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Indoor Distribution Test Report

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

Prepared For
Mercury Lighting

Stephen Bambush
20 Audrey Pl
Fairfield, NJ 07004-3416
United States

Catalog Number
LR5T-24G-9100-35K-U80TW-UNI-XXXX

Order Number
11163500
Test Number
1213225

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: 9266 Lumens
Luminaire Efficacy: 106.3 lm/w
Maximum Candela: 3296 Candela

Electrical Data

Test Temperature: 24.7 °C
Voltage: 120.0 VAC
Current: 0.7272 A
Power: 87.18 W
Power Factor: 0.999
Frequency: 60 Hz
Current THD: 4.62 %

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	0.7272 A	87.18 W	0.999	60 Hz	4.62 %

Summary of Results

Spacing Criteria

0-180: 1.17
90-270: 1.17

Total Lumen Output:

9266 Lumens

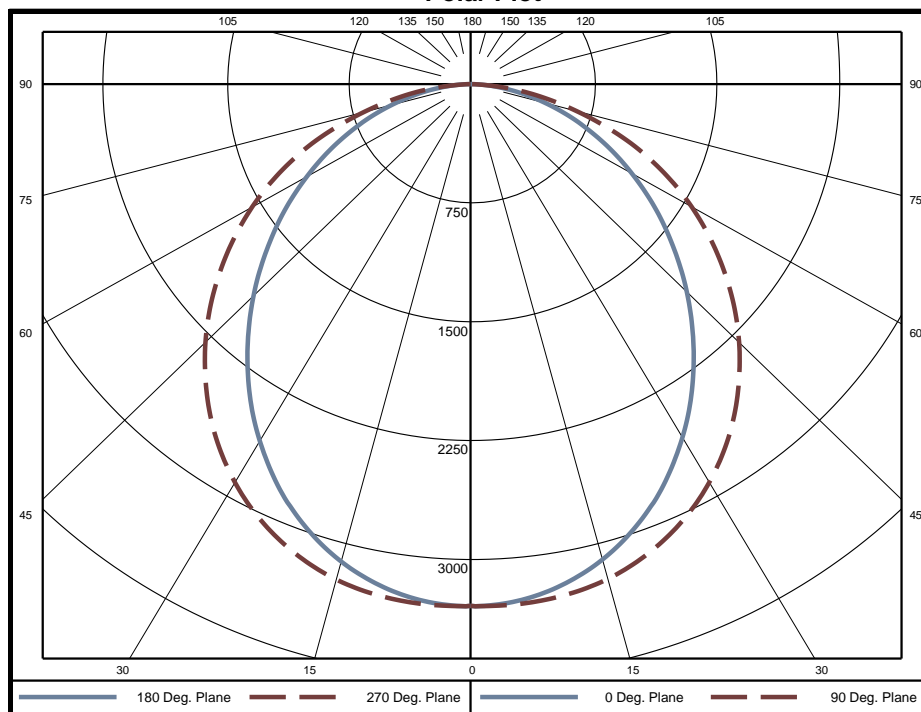
Luminaire Efficacy:

106.3 lm/w

Maximum Candela:

3296 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	78.6	0.8%	60-65	618.1	6.7%	120-125	0	0.0%
5-10	233.5	2.5%	65-70	516.4	5.6%	125-130	0	0.0%
10-15	380.7	4.1%	70-75	399.1	4.3%	130-135	0	0.0%
15-20	514.4	5.6%	75-80	273.2	2.9%	135-140	0	0.0%
20-25	629.2	6.8%	80-85	148.4	1.6%	140-145	0	0.0%
25-30	720.7	7.8%	85-90	33.6	0.4%	145-150	0	0.0%
30-35	785.5	8.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	822.0	8.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	830.1	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	811.7	8.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	768.5	8.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	702.6	7.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	4165	44.9%
0-60	7278	78.5%
0-90	9266	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	3293	3293	3293	3293	3293	3293	3293	3293	3293	3293	3293	3293	3293	3293	3293	3293
5	3275	3272	3282	3292	3295	3292	3282	3272	3275	3272	3282	3292	3295	3292	3282	3272
10	3211	3219	3245	3267	3276	3267	3245	3219	3211	3219	3245	3267	3276	3267	3245	3219
15	3109	3129	3177	3216	3232	3216	3177	3129	3109	3129	3177	3216	3232	3216	3177	3129
20	2967	3003	3076	3131	3152	3131	3076	3003	2967	3003	3076	3131	3152	3131	3076	3003
25	2793	2847	2943	3015	3042	3015	2943	2847	2793	2847	2943	3015	3042	3015	2943	2847
30	2587	2661	2782	2869	2900	2869	2782	2661	2587	2661	2782	2869	2900	2869	2782	2661
35	2362	2452	2593	2692	2728	2692	2593	2452	2362	2452	2593	2692	2728	2692	2593	2452
40	2121	2229	2384	2489	2527	2489	2384	2229	2121	2229	2384	2489	2527	2489	2384	2229
45	1876	1995	2159	2269	2306	2269	2159	1995	1876	1995	2159	2269	2306	2269	2159	1995
50	1629	1758	1923	2032	2067	2032	1923	1758	1629	1758	1923	2032	2067	2032	1923	1758
55	1389	1519	1679	1783	1814	1783	1679	1519	1389	1519	1679	1783	1814	1783	1679	1519
60	1149	1279	1432	1525	1551	1525	1432	1279	1149	1279	1432	1525	1551	1525	1432	1279
65	921	1044	1185	1262	1274	1262	1185	1044	921	1044	1185	1262	1274	1262	1185	1044
70	702	815	936	981	982	981	936	815	702	815	936	981	982	981	936	815
75	489	595	679	685	676	685	679	595	489	595	679	685	676	685	679	595
80	298	382	412	411	407	411	412	382	298	382	412	411	407	411	412	382
85	129	168	166	157	150	157	166	168	129	168	166	157	150	157	166	168
90	1	4	3	3	3	3	3	4	1	4	3	3	3	3	3	4
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	4721	4721	4721
45	3804	4378	4677
55	3471	4199	4535
65	3124	4021	4323
75	2711	3759	3746
85	2125	2735	2473



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	11031	11031	11031	11031	10775	10775	10775	10775	10296	10296	10296	9858	9858	9858	9455	9455	9455	9266
1	10067	9620	9219	8857	9814	9409	9043	8712	9014	8712	8436	8651	8405	8177	8316	8118	7934	7739
2	9148	8377	7738	7201	8903	8201	7613	7115	7870	7375	6948	7566	7152	6789	7284	6942	6637	6434
3	8336	7351	6589	5981	8105	7204	6497	5927	6926	6320	5821	6670	6153	5718	6431	5994	5619	5415
4	7631	6512	5692	5066	7417	6388	5622	5030	6154	5487	4959	5937	5359	4891	5735	5236	4824	4621
5	7018	5818	4980	4362	6821	5714	4926	4337	5516	4821	4289	5332	4721	4241	5160	4625	4195	3996
6	6481	5239	4406	3808	6302	5151	4363	3790	4983	4280	3756	4826	4200	3722	4679	4123	3688	3496
7	6010	4751	3935	3364	5848	4676	3901	3351	4532	3834	3325	4397	3769	3300	4271	3707	3276	3090
8	5595	4337	3545	3001	5449	4272	3517	2992	4148	3462	2972	4032	3409	2953	3923	3358	2935	2757
9	5229	3981	3217	2701	5096	3925	3194	2694	3819	3149	2679	3718	3105	2665	3623	3062	2650	2480
10	4903	3674	2939	2450	4783	3626	2920	2444	3533	2882	2433	3446	2845	2421	3363	2810	2410	2247

Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	206	4.98
6.00	91.5	7.48
8.00	51.5	9.97
10.0	32.9	12.5
12.0	22.9	15.0
14.0	16.8	17.4
16.0	12.9	19.9

Cone of Light Plot

