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Indoor Distribution Test Report

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

Prepared For
Mercury Lighting

John Andrews
20 Audrey Pl
Fairfield, NJ 07004-3416

Catalog Number
LW3-4-3800-35K-WHITE-1%-UNI
Order Number
11326649
Test Number
1260674

Test Date
2016-06-22

Prepared By

Kevin Rodriguez, 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: White enamel steel housing, frosted plastic lens enclosure
Lamp: 96 white LEDs
Mounting: Surface - Ceiling
Ballast/Driver: One Philips Advance XI040C110V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 2.875 in.

Summary of Results

Total Luminaire Output:	3852 Lumens
Luminaire Efficacy:	91 lm/w
Maximum Candela:	1320 Candela

Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.1 VAC
Current:	0.3530 A
Power:	42.32 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	5.24 %

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
25.0 °C	120.1 VAC	0.3530 A	42.32 W	0.996	60 Hz	5.24 %

Summary of Results

Spacing Criteria

0-180: 1.26

90-270: 1.26

Total Lumen Output:

3852 Lumens

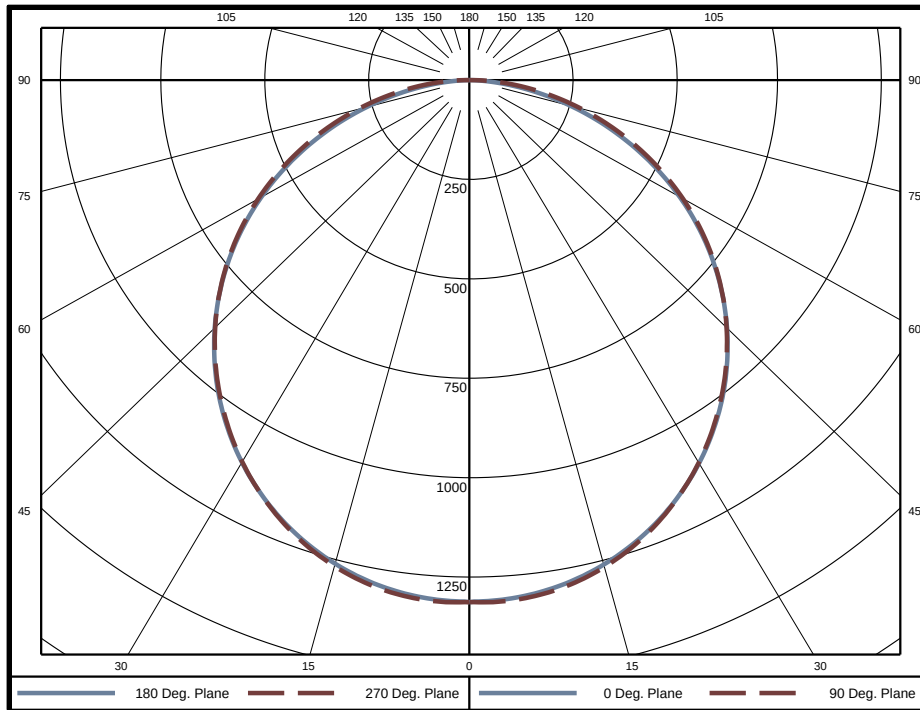
Luminaire Efficacy:

91.0 lm/w

Maximum Candela:

1320 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	31.4	0.8%	60-65	263.6	6.8%	120-125	0	0.0%
5-10	93.3	2.4%	65-70	219.8	5.7%	125-130	0	0.0%
10-15	152.1	3.9%	70-75	170.2	4.4%	130-135	0	0.0%
15-20	205.8	5.3%	75-80	117.9	3.1%	135-140	0	0.0%
20-25	252.5	6.6%	80-85	66.9	1.7%	140-145	0	0.0%
25-30	290.7	7.5%	85-90	21.1	0.5%	145-150	0	0.0%
30-35	319.3	8.3%	90-95	0	0.0%	150-155	0	0.0%
35-40	337.4	8.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	344.5	8.9%	100-105	0	0.0%	160-165	0	0.0%
45-50	340.5	8.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	325.3	8.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	299.4	7.8%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1683	43.7%
0-60	2992	77.7%
0-90	3852	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	1313	1313	1313	1313	1313	1313	1313	1313	1313	1313	1313	1313	1313	1313	1313
	5	1306	1315	1313	1313	1312	1313	1313	1315	1306	1315	1313	1313	1312	1313	1313
	10	1289	1298	1297	1297	1296	1297	1297	1298	1289	1298	1297	1297	1296	1297	1297
	15	1261	1270	1269	1269	1268	1269	1269	1270	1261	1270	1269	1269	1268	1269	1269
	20	1222	1231	1230	1230	1226	1230	1230	1231	1222	1231	1230	1230	1226	1230	1230
	25	1172	1181	1181	1180	1174	1180	1181	1181	1172	1181	1180	1180	1174	1180	1181
	30	1113	1122	1121	1120	1112	1120	1121	1122	1113	1122	1121	1120	1112	1120	1121
	35	1044	1053	1052	1051	1042	1051	1052	1053	1044	1053	1052	1051	1042	1051	1052
	40	967	976	975	974	965	974	975	976	967	976	975	974	965	974	975
	45	883	891	890	890	882	890	890	891	883	891	890	890	882	890	890
	50	791	799	798	799	793	799	798	799	791	799	798	799	793	799	798
	55	693	699	700	702	699	702	700	699	693	699	700	702	699	702	700
	60	589	594	596	600	599	600	596	594	589	594	596	600	599	600	596
	65	481	485	489	494	494	494	489	485	481	485	489	494	494	489	485
	70	369	373	380	387	389	387	380	373	369	373	380	387	389	387	380
	75	259	264	273	281	283	281	273	264	259	264	273	281	283	281	273
	80	153	161	172	180	183	180	172	161	153	161	172	180	183	180	172
	85	61	70	80	87	90	87	80	70	61	70	80	87	90	87	80
	90	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2
	95	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
	105	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
	115	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
	125	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
	135	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
	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)

