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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
LR402-24G-5000-35K-1%-UNI
Order Number
11863753
Test Number
11863753.01

Test Date

2017-07-17

Prepared By

Josh Mitchell, Technician

Approved By

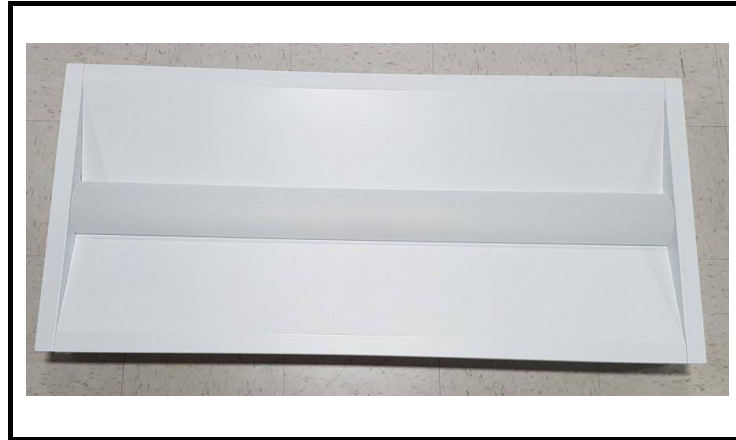
Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White formed steel housing, frosted plastic linear prismatic lens enclosure
Lamp: 96 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance Xitanium XI040C110V054BST1 driver

Luminaire



Luminaire Characteristics

Luminous Length: 45.00 in.
Luminous Width: 20.50 in.

Summary of Results

Total Luminaire Output:	4886 Lumens
Luminaire Efficacy:	110.1 lm/w
Maximum Candela:	1759 Candela

Test Conditions

Test Temperature:	24.6 °C
Voltage:	120.1 VAC
Current:	0.3703 A
Power:	44.37 W
Power Factor:	0.998
Frequency:	60 Hz
Current THD:	4.67 %

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



Distribution - Goniophotometer

Distribution Test Conditions

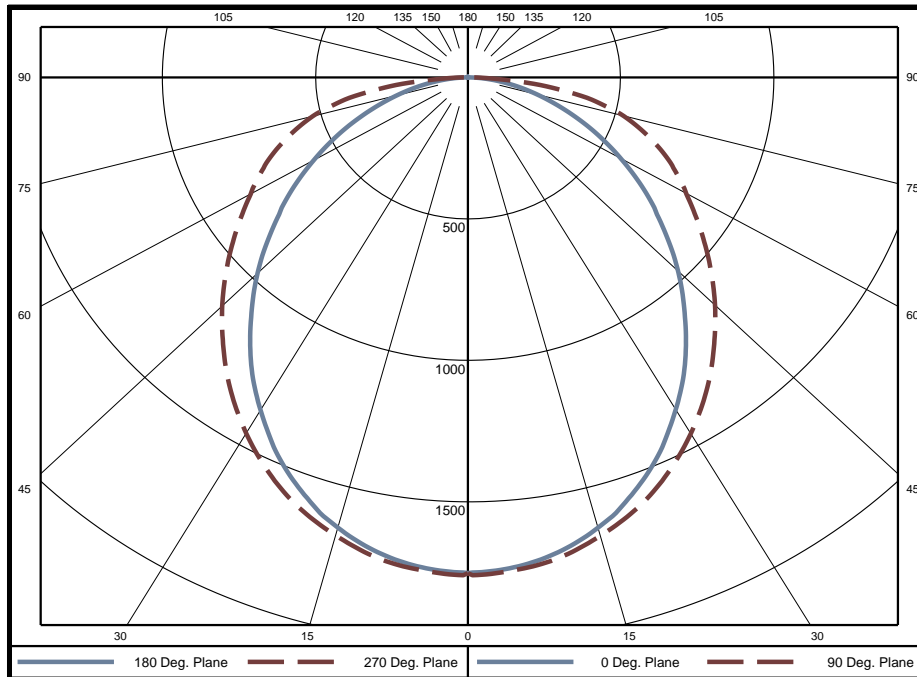
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.1 VAC	0.3703 A	44.37 W	0.998	60 Hz	4.67 %

Summary of Results

Spacing Criteria
 0-180: 1.16
 90-270: 1.16

Total Lumen Output: 4886 Lumens
Luminaire Efficacy: 110.1 lm/w
Maximum Candela: 1759 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	41.8	0.9%	60-65	320.9	6.6%	120-125	0	0.0%
5-10	123.5	2.5%	65-70	282.5	5.8%	125-130	0	0.0%
10-15	199.9	4.1%	70-75	238.5	4.9%	130-135	0	0.0%
15-20	268.2	5.5%	75-80	187.7	3.8%	135-140	0	0.0%
20-25	325.3	6.7%	80-85	119.5	2.4%	140-145	0	0.0%
25-30	369.1	7.6%	85-90	37.8	0.8%	145-150	0	0.0%
30-35	398.8	8.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	414.0	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	415.4	8.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	404.7	8.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	383.4	7.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	354.8	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2141	43.8%
0-60	3699	75.7%
0-90	4886	100.0%
90-180	0	0.0%



