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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
United States

Catalog Number
LR302-22G-2600-35K-U30SQ-UNI-XXXX

Order Number
11170243
Test Number
1215240

Test Date

2016-02-25

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: 56 white LEDs
Mounting: Recessed
Ballast/Driver: One Universal Everline D10CC30UNVTW-LS
Note: Paint Reflectance = 87.8%

Luminaire



Luminaire Characteristics

Luminous Length: 23.00 in.
Luminous Width: 23.00 in.

Summary of Results

Total Luminaire Output:	2564 Lumens
Luminaire Efficacy:	93.2 lm/w
Maximum Candela:	936 Candela

Electrical Data

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.2303 A
Power:	27.51 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.62 %

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	0.2303 A	27.51 W	0.995	60 Hz	8.62 %

Summary of Results

Spacing Criteria

0-180: 1.17

90-270: 1.17

Total Lumen Output:

2564 Lumens

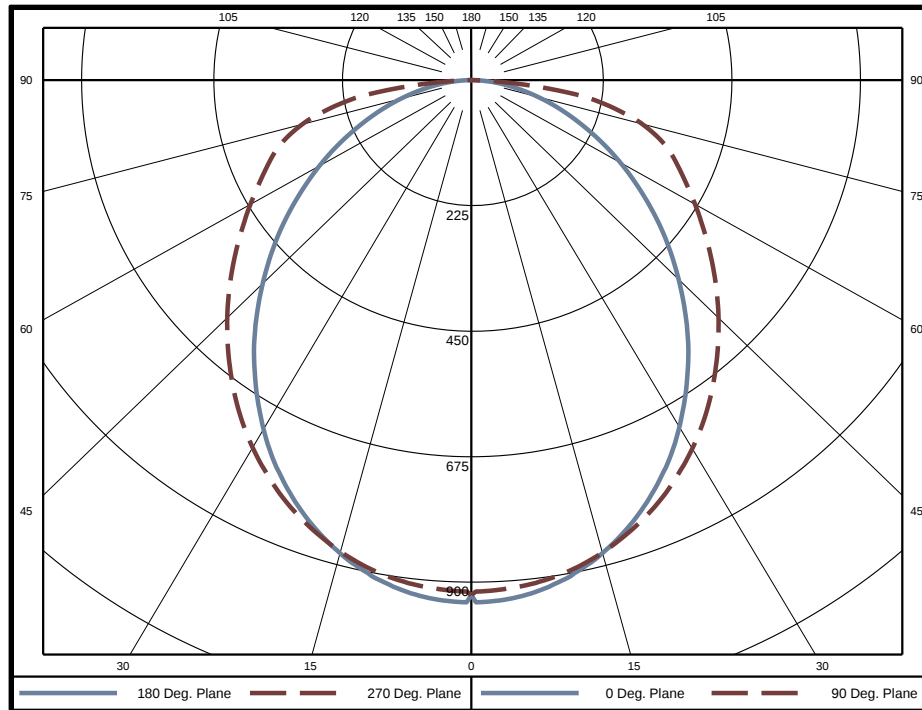
Luminaire Efficacy:

93.2 lm/w

Maximum Candela:

936 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	22.0	0.9%	60-65	167.8	6.5%	120-125	0	0.0%
5-10	65.1	2.5%	65-70	148.6	5.8%	125-130	0	0.0%
10-15	105.3	4.1%	70-75	127.6	5.0%	130-135	0	0.0%
15-20	141.1	5.5%	75-80	100.7	3.9%	135-140	0	0.0%
20-25	171.0	6.7%	80-85	63.2	2.5%	140-145	0	0.0%
25-30	194.0	7.6%	85-90	15.3	0.6%	145-150	0	0.0%
30-35	209.5	8.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	217.2	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	217.7	8.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	211.9	8.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	200.8	7.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	185.6	7.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1125	43.9%
0-60	1941	75.7%
0-90	2564	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	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9	922.9
	5	929.9	918.7	915.8	914.8	912.0	914.8	915.8	918.7	929.9	918.7	915.8	914.8	912.0	914.8	915.8
	10	910.5	900.3	899.8	901.1	899.5	901.1	899.8	900.3	910.5	900.3	899.8	901.1	899.5	901.1	899.8
	15	878.3	869.5	872.6	877.0	876.7	877.0	872.6	869.5	878.3	869.5	872.6	877.0	876.7	877.0	872.6
	20	835.3	829.2	836.2	844.6	845.8	844.6	836.2	829.2	835.3	829.2	836.2	844.6	845.8	844.6	836.2
	25	782.5	779.6	791.7	804.6	808.2	804.6	791.7	779.6	782.5	779.6	791.7	804.6	808.2	804.6	791.7
	30	721.7	722.3	739.8	758.0	763.7	758.0	739.8	722.3	721.7	722.3	739.8	758.0	763.7	758.0	739.8
	35	653.9	657.7	681.4	705.6	714.0	705.6	681.4	657.7	653.9	657.7	681.4	705.6	714.0	705.6	681.4
	40	583.8	590.3	619.2	649.1	659.9	649.1	619.2	590.3	583.8	590.3	619.2	649.1	659.9	649.1	619.2
	45	511.1	521.0	555.6	591.8	604.9	591.8	555.6	521.0	511.1	521.0	555.6	591.8	604.9	591.8	555.6
	50	440.1	451.5	492.1	534.5	549.9	534.5	492.1	451.5	440.1	451.5	492.1	534.5	549.9	534.5	492.1
	55	369.1	384.0	430.1	478.5	496.7	478.5	430.1	384.0	369.1	384.0	430.1	478.5	496.7	478.5	430.1
	60	302.0	318.7	371.7	426.0	447.4	426.0	371.7	318.7	302.0	318.7	371.7	426.0	447.4	426.0	371.7
	65	237.6	258.1	317.3	378.0	402.9	378.0	317.3	258.1	237.6	258.1	317.3	378.0	402.9	378.0	317.3
	70	178.0	202.9	269.0	335.2	362.8	335.2	269.0	202.9	178.0	202.9	269.0	335.2	362.8	335.2	269.0
	75	124.3	152.6	221.9	282.0	307.1	282.0	221.9	152.6	124.3	152.6	221.9	282.0	307.1	282.0	221.9
	80	75.8	105.0	163.7	205.5	224.8	205.5	163.7	105.0	75.8	105.0	163.7	205.5	224.8	205.5	163.7
	85	34.4	52.1	79.4	88.2	90.8	88.2	79.4	52.1	34.4	52.1	79.4	88.2	90.8	88.2	79.4
	90	0.3	0.6	0.8	0.7	0.6	0.7	0.8	0.6	0.3	0.6	0.8	0.7	0.6	0.7	0.8
	95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Vertical Angle (Degrees)	0	45	90
	0	2704	2704
	45	2118	2302
	55	1885	2197
	65	1647	2200
	75	1407	2513
	85	1155	2670



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	3053	3053	3053	3053	2982	2982	2982	2982	2849	2849	2849	2728	2728	2728	2617	2617	2617	2564
1	2768	2637	2519	2413	2697	2578	2471	2374	2468	2379	2298	2367	2294	2227	2274	2215	2161	2105
2	2509	2287	2104	1949	2440	2238	2069	1925	2146	2003	1880	2061	1941	1837	1982	1883	1795	1738
3	2284	2004	1787	1614	2219	1963	1761	1599	1885	1712	1570	1814	1666	1542	1747	1622	1515	1458
4	2091	1774	1543	1366	2030	1740	1523	1356	1675	1486	1337	1614	1451	1318	1558	1417	1300	1243
5	1923	1586	1350	1177	1868	1557	1335	1170	1502	1306	1156	1450	1278	1144	1402	1252	1131	1075
6	1777	1429	1196	1028	1727	1404	1184	1023	1358	1161	1014	1314	1139	1005	1273	1117	995	942
7	1649	1297	1069	909	1604	1276	1059	906	1236	1041	899	1199	1023	892	1163	1006	885	833
8	1536	1185	964	812	1495	1167	956	810	1133	941	805	1100	926	799	1070	912	794	745
9	1436	1089	876	732	1399	1073	870	730	1044	857	726	1016	845	722	989	833	718	671
10	1347	1006	801	665	1314	992	796	663	967	785	660	942	775	657	919	765	654	609

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	57.7	4.79
6.00	25.6	7.18
8.00	14.4	9.58
10.0	9.23	12.0
12.0	6.41	14.4
14.0	4.71	16.8
16.0	3.61	19.2

Cone of Light Plot

