



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
LW15-4-3800-35K-HTA-A40-UNI-XXXX

Order Number
11205397
Test Number
1227930

Test Date

2016-03-31

Prepared By

Barry Mello Jr., Senior Technician

Approved By

Timothy Wagner, 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 steel housing, linear patterned frosted plastic lens enclosure
Lamp: 96 white LEDs, two boards with 48 LEDs each
Mounting: Surface
Ballast/Driver: One Philips Advance Xitanium XI040C110V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 6.250 in.
Luminous Height: 2.00 in.

Summary of Results

Total Luminaire Output: 3754 Lumens
Luminaire Efficacy: 116.1 lm/w
Maximum Candela: 1051 Candela

Test Conditions

Test Temperature: 24.5 °C
Voltage: 120.0 VAC
Current: 0.2702 A
Power: 32.33 W
Power Factor: 0.997
Frequency: 60 Hz
Current THD: 6.19 %

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



Distribution - Goniophotometer

Distribution Test Conditions

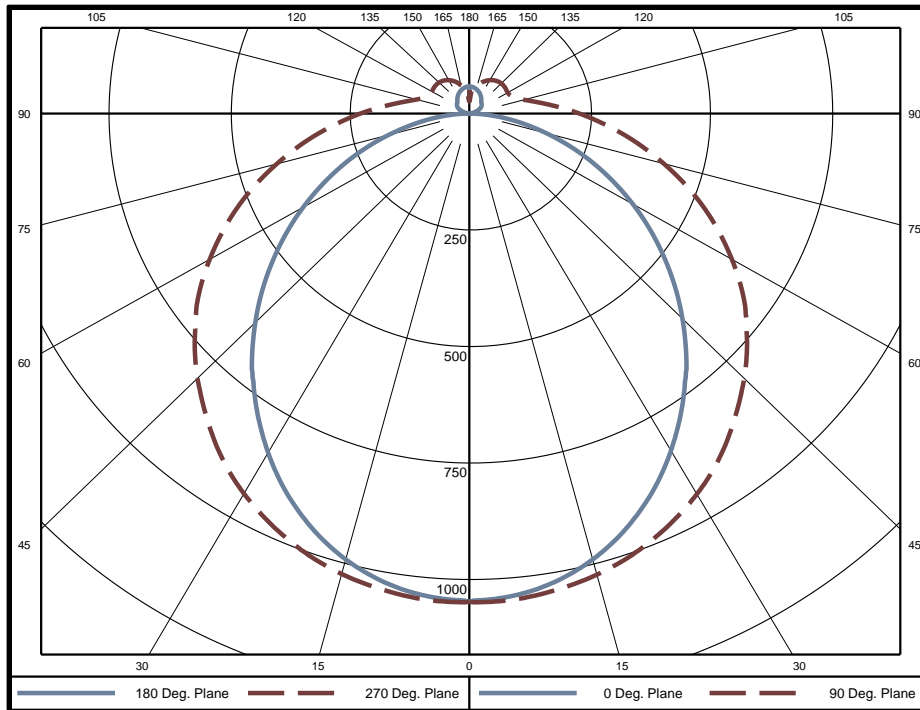
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.2702 A	32.33 W	0.997	60 Hz	6.19 %

Summary of Results

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

Total Lumen Output: 3754 Lumens
Luminaire Efficacy: 116.1 lm/w
Maximum Candela: 1051 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	25.0	0.7%	60-65	228.5	6.1%	120-125	29.6	0.8%
5-10	74.2	2.0%	65-70	201.0	5.4%	125-130	28.5	0.8%
10-15	120.9	3.2%	70-75	169.8	4.5%	130-135	26.6	0.7%
15-20	163.6	4.4%	75-80	137.1	3.7%	135-140	24.2	0.6%
20-25	200.7	5.3%	80-85	105.6	2.8%	140-145	21.4	0.6%
25-30	231.3	6.2%	85-90	77.6	2.1%	145-150	18.3	0.5%
30-35	254.3	6.8%	90-95	57.0	1.5%	150-155	15.0	0.4%
35-40	269.2	7.2%	95-100	43.8	1.2%	155-160	11.9	0.3%
40-45	276.1	7.4%	100-105	36.1	1.0%	160-165	9.0	0.2%
45-50	275.4	7.3%	105-110	32.2	0.9%	165-170	6.3	0.2%
50-55	267.0	7.1%	110-115	30.6	0.8%	170-175	3.7	0.1%
55-60	251.1	6.7%	115-120	30.1	0.8%	175-180	1.2	0.0%

