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Allentown, PA 18106
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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
MLS4-G-48-900-35K-ASO-A401-U
Order Number
12236553
Test Number
12236553.01

Test Date

2018-04-05

Revised 2018-04-05

Prepared By

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Derek Smarr, Technician

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Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White formed aluminum housing, frosted plastic lens enclosure
Lamp: 96 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips XI040C110V054BST1 driver

Luminaire



Luminaire Characteristics

Luminous Length: 47.00 in.
Luminous Width: 3.000 in.

Summary of Results

Total Luminaire Output:	3622 Lumens
Luminaire Efficacy:	81.4 lm/w
Maximum Candela:	1310 Candela

Test Conditions

Test Temperature:	24.9 °C
Voltage:	120.0 VAC
Current:	0.3716 A
Power:	44.47 W
Power Factor:	0.998
Frequency:	60 Hz
Current THD:	5.47 %

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



Distribution - Goniophotometer

Distribution Test Conditions

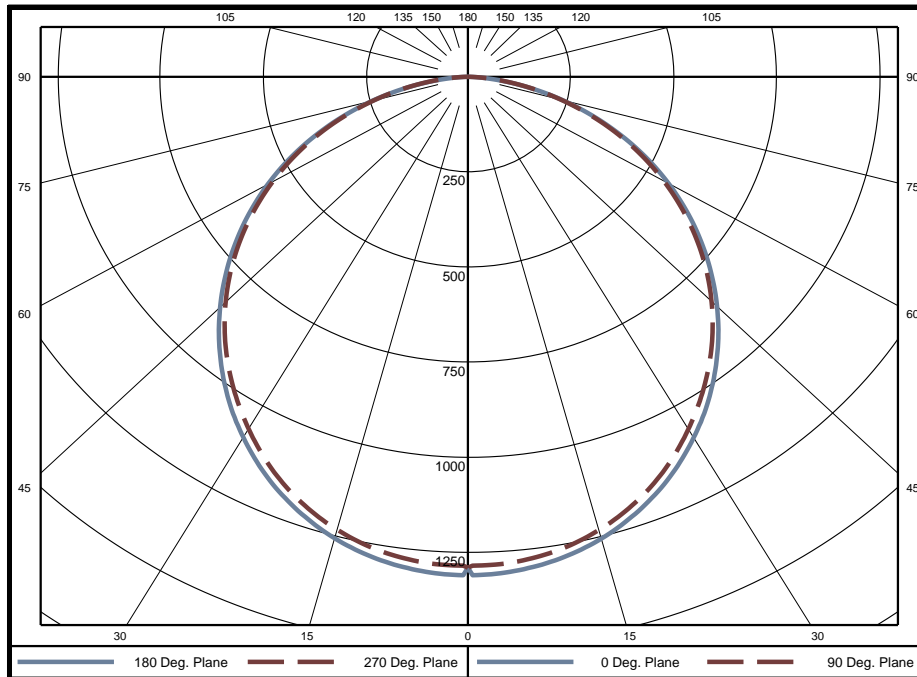
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.0 VAC	0.3716 A	44.47 W	0.998	60 Hz	5.47 %

Summary of Results

Spacing Criteria
 0-180: 1.26
 90-270: 1.23

Total Lumen Output: 3622 Lumens
Luminaire Efficacy: 81.4 lm/w
Maximum Candela: 1310 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	30.8	0.9%	60-65	244.5	6.8%	120-125	0	0.0%
5-10	91.3	2.5%	65-70	201.3	5.6%	125-130	0	0.0%
10-15	148.6	4.1%	70-75	151.9	4.2%	130-135	0	0.0%
15-20	200.5	5.5%	75-80	99.6	2.7%	135-140	0	0.0%
20-25	245.1	6.8%	80-85	50.0	1.4%	140-145	0	0.0%
25-30	280.8	7.8%	85-90	12.0	0.3%	145-150	0	0.0%
30-35	306.8	8.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	322.7	8.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	327.9	9.1%	100-105	0	0.0%	160-165	0	0.0%
45-50	322.2	8.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	306.0	8.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	279.8	7.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1627	44.9%
0-60	2863	79.0%
0-90	3622	100.0%
90-180	0	0.0%



