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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
L455-2-2100-35K-HTA20-S30-20-UNI-XXXX (430mA)

Order Number
10644857
Test Number
868184

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: 4.500 in.
Luminous Height: 1.75 in.

Summary of Results

Total Luminaire Output: 2117 Lumens
Luminaire Efficacy: 95.5 lm/w
Maximum Candela: 624.4 Candela

Electrical Data

Test Temperature: 25.2 °C
Voltage: 120.0 VAC
Current: 0.1857 A
Power: 22.17 W
Power Factor: 0.995
Frequency: 60 Hz
Current THD: 5.43 %

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	0.1857 A	22.17 W	0.995	60 Hz	5.43 %

Summary of Results

Spacing Criteria

0-180: 1.19
90-270: 1.30

Total Lumen Output:

2117 Lumens

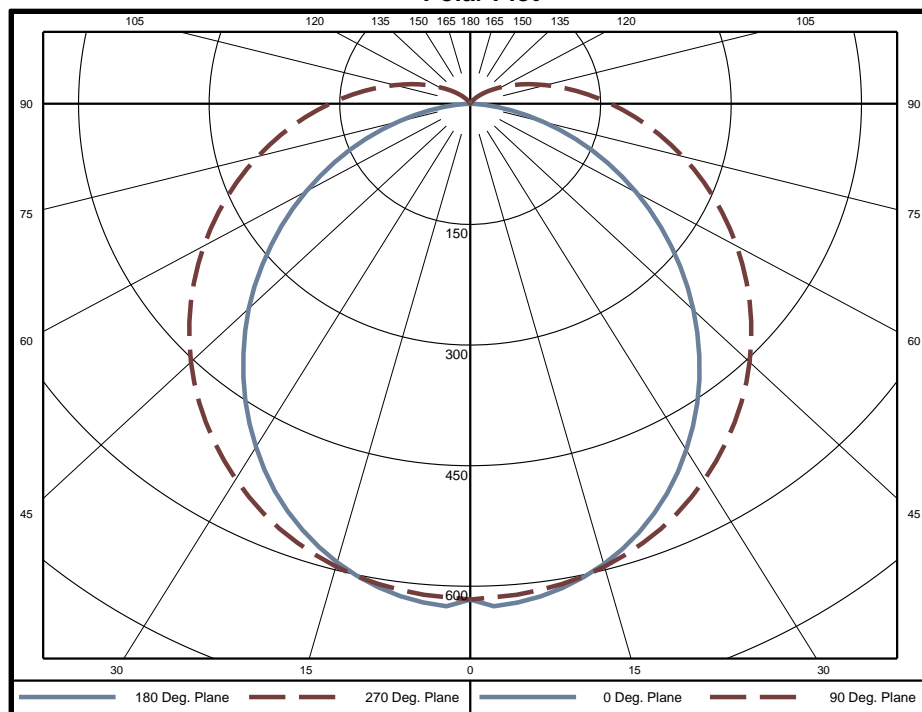
Luminaire Efficacy:

95.5 lm/w

Maximum Candela:

624 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	15.6	0.7%	60-65	130.3	6.2%	120-125	7.4	0.3%
5-10	43.5	2.1%	65-70	116.5	5.5%	125-130	4.8	0.2%
10-15	70.8	3.3%	70-75	101.3	4.8%	130-135	2.9	0.1%
15-20	95.5	4.5%	75-80	85.6	4.0%	135-140	1.6	0.1%
20-25	116.8	5.5%	80-85	70.4	3.3%	140-145	0.8	0.0%
25-30	133.9	6.3%	85-90	56.5	2.7%	145-150	0.3	0.0%
30-35	146.4	6.9%	90-95	45.1	2.1%	150-155	0.1	0.0%
35-40	154.3	7.3%	95-100	35.6	1.7%	155-160	0.0	0.0%
40-45	157.5	7.4%	100-105	27.5	1.3%	160-165	0.0	0.0%
45-50	156.2	7.4%	105-110	20.8	1.0%	165-170	0.0	0.0%
50-55	150.8	7.1%	110-115	15.3	0.7%	170-175	0.0	0.0%
55-60	142.0	6.7%	115-120	10.8	0.5%	175-180	0.0	0.0%



