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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
MLP3-3-48-925-35K-ASO-AXX
Order Number
12182802
Test Number
12182802.01

Test Date

2018-03-23

Revised 2018-03-26

Prepared By

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Approved By

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

Luminaire



Luminaire Characteristics

Luminous Length: 3.25 in.
Luminous Width: 48.00 in.
Luminous Height: 3.00 in.

Summary of Results

Total Luminaire Output: 3734 Lumens
Luminaire Efficacy: 83.8 lm/w
Maximum Candela: 1508 Candela

Test Conditions

Test Temperature: 24.5 °C
Voltage: 120.1 VAC
Current: 0.3719 A
Power: 44.55 W
Power Factor: 0.998
Frequency: 60 Hz
Current THD: 5.32 %

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
24.5 °C	120.1 VAC	0.3719 A	44.55 W	0.998	60 Hz	5.32 %

Summary of Results

Spacing Criteria

0-180: 1.41
90-270: 1.22

Total Lumen Output:

3734 Lumens

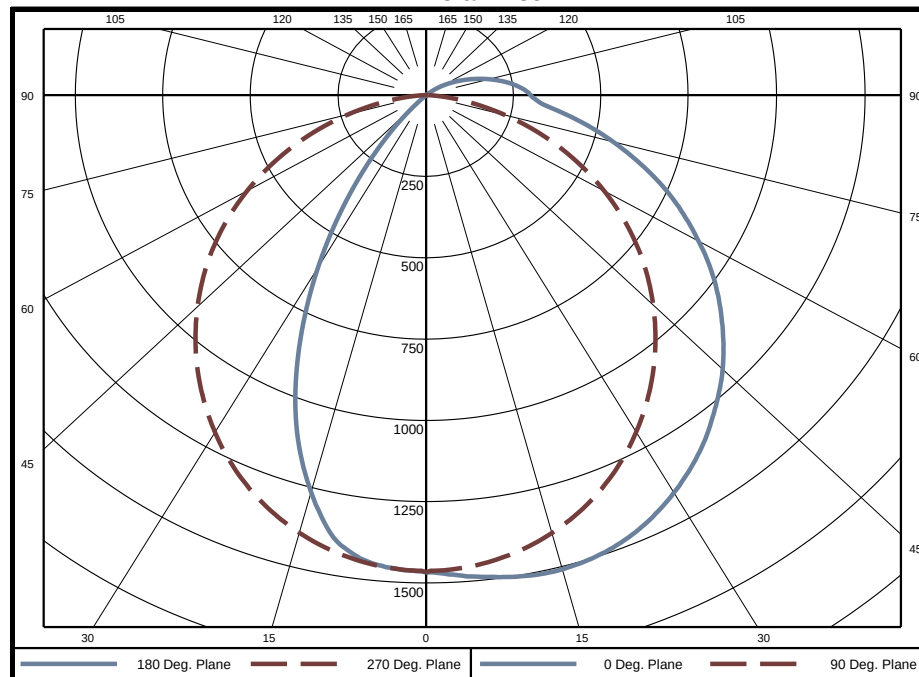
Luminaire Efficacy:

83.8 lm/w

Maximum Candela:

1508 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	35.0	0.9%	60-65	205.9	5.5%	120-125	4.1	0.1%
5-10	104.2	2.8%	65-70	174.3	4.7%	125-130	1.4	0.0%
10-15	169.2	4.5%	70-75	141.2	3.8%	130-135	0.3	0.0%
15-20	225.1	6.0%	75-80	108.9	2.9%	135-140	0.1	0.0%
20-25	268.9	7.2%	80-85	77.9	2.1%	140-145	0.0	0.0%
25-30	298.5	8.0%	85-90	55.4	1.5%	145-150	0	0.0%
30-35	312.9	8.4%	90-95	46.6	1.2%	150-155	0	0.0%
35-40	313.3	8.4%	95-100	38.4	1.0%	155-160	0	0.0%
40-45	302.2	8.1%	100-105	29.4	0.8%	160-165	0	0.0%
45-50	282.7	7.6%	105-110	21.0	0.6%	165-170	0	0.0%
50-55	260.2	7.0%	110-115	14.1	0.4%	170-175	0	0.0%
55-60	234.4	6.3%	115-120	8.4	0.2%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1727	46.3%
0-60	2807	75.2%
0-90	3570	95.6%
90-180	164	4.4%



