



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



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
LW2-4-2100-35K-HTA-S30-UNI-XXXX (190mA)

Order Number
10644857
Test Number
868181

Test Date

2015-01-14

Prepared By

Javier Caban, Technician

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: 612.9 Candela

Electrical Data

Test Temperature: 24.3 °C
Voltage: 120.1 VAC
Current: 0.1565 A
Power: 18.67 W
Power Factor: 0.994
Frequency: 60 Hz
Current THD: 4.82 %

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
24.3 °C	120.1 VAC	0.1565 A	18.67 W	0.994	60 Hz	4.82 %

Summary of Results

Spacing Criteria

0-180: 1.23
90-270: 1.23

Total Lumen Output:

2112 Lumens

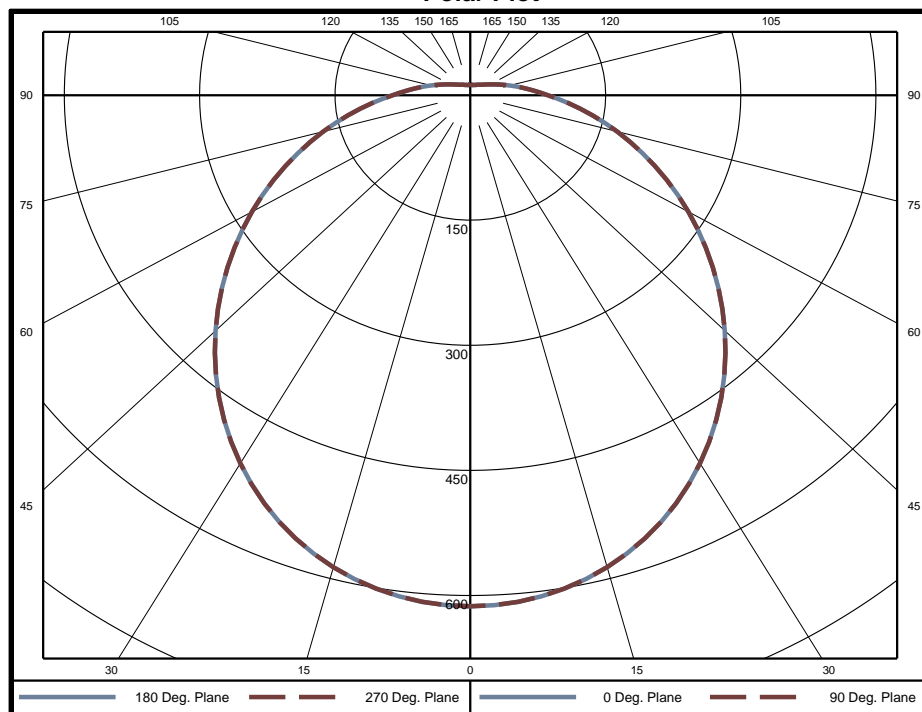
Luminaire Efficacy:

113.1 lm/w

Maximum Candela:

613 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	126.2	6.0%	120-125	11.3	0.5%
5-10	43.3	2.0%	65-70	112.2	5.3%	125-130	9.3	0.4%
10-15	70.3	3.3%	70-75	97.1	4.6%	130-135	7.7	0.4%
15-20	94.8	4.5%	75-80	81.8	3.9%	135-140	6.4	0.3%
20-25	115.9	5.5%	80-85	66.9	3.2%	140-145	5.4	0.3%
25-30	132.7	6.3%	85-90	53.4	2.5%	145-150	4.4	0.2%
30-35	144.9	6.9%	90-95	42.4	2.0%	150-155	3.6	0.2%
35-40	152.3	7.2%	95-100	33.9	1.6%	155-160	2.8	0.1%
40-45	154.9	7.3%	100-105	27.1	1.3%	160-165	2.1	0.1%
45-50	153.0	7.2%	105-110	21.5	1.0%	165-170	1.5	0.1%
50-55	147.2	7.0%	110-115	17.2	0.8%	170-175	0.9	0.0%
55-60	138.1	6.5%	115-120	13.8	0.7%	175-180	0.3	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	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613
5	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610	610
10	601	601	601	601	601	601	601	601	601	601	601	601	601	601	601	601
15	586	586	586	586	586	586	586	586	586	586	586	586	586	586	586	586
20	566	566	566	566	566	566	566	566	566	566	566	566	566	566	566	566
25	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540
30	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510
35	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475
40	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438	438
45	399	399	399	399	399	399	399	399	399	399	399	399	399	399	399	399
50	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359
55	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
60	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279
65	241	241	241	241	241	241	241	241	241	241	241	241	241	241	241	241
70	203	203	203	203	203	203	203	203	203	203	203	203	203	203	203	203
75	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169	169
80	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
85	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
90	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
95	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
100	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56
105	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
110	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
115	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
120	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
125	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
130	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
135	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
140	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
145	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
150	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
155	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
160	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
165	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
170	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
175	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
180	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13

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

	0	45	90
45	4403	3469	3240
55	4269	3097	2837
65	4257	2740	2449
75	4621	2417	2086
85	7056	2195	1786



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	2465	2465	2465	2465	2383	2383	2383	2383	2230	2230	2230	2091	2091	2091	1962	1962	1962	1902
1	2209	2092	1987	1893	2128	2023	1928	1842	1893	1815	1745	1773	1711	1653	1663	1614	1568	1507
2	1996	1806	1648	1516	1919	1747	1603	1481	1636	1517	1414	1535	1436	1350	1440	1360	1289	1230
3	1814	1577	1394	1248	1742	1527	1358	1223	1433	1291	1174	1345	1227	1127	1265	1166	1081	1024
4	1657	1392	1198	1050	1591	1350	1170	1031	1269	1116	994	1194	1064	958	1124	1014	923	868
5	1522	1241	1045	900	1461	1204	1022	885	1135	977	856	1071	934	827	1010	893	799	748
6	1404	1115	922	783	1349	1084	902	771	1024	865	747	968	830	724	916	795	701	652
7	1301	1010	821	689	1251	982	805	679	930	774	660	881	743	640	836	714	622	575
8	1210	920	738	613	1165	896	724	604	851	697	588	808	672	572	768	647	556	513
9	1130	844	668	550	1089	823	656	543	783	633	529	745	611	515	709	589	502	461
10	1059	778	609	497	1021	759	599	491	724	579	479	690	560	467	658	541	456	417

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	38.3	4.95
6.00	17.0	7.42
8.00	9.58	9.90
10.0	6.13	12.4
12.0	4.26	14.8
14.0	3.13	17.3
16.0	2.39	19.8

Cone of Light Plot

