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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
LW4-2-2100-35K-HTA-1%-UNI (430mA)

Order Number
10644857
Test Number
868187

Test Date

2015-01-13

Prepared By

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Approved By

Kyle Spaziani, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed white enamel steel housing, white enamel steel reflector, frosted plastic lens enclosure
Lamp: 60 white LEDs
Mounting: Surface
Ballast/Driver: One Osram OT30W/PRG1050C/UNV/DIM/L

Luminaire



Luminaire Characteristics

Luminous Length: 24.00 in.
Luminous Width: 2.750 in.
Luminous Height: 1.25 in.

Summary of Results

Total Luminaire Output: 2085 Lumens
Luminaire Efficacy: 94.7 lm/w
Maximum Candela: 587.7 Candela

Electrical Data

Test Temperature: 25.2 °C
Voltage: 120.0 VAC
Current: 0.1845 A
Power: 22.02 W
Power Factor: 0.995
Frequency: 60 Hz
Current THD: 5.30 %

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



Distribution - Goniophotometer

Distribution Test Conditions

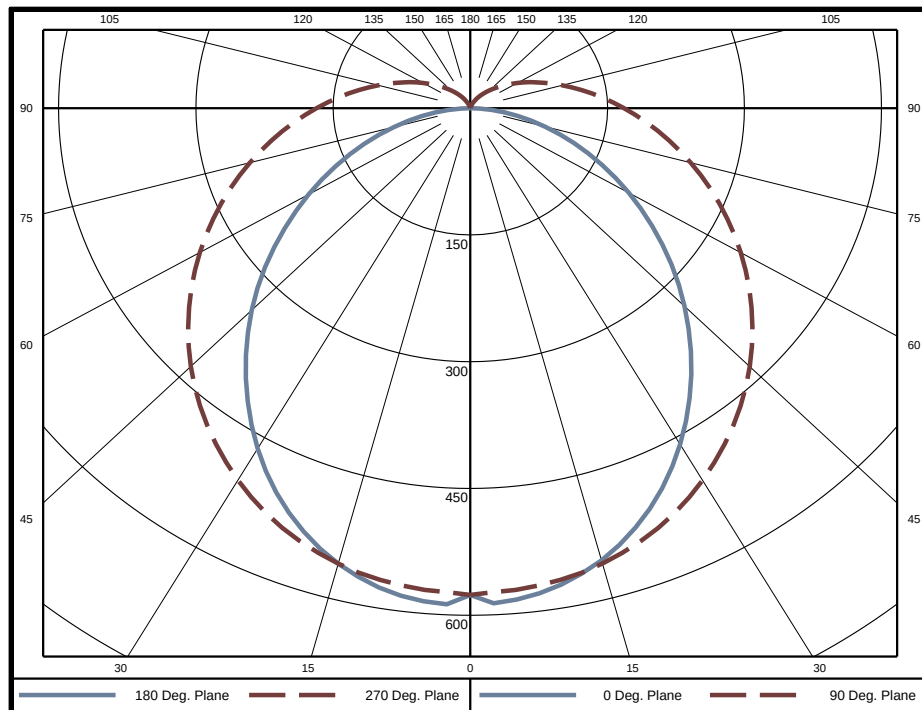
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.1845 A	22.02 W	0.995	60 Hz	5.30 %

