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7036 Snowdrift Road
Allentown, PA 18106
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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
MLS3-N5/N1-4-3000-(750 LM/FT)-35K-HTA-A401-U
Order Number
11654729
Test Number
11654729.28

Test Date

2017-03-15

Prepared By

Javier Caban, Technician

Approved By

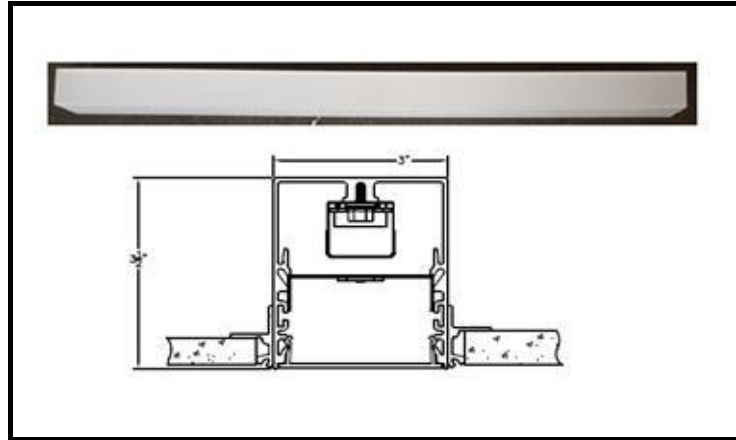
Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed white aluminum housing, frosted plastic lens enclosure
Lamp: 96 white LEDs
Mounting: Recessed
Ballast/Driver: Philips Advanced XI040C110V054BST1
Note: Tested as MLS3 M 4 3300 35K HTA A401 U

Luminaire



Luminaire Characteristics

Luminous Length: 48.00 in.
Luminous Width: 2.875 in.

Summary of Results

Total Luminaire Output:	2947 Lumens
Luminaire Efficacy:	108.1 lm/w
Maximum Candela:	1180 Candela

Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.2285 A
Power:	27.26 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.23 %

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
25.0 °C	120.0 VAC	0.2285 A	27.26 W	0.995	60 Hz	8.23 %

Summary of Results

Spacing Criteria

0-180: 1.22
90-270: 1.22

Total Lumen Output:

2947 Lumens

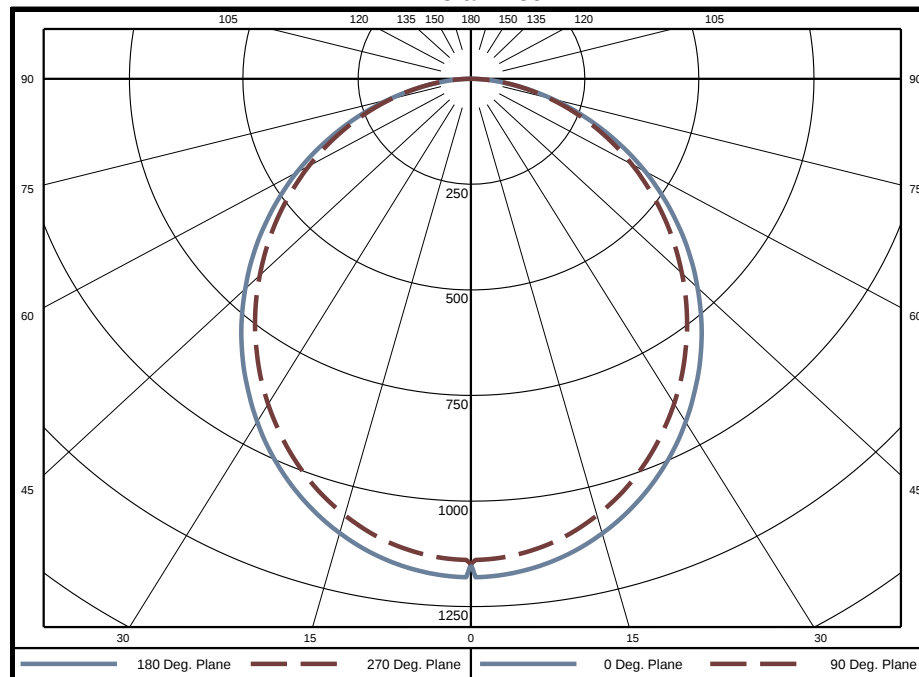
Luminaire Efficacy:

108.1 lm/w

Maximum Candela:

