



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
LW4-4-4500-35K-HTA-S50-UNI-SR-XXXX
Order Number
10910728
Test Number
1142143

Test Date

2015-08-14

Prepared By

Kevin Rodriguez, 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: White steel housing / reflector, frosted plastic lens enclosure
Lamp: 120 white LEDs
Mounting: Recessed
Ballast/Driver: One Osram Optotronic OTC50W/PRG1400C/ONV/DIM/L

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 3.000 in.

Summary of Results

Total Luminaire Output: 4436 Lumens
Luminaire Efficacy: 89.1 lm/w
Maximum Candela: 1548 Candela

Electrical Data

Test Temperature: 24.9 °C
Voltage: 120.0 VAC
Current: 0.4160 A
Power: 49.76 W
Power Factor: 0.996
Frequency: 60 Hz
Current THD: 7.90 %

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
24.9 °C	120.0 VAC	0.4160 A	49.76 W	0.996	60 Hz	7.90 %

Summary of Results

Spacing Criteria

0-180: 1.18

90-270: 1.18

Total Lumen Output:

4436 Lumens

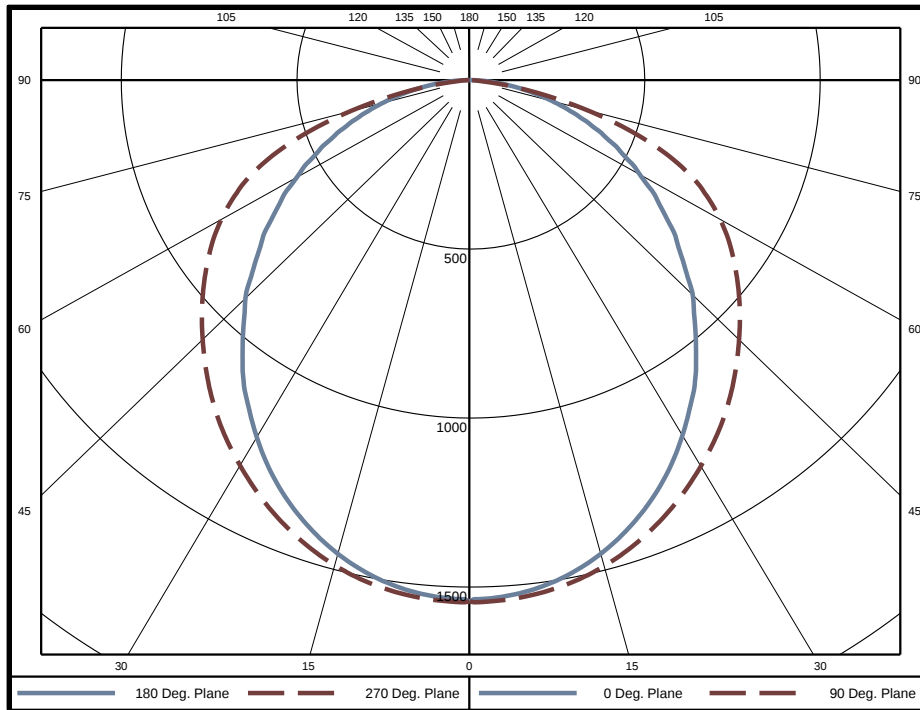
Luminaire Efficacy:

89.1 lm/w

Maximum Candela:

1548 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	36.8	0.8%	60-65	314.4	7.1%	120-125	0	0.0%
5-10	109.0	2.5%	65-70	272.8	6.1%	125-130	0	0.0%
10-15	177.0	4.0%	70-75	215.1	4.8%	130-135	0	0.0%
15-20	238.1	5.4%	75-80	144.3	3.3%	135-140	0	0.0%
20-25	290.0	6.5%	80-85	71.0	1.6%	140-145	0	0.0%
25-30	331.3	7.5%	85-90	18.9	0.4%	145-150	0	0.0%
30-35	361.0	8.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	379.0	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	384.9	8.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	380.6	8.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	367.0	8.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	345.1	7.8%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1922	43.3%
0-60	3400	76.6%
0-90	4436	100.0%
90-180	0	0.0%



