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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
LW3-4-2100-35K-HTA-1%-UNI (190mA)

Order Number
10644857
Test Number
868179

Test Date

2015-01-15

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: 2.500 in.

Summary of Results

Total Luminaire Output:	1912 Lumens
Luminaire Efficacy:	101 lm/w
Maximum Candela:	658.7 Candela

Electrical Data

Test Temperature:	24.8 °C
Voltage:	120.0 VAC
Current:	0.1581 A
Power:	18.84 W
Power Factor:	0.993
Frequency:	60 Hz
Current THD:	4.96 %

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
24.8 °C	120.0 VAC	0.1581 A	18.84 W	0.993	60 Hz	4.96 %

Summary of Results

Spacing Criteria

0-180: 1.20
90-270: 1.30

Total Lumen Output:

1912 Lumens

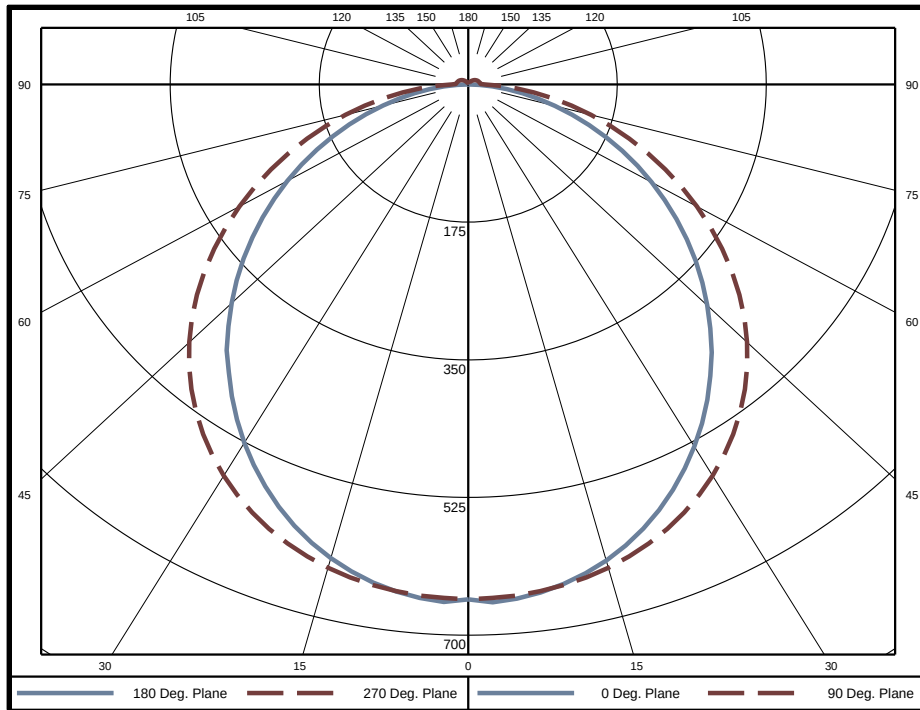
Luminaire Efficacy:

101.5 lm/w

Maximum Candela:

