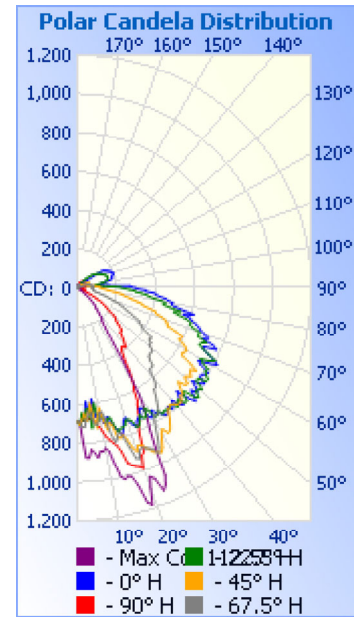


Photometrics Pro

Luminaire Photometric Report

Filename: Wall Pack WP 18W - 277V
Manufacturer: SARIN Energy Inc.
Luminaire: SES-WP-3000-18
Lamp Output: Total luminaire Lumens: 2233.4
Max Candela: 1,185.4 at Horizontal: 112.5°, Vertical: 19°
Input Wattage: 18.3
Luminous Opening: Point
Test Date: 2016-11-08
Test Lab: Standard-Tech Co. Ltd
Photometry : Type C
Nema Type: 6 X 6

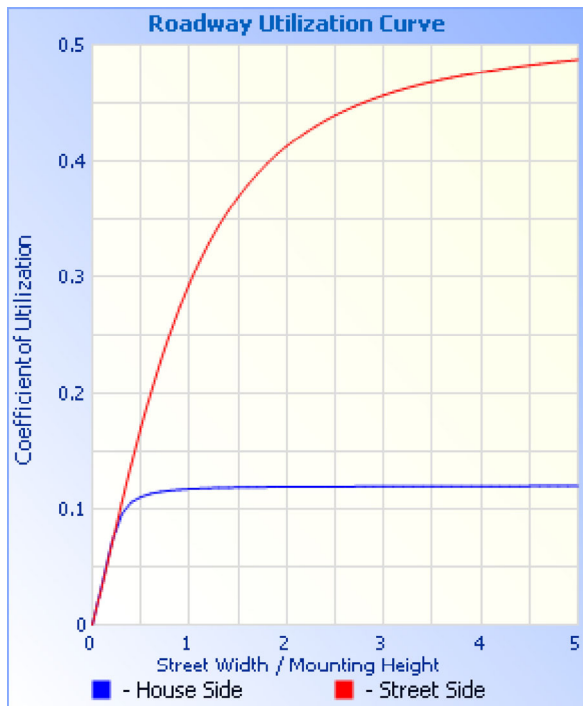
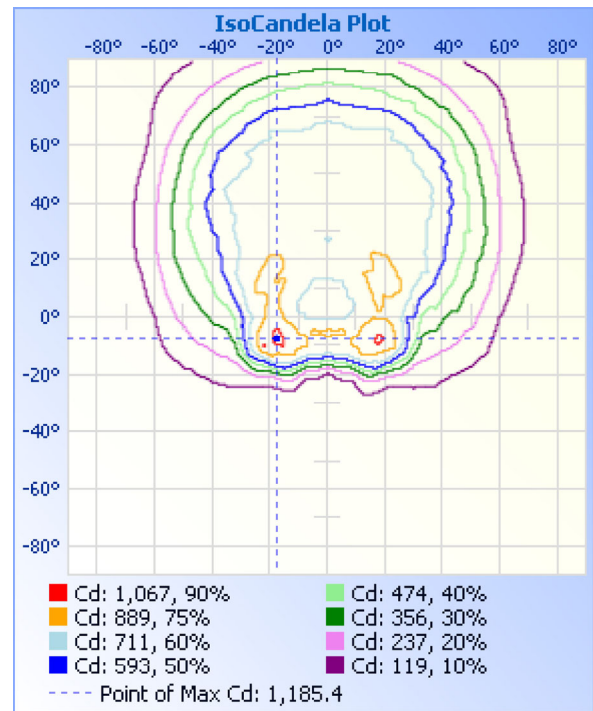
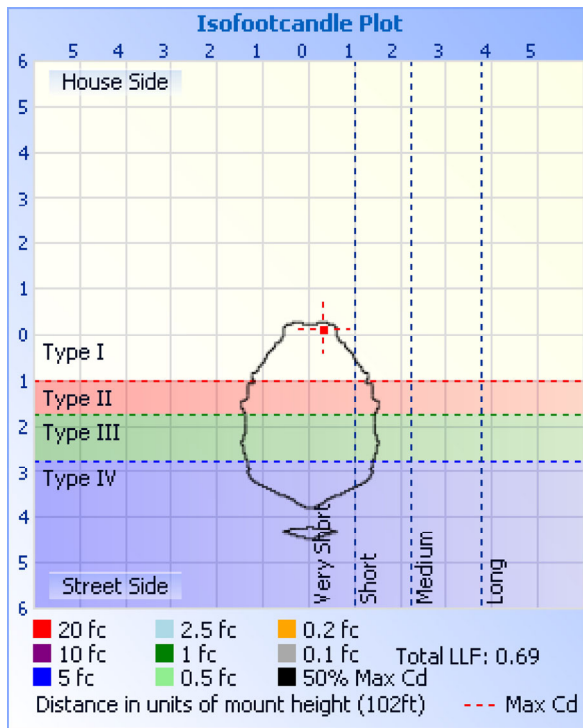


