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## Indoor Distribution Test Report

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

Prepared For  
**Mercury Lighting**

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Fairfield, NJ 07004-3416

Catalog Number  
**LR35-24G-8600-35K-9A-U80-UNI-XXXX**

Order Number  
10857788  
Test Number  
1124772

Test Date

2015-07-09

Prepared By

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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, prismatic plastic lens enclosure  
**Lamp:** 220 white LEDs  
**Mounting:** Recessed  
**Ballast/Driver:** One Universal Everline D10CC55UNVTZ-C (1808 mA)

### Luminaire



### Luminaire Characteristics

Luminous Length: 45.75 in.  
Luminous Width: 21.75 in.

### Summary of Results

Total Luminaire Output:	8622 Lumens
Luminaire Efficacy:	97.9 lm/w
Maximum Candela:	3854 Candela

### Electrical Data

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.7346 A
Power:	88.04 W
Power Factor:	0.999
Frequency:	60 Hz
Current THD:	4.81 %

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	0.7346 A	88.04 W	0.999	60 Hz	4.81 %

### Summary of Results

#### Spacing Criteria

0-180: 1.20  
90-270: 1.20

#### Total Lumen Output:

8622 Lumens

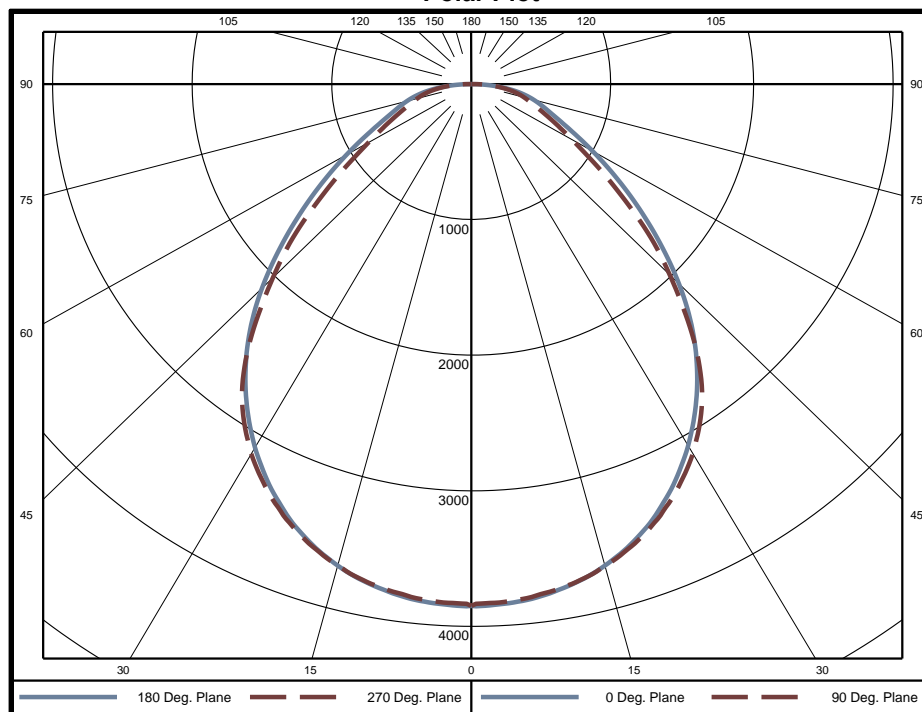
#### Luminaire Efficacy:

97.9 lm/w

#### Maximum Candela:

3854 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	91.8	1.1%	60-65	366.2	4.2%	120-125	0	0.0%
5-10	272.2	3.2%	65-70	275.7	3.2%	125-130	0	0.0%
10-15	442.8	5.1%	70-75	219.2	2.5%	130-135	0	0.0%
15-20	596.2	6.9%	75-80	179.0	2.1%	135-140	0	0.0%
20-25	724.4	8.4%	80-85	127.6	1.5%	140-145	0	0.0%
25-30	819.7	9.5%	85-90	53.9	0.6%	145-150	0	0.0%
30-35	875.4	10.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	883.0	10.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	834.9	9.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	745.4	8.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	624.7	7.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	489.3	5.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	4706	54.6%
0-60	7400	85.8%
0-90	8621	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	3849	3849	3849	3849	3849	3849	3849	3849	3849	3849	3849	3849	3849	3849	3849	3849
5	3832	3834	3835	3827	3818	3827	3835	3834	3832	3834	3835	3827	3818	3827	3835	3834
10	3775	3779	3779	3780	3767	3780	3779	3779	3775	3779	3779	3780	3767	3780	3779	3779
15	3678	3685	3688	3691	3681	3691	3688	3685	3678	3685	3688	3691	3681	3691	3688	3685
20	3532	3540	3547	3557	3552	3557	3547	3540	3532	3540	3547	3557	3552	3557	3547	3540
25	3334	3342	3358	3376	3379	3376	3358	3342	3334	3342	3358	3376	3379	3376	3358	3342
30	3091	3092	3115	3143	3157	3143	3115	3092	3091	3092	3115	3143	3157	3143	3115	3092
35	2805	2798	2816	2843	2869	2843	2816	2798	2805	2798	2816	2843	2869	2843	2816	2798
40	2479	2461	2454	2459	2472	2459	2454	2461	2479	2461	2454	2459	2472	2459	2454	2461
45	2104	2072	2045	2032	2012	2032	2045	2072	2104	2072	2045	2032	2012	2032	2045	2072
50	1704	1684	1645	1601	1573	1601	1645	1684	1704	1684	1645	1601	1573	1601	1645	1684
55	1334	1317	1236	1168	1156	1168	1236	1317	1334	1317	1236	1168	1156	1168	1236	1317
60	1013	964	852	820	843	820	852	964	1013	964	852	820	843	820	852	964
65	760	686	571	580	640	580	571	686	760	686	571	580	640	580	571	686
70	590	510	400	431	497	431	400	510	590	510	400	431	497	431	400	510
75	471	398	330	341	397	341	330	398	471	398	330	341	397	341	330	398
80	342	311	270	262	297	262	270	311	342	311	270	262	297	262	270	311
85	178	190	158	166	168	166	158	190	178	190	158	166	168	166	158	190
90	0	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	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	5995	5995	5995
45	4636	4506	4432
55	3622	3357	3139
65	2801	2105	2358
75	2832	1988	2386
85	3176	2832	3000



### 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	####	10264	10264	10264	10025	10025	10025	10025	9580	9580	9580	9172	9172	9172	8798	8798	8798	8622
1	9461	9084	8747	8443	9230	8890	8584	8306	8527	8275	8045	8193	7989	7799	7885	7722	7569	7393
2	8699	8051	7515	7064	8479	7891	7399	6981	7590	7177	6820	7313	6969	6667	7057	6774	6521	6343
3	8007	7174	6530	6017	7801	7041	6445	5964	6791	6280	5860	6559	6125	5761	6343	5977	5664	5487
4	7389	6435	5737	5203	7199	6324	5672	5168	6113	5547	5099	5918	5428	5032	5736	5315	4966	4791
5	6839	5808	5088	4557	6665	5714	5038	4533	5537	4941	4485	5371	4849	4438	5217	4760	4393	4221
6	6348	5273	4551	4034	6190	5193	4512	4017	5042	4435	3983	4902	4362	3949	4770	4291	3917	3749
7	5910	4813	4102	3604	5766	4745	4070	3591	4616	4008	3566	4495	3949	3542	4382	3892	3518	3355
8	5519	4416	3722	3245	5389	4358	3696	3236	4247	3646	3217	4143	3597	3199	4045	3550	3180	3024
9	5170	4071	3398	2943	5052	4021	3376	2936	3925	3335	2921	3834	3295	2907	3749	3256	2893	2743
10	4858	3770	3119	2686	4751	3726	3101	2680	3643	3066	2669	3564	3033	2658	3490	3000	2647	2503

### Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	241	4.82
6.00	107	7.23
8.00	60.1	9.63
10.0	38.5	12.0
12.0	26.7	14.5
14.0	19.6	16.9
16.0	15.0	19.3

### Cone of Light Plot

