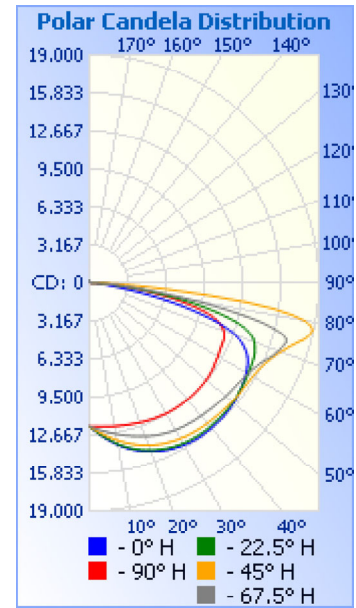


Photometrics Pro

Luminaire Photometric Report

Filename: Shoebox SB7 450W T4 - 120V
Manufacturer: SARIN Energy Inc
Luminaire: SES-SB7-4000-450-T4
Lamp Output: 1 lamp, rated Lumens/lamp: 56534.9
Max Candela: 18,877.9 at Horizontal: 45°, Vertical: 78°
Input Wattage: 438.31
Luminous Opening: Point
Test Lab: Belling Test Laboratory Co., LTD
Photometry : Type C
Nema Type: 7 X 7



Roadway Summary

Cutoff Classification:	NONCUTOFF	
Distribution:	TYPE IV, MEDIUM	
Max Cd, 90 Deg Vert:	299.0	
Max Cd, 80 to <90 Deg:	18,126.1	
	Lumens	% Lamp
Downward Street Side:	39,681.4	70.2%
Downward House Side:	16,525.5	29.2%
Downward Total:	56,206.8	99.4%
Upward Street Side:	159.2	0.3%
Upward House Side:	168.9	0.3%
Upward Total:	328.1	0.6%
Total Lumens:	56,534.9	100%

