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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
LW4-2-2100-30K-HTA-1%-UNI
Order Number
10626167
Test Number
856723

Test Date

2014-12-29

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 Optotronic OT30W/PRG1050C/UNV/DIM/L

Luminaire



Luminaire Characteristics

Luminous Length: 24.00 in.
Luminous Width: 2.750 in.
Luminous Height: 1.50 in.

Summary of Results

Total Luminaire Output:	2075 Lumens
Luminaire Efficacy:	90.4 lm/w
Maximum Candela:	585.0 Candela

Electrical Data

Test Temperature:	25.2 °C
Voltage:	120.0 VAC
Current:	0.1920 A
Power:	22.94 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	5.45 %

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



Distribution - Goniophotometer

Distribution Test Conditions

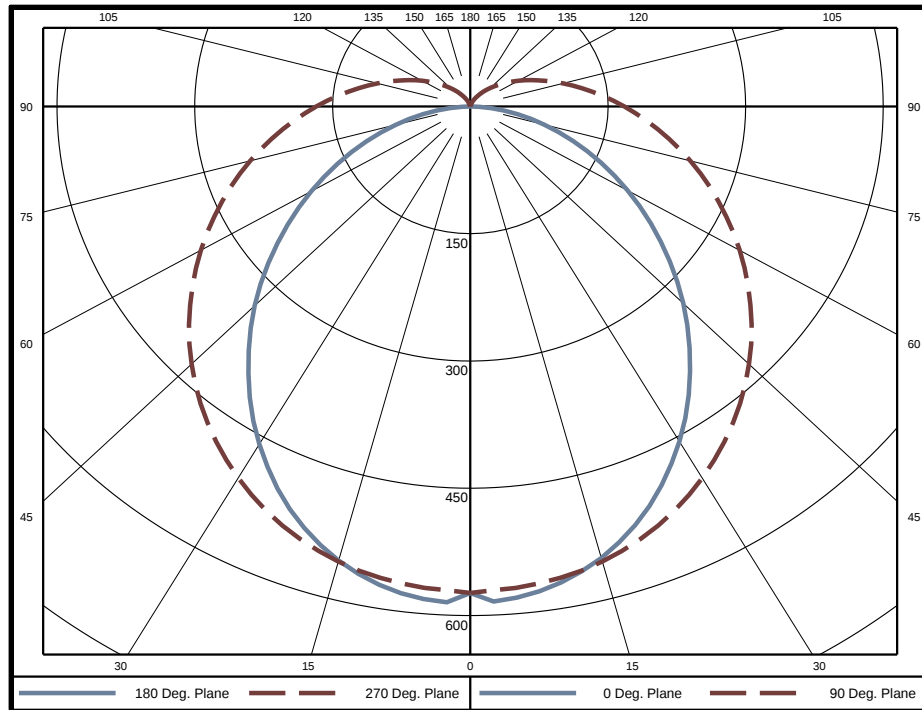
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.1920 A	22.94 W	0.995	60 Hz	5.45 %

Summary of Results

Spacing Criteria
 0-180: 1.19
 90-270: 1.31

Total Lumen Output: 2075 Lumens
Luminaire Efficacy: 90.4 lm/w
Maximum Candela: 585 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	14.5	0.70%	60-65	123.7	5.96%	120-125	13.0	0.63%
5-10	40.5	1.95%	65-70	111.8	5.39%	125-130	9.7	0.47%
10-15	65.9	3.18%	70-75	98.9	4.77%	130-135	7.1	0.34%
15-20	89.0	4.29%	75-80	85.6	4.13%	135-140	5.0	0.24%
20-25	108.8	5.24%	80-85	72.4	3.49%	140-145	3.3	0.16%
25-30	124.6	6.01%	85-90	59.9	2.89%	145-150	2.0	0.10%
30-35	136.3	6.57%	90-95	49.5	2.39%	150-155	1.1	0.05%
35-40	143.7	6.93%	95-100	40.9	1.97%	155-160	0.4	0.02%
40-45	146.8	7.08%	100-105	33.5	1.61%	160-165	0.0	0.00%
45-50	145.9	7.03%	105-110	27.0	1.30%	165-170	0.0	0.00%
50-55	141.2	6.81%	110-115	21.6	1.04%	170-175	0.0	0.00%
55-60	133.7	6.44%	115-120	16.9	0.82%	175-180	0.0	0.00%



