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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
LR226-22G-5300-35K-A75-UNI-XXXX

Order Number
11228120
Test Number
1241932

Test Date

2016-04-28

Prepared By

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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 steel housing, steel reflectors, frosted plastic patterned lens enclosure
Lamp: 88 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance Xitanium XI075C200V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 23.00 in.
Luminous Width: 20.75 in.

Summary of Results

Total Luminaire Output:	5566 Lumens
Luminaire Efficacy:	113 lm/w
Maximum Candela:	1810 Candela

Test Conditions

Test Temperature:	24.3 °C
Voltage:	120.0 VAC
Current:	0.4120 A
Power:	49.27 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	6.94 %

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
24.3 °C	120.0 VAC	0.4120 A	49.27 W	0.996	60 Hz	6.94 %

Summary of Results

Spacing Criteria

0-180: 1.23

90-270: 1.23

Total Lumen Output:

5566 Lumens

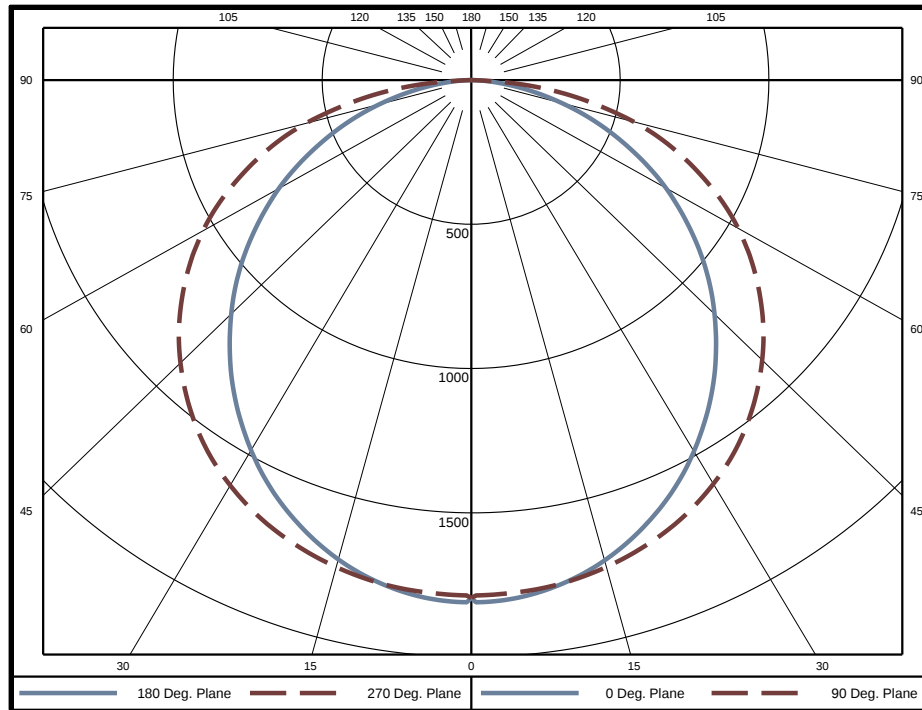
Luminaire Efficacy:

113.0 lm/w

Maximum Candela:

1810 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	42.8	0.8%	60-65	398.7	7.2%	120-125	0	0.0%
5-10	127.2	2.3%	65-70	342.1	6.1%	125-130	0	0.0%
10-15	207.7	3.7%	70-75	274.6	4.9%	130-135	0	0.0%
15-20	281.7	5.1%	75-80	196.0	3.5%	135-140	0	0.0%
20-25	347.2	6.2%	80-85	111.1	2.0%	140-145	0	0.0%
25-30	402.2	7.2%	85-90	27.3	0.5%	145-150	0	0.0%
30-35	444.8	8.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	473.6	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	487.8	8.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	487.5	8.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	472.0	8.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	442.2	7.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2327	41.8%
0-60	4217	75.8%
0-90	5567	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	1795	1795	1795	1795	1795	1795	1795	1795	1795	1795	1795	1795	1795	1795	1795
	5	1801	1791	1786	1785	1782	1785	1786	1791	1801	1791	1786	1785	1782	1785	1786
	10	1771	1764	1766	1771	1771	1771	1766	1764	1771	1764	1766	1771	1771	1771	1766
	15	1724	1720	1730	1745	1748	1745	1730	1720	1724	1720	1730	1745	1748	1745	1730
	20	1659	1661	1683	1708	1716	1708	1683	1661	1659	1661	1683	1708	1716	1708	1683
	25	1581	1589	1623	1661	1675	1661	1623	1589	1581	1589	1623	1661	1675	1661	1623
	30	1489	1503	1551	1602	1621	1602	1551	1503	1489	1503	1551	1602	1621	1602	1551
	35	1385	1405	1466	1531	1555	1531	1466	1405	1385	1405	1466	1531	1555	1531	1466
	40	1272	1297	1369	1444	1474	1444	1369	1297	1272	1297	1369	1444	1474	1444	1369
	45	1152	1181	1262	1348	1382	1348	1262	1181	1152	1181	1262	1348	1382	1348	1262
	50	1026	1057	1144	1238	1279	1238	1144	1057	1026	1057	1144	1238	1279	1238	1144
	55	892	926	1018	1120	1164	1120	1018	926	892	926	1018	1120	1164	1120	1018
	60	755	789	884	992	1039	992	884	789	755	789	884	992	1039	992	884
	65	609	646	745	852	897	852	745	646	609	646	745	852	897	852	745
	70	465	504	600	700	743	700	600	504	465	504	600	700	743	700	600
	75	322	361	449	535	573	535	449	361	322	361	449	535	573	535	449
	80	186	223	290	347	375	347	290	223	186	223	290	347	375	347	290
	85	74	93	125	157	170	157	125	93	74	93	125	157	170	157	125
	90	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
	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)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	5831	5831
	45	5290	6346
	55	5049	6590
	65	4684	6894
	75	4034	7184
	85	2757	6351



