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## Indoor Distribution Test Report

Relevant Standards  
IES LM-79-2008  
ANSI C82.77-2002

Prepared For  
**Mercury Lighting**

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Catalog Number  
**LR2-24G-5000-35K-U55-UNI-XXXX**

Order Number  
10761618  
Test Number  
1105068

Test Date

2015-06-12

Prepared By

Derek Smarr, Technician

Approved By

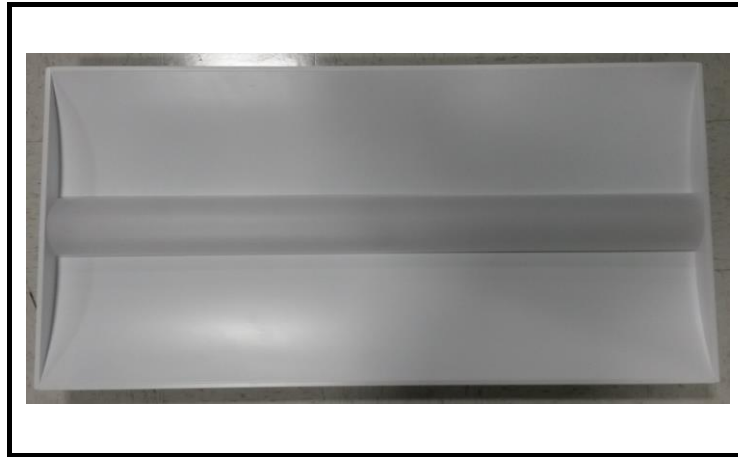
Kyle Spaziani, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** White steel housing / reflector, frosted plastic lens enclosure  
**Lamp:** 112 white LEDs  
**Mounting:** Recessed  
**Ballast/Driver:** One Universal Everline D10CC55UNVTZ-C (@1050mA)

### Luminaire



### Luminaire Characteristics

Luminous Length: 47.00 in.  
Luminous Width: 22.75 in.

### Summary of Results

Total Luminaire Output:	4857 Lumens
Luminaire Efficacy:	93.5 lm/w
Maximum Candela:	1597 Candela

### Electrical Data

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.4335 A
Power:	51.96 W
Power Factor:	0.998
Frequency:	60 Hz
Current THD:	4.83 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

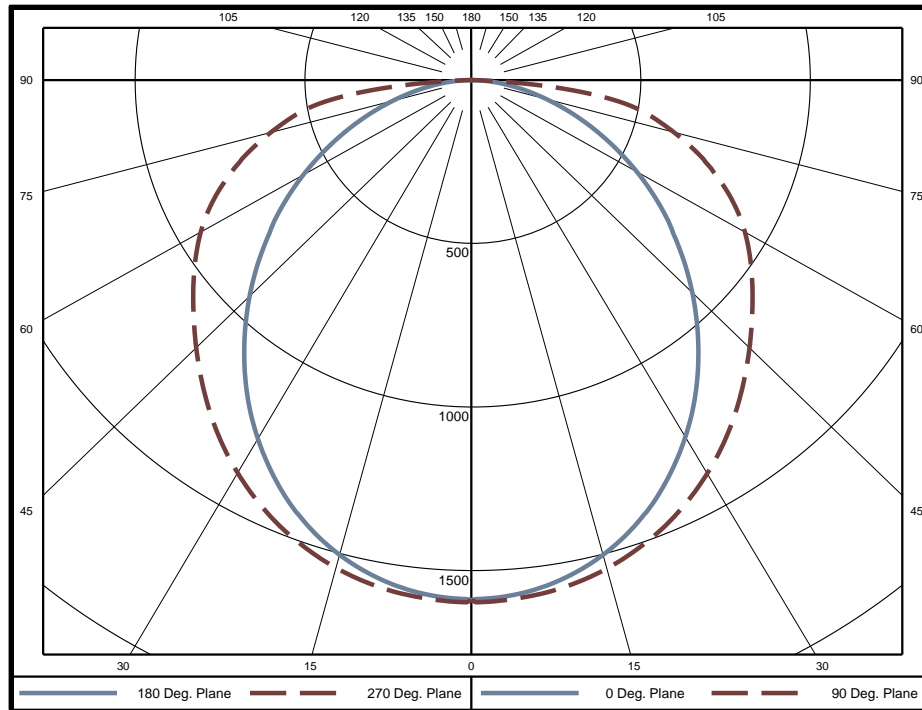
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.4335 A	51.96 W	0.998	60 Hz	4.83 %