1180 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	27.4	0.9%	60-65	185.9	6.3%	120-125	0	0.0%
5-10	80.9	2.7%	65-70	151.8	5.2%	125-130	0	0.0%
10-15	130.6	4.4%	70-75	115.2	3.9%	130-135	0	0.0%
15-20	174.4	5.9%	75-80	77.9	2.6%	135-140	0	0.0%
20-25	210.6	7.1%	80-85	43.1	1.5%	140-145	0	0.0%
25-30	238.2	8.1%	85-90	13.1	0.4%	145-150	0	0.0%
30-35	256.6	8.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	265.5	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	265.1	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	256.1	8.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	239.2	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	215.5	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1384	47.0%
0-60	2360	80.1%
0-90	2947	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	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149
	5	1173	1147	1133	1134	1132	1134	1133	1147	1173	1147	1133	1134	1132	1134	1133
	10	1150	1125	1111	1110	1109	1110	1111	1125	1150	1125	1111	1110	1109	1110	1111
	15	1114	1089	1075	1073	1070	1073	1075	1089	1114	1089	1075	1073	1070	1073	1075
	20	1067	1041	1026	1023	1021	1023	1026	1041	1067	1041	1026	1023	1021	1023	1026
	25	1008	984	969	964	960	964	969	984	1008	984	969	964	960	964	969
	30	941	918	903	896	891	896	903	918	941	918	903	896	891	896	903
	35	867	845	831	823	817	823	831	845	867	845	831	823	817	823	831
	40	788	767	754	745	739	745	754	767	788	767	754	745	739	745	754
	45	704	686	673	664	656	664	673	686	704	686	673	664	656	664	673
	50	619	602	590	581	574	581	590	602	619	602	590	581	574	581	590
	55	532	518	507	498	492	498	507	518	532	518	507	498	492	498	507
	60	444	433	423	416	410	416	423	433	444	433	423	416	410	416	423
	65	355	348	339	334	330	334	339	348	355	348	339	334	330	334	339
	70	268	265	258	255	253	255	258	265	268	265	258	255	253	255	258
	75	186	184	181	181	179	181	181	184	186	184	181	181	179	181	181
	80	110	111	111	111	111	111	111	111	110	111	111	111	111	111	111
	85	48	49	50	51	51	51	50	49	48	49	50	51	51	51	50
	90	0	1	2	3	3	3	2	1	0	1	2	3	3	3	2
	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)

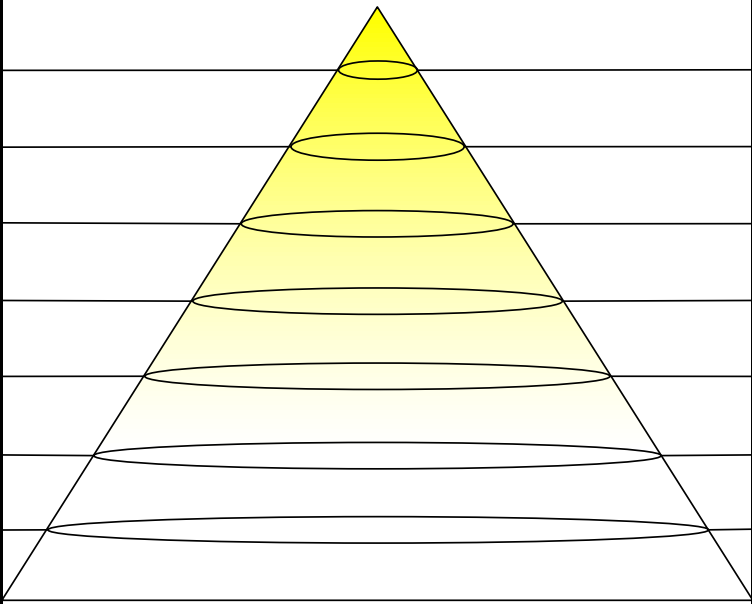
Vertical Angle (Degrees)	Horizontal Angle (Degrees)			
	0	45	90	
	0	12910	12910	12910
	45	11180	10690	10430
	55	10410	9920	9627
	65	9431	9018	8775
	75	8051	7864	7754
	85	6199	6411	6539