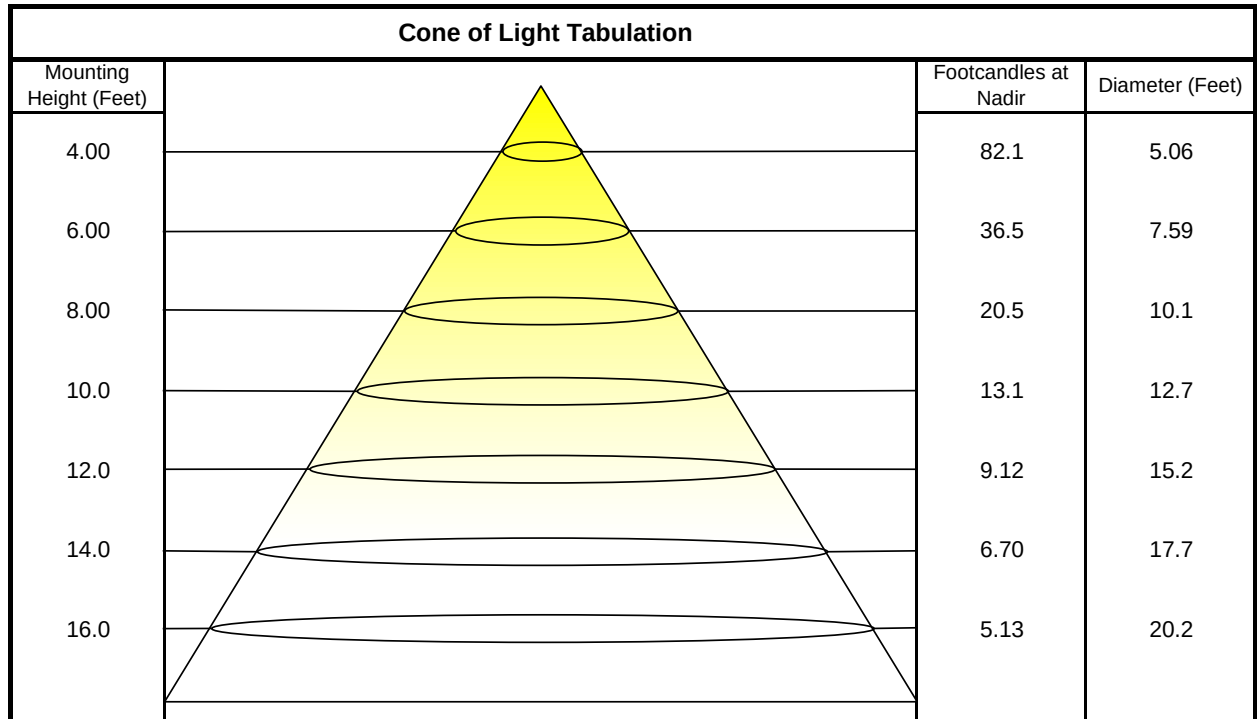
Vertical Angle (Degrees)	0	45	90
	0	15730	15730
	45	14960	15090
	55	14480	14610
	65	13630	13850
	75	11970	12650
	85	8350	11020