Zone	Lumens	% of Luminaire
0-40	1339	35.7%
0-60	2409	64.2%
0-90	3328	88.7%
90-180	426	11.3%



Candela Tabulation
Horizontal 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	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048
5	1039	1045	1041	1044	1047	1044	1041	1045	1039	1045	1041	1044	1047	1044	1041	1045
10	1021	1029	1028	1034	1038	1034	1028	1029	1021	1029	1028	1034	1038	1034	1028	1029
15	991	1001	1005	1018	1024	1018	1005	1001	991	1001	1005	1018	1024	1018	1005	1001
20	950	963	974	994	1002	994	974	963	950	963	974	994	1002	994	974	963
25	899	914	935	963	974	963	935	914	899	914	935	963	974	963	935	914
30	838	858	888	925	941	925	888	858	838	858	888	925	941	925	888	858
35	771	795	835	881	900	881	835	795	771	795	835	881	900	881	835	795
40	703	728	775	830	852	830	775	728	703	728	775	830	852	830	775	728
45	628	657	713	774	802	774	713	657	628	657	713	774	802	774	713	657
50	552	581	645	718	747	718	645	581	552	581	645	718	747	718	645	581
55	474	505	574	657	691	657	574	505	474	505	574	657	691	657	574	505
60	396	426	502	589	625	589	502	426	396	426	502	589	625	589	502	426
65	319	348	430	520	557	520	430	348	319	348	430	520	557	520	430	348
70	243	272	357	449	487	449	357	272	243	272	357	449	487	449	357	272
75	169	201	287	378	415	378	287	201	169	201	287	378	415	378	287	201
80	103	137	223	312	348	312	223	137	103	137	223	312	348	312	223	137
85	45	84	167	250	283	250	167	84	45	84	167	250	283	250	167	84
90	0	47	123	196	227	196	123	47	0	47	123	196	227	196	123	47
95	0	29	90	153	179	153	90	29	0	29	90	153	179	153	90	29
100	6	26	70	120	142	120	70	26	6	26	70	120	142	120	70	26
105	12	29	62	99	116	99	62	29	12	29	62	99	116	99	62	29
110	18	34	61	88	100	88	61	34	18	34	61	88	100	88	61	34
115	24	38	63	84	93	84	63	38	24	38	63	84	93	84	63	38
120	29	41	66	85	91	85	66	41	29	41	66	85	91	85	66	41
125	31	43	69	86	92	86	69	43	31	43	69	86	92	86	69	43
130	33	44	69	87	93	87	69	44	33	44	69	87	93	87	69	44
135	35	45	67	87	92	87	67	45	35	45	67	87	92	87	67	45
140	39	45	63	85	90	85	63	45	39	45	63	85	90	85	63	45
145	43	46	61	81	87	81	61	46	43	46	61	81	87	81	61	46
150	46	48	57	73	83	73	57	48	46	48	57	73	83	73	57	48
155	49	49	55	65	77	65	55	49	49	49	55	65	77	65	55	49
160	52	51	52	58	70	58	52	51	52	51	52	58	70	58	52	51
165	54	53	51	51	63	51	51	53	54	53	51	51	63	51	51	53
170	56	55	51	47	57	47	51	55	56	55	51	47	57	47	51	55
175	58	57	54	46	47	46	54	57	58	57	54	46	47	46	54	57
180	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51

