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ACCREDITED

NVLAP LAB CODE 201042-0

Indoor Distribution Test Report

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

Prepared For

Mercury Lighting

20 Audrey PL
Fairfield, NJ 07004-3416
United States

Catalog Number

MLS2-F-4-2500-(625 LM/FT)-35K-HTA-A401-U

Order Number
11654729
Test Number
11654729.17

Test Date

2017-03-28

Prepared By

Javier Caban, Technician

Approved By

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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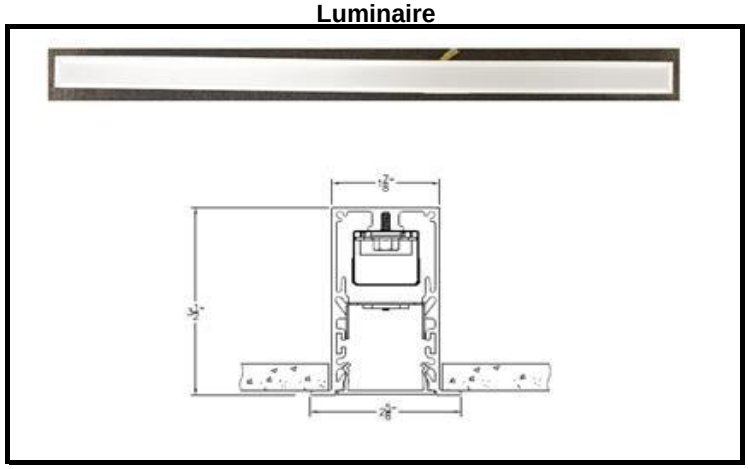
Luminaire Description: Formed white aluminum housing, frosted plastic lens enclosure
Lamp: 96 white LEDs
Mounting: Recessed
Ballast/Driver: Philips Advanced XI040C110V054BST1
Note: Tested as MLS2 G 4 4300 35k HTA A401 U

Luminaire



Luminaire Characteristics

Luminous Length:	48.00 in.
Luminous Width:	1.750 in.

Summary of Results

Total Luminaire Output:	2515 Lumens
Luminaire Efficacy:	91.4 lm/w
Maximum Candela:	1298 Candela

Test Conditions

Test Temperature:	25.4	°C
Voltage:	120.0	VAC
Current:	0.2306	A
Power:	27.53	W
Power Factor:	0.995	
Frequency:	60	Hz
Current THD:	8.02	%

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

Distribution - Goniophotometer

Distribution Test Conditions

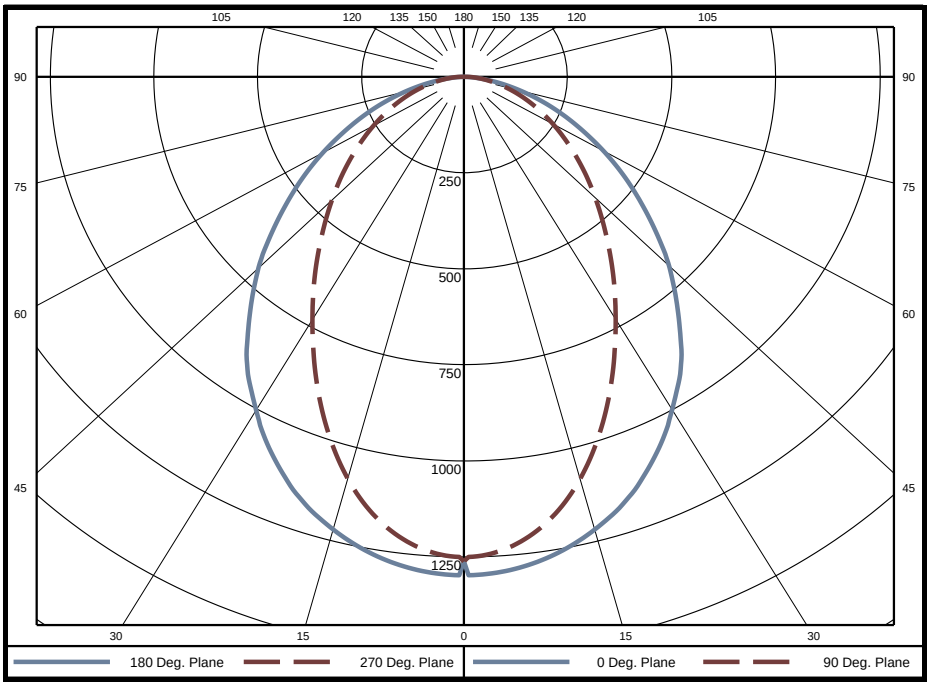
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.2306 A	27.53 W	0.995	60 Hz	8.02 %