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	1466	1466	1466	1466	1466	1466	1466	1466	1466	1466	1466	1466	1466	1466	1466
	5	1484	1480	1472	1471	1453	1460	1451	1454	1451	1454	1451	1460	1453	1471	1472
	10	1502	1493	1472	1456	1430	1436	1423	1413	1403	1413	1423	1436	1430	1456	1472
	15	1507	1492	1461	1429	1392	1397	1359	1301	1264	1301	1359	1397	1392	1429	1461
	20	1493	1473	1435	1391	1340	1339	1233	1134	1081	1134	1233	1339	1340	1391	1435
	25	1461	1437	1397	1342	1275	1257	1081	936	856	936	1081	1257	1275	1342	1397
	30	1411	1386	1344	1281	1198	1146	909	712	621	712	909	1146	1198	1281	1344
	35	1350	1323	1279	1211	1112	1015	718	488	398	488	718	1015	1112	1211	1279
	40	1276	1247	1203	1132	1018	873	521	288	207	288	521	873	1018	1132	1203
	45	1195	1162	1116	1044	918	729	335	127	60	127	335	729	918	1044	1116
	50	1103	1070	1025	951	813	574	176	12	0	12	176	574	813	951	1025
	55	1006	970	927	853	702	413	50	0	0	0	50	413	702	853	927
	60	897	861	816	749	585	256	1	0	0	0	1	256	585	749	816
	65	787	750	703	639	466	117	0	0	0	0	0	117	466	639	703
	70	670	635	586	523	346	22	0	0	0	0	0	22	346	523	586
	75	552	518	468	397	228	1	0	0	0	0	0	1	228	397	468
	80	438	406	355	275	121	0	0	0	0	0	0	0	121	275	355
	85	337	309	255	169	37	0	0	0	0	0	0	0	37	169	255
	90	298	270	205	104	0	0	0	0	0	0	0	0	104	205	270
	95	270	242	176	74	0	0	0	0	0	0	0	0	74	176	242
	100	231	204	139	43	0	0	0	0	0	0	0	0	43	139	204
	105	189	163	101	19	0	0	0	0	0	0	0	0	19	101	163
	110	146	123	67	5	0	0	0	0	0	0	0	0	5	67	123
	115	105	86	38	2	0	0	0	0	0	0	0	0	2	38	86
	120	69	52	13	0	0	0	0	0	0	0	0	0	0	13	52
	125	37	23	4	0	0	0	0	0	0	0	0	0	0	4	23
	130	9	5	0	0	0	0	0	0	0	0	0	0	0	0	5
	135	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	140	1	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
	150	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
	160	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
	170	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
	180	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)	0	45	90
	0	14560	14560
	45	8734	9242
	55	7521	8050
	65	6210	6628
	75	4763	4993
	85	3328	3238



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	4406	4406	4406	4406	4285	4285	4285	4285	4058	4058	4058	3851	3851	3851	3660	3660	3660	3570
1	4009	3826	3661	3513	3890	3725	3575	3440	3535	3413	3301	3361	3263	3171	3201	3122	3049	2959
2	3655	3347	3093	2878	3542	3263	3029	2831	3104	2909	2741	2957	2796	2654	2822	2689	2571	2482
3	3344	2955	2654	2414	3237	2883	2606	2382	2749	2513	2319	2625	2426	2258	2510	2343	2200	2112
4	3072	2632	2310	2064	2974	2572	2272	2041	2458	2200	1995	2352	2131	1951	2254	2065	1908	1823
5	2834	2364	2035	1793	2745	2313	2005	1775	2216	1947	1741	2125	1891	1708	2041	1838	1675	1593
6	2625	2138	1812	1577	2544	2095	1787	1564	2011	1740	1537	1934	1694	1511	1861	1650	1486	1407
7	2441	1947	1627	1403	2367	1909	1607	1392	1838	1568	1371	1770	1530	1351	1707	1493	1330	1255
8	2277	1783	1473	1260	2210	1751	1456	1251	1688	1423	1234	1630	1391	1217	1575	1361	1200	1128
9	2132	1642	1342	1140	2071	1614	1328	1133	1559	1300	1119	1508	1273	1105	1460	1247	1091	1022
10	2002	1520	1231	1039	1947	1495	1219	1033	1447	1195	1021	1402	1172	1009	1359	1149	997	932

