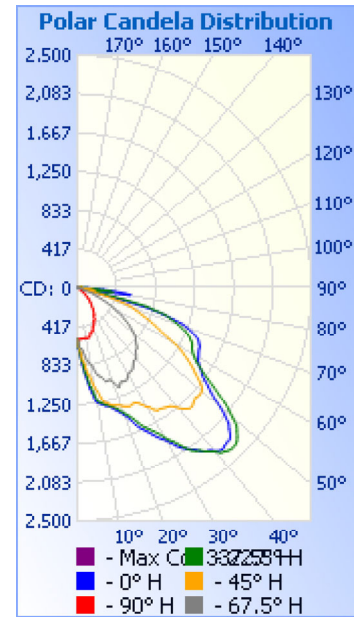


# Photometrics Pro

## Luminaire Photometric Report

**Filename:** Wall Pack WPBR 40W  
**Manufacturer:** SARIN Energy Inc.  
**Luminaire:** SES-WPBR-5000-40  
**Lamp Output:** 1 lamp, rated Lumens/lamp: 2901.6  
**Max Candela:** 2,465.3 at Horizontal: 337.5°, Vertical: 45°  
**Input Wattage:** 39.9  
**Luminous Opening:** Rectangle (L: 20.87", W: 20.87")  
**Test Date:** 2014-07-31  
**Test Lab:** Standard-Tech Co.,Ltd  
**Photometry :** Type C  
**Nema Type:** 6 X 5



### Roadway Summary

Cutoff Classification:	SEMICUTOFF	
Distribution:	TYPE IV, VERY SHORT	
Max Cd, 90 Deg Vert:	43.7	
Max Cd, 80 to <90 Deg:	575.6	
	Lumens	% Lamp
Downward Street Side:	2,763.5	95.2%
Downward House Side:	104.7	3.6%
Downward Total:	2,868.1	98.8%
Upward Street Side:	16.9	0.6%
Upward House Side:	7.2	0.2%
Upward Total:	24.1	0.8%
<b>Total Lumens:</b>	<b>2,892.2</b>	<b>99.7%</b>

### Flood Summary

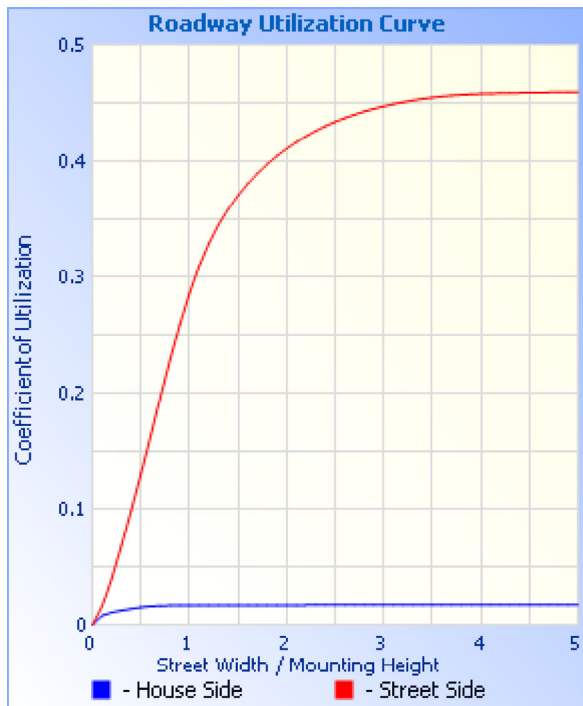
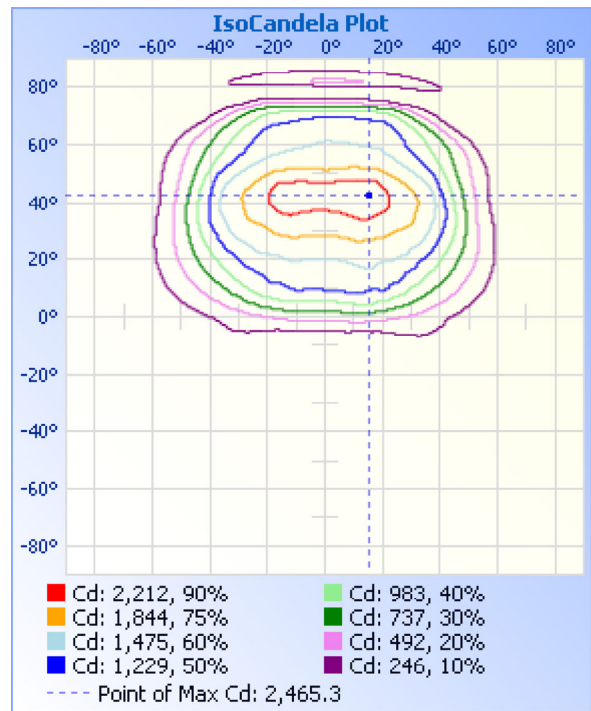
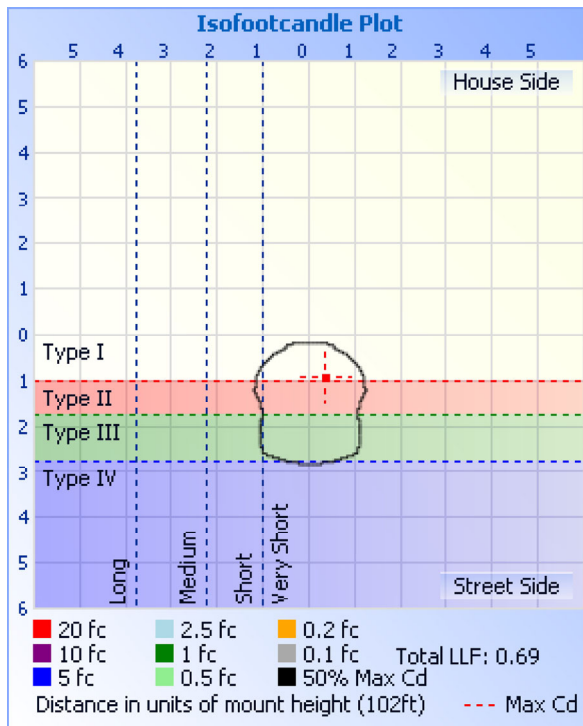
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	93.8%	2,722.0	114.2	80.9
Beam (50%):	65.6%	1,904.8	81	59.8
<b>Total:</b>	<b>99.7%</b>	<b>2,891.6</b>		

### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	572.1	19.7%	19.8%
0-40	1,072.6	37%	37.1%
0-60	2,243.4	77.3%	77.6%
60-90	624.5	21.5%	21.6%
70-100	232.2	8%	8%
90-120	19.5	0.7%	0.7%
0-90	2,867.9	98.8%	99.2%
90-180	24.1	0.8%	0.8%
0-180	2,892.0	99.7%	100%

### Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	55.3	1.9%	90-100	11.3	0.4%
10-20	182.7	6.3%	100-110	5.7	0.2%
20-30	334.1	11.6%	110-120	2.5	0.1%
30-40	500.5	17.3%	120-130	1.4	0%
40-50	625.4	21.6%	130-140	1.2	0%
50-60	545.5	18.9%	140-150	1.0	0%
60-70	403.6	14.0%	150-160	0.6	0%
70-80	156.3	5.4%	160-170	0.3	0%
80-90	64.6	2.2%	170-180	0.1	0%



**Illuminance at a Distance**

	Center Beam fc	Beam Width	
16.7ft	1.98 fc	19.2 ft	28.5 ft
33.3ft	0.50 fc	38.3 ft	56.9 ft
50.0ft	0.22 fc	57.5 ft	85.4 ft
66.7ft	0.12 fc	76.8 ft	113.9 ft
83.3ft	0.08 fc	95.9 ft	142.2 ft
100.0ft	0.06 fc	115.1 ft	170.8 ft

■ Vert. Spread: 59.8°  
■ Horiz. Spread: 81.0°

**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	0	50	30	20	0	50	30	20	0	50	30	20	0
RCR: 0	1.18	1.18	1.18	1.18	1.16	1.16	1.16	.99	1.10	1.10	1.10	1.10	1.05	1.05	1.05	1.05	1.01	1.01	1.01	1.01	.99	.99	.99	.99
1	1.08	1.03	.98	.94	1.05	1.00	.96	.83	.96	.93	.90	.90	.92	.89	.87	.87	.88	.86	.84	.84	.82	.82	.82	.82
2	.97	.89	.82	.76	.95	.87	.80	.69	.83	.78	.73	.73	.80	.75	.71	.71	.77	.73	.69	.69	.67	.67	.67	.67
3	.88	.77	.69	.62	.86	.76	.68	.57	.72	.66	.60	.60	.70	.64	.59	.59	.67	.62	.58	.58	.56	.56	.56	.56