Candela Tabulation
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	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290
5	1304	1284	1278	1284	1280	1284	1278	1284	1304	1284	1278	1284	1280	1284	1278	1284
10	1286	1266	1261	1267	1263	1267	1261	1266	1286	1266	1261	1267	1263	1267	1261	1266
15	1256	1237	1231	1236	1233	1236	1231	1237	1256	1237	1231	1236	1233	1236	1231	1237
20	1214	1194	1189	1194	1190	1194	1189	1194	1214	1194	1189	1194	1190	1194	1189	1194
25	1161	1141	1136	1140	1136	1140	1136	1141	1161	1141	1136	1140	1136	1140	1136	1141
30	1096	1079	1073	1075	1071	1075	1073	1079	1096	1079	1073	1075	1071	1075	1073	1079
35	1025	1007	1002	1004	999	1004	1002	1007	1025	1007	1002	1004	999	1004	1002	1007
40	944	928	925	926	922	926	925	928	944	928	925	926	922	926	925	928
45	857	842	841	841	838	841	841	842	857	842	841	841	838	841	841	842
50	764	751	750	751	748	751	750	751	764	751	750	751	748	751	750	751
55	667	655	655	654	652	654	655	655	667	655	655	654	652	654	655	655
60	565	555	554	553	551	553	554	555	565	555	554	553	551	553	554	555
65	459	452	450	450	448	450	450	452	459	452	450	450	448	450	450	452
70	349	345	344	343	342	343	344	345	349	345	344	343	342	343	344	345
75	240	237	237	237	236	237	237	237	240	237	237	237	236	237	237	237
80	136	136	137	138	138	138	137	136	136	136	137	138	138	138	137	136
85	48	50	52	53	53	53	52	50	48	50	52	53	53	53	52	50
90	1	2	3	4	4	4	3	2	1	2	3	4	4	4	3	2
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)

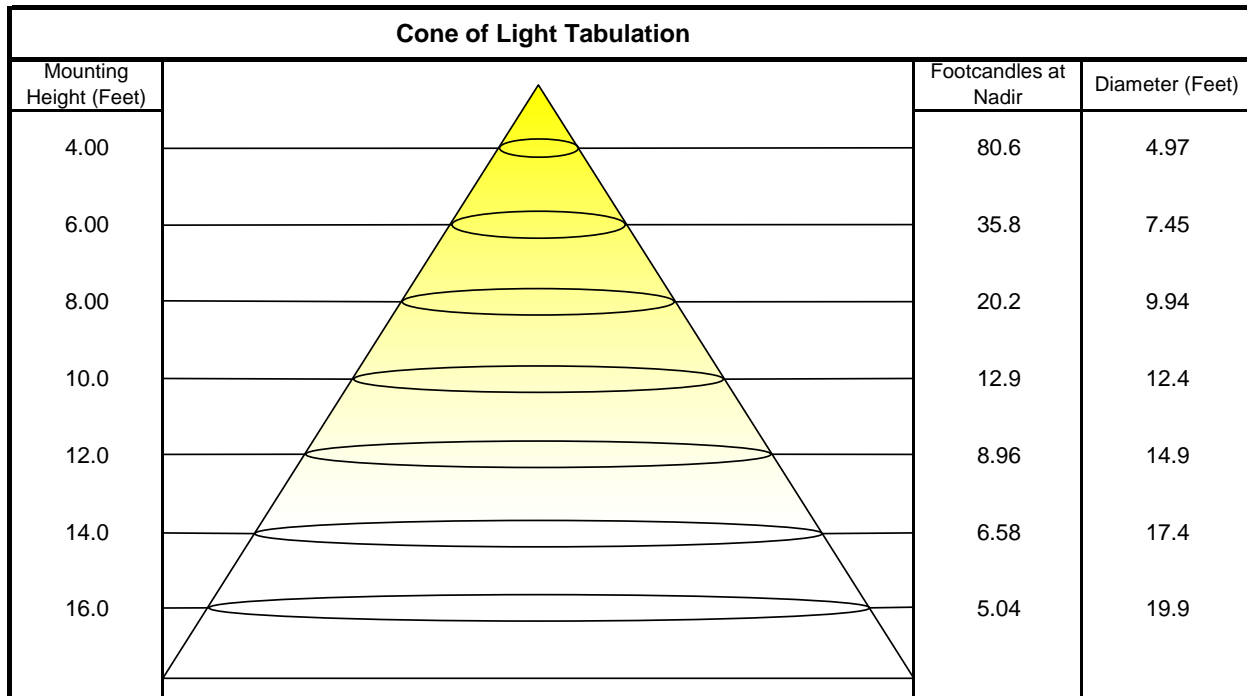
	0	45	90
0	14180	14180	14180
45	13320	13070	13020
55	12780	12550	12490
65	11930	11700	11650
75	10190	10080	10040
85	6096	6508	6720



