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Indoor Distribution Test Report

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

*Mercury Typed Notes Added:

The LR226 (4" Depth) and the LR126 (3" Depth) use the same reflector & lens.
The LED distance to the lens is the same so the photometrics would be equal.

Prepared For Mercury Lighting

Stephen Bambush
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Fairfield, NJ 07004-3416
United States

Catalog Number
LR226-22G-3800-35K-A40-UNI-XXXX

Order Number
11228120
Test Number
1241928

Test Date

2016-04-27

Prepared By

Dane Hernandez-Adams, 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 steel housing, steel reflectors, frosted plastic patterned lens enclosure
Lamp: 44 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance Xitanium XI040C110V054BPT1

Luminaire



Luminaire Characteristics

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

Summary of Results

Total Luminaire Output:	3659 Lumens
Luminaire Efficacy:	99.4 lm/w
Maximum Candela:	1189 Candela

Test Conditions

Test Temperature:	24.3 °C
Voltage:	120.0 VAC
Current:	0.3077 A
Power:	36.82 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	6.36 %

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	0.3077 A	36.82 W	0.997	60 Hz	6.36 %

Summary of Results

Spacing Criteria

0-180: 1.23

90-270: 1.23

Total Lumen Output:

3659 Lumens

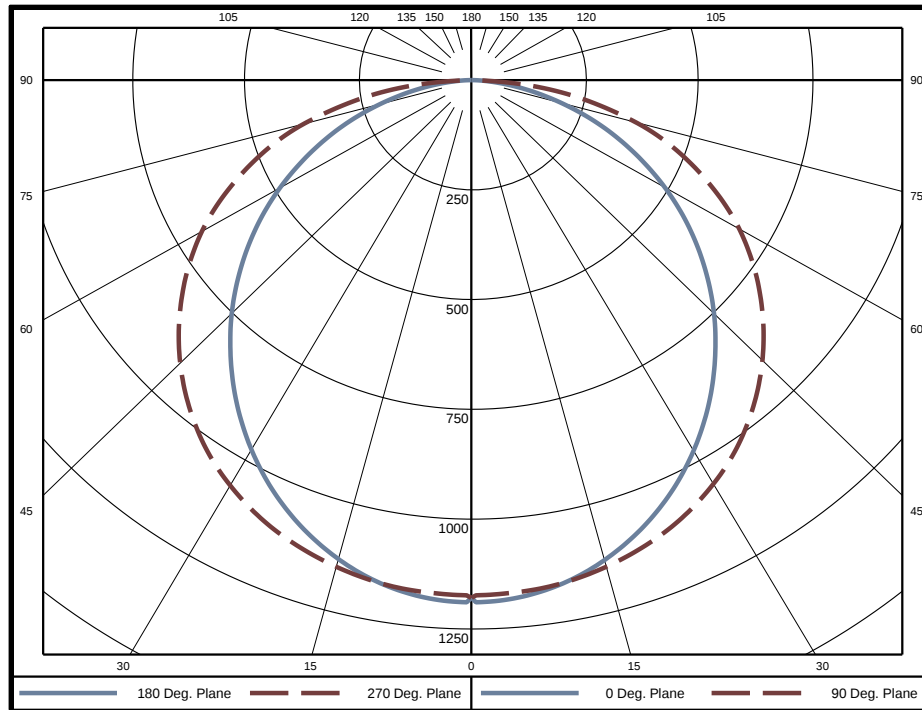
Luminaire Efficacy:

99.4 lm/w

Maximum Candela:

