



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
Stephen Bambush
20 Audrey Pl.
Fairfield, NJ 07004-3416

Catalog Number
LW5-4-4500-35K-HTA-S50-UNV
Order Number
10692188
Test Number
1000166

Test Date

2015-03-30

Prepared By

Dane Hernandez-Adams, Technician

Approved By

Kyle Spaziani, Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



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 OT50W/PRG1400C/UNV/DIM/L

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 4.500 in.
Luminous Height: 2.00 in.

Summary of Results

Total Luminaire Output: 4549 Lumens
Luminaire Efficacy: 95.1 lm/w
Maximum Candela: 1288 Candela

Electrical Data

Test Temperature: 25.4 °C
Voltage: 120.0 VAC
Current: 0.4002 A
Power: 47.86 W
Power Factor: 0.997
Frequency: 60 Hz
Current THD: 7.41 %

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



Distribution - Goniophotometer

Distribution Test Conditions

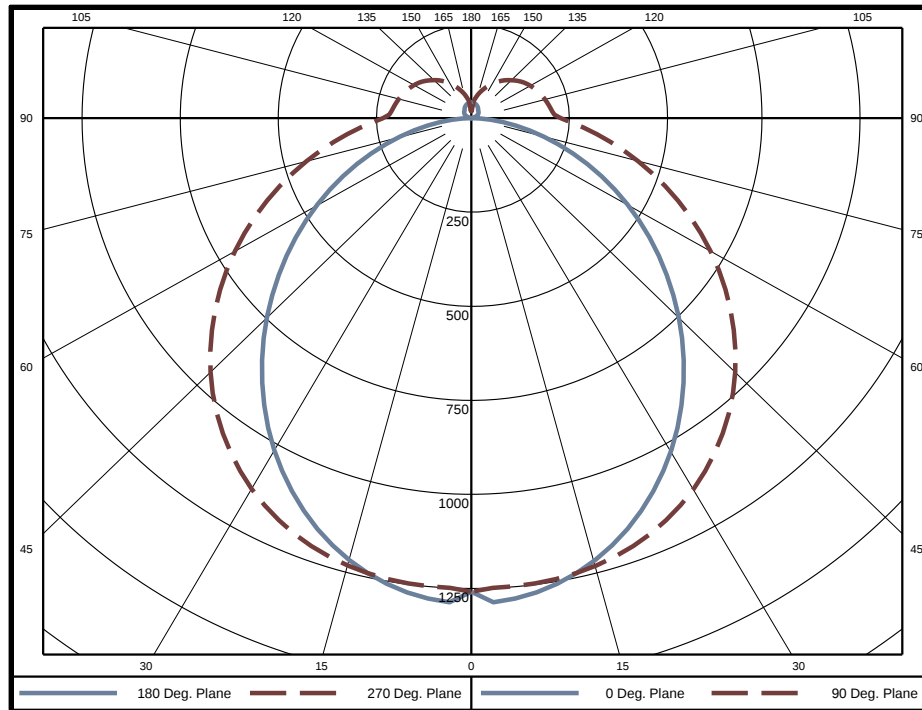
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.4002 A	47.86 W	0.997	60 Hz	7.41 %

Summary of Results

Spacing Criteria
 0-180: 1.20
 90-270: 1.34

Total Lumen Output: 4549 Lumens
Luminaire Efficacy: 95.1 lm/w
Maximum Candela: 1288 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	31.9	0.7%	60-65	265.1	5.8%	120-125	48.6	1.1%
5-10	89.2	2.0%	65-70	230.8	5.1%	125-130	43.8	1.0%
10-15	145.6	3.2%	70-75	193.1	4.2%	130-135	38.4	0.8%
15-20	197.2	4.3%	75-80	154.6	3.4%	135-140	32.6	0.7%
20-25	242.2	5.3%	80-85	117.6	2.6%	140-145	26.9	0.6%
25-30	279.1	6.1%	85-90	85.0	1.9%	145-150	21.6	0.5%
30-35	306.6	6.7%	90-95	67.2	1.5%	150-155	16.5	0.4%
35-40	323.9	7.1%	95-100	64.1	1.4%	155-160	12.0	0.3%
40-45	330.9	7.3%	100-105	62.1	1.4%	160-165	8.4	0.2%
45-50	327.6	7.2%	105-110	59.6	1.3%	165-170	5.3	0.1%
50-55	314.9	6.9%	110-115	56.6	1.2%	170-175	2.9	0.1%
55-60	293.7	6.5%	115-120	52.9	1.2%	175-180	0.9	0.0%

Zone	Lumens	% of Luminaire
0-40	1615.6	35.5%
0-60	2882.6	63.4%
0-90	3928.7	86.4%
90-180	620.4	13.6%