Roadway Summary		
Cutoff Classification:	NONCUTOFF	
Distribution:	TYPE IV, VERY SHORT	
Max Cd, 90 Deg Vert:	298.8	
Max Cd, 80 to <90 Deg:	495.2	
	Lumens	% Lamp
Downward Street Side:	1,638.9	73.4%
Downward House Side:	371.9	16.6%
Downward Total:	2,010.7	90%
Upward Street Side:	196.4	8.8%
Upward House Side:	26.4	1.2%
Upward Total:	222.8	10%
Total Lumens:	2,233.5	100%

Flood Summary				
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	90.7%	2,026.4	115.5	119.8
Beam (50%):	61.3%	1,368.4	57	89.8
Total:	99.9%	2,232.3		

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	591.9	26.5%
0-40	872.9	39.1%
0-60	1,453.8	65.1%
60-90	556.8	24.9%
70-100	364.4	16.3%
90-120	161.5	7.2%
0-90	2,010.6	90%
90-180	222.8	10%
0-180	2,233.4	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	72.5	3.2%	90-100	61.8	2.8%
10-20	222.8	10.0%	100-110	54.6	2.4%
20-30	296.6	13.3%	110-120	45.1	2%
30-40	281.0	12.6%	120-130	31.7	1.4%
40-50	291.6	13.1%	130-140	17.6	0.8%
50-60	289.3	13.0%	140-150	7.1	0.3%
60-70	254.2	11.4%	150-160	3.7	0.2%
70-80	186.2	8.3%	160-170	1.0	0%
80-90	116.4	5.2%	170-180	0.2	0%



Illuminance at a Distance

	Center Beam fc	Beam Width	
16.7ft	2.47 fc	33.3 ft	18.1 ft
33.3ft	0.62 fc	66.3 ft	36.1 ft
50.0ft	0.28 fc	99.6 ft	54.3 ft
66.7ft	0.15 fc	132.9 ft	72.4 ft
83.3ft	0.10 fc	166.0 ft	90.4 ft
100.0ft	0.07 fc	199.2 ft	108.5 ft