Flood Summary

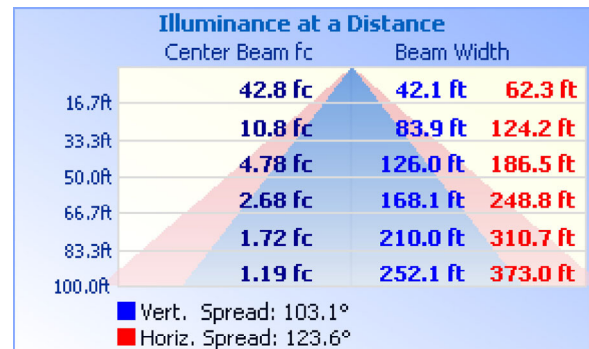
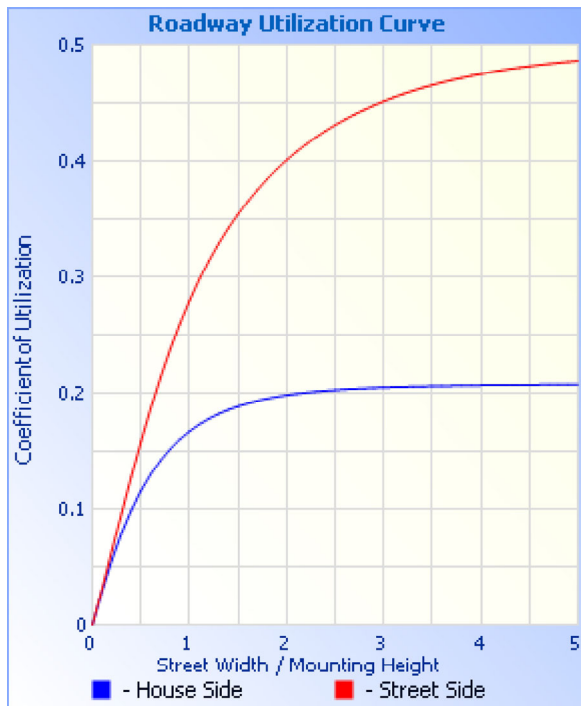
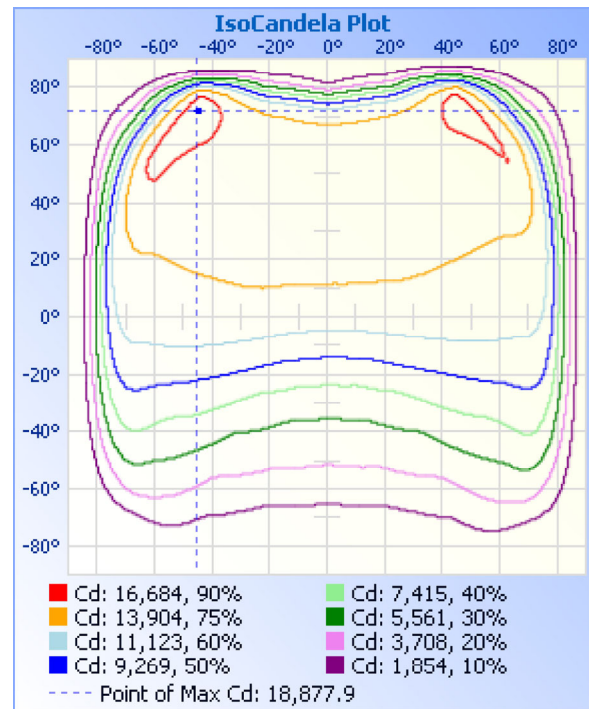
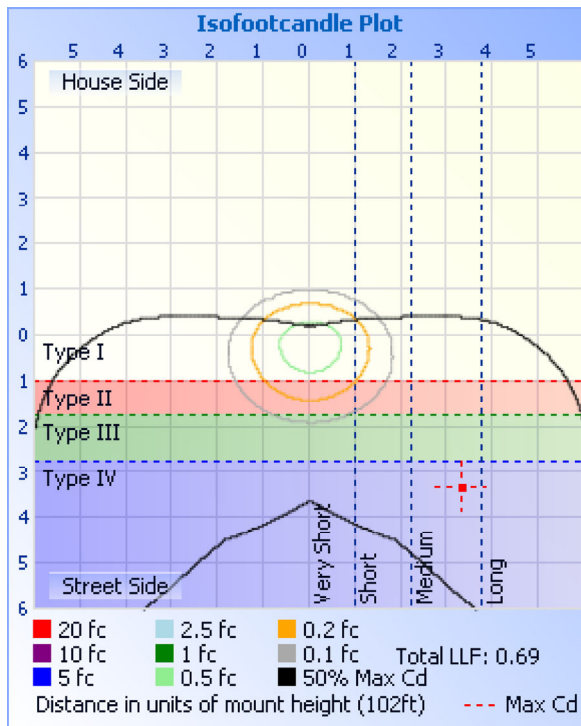
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	98.2%	55,511.0	152.9	156.4
Beam (50%):	78.6%	44,435.4	123.6	103.1
Total:	99.9%	56,496.4		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	9,910.1	17.5%	17.5%
0-40	17,027.8	30.1%	30.1%
0-60	34,810.9	61.6%	61.6%
60-90	21,394.7	37.8%	37.8%
70-100	11,694.6	20.7%	20.7%
90-120	130.0	0.2%	0.2%
0-90	56,205.5	99.4%	99.4%
90-180	328.0	0.6%	0.6%
0-180	56,533.6	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	1,139.3	2.0%	90-100	54.1	0.1%
10-20	3,366.4	6.0%	100-110	37.2	0.1%
20-30	5,404.4	9.6%	110-120	38.7	0.1%
30-40	7,117.7	12.6%	120-130	40.2	0.1%
40-50	8,443.8	14.9%	130-140	44.0	0.1%
50-60	9,339.3	16.5%	140-150	43.9	0.1%
60-70	9,754.1	17.3%	150-160	36.9	0.1%
70-80	8,921.2	15.8%	160-170	24.3	0%
80-90	2,719.3	4.8%	170-180	8.7	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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	.99	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.99						
1	1.05	.99	.93	.88	1.02	.97	.91	.77	.92	.88	.84	.88	.84	.81	.84	.81	.79	.76						
2	.93	.83	.75	.68	.90	.81	.73	.61	.77	.71	.65	.74	.68	.63	.70	.66	.62	.59						
3	.84	.71	.61	.53	.81	.69	.60	.49	.66	.58	.52	.63	.56	.51	.60	.55	.50	.47						