4	.80	.68	.59	.51	.78	.66	.58	.48	.64	.56	.50	.61	.55	.49	.59	.53	.49	.46
5	.73	.60	.50	.43	.71	.59	.50	.41	.56	.49	.43	.54	.47	.42	.52	.46	.41	.39
6	.67	.53	.44	.37	.65	.52	.43	.35	.50	.42	.36	.48	.41	.36	.47	.41	.36	.34
7	.62	.48	.39	.32	.60	.47	.38	.31	.45	.37	.32	.44	.37	.31	.42	.36	.31	.29
8	.57	.43	.34	.28	.56	.42	.34	.27	.41	.33	.28	.40	.33	.27	.38	.32	.27	.25
9	.53	.39	.31	.25	.52	.39	.30	.24	.37	.30	.25	.36	.29	.24	.35	.29	.24	.22
10	.50	.36	.28	.22	.48	.35	.27	.21	.34	.27	.22	.33	.26	.22	.32	.26	.22	.20

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	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551
1	651	646	635	598	554	526	517	505	507	510	517	525	552	601	640	646	651
2	706	684	657	641	558	519	470	416	403	422	475	515	554	642	663	683	706
3	789	780	711	652	554	499	395	371	363	374	396	508	563	662	724	774	789
4	849	813	784	659	553	442	374	279	265	288	376	473	567	678	800	815	849
5	936	913	800	686	551	400	292	248	223	251	311	422	572	714	826	911	936
6	992	946	872	732	548	385	256	162	145	165	263	398	583	774	902	954	992
7	1082	1044	932	778	547	380	215	130	77	136	236	391	584	820	955	1061	1082
8	1136	1082	955	801	548	347	150	47	42	50	160	377	584	832	995	1101	1136
9	1232	1160	1031	814	548	293	133	41	40	41	139	336	595	844	1090	1189	1232
10	1251	1230	1092	834	549	265	59	39	38	39	75	291	603	884	1136	1257	1251
11	1268	1251	1127	872	550	259	44	38	38	38	43	267	603	950	1176	1280	1268
12	1280	1268	1206	928	551	240	42	38	39	38	41	260	604	986	1271	1296	1280
13	1300	1279	1255	960	548	189	41	39	40	39	40	237	601	1004	1310	1307	1300
14	1308	1299	1270	975	543	154	40	40	42	40	39	183	598	1030	1328	1323	1308
15	1316	1311	1291	988	527	142	40	42	44	42	39	148	579	1079	1350	1343	1316
16	1342	1324	1309	1018	499	124	40	44	48	46	39	137	562	1139	1363	1355	1342
17	1369	1344	1323	1050	495	81	40	48	53	50	40	127	565	1150	1375	1366	1369
18	1393	1366	1328	1046	498	51	41	52	58	55	41	87	566	1115	1385	1382	1393
19	1418	1394	1339	1041	495	47	42	56	63	59	43	51	563	1120	1398	1422	1418
20	1452	1424	1346	1054	482	45	44	61	68	64	45	43	548	1158	1426	1454	1452
21	1487	1457	1363	1090	455	44	46	66	74	68	48	42	526	1206	1447	1488	1487
22	1535	1488	1377	1137	445	43	48	71	80	73	51	41	519	1222	1457	1536	1535
23	1595	1529	1387	1152	440	42	51	75	83	77	54	41	515	1224	1479	1589	1595
24	1646	1579	1391	1123	436	42	54	79	85	81	56	40	510	1200	1475	1636	1646
25	1681	1631	1381	1109	420	42	57	82	84	84	60	40	492	1189	1467	1678	1681
26	1721	1672	1380	1115	396	42	60	82	80	85	62	40	479	1191	1467	1731	1721
27	1763	1708	1385	1119	394	42	62	79	75	83	65	41	473	1203	1490	1765	1763
28	1812	1746	1409	1121	391	42	64	76	69	79	66	41	466	1210	1516	1806	1812
29	1851	1789	1438	1104	380	42	66	71	62	74	67	41	453	1213	1552	1862	1851
30	1885	1846	1475	1081	352	42	66	65	54	68	67	42	431	1175	1586	1920	1885
31	1939	1906	1498	1066	342	43	66	58	46	61	66	42	424	1138	1619	1958	1939
32	2000	1944	1544	1063	338	43	64	50	39	54	64	42	415	1129	1633	2022	2000
33	2046	2009	1571	1060	331	43	61	42	31	46	62	42	402	1126	1658	2086	2046
34	2080	2072	1573	1057	307	43	57	35	26	39	59	42	379	1126	1712	2129	2080
35	2112	2127	1583	1036	292	44	53	28	21	31	55	42	366	1125	1732	2172	2112
36	2142	2160	1594	1016	288	44	48	23	18	26	50	41	359	1104	1733	2214	2142
37	2192	2182	1602	995	273	43	43	19	15	22	45	41	337	1073	1743	2257	2192
38	2225	2224	1616	988	247	43	38	16	13	18	41	41	309	1073	1761	2301	2225
39	2241	2257	1642	987	240	42	33	14	11	15	36	40	302	1055	1791	2337	2241
40	2279	2289	1685	975	236	41	29	12	9	13	31	39	288	1055	1830	2370	2279
41	2314	2343	1724	957	221	40	24	10	7	10	27	38	266	1050	1859	2398	2314
42	2325	2359	1751	933	206	39	21	8	6	9	23	37	249	1022	1884	2454	2325
43	2313	2381	1770	916	197	37	18	7	5	7	19	36	241	997	1906	2462	2313
44	2304	2390	1771	914	182	36	15	6	4	6	16	34	223	981	1908	2463	2304
45	2306	2388	1756	902	168	34	13	4	3	5	14	33	207	971	1881	2465	2306
46	2275	2375	1740	878	159	32	11	4	3	4	11	32	191	955	1860	2445	2275