■ Vert. Spread: 89.8°
■ Horiz. Spread: 57.0°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50				30				10				0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.17	1.17	1.17	1.17	1.13	1.13	1.13	.90	1.06	1.06	1.06	.99	.99	.99	.93	.93	.93	.90			
1	1.05	1.00	.95	.90	1.01	.96	.92	.73	.90	.87	.83	.84	.82	.79	.79	.77	.75	.72			
2	.95	.86	.79	.73	.91	.83	.77	.61	.78	.73	.68	.73	.69	.65	.69	.65	.62	.59			
3	.87	.76	.67	.60	.83	.73	.65	.51	.69	.62	.57	.65	.59	.55	.61	.56	.52	.50			

4	.79	.67	.58	.51	.76	.65	.57	.44	.61	.54	.49	.58	.52	.47	.54	.49	.45	.43
5	.73	.60	.51	.44	.70	.58	.50	.39	.55	.48	.42	.52	.46	.41	.49	.44	.39	.37
6	.68	.54	.45	.39	.65	.53	.44	.34	.50	.43	.37	.47	.41	.36	.45	.39	.35	.33
7	.63	.49	.41	.34	.60	.48	.40	.31	.46	.38	.33	.43	.37	.32	.41	.36	.31	.29
8	.59	.45	.37	.31	.56	.44	.36	.28	.42	.35	.30	.40	.34	.29	.38	.32	.28	.26
9	.55	.42	.33	.28	.53	.41	.33	.25	.39	.32	.27	.37	.31	.26	.35	.30	.26	.24
10	.52	.38	.31	.25	.50	.38	.30	.23	.36	.29	.25	.34	.28	.24	.33	.27	.24	.22

Candela Table - Type C																	
	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	688	688	688	688	688	688	688	688	688	688	688	688	688	688	688	688	688
1	709	710	708	688	686	697	779	839	856	857	833	761	698	727	731	717	709
2	655	648	680	721	685	787	870	808	805	795	835	842	696	731	666	656	655
3	683	687	650	717	683	876	842	841	840	858	825	875	699	681	667	694	683
4	589	629	689	674	676	878	857	816	823	814	862	839	700	642	686	607	589
5	650	625	646	652	679	836	829	910	927	916	838	829	704	669	620	627	650
6	664	727	601	662	685	854	856	898	842	914	854	856	714	720	613	698	664
7	575	640	663	703	688	880	916	931	954	918	927	855	725	717	706	608	575
8	672	603	730	718	706	851	870	857	798	847	880	838	741	682	698	646	672
9	668	696	673	698	727	853	877	827	883	833	848	828	760	659	629	713	668
10	650	673	628	659	754	838	972	909	792	950	964	838	787	680	679	654	650
11	708	684	696	652	783	860	850	799	828	787	820	852	809	740	776	677	708
12	688	720	749	699	801	932	905	843	704	859	840	888	819	786	740	739	688
13	682	692	714	779	818	1003	1008	744	684	729	1031	961	839	783	677	704	682
14	712	691	726	820	837	1019	897	717	560	716	887	1013	849	742	747	714	712
15	747	741	793	796	870	1006	951	596	429	603	920	1075	860	727	822	764	747
16	764	774	805	773	938	1013	927	528	411	538	961	1019	898	796	811	781	764
17	794	757	788	801	955	1062	927	460	250	470	942	999	876	893	814	770	794
18	765	758	817	860	965	1165	919	363	139	395	895	1083	870	941	870	772	765
19	723	750	871	927	973	1185	866	278	119	281	849	1153	888	923	924	751	723
20	713	726	895	934	990	1100	837	229	90	260	813	1117	870	879	945	736	713
21	736	729	869	895	923	1042	732	176	78	193	775	1037	896	885	922	739	736
22	763	741	870	888	912	1062	674	119	70	138	635	986	868	899	895	775	763
23	775	778	892	898	816	1137	682	92	64	105	651	991	815	924	886	800	775
24	751	780	910	905	773	1114	537	93	60	93	609	989	798	917	904	802	751
25	740	760	933	915	759	1068	440	96	57	93	478	934	740	900	934	767	740
26	746	731	941	950	714	914	355	102	52	100	327	842	663	930	975	758	746
27	698	753	950	922	677	819	239	100	49	103	300	723	598	941	1001	776	698
28	704	756	932	882	657	767	201	97	45	107	241	646	561	893	964	736	704
29	763	709	895	832	595	700	153	91	40	108	166	599	571	812	892	714	763
30	771	734	865	792	577	640	134	85	35	101	142	533	593	747	841	759	771
31	737	776	849	768	539	516	118	77	31	98	125	456	574	740	879	782	737
32	761	775	882	771	504	440	100	72	28	94	108	374	497	754	913	764	761
33	771	756	874	768	449	344	82	67	26	89	89	293	406	777	869	777	771
34	786	785	851	738	424	280	73	59	24	82	79	251	381	769	851	791	786
35	800	776	830	709	398	254	65	53	22	70	71	233	404	717	851	788	800
36	789	779	796	684	386	222	59	48	21	59	67	226	403	711	849	789	789
37	769	781	779	652	379	210	52	42	20	53	60	221	409	724	822	782	769
38	794	776	768	651	388	206	47	37	18	46	52	203	412	729	797	777	794
39	781	774	775	637	394	194	43	33	17	40	44	192	367	681	805	810	781
40	756	802	786	613	377	179	39	32	17	35	39	175	359	657	836	807	756
41	798	784	795	573	364	165	37	29	15	30	35	157	361	633	832	759	798
42	813	773	795	559	350	147	36	27	14	26	32	155	327	624	801	781	813
43	764	811	779	559	330	140	35	24	12	23	31	153	325	607	772	827	764
44	737	810	765	558	317	134	34	23	11	20	30	137	343	599	798	804	737
45	798	769	765	528	316	127	32	22	10	18	27	115	333	582	786	762	798
46	843	765	731	511	317	114	31	19	9	16	24	104	305	579	739	789	843

