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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
L24-6IN-400LM-2700K

Order Number
10980032
Test Number
1166410

Test Date

2015-10-13

Prepared By

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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: 14 white LEDs
Mounting: Surface
Ballast/Driver: One Mean Well HLG-60H-48A

Luminaire



Luminaire Characteristics

Luminous Length: 6.00 in.
Luminous Width: 0.8750 in.
Luminous Height: 0.38 in.

Summary of Results

Total Luminaire Output: 193.3 Lumens
Luminaire Efficacy: 65.8 lm/w
Maximum Candela: 77 Candela

Electrical Data

Test Temperature: 24.8 °C
Voltage: 120.0 VAC
Current: 0.05900 A
Power: 2.939 W
Power Factor: 0.415
Frequency: 60 Hz
Current THD: 196 %

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	0.05900 A	2.939 W	0.415	60 Hz	196 %

Summary of Results

Spacing Criteria

0-180: 1.27
90-270: 1.27

Total Lumen Output:

193.3 Lumens

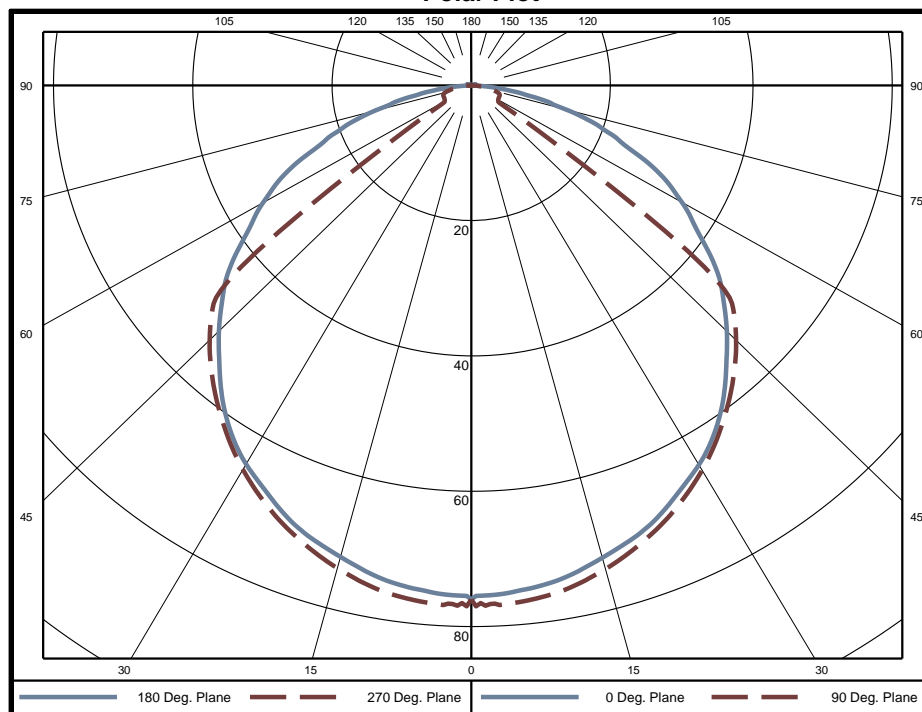
Luminaire Efficacy:

65.8 lm/w

Maximum Candela:

77 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.81	0.9%	60-65	8.70	4.5%	120-125	0.01	0.0%
5-10	5.38	2.8%	65-70	6.15	3.2%	125-130	0	0.0%
10-15	8.77	4.5%	70-75	4.58	2.4%	130-135	0	0.0%
15-20	11.87	6.1%	75-80	2.28	1.2%	135-140	0	0.0%
20-25	14.63	7.6%	80-85	1.32	0.7%	140-145	0	0.0%
25-30	16.90	8.7%	85-90	0.51	0.3%	145-150	0	0.0%
30-35	18.68	9.7%	90-95	0.21	0.1%	150-155	0	0.0%
35-40	19.85	10.3%	95-100	0.17	0.1%	155-160	0	0.0%
40-45	20.34	10.5%	100-105	0.14	0.1%	160-165	0	0.0%
45-50	20.17	10.4%	105-110	0.12	0.1%	165-170	0	0.0%
50-55	18.01	9.3%	110-115	0.09	0.0%	170-175	0	0.0%
55-60	12.50	6.5%	115-120	0.08	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	98	50.6%
0-60	169	87.4%
0-90	192	99.6%
90-180	1	0.4%



