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Indoor Distribution Test Report

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

Prepared For
Mercury Lighting

John Andrews
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Fairfield, NJ 07004-3416

Catalog Number
LW3-2-2100-35K-HTA-1%-UNI (430mA)

Order Number
10644857
Test Number
868185

Test Date

2015-01-14

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.

Summary of Results

Total Luminaire Output:	1934 Lumens
Luminaire Efficacy:	87.5 lm/w
Maximum Candela:	673.1 Candela

Electrical Data

Test Temperature:	24.4 °C
Voltage:	120.0 VAC
Current:	0.1850 A
Power:	22.09 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	5.17 %

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



Distribution - Goniophotometer

Distribution Test Conditions

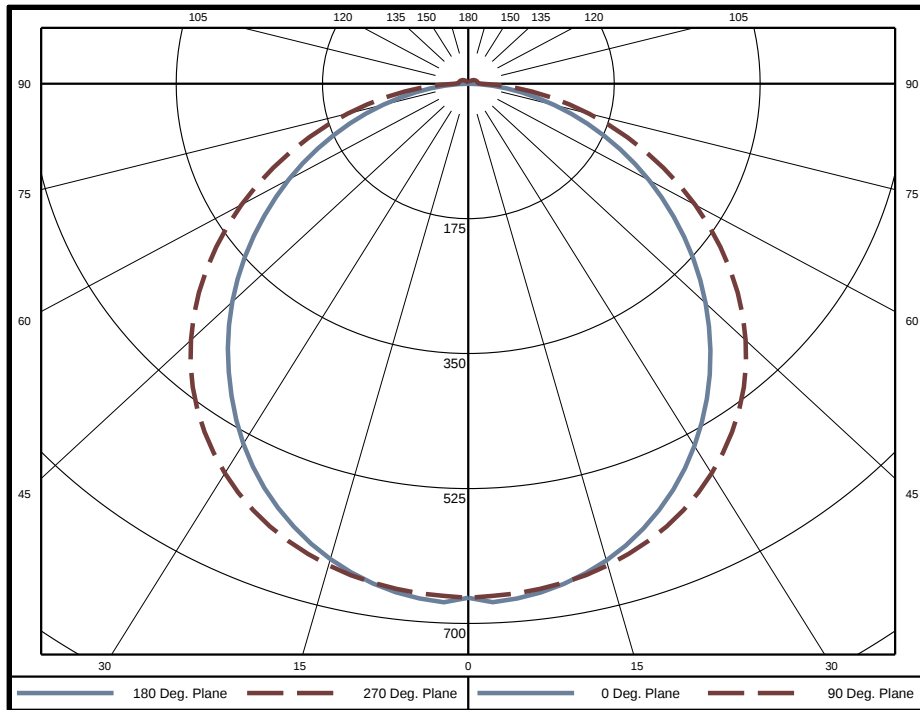
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.1850 A	22.09 W	0.995	60 Hz	5.17 %