47	2223	2341	1728	857	141	30	9	3	2	3	9	30	166	925	1874	2398	2223
48	2181	2300	1737	838	129	28	7	2	2	2	8	28	153	903	1852	2365	2181
49	2097	2261	1740	827	118	26	6	2	1	2	6	26	135	883	1846	2303	2097
50	2001	2175	1734	806	103	24	5	1	1	2	5	23	115	865	1827	2235	2001
51	1896	2092	1720	777	94	22	5	1	1	1	5	21	99	829	1793	2161	1896
52	1811	2005	1677	749	77	19	4	1	1	1	4	19	77	809	1762	2076	1811
53	1753	1896	1621	726	72	17	4	1	1	1	3	16	70	757	1713	1964	1753
54	1686	1801	1561	692	68	15	3	1	1	1	3	14	68	739	1642	1861	1686
55	1628	1708	1515	661	64	13	2	1	1	1	2	12	64	698	1573	1758	1628
56	1603	1623	1461	625	60	11	1	1	2	1	1	10	60	650	1474	1678	1603
57	1563	1567	1403	591	54	9	1	1	2	1	1	9	51	599	1381	1625	1563
58	1531	1506	1341	554	50	8	1	1	2	1	1	8	45	550	1315	1575	1531
59	1505	1466	1289	512	46	7	0	1	2	1	0	6	41	507	1251	1524	1505
60	1497	1431	1212	478	42	6	0	1	2	1	0	5	35	454	1184	1491	1497
61	1484	1410	1114	441	38	5	0	1	2	2	0	5	32	412	1114	1462	1484
62	1470	1389	1040	402	35	4	1	1	2	2	0	4	28	367	1055	1441	1470
63	1462	1379	986	363	32	3	1	2	3	2	0	3	25	321	988	1429	1462
64	1457	1368	931	319	29	3	1	2	3	2	0	3	22	281	930	1407	1457
65	1439	1342	878	283	26	2	0	2	3	2	0	2	20	242	889	1399	1439
66	1422	1318	829	246	24	2	0	2	3	2	0	2	18	203	850	1387	1422
67	1400	1285	770	221	21	1	0	2	3	2	0	1	16	169	813	1356	1400
68	1356	1249	719	200	19	1	0	2	4	2	0	1	14	153	766	1325	1356
69	1305	1194	677	179	16	0	0	2	4	2	0	0	12	128	701	1276	1305
70	1253	1145	636	155	15	0	0	2	4	2	0	0	11	95	619	1232	1253
71	1196	1090	586	121	13	0	0	2	4	2	0	0	10	63	512	1174	1196
72	1073	1030	500	93	11	0	0	2	4	2	0	0	9	44	383	1123	1073
73	948	985	399	69	10	0	0	2	4	2	0	0	8	33	263	995	948
74	795	855	288	53	8	0	0	2	5	2	0	0	7	27	181	861	795
75	454	765	199	41	7	0	0	2	5	2	0	0	6	24	106	651	454
76	124	519	127	33	5	0	0	2	5	2	0	0	5	23	72	324	124
77	60	223	86	28	4	0	0	2	5	2	0	0	4	25	95	85	60
78	44	73	72	25	3	0	0	2	4	2	0	0	3	24	176	47	44
79	36	47	110	23	2	0	0	2	4	2	0	0	2	22	247	36	36
80	30	36	171	22	2	0	0	2	4	2	0	0	2	20	258	29	30
81	294	28	186	21	1	0	0	2	4	2	0	0	1	19	235	156	294
82	576	192	177	20	1	0	0	2	4	2	0	0	1	18	202	471	576
83	528	382	155	19	0	0	0	2	4	1	0	0	1	17	172	444	528
84	443	345	129	18	0	0	0	1	3	1	0	0	1	17	134	357	443
85	361	280	94	17	0	0	0	1	3	1	0	0	1	16	99	274	361
86	280	214	73	17	0	0	0	1	2	1	0	0	1	16	67	204	280
87	195	149	52	16	0	0	0	1	2	1	0	0	0	15	49	145	195
88	110	95	46	15	0	0	0	1	1	1	0	0	0	14	36	82	110
89	47	46	42	14	0	0	0	1	1	1	0	0	0	13	33	41	47
90	44	39	39	13	0	0	0	1	1	1	0	0	0	12	31	39	44
91	43	38	36	12	0	0	0	1	1	1	0	0	0	11	29	37	43
92	41	36	33	11	0	0	0	2	1	2	1	0	0	10	26	34	41
93	39	34	30	9	0	0	1	2	2	2	1	0	0	9	24	32	39
94	37	32	27	8	0	0	1	3	2	3	1	0	0	8	23	30	37
95	35	30	25	7	0	0	1	3	2	3	1	0	0	6	21	28	35

