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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
LW14-4-2100-35K-HTA-S30-UNI-XXXX (190mA)

Order Number
10644857
Test Number
868175

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: 120 white LEDs
Mounting: Surface
Ballast/Driver: One Osram OT30W/PRG1050C/UNV/DIM/L

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 4.250 in.
Luminous Height: 1.75 in.

Summary of Results

Total Luminaire Output:	2112 Lumens
Luminaire Efficacy:	113 lm/w
Maximum Candela:	619.8 Candela

Electrical Data

Test Temperature:	25.2 °C
Voltage:	120.0 VAC
Current:	0.1574 A
Power:	18.75 W
Power Factor:	0.993
Frequency:	60 Hz
Current THD:	5.07 %

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



Distribution - Goniophotometer

Distribution Test Conditions

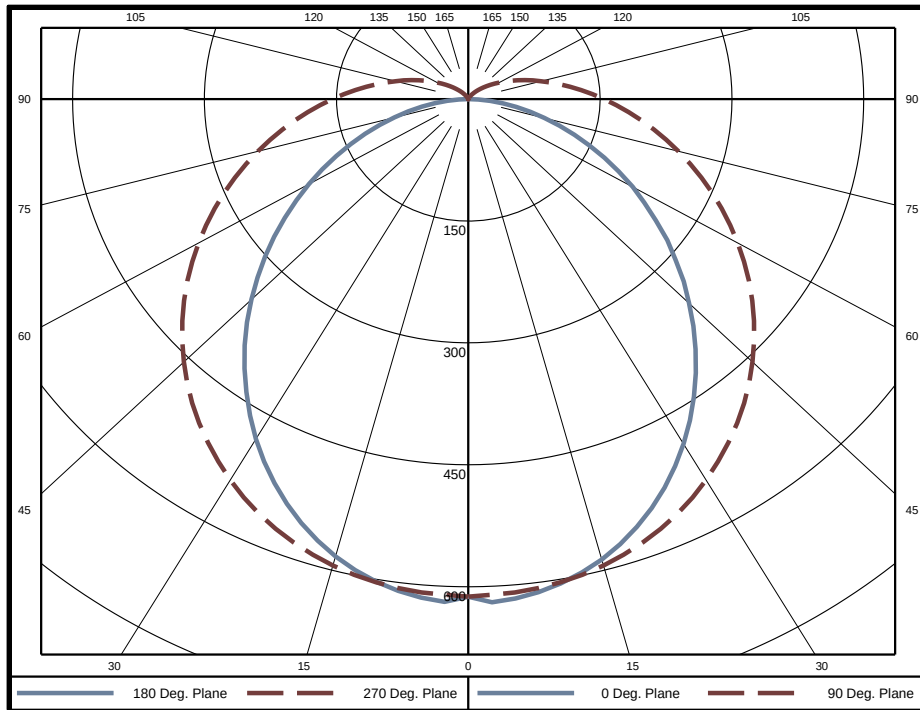
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.1574 A	18.75 W	0.993	60 Hz	5.07 %