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	4586	4586	4586	4586	4479	4479	4479	4479	4280	4280	4280	4098	4098	4098	3931	3931	3931	3852
1	4176	3986	3816	3663	4070	3899	3744	3603	3734	3606	3489	3583	3478	3382	3443	3359	3281	3199
2	3790	3464	3195	2968	3687	3391	3143	2932	3253	3044	2863	3126	2951	2798	3009	2864	2735	2650
3	3450	3035	2714	2458	3353	2973	2676	2436	2858	2602	2392	2750	2533	2349	2651	2467	2309	2223
4	3155	2684	2340	2076	3065	2633	2311	2062	2535	2255	2033	2444	2201	2004	2360	2150	1977	1892
5	2899	2395	2043	1784	2817	2352	2021	1774	2269	1977	1753	2192	1935	1734	2120	1895	1715	1632
6	2675	2154	1805	1554	2601	2117	1787	1547	2047	1752	1532	1982	1719	1518	1920	1687	1505	1424
7	2479	1952	1610	1370	2412	1920	1595	1365	1860	1568	1354	1804	1541	1344	1751	1515	1334	1256
8	2307	1780	1448	1221	2246	1753	1437	1217	1701	1414	1209	1653	1392	1201	1607	1370	1193	1119
9	2155	1633	1313	1097	2100	1610	1303	1094	1565	1285	1088	1523	1266	1082	1484	1249	1076	1005
10	2020	1506	1199	994	1970	1486	1190	991	1447	1175	987	1411	1159	982	1376	1145	977	909

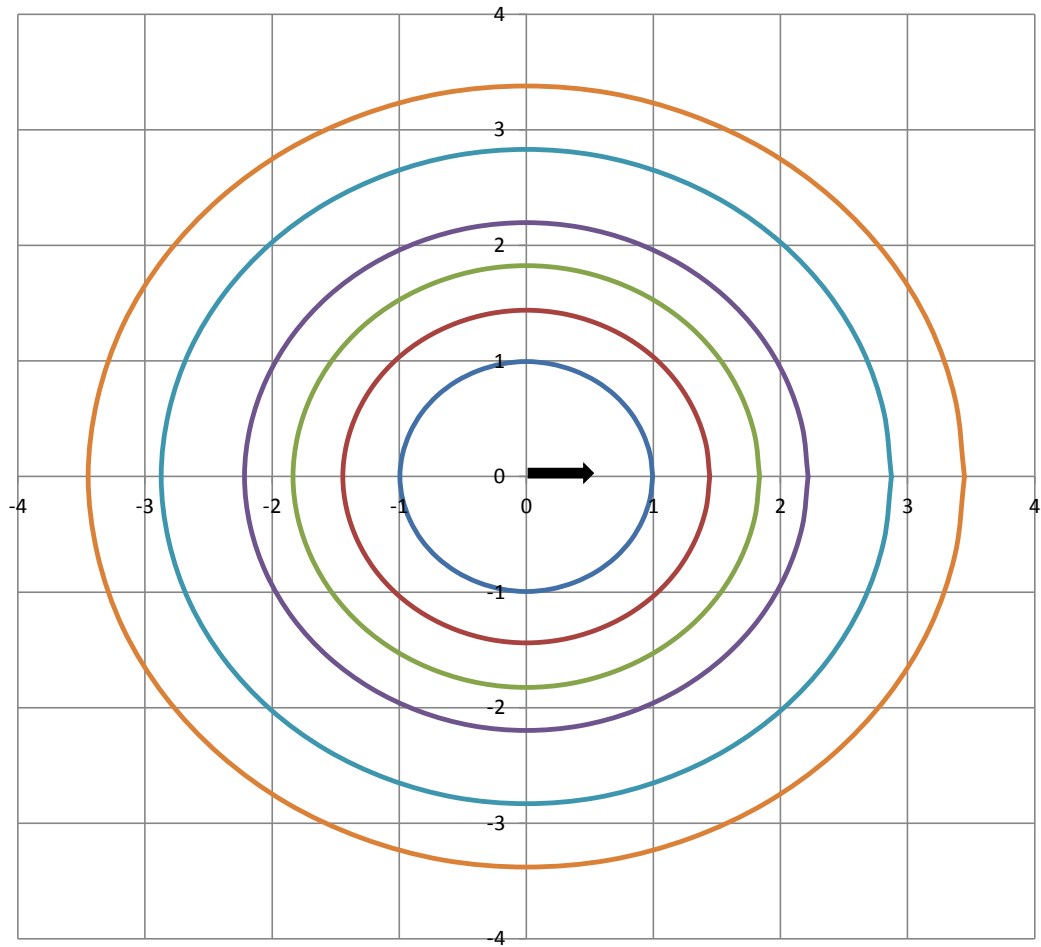
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1313 Candela
Central Cone Intensity:	1314 Candela
Beam Flux:	2822.4 Lumens
Beam Angle (0-180):	113.6 Degrees
Beam Angle (90-270):	114.3 Degrees
Field Angle (0-180):	162.2 Degrees
Field Angle (90-270):	165.4 Degrees





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