Summary of Results

Spacing Criteria
0-180: 1.19
90-270: 1.19

Total Lumen Output: 2515 Lumens
Luminaire Efficacy: 91.4 lm/w
Maximum Candela: 1298 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	30.0	1.2%	60-65	132.7	5.3%	120-125	0	0.0%
5-10	87.8	3.5%	65-70	105.1	4.2%	125-130	0	0.0%
10-15	139.2	5.5%	70-75	77.2	3.1%	130-135	0	0.0%
15-20	180.8	7.2%	75-80	50.3	2.0%	135-140	0	0.0%
20-25	210.8	8.4%	80-85	26.6	1.1%	140-145	0	0.0%
25-30	228.5	9.1%	85-90	9.0	0.4%	145-150	0	0.0%
30-35	235.1	9.3%	90-95	0	0.0%	150-155	0	0.0%
35-40	232.5	9.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	221.5	8.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	204.9	8.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	183.7	7.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	159.3	6.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1345	53.5%
0-60	2114	84.1%
0-90	2515	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	1262	1262	1262	1262	1262	1262	1262	1262	1262	1262	1262	1262	1262	1262	1262	1262
5	1289	1258	1239	1235	1231	1235	1239	1258	1289	1258	1239	1235	1231	1235	1239	1258
10	1263	1227	1198	1182	1174	1182	1198	1227	1263	1227	1198	1182	1174	1182	1198	1227
15	1220	1178	1131	1099	1084	1099	1131	1178	1220	1178	1131	1099	1084	1099	1131	1178
20	1165	1114	1044	994	971	994	1044	1114	1165	1114	1044	994	971	994	1044	1114
25	1091	1032	946	877	850	877	946	1032	1091	1032	946	877	850	877	946	1032
30	1004	938	837	762	733	762	837	938	1004	938	837	762	733	762	837	938
35	914	839	729	655	629	655	729	839	914	839	729	655	629	655	729	839
40	805	734	627	558	533	558	627	734	805	734	627	558	533	558	627	734
45	702	629	532	471	451	471	532	629	702	629	532	471	451	471	532	629
50	592	530	446	395	377	395	446	530	592	530	446	395	377	395	446	530
55	490	438	368	325	310	325	368	438	490	438	368	325	310	325	368	438
60	393	352	297	263	251	263	297	352	393	352	297	263	251	263	297	352
65	301	273	230	205	197	205	230	273	301	273	230	205	197	205	230	273
70	220	201	170	154	148	154	170	201	220	201	170	154	148	154	170	201
75	144	134	115	106	103	106	115	134	144	134	115	106	103	106	115	134
80	79	75	68	65	64	65	68	75	79	75	68	65	64	65	68	75
85	28	29	30	32	32	32	30	29	28	29	30	32	32	32	30	29
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/m^2)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
0	23280	23280	23280
45	18330	13880	11760
55	15760	11850	9984
65	13160	10040	8598
75	10280	8218	7375
85	5939	6396	6871

Utilization of Lumens - Zonal Cavity Method

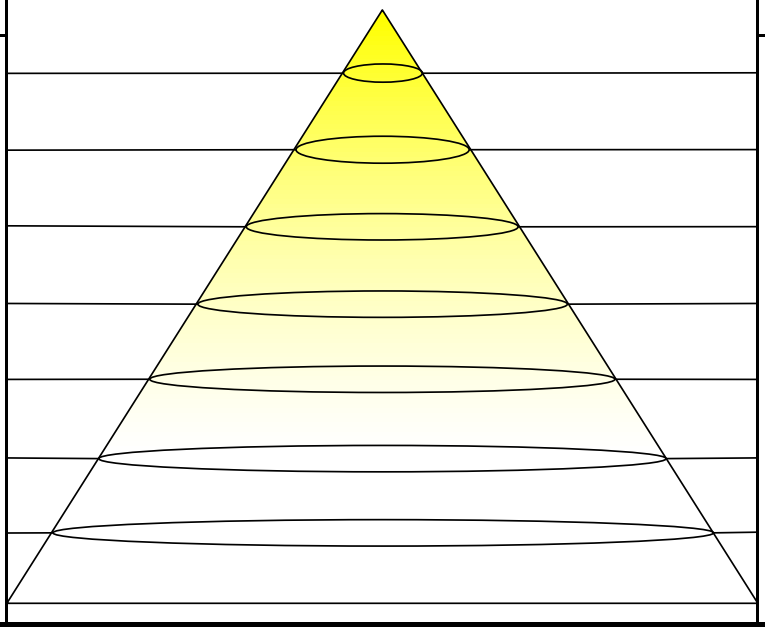
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	2994	2994	2994	2994	2925	2925	2925	2925	2795	2795	2795	2676	2676	2676	2566	2566	2566	2515
1	2761	2651	2553	2465	2694	2595	2506	2425	2489	2416	2349	2391	2332	2277	2302	2254	2210	2159
2	2534	2343	2186	2053	2470	2297	2152	2029	2209	2087	1983	2128	2027	1938	2053	1970	1895	1843
3	2329	2084	1894	1743	2269	2045	1869	1728	1972	1821	1698	1904	1776	1669	1841	1733	1641	1589
4	2148	1867	1662	1505	2092	1835	1643	1495	1773	1606	1474	1716	1572	1455	1663	1539	1436	1384
5	1988	1685	1473	1317	1937	1657	1459	1310	1606	1431	1296	1557	1404	1283	1512	1378	1270	1219
6	1846	1530	1319	1167	1799	1507	1307	1162	1463	1285	1152	1422	1264	1143	1383	1243	1133	1084
7	1720	1398	1190	1045	1678	1379	1181	1041	1341	1163	1034	1306	1146	1027	1272	1129	1019	972
8	1608	1285	1082	943	1570	1268	1075	940	1236	1060	935	1205	1046	929	1177	1032	924	878
9	1508	1187	990	858	1473	1172	984	856	1144	972	851	1118	960	847	1093	949	843	799
10	1418	1101	911	785	1387	1088	906	784	1064	896	780	1041	886	777	1020	877	774	732