96	34	28	23	6	0	0	1	3	2	3	1	0	0	6	19	27	34
97	32	27	21	5	0	0	1	3	3	3	1	0	0	5	18	25	32
98	30	25	19	4	0	0	2	3	3	3	1	0	0	4	16	24	30
99	29	23	17	3	0	0	2	3	3	3	1	0	0	3	15	22	29
100	27	22	15	2	0	1	2	3	3	3	1	0	0	2	14	21	27
101	26	20	14	2	0	1	2	3	3	3	2	0	0	2	12	19	26
102	24	19	13	1	0	1	2	3	3	3	2	0	0	1	12	18	24
103	23	18	11	1	0	1	2	4	3	3	2	0	0	1	10	17	23
104	22	17	10	0	0	1	2	4	4	3	2	0	0	1	9	16	22
105	20	15	9	0	0	1	2	4	4	3	2	0	0	0	9	15	20
106	19	14	8	0	0	1	3	4	4	3	2	0	0	0	7	14	19
107	18	13	7	0	0	1	3	4	4	3	2	1	0	0	7	13	18
108	17	12	6	0	0	1	3	4	4	3	2	0	0	0	6	12	17
109	15	11	5	0	0	1	3	4	4	3	2	1	0	0	5	10	15
110	14	10	4	0	0	1	3	4	4	3	2	1	0	0	4	10	14
111	13	9	3	0	0	1	3	4	4	4	2	1	0	0	3	9	13
112	12	8	3	0	0	1	3	4	4	4	2	1	0	0	3	8	12
113	10	7	2	0	0	1	3	4	4	4	2	1	0	0	2	7	10
114	9	6	2	0	0	1	3	4	4	4	2	1	0	0	2	6	9
115	7	5	1	0	0	1	3	4	4	4	2	1	0	0	1	5	7
116	4	4	1	0	0	1	3	4	4	4	2	1	0	0	1	4	4
117	1	4	0	0	0	2	3	4	4	4	2	1	0	0	0	3	1
118	2	3	0	0	0	2	3	4	4	4	2	1	0	0	0	3	2
119	3	2	0	0	0	2	3	4	4	4	2	1	0	0	0	2	3
120	3	2	0	0	0	2	3	5	5	4	2	1	0	0	0	2	3
121	2	1	0	0	0	2	3	4	5	4	2	1	0	0	0	1	2
122	2	1	0	0	0	2	3	4	5	4	2	1	0	0	0	1	2
123	2	1	0	0	0	2	3	4	5	4	2	1	0	0	0	1	2
124	2	0	0	0	1	2	3	4	5	4	2	1	0	0	0	1	2
125	1	0	0	0	1	2	3	4	5	4	3	1	0	0	0	0	1
126	0	0	0	0	1	2	3	4	5	4	3	1	0	0	0	0	0
127	0	0	0	0	1	2	3	4	5	4	3	1	0	0	0	0	0
128	0	0	0	0	1	2	3	4	5	4	3	1	0	0	0	0	0
129	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
130	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
131	0	0	0	0	1	2	4	4	5	4	3	2	0	0	0	0	0
132	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
133	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
134	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
135	0	0	0	0	1	2	3	5	5	4	3	2	0	0	0	0	0
136	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
137	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
138	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
139	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
140	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
141	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
142	0	0	0	0	1	2	3	4	5	4	3	2	0	0	0	0	0
143	0	0	0	0	1	2	3	4	4	4	3	2	0	0	0	0	0
144	0	0	0	0	1	2	3	4	4	4	3	2	0	0	0	0	0