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

	0	45	90
0	5775	5775	5775
45	4896	5558	6251
55	4557	5519	6637
65	4153	5602	6643
75	3604	5215	6562
85	2838	5178	6950



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	4368	4368	4368	4368	4217	4217	4217	4217	3935	3935	3935	3677	3677	3677	3440	3440	3440	3329
1	3925	3721	3539	3375	3776	3593	3429	3279	3354	3220	3098	3134	3026	2927	2931	2846	2767	2656
2	3546	3212	2936	2703	3405	3103	2851	2637	2899	2691	2511	2711	2541	2390	2537	2399	2275	2168
3	3220	2803	2480	2223	3088	2711	2414	2175	2536	2287	2082	2375	2167	1992	2225	2053	1906	1803
4	2940	2472	2130	1868	2819	2393	2077	1832	2244	1974	1760	2105	1876	1691	1976	1783	1624	1525
5	2699	2202	1854	1598	2588	2134	1811	1569	2005	1726	1513	1885	1646	1458	1774	1568	1404	1311
6	2488	1976	1633	1387	2387	1918	1597	1364	1806	1527	1318	1702	1459	1273	1605	1394	1229	1141
7	2304	1788	1453	1219	2212	1737	1423	1200	1640	1363	1162	1549	1306	1124	1463	1250	1088	1005
8	2142	1628	1304	1082	2059	1583	1278	1066	1498	1227	1034	1418	1178	1003	1343	1131	972	894
9	1999	1491	1180	970	1923	1452	1157	956	1377	1113	929	1306	1071	902	1240	1030	875	802
10	1872	1373	1074	875	1803	1338	1055	864	1272	1017	840	1209	979	817	1150	944	794	725

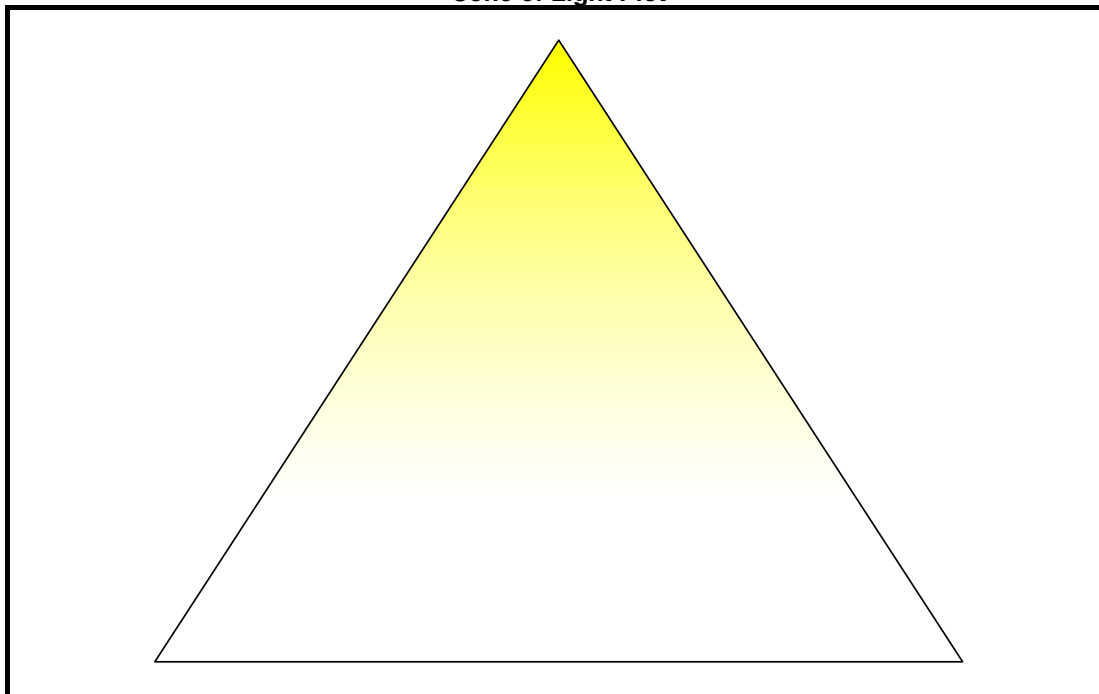
Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	65.5	5.05
6.00	29.1	7.58
8.00	16.4	10.1
10.0	10.5	12.6
12.0	7.28	15.2
14.0	5.35	17.7
16.0	4.09	20.2

