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Allentown, PA 18106
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Indoor Distribution Test Report

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

*Mercury Typed Notes Added:

The LR202 (4" Depth) and the LR102 (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

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Fairfield, NJ 07004-3416
United States

Catalog Number
LR202-22G-3800-35K-1%-UNI-XXXX

Order Number
11417970
Test Number
1277902

Test Date

2016-08-26

Prepared By

Samuel DePue, 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: White formed steel housing, frosted plastic linear prismatic lens enclosure
Lamp: 44 white LEDs
Mounting: Recessed
Ballast/Driver: One Philips Advance CI045C096V046CNN1 Driver

Luminaire



Luminaire Characteristics

Luminous Length: 23.00 in.
Luminous Width: 20.50 in.

Summary of Results

Total Luminaire Output: 3588 Lumens
Luminaire Efficacy: 102.5 lm/w
Maximum Candela: 1268 Candela

Test Conditions

Test Temperature: 24.8 °C
Voltage: 120.0 VAC
Current: 0.2925 A
Power: 34.99 W
Power Factor: 0.997
Frequency: 60 Hz
Current THD: 7.58 %

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
24.8 °C	120.0 VAC	0.2925 A	34.99 W	0.997	60 Hz	7.58 %

Summary of Results

Spacing Criteria

0-180: 1.16

90-270: 1.16

Total Lumen Output:

3588 Lumens

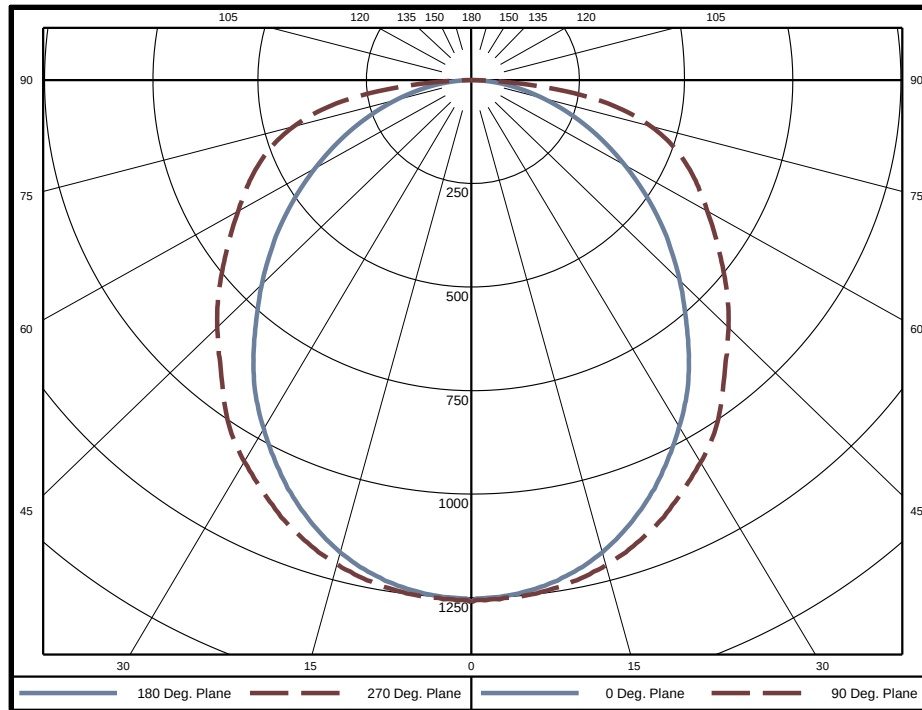
Luminaire Efficacy:

102.5 lm/w

Maximum Candela:

1268 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	30.1	0.8%	60-65	238.6	6.6%	120-125	0	0.0%
5-10	89.2	2.5%	65-70	212.7	5.9%	125-130	0	0.0%
10-15	144.8	4.0%	70-75	182.3	5.1%	130-135	0	0.0%
15-20	194.3	5.4%	75-80	144.4	4.0%	135-140	0	0.0%
20-25	235.8	6.6%	80-85	92.3	2.6%	140-145	0	0.0%
25-30	267.8	7.5%	85-90	26.1	0.7%	145-150	0	0.0%
30-35	290.8	8.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	300.9	8.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	300.9	8.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	295.0	8.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	281.1	7.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	261.6	7.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1554	43.3%
0-60	2692	75.0%
0-90	3589	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	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261	1261
	5	1245	1260	1257	1253	1252	1253	1257	1260	1245	1260	1257	1253	1252	1253	1257
	10	1221	1239	1239	1238	1239	1238	1239	1239	1221	1239	1239	1238	1239	1238	1239
	15	1182	1200	1205	1210	1212	1210	1205	1200	1182	1200	1205	1210	1212	1210	1205
	20	1123	1144	1157	1168	1174	1168	1157	1144	1123	1144	1157	1168	1174	1168	1157
	25	1053	1075	1096	1115	1123	1115	1096	1075	1053	1075	1096	1115	1123	1115	1096
	30	971	998	1027	1054	1067	1054	1027	998	971	998	1027	1054	1067	1054	1027
	35	886	913	950	985	1002	985	950	913	886	913	950	985	1002	985	950
	40	787	816	857	900	918	900	857	816	787	816	857	900	918	900	857
	45	692	722	772	824	847	824	772	722	692	722	772	824	847	824	772
	50	601	630	688	749	774	749	688	630	601	630	688	749	774	749	688
	55	509	540	605	673	701	673	605	540	509	540	605	673	701	673	605
	60	419	452	528	604	635	604	528	452	419	452	528	604	635	604	528
	65	335	370	455	540	577	540	455	370	335	370	455	540	577	540	455
	70	254	294	387	476	513	476	387	294	254	294	387	476	513	476	387
	75	179	223	318	399	434	399	318	223	179	223	318	399	434	399	318
	80	111	154	236	295	322	295	236	154	111	154	236	295	322	295	236
	85	50	79	119	137	145	137	119	79	50	79	119	137	145	137	119
	90	1	2	5	6	7	6	5	2	1	2	5	6	7	6	5
	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	4146	4146
	45	3215	3590
	55	2916	3466
	65	2602	3542
	75	2275	4034
	85	1898	4488



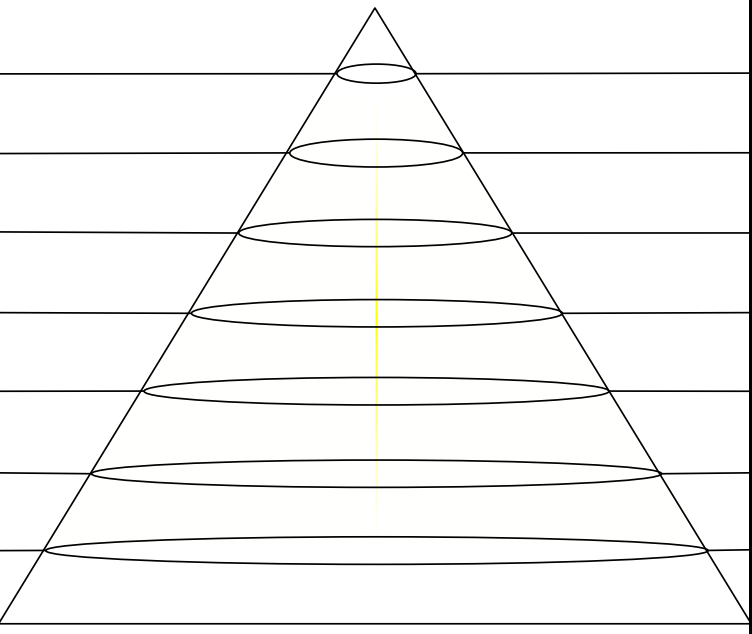
Utilization of Lumens - Zonal Cavity Method

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	4272	4272	4272	4272	4173	4173	4173	4173	3987	3987	3987	3818	3818	3818	3662	3662	3662	3588
1	3868	3682	3515	3365	3768	3600	3447	3310	3445	3319	3204	3303	3201	3105	3173	3090	3012	2935
2	3503	3190	2930	2712	3406	3121	2882	2679	2991	2790	2615	2872	2703	2555	2762	2622	2497	2416
3	3187	2792	2486	2242	3096	2734	2450	2221	2625	2382	2181	2525	2317	2142	2431	2255	2104	2023
4	2916	2470	2144	1895	2831	2422	2117	1881	2330	2065	1854	2245	2015	1828	2166	1967	1803	1723
5	2681	2207	1875	1630	2604	2166	1854	1621	2089	1813	1603	2017	1774	1584	1949	1737	1567	1488
6	2477	1988	1659	1424	2407	1953	1643	1417	1887	1610	1404	1826	1579	1391	1769	1549	1378	1302
7	2298	1803	1483	1258	2234	1774	1469	1253	1718	1443	1244	1665	1418	1234	1616	1394	1225	1152
8	2140	1647	1337	1124	2083	1622	1326	1120	1573	1304	1113	1528	1284	1105	1486	1264	1098	1029
9	2001	1513	1214	1012	1949	1491	1205	1009	1450	1187	1004	1410	1170	998	1373	1154	993	926
10	1877	1397	1110	919	1830	1378	1103	917	1342	1088	912	1308	1074	908	1276	1060	904	840

