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## Indoor Distribution Test Report

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

Prepared For  
**Encore Lighting Mfg LLC dba Nano Meter**

Diane Paquet  
57-10 49th Place  
Maspeth, NY 11378  
United States

Catalog Number  
**L24-1FT-400LM-2700K**

Order Number  
10980032  
Test Number  
1166409

Test Date

2015-10-13

Prepared By

Derek Smarr, Technician

Approved By

Jeffrey Lockner, Project Engineer

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Aluminum housing / heatsink, no enclosure  
**Lamp:** 28 white LEDs  
**Mounting:** Surface  
**Ballast/Driver:** One Mean Well HLG-60H-48A

### Luminaire



### Luminaire Characteristics

Luminous Length: 12.00 in.  
Luminous Width: 0.8750 in.  
Luminous Height: 0.38 in.

### Summary of Results

Total Luminaire Output: 375.5 Lumens  
Luminaire Efficacy: 75.6 lm/w  
Maximum Candela: 149 Candela

### Electrical Data

Test Temperature: 24.7 °C  
Voltage: 120.0 VAC  
Current: 0.09310 A  
Power: 4.965 W  
Power Factor: 0.444  
Frequency: 60 Hz  
Current THD: 192 %

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
24.7 °C	120.0 VAC	0.09310 A	4.965 W	0.444	60 Hz	192 %

### Summary of Results

#### Spacing Criteria

0-180: 1.23  
90-270: 1.23

#### Total Lumen Output:

375.5 Lumens

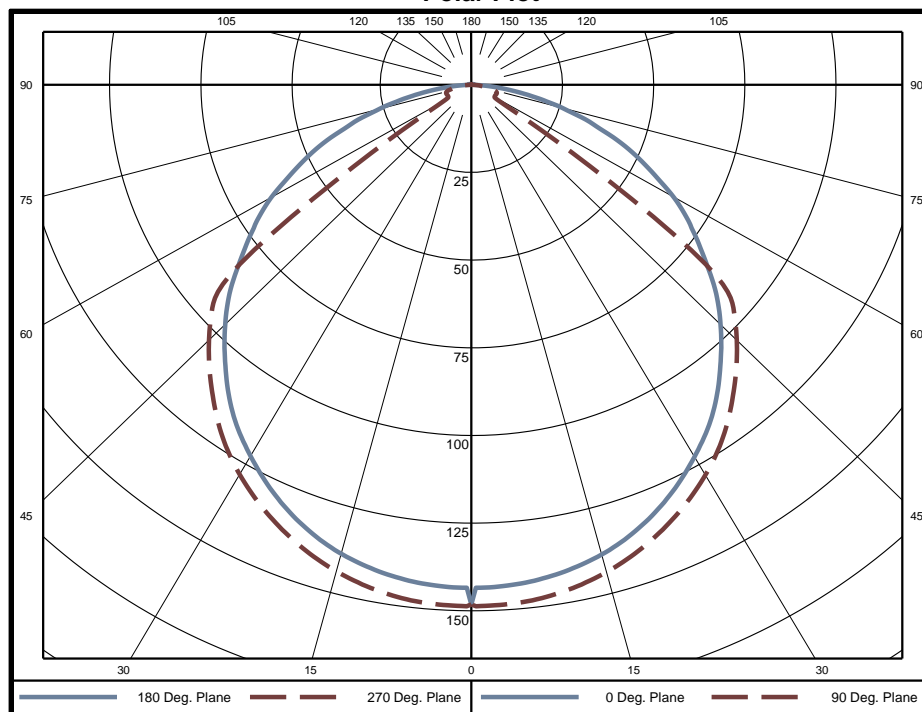
#### Luminaire Efficacy:

75.6 lm/w

#### Maximum Candela:

149 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	3.54	0.9%	60-65	17.11	4.6%	120-125	0.06	0.0%
5-10	10.52	2.8%	65-70	11.36	3.0%	125-130	0	0.0%
10-15	17.18	4.6%	70-75	8.34	2.2%	130-135	0	0.0%
15-20	23.30	6.2%	75-80	3.93	1.0%	135-140	0	0.0%
20-25	28.65	7.6%	80-85	2.19	0.6%	140-145	0	0.0%
25-30	33.10	8.8%	85-90	0.70	0.2%	145-150	0	0.0%
30-35	36.49	9.7%	90-95	0.15	0.0%	150-155	0	0.0%
35-40	38.62	10.3%	95-100	0.15	0.0%	155-160	0	0.0%
40-45	39.45	10.5%	100-105	0.14	0.0%	160-165	0	0.0%
45-50	39.07	10.4%	105-110	0.13	0.0%	165-170	0	0.0%
50-55	35.69	9.5%	110-115	0.11	0.0%	170-175	0	0.0%
55-60	25.43	6.8%	115-120	0.11	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	191	51.0%
0-60	331	88.2%
0-90	375	99.8%
90-180	1	0.2%