Summary of Results

Spacing Criteria
 0-180: 1.18
 90-270: 1.31

Total Lumen Output: 2112 Lumens
Luminaire Efficacy: 112.6 lm/w
Maximum Candela: 620 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	15.5	0.7%	60-65	129.5	6.1%	120-125	7.9	0.4%
5-10	43.3	2.0%	65-70	115.7	5.5%	125-130	5.4	0.3%
10-15	70.5	3.3%	70-75	100.6	4.8%	130-135	3.5	0.2%
15-20	95.1	4.5%	75-80	85.1	4.0%	135-140	2.1	0.1%
20-25	116.4	5.5%	80-85	70.1	3.3%	140-145	1.2	0.1%
25-30	133.6	6.3%	85-90	56.0	2.7%	145-150	0.6	0.0%
30-35	146.2	6.9%	90-95	44.4	2.1%	150-155	0.3	0.0%
35-40	154.2	7.3%	95-100	35.1	1.7%	155-160	0.1	0.0%
40-45	157.3	7.4%	100-105	27.2	1.3%	160-165	0.0	0.0%
45-50	155.9	7.4%	105-110	20.8	1.0%	165-170	0.0	0.0%
50-55	150.5	7.1%	110-115	15.5	0.7%	170-175	0.0	0.0%
55-60	141.4	6.7%	115-120	11.2	0.5%	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	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612
	5	617	609	607	610	610	610	607	609	616	609	607	610	610	610	607	609
	10	605	598	599	604	604	604	599	598	603	598	599	604	604	604	599	598
	15	587	581	586	593	594	593	586	581	583	581	586	593	594	593	586	581
	20	560	557	568	577	581	577	568	557	555	557	568	577	581	577	568	557
	25	528	526	544	558	563	558	544	526	521	526	544	558	563	558	544	526
	30	490	491	516	533	541	533	516	491	483	491	516	533	541	533	516	491
	35	447	451	485	506	516	506	485	451	440	451	485	506	516	506	485	451
	40	402	409	450	476	488	476	450	409	396	409	450	476	488	476	450	409
	45	355	365	413	442	457	442	413	365	349	365	413	442	457	442	413	365
	50	307	319	374	407	425	407	374	319	302	319	374	407	425	407	374	319
	55	260	274	335	371	390	371	335	274	255	274	335	371	390	371	335	274
	60	216	231	296	335	354	335	296	231	209	231	296	335	354	335	296	231
	65	171	190	258	298	318	298	258	190	165	190	258	298	318	298	258	190
	70	128	151	223	263	282	263	223	151	125	151	223	263	282	263	223	151
	75	89	116	189	228	248	228	189	116	87	116	189	228	248	228	189	116
	80	55	85	158	196	214	196	158	85	54	85	158	196	214	196	158	85
	85	25	60	130	166	183	166	130	60	24	60	130	166	183	166	130	60
	90	0	40	105	139	155	139	105	40	0	40	105	139	155	139	105	40
	95	0	26	84	114	129	114	84	26	0	26	84	114	129	114	84	26
	100	0	17	66	93	106	93	66	17	0	17	66	93	106	93	66	17
	105	0	11	51	75	85	75	51	11	0	11	51	75	85	75	51	11
	110	0	7	39	59	69	59	39	7	0	7	39	59	69	59	39	7
	115	0	4	29	45	54	45	29	4	0	4	29	45	54	45	29	4
	120	0	3	22	34	41	34	22	3	0	3	22	34	41	34	22	3
	125	0	2	16	25	31	25	16	2	0	2	16	25	31	25	16	2
	130	0	1	11	18	22	18	11	1	0	1	11	18	22	18	11	1
	135	0	0	7	13	16	13	7	0	0	0	7	13	16	13	7	0
	140	0	0	4	8	11	8	4	0	0	0	4	8	11	8	4	0
	145	0	0	3	5	7	5	3	0	0	0	3	5	7	5	3	0
	150	0	0	1	3	4	3	1	0	0	0	1	3	4	3	1	0
	155	0	0	0	1	2	1	0	0	0	0	0	1	2	1	0	0
	160	0	0	0	0	1	0	0	0	0	0	0	0	1	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)

Vertical Angle (Degrees)		0	45	90
	45	3914	3588	3714
	55	3482	3253	3470
	65	3023	2943	3240
	75	2446	2699	3057
	85	1611	2598	2987



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	2473	2473	2473	2473	2396	2396	2396	2396	2250	2250	2250	2118	2118	2118	1995	1995	1995	1938
1	2214	2095	1989	1893	2136	2029	1933	1845	1906	1827	1755	1792	1729	1669	1688	1637	1589	1531
2	1999	1806	1647	1513	1925	1751	1605	1481	1646	1524	1420	1549	1449	1361	1460	1378	1305	1247
3	1815	1576	1391	1244	1746	1529	1358	1221	1440	1295	1177	1357	1236	1134	1280	1179	1093	1037
4	1658	1391	1195	1046	1594	1351	1169	1029	1274	1119	996	1204	1071	963	1138	1025	932	878
5	1522	1239	1042	896	1464	1205	1020	882	1140	979	856	1079	940	831	1022	902	806	755
6	1404	1114	918	778	1352	1084	901	768	1028	867	747	975	834	727	926	803	707	658
7	1301	1008	818	685	1253	982	803	676	933	775	659	888	747	643	845	721	626	580
8	1210	919	735	609	1167	896	723	602	854	698	588	813	675	574	776	652	560	516
9	1130	842	666	546	1091	822	655	540	785	634	528	750	614	516	717	594	505	464
10	1059	776	607	494	1023	759	598	489	726	580	479	695	562	468	665	545	458	420

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	38.3	4.99
6.00	17.0	7.48
8.00	9.57	9.98
10.0	6.12	12.5
12.0	4.25	15.0
14.0	3.12	17.5
16.0	2.39	20.0

Cone of Light Plot