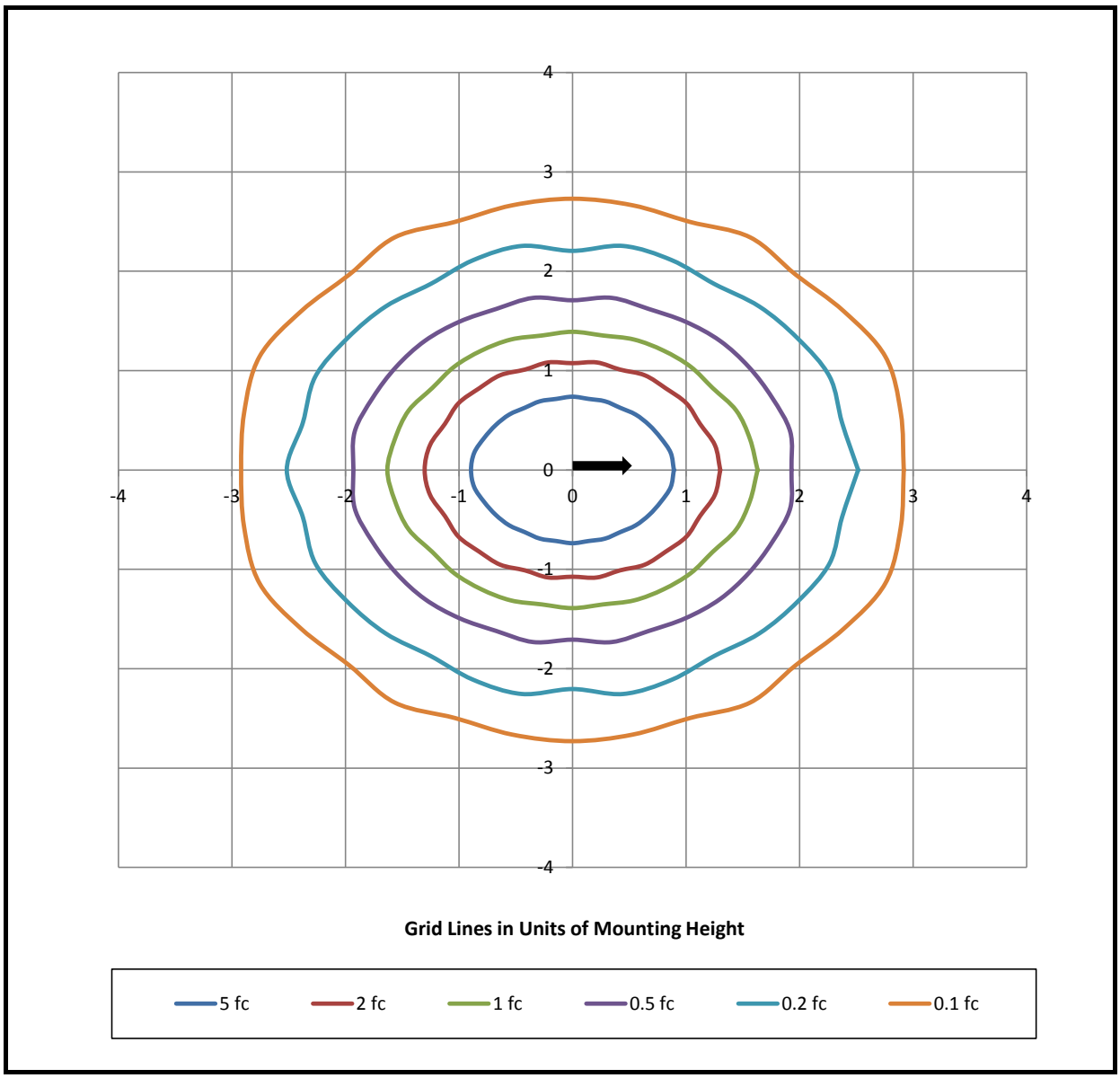
Beam and Field Information

CIE Type:	Direct
Center Beam Intenisty:	1262 Candela
Central Cone Intensity:	1257 Candela
Beam Flux:	1397.0 Lumens
Beam Angle (0-180):	96.5 Degrees
Beam Angle (90-270):	69.8 Degrees
Field Angle (0-180):	152.6 Degrees
Field Angle (90-270):	144.7 Degrees

Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	78.9	4.17
6.00	35.0	6.25
8.00	19.7	8.33
10.0	12.6	10.4
12.0	8.76	12.5
14.0	6.44	14.6
16.0	4.93	16.7



ISOFootcandle Plot

Mounting Height - 8 Feet