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## 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  
**LR305-24G-4800-35K-A40-UNI-XXXX**  
Order Number  
11321901  
Test Number  
1261246

Test Date

2016-06-21

Prepared By

Kevin Rodriguez, Technician

Approved By

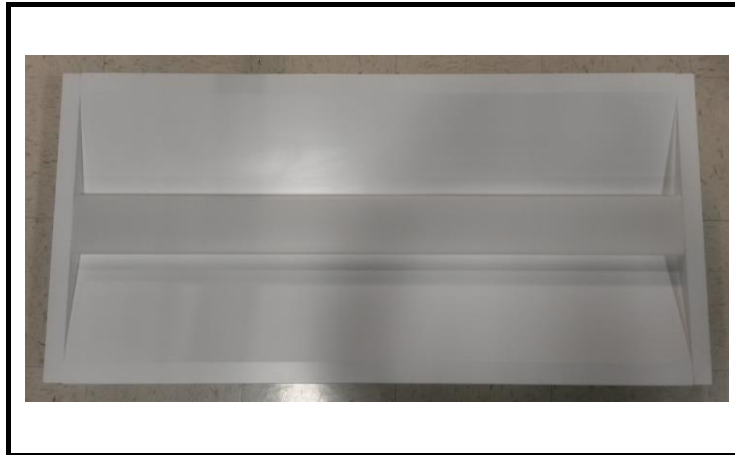
Timothy Wagner, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Formed white enamel steel housing / reflector, frosted plastic lens enclosure  
**Lamp:** 96 white LEDs  
**Mounting:** Recessed  
**Ballast/Driver:** One Philips Advance XI040C110V054BPT1

**Luminaire**



**Luminaire Characteristics**

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

**Summary of Results**

Total Luminaire Output: 4765 Lumens  
Luminaire Efficacy: 111.5 lm/w  
Maximum Candela: 1665 Candela

**Test Conditions**

Test Temperature: 25.2 °C  
Voltage: 120.0 VAC  
Current: 0.3570 A  
Power: 42.72 W  
Power Factor: 0.996  
Frequency: 60 Hz  
Current THD: 5.19 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

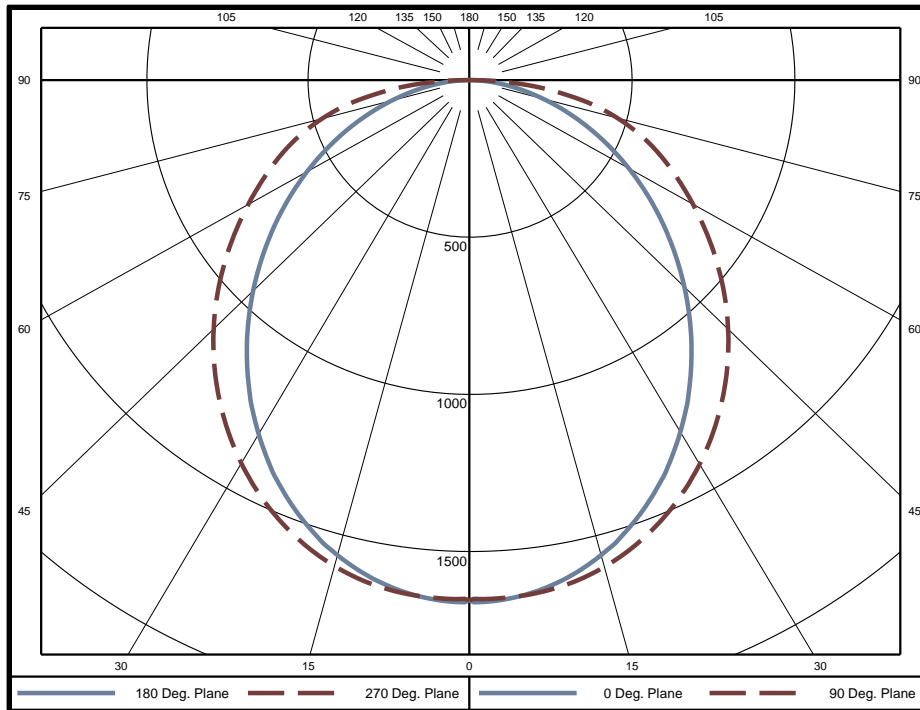
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.3570 A	42.72 W	0.996	60 Hz	5.19 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.17  
 90-270: 1.17