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	3509	3509	3509	3509	3427	3427	3427	3427	3275	3275	3275	3135	3135	3135	3007	3007	3007	2947
1	3210	3071	2947	2835	3130	3004	2891	2788	2879	2786	2700	2764	2688	2617	2658	2597	2540	2478
2	2925	2685	2487	2320	2847	2629	2447	2292	2525	2371	2238	2428	2300	2187	2339	2233	2139	2075
3	2671	2364	2127	1938	2598	2318	2098	1920	2230	2041	1886	2149	1988	1853	2074	1938	1821	1757
4	2450	2100	1845	1649	2382	2061	1822	1638	1987	1780	1615	1919	1739	1593	1855	1700	1571	1508
5	2256	1881	1619	1426	2194	1848	1602	1418	1786	1569	1402	1728	1537	1387	1673	1506	1372	1310
6	2086	1697	1437	1249	2030	1669	1423	1244	1616	1397	1233	1567	1371	1222	1521	1347	1211	1151
7	1937	1542	1286	1107	1886	1518	1275	1103	1473	1254	1095	1430	1234	1087	1391	1214	1079	1021
8	1805	1410	1161	991	1759	1389	1152	988	1350	1135	981	1314	1118	975	1279	1102	969	914
9	1688	1296	1056	894	1646	1278	1049	891	1245	1034	887	1213	1020	882	1183	1007	877	824
10	1584	1197	966	813	1546	1182	960	811	1153	948	807	1125	937	803	1099	925	800	749

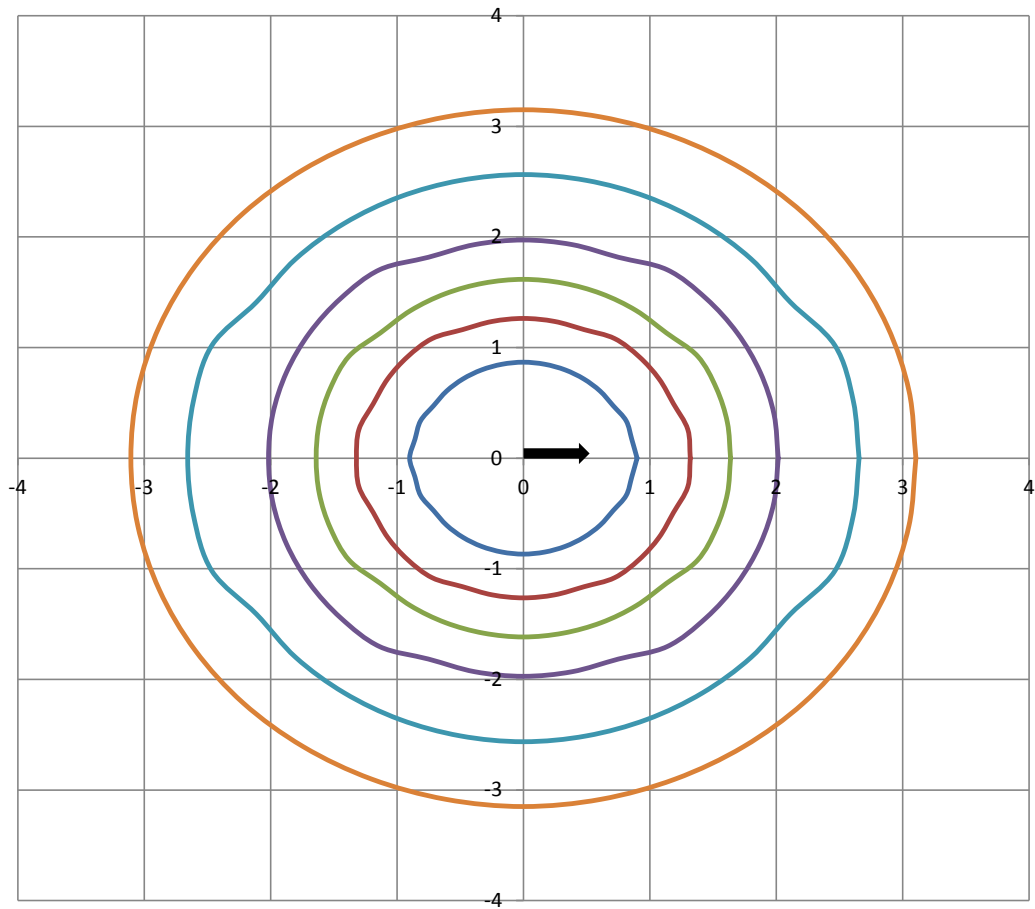
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1149 Candela
Central Cone Intensity:	1147 Candela
Beam Flux:	1957.9 Lumens
Beam Angle (0-180):	105.1 Degrees
Beam Angle (90-270):	99.9 Degrees
Field Angle (0-180):	159.3 Degrees
Field Angle (90-270):	159.4 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		71.8	4.73
6.00		31.9	7.09
8.00		18.0	9.45
10.0		11.5	11.8
12.0		7.98	14.2
14.0		5.86	16.5
16.0		4.49	18.9



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

