



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
20 Audrey Pl
Fairfield, NJ 07004-3416
United States

Catalog Number
L701-4-3300-40K-ASW-A36ES-UNI
Order Number
11800009
Test Number
11800009.04

Test Date

2017-06-06

Prepared By

Dane Hernandez-Adams, Technician

Approved By

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White formed plastic housing, frosted plastic lens enclosure
Lamp: 72 white LEDs
Mounting: Surface – Ceiling
Ballast/Driver: One Philips Fortimo 929000761113 driver

Luminaire



Luminaire Characteristics

Luminous Length: 46.00 in.
Luminous Width: 5.000 in.
Luminous Height: 1.00 in.

Summary of Results

Total Luminaire Output: 3347 Lumens
Luminaire Efficacy: 97.3 lm/w
Maximum Candela: 1085 Candela

Test Conditions

Test Temperature: 25.4 °C
Voltage: 119.9 VAC
Current: 0.2906 A
Power: 34.41 W
Power Factor: 0.987
Frequency: 60 Hz
Current THD: 11.7 %

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	119.9 VAC	0.2906 A	34.41 W	0.987	60 Hz	11.7 %

Summary of Results

Spacing Criteria

0-180: 1.23

90-270: 1.23

Total Lumen Output:

3347 Lumens

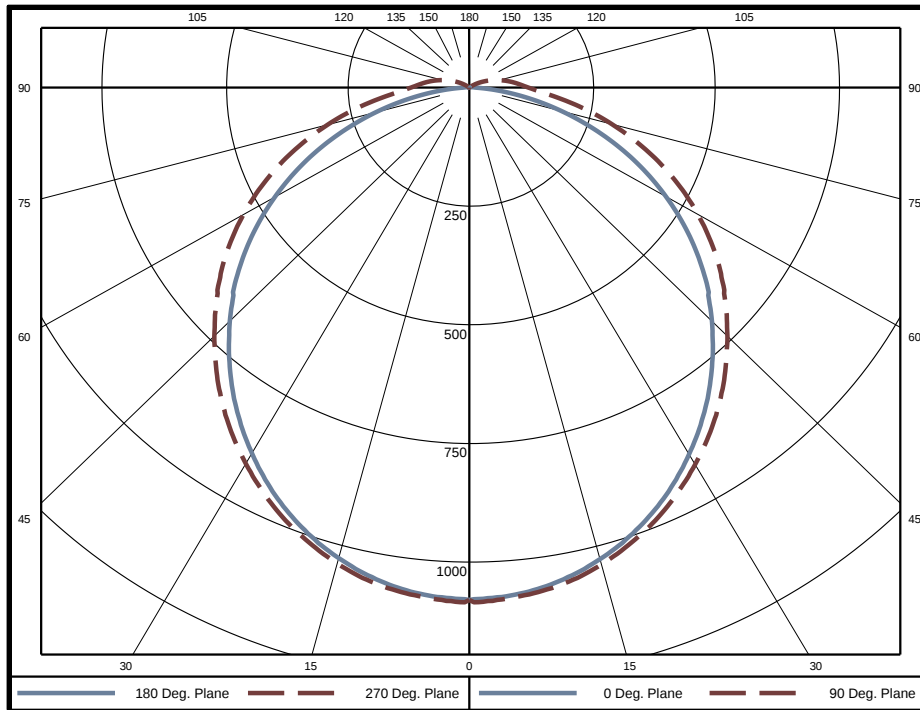
Luminaire Efficacy:

97.3 lm/w

Maximum Candela:

1085 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	25.8	0.8%	60-65	222.7	6.7%	120-125	1.5	0.0%
5-10	76.3	2.3%	65-70	190.6	5.7%	125-130	0.3	0.0%
10-15	124.0	3.7%	70-75	153.6	4.6%	130-135	0.0	0.0%
15-20	167.3	5.0%	75-80	115.1	3.4%	135-140	0	0.0%
20-25	204.8	6.1%	80-85	77.9	2.3%	140-145	0.0	0.0%
25-30	235.1	7.0%	85-90	49.5	1.5%	145-150	0.0	0.0%
30-35	257.8	7.7%	90-95	34.8	1.0%	150-155	0.0	0.0%
35-40	272.1	8.1%	95-100	26.1	0.8%	155-160	0.0	0.0%
40-45	278.1	8.3%	100-105	18.7	0.6%	160-165	0.0	0.0%
45-50	276.0	8.2%	105-110	12.5	0.4%	165-170	0.0	0.0%
50-55	266.6	8.0%	110-115	7.6	0.2%	170-175	0.0	0.0%
55-60	248.3	7.4%	115-120	3.9	0.1%	175-180	0.0	0.0%