**Total Lumen Output:** 4765 Lumens  
**Luminaire Efficacy:** 111.5 lm/w  
**Maximum Candela:** 1665 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	39.6	0.8%	60-65	315.2	6.6%	120-125	0	0.0%
5-10	117.4	2.5%	65-70	274.2	5.8%	125-130	0	0.0%
10-15	190.8	4.0%	70-75	228.7	4.8%	130-135	0	0.0%
15-20	256.9	5.4%	75-80	176.8	3.7%	135-140	0	0.0%
20-25	313.0	6.6%	80-85	114.7	2.4%	140-145	0	0.0%
25-30	357.4	7.5%	85-90	41.8	0.9%	145-150	0	0.0%
30-35	388.5	8.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	406.0	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	410.0	8.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	401.3	8.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	381.2	8.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	351.7	7.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2070	43.4%
0-60	3614	75.8%
0-90	4765	100.0%
90-180	0	0.0%



**Candela Tabulation**  
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	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	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655	1655
5	1651	1656	1652	1651	1649	1651	1652	1656	1651	1656	1652	1651	1649	1651	1652	1656
10	1619	1625	1628	1634	1634	1634	1628	1625	1619	1625	1628	1634	1634	1634	1628	1625
15	1565	1576	1588	1601	1602	1601	1588	1576	1565	1576	1588	1601	1602	1601	1588	1576
20	1492	1509	1532	1552	1553	1552	1532	1509	1492	1509	1532	1552	1553	1552	1532	1509
25	1403	1427	1462	1487	1488	1487	1462	1427	1403	1427	1462	1487	1488	1487	1462	1427
30	1298	1331	1378	1410	1411	1410	1378	1331	1298	1331	1378	1410	1411	1410	1378	1331
35	1185	1225	1283	1321	1322	1321	1283	1225	1185	1225	1283	1321	1322	1321	1283	1225
40	1065	1111	1178	1222	1226	1222	1178	1111	1065	1111	1178	1222	1226	1222	1178	1111
45	940	992	1067	1115	1121	1115	1067	992	940	992	1067	1115	1121	1115	1067	992
50	815	872	953	1004	1013	1004	953	872	815	872	953	1004	1013	1004	953	872
55	693	752	837	891	901	891	837	752	693	752	837	891	901	891	837	752
60	573	634	722	779	792	779	722	634	573	634	722	779	792	779	722	634
65	457	521	612	672	688	672	612	521	457	521	612	672	688	672	612	521
70	346	413	510	570	586	570	510	413	346	413	510	570	586	570	510	413
75	243	314	410	459	472	459	410	314	243	314	410	459	472	459	410	314
80	149	223	299	330	335	330	299	223	149	223	299	330	335	330	299	223
85	69	126	163	175	177	175	163	126	69	126	163	175	177	175	163	126
90	0	2	5	6	7	6	5	2	0	2	5	6	7	6	5	2
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/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