4	.76	.62	.51	.44	.73	.60	.51	.41	.58	.49	.42	.55	.48	.42	.53	.46	.41	.39
5	.69	.54	.44	.36	.67	.53	.43	.34	.51	.42	.36	.49	.41	.35	.47	.40	.35	.32
6	.63	.48	.38	.31	.61	.47	.38	.30	.45	.37	.31	.44	.36	.30	.42	.35	.30	.27
7	.59	.44	.34	.27	.57	.43	.33	.26	.41	.33	.27	.39	.32	.26	.38	.31	.26	.24
8	.54	.39	.30	.24	.53	.39	.30	.23	.37	.29	.23	.36	.29	.23	.35	.28	.23	.21
9	.51	.36	.27	.21	.49	.35	.27	.20	.34	.26	.21	.33	.26	.21	.32	.25	.20	.18
10	.47	.33	.25	.19	.46	.33	.24	.18	.31	.24	.19	.30	.23	.19	.29	.23	.18	.16

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	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938	11938
1	12118	12105	12078	12007	11947	11874	11805	11759	11738	11766	11809	11864	11928	12000	12060	12104	12118
2	12297	12273	12214	12087	11955	11808	11683	11586	11553	11598	11683	11784	11927	12070	12198	12267	12297
3	12473	12456	12345	12174	11964	11755	11559	11419	11372	11422	11548	11712	11926	12146	12328	12446	12473
4	12646	12620	12473	12254	11980	11690	11420	11248	11181	11231	11417	11644	11932	12213	12452	12603	12646
5	12839	12785	12607	12334	11995	11630	11288	11075	10990	11053	11272	11575	11932	12282	12578	12765	12839
6	13005	12943	12737	12418	12013	11570	11166	10904	10803	10879	11141	11509	11940	12349	12707	12922	13005
7	13175	13107	12881	12497	12034	11510	11040	10714	10590	10703	11007	11443	11948	12425	12836	13075	13175
8	13336	13265	13009	12577	12051	11454	10906	10537	10400	10507	10858	11382	11953	12491	12957	13234	13336
9	13503	13446	13142	12660	12070	11394	10777	10353	10201	10323	10740	11319	11959	12573	13080	13390	13503
10	13655	13597	13266	12748	12091	11338	10655	10176	10003	10142	10590	11248	11963	12645	13197	13557	13655
11	13816	13745	13390	12830	12112	11278	10520	9990	9801	9955	10448	11187	11972	12722	13315	13708	13816
12	13960	13881	13523	12910	12132	11226	10394	9813	9585	9775	10318	11121	11978	12788	13432	13844	13960
13	14102	14016	13638	12990	12157	11166	10265	9612	9385	9595	10190	11063	11985	12854	13561	13974	14102
14	14232	14158	13751	13066	12182	11107	10125	9430	9184	9395	10057	10991	12001	12926	13676	14104	14232
15	14358	14278	13868	13153	12203	11054	10006	9246	8964	9208	9926	10936	12008	13003	13783	14231	14358
16	14478	14393	13976	13230	12225	10998	9866	9067	8801	9022	9784	10879	12019	13069	13881	14358	14478
17	14588	14501	14084	13312	12252	10945	9733	8889	8588	8865	9648	10813	12033	13140	13976	14466	14588
18	14696	14597	14178	13387	12278	10897	9603	8724	8373	8673	9512	10757	12043	13203	14059	14557	14696
19	14784	14687	14273	13467	12309	10850	9472	8525	8180	8488	9375	10695	12064	13268	14136	14646	14784
