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## Indoor Distribution Test Report

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

### \*Mercury Typed Notes Added:

The LR205 (4" Depth) and the LR105 (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  
20 Audrey Pl  
Fairfield, NJ 07004-3416

**Catalog Number**  
**LR205-24G-7500-35K-A75-UNI-XXXX**

Order Number  
11321901  
Test Number  
1261248

Test Date

2016-06-22

Prepared By

Kevin Rodriguez, 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 white enamel steel housing / reflector, frosted plastic lens enclosure  
**Lamp:** 88 white LEDs  
**Mounting:** Recessed  
**Ballast/Driver:** One Philips Advance XI075C200V054BPT1

### Luminaire



### Luminaire Characteristics

Luminous Length: 45.00 in.  
Luminous Width: 20.50 in.

### Summary of Results

Total Luminaire Output:	7305 Lumens
Luminaire Efficacy:	102.9 lm/w
Maximum Candela:	2540 Candela

### Test Conditions

Test Temperature:	25.7 °C
Voltage:	120.0 VAC
Current:	0.5930 A
Power:	71.00 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	5.09 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

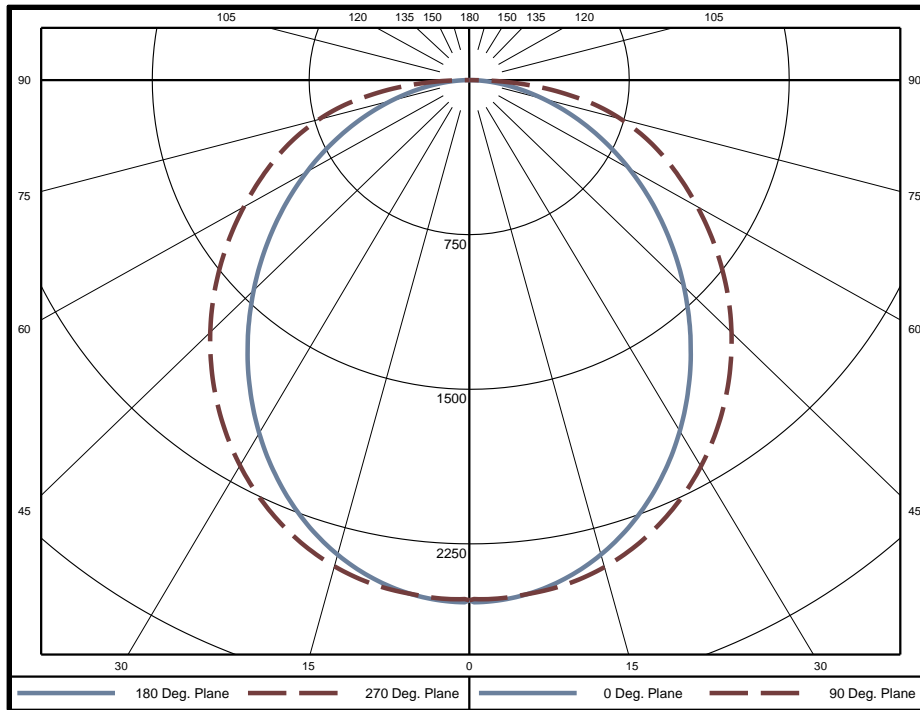
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.0 VAC	0.5930 A	71.00 W	0.997	60 Hz	5.09 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.17  
 90-270: 1.17