1189 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	28.1	0.8%	60-65	262.2	7.2%	120-125	0	0.0%
5-10	83.6	2.3%	65-70	225.2	6.2%	125-130	0	0.0%
10-15	136.4	3.7%	70-75	181.0	4.9%	130-135	0	0.0%
15-20	184.9	5.1%	75-80	129.4	3.5%	135-140	0	0.0%
20-25	227.9	6.2%	80-85	74.2	2.0%	140-145	0	0.0%
25-30	264.0	7.2%	85-90	18.5	0.5%	145-150	0	0.0%
30-35	291.9	8.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	310.8	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	320.2	8.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	320.0	8.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	310.2	8.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	290.7	7.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1528	41.7%
0-60	2769	75.7%
0-90	3659	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	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179	1179
	5	1183	1176	1173	1172	1170	1172	1173	1176	1183	1176	1173	1172	1170	1172	1173
	10	1164	1159	1160	1163	1163	1163	1160	1159	1164	1159	1160	1163	1163	1163	1160
	15	1132	1130	1136	1146	1148	1146	1136	1130	1132	1130	1136	1146	1148	1146	1136
	20	1089	1090	1105	1122	1127	1122	1105	1090	1089	1090	1105	1122	1127	1122	1105
	25	1037	1042	1065	1091	1100	1091	1065	1042	1037	1042	1065	1091	1100	1091	1065
	30	976	985	1018	1052	1065	1052	1018	985	976	985	1018	1052	1065	1052	1018
	35	908	921	962	1005	1022	1005	962	921	908	921	962	1005	1022	1005	962
	40	833	850	898	949	969	949	898	850	833	850	898	949	969	949	898
	45	755	774	828	885	908	885	828	774	755	774	828	885	908	885	828
	50	672	693	752	814	841	814	752	693	672	693	752	814	841	814	752
	55	585	607	670	738	767	738	670	607	585	607	670	738	767	738	670
	60	493	517	581	654	685	654	581	517	493	517	581	654	685	654	581
	65	399	424	490	562	592	562	490	424	399	424	490	562	592	562	490
	70	305	330	396	462	493	462	396	330	305	330	396	462	493	462	396
	75	210	236	295	355	381	355	295	236	210	236	295	355	381	355	295
	80	122	146	191	232	252	232	191	146	122	146	191	232	252	232	191
	85	48	61	85	107	117	107	85	61	48	61	85	107	117	107	85
	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	3829	3829
	45	3468	3803
	55	3311	3792
	65	3064	3765
	75	2629	3702
	85	1782	3153



Utilization of Lumens - Zonal Cavity Method

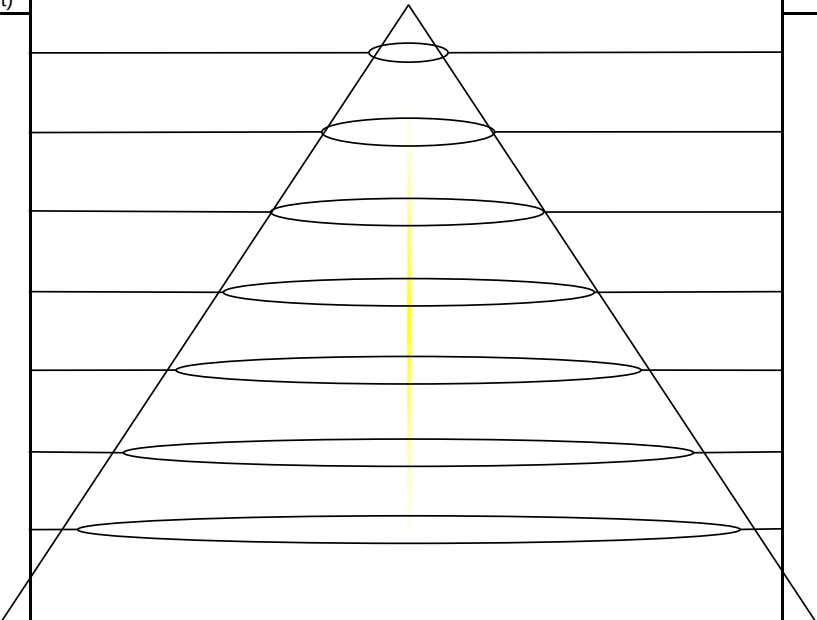
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	4356	4356	4356	4356	4255	4255	4255	4255	4066	4066	4066	3893	3893	3893	3734	3734	3734	3659
1	3953	3767	3600	3450	3852	3683	3531	3393	3526	3401	3285	3382	3279	3184	3249	3166	3089	3010
2	3577	3259	2996	2775	3479	3189	2947	2742	3058	2853	2677	2936	2765	2615	2824	2682	2556	2474
3	3249	2846	2534	2285	3156	2787	2497	2264	2676	2428	2223	2574	2361	2183	2478	2299	2145	2062
4	2967	2511	2177	1922	2881	2461	2149	1908	2368	2096	1880	2281	2045	1854	2200	1997	1828	1746
5	2723	2236	1896	1645	2644	2194	1875	1635	2115	1833	1617	2042	1793	1598	1973	1755	1580	1500
6	2511	2008	1671	1429	2439	1973	1654	1422	1906	1621	1409	1843	1589	1396	1784	1559	1383	1305
7	2325	1817	1488	1257	2261	1787	1474	1252	1730	1448	1242	1676	1422	1233	1625	1397	1223	1148
8	2163	1656	1337	1118	2104	1630	1326	1114	1581	1304	1107	1534	1283	1099	1491	1263	1092	1020
9	2019	1518	1210	1003	1966	1495	1201	1000	1453	1183	994	1413	1166	989	1375	1149	983	915
10	1892	1399	1104	907	1844	1380	1096	905	1343	1081	901	1308	1066	896	1275	1052	892	826

