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## Indoor Distribution Test Report

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

Prepared For  
**Simkar Corporation**

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Catalog Number  
**RG2LEDWR45041U1**

Order Number  
10864080  
Test Number  
1119567

Test Date

2015-07-08

Prepared By

Dane Hernandez-Adams, Technician

Approved By

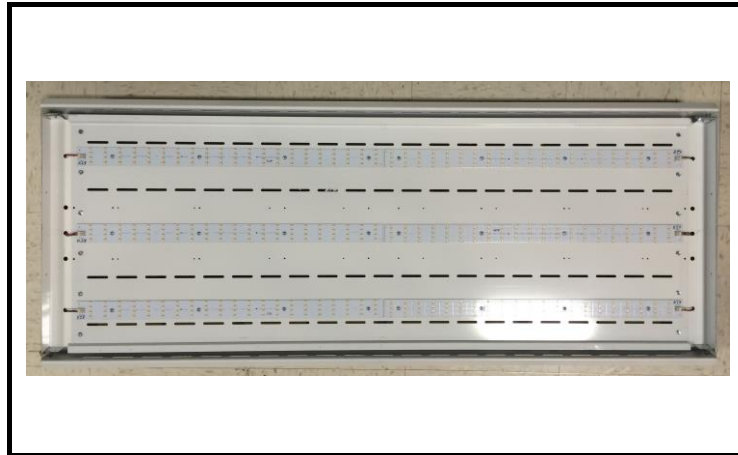
Carissa Samonte-cam, Project Handler

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:** 504 white LEDs, six boards with 84 LEDs each  
**Mounting:** Pendant  
**Ballast/Driver:** Two Eagle Rise ESL150-3150P and two Eagle Rise EWP060C2100LED4P

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 48.00 in.  
Luminous Width: 18.00 in.

**Summary of Results**

Total Luminaire Output: 45490 Lumens  
Luminaire Efficacy: 99.8 lm/w  
Maximum Candela: 15407 Candela

**Electrical Data**

Test Temperature: 25.4 °C  
Voltage: 120.0 VAC  
Current: 3.815 A  
Power: 455.9 W  
Power Factor: 0.996  
Frequency: 60 Hz  
Current THD: 3.89 %

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
25.4 °C	120.0 VAC	3.815 A	455.9 W	0.996	60 Hz	3.89 %

### Summary of Results

#### Spacing Criteria

0-180: 1.30  
90-270: 1.30

#### Total Lumen Output:

45490 Lumens

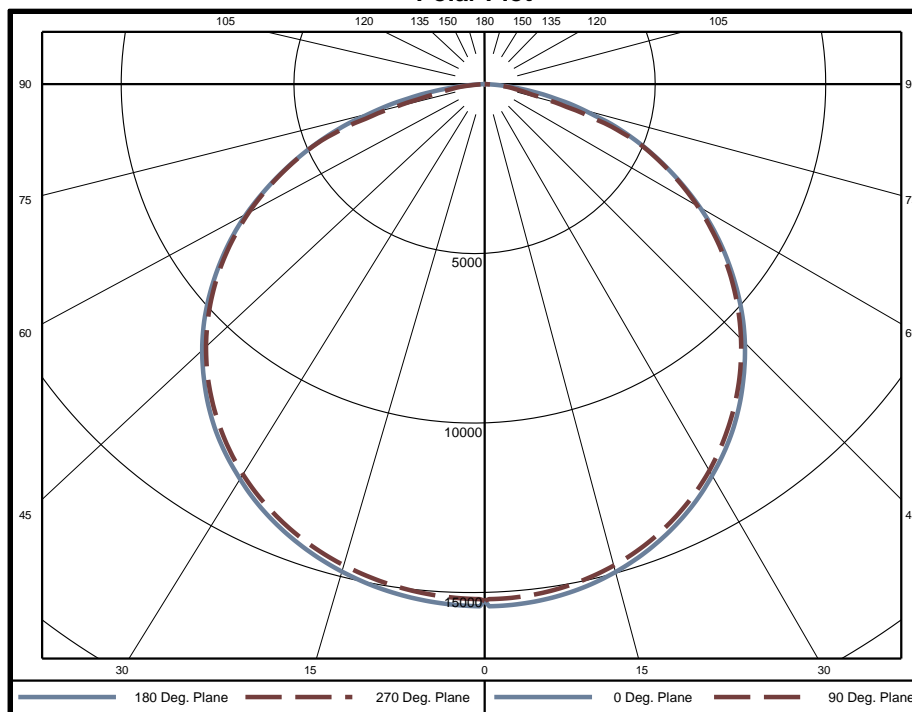
#### Luminaire Efficacy:

99.8 lm/w

#### Maximum Candela:

15407 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	364	0.8%	60-65	3252	7.1%	120-125	0	0.0%
5-10	1081	2.4%	65-70	2699	5.9%	125-130	0	0.0%
10-15	1768	3.9%	70-75	1991	4.4%	130-135	0	0.0%
15-20	2402	5.3%	75-80	1122	2.5%	135-140	0	0.0%
20-25	2966	6.5%	80-85	475	1.0%	140-145	0	0.0%
25-30	3439	7.6%	85-90	76	0.2%	145-150	0	0.0%
30-35	3805	8.4%	90-95	4	0.0%	150-155	0	0.0%
35-40	4052	8.9%	95-100	1	0.0%	155-160	0	0.0%
40-45	4169	9.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	4147	9.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	3986	8.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	3687	8.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	19877	43.7%
0-60	35866	78.8%
0-90	45481	100.0%
90-180	5	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	15250	15250	15250	15250	15250	15250	15250	15250	15250	15250	15250	15250	15250	15250	15250	15250
5	15350	15250	15140	15140	15150	15140	15140	15250	15350	15250	15140	15140	15150	15140	15140	15250
10	15190	15090	14980	14980	14980	14980	14980	15090	15190	15090	14980	14980	14980	14980	14980	15090
15	14910	14820	14710	14710	14710	14710	14710	14820	14910	14820	14710	14710	14710	14710	14710	14820
20	14520	14440	14330	14330	14340	14330	14330	14440	14520	14440	14330	14330	14340	14330	14330	14440
25	14020	13950	13840	13840	13840	13840	13840	13950	14020	13950	13840	13840	13840	13840	13840	13950
30	13390	13340	13240	13230	13230	13230	13240	13340	13390	13340	13240	13230	13230	13230	13240	13340
35	12670	12620	12520	12510	12500	12510	12520	12620	12670	12620	12520	12510	12500	12510	12520	12620
40	11820	11780	11700	11680	11660	11680	11700	11780	11820	11780	11700	11680	11660	11680	11700	11780
45	10880	10830	10760	10750	10720	10750	10760	10830	10880	10830	10760	10750	10720	10750	10760	10830
50	9808	9778	9717	9705	9681	9705	9717	9778	9808	9778	9717	9705	9681	9705	9717	9778
55	8646	8625	8581	8568	8543	8568	8581	8625	8646	8625	8581	8568	8543	8568	8581	8625
60	7391	7374	7352	7329	7316	7329	7352	7374	7391	7374	7352	7329	7316	7329	7352	7374
65	6031	6041	6026	6009	5996	6009	6026	6041	6031	6041	6026	6009	5996	6009	6026	6041
70	4643	4651	4639	4637	4546	4637	4639	4651	4643	4651	4639	4637	4546	4637	4639	4651
75	3114	3179	3241	2639	2341	2639	3241	3179	3114	3179	3241	2639	2341	2639	3241	3179
80	1755	1800	1249	1054	1033	1054	1249	1800	1755	1800	1249	1054	1033	1054	1249	1800
85	568	407	402	340	340	340	402	407	568	407	402	340	340	340	402	407
90	9	16	19	18	19	18	19	16	9	16	19	18	19	18	19	16
95	4	4	3	2	2	2	3	4	4	4	3	2	2	2	3	4
100	2	2	1	1	0	1	1	2	2	2	1	1	0	1	1	2
105	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1
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/m<sup>2</sup>)**

Horizontal Angle (Degrees)

	0	45	90
0	27350	27350	27350
45	27600	27310	27210
55	27040	26840	26720
65	25600	25580	25450
75	21580	22470	16230
85	11700	8266	7004



### 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	54150	54150	54150	54150	52890	52890	52890	52890	50538	50538	50538	48387	48387	48387	46411	46411	46411	45482
1	49516	47360	45429	43688	48277	46327	44568	42974	44391	42942	41614	42612	41431	40338	40973	40024	39137	38185
2	44960	41191	38072	35450	43757	40328	37459	35024	38707	36291	34203	37213	35194	33420	35831	34162	32672	31682
3	40911	36071	32326	29342	39773	35347	31873	29074	33984	31005	28552	32723	30183	28048	31552	29403	27562	26558
4	37391	31875	27836	24751	36335	31265	27492	24574	30115	26830	24228	29047	26199	23892	28053	25597	23565	22566
5	34333	28414	24277	21224	33365	27899	24011	21103	26925	23495	20866	26019	23002	20633	25172	22529	20406	19427
6	31663	25529	21413	18459	30782	25093	21202	18373	24264	20793	18204	23491	20399	18037	22767	20021	17874	16925
7	29325	23105	19074	16249	28527	22733	18904	16186	22024	18574	16061	21361	18255	15939	20738	17948	15818	14903
8	27273	21052	17140	14453	26551	20733	17002	14406	20124	16732	14312	19552	16471	14219	19014	16219	14128	13250
9	25461	19297	15522	12972	24809	19022	15408	12936	18496	15184	12864	18000	14968	12792	17533	14758	12722	11881
10	23856	17786	14154	11736	23266	17547	14058	11707	17091	13872	11651	16659	13691	11595	16252	13515	11539	10736

### Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	953	5.17
6.00	424	7.76
8.00	238	10.3
10.0	152	12.9
12.0	106	15.5
14.0	77.8	18.1
16.0	59.6	20.7

### Cone of Light Plot