47	822	822	709	505	307	100	30	18	9	14	22	97	290	557	749	842	822
48	786	839	746	506	288	91	30	16	8	14	20	84	267	535	785	842	786
49	817	807	750	503	271	75	29	16	6	12	17	71	249	531	768	804	817
50	794	813	719	502	259	59	26	14	6	13	14	57	269	509	748	831	794
51	760	825	722	481	253	50	25	12	5	11	12	47	247	510	767	814	760
52	798	777	741	470	247	43	23	12	5	10	10	38	241	488	773	763	798
53	818	775	726	474	235	35	20	12	5	10	8	32	214	477	736	797	818
54	780	818	717	455	210	30	18	9	4	9	7	28	191	450	724	824	780
55	778	818	745	455	189	26	16	9	4	8	6	26	177	428	726	791	778
56	796	796	701	460	182	24	15	7	3	8	6	24	182	477	728	804	796
57	803	784	643	430	171	22	14	6	3	7	6	22	153	455	697	825	803
58	747	791	635	396	158	20	13	6	3	6	6	20	135	384	658	818	747
59	726	753	642	387	143	18	12	6	2	6	6	18	134	386	684	756	726
60	776	731	647	377	120	17	11	5	2	6	6	17	111	413	683	739	776
61	821	777	636	362	105	15	10	4	1	5	6	16	97	375	636	788	821
62	797	802	615	358	94	14	8	4	1	4	7	14	90	336	596	831	797
63	752	759	586	329	78	13	7	3	1	4	7	13	74	339	599	788	752
64	719	718	590	310	62	12	6	3	1	3	6	12	62	325	612	738	719
65	715	691	595	289	56	11	6	2	1	4	6	11	55	293	591	704	715
66	782	698	553	271	48	9	6	2	1	4	6	11	50	271	542	739	782
67	757	721	506	258	45	9	5	2	1	3	5	10	47	268	514	742	757
68	693	669	498	239	42	8	5	2	1	3	5	9	44	240	519	668	693
69	721	667	491	231	39	8	5	2	1	3	5	9	42	234	504	676	721
70	695	667	480	207	36	8	5	2	1	3	5	8	40	220	493	679	695
71	668	626	455	189	34	8	5	1	1	2	5	8	38	205	475	651	668
72	656	608	423	172	32	8	5	1	1	2	5	8	36	179	433	627	656
73	638	609	422	158	31	8	5	1	1	2	5	8	35	170	412	603	638
74	610	582	382	144	30	8	6	1	1	1	5	8	33	155	412	583	610
75	600	538	349	129	28	8	6	1	1	1	6	8	32	142	359	541	600
76	561	509	340	116	27	8	6	2	1	1	6	8	31	125	348	526	561
77	614	545	314	103	26	8	7	2	1	2	6	8	30	115	347	560	614
78	558	487	289	96	25	8	8	2	1	2	7	8	28	105	300	487	558
79	511	449	271	90	25	8	9	2	1	2	7	8	28	99	273	453	511
80	492	460	253	86	25	8	9	2	1	2	7	8	28	96	258	468	492
81	495	441	238	84	25	8	9	2	1	2	8	8	28	92	244	450	495
82	472	399	227	82	25	8	9	2	1	2	8	8	28	90	233	398	472
83	454	370	204	81	26	8	9	2	1	2	8	9	29	88	211	385	454
84	423	359	187	80	26	8	9	2	1	2	8	9	29	87	196	377	423
85	406	333	168	79	26	8	9	2	1	2	8	9	29	85	178	355	406
86	398	302	154	78	27	8	9	2	1	2	8	9	29	83	158	317	398
87	353	296	144	78	29	8	9	2	1	2	9	9	30	82	147	304	353
88	353	270	134	77	30	9	9	2	1	2	9	9	31	81	133	279	353
89	311	247	126	77	30	9	8	2	1	2	8	9	32	80	125	257	311
90	299	232	120	77	31	9	8	1	1	2	8	9	33	80	121	235	299
91	275	216	116	77	33	9	8	1	1	2	8	10	34	79	117	227	275
92	272	192	113	77	35	9	7	1	1	2	8	10	35	78	114	216	272
93	187	157	110	78	36	10	7	1	1	2	7	10	36	78	110	160	187
94	159	133	105	78	38	10	7	1	1	2	7	10	38	78	103	138	159
95	134	106	98	79	40	10	7	1	1	2	7	10	39	78	94	109	134

