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Indoor Distribution Test Report

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

Prepared For
Mercury Lighting

Stephen Bambush
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Fairfield, NJ 07004-3416
United States

Catalog Number
LR2T-24G-9100-35K-U80TW-UNI-XXXX

Order Number
11163500
Test Number
1213224

Test Date

2016-02-25

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 / reflector, frosted plastic lens enclosure
Lamp: 224 white LEDs
Mounting: Recessed
Ballast/Driver: One Universal Everline D21CC80UNVTW-C

Luminaire



Luminaire Characteristics

Luminous Length: 47.00 in.
Luminous Width: 23.00 in.

Summary of Results

Total Luminaire Output: 9413 Lumens
Luminaire Efficacy: 107.9 lm/w
Maximum Candela: 3428 Candela

Electrical Data

Test Temperature: 24.6 °C
Voltage: 120.0 VAC
Current: 0.7275 A
Power: 87.20 W
Power Factor: 0.999
Frequency: 60 Hz
Current THD: 4.63 %

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
24.6 °C	120.0 VAC	0.7275 A	87.20 W	0.999	60 Hz	4.63 %

Summary of Results

Spacing Criteria

0-180: 1.18
90-270: 1.18

Total Lumen Output:

9413 Lumens

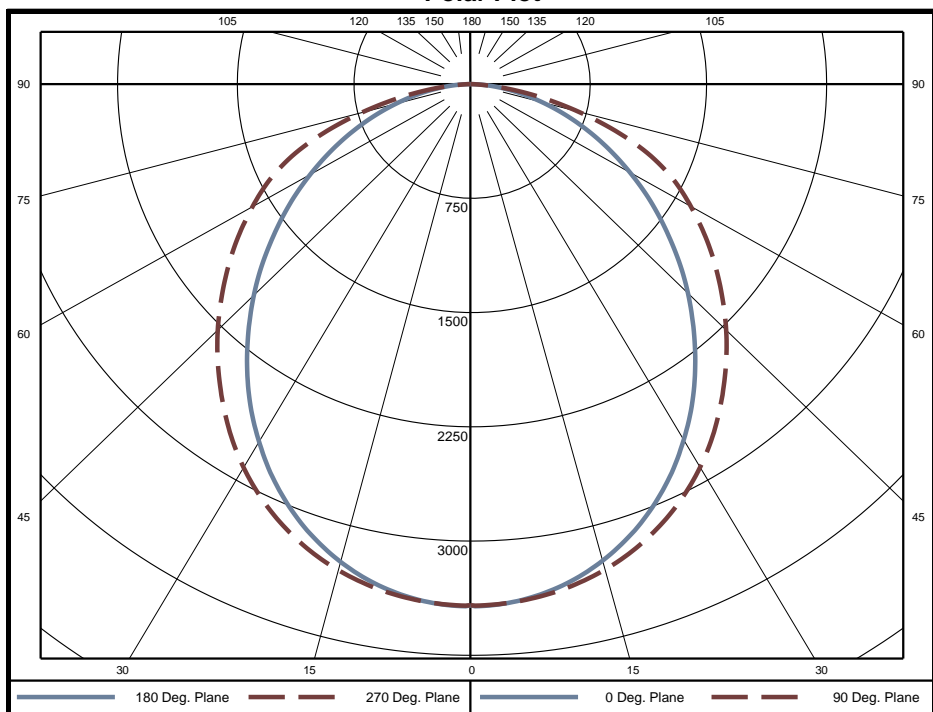
Luminaire Efficacy:

107.9 lm/w

Maximum Candela:

3428 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	81.6	0.9%	60-65	630.7	6.7%	120-125	0	0.0%
5-10	241.6	2.6%	65-70	536.9	5.7%	125-130	0	0.0%
10-15	392.4	4.2%	70-75	418.8	4.4%	130-135	0	0.0%
15-20	528.0	5.6%	75-80	282.5	3.0%	135-140	0	0.0%
20-25	643.0	6.8%	80-85	146.6	1.6%	140-145	0	0.0%
25-30	733.1	7.8%	85-90	32.6	0.3%	145-150	0	0.0%
30-35	795.1	8.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	827.7	8.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	832.4	8.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	812.2	8.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	769.6	8.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	707.9	7.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	4243	45.1%
0-60	7365	78.2%
0-90	9413	100.0%
90-180	0	0.0%