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	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00
5	75.03	75.38	75.64	75.81	76.70	75.81	75.64	75.38	75.03	75.38	75.64	75.81	76.70	75.81	75.64	75.38
10	74.07	74.42	74.80	75.03	75.77	75.03	74.80	74.42	74.07	74.42	74.80	75.03	75.77	75.03	74.80	74.42
15	72.27	72.68	73.14	73.34	73.95	73.34	73.14	72.68	72.27	72.68	73.14	73.34	73.95	73.34	73.14	72.68
20	70.41	70.78	70.83	71.32	71.67	71.32	70.83	70.78	70.41	70.78	70.83	71.32	71.67	71.32	70.83	70.78
25	67.70	68.21	68.29	68.72	68.92	68.72	68.29	68.21	67.70	68.21	68.29	68.72	68.92	68.72	68.29	68.21
30	64.80	64.89	65.31	65.44	65.66	65.44	65.31	64.89	64.80	64.89	65.31	65.44	65.66	65.44	65.31	64.89
35	61.11	61.53	61.70	61.72	61.86	61.72	61.70	61.53	61.11	61.53	61.70	61.72	61.86	61.72	61.70	61.53
40	56.37	57.12	57.64	57.56	57.75	57.56	57.64	57.12	56.37	57.12	57.64	57.56	57.75	57.56	57.64	57.12
45	51.48	51.86	52.93	53.00	53.25	53.00	52.93	51.86	51.48	51.86	52.93	53.00	53.25	53.00	52.93	51.86
50	46.53	46.61	47.33	47.90	46.98	47.90	47.33	46.61	46.53	46.61	47.33	47.90	46.98	47.90	47.33	46.61
55	40.35	41.10	41.59	25.10	11.05	25.10	41.59	41.10	40.35	41.10	41.59	25.10	11.05	25.10	41.59	41.10
60	34.70	34.88	33.08	4.25	4.42	4.25	33.08	34.88	34.70	34.88	33.08	4.25	4.42	4.25	33.08	34.88
65	28.51	29.06	6.05	3.97	4.31	3.97	6.05	29.06	28.51	29.06	6.05	3.97	4.31	3.97	6.05	29.06
70	21.34	21.74	4.39	3.89	4.29	3.89	4.39	21.74	21.34	21.74	4.39	3.89	4.29	3.89	4.39	21.74
75	14.37	6.46	3.73	3.58	3.83	3.58	3.73	6.46	14.37	6.46	3.73	3.58	3.83	3.58	3.73	6.46
80	7.75	2.65	2.84	2.58	2.61	2.58	2.84	2.65	7.75	2.65	2.84	2.58	2.61	2.58	2.84	2.65
85	2.95	1.59	1.52	1.33	1.14	1.33	1.52	1.59	2.95	1.59	1.52	1.33	1.14	1.33	1.52	1.59
90	0.28	0.58	0.56	0.38	0.03	0.38	0.56	0.58	0.28	0.58	0.56	0.38	0.03	0.38	0.56	0.58
95	0.30	0.49	0.44	0.31	0.02	0.31	0.44	0.49	0.30	0.49	0.44	0.31	0.02	0.31	0.44	0.49
100	0.50	0.37	0.34	0.20	0.02	0.20	0.34	0.37	0.50	0.37	0.34	0.20	0.02	0.20	0.34	0.37
105	0.50	0.29	0.28	0.16	0.02	0.16	0.28	0.29	0.50	0.29	0.28	0.16	0.02	0.16	0.28	0.29
110	0.47	0.27	0.20	0.13	0.02	0.13	0.20	0.27	0.47	0.27	0.20	0.13	0.02	0.13	0.20	0.27
115	0.28	0.26	0.13	0.11	0.03	0.11	0.13	0.26	0.28	0.26	0.13	0.11	0.03	0.11	0.13	0.26
120	0.36	0.26	0.11	0.08	0.04	0.08	0.11	0.26	0.36	0.26	0.11	0.08	0.04	0.08	0.11	0.26
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

	0	45	90
0	22440	22440	22440
45	20230	16400	15560
55	19070	14310	3529
65	17560	2421	1570
75	13290	1853	1678
85	5824	1038	653



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	230	230	230	230	224	224	224	224	214	214	214	205	205	205	196	196	196	192
1	213	205	197	191	207	200	193	188	192	186	181	184	180	176	177	174	170	167
2	195	181	169	159	190	177	166	157	170	161	153	164	156	150	158	152	146	142
3	179	161	146	135	175	157	144	133	152	140	131	146	137	129	141	133	126	122
4	165	143	127	115	160	141	126	115	136	123	113	131	120	111	127	118	110	106
5	152	129	112	100	148	126	111	100	122	109	98	119	107	97	115	105	96	92
6	141	116	100	88	137	114	99	88	111	97	87	108	95	86	104	94	85	81
7	130	105	89	78	127	104	89	78	101	87	77	98	86	76	95	84	76	72
8	122	96	81	70	119	95	80	69	92	79	69	90	78	68	88	76	68	64
9	114	88	73	63	111	87	73	63	85	72	62	83	71	62	81	70	61	58
10	106	82	67	57	104	81	66	57	79	66	56	77	65	56	75	64	56	53

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	4.75	5.11
6.00	2.11	7.66
8.00	1.19	10.2
10.0	0.760	12.8
12.0	0.528	15.3
14.0	0.388	17.9
16.0	0.297	20.4

Cone of Light Plot

