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Indoor Distribution Test Report

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

Prepared For
Simkar Corporation

Andre Duljas
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Philadelphia, PA 19120
United States

Catalog Number
RG2LEDM425041U1

Order Number
10767861
Test Number
1056628

Test Date

2015-05-07

Prepared By

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Approved By

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The results contained in this report pertain only to the tested sample.
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Luminaire Description: White steel housing, white steel reflector plate, no enclosure
Lamp: 336 white LEDs, four boards with 84 LEDs each
Mounting: Pendant
Ballast/Driver: Four Eagle Rise EWP060C2100LED4P

Luminaire



Luminaire Characteristics

Luminous Length: 48.00 in.
Luminous Width: 12.00 in.

Summary of Results

Total Luminaire Output: 25550 Lumens
Luminaire Efficacy: 106.8 lm/w
Maximum Candela: 8638 Candela

Electrical Data

Test Temperature: 24.6 °C
Voltage: 120.0 VAC
Current: 2.008 A
Power: 239.3 W
Power Factor: 0.993
Frequency: 60 Hz
Current THD: 7.92 %

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

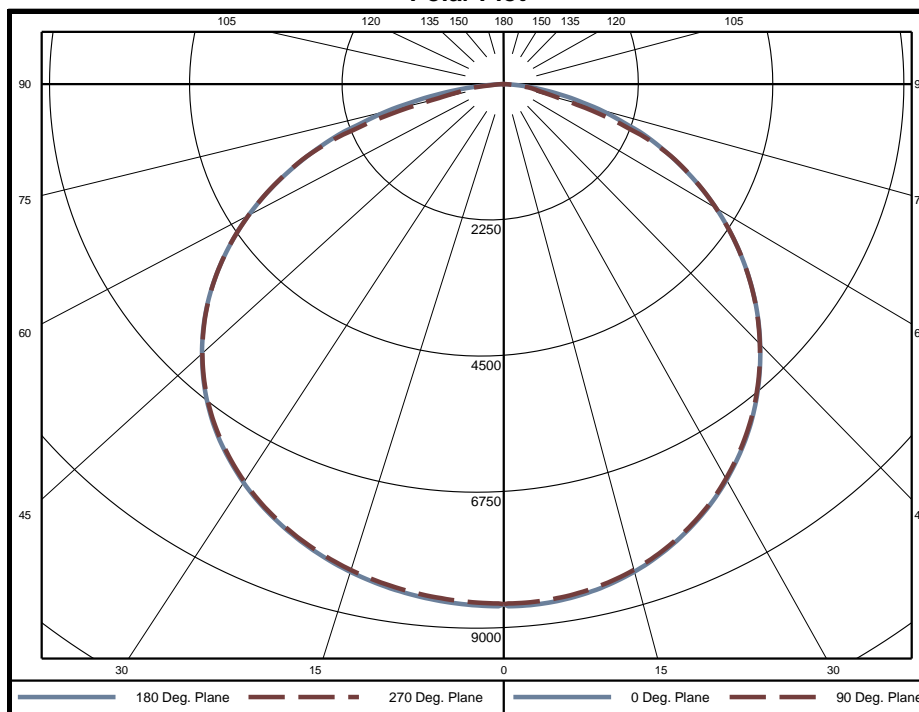
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.0 VAC	2.008 A	239.3 W	0.993	60 Hz	7.92 %