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	3421	3421	3421	3421	3421	3421	3421	3421	3421	3421	3421	3421	3421	3421	3421	3421
5	3407	3397	3402	3407	3409	3407	3402	3397	3407	3397	3402	3407	3409	3407	3402	3397
10	3343	3337	3350	3362	3368	3362	3350	3337	3343	3337	3350	3362	3368	3362	3350	3337
15	3236	3236	3263	3287	3298	3287	3263	3236	3236	3236	3263	3287	3298	3287	3263	3236
20	3092	3100	3142	3182	3198	3182	3142	3100	3092	3100	3142	3182	3198	3182	3142	3100
25	2910	2928	2991	3045	3067	3045	2991	2928	2910	2928	2991	3045	3067	3045	2991	2928
30	2695	2726	2811	2881	2906	2881	2811	2726	2695	2726	2811	2881	2906	2881	2811	2726
35	2459	2502	2607	2686	2715	2686	2607	2502	2459	2502	2607	2686	2715	2686	2607	2502
40	2203	2262	2383	2471	2505	2471	2383	2262	2203	2262	2383	2471	2505	2471	2383	2262
45	1944	2014	2145	2248	2289	2248	2145	2014	1944	2014	2145	2248	2289	2248	2145	2014
50	1679	1768	1905	2020	2063	2020	1905	1768	1679	1768	1905	2020	2063	2020	1905	1768
55	1421	1520	1663	1792	1840	1792	1663	1520	1421	1520	1663	1792	1840	1792	1663	1520
60	1167	1275	1427	1565	1612	1565	1427	1275	1167	1275	1427	1565	1612	1565	1427	1275
65	925	1037	1198	1340	1378	1340	1198	1037	925	1037	1198	1340	1378	1340	1198	1037
70	696	809	978	1072	1075	1072	978	809	696	809	978	1072	1075	1072	978	809
75	481	594	728	738	719	738	728	594	481	594	728	738	719	738	728	594
80	292	392	437	411	392	411	437	392	292	392	437	411	392	411	437	392
85	128	170	163	140	128	140	163	170	128	170	163	140	128	140	163	170
90	1	5	4	4	4	4	4	5	1	5	4	4	4	4	4	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/m²)

Horizontal Angle (Degrees)

	0	45	90
0	4906	4906	4906
45	3941	4350	4641
55	3552	4158	4600
65	3138	4066	4676
75	2664	4031	3980
85	2105	2683	2110



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	11205	11205	11205	11205	10945	10945	10945	10945	10458	10458	10458	10013	10013	10013	9605	9605	9605	9413
1	10225	9770	9363	8995	9968	9556	9185	8848	9155	8848	8568	8786	8536	8305	8446	8245	8057	7859
2	9291	8506	7857	7310	9041	8327	7730	7223	7992	7488	7053	7682	7261	6892	7396	7048	6737	6532
3	8466	7465	6690	6072	8231	7315	6596	6017	7033	6417	5909	6772	6246	5805	6530	6085	5704	5497
4	7751	6613	5781	5144	7533	6488	5710	5108	6250	5573	5036	6029	5442	4967	5824	5318	4899	4693
5	7129	5911	5060	4432	6930	5805	5005	4407	5604	4898	4357	5417	4796	4309	5242	4699	4262	4060
6	6586	5325	4479	3871	6404	5235	4435	3854	5064	4350	3818	4905	4269	3784	4755	4191	3750	3555
7	6108	4831	4002	3422	5944	4754	3967	3409	4608	3899	3383	4471	3834	3358	4343	3770	3333	3145
8	5689	4411	3608	3056	5540	4345	3579	3046	4220	3523	3026	4102	3469	3007	3991	3417	2988	2808
9	5317	4051	3276	2752	5183	3994	3252	2745	3886	3206	2730	3784	3162	2715	3688	3118	2700	2528
10	4987	3740	2994	2498	4866	3691	2975	2492	3597	2936	2480	3509	2899	2469	3425	2863	2457	2292

Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	214	4.88
6.00	95.0	7.32
8.00	53.5	9.76
10.0	34.2	12.2
12.0	23.8	14.6
14.0	17.5	17.1
16.0	13.4	19.5

Cone of Light Plot