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	1543	1543	1543	1543	1543	1543	1543	1543	1543	1543	1543	1543	1543	1543	1543
	5	1527	1538	1532	1536	1539	1536	1532	1538	1527	1538	1532	1536	1539	1536	1538
	10	1499	1511	1508	1516	1521	1516	1508	1511	1499	1511	1508	1516	1521	1516	1508
	15	1452	1467	1470	1482	1488	1482	1470	1467	1452	1467	1470	1482	1488	1482	1470
	20	1388	1406	1415	1433	1442	1433	1415	1406	1388	1406	1415	1433	1442	1433	1415
	25	1311	1330	1345	1372	1384	1372	1345	1330	1311	1330	1345	1372	1384	1372	1345
	30	1218	1241	1266	1302	1318	1302	1266	1241	1218	1241	1266	1302	1318	1302	1266
	35	1122	1142	1179	1227	1248	1227	1179	1142	1122	1142	1179	1227	1248	1227	1179
	40	1010	1038	1086	1143	1168	1143	1086	1038	1010	1038	1086	1143	1168	1143	1086
	45	906	927	988	1057	1085	1057	988	927	906	927	988	1057	1085	1057	988
	50	787	821	890	970	1002	970	890	821	787	821	890	970	1002	970	890
	55	678	713	791	881	917	881	791	713	678	713	791	881	917	881	791
	60	567	606	697	791	824	791	697	606	567	606	697	791	824	791	697
	65	464	501	604	691	713	691	604	501	464	501	604	691	713	691	604
	70	357	402	505	555	555	555	505	402	357	402	505	555	555	555	505
	75	251	309	382	375	353	375	382	309	251	309	382	375	353	375	382
	80	156	219	228	186	161	186	228	219	156	219	228	186	161	186	228
	85	70	108	73	42	31	42	73	108	70	108	73	42	31	42	73
	90	3	24	19	9	2	9	19	24	3	24	19	9	2	9	19
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	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
	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
	0	17710	17710
	45	14710	16040
	55	13570	15840
	65	12610	16420
	75	11150	16940
	85	9161	9646



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	5281	5281	5281	5281	5158	5158	5158	5158	4929	4929	4929	4719	4719	4719	4527	4527	4527	4436
1	4807	4588	4391	4213	4685	4486	4307	4144	4297	4149	4013	4122	4001	3890	3962	3864	3773	3679
2	4358	3980	3667	3404	4239	3895	3607	3363	3736	3493	3284	3590	3387	3208	3454	3286	3136	3038
3	3963	3482	3110	2813	3851	3411	3066	2788	3278	2981	2737	3154	2901	2689	3039	2825	2642	2543
4	3623	3078	2679	2374	3519	3018	2645	2357	2906	2581	2324	2801	2519	2291	2704	2461	2260	2161
5	3329	2746	2339	2039	3234	2696	2313	2027	2601	2263	2004	2512	2215	1981	2429	2169	1959	1863
6	3073	2470	2066	1776	2986	2428	2046	1768	2347	2006	1752	2271	1967	1735	2200	1931	1720	1626
7	2848	2239	1844	1567	2770	2202	1827	1561	2133	1795	1549	2068	1764	1537	2007	1734	1525	1436
8	2651	2042	1660	1397	2580	2011	1646	1392	1952	1620	1383	1896	1594	1374	1843	1570	1365	1279
9	2477	1874	1505	1256	2413	1848	1494	1253	1796	1473	1246	1748	1451	1239	1702	1431	1232	1150
10	2323	1730	1375	1139	2265	1706	1366	1136	1662	1348	1131	1620	1330	1125	1580	1313	1120	1041

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	96.4	4.90
6.00	42.9	7.35
8.00	24.1	9.80
10.0	15.4	12.3
12.0	10.7	14.7
14.0	7.87	17.2
16.0	6.03	19.6

Cone of Light Plot