**Total Lumen Output:** 7305 Lumens  
**Luminaire Efficacy:** 102.9 lm/w  
**Maximum Candela:** 2540 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	60.4	0.8%	60-65	485.8	6.7%	120-125	0	0.0%
5-10	178.9	2.4%	65-70	422.1	5.8%	125-130	0	0.0%
10-15	290.8	4.0%	70-75	351.8	4.8%	130-135	0	0.0%
15-20	391.5	5.4%	75-80	272.6	3.7%	135-140	0	0.0%
20-25	477.4	6.5%	80-85	178.6	2.4%	140-145	0	0.0%
25-30	545.4	7.5%	85-90	65.1	0.9%	145-150	0	0.0%
30-35	593.5	8.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	620.9	8.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	627.8	8.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	615.6	8.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	585.9	8.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	541.5	7.4%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	3159	43.2%
0-60	5530	75.7%
0-90	7306	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	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524	2524
5	2518	2526	2520	2517	2513	2517	2520	2526	2518	2526	2520	2517	2513	2517	2520	2526
10	2468	2478	2480	2491	2491	2491	2480	2478	2468	2478	2480	2491	2491	2491	2480	2478
15	2385	2398	2421	2443	2445	2443	2421	2398	2385	2398	2421	2443	2445	2443	2421	2398
20	2272	2296	2337	2371	2373	2371	2337	2296	2272	2296	2337	2371	2373	2371	2337	2296
25	2133	2170	2230	2276	2278	2276	2230	2170	2133	2170	2230	2276	2278	2276	2230	2170
30	1975	2024	2104	2161	2164	2161	2104	2024	1975	2024	2104	2161	2164	2161	2104	2024
35	1801	1862	1960	2028	2032	2028	1960	1862	1801	1862	1960	2028	2032	2028	1960	1862
40	1618	1690	1802	1879	1888	1879	1802	1690	1618	1690	1802	1879	1888	1879	1802	1690
45	1430	1510	1635	1719	1732	1719	1635	1510	1430	1510	1635	1719	1732	1719	1635	1510
50	1241	1329	1462	1551	1568	1551	1462	1329	1241	1329	1462	1551	1568	1551	1462	1329
55	1057	1147	1285	1379	1399	1379	1285	1147	1057	1147	1285	1379	1399	1379	1285	1147
60	874	969	1111	1207	1231	1207	1111	969	874	969	1111	1207	1231	1207	1111	969
65	699	796	942	1041	1069	1041	942	796	699	796	942	1041	1069	1041	942	796
70	530	632	782	881	909	881	782	632	530	632	782	881	909	881	782	632
75	371	479	627	712	735	712	627	479	371	479	627	712	735	712	627	479
80	228	338	460	517	531	517	460	338	228	338	460	517	531	517	460	338
85	105	193	253	278	283	278	253	193	105	193	253	278	283	278	253	193
90	1	5	13	20	22	20	13	5	1	5	13	20	22	20	13	5
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)

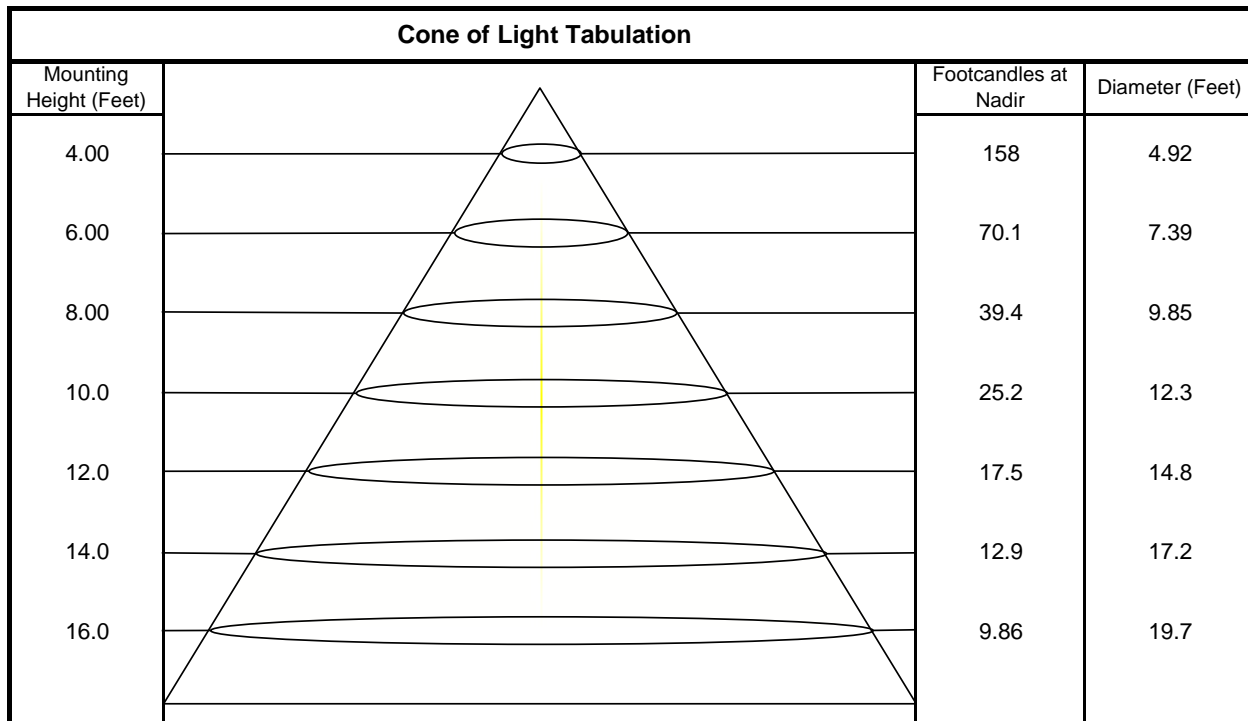
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	4240	4240	4240
45	3397	3886	4116
55	3095	3765	4099
65	2778	3746	4248
75	2411	4073	4770
85	2022	4885	5446