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	1261 Candela
Central Cone Intensity:	1259 Candela
Beam Flux:	2387.9 Lumens
Beam Angle (0-180):	96.6 Degrees
Beam Angle (90-270):	120.7 Degrees
Field Angle (0-180):	157.7 Degrees
Field Angle (90-270):	171.0 Degrees

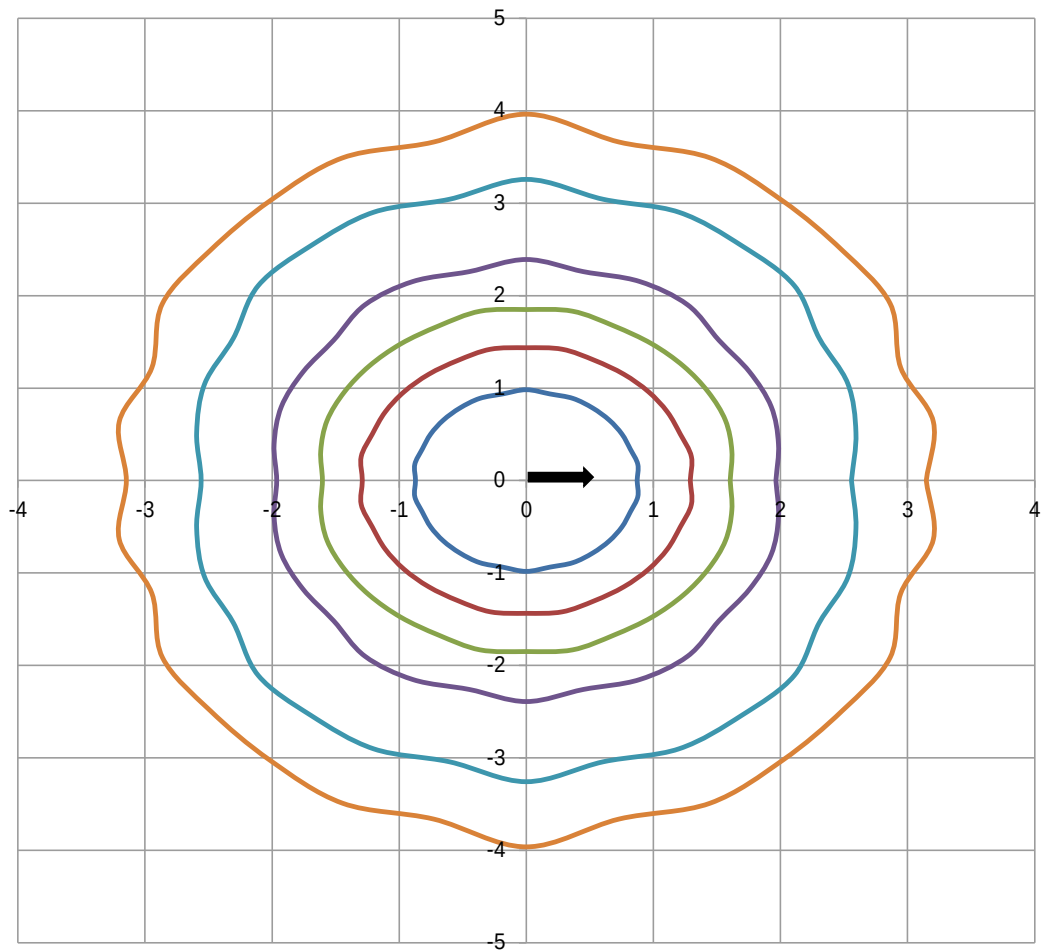
Cone of Light Tabulation

Mounting Height (Feet)			Footcandles at Nadir	Diameter (Feet)
4.00			78.8	4.85
6.00			35.0	7.27
8.00			19.7	9.69
10.0			12.6	12.1
12.0			8.76	14.5
14.0			6.43	17.0
16.0			4.93	19.4



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