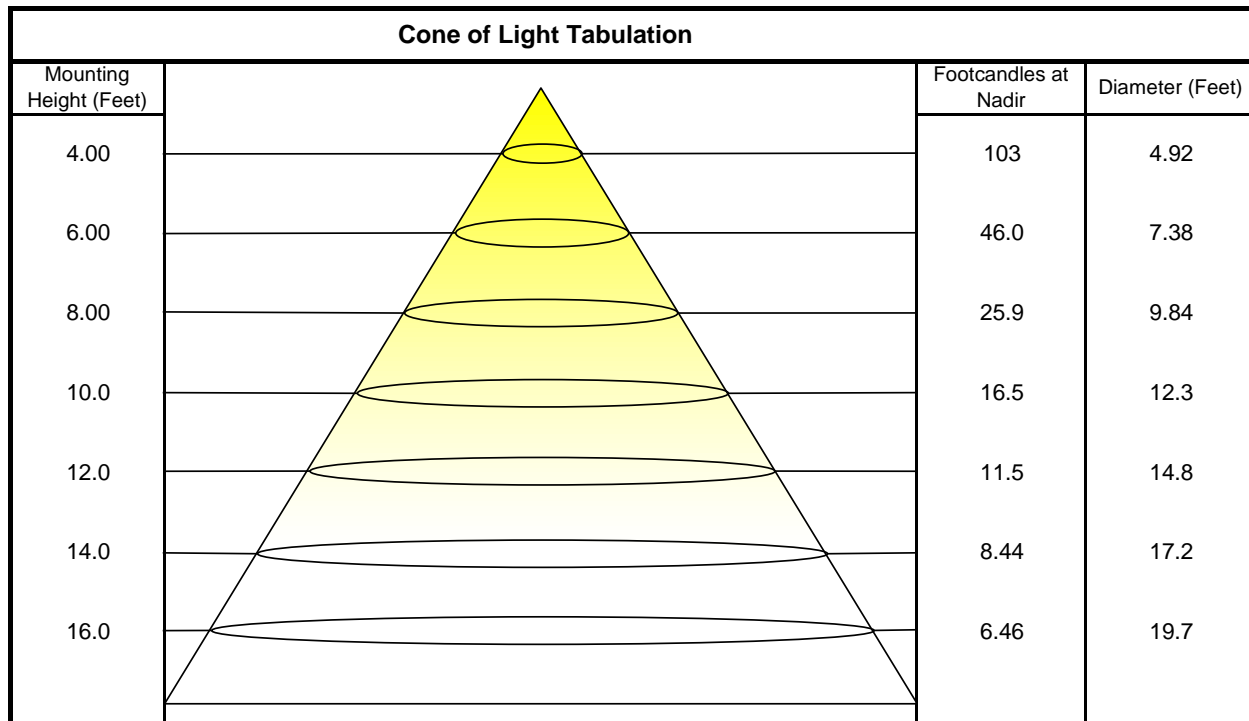
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	2780	2780	2780
45	2234	2536	2664
55	2030	2451	2641
65	1818	2434	2734
75	1576	2664	3064
85	1321	3142	3406



### 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	5673	5673	5673	5673	5541	5541	5541	5541	5295	5295	5295	5069	5069	5069	4862	4862	4862	4765
1	5142	4897	4678	4480	5010	4788	4588	4406	4583	4418	4266	4395	4260	4134	4222	4113	4011	3908
2	4661	4248	3906	3618	4533	4156	3841	3574	3985	3719	3490	3827	3604	3409	3680	3496	3332	3225
3	4242	3720	3316	2994	4121	3643	3269	2967	3499	3178	2913	3366	3092	2861	3242	3010	2811	2703
4	3881	3292	2861	2531	3769	3228	2825	2513	3106	2755	2477	2994	2689	2443	2889	2626	2409	2303
5	3568	2940	2501	2178	3466	2886	2474	2165	2784	2419	2140	2688	2368	2116	2599	2318	2093	1989
6	3295	2647	2212	1900	3203	2602	2190	1891	2514	2147	1874	2433	2106	1857	2357	2067	1840	1739
7	3056	2401	1976	1679	2972	2362	1958	1672	2287	1924	1659	2218	1891	1646	2152	1858	1634	1538
8	2846	2192	1781	1498	2770	2158	1766	1493	2094	1738	1483	2035	1710	1474	1978	1684	1464	1372
9	2660	2013	1616	1349	2591	1984	1604	1345	1929	1581	1337	1877	1558	1330	1828	1536	1322	1234
10	2495	1858	1477	1223	2433	1833	1467	1220	1785	1448	1215	1740	1429	1209	1697	1410	1203	1119