20	14888	14788	14354	13545	12336	10796	9327	8351	7991	8292	9226	10636	12082	13343	14226	14734	14888
21	14993	14879	14429	13624	12363	10745	9191	8166	7795	8114	9089	10581	12101	13408	14295	14819	14993
22	15086	14953	14504	13693	12388	10694	9063	7992	7617	7938	8953	10531	12123	13464	14352	14902	15086
23	15162	15029	14579	13765	12419	10641	8919	7822	7425	7768	8852	10473	12144	13521	14414	14974	15162
24	15231	15091	14645	13834	12443	10588	8829	7652	7229	7595	8711	10419	12157	13575	14473	15037	15231
25	15300	15160	14705	13888	12460	10531	8687	7473	7058	7410	8578	10351	12177	13635	14523	15098	15300
26	15359	15220	14757	13941	12486	10481	8548	7310	6883	7250	8434	10296	12192	13685	14573	15160	15359
27	15416	15281	14814	13995	12509	10423	8417	7146	6712	7087	8302	10239	12204	13727	14614	15221	15416
28	15474	15333	14866	14046	12528	10370	8286	6985	6551	6929	8172	10186	12211	13771	14658	15270	15474
29	15526	15380	14917	14097	12543	10312	8154	6828	6378	6769	8039	10125	12221	13810	14689	15322	15526
30	15564	15415	14956	14136	12573	10246	8027	6665	6226	6618	7919	10063	12233	13840	14729	15364	15564
31	15603	15451	14983	14179	12588	10191	7889	6512	6073	6451	7795	10000	12234	13869	14761	15393	15603
32	15641	15486	15025	14210	12599	10134	7762	6369	5928	6312	7655	9935	12243	13885	14784	15430	15641
33	15671	15511	15057	14239	12616	10076	7635	6224	5787	6168	7517	9872	12246	13903	14804	15458	15671
34	15704	15526	15082	14261	12620	10017	7512	6088	5644	6030	7396	9806	12254	13923	14830	15478	15704
35	15728	15540	15109	14284	12625	9957	7383	5949	5508	5898	7270	9734	12252	13941	14848	15495	15728
36	15733	15551	15136	14317	12626	9887	7246	5804	5379	5750	7154	9660	12264	13954	14863	15507	15733
37	15721	15566	15155	14341	12633	9819	7125	5675	5257	5622	7017	9593	12278	13973	14877	15503	15721
38	15724	15570	15182	14368	12631	9750	7009	5550	5122	5496	6900	9526	12271	13991	14887	15506	15724
39	15728	15575	15199	14387	12632	9687	6882	5427	4999	5374	6783	9461	12267	13999	14893	15506	15728
40	15733	15568	15207	14402	12633	9615	6758	5291	4888	5255	6664	9385	12266	14010	14899	15503	15733
41	15722	15560	15221	14424	12642	9537	6640	5173	4773	5125	6544	9309	12272	14024	14909	15512	15722
42	15715	15549	15237	14450	12640	9461	6507	5059	4663	5008	6423	9234	12279	14033	14922	15508	15715
43	15716	15553	15255	14483	12641	9381	6385	4946	4546	4897	6294	9163	12280	14049	14915	15511	15716
44	15712	15547	15269	14510	12633	9293	6267	4823	4441	4788	6184	9077	12275	14066	14914	15507	15712
45	15691	15537	15279	14536	12627	9219	6138	4710	4333	4668	6072	8991	12271	14081	14921	15500	15691
46	15664	15530	15295	14564	12615	9136	6015	4606	4229	4558	5942	8931	12269	14097	14929	15499	15664