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	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
5	1738	1741	1740	1740	1748	1740	1740	1741	1738	1741	1740	1740	1748	1740	1740	1741
10	1704	1707	1709	1713	1723	1713	1709	1707	1704	1707	1709	1713	1723	1713	1709	1707
15	1648	1652	1660	1667	1676	1667	1660	1652	1648	1652	1660	1667	1676	1667	1660	1652
20	1570	1578	1593	1606	1619	1606	1593	1578	1570	1578	1593	1606	1619	1606	1593	1578
25	1475	1484	1509	1531	1544	1531	1509	1484	1475	1484	1509	1531	1544	1531	1509	1484
30	1360	1377	1412	1440	1455	1440	1412	1377	1360	1377	1412	1440	1455	1440	1412	1377
35	1240	1258	1303	1340	1357	1340	1303	1258	1240	1258	1303	1340	1357	1340	1303	1258
40	1107	1133	1187	1232	1250	1232	1187	1133	1107	1133	1187	1232	1250	1232	1187	1133
45	976	1003	1068	1121	1142	1121	1068	1003	976	1003	1068	1121	1142	1121	1068	1003
50	840	873	946	1010	1032	1010	946	873	840	873	946	1010	1032	1010	946	873
55	713	748	830	901	926	901	830	748	713	748	830	901	926	901	830	748
60	583	626	721	801	824	801	721	626	583	626	721	801	824	801	721	626
65	461	509	620	709	737	709	620	509	461	509	620	709	737	709	620	509
70	342	402	524	612	637	612	524	402	342	402	524	612	637	612	524	402
75	237	307	432	505	527	505	432	307	237	307	432	505	527	505	432	307
80	144	219	320	369	376	369	320	219	144	219	320	369	376	369	320	219
85	65	119	163	170	167	170	163	119	65	119	163	170	167	170	163	119
90	1	19	19	15	14	15	19	19	1	19	19	15	14	15	19	19
95	0	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	0
105	0	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	0
115	0	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	0
125	0	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	0
135	0	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	0
145	0	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	0
155	0	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	0
165	0	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	0
175	0	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	0

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

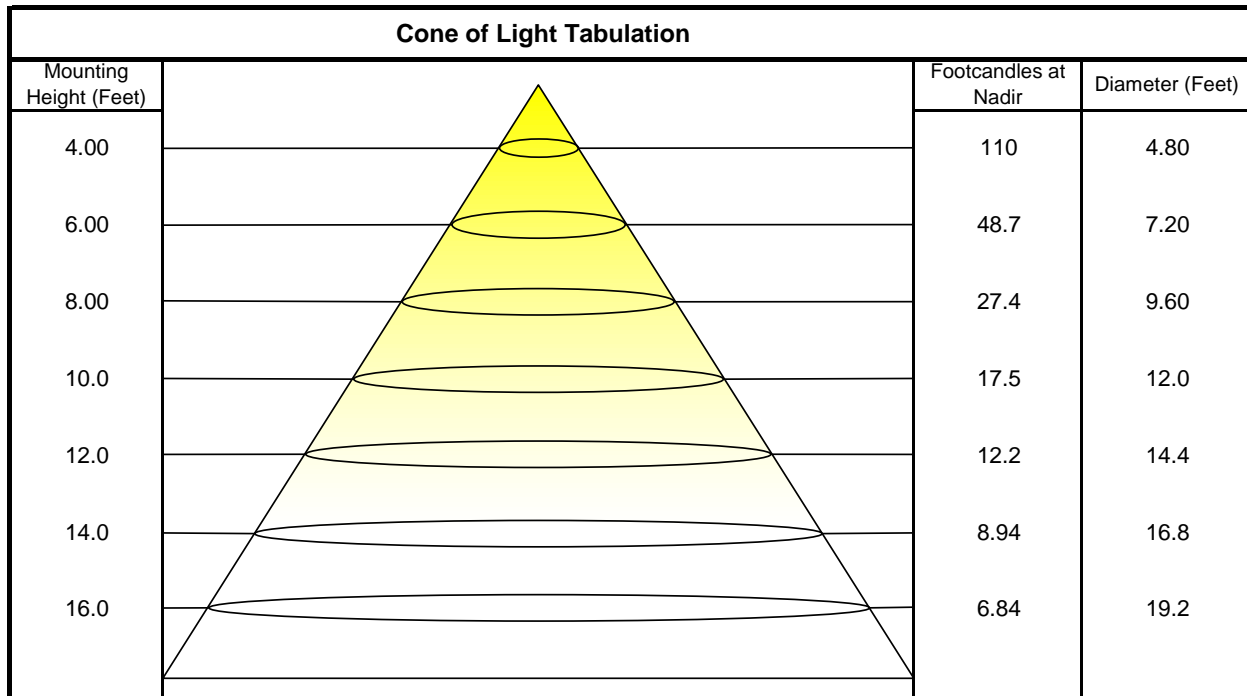
	0	45	90
0	2944	2944	2944
45	2319	2537	2714
55	2090	2430	2711
65	1831	2465	2929
75	1538	2806	3421
85	1251	3138	3218