96	113	93	91	80	41	10	7	1	1	2	6	10	41	78	84	101	113
97	110	91	81	80	42	10	7	1	1	2	6	10	43	76	73	98	110
98	112	97	71	79	43	10	7	1	2	2	6	10	44	73	64	106	112
99	121	107	62	77	44	9	7	1	2	2	6	10	45	69	55	116	121
100	133	116	54	73	45	9	6	1	2	2	6	10	47	65	51	127	133
101	140	126	51	70	45	9	6	1	2	2	6	10	48	61	52	139	140
102	151	139	51	67	45	9	5	1	2	2	5	9	49	57	53	156	151
103	166	151	52	63	45	9	5	1	1	2	5	9	49	54	56	167	166
104	178	159	53	59	45	8	5	2	1	2	5	9	49	50	59	173	178
105	184	161	56	54	45	8	4	2	1	2	5	8	48	45	62	173	184
106	185	163	60	48	45	7	4	2	1	2	4	8	47	39	65	174	185
107	186	163	63	42	44	7	3	2	1	2	4	7	46	32	68	176	186
108	186	164	64	36	44	6	3	2	1	2	3	7	44	27	69	177	186
109	189	164	65	30	42	6	3	2	1	2	3	6	41	21	69	178	189
110	192	165	64	23	40	5	3	2	1	2	3	6	38	17	69	178	192
111	197	166	64	18	38	5	3	2	1	2	3	6	35	13	68	178	197
112	198	164	61	14	36	4	4	2	1	2	3	5	32	13	66	177	198
113	197	162	59	11	32	4	4	1	1	2	3	5	27	14	64	174	197
114	196	159	57	10	27	4	4	1	1	2	4	5	24	16	61	172	196
115	193	155	54	10	22	4	5	1	1	2	4	5	21	18	58	170	193
116	189	152	51	11	16	5	5	1	1	2	4	5	16	19	55	166	189
117	184	150	48	14	14	5	5	1	1	2	4	5	16	20	51	164	184
118	181	146	45	16	15	5	4	1	1	2	4	5	18	21	48	160	181
119	177	144	42	17	17	6	4	1	1	2	4	6	20	22	45	157	177
120	171	142	39	17	19	6	4	1	1	2	4	6	23	20	43	154	171
121	167	140	36	14	22	7	4	1	1	1	4	6	28	17	40	152	167
122	163	137	34	11	26	7	4	1	1	1	4	7	34	13	39	149	163
123	160	132	33	8	31	7	4	1	1	1	4	7	43	9	37	145	160
124	151	128	31	8	35	7	4	1	1	1	4	7	48	8	36	141	151
125	132	125	30	7	37	7	4	1	1	1	4	7	51	8	36	136	132
126	101	121	30	7	38	7	3	1	1	1	4	8	51	8	35	131	101
127	62	117	29	7	38	7	3	1	1	1	3	8	51	8	35	126	62
128	31	113	28	8	39	8	3	1	1	1	3	9	51	8	33	120	31
129	46	108	28	8	40	8	3	1	1	1	3	10	51	8	33	114	46
130	55	103	27	8	40	8	3	1	1	1	3	10	51	8	32	108	55
131	51	98	25	9	41	9	3	1	1	1	3	11	51	9	30	101	51
132	47	91	24	9	41	9	3	1	1	1	3	12	51	9	29	94	47
133	43	84	23	9	42	10	3	1	1	1	3	12	51	10	27	87	43
134	40	78	22	10	43	11	3	1	1	1	3	13	52	10	26	79	40
135	36	71	20	10	44	11	3	1	1	1	3	14	52	10	24	69	36
136	34	64	19	10	44	12	3	1	1	1	3	16	51	10	22	56	34
137	31	56	17	11	44	13	3	1	1	1	3	17	50	11	19	43	31
138	28	47	14	11	44	14	3	1	1	1	3	18	48	11	17	31	28
139	26	35	11	11	43	16	3	1	1	1	3	19	46	11	12	21	26
140	24	25	8	12	42	17	3	1	1	1	3	19	44	12	8	14	24
141	22	15	6	12	41	18	3	1	1	1	3	20	42	12	6	8	22
142	17	10	4	12	39	19	3	1	1	1	3	20	41	12	4	5	17
143	5	9	4	12	38	20	3	1	1	1	3	20	39	13	4	10	5
144	1	9	4	13	36	21	4	1	1	1	3	20	37	13	4	15	1