145	0	0	0	0	1	2	3	4	4	4	3	2	1	0	0	0	0
146	0	0	0	0	1	2	3	4	4	4	3	2	1	0	0	0	0
147	0	0	0	0	2	2	3	4	4	4	3	2	1	0	0	0	0
148	0	0	0	0	1	2	3	4	4	4	3	2	1	0	0	0	0
149	0	0	0	0	1	2	3	4	4	3	3	2	1	0	0	0	0
150	0	0	0	0	1	2	3	4	4	3	3	2	1	0	0	0	0
151	0	0	0	0	1	2	3	4	4	3	3	2	1	0	0	0	0
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153	0	0	0	0	2	2	3	3	3	3	1	2	1	0	0	0	0
154	0	0	0	0	2	2	3	3	3	3	2	2	1	0	0	0	0
155	0	0	0	0	2	2	3	3	3	3	2	2	1	0	0	0	0
156	0	0	0	0	2	2	3	3	3	3	2	2	1	0	0	0	0
157	0	0	0	0	2	2	2	3	2	2	2	2	1	1	0	0	0
158	0	0	0	0	2	2	2	3	2	2	2	2	1	0	0	0	0
159	0	0	0	0	2	2	2	3	2	2	2	2	1	0	0	0	0
160	0	0	0	0	2	2	2	3	2	2	2	2	1	0	0	0	0
161	0	0	0	0	2	2	2	2	2	2	2	2	1	0	0	0	0
162	0	0	0	0	2	2	2	2	2	2	2	2	1	0	0	0	0
163	0	0	0	0	2	2	2	2	2	2	2	2	1	1	0	0	0
164	0	0	0	0	2	2	2	2	2	2	2	2	1	1	0	0	0
165	0	0	0	0	2	2	2	2	2	2	2	1	1	1	0	0	0
166	0	0	0	0	2	2	2	2	2	2	2	1	1	1	1	0	0
167	0	0	0	0	2	2	2	2	2	2	2	1	1	1	0	0	0
168	0	0	0	0	2	2	2	2	2	2	2	1	1	1	1	0	0
169	0	0	0	1	2	2	2	2	2	2	2	1	1	1	1	0	0
170	0	0	0	0	2	2	2	2	2	2	2	1	1	1	1	0	0
171	0	0	0	0	2	2	2	2	2	2	2	1	1	1	1	0	0
172	0	0	0	0	2	2	2	2	2	2	1	1	1	1	1	1	0
173	0	0	1	0	2	2	2	2	2	2	1	1	1	1	1	0	0
174	0	0	0	1	2	2	2	2	2	2	1	1	1	1	1	1	0
175	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1
176	1	0	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1
177	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1
178	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1
179	1	1	1	1	2	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] 2014-07-31  
[TESTLAB] Standard-Tech Co.,Ltd  
[ISSUEDATE] 2014-07-31 17:33:35  
[MANUFAC] SARIN Energy Inc.  
[LUMINAIRE] SES-WPBR-5000-40  
[\_TOTALLUMINAIRELUMENS] 2892  
[\_LAMPPOSITION] 0,0  
[OTHER] EVERFINE GO-R5000\_V2 SYSTEM  
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.