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	5816	5816	5816	5816	5681	5681	5681	5681	5429	5429	5429	5198	5198	5198	4985	4985	4985	4886
1	5273	5022	4797	4595	5137	4910	4705	4519	4700	4531	4375	4507	4369	4240	4329	4218	4113	4008
2	4780	4356	4006	3711	4648	4263	3940	3667	4087	3815	3580	3925	3697	3497	3775	3586	3418	3309
3	4351	3817	3403	3074	4227	3738	3355	3045	3591	3261	2990	3454	3173	2937	3327	3089	2886	2776
4	3982	3380	2938	2601	3868	3314	2901	2582	3189	2830	2546	3074	2762	2510	2967	2698	2475	2367
5	3663	3021	2572	2240	3559	2965	2543	2227	2860	2488	2202	2762	2435	2177	2671	2384	2153	2047
6	3385	2722	2277	1957	3290	2675	2254	1948	2585	2210	1930	2502	2168	1912	2424	2127	1895	1792
7	3140	2470	2035	1731	3054	2430	2017	1724	2354	1982	1711	2282	1947	1698	2215	1914	1685	1586
8	2925	2256	1835	1546	2848	2222	1820	1541	2156	1791	1531	2095	1763	1521	2037	1736	1511	1417
9	2735	2073	1667	1393	2665	2043	1655	1390	1987	1631	1382	1934	1608	1374	1883	1585	1367	1276
10	2566	1915	1525	1265	2503	1889	1515	1262	1840	1495	1256	1794	1475	1250	1750	1456	1244	1158

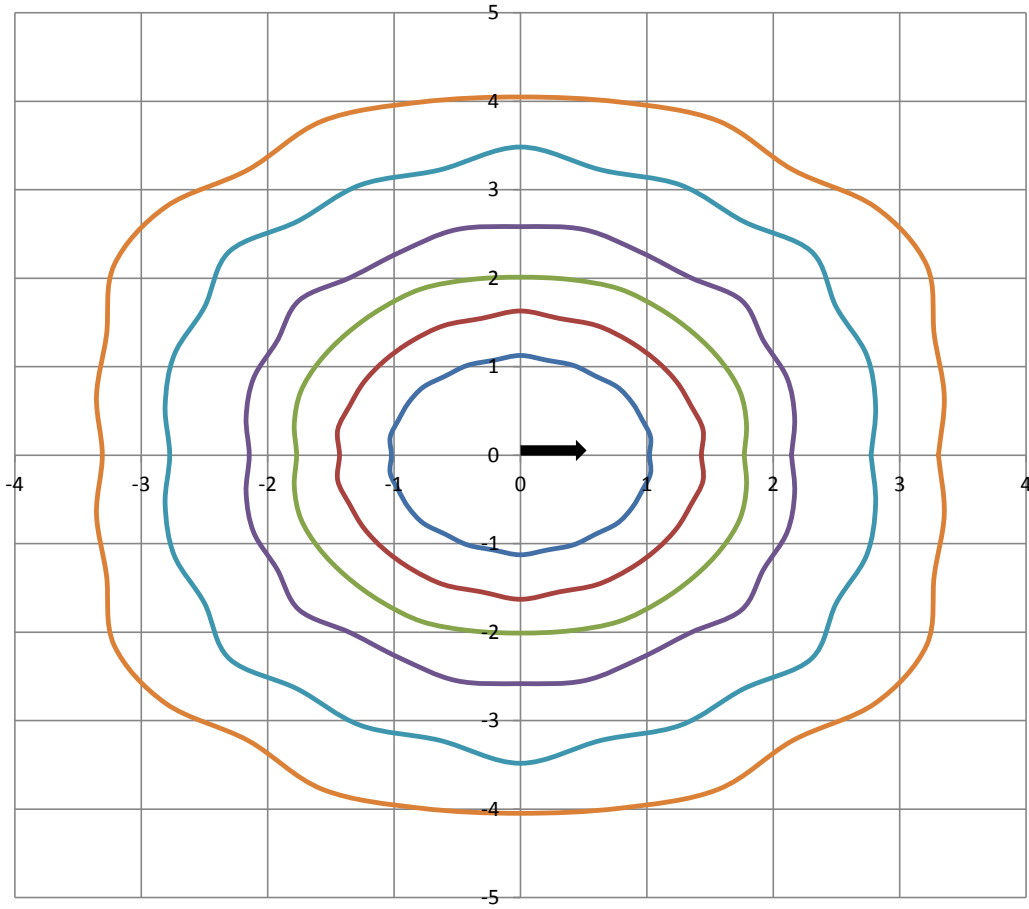
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1752 Candela
Central Cone Intensity:	1748 Candela
Beam Flux:	3207.5 Lumens
Beam Angle (0-180):	97.3 Degrees
Beam Angle (90-270):	114.8 Degrees
Field Angle (0-180):	156.5 Degrees
Field Angle (90-270):	169.7 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