145	9	9	5	13	34	21	4	1	1	1	3	19	35	13	5	14	9
146	12	8	5	13	32	21	4	1	1	1	3	19	33	14	5	12	12
147	11	6	5	13	31	21	4	1	1	1	3	18	32	14	5	8	11
148	9	2	5	14	29	20	5	1	1	1	3	17	30	14	5	3	9
149	6	0	5	14	28	20	5	1	1	1	3	16	29	15	5	1	6
150	2	0	6	14	26	19	6	1	1	1	3	16	27	15	5	1	2
151	1	0	6	14	25	19	6	1	1	1	3	15	26	15	6	1	1
152	1	1	6	14	24	19	7	1	1	1	3	14	25	15	6	1	1
153	1	1	6	14	23	18	7	1	1	1	3	13	24	15	6	1	1
154	1	2	6	14	22	18	7	1	1	1	2	12	23	15	6	2	1
155	1	2	6	14	21	17	8	1	1	1	2	12	22	15	6	2	1
156	2	2	6	14	20	17	8	1	1	1	2	11	21	15	5	2	2
157	2	3	5	14	19	16	8	1	1	1	1	10	19	15	5	3	2
158	2	3	4	14	19	16	8	1	1	1	1	9	18	15	4	3	2
159	2	3	3	14	17	15	7	1	1	1	1	8	17	14	3	3	2
160	2	3	3	13	16	14	7	1	1	1	1	6	16	13	2	3	2
161	2	3	2	11	14	13	6	1	1	1	1	5	14	11	2	3	2
162	2	3	2	9	12	11	5	1	1	1	1	3	12	9	2	3	2
163	3	3	2	6	9	9	4	2	1	1	1	2	10	6	2	3	3
164	3	3	2	3	6	6	2	2	1	1	1	1	7	3	2	3	3
165	3	3	2	2	4	4	2	2	1	1	1	1	5	2	3	3	3
166	3	3	1	1	3	3	2	2	1	1	1	2	3	1	2	3	3
167	3	2	1	1	3	3	3	2	1	1	1	2	3	1	1	2	3
168	2	2	1	2	5	4	4	2	1	1	1	2	4	1	1	2	2
169	2	1	1	3	6	5	4	2	1	1	1	2	5	2	1	1	2
170	1	1	1	3	5	5	3	2	1	1	1	2	5	2	1	1	1
171	1	1	1	3	5	5	3	1	1	1	1	2	5	3	1	1	1
172	1	1	2	2	4	4	3	1	1	1	1	2	4	2	1	1	1
173	1	1	2	2	3	3	2	1	1	1	1	1	3	2	2	1	1
174	1	2	2	2	2	2	2	1	1	1	1	1	2	2	2	1	1
175	2	2	2	2	2	2	2	1	1	1	1	1	2	2	2	1	2
176	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	2
177	2	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	2
178	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
179	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Luminaire Report Summary