47	15650	15525	15320	14596	12610	9048	5892	4494	4125	4450	5826	8869	12251	14128	14938	15482	15650
48	15621	15515	15344	14630	12604	8952	5768	4385	4021	4343	5711	8770	12244	14154	14953	15470	15621
49	15587	15500	15365	14665	12592	8850	5648	4268	3908	4236	5597	8673	12231	14178	14969	15457	15587
50	15566	15485	15394	14691	12576	8791	5518	4162	3810	4121	5475	8586	12212	14209	14984	15451	15566
51	15524	15456	15420	14718	12572	8675	5396	4054	3707	4014	5354	8494	12198	14235	15011	15438	15524
52	15466	15425	15441	14752	12554	8569	5272	3944	3601	3910	5239	8401	12187	14254	15024	15411	15466
53	15425	15379	15453	14778	12532	8462	5153	3822	3487	3802	5120	8303	12166	14282	15047	15373	15425
54	15375	15342	15452	14809	12502	8343	5026	3712	3382	3689	5003	8194	12149	14299	15053	15322	15375
55	15320	15314	15451	14844	12470	8218	4895	3607	3268	3571	4872	8094	12126	14324	15053	15289	15320
56	15265	15279	15469	14882	12420	8096	4772	3491	3152	3460	4755	7988	12110	14367	15058	15245	15265
57	15209	15240	15487	14942	12370	7968	4649	3362	3025	3343	4634	7879	12095	14406	15064	15199	15209
58	15123	15221	15517	15003	12337	7832	4517	3245	2902	3222	4513	7760	12062	14451	15084	15167	15123
59	15050	15189	15544	15063	12298	7681	4381	3112	2773	3091	4391	7625	12029	14498	15111	15121	15050
60	14992	15163	15585	15134	12270	7526	4258	2977	2635	2964	4260	7493	11994	14552	15132	15074	14992
61	14910	15121	15644	15216	12231	7386	4115	2850	2507	2833	4122	7362	11966	14620	15173	15024	14910
62	14814	15084	15713	15312	12193	7236	3979	2696	2345	2704	3992	7213	11935	14693	15233	14986	14814
63	14713	15051	15788	15423	12157	7093	3829	2555	2170	2551	3846	7074	11911	14779	15293	14933	14713
64	14582	15020	15886	15544	12137	6941	3681	2411	1954	2410	3717	6929	11863	14873	15373	14893	14582
65	14433	14985	15982	15687	12114	6795	3538	2250	1774	2269	3561	6787	11833	14994	15465	14849	14433
66	14238	14939	16115	15879	12097	6640	3379	2052	1618	2087	3406	6634	11828	15132	15564	14784	14238
67	13984	14872	16262	16089	12087	6485	3227	1837	1482	1895	3259	6474	11815	15304	15678	14703	13984
68	13701	14784	16426	16299	12043	6304	3056	1670	1351	1699	3099	6316	11785	15488	15811	14622	13701
69	13373	14678	16619	16469	11961	6133	2893	1513	1238	1550	2931	6159	11754	15708	15993	14512	13373
70	12965	14525	16822	16632	11860	5953	2730	1364	1134	1401	2766	5988	11708	15896	16148	14367	12965
71	12439	14357	17086	16752	11712	5756	2563	1221	1037	1266	2608	5806	11630	16076	16357	14174	12439
72	11754	14081	17325	16898	11475	5547	2391	1094	940	1134	2437	5623	11527	16262	16565	13935	11754
73	10964	13707	17635	17021	11217	5332	2209	985	866	1023	2261	5439	11398	16455	16819	13615	10964
74	10009	13258	17942	16951	10858	5073	2018	879	792	919	2096	5228	11194	16658	17087	13171	10009
75	8940	12612	18319	16562	10426	4756	1832	783	720	831	1920	4981	10927	16720	17405	12586	8940
76	7858	11765	18598	15769	9829	4446	1633	698	658	743	1731	4707	10566	16480	17747	11793	7858
77	6673	10830	18796	14714	9039	4164	1430	623	592	657	1547	4422	10047	15898	18051	10915	6673
78	5406	9738	18878	13167	8189	3861	1201	544	532	581	1332	4142	9301	15028	18263	9859	5406
79	4186	8612	18672	11350	7306	3538	997	477	475	508	1145	3862	8525	13635	18338	8711	4186
80	3065	7419	18105	9605	6420	2995	777	404	407	446	962	3537	7654	12089	18126	7483	3065
81	2261	6025	16958	7663	5399	2300	560	344	342	378	744	3112	6736	10117	17484	6214	2261
82	1697	4924	15322	5940	4461	1555	397	277	269	311	553	2476	5759	8429	16369	4914	1697
83	1338	3845	12986	4551	3499	928	286	225	208	253	397	1747	4898	6662	14691	3852	1338
84	1018	2994	9712	3345	2539	529	198	166	133	198	290	1076	3951	5215	12439	2948	1018
85	797	2252	6736	2258	1668	270	139	126	89	151	206	596	3015	3874	9300	2252	797
86	599	1661	4558	1403	900	147	87	94	59	112	143	324	2109	2788	6379	1650	599
87	427	1100	2561	732	374	84	56	43	29	71	97	178	1338	1785	4209	1168	427
88	294	623	1058	321	96	51	30	20	16	38	63	97	670	966	2480	741	294
89	183	346	309	126	55	47	31	20	16	22	35	60	261	508	1223	434	183
90	82	104	134	99	46	32	31	17	15	20	37	46	90	182	299	172	82
91	63	80	121	94	42	38	31	17	20	25	38	45	61	103	133	83	63
92	55	77	106	81	35	38	32	18	15	25	33	45	61	93	116	76	55
93	52	68	94	76	34	33	32	26	16	26	32	43	53	87	107	69	52
94	54	65	90	71	26	28	22	23	18	22	42	45	51	78	93	61	54
95	47	56	80	69	30	37	28	24	23	26	33	45	42	70	86	59	47

