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Indoor Distribution Test Report

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

Prepared For
Mercury Lighting
Stephen Bambush
20 Audrey Pl.
Fairfield, NJ 07004-3416

Catalog Number
LW5-2-2100-35K-HTA-S30-UNV
Order Number
10692188
Test Number
1000163

Test Date

2015-03-30

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: 2.00 in.

Summary of Results

Total Luminaire Output: 2107 Lumens
Luminaire Efficacy: 94.3 lm/w
Maximum Candela: 602 Candela

Electrical Data

Test Temperature: 24.8 °C
Voltage: 120.0 VAC
Current: 0.1872 A
Power: 22.35 W
Power Factor: 0.995
Frequency: 60 Hz
Current THD: 5.11 %

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



Distribution - Goniophotometer

Distribution Test Conditions

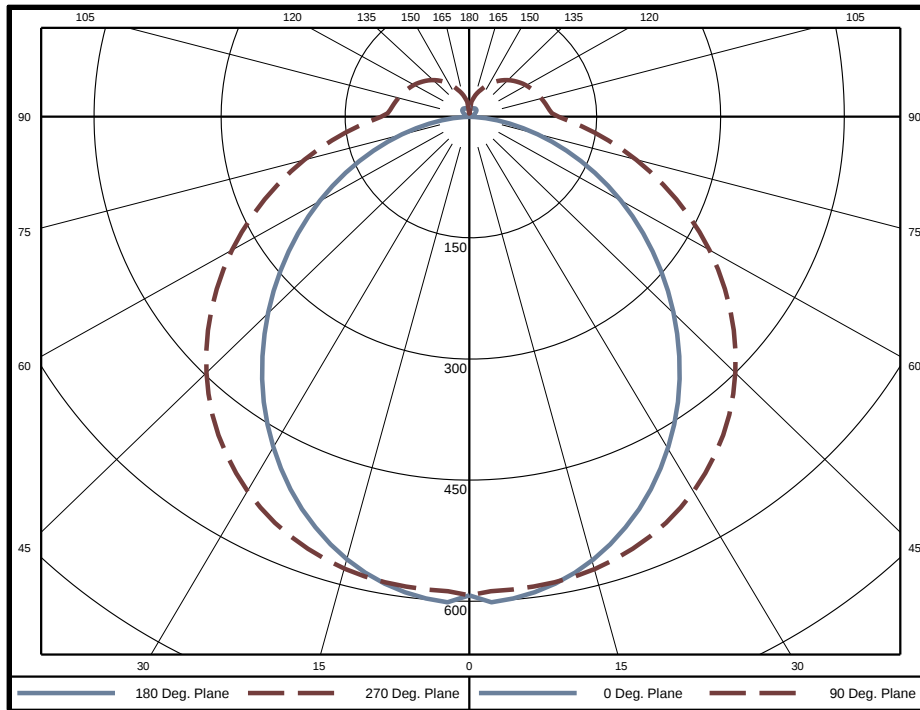
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.1872 A	22.35 W	0.995	60 Hz	5.11 %

Summary of Results

Spacing Criteria
 0-180: 1.19
 90-270: 1.34

Total Lumen Output: 2107 Lumens
Luminaire Efficacy: 94.3 lm/w
Maximum Candela: 602 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	15.0	0.7%	60-65	122.8	5.8%	120-125	21.5	1.0%
5-10	42.0	2.0%	65-70	106.5	5.1%	125-130	19.5	0.9%
10-15	68.5	3.3%	70-75	88.8	4.2%	130-135	17.2	0.8%
15-20	92.7	4.4%	75-80	70.8	3.4%	135-140	14.8	0.7%
20-25	113.8	5.4%	80-85	53.7	2.5%	140-145	12.2	0.6%
25-30	131.0	6.2%	85-90	38.8	1.8%	145-150	9.7	0.5%
30-35	143.7	6.8%	90-95	30.8	1.5%	150-155	7.4	0.3%
35-40	151.7	7.2%	95-100	29.0	1.4%	155-160	5.2	0.2%
40-45	154.7	7.3%	100-105	27.9	1.3%	160-165	3.4	0.2%
45-50	152.9	7.3%	105-110	26.6	1.3%	165-170	2.0	0.1%
50-55	146.6	7.0%	110-115	25.2	1.2%	170-175	1.0	0.0%
55-60	136.4	6.5%	115-120	23.4	1.1%	175-180	0.3	0.0%