### 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	8697	8697	8697	8697	8495	8495	8495	8495	8117	8117	8117	7772	7772	7772	7455	7455	7455	7305
1	7881	7504	7167	6862	7678	7336	7029	6750	7022	6768	6535	6734	6526	6333	6468	6300	6144	5986
2	7142	6506	5981	5539	6945	6366	5882	5472	6103	5695	5342	5861	5519	5219	5636	5353	5101	4937
3	6498	5697	5076	4582	6313	5579	5003	4539	5358	4864	4457	5154	4732	4378	4964	4607	4301	4136
4	5944	5040	4378	3872	5773	4941	4322	3844	4755	4216	3789	4582	4115	3736	4421	4018	3684	3521
5	5465	4501	3827	3329	5308	4418	3784	3310	4260	3701	3273	4114	3622	3236	3977	3546	3200	3040
6	5047	4052	3384	2905	4904	3981	3350	2891	3848	3284	2864	3723	3221	2838	3606	3160	2812	2658
7	4680	3674	3022	2565	4551	3614	2995	2555	3500	2942	2535	3393	2891	2516	3293	2841	2497	2349
8	4358	3354	2722	2289	4241	3302	2700	2281	3204	2657	2266	3112	2615	2251	3026	2574	2237	2095
9	4073	3079	2471	2060	3968	3035	2452	2054	2950	2417	2043	2871	2382	2031	2795	2348	2020	1885
10	3820	2842	2258	1869	3725	2804	2242	1864	2731	2212	1855	2661	2183	1846	2596	2155	1837	1708

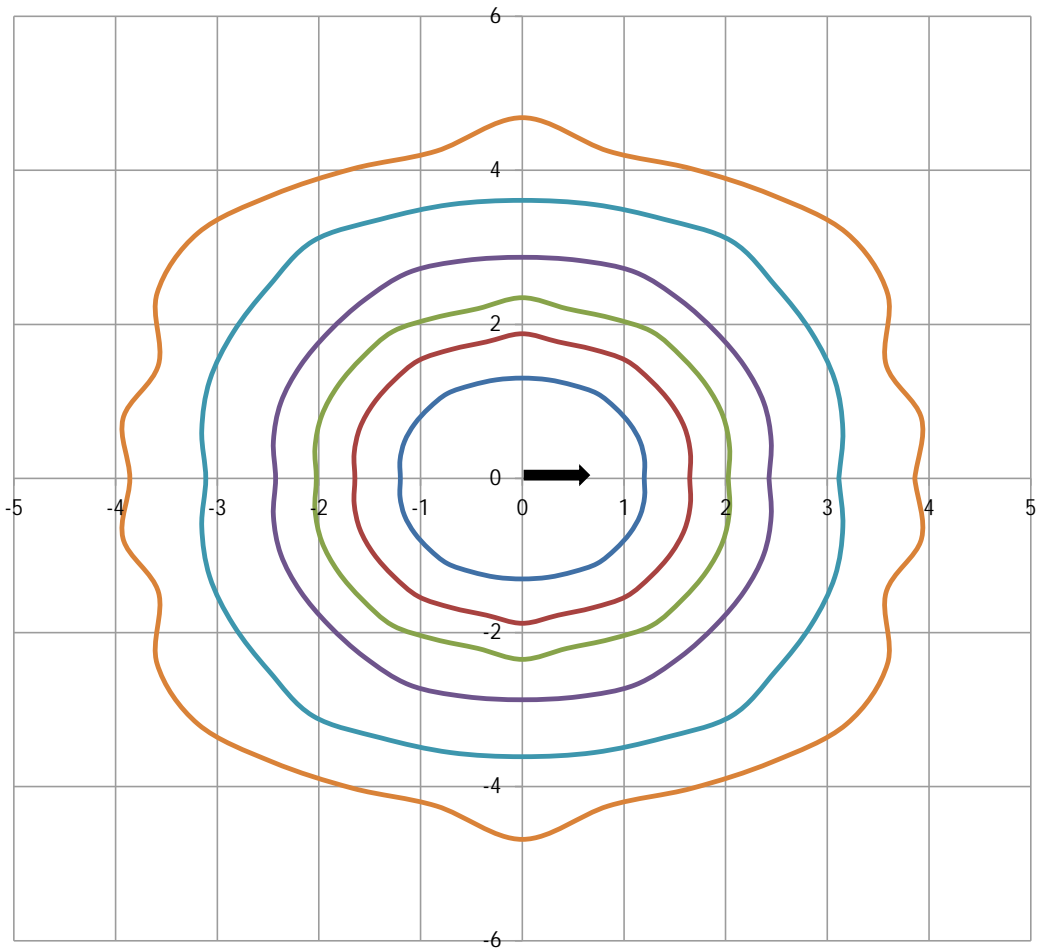
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2524 Candela
Central Cone Intensity:	2525 Candela
Beam Flux:	5016.7 Lumens
Beam Angle (0-180):	98.9 Degrees
Beam Angle (90-270):	118.1 Degrees
Field Angle (0-180):	158.2 Degrees
Field Angle (90-270):	171.1 Degrees





# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