Candela Tabulation
Horizontal 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	615	615	615	615	615	615	615	615	615	615	615	615	615	615	615	615
5	622	612	611	612	612	612	611	612	621	612	611	612	612	612	611	612
10	610	601	603	605	605	605	603	601	609	601	603	605	605	605	603	601
15	592	584	589	593	595	593	589	584	589	584	589	593	595	593	589	584
20	566	560	570	577	580	577	570	560	563	560	570	577	580	577	570	560
25	534	530	546	556	561	556	546	530	530	530	546	556	561	556	546	530
30	496	494	517	531	538	531	517	494	491	494	517	531	538	531	517	494
35	454	455	485	502	512	502	485	455	450	455	485	502	512	502	485	455
40	408	413	450	472	484	472	450	413	404	413	450	472	484	472	450	413
45	362	369	412	439	453	439	412	369	359	369	412	439	453	439	412	369
50	314	324	374	404	420	404	374	324	311	324	374	404	420	404	374	324
55	266	279	335	369	387	369	335	279	264	279	335	369	387	369	335	279
60	219	235	297	333	353	333	297	235	217	235	297	333	353	333	297	235
65	173	193	260	298	318	298	260	193	171	193	260	298	318	298	260	193
70	129	153	224	264	285	264	224	153	127	153	224	264	285	264	224	153
75	86	116	191	231	252	231	191	116	84	116	191	231	252	231	191	116
80	47	83	160	200	220	200	160	83	47	83	160	200	220	200	160	83
85	17	57	132	170	189	170	132	57	16	57	132	170	189	170	132	57
90	0	37	107	143	161	143	107	37	0	37	107	143	161	143	107	37
95	0	23	85	118	134	118	85	23	0	23	85	118	134	118	85	23
100	0	14	67	96	110	96	67	14	0	14	67	96	110	96	67	14
105	0	8	51	77	89	77	51	8	0	8	51	77	89	77	51	8
110	0	5	38	60	71	60	38	5	0	5	38	60	71	60	38	5
115	0	3	28	45	55	45	28	3	0	3	28	45	55	45	28	3
120	0	1	20	33	41	33	20	1	0	1	20	33	41	33	20	1
125	0	1	14	24	30	24	14	1	0	1	14	24	30	24	14	1
130	0	0	9	16	21	16	9	0	0	0	9	16	21	16	9	0
135	0	0	5	10	14	10	5	0	0	0	5	10	14	10	5	0
140	0	0	3	6	8	6	3	0	0	0	3	6	8	6	3	0
145	0	0	1	3	4	3	1	0	0	0	1	3	4	3	1	0
150	0	0	0	1	2	1	0	0	0	0	0	1	2	1	0	0
155	0	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	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)

	0	45	90
45	6843	6311	6620
55	6038	5722	6222
65	5090	5187	5894
75	3730	4763	5691
85	1495	4580	5725



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	2480	2480	2480	2480	2402	2402	2402	2402	2257	2257	2257	2124	2124	2124	2003	2003	2003	1945
1	2219	2100	1993	1897	2142	2034	1938	1850	1911	1832	1759	1798	1734	1674	1693	1642	1594	1536
2	2004	1811	1651	1516	1930	1755	1608	1484	1650	1528	1423	1554	1453	1365	1464	1382	1309	1251
3	1820	1580	1394	1246	1750	1532	1361	1224	1443	1299	1179	1361	1239	1137	1284	1183	1096	1040
4	1662	1394	1198	1048	1598	1354	1172	1031	1278	1121	998	1207	1074	966	1141	1028	934	880
5	1526	1242	1044	897	1468	1208	1023	884	1142	982	858	1082	942	833	1025	905	809	757
6	1408	1116	920	780	1355	1086	903	769	1030	869	749	978	836	728	929	805	709	660
7	1304	1010	820	686	1256	985	805	678	936	777	661	890	749	644	847	723	628	582
8	1213	921	737	610	1170	898	724	603	856	700	589	816	677	575	778	654	561	518
9	1133	844	667	548	1093	824	656	542	787	636	530	752	616	518	719	596	506	465
10	1062	778	608	495	1026	761	599	490	728	581	480	697	564	470	667	547	460	421

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	38.5	4.97
6.00	17.1	7.46
8.00	9.62	9.95
10.0	6.15	12.4
12.0	4.27	14.9
14.0	3.14	17.4
16.0	2.40	19.9

Cone of Light Plot