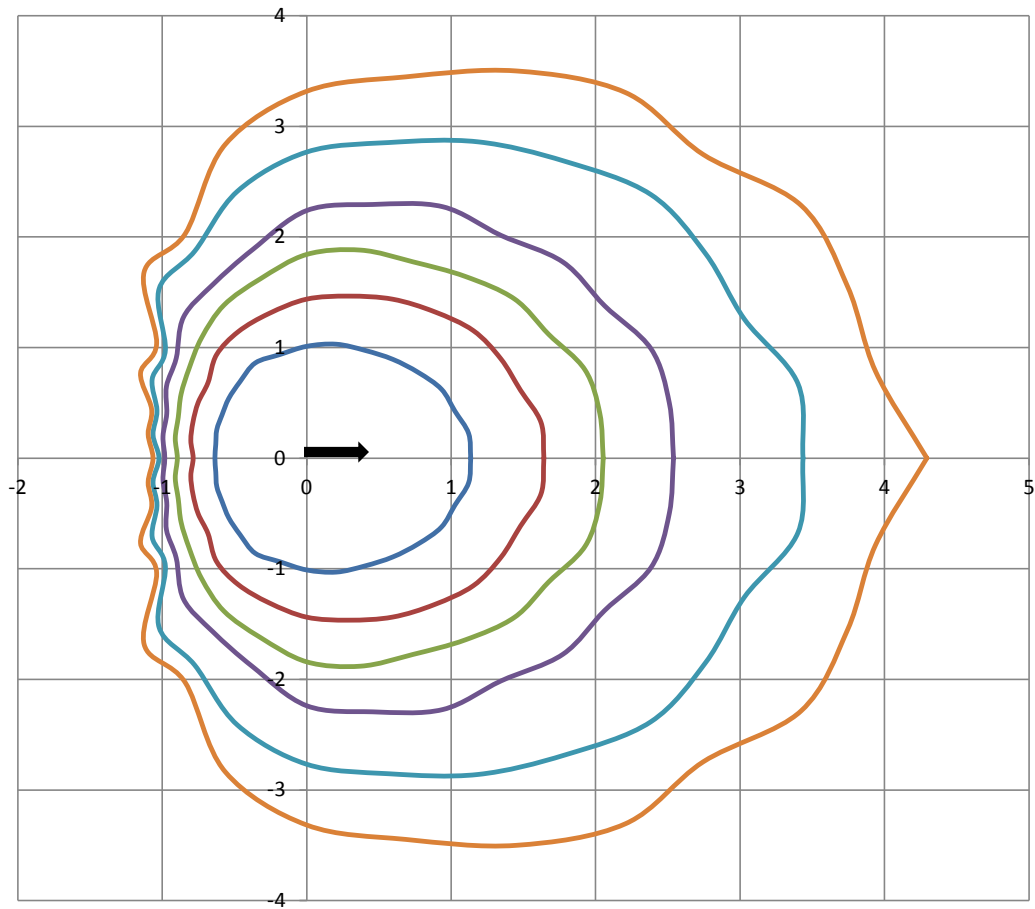
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1466 Candela
Central Cone Intensity:	1465 Candela
Beam Flux:	2668.2 Lumens
Beam Angle (0-180):	95.0 Degrees
Beam Angle (90-270):	107.3 Degrees
Field Angle (0-180):	151.8 Degrees
Field Angle (90-270):	157.5 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		91.6	4.61
6.00		40.7	6.91
8.00		22.9	9.21
10.0		14.7	11.5
12.0		10.2	13.8
14.0		7.48	16.1
16.0		5.73	18.4



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc 2 fc 1 fc 0.5 fc 0.2 fc 0.1 fc