Summary of Results

Spacing Criteria
 0-180: 1.19
 90-270: 1.31

Total Lumen Output: 2085 Lumens
Luminaire Efficacy: 94.7 lm/w
Maximum Candela: 588 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	14.6	0.7%	60-65	124.7	6.0%	120-125	12.7	0.6%
5-10	40.7	2.0%	65-70	112.8	5.4%	125-130	9.5	0.5%
10-15	66.3	3.2%	70-75	99.7	4.8%	130-135	6.9	0.3%
15-20	89.4	4.3%	75-80	86.1	4.1%	135-140	4.8	0.2%
20-25	109.4	5.2%	80-85	72.7	3.5%	140-145	3.1	0.1%
25-30	125.4	6.0%	85-90	60.1	2.9%	145-150	1.9	0.1%
30-35	137.2	6.6%	90-95	49.5	2.4%	150-155	1.0	0.0%
35-40	144.8	6.9%	95-100	40.8	2.0%	155-160	0.5	0.0%
40-45	148.0	7.1%	100-105	33.3	1.6%	160-165	0.1	0.0%
45-50	147.1	7.1%	105-110	26.8	1.3%	165-170	0.0	0.0%
50-55	142.5	6.8%	110-115	21.3	1.0%	170-175	0.0	0.0%
55-60	134.8	6.5%	115-120	16.7	0.8%	175-180	0.0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	113	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	576	576	576	576	576	576	576	576	576	576	576	576	576	576	576
	5	584	572	572	573	572	573	572	572	586	572	572	573	572	573	572
	10	573	562	564	567	567	567	564	562	576	562	564	567	567	564	562
	15	554	545	551	556	558	556	551	545	558	545	551	556	558	556	545
	20	528	521	533	542	545	542	533	521	533	521	533	542	545	542	521
	25	496	492	511	523	529	523	511	492	502	492	511	523	529	523	492
	30	459	458	484	501	508	501	484	458	465	458	484	501	508	501	458
	35	418	421	454	475	485	475	454	421	424	421	454	475	485	475	421
	40	375	382	422	448	460	448	422	382	382	382	422	448	460	448	382
	45	331	341	388	418	432	418	388	341	338	341	388	418	432	418	341
	50	287	299	353	386	403	386	353	299	293	299	353	386	403	386	299
	55	243	258	318	354	373	354	318	258	248	258	318	354	373	354	258
	60	200	219	283	322	342	322	283	219	204	219	283	322	342	322	219
	65	159	181	250	291	310	291	250	181	162	181	250	291	310	291	181
	70	121	147	219	260	280	260	219	147	123	147	219	260	280	260	147
	75	85	115	189	230	250	230	189	115	86	115	189	230	250	230	115
	80	53	87	162	202	221	202	162	87	54	87	162	202	221	202	87
	85	24	64	137	175	194	175	137	64	24	64	137	175	194	175	64
	90	0	45	115	151	168	151	115	45	0	45	115	151	168	151	45
	95	0	32	96	129	145	129	96	32	0	32	96	129	145	129	32
	100	0	23	80	109	124	109	80	23	0	23	80	109	124	109	23
	105	0	16	65	91	104	91	65	16	0	16	65	91	104	91	65
	110	0	12	53	77	87	77	53	12	0	12	53	77	87	77	53
	115	0	9	43	63	73	63	43	9	0	9	43	63	73	63	43
	120	0	7	35	51	60	51	35	7	0	7	35	51	60	51	35
	125	0	5	28	41	48	41	28	5	0	5	28	41	48	41	28
	130	0	4	21	33	38	33	21	4	0	4	21	33	38	33	21
	135	0	3	16	25	30	25	16	3	0	3	16	25	30	25	16
	140	0	1	12	19	23	19	12	1	0	1	12	19	23	19	12
	145	0	1	9	14	17	14	9	1	0	1	9	14	17	14	9
	150	0	0	6	9	11	9	6	0	0	0	6	9	11	9	6
	155	0	0	3	6	7	6	3	0	0	0	3	6	7	6	3
	160	0	0	1	3	4	3	1	0	0	0	1	3	4	3	1
	165	0	0	0	0	1	0	0	0	0	0	0	0	1	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
	45	10460	9486	9872
	55	9248	8607	9250
	65	7958	7866	8733
	75	6435	7347	8403
	85	3971	7246	8423



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	2428	2428	2428	2428	2345	2345	2345	2345	2190	2190	2190	2049	2049	2049	1919	1919	1919	1857
1	2168	2049	1943	1847	2086	1979	1882	1795	1847	1768	1696	1725	1662	1603	1613	1563	1516	1454
2	1956	1764	1606	1472	1877	1704	1560	1437	1592	1472	1368	1488	1389	1303	1392	1312	1240	1180
3	1775	1538	1355	1209	1702	1487	1319	1183	1391	1249	1132	1302	1183	1084	1220	1121	1037	979
4	1621	1357	1163	1015	1554	1313	1134	995	1231	1078	957	1154	1024	919	1083	973	883	828
5	1488	1208	1013	868	1426	1171	989	853	1100	943	822	1034	899	792	972	856	763	711
6	1372	1085	892	754	1316	1053	872	741	991	834	717	934	797	692	881	762	669	620
7	1271	982	794	663	1220	954	778	653	900	745	632	850	714	612	804	684	592	546
8	1182	894	713	589	1136	870	699	580	823	671	563	779	644	546	738	619	529	486
9	1104	819	645	528	1062	798	633	521	757	609	506	718	586	491	682	564	477	436
10	1034	755	588	477	996	736	577	471	700	557	458	665	537	446	633	517	433	395

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	36.0	4.98
6.00	16.0	7.47
8.00	9.00	9.96
10.0	5.76	12.4
12.0	4.00	14.9
14.0	2.94	17.4
16.0	2.25	19.9

Cone of Light Plot