IESNA:LM-63-2002

[TEST]

[TESTDATE] 2016-11-08

[TESTLAB] Standard-Tech Co. Ltd

[ISSUE DATE] 2016-11-08 14:12:31

[MANUFAC] SARIN Energy Inc.

[LUMINAIRE] SES-WP-3000-18

[_LAMPPOSITION] 0,0

[_TOTALLUMINAIRELUMENS] 2233.4

[OTHER] EVERFINE GO-R5000_V2 SYSTEMGamma(deg) Fz(lm) Ft(lm) %Lum %Lamp0- 10 72.46
72.46 3.24 3.2410- 20 222.71 295.17 13.21 13.2120- 30 296.32 591.49 26.47 26.4730-
40 281.01 872.51 39.04 39.0440- 50 291.76 1164.27 52.10 52.1050- 60 289.66 1453.92
65.06 65.0660- 70 254.63 1708.55 76.45 76.4570- 80 186.53 1895.09 84.80 84.8080-
90 116.68 2011.77 90.02 90.0290-100 61.89 2073.66 92.79 92.79100-110 54.64 2128.30
95.23 95.23110-120 45.21 2173.52 97.26 97.26120-130 31.72 2205.24 98.68 98.68130-
140 17.65 2222.89 99.47 99.47140-150 7.10 2229.98 99.78 99.78150-160 3.70 2233.68
99.95 99.95160-170 0.97 2234.66 99.99 99.99170-180 0.17 2234.82 100.00 100.00

FILE: CREATED USING ABSOLUTE PHOTOMETRY

FILE: CANDELA MULTIPLIER: 1

FILE: VERTICAL ANGLES: 181, HORIZONTAL ANGLES: 17

FILE: COORDINATE SYSTEM: TYPE C

FILE: UNIT OF MEASURE: METRIC

FILE: BALLAST FACTOR: 1

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Reported data calculated from manufacturer's data file, based on IES recommended methods.