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	4312	4312	4312	4312	4211	4211	4211	4211	4024	4024	4024	3853	3853	3853	3696	3696	3696	3622
1	3940	3767	3612	3472	3841	3684	3543	3415	3530	3414	3307	3388	3294	3206	3258	3182	3110	3034
2	3581	3281	3034	2825	3485	3213	2985	2791	3084	2892	2726	2965	2805	2664	2855	2722	2604	2525
3	3263	2880	2583	2347	3173	2822	2547	2325	2714	2478	2284	2614	2413	2244	2521	2351	2205	2125
4	2987	2550	2231	1987	2903	2502	2204	1973	2411	2151	1945	2326	2101	1918	2247	2053	1892	1813
5	2746	2278	1951	1710	2669	2237	1930	1700	2160	1889	1681	2088	1850	1663	2021	1812	1645	1567
6	2535	2051	1725	1492	2466	2016	1709	1485	1950	1676	1472	1889	1645	1458	1832	1615	1445	1370
7	2351	1859	1540	1317	2287	1830	1527	1312	1773	1501	1302	1721	1475	1292	1671	1451	1283	1210
8	2188	1696	1387	1175	2131	1671	1376	1171	1623	1355	1163	1578	1334	1156	1535	1314	1149	1079
9	2044	1557	1258	1057	1993	1535	1249	1054	1493	1232	1048	1454	1214	1042	1417	1198	1037	970
10	1917	1437	1149	958	1870	1418	1142	956	1382	1127	951	1347	1113	947	1315	1099	942	879

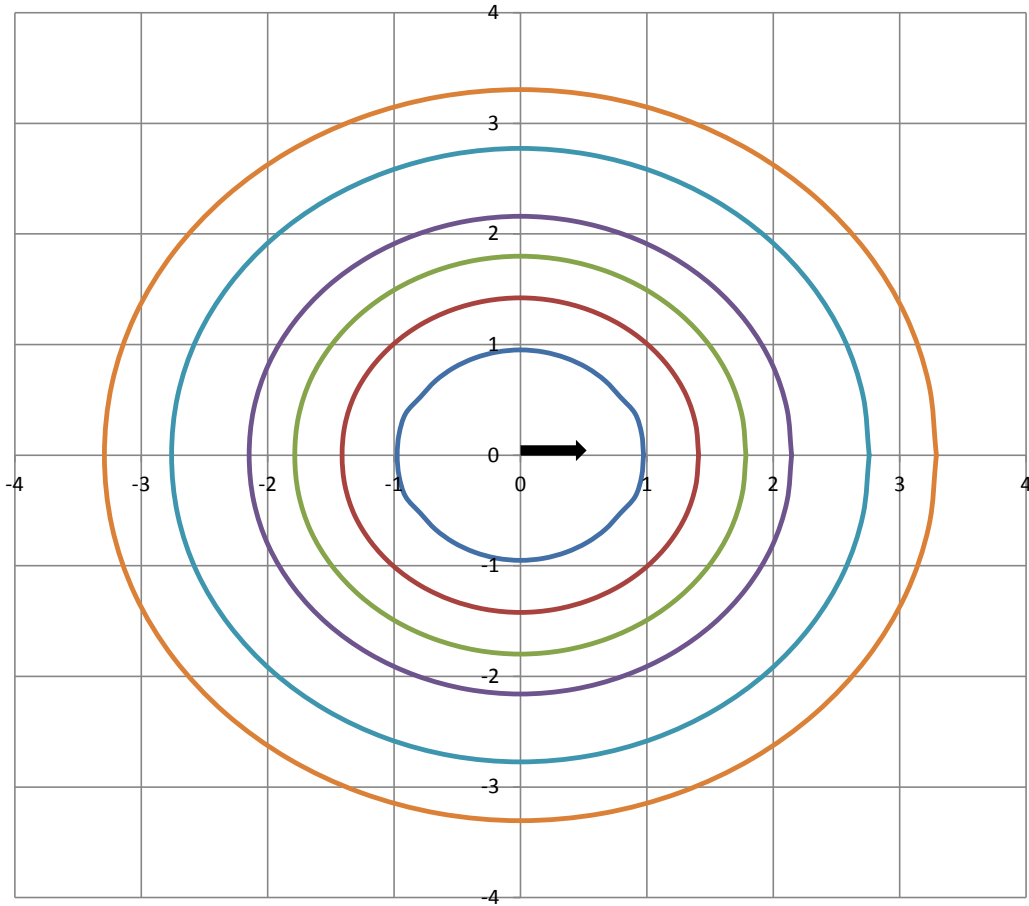
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1290 Candela
Central Cone Intensity:	1288 Candela
Beam Flux:	2614.0 Lumens
Beam Angle (0-180):	112.2 Degrees
Beam Angle (90-270):	110.7 Degrees
Field Angle (0-180):	160.7 Degrees
Field Angle (90-270):	160.9 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