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	1179 Candela
Central Cone Intensity:	1177 Candela
Beam Flux:	2770.7 Lumens
Beam Angle (0-180):	109.4 Degrees
Beam Angle (90-270):	130.3 Degrees
Field Angle (0-180):	160.5 Degrees
Field Angle (90-270):	170.0 Degrees

Cone of Light Tabulation

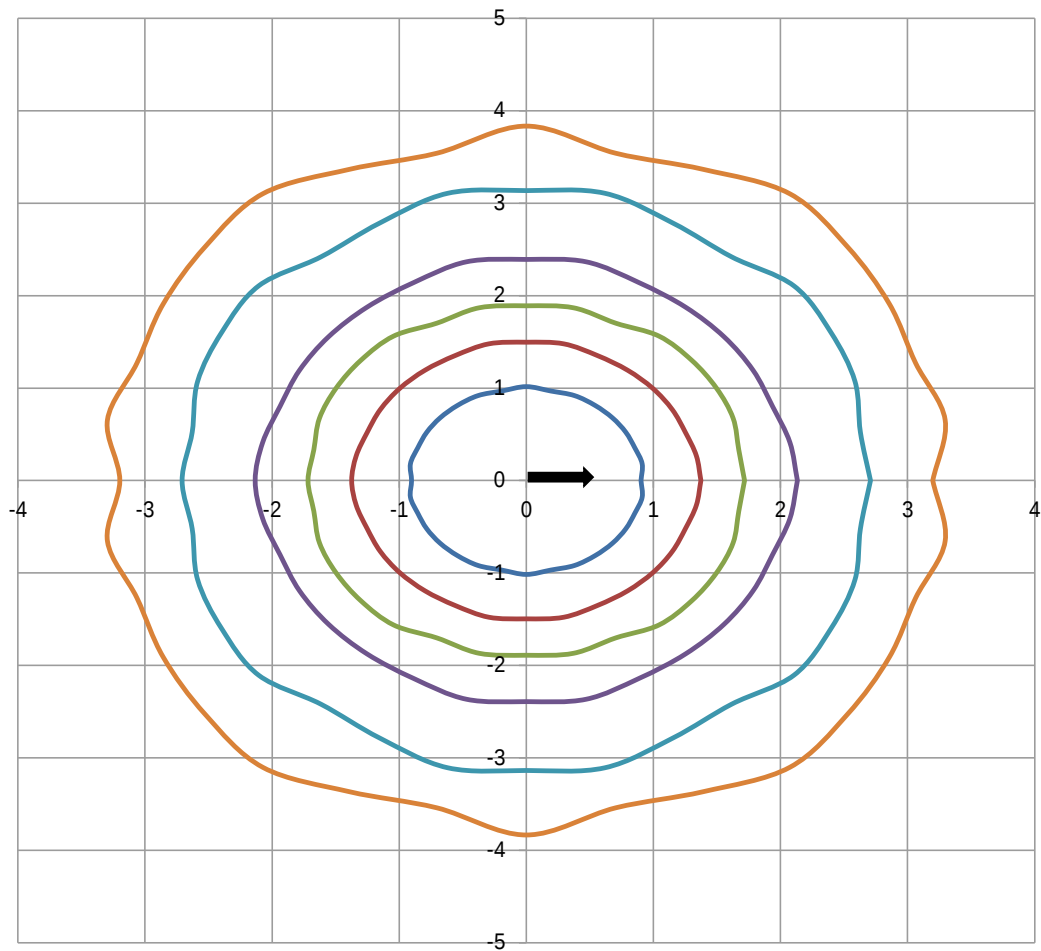
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		73.7	5.14
6.00		32.8	7.71
8.00		18.4	10.3
10.0		11.8	12.8
12.0		8.19	15.4
14.0		6.02	18.0
16.0		4.61	20.6





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