**Candela Tabulation**  
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	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2	148.2
5	142.9	147.4	149.0	149.0	148.2	149.0	149.0	147.4	142.9	147.4	149.0	149.0	148.2	149.0	149.0	147.4
10	141.4	145.8	147.4	147.4	146.6	147.4	147.4	145.8	141.4	145.8	147.4	147.4	146.6	147.4	147.4	145.8
15	138.6	143.2	144.6	144.5	143.8	144.5	144.6	143.2	138.6	143.2	144.6	144.5	143.8	144.5	144.6	143.2
20	134.5	139.1	140.4	140.4	139.7	140.4	140.4	139.1	134.5	139.1	140.4	140.4	139.7	140.4	140.4	139.1
25	129.1	133.8	135.0	135.1	134.6	135.1	135.0	133.8	129.1	133.8	135.0	135.1	134.6	135.1	135.0	133.8
30	122.6	127.3	128.6	128.9	128.5	128.9	128.6	127.3	122.6	127.3	128.6	128.9	128.5	128.9	128.6	127.3
35	115.4	119.9	121.1	121.5	121.1	121.5	121.1	119.9	115.4	119.9	121.1	121.5	121.1	121.5	121.1	119.9
40	106.4	111.0	112.2	112.6	112.3	112.6	112.2	111.0	106.4	111.0	112.2	112.6	112.3	112.6	112.2	111.0
45	96.9	101.4	102.8	103.2	103.0	103.2	102.8	101.4	96.9	101.4	102.8	103.2	103.0	103.2	102.8	101.4
50	86.5	90.9	92.5	92.9	91.8	92.9	92.5	90.9	86.5	90.9	92.5	92.9	91.8	92.9	92.5	90.9
55	75.3	79.0	81.1	81.0	80.0	81.0	81.1	79.0	75.3	79.0	81.1	81.0	80.0	81.0	81.1	79.0
60	64.4	67.8	66.2	65.0	63.9	64.4	64.4	67.8	64.4	67.8	66.2	65.0	63.9	64.4	64.4	67.8
65	51.8	55.0	54.6	53.5	52.4	51.8	51.8	55.0	51.8	55.0	54.6	53.5	52.4	54.6	54.6	55.0
70	38.9	42.4	42.4	41.4	40.4	38.9	38.9	42.4	38.9	42.4	42.4	41.4	40.4	42.4	42.4	42.4
75	26.4	33.9	33.9	33.0	32.1	26.4	26.4	33.9	26.4	33.9	33.9	33.0	32.1	33.9	33.9	33.9
80	14.7	21.1	21.1	20.3	19.5	14.7	14.7	21.1	14.7	21.1	21.1	20.3	19.5	21.1	21.1	21.1
85	5.5	11.0	11.0	10.3	9.7	5.5	5.5	11.0	5.5	11.0	11.0	10.3	9.7	11.0	11.0	11.0
90	0.2	0.5	0.4	0.2	0.0	0.2	0.4	0.5	0.2	0.5	0.4	0.2	0.0	0.2	0.4	0.5
95	0.3	0.4	0.3	0.2	0.0	0.2	0.3	0.4	0.3	0.4	0.3	0.2	0.0	0.2	0.3	0.4
100	0.4	0.3	0.3	0.2	0.0	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.0	0.2	0.3	0.3
105	0.6	0.3	0.3	0.2	0.0	0.2	0.3	0.3	0.6	0.3	0.3	0.2	0.0	0.2	0.3	0.3
110	0.4	0.3	0.2	0.1	0.0	0.1	0.2	0.3	0.4	0.3	0.2	0.1	0.0	0.1	0.2	0.3
115	0.4	0.4	0.2	0.1	0.1	0.1	0.2	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.2	0.4
120	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.4
125	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	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	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	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	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	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	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	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	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	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	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)

	0	45	90
0	21870	21870	21870
45	19620	16190	15050
55	18540	14250	5410
65	16950	2999	1315
75	13470	1410	1508
85	6834	765	671



### 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	447	447	447	447	436	436	436	436	417	417	417	399	399	399	382	382	382	375
1	414	398	384	372	404	390	377	365	374	363	354	359	351	343	346	339	333	325
2	380	352	329	310	370	345	324	306	332	315	299	320	305	293	309	297	286	278
3	349	313	285	263	340	307	281	260	296	274	256	286	267	251	276	260	247	239
4	321	279	249	225	313	274	246	224	265	240	221	256	235	218	248	230	215	207
5	296	251	219	196	288	246	217	194	239	212	192	231	208	190	224	204	188	181
6	274	226	194	172	267	223	193	171	216	189	169	210	186	168	204	183	166	159
7	254	206	174	152	248	203	173	152	197	170	150	191	167	149	186	165	148	141
8	237	188	157	136	231	185	156	135	180	154	135	176	151	134	171	149	133	126
9	221	172	143	122	216	170	142	122	166	140	121	162	138	121	158	136	120	113
10	207	159	130	111	202	157	129	111	153	128	110	150	126	110	147	125	109	103

### Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	9.26	5.12
6.00	4.12	7.67
8.00	2.32	10.2
10.0	1.48	12.8
12.0	1.03	15.3
14.0	0.756	17.9
16.0	0.579	20.5

### Cone of Light Plot