### Summary of Results

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

**Total Lumen Output:** 4857 Lumens  
**Luminaire Efficacy:** 93.5 lm/w  
**Maximum Candela:** 1597 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	37.9	0.8%	60-65	339.9	7.0%	120-125	0	0.0%
5-10	112.4	2.3%	65-70	304.5	6.3%	125-130	0	0.0%
10-15	182.9	3.8%	70-75	260.7	5.4%	130-135	0	0.0%
15-20	246.7	5.1%	75-80	209.3	4.3%	135-140	0	0.0%
20-25	301.6	6.2%	80-85	143.7	3.0%	140-145	0	0.0%
25-30	345.5	7.1%	85-90	41.3	0.9%	145-150	0	0.0%
30-35	377.4	7.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	396.6	8.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	403.6	8.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	399.7	8.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	386.5	8.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	366.6	7.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2001	41.2%
0-60	3557	73.2%
0-90	4857	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	1591	1591	1591	1591	1591	1591	1591	1591	1591	1591	1591	1591	1591	1591	1591	1591
5	1578	1583	1582	1583	1591	1583	1582	1583	1578	1583	1582	1583	1591	1583	1582	1583
10	1550	1556	1559	1564	1574	1564	1559	1556	1550	1556	1559	1564	1574	1564	1559	1556
15	1504	1512	1522	1534	1546	1534	1522	1512	1504	1512	1522	1534	1546	1534	1522	1512
20	1440	1452	1470	1489	1504	1489	1470	1452	1440	1452	1470	1489	1504	1489	1470	1452
25	1359	1374	1405	1433	1451	1433	1405	1374	1359	1374	1405	1433	1451	1433	1405	1374
30	1265	1285	1327	1366	1388	1366	1327	1285	1265	1285	1327	1366	1388	1366	1327	1285
35	1160	1183	1239	1290	1316	1290	1239	1183	1160	1183	1239	1290	1316	1290	1239	1183
40	1045	1073	1142	1206	1237	1206	1142	1073	1045	1073	1142	1206	1237	1206	1142	1073
45	927	959	1041	1120	1156	1120	1041	959	927	959	1041	1120	1156	1120	1041	959
50	806	841	938	1035	1078	1035	938	841	806	841	938	1035	1078	1035	938	841
55	690	730	835	954	1004	954	835	730	690	730	835	954	1004	954	835	730
60	570	615	744	878	928	878	744	615	570	615	744	878	928	878	744	615
65	452	506	661	792	838	792	661	506	452	506	661	792	838	792	661	506
70	340	405	573	692	732	692	573	405	340	405	573	692	732	692	573	405
75	236	316	466	574	616	574	466	316	236	316	466	574	616	574	466	316
80	145	228	347	450	490	450	347	228	145	228	347	450	490	450	347	228
85	67	127	202	232	235	232	202	127	67	127	202	232	235	232	202	127
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	2306	2306	2306
45	1900	2134	2369
55	1744	2109	2537
65	1550	2266	2874
75	1324	2608	3450
85	1120	3353	3914



### 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	5782	5782	5782	5782	5647	5647	5647	5647	5396	5396	5396	5167	5167	5167	4956	4956	4956	4857
1	5216	4955	4722	4512	5079	4843	4630	4437	4633	4457	4295	4441	4296	4162	4263	4146	4037	3931
2	4712	4276	3915	3612	4579	4182	3850	3568	4006	3725	3483	3843	3608	3402	3693	3498	3324	3213
3	4278	3730	3307	2969	4152	3652	3258	2941	3503	3166	2887	3366	3078	2835	3239	2995	2785	2673
4	3907	3292	2842	2498	3791	3226	2805	2479	3101	2734	2443	2985	2667	2409	2877	2602	2375	2264
5	3588	2934	2478	2141	3482	2879	2449	2128	2773	2394	2103	2675	2341	2079	2583	2290	2055	1948
6	3311	2638	2187	1863	3215	2591	2164	1854	2501	2120	1836	2418	2078	1819	2339	2038	1802	1698
7	3069	2390	1950	1642	2982	2350	1932	1635	2273	1896	1622	2201	1862	1609	2134	1829	1597	1497
8	2856	2180	1754	1462	2778	2145	1740	1457	2080	1711	1447	2018	1683	1438	1960	1656	1428	1333
9	2668	2000	1591	1314	2598	1970	1579	1311	1914	1555	1303	1860	1532	1296	1810	1509	1288	1197
10	2502	1846	1453	1191	2438	1820	1442	1188	1771	1422	1182	1724	1403	1176	1680	1384	1170	1083

### Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	99.4	4.96
6.00	44.2	7.44
8.00	24.9	9.92
10.0	15.9	12.4
12.0	11.0	14.9
14.0	8.11	17.4
16.0	6.21	19.8

### Cone of Light Plot