659 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	16.6	0.9%	60-65	124.3	6.5%	120-125	2.7	0.1%
5-10	46.3	2.4%	65-70	103.2	5.4%	125-130	2.2	0.1%
10-15	75.4	3.9%	70-75	80.4	4.2%	130-135	1.7	0.1%
15-20	102.0	5.3%	75-80	57.2	3.0%	135-140	1.3	0.1%
20-25	125.1	6.5%	80-85	34.9	1.8%	140-145	0.9	0.0%
25-30	143.7	7.5%	85-90	14.7	0.8%	145-150	0.6	0.0%
30-35	157.5	8.2%	90-95	4.7	0.2%	150-155	0.4	0.0%
35-40	165.7	8.7%	95-100	4.2	0.2%	155-160	0.2	0.0%
40-45	168.3	8.8%	100-105	4.0	0.2%	160-165	0.1	0.0%
45-50	165.0	8.6%	105-110	3.7	0.2%	165-170	0.1	0.0%
50-55	156.1	8.2%	110-115	3.5	0.2%	170-175	0.0	0.0%
55-60	142.2	7.4%	115-120	3.1	0.2%	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	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654	654
	5	656	652	649	653	652	653	649	652	655	652	649	653	652	653	649	652
	10	645	641	642	646	646	646	642	641	643	641	642	646	646	646	642	641
	15	626	624	628	635	636	635	628	624	623	624	628	635	636	635	628	624
	20	601	600	610	618	621	618	610	600	597	600	610	618	621	618	610	600
	25	569	570	585	597	600	597	585	570	564	570	585	597	600	597	585	570
	30	531	535	556	570	574	570	556	535	526	535	556	570	574	570	556	535
	35	489	495	522	537	543	537	522	495	484	495	522	537	543	537	522	495
	40	445	452	483	499	506	499	483	452	441	452	483	499	506	499	483	452
	45	397	406	439	457	463	457	439	406	393	406	439	457	463	457	439	406
	50	348	357	392	409	416	409	392	357	344	357	392	409	416	409	392	357
	55	298	307	341	357	364	357	341	307	294	307	341	357	364	357	341	307
	60	249	257	289	304	310	304	289	257	245	257	289	304	310	304	289	257
	65	199	207	236	250	256	250	236	207	196	207	236	250	256	250	236	207
	70	151	159	184	196	201	196	184	159	148	159	184	196	201	196	184	159
	75	105	113	135	145	149	145	135	113	104	113	135	145	149	145	135	113
	80	65	72	88	96	100	96	88	72	64	72	88	96	100	96	88	72
	85	29	35	47	53	57	53	47	35	29	35	47	53	57	53	47	35
	90	0	4	12	17	19	17	12	4	0	4	12	17	19	17	12	4
	95	0	3	9	12	14	12	9	3	0	3	9	12	14	12	9	3
	100	0	3	9	12	14	12	9	3	0	3	9	12	14	12	9	3
	105	0	3	8	11	13	11	8	3	0	3	8	11	13	11	8	3
	110	0	3	8	11	12	11	8	3	0	3	8	11	12	11	8	3
	115	0	3	8	10	12	10	8	3	0	3	8	10	12	10	8	3
	120	0	3	7	9	11	9	7	3	0	3	7	9	11	9	7	3
	125	0	2	6	9	10	9	6	2	0	2	6	9	10	9	6	2
	130	0	2	5	7	8	7	5	2	0	2	5	7	8	7	5	2
	135	0	1	4	6	7	6	4	1	0	1	4	6	7	6	4	1
	140	0	1	4	5	6	5	4	1	0	1	4	5	6	5	4	1
	145	0	1	3	4	5	4	3	1	0	1	3	4	5	4	3	1
	150	0	1	2	3	4	3	2	1	0	1	2	3	4	3	2	1
	155	0	1	1	2	3	2	1	1	0	1	1	2	3	2	1	1
	160	0	1	1	1	2	1	1	1	0	1	1	1	2	1	1	1
	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	7729	8561	9025
	55	7168	8194	8745
	65	6504	7685	8330
	75	5607	7165	7951
	85	4525	7478	8946



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	2270	2270	2270	2270	2213	2213	2213	2213	2107	2107	2107	2011	2011	2011	1922	1922	1922	1880
1	2066	1972	1888	1812	2010	1925	1848	1779	1838	1774	1716	1757	1705	1658	1683	1641	1603	1560
2	1877	1716	1583	1471	1823	1677	1554	1451	1603	1500	1412	1535	1450	1374	1472	1402	1339	1295
3	1710	1505	1347	1221	1659	1472	1325	1207	1410	1285	1181	1353	1246	1157	1299	1209	1133	1089
4	1565	1333	1163	1033	1518	1305	1146	1024	1252	1115	1006	1203	1085	988	1158	1056	972	928
5	1438	1190	1017	888	1395	1166	1004	882	1122	979	869	1080	955	856	1042	932	844	802
6	1328	1071	899	775	1289	1051	888	770	1013	868	760	977	849	751	944	831	742	701
7	1231	971	802	684	1196	954	794	680	921	777	673	890	761	665	862	746	658	619
8	1146	886	722	610	1114	871	715	607	843	701	601	816	688	595	791	676	589	552
9	1070	813	655	548	1041	800	649	546	775	638	541	752	627	536	730	616	532	496
10	1003	750	598	497	977	738	593	495	717	583	491	697	574	487	678	565	483	449

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	40.9	5.02
6.00	18.2	7.53
8.00	10.2	10.0
10.0	6.54	12.6
12.0	4.54	15.1
14.0	3.34	17.6
16.0	2.56	20.1

Cone of Light Plot