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	6627	6627	6627	6627	6473	6473	6473	6473	6185	6185	6185	5922	5922	5922	5680	5680	5680	5566
1	6015	5733	5480	5251	5861	5605	5374	5165	5366	5176	5001	5147	4991	4847	4945	4819	4702	4582
2	5444	4961	4561	4225	5294	4854	4486	4174	4654	4343	4075	4469	4209	3981	4298	4083	3891	3767
3	4945	4332	3858	3479	4803	4242	3802	3447	4074	3696	3385	3918	3595	3324	3773	3500	3266	3140
4	4515	3822	3314	2926	4384	3747	3272	2905	3604	3191	2864	3472	3114	2823	3350	3040	2784	2659
5	4144	3404	2887	2505	4024	3341	2854	2491	3220	2791	2462	3108	2731	2434	3004	2673	2407	2285
6	3821	3057	2544	2176	3712	3003	2519	2166	2901	2468	2146	2806	2420	2126	2716	2374	2106	1988
7	3539	2766	2266	1915	3440	2721	2245	1907	2633	2204	1892	2551	2165	1877	2475	2128	1863	1749
8	3292	2520	2036	1702	3203	2481	2019	1697	2406	1985	1685	2336	1953	1674	2269	1923	1663	1554
9	3073	2310	1843	1528	2993	2276	1829	1523	2212	1802	1515	2151	1775	1506	2093	1750	1497	1393
10	2880	2130	1681	1382	2807	2100	1669	1378	2044	1646	1372	1991	1624	1365	1941	1602	1358	1259

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	1795 Candela
Central Cone Intensity:	1793 Candela
Beam Flux:	4214.5 Lumens
Beam Angle (0-180):	109.6 Degrees
Beam Angle (90-270):	130.0 Degrees
Field Angle (0-180):	160.5 Degrees
Field Angle (90-270):	169.6 Degrees

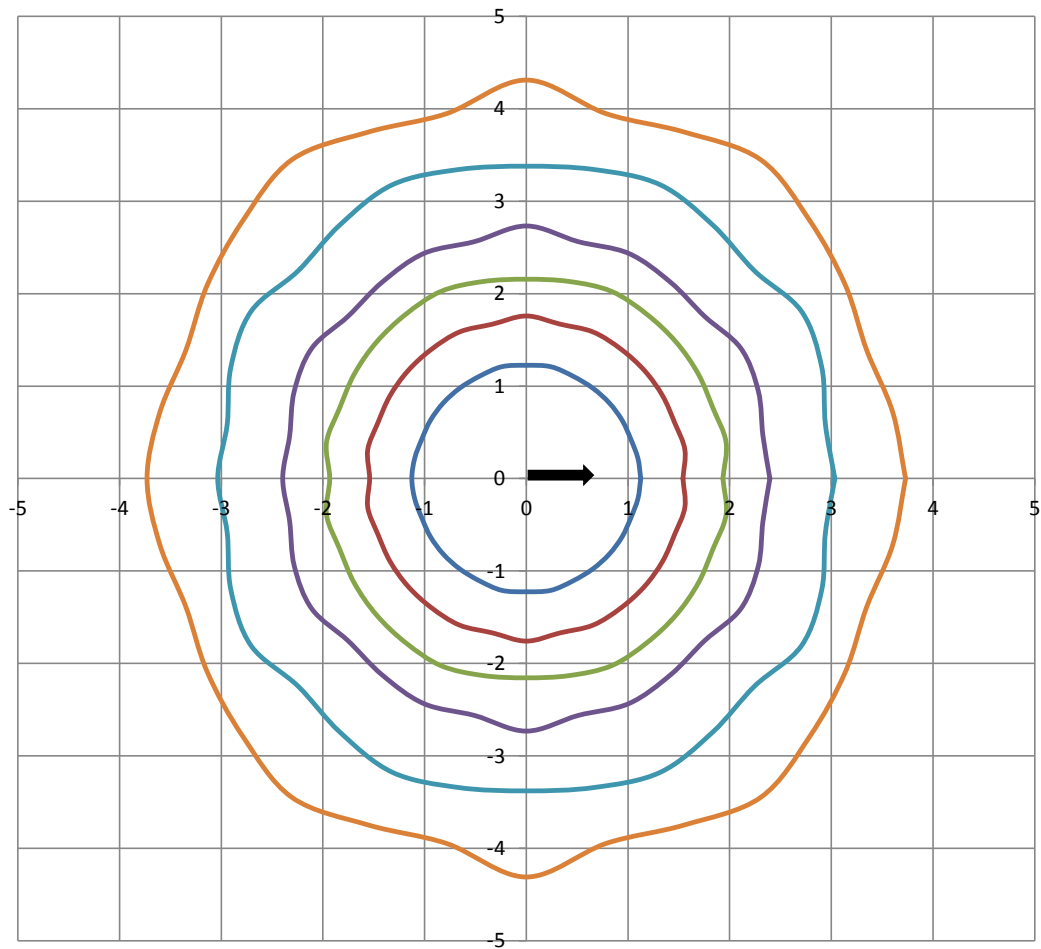
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		112	5.14
6.00		49.9	7.71
8.00		28.1	10.3
10.0		18.0	12.9
12.0		12.5	15.4
14.0		9.16	18.0
16.0		7.01	20.6



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc 2 fc 1 fc 0.5 fc 0.2 fc 0.1 fc