Zone	Lumens	% of Luminaire
0-40	758.4	36.0%
0-60	1349.0	64.0%
0-90	1830.3	86.9%
90-180	277.0	13.1%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593
	5	599	590	589	589	588	589	589	590	599	590	589	589	588	589	590
	10	587	580	583	586	585	586	583	580	587	580	583	586	585	586	580
	15	568	563	571	579	580	579	571	563	568	563	571	579	580	579	563
	20	541	540	554	567	569	567	554	540	541	540	554	567	569	567	540
	25	509	512	532	550	555	550	532	512	509	512	532	550	555	550	512
	30	472	479	506	528	535	528	506	479	472	479	506	528	535	528	479
	35	431	443	475	502	511	502	475	443	431	443	475	502	511	502	443
	40	387	403	440	472	482	472	440	403	387	403	440	472	482	472	403
	45	342	361	402	437	448	437	402	361	342	361	402	437	448	437	361
	50	297	318	362	399	412	399	362	318	297	318	362	399	412	399	318
	55	251	275	321	359	372	359	321	275	251	275	321	359	372	359	275
	60	207	232	278	317	331	317	278	232	207	232	278	317	331	317	232
	65	164	190	235	275	288	275	235	190	164	190	235	275	288	275	190
	70	123	149	194	232	246	232	194	149	123	149	194	232	246	232	149
	75	84	111	155	192	206	192	155	111	84	111	155	192	206	192	111
	80	49	77	119	155	168	155	119	77	49	77	119	155	168	155	77
	85	19	48	88	122	134	122	88	48	19	48	88	122	134	122	48
	90	0	27	64	95	106	95	64	27	0	27	64	95	106	95	27
	95	0	25	58	86	96	86	58	25	0	25	58	86	96	86	58
	100	0	25	57	83	92	83	57	25	0	25	57	83	92	83	57
	105	1	25	56	80	89	80	56	25	1	25	56	80	89	80	56
	110	3	25	55	77	85	77	55	25	3	25	55	77	85	77	55
	115	5	25	53	74	82	74	53	25	5	25	53	74	82	74	53
	120	7	25	51	71	78	71	51	25	7	25	51	71	78	71	51
	125	9	25	49	67	74	67	49	25	9	25	49	67	74	67	49
	130	11	25	46	63	69	63	46	25	11	25	46	63	69	63	46
	135	12	25	44	59	64	59	44	25	12	25	44	59	64	59	44
	140	12	23	41	54	59	54	41	23	12	23	41	54	59	54	41
	145	12	22	37	48	53	48	37	22	12	22	37	48	53	48	37
	150	12	20	33	43	47	43	33	20	12	20	33	43	47	43	33
	155	11	17	27	37	40	37	27	17	11	17	27	37	40	37	27
	160	11	15	23	31	33	31	23	15	11	15	23	31	33	31	23
	165	11	13	18	24	28	24	18	13	11	13	18	24	28	24	18
	170	12	13	14	16	21	16	14	13	12	13	14	16	21	16	14
	175	13	12	12	10	8	10	12	13	12	12	10	8	10	12	12
	180	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	8507	8507
	45	6409	5944
	55	5623	5235
	65	4730	4440
	75	3547	3584
	85	1645	2750



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	2443	2443	2443	2443	2354	2354	2354	2354	2188	2188	2188	2036	2036	2036	1897	1897	1897	1831
1	2202	2091	1991	1902	2115	2016	1926	1845	1875	1802	1736	1745	1687	1634	1626	1580	1538	1474
2	1993	1809	1657	1530	1910	1745	1607	1490	1625	1512	1413	1514	1422	1340	1412	1337	1270	1209
3	1812	1582	1404	1262	1735	1527	1364	1233	1424	1288	1176	1329	1216	1121	1241	1148	1068	1009
4	1655	1397	1207	1063	1585	1350	1175	1040	1262	1114	996	1180	1055	953	1104	999	912	856
5	1520	1245	1052	910	1455	1204	1026	893	1128	975	858	1057	926	823	991	880	790	737
6	1402	1118	928	791	1343	1083	906	777	1017	863	748	956	822	720	898	783	693	643
7	1298	1012	826	696	1245	981	807	684	924	771	660	870	736	637	819	702	614	567
8	1207	921	742	618	1158	895	726	608	844	695	588	797	665	568	752	636	549	505
9	1127	844	671	554	1082	821	657	545	776	630	528	734	604	511	694	579	494	453
10	1055	777	611	500	1015	757	599	493	717	576	478	679	553	463	644	531	449	410

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	37.0	5.05
6.00	16.5	7.58
8.00	9.26	10.1
10.0	5.93	12.6
12.0	4.12	15.2
14.0	3.02	17.7
16.0	2.32	20.2

Cone of Light Plot