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	1259	1259	1259	1259	1259	1259	1259	1259	1259	1259	1259	1259	1259	1259	1259	1259
	5	1282	1257	1246	1249	1249	1249	1246	1257	1282	1257	1246	1249	1249	1249	1246	1257
	10	1257	1236	1233	1242	1244	1242	1233	1236	1257	1236	1233	1242	1244	1242	1233	1236
	15	1216	1202	1209	1226	1232	1226	1209	1202	1216	1202	1209	1226	1232	1226	1209	1202
	20	1162	1156	1174	1201	1210	1201	1174	1156	1162	1156	1174	1201	1210	1201	1174	1156
	25	1094	1097	1129	1166	1179	1166	1129	1097	1094	1097	1129	1166	1179	1166	1129	1097
	30	1018	1028	1074	1120	1138	1120	1074	1028	1018	1028	1074	1120	1138	1120	1074	1028
	35	931	951	1010	1065	1085	1065	1010	951	931	951	1010	1065	1085	1065	1010	951
	40	840	867	938	1001	1025	1001	938	867	840	867	938	1001	1025	1001	938	867
	45	745	779	858	929	954	929	858	779	745	779	858	929	954	929	858	779
	50	648	689	775	849	876	849	775	689	648	689	775	849	876	849	775	689
	55	553	598	687	765	793	765	687	598	553	598	687	765	793	765	687	598
	60	458	507	598	677	706	677	598	507	458	507	598	677	706	677	598	507
	65	365	416	508	588	617	588	508	416	365	416	508	588	617	588	508	416
	70	275	328	419	499	528	499	419	328	275	328	419	499	528	499	419	328
	75	191	246	337	414	442	414	337	246	191	246	337	414	442	414	337	246
	80	115	172	260	333	361	333	260	172	115	172	260	333	361	333	260	172
	85	50	110	192	263	289	263	192	110	50	110	192	263	289	263	192	110
	90	0	61	139	205	229	205	139	61	0	61	139	205	229	205	139	61
	95	0	57	129	186	208	186	129	57	0	57	129	186	208	186	129	57
	100	3	58	127	182	201	182	127	58	3	58	127	182	201	182	127	58
	105	7	58	125	177	195	177	125	58	7	58	125	177	195	177	125	58
	110	12	58	122	171	188	171	122	58	12	58	122	171	188	171	122	58
	115	16	59	119	165	181	165	119	59	16	59	119	165	181	165	119	59
	120	20	59	115	158	174	158	115	59	20	59	115	158	174	158	115	59
	125	22	58	110	150	165	150	110	58	22	58	110	150	165	150	110	58
	130	24	56	105	142	155	142	105	56	24	56	105	142	155	142	105	56
	135	26	53	97	132	143	132	97	53	26	53	97	132	143	132	97	53
	140	27	50	87	121	132	121	87	50	27	50	87	121	132	121	87	50
	145	30	47	76	110	119	110	76	47	30	47	76	110	119	110	76	47
	150	33	45	67	95	105	95	67	45	33	45	67	95	105	95	67	45
	155	35	43	59	78	92	78	59	43	35	43	59	78	92	78	59	43
	160	38	41	53	63	78	63	53	41	38	41	53	63	78	63	53	41
	165	39	41	46	51	65	51	46	41	39	41	46	51	65	51	46	41
	170	41	41	41	39	52	39	41	41	41	41	41	39	52	39	41	41
	175	42	40	39	35	29	35	39	40	42	40	39	35	29	35	39	40
	180	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36

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

Vertical Angle (Degrees)	0	45	90
	0	9635	9635
	45	8066	10330
	55	7380	10590
	65	6613	11170
	75	5647	13070
	85	4417	25370



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	5270	5270	5270	5270	5075	5075	5075	5075	4712	4712	4712	4380	4380	4380	4074	4074	4074	3931
1	4746	4505	4290	4095	4556	4340	4146	3970	4032	3875	3731	3748	3623	3507	3487	3389	3297	3157
2	4294	3896	3567	3291	4114	3756	3457	3203	3493	3247	3035	3251	3050	2874	3026	2865	2721	2586
3	3902	3405	3020	2713	3734	3285	2932	2648	3060	2765	2522	2852	2607	2401	2658	2457	2284	2156
4	3565	3006	2596	2283	3410	2903	2526	2234	2710	2390	2136	2530	2260	2042	2363	2137	1950	1829
5	3273	2678	2262	1955	3131	2589	2204	1915	2422	2092	1838	2267	1984	1762	2122	1881	1688	1574
6	3018	2405	1993	1698	2889	2328	1945	1666	2183	1851	1602	2048	1760	1540	1921	1673	1479	1372
7	2794	2175	1774	1493	2677	2109	1733	1466	1982	1653	1413	1863	1576	1361	1752	1501	1310	1209
8	2598	1980	1592	1325	2492	1922	1557	1303	1811	1488	1258	1707	1422	1214	1608	1358	1171	1076
9	2424	1814	1440	1187	2328	1763	1410	1168	1664	1350	1130	1572	1293	1092	1485	1237	1055	966
10	2271	1670	1311	1072	2182	1625	1285	1055	1538	1233	1022	1455	1183	990	1377	1134	958	874

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	78.7	5.07
6.00	35.0	7.61
8.00	19.7	10.1
10.0	12.6	12.7
12.0	8.74	15.2
14.0	6.42	17.7
16.0	4.92	20.3

Cone of Light Plot

