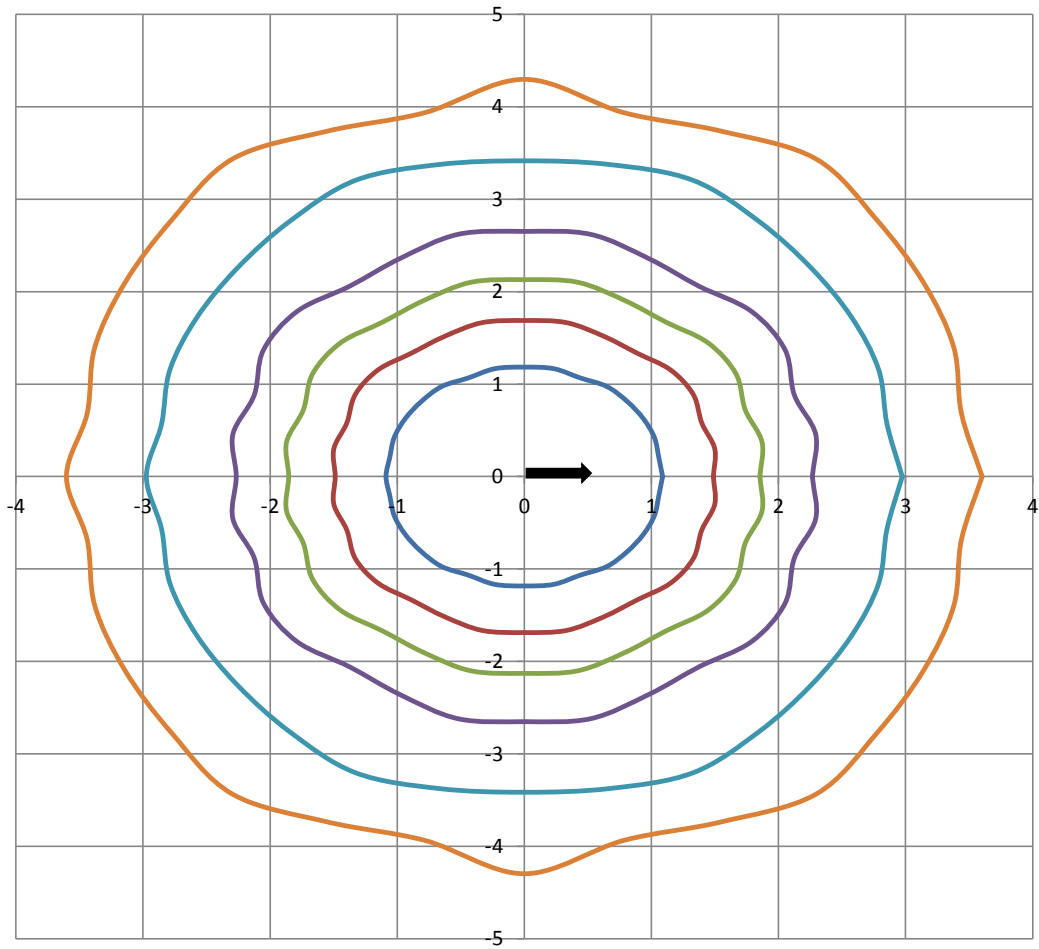
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1883 Candela
Central Cone Intensity:	1879 Candela
Beam Flux:	3695.4 Lumens
Beam Angle (0-180):	99.2 Degrees
Beam Angle (90-270):	118.9 Degrees
Field Angle (0-180):	159.0 Degrees
Field Angle (90-270):	170.0 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