Beam and Field Information

CIE Type:	Semi-Direct
Center Beam Intensity:	1048 Candela
Central Cone Intensity:	1046 Candela
Beam Flux:	2394.2 Lumens
Beam Angle (0-180):	103.6 Degrees
Beam Angle (90-270):	134.8 Degrees
Field Angle (0-180):	159.7 Degrees
Field Angle (90-270):	216.2 Degrees

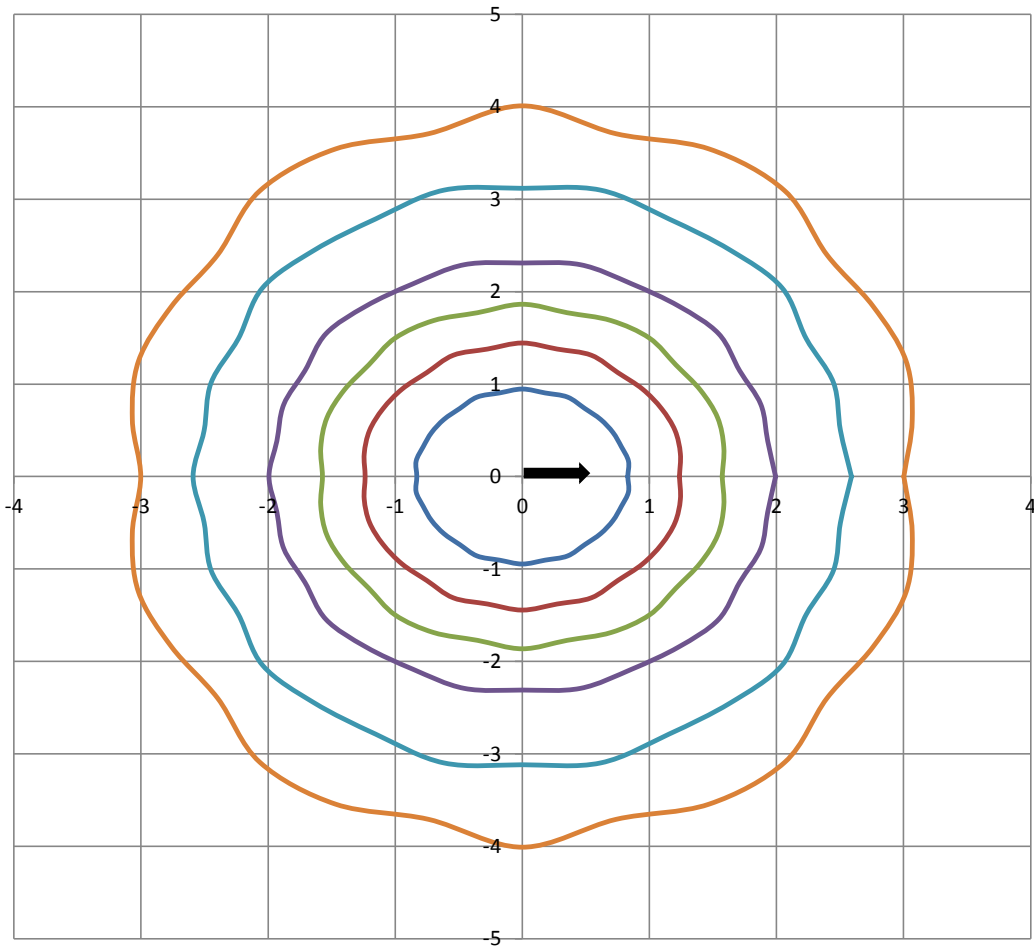
Cone of Light Plot





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