Zone	Lumens	% of Luminaire
0-40	1363	40.7%
0-60	2432	72.7%
0-90	3242	96.9%
90-180	105	3.1%



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	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080
	5	1073	1075	1074	1073	1078	1073	1074	1075	1073	1075	1074	1073	1078	1073	1074
	10	1056	1057	1058	1058	1064	1058	1058	1057	1056	1057	1058	1058	1064	1058	1058
	15	1029	1031	1032	1033	1040	1033	1032	1031	1029	1031	1032	1033	1040	1033	1032
	20	992	995	998	1000	1006	1000	998	995	992	995	998	1000	1006	1000	998
	25	948	949	954	958	965	958	954	949	948	949	954	958	965	958	954
	30	894	897	904	909	917	909	904	897	894	897	904	909	917	909	904
	35	834	837	847	855	864	855	847	837	834	837	847	855	864	855	847
	40	768	772	785	794	805	794	785	772	768	772	785	794	805	794	785
	45	699	704	718	730	741	730	718	704	699	704	718	730	741	730	718
	50	628	633	649	664	675	664	649	633	628	633	649	664	675	664	649
	55	548	556	575	596	610	596	575	556	548	556	575	596	610	596	575
	60	464	474	497	522	537	522	497	474	464	474	497	522	537	522	497
	65	377	390	417	446	460	446	417	390	377	390	417	446	460	446	417
	70	286	303	337	367	381	367	337	303	286	303	337	367	381	367	337
	75	198	220	257	289	301	289	257	220	198	220	257	289	301	289	257
	80	115	143	183	213	226	213	183	143	115	143	183	213	226	213	183
	85	46	79	119	149	160	149	119	79	46	79	119	149	160	149	119
	90	12	40	79	109	120	109	79	40	12	40	79	109	120	109	79
	95	7	23	58	87	98	87	58	23	7	23	58	87	98	87	58
	100	4	12	42	69	79	69	42	12	4	12	42	69	79	69	42
	105	3	5	28	52	61	52	28	5	3	5	28	52	61	52	28
	110	2	2	16	36	44	36	16	2	2	2	16	36	44	36	16
	115	1	1	7	22	29	22	7	1	1	1	7	22	29	22	7
	120	0	0	1	11	16	11	1	0	0	0	1	11	16	11	1
	125	0	0	0	3	6	3	0	0	0	0	0	3	6	3	0
	130	0	0	0	0	1	0	0	0	0	0	0	0	1	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	7278	7278
	45	6657	6843
	55	6440	6750
	65	6008	6656
	75	5151	6699
	85	3559	9175



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	3959	3959	3959	3959	3855	3855	3855	3855	3660	3660	3660	3482	3482	3482	3319	3319	3319	3242
1	3580	3405	3249	3108	3476	3318	3176	3047	3155	3038	2931	3005	2910	2822	2867	2791	2719	2640
2	3242	2949	2707	2503	3142	2876	2654	2465	2738	2552	2391	2612	2456	2320	2494	2366	2252	2172
3	2947	2579	2293	2066	2853	2517	2253	2040	2401	2175	1990	2293	2102	1941	2193	2032	1895	1814
4	2694	2278	1974	1741	2607	2226	1942	1723	2127	1882	1687	2036	1824	1653	1950	1769	1619	1540
5	2474	2031	1722	1493	2395	1987	1697	1480	1903	1649	1454	1825	1602	1428	1752	1558	1403	1327
6	2283	1826	1520	1300	2211	1788	1499	1289	1716	1460	1269	1649	1423	1249	1586	1386	1230	1157
7	2115	1654	1355	1145	2050	1621	1338	1137	1559	1306	1121	1501	1274	1105	1447	1244	1090	1020
8	1968	1508	1218	1019	1909	1480	1204	1013	1426	1177	1000	1376	1151	987	1328	1126	975	908
9	1838	1383	1104	915	1785	1358	1092	910	1312	1069	899	1268	1047	889	1226	1026	879	816
10	1723	1275	1007	829	1674	1254	997	824	1213	978	815	1174	959	807	1138	941	798	738