Summary of Results

Spacing Criteria
 0-180: 1.20
 90-270: 1.30

Total Lumen Output: 1934 Lumens
Luminaire Efficacy: 87.5 lm/w
Maximum Candela: 673 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.9	0.9%	60-65	125.9	6.5%	120-125	2.3	0.1%
5-10	47.2	2.4%	65-70	104.3	5.4%	125-130	1.9	0.1%
10-15	76.9	4.0%	70-75	81.0	4.2%	130-135	1.6	0.1%
15-20	103.9	5.4%	75-80	57.2	3.0%	135-140	1.2	0.1%
20-25	127.4	6.6%	80-85	34.6	1.8%	140-145	0.9	0.0%
25-30	146.3	7.6%	85-90	14.1	0.7%	145-150	0.6	0.0%
30-35	160.1	8.3%	90-95	4.0	0.2%	150-155	0.4	0.0%
35-40	168.4	8.7%	95-100	3.4	0.2%	155-160	0.2	0.0%
40-45	170.9	8.8%	100-105	3.3	0.2%	160-165	0.1	0.0%
45-50	167.5	8.7%	105-110	3.1	0.2%	165-170	0.0	0.0%
50-55	158.3	8.2%	110-115	2.9	0.1%	170-175	0.0	0.0%
55-60	144.2	7.5%	115-120	2.6	0.1%	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	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667
	5	670	663	663	664	663	664	663	663	670	663	663	664	663	664	663	663
	10	659	653	655	657	657	657	655	653	658	653	655	657	657	657	655	653
	15	640	635	641	645	646	645	641	635	638	635	641	645	646	645	641	635
	20	614	611	622	629	631	629	622	611	611	611	622	629	631	629	622	611
	25	581	580	597	606	610	606	597	580	578	580	597	606	610	606	597	580
	30	542	543	566	578	583	578	566	543	539	543	566	578	583	578	566	543
	35	499	503	531	545	551	545	531	503	494	503	531	545	551	545	531	503
	40	452	458	491	507	514	507	491	458	448	458	491	507	514	507	491	458
	45	402	411	447	464	470	464	447	411	400	411	447	464	470	464	447	411
	50	352	362	398	415	421	415	398	362	349	362	398	415	421	415	398	362
	55	300	311	346	363	369	363	346	311	298	311	346	363	369	363	346	311
	60	250	260	293	308	314	308	293	260	248	260	293	308	314	308	293	260
	65	201	210	239	253	258	253	239	210	199	210	239	253	258	253	239	210
	70	152	160	186	198	203	198	186	160	151	160	186	198	203	198	186	160
	75	107	114	135	145	150	145	135	114	106	114	135	145	150	145	135	114
	80	66	72	88	96	100	96	88	72	64	72	88	96	100	96	88	72
	85	29	34	46	52	55	52	46	34	28	34	46	52	55	52	46	34
	90	0	4	11	15	17	15	11	4	0	4	11	15	17	15	11	4
	95	0	2	8	10	12	10	8	2	0	2	8	10	12	10	8	2
	100	0	2	7	10	11	10	7	2	0	2	7	10	11	10	7	2
	105	0	2	7	10	11	10	7	2	0	2	7	10	11	10	7	2
	110	0	2	7	9	10	9	7	2	0	2	7	9	10	9	7	2
	115	0	2	7	9	10	9	7	2	0	2	7	9	10	9	7	2
	120	0	2	6	8	9	8	6	2	0	2	6	8	9	8	6	2
	125	0	2	6	7	8	7	6	2	0	2	6	7	8	7	6	2
	130	0	2	5	6	7	6	5	2	0	2	5	6	7	6	5	2
	135	0	2	4	5	6	5	4	2	0	2	4	5	6	5	4	2
	140	0	1	3	5	5	5	3	1	0	1	3	5	5	5	3	1
	145	0	1	3	4	4	4	3	1	0	1	3	4	4	4	3	1
	150	0	1	2	3	3	3	2	1	0	1	2	3	3	3	2	1
	155	0	0	1	2	2	2	1	0	0	0	1	2	2	2	1	0
	160	0	0	1	1	2	1	1	0	0	0	1	1	2	1	1	0
	165	0	0	0	1	1	1	0	0	0	0	0	1	1	1	0	0
	170	0	0	0	0	1	0	0	0	0	0	0	0	1	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)

Vertical Angle (Degrees)		0	45	90
	45	13360	14830	15610
	55	12300	14180	15100
	65	11150	13290	14330
	75	9694	12230	13590
	85	7875	12410	14810



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	2296	2296	2296	2296	2240	2240	2240	2240	2134	2134	2134	2037	2037	2037	1948	1948	1948	1906
1	2092	1997	1912	1835	2036	1950	1872	1802	1862	1798	1740	1781	1730	1682	1707	1666	1627	1584
2	1900	1738	1603	1491	1846	1699	1575	1470	1625	1521	1432	1557	1471	1395	1494	1423	1359	1316
3	1731	1525	1365	1237	1680	1492	1344	1224	1430	1303	1199	1372	1265	1174	1319	1228	1150	1106
4	1584	1350	1178	1047	1537	1322	1162	1038	1270	1131	1021	1221	1101	1004	1176	1073	987	944
5	1457	1206	1031	901	1414	1182	1018	895	1138	993	882	1096	970	870	1058	947	858	816
6	1345	1085	911	786	1306	1065	901	781	1027	881	772	992	862	763	959	844	754	713
7	1247	984	813	694	1211	967	805	690	934	789	683	904	773	676	875	758	669	630
8	1161	898	732	619	1128	883	725	616	855	712	610	828	699	605	804	687	599	562
9	1084	824	664	556	1055	811	658	554	787	647	550	764	636	545	742	626	541	505
10	1016	760	606	504	990	749	602	502	728	592	499	708	583	495	689	574	492	457

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	41.7	5.01
6.00	18.5	7.52
8.00	10.4	10.0
10.0	6.67	12.5
12.0	4.63	15.0
14.0	3.40	17.5
16.0	2.60	20.1

Cone of Light Plot