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	574	574	574	574	574	574	574	574	574	574	574	574	574	574	574
	5	581	569	569	570	570	570	569	569	583	569	569	570	570	570	569
	10	570	559	562	564	564	564	562	559	572	559	562	564	564	564	562
	15	551	542	549	554	555	554	549	542	554	542	549	554	555	554	549
	20	525	518	531	539	542	539	531	518	529	518	531	539	542	539	531
	25	493	489	508	520	526	520	508	489	497	489	508	520	526	520	508
	30	456	455	481	498	506	498	481	455	460	455	481	498	506	498	481
	35	415	418	451	472	483	472	451	418	419	418	451	472	483	472	451
	40	372	378	419	445	457	445	419	378	376	378	419	445	457	445	419
	45	328	338	386	415	429	415	386	338	332	338	386	415	429	415	386
	50	283	296	351	384	400	384	351	296	287	296	351	384	400	384	351
	55	240	256	316	351	369	351	316	256	243	256	316	351	369	351	316
	60	198	217	282	320	339	320	282	217	200	217	282	320	339	320	282
	65	158	180	249	288	308	288	249	180	159	180	249	288	308	288	249
	70	119	145	217	257	278	257	217	145	121	145	217	257	278	257	217
	75	84	114	188	228	248	228	188	114	85	114	188	228	248	228	188
	80	52	86	161	201	220	201	161	86	52	86	161	201	220	201	161
	85	23	64	137	174	193	174	137	64	23	64	137	174	193	174	137
	90	0	46	115	151	168	151	115	46	0	46	115	151	168	151	115
	95	0	32	96	129	145	129	96	32	0	32	96	129	145	129	96
	100	0	23	80	109	124	109	80	23	0	23	80	109	124	109	80
	105	0	17	66	92	105	92	66	17	0	17	66	92	105	92	66
	110	0	13	54	77	88	77	54	13	0	13	54	77	88	77	54
	115	0	10	44	64	73	64	44	10	0	10	44	64	73	64	44
	120	0	7	35	52	61	52	35	7	0	7	35	52	61	52	35
	125	0	5	28	42	49	42	28	5	0	5	28	42	49	42	28
	130	0	4	22	33	39	33	22	4	0	4	22	33	39	33	22
	135	0	3	17	26	31	26	17	3	0	3	17	26	31	26	17
	140	0	2	13	20	23	20	13	2	0	2	13	20	23	20	13
	145	0	1	9	14	17	14	9	1	0	1	9	14	17	14	9
	150	0	0	6	10	12	10	6	0	0	0	6	10	12	10	6
	155	0	0	3	6	8	6	3	0	0	0	3	6	8	6	3
	160	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
	170	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
	180	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	0	0
	55	0	0
	65	0	0
	75	0	0
	85	0	0



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	2415	2415	2415	2415	2332	2332	2332	2332	2177	2177	2177	2036	2036	2036	1906	1906	1906	1844
1	2157	2038	1932	1837	2074	1968	1872	1785	1836	1757	1686	1714	1651	1593	1602	1552	1506	1444
2	1946	1755	1597	1465	1867	1695	1551	1429	1582	1463	1360	1479	1381	1295	1383	1303	1232	1172
3	1766	1530	1348	1202	1693	1479	1311	1176	1383	1242	1126	1294	1176	1077	1211	1114	1030	972
4	1612	1349	1157	1010	1545	1306	1128	990	1224	1072	951	1147	1018	914	1076	967	877	822
5	1480	1202	1007	864	1419	1164	984	848	1094	937	818	1028	893	788	966	851	758	707
6	1365	1079	888	750	1309	1047	868	738	986	829	713	929	792	688	875	757	664	616
7	1264	977	790	660	1214	949	774	649	895	741	629	845	710	608	798	679	588	542
8	1176	890	710	586	1130	865	695	577	819	668	560	775	641	543	733	615	526	483
9	1098	815	642	525	1056	794	630	518	753	606	503	714	583	489	677	560	474	433
10	1029	751	585	475	991	732	575	468	696	554	456	661	533	443	629	514	431	392

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	35.8	4.97
6.00	15.9	7.46
8.00	8.96	9.94
10.0	5.74	12.4
12.0	3.98	14.9
14.0	2.93	17.4
16.0	2.24	19.9

Cone of Light Plot