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	1080 Candela
Central Cone Intensity:	1078 Candela
Beam Flux:	2308.6 Lumens
Beam Angle (0-180):	111.0 Degrees
Beam Angle (90-270):	119.5 Degrees
Field Angle (0-180):	160.8 Degrees
Field Angle (90-270):	185.0 Degrees

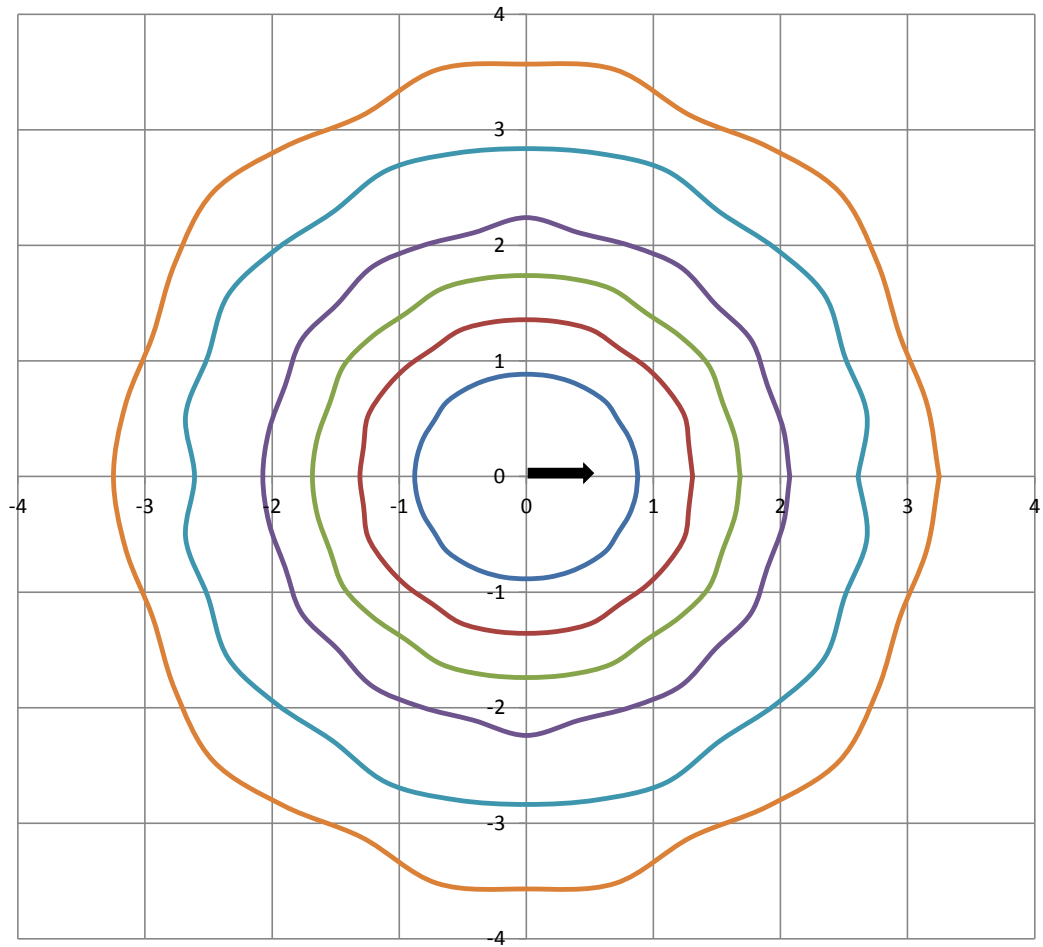
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		67.5	4.98
6.00		30.0	7.47
8.00		16.9	9.96
10.0		10.8	12.5
12.0		7.50	14.9
14.0		5.51	17.4
16.0		4.22	19.9



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc 2 fc 1 fc 0.5 fc 0.2 fc 0.1 fc