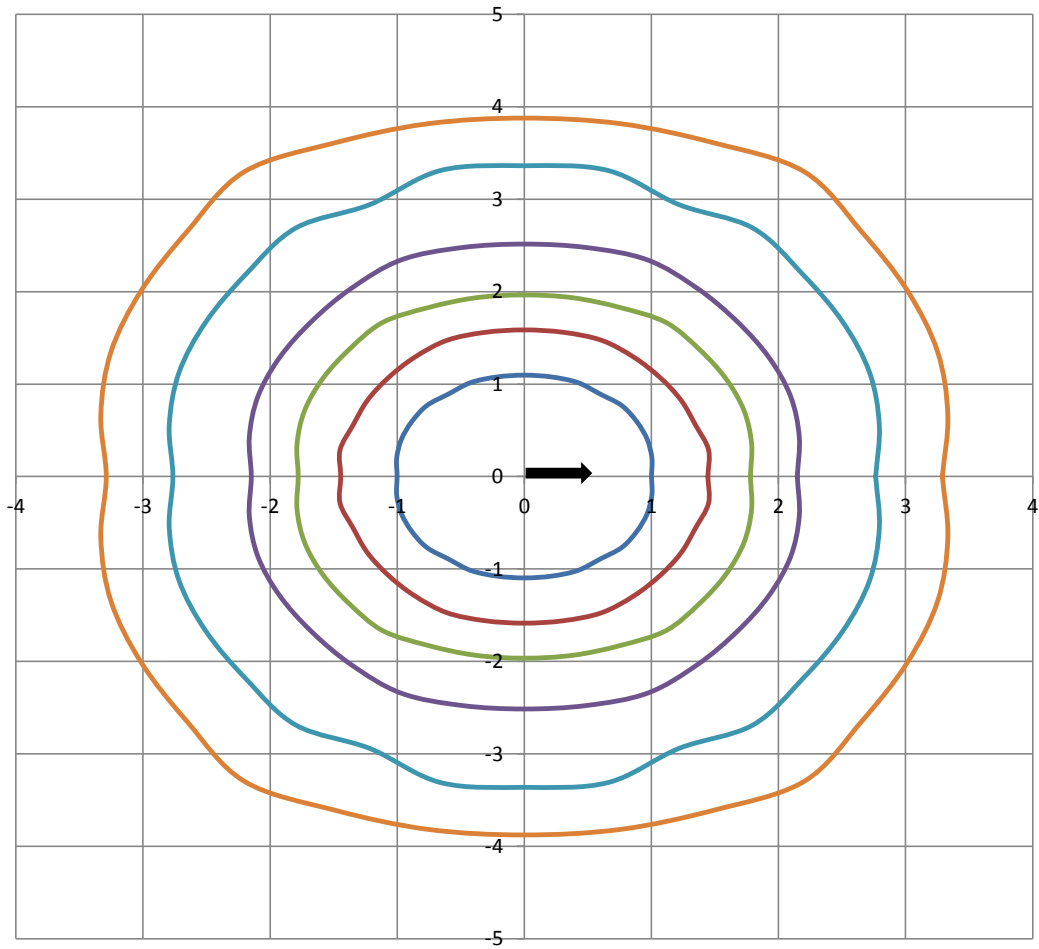
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1655 Candela
Central Cone Intensity:	1656 Candela
Beam Flux:	3257.9 Lumens
Beam Angle (0-180):	99.0 Degrees
Beam Angle (90-270):	116.7 Degrees
Field Angle (0-180):	158.1 Degrees
Field Angle (90-270):	170.6 Degrees





# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