Summary of Results

Spacing Criteria
 0-180: 1.30
 90-270: 1.30

Total Lumen Output 25550 Lumens
Luminaire Efficacy: 106.8 lm/w
Maximum Candela: 8638 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	205	0.8%	60-65	1831	7.2%	120-125	0	0.0%
5-10	611	2.4%	65-70	1510	5.9%	125-130	0	0.0%
10-15	998	3.9%	70-75	1081	4.2%	130-135	0	0.0%
15-20	1357	5.3%	75-80	590	2.3%	135-140	0	0.0%
20-25	1675	6.6%	80-85	244	1.0%	140-145	0	0.0%
25-30	1943	7.6%	85-90	38	0.1%	145-150	0	0.0%
30-35	2150	8.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	2290	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	2355	9.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	2343	9.2%	105-110	0	0.0%	165-170	0	0.0%
50-55	2251	8.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	2079	8.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	11229	43.9%
0-60	18314	79.3%
0-90	25551	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	8603	8603	8603	8603	8603	8603	8603	8603	8603	8603	8603	8603	8603	8603	8603	8603
5	8611	8605	8557	8554	8565	8554	8557	8605	8611	8605	8557	8554	8565	8554	8557	8605
10	8519	8516	8472	8467	8478	8467	8472	8516	8519	8516	8472	8467	8478	8467	8472	8516
15	8366	8365	8321	8321	8335	8321	8321	8365	8366	8365	8321	8321	8335	8321	8321	8365
20	8147	8149	8107	8109	8122	8109	8107	8149	8147	8149	8107	8109	8122	8109	8107	8149
25	7867	7867	7827	7831	7846	7831	7827	7867	7867	7867	7827	7831	7846	7831	7827	7867
30	7521	7528	7486	7489	7500	7489	7486	7528	7521	7528	7486	7489	7500	7489	7486	7528
35	7113	7122	7083	7079	7090	7079	7083	7122	7113	7122	7083	7079	7090	7079	7083	7122
40	6633	6652	6613	6609	6618	6609	6613	6652	6633	6652	6613	6609	6618	6609	6613	6652
45	6090	6119	6083	6080	6081	6080	6083	6119	6090	6119	6083	6080	6081	6080	6083	6119
50	5494	5528	5493	5487	5489	5487	5493	5528	5494	5528	5493	5487	5489	5487	5493	5528
55	4833	4878	4845	4837	4834	4837	4845	4878	4833	4878	4845	4837	4834	4837	4845	4878
60	4127	4168	4143	4136	4127	4136	4143	4168	4127	4168	4143	4136	4127	4136	4143	4168
65	3361	3404	3387	3382	3372	3382	3387	3404	3361	3404	3387	3382	3372	3382	3387	3404
70	2573	2603	2593	2542	2439	2542	2593	2603	2573	2603	2593	2542	2439	2542	2593	2603
75	1719	1745	1740	1341	1181	1341	1740	1745	1719	1745	1740	1341	1181	1341	1740	1745
80	919	959	615	552	556	552	615	959	919	959	615	552	556	552	615	959
85	303	194	203	116	146	116	203	194	303	194	203	116	146	116	203	194
90	0	1	1	2	1	2	1	1	0	1	1	2	1	2	1	1
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	23150	23150	23150
45	23180	23150	23140
55	22680	22730	22680
65	21400	21570	21470
75	17880	18090	12280
85	9345	6277	4510



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	30419	30419	30419	30419	29712	29712	29712	29712	28391	28391	28391	27183	27183	27183	26073	26073	26073	25552
1	27840	26640	25564	24595	27146	26060	25081	24193	24974	24167	23428	23976	23319	22711	23057	22529	22036	21503
2	25291	23187	21446	19981	24617	22703	21101	19742	21794	20445	19280	20956	19829	18839	20181	19250	18419	17864
3	23019	20313	18219	16550	22382	19907	17965	16400	19143	17477	16106	18436	17016	15823	17779	16578	15549	14987
4	21041	17954	15693	13966	20449	17612	15500	13867	16967	15128	13672	16368	14774	13483	15811	14437	13299	12740
5	19321	16006	13689	11979	18779	15717	13539	11911	15171	13250	11777	14663	12973	11646	14188	12708	11519	10970
6	17819	14381	12074	10419	17325	14137	11956	10371	13672	11726	10276	13238	11506	10182	12832	11294	10091	9558
7	16503	13016	10756	9172	16056	12807	10661	9137	12410	10475	9067	12038	10297	8998	11688	10125	8930	8417
8	15348	11859	9666	8158	14943	11680	9588	8132	11339	9436	8079	11018	9290	8027	10716	9149	7976	7484
9	14328	10871	8753	7323	13962	10716	8689	7302	10421	8564	7262	10143	8442	7222	9881	8325	7182	6711
10	13425	10019	7981	6625	13094	9885	7928	6609	9629	7823	6577	9387	7722	6546	9158	7623	6515	6064

Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	538	5.18
6.00	239	7.77
8.00	134	10.4
10.0	86.0	13.0
12.0	59.7	15.5
14.0	43.9	18.1
16.0	33.6	20.7

Cone of Light Plot