96	43	55	75	60	29	34	33	31	19	16	33	31	45	64	74	53	43
97	34	47	65	58	17	38	29	19	22	21	37	43	40	57	66	50	34
98	41	47	66	55	27	36	38	33	22	28	38	39	38	57	65	48	41
99	36	41	56	49	21	34	36	27	16	20	42	50	37	56	55	34	36
100	37	36	54	49	24	36	36	27	24	23	38	43	32	50	55	37	37
101	32	37	49	48	21	30	34	37	22	28	41	43	24	39	54	35	32
102	36	35	41	45	18	35	32	23	32	27	42	44	33	42	41	27	36
103	25	31	41	41	22	30	38	34	32	30	45	45	35	26	43	33	25
104	37	30	37	39	21	25	37	32	40	26	41	42	29	38	33	33	37
105	35	29	38	40	20	28	40	37	42	22	41	39	30	34	32	33	35
106	32	17	30	41	23	32	38	33	48	28	44	43	27	34	36	27	32
107	53	25	33	32	26	34	38	36	56	36	41	24	25	34	22	27	53
108	73	12	30	36	25	33	30	33	56	31	41	41	27	34	32	24	73
109	105	24	30	21	15	32	40	39	67	31	48	44	31	29	30	28	105
110	120	22	30	36	25	36	38	33	69	34	46	46	28	30	25	23	120
111	130	21	28	34	24	37	42	41	60	29	40	46	28	27	29	25	130
112	122	25	24	29	25	37	32	38	61	18	37	38	26	26	26	15	122
113	109	19	25	32	24	34	45	42	57	43	46	39	29	28	19	22	109
114	103	23	30	36	26	37	41	43	64	35	46	39	29	27	23	25	103
115	96	24	29	34	26	37	33	46	64	41	50	41	27	26	23	18	96
116	85	20	28	33	28	36	43	43	60	47	50	43	27	32	24	24	85
117	80	24	22	31	27	39	43	41	61	46	52	48	29	27	25	25	80
118	75	26	19	37	32	40	38	51	63	45	52	48	30	32	27	27	75
119	74	25	29	34	22	40	47	44	67	53	57	47	33	29	14	23	74
120	66	27	30	40	29	42	47	48	65	52	48	46	37	33	28	25	66
121	64	29	31	39	30	41	43	50	62	48	53	42	36	34	29	24	64
122	63	30	33	41	31	44	42	55	63	54	56	51	38	37	26	25	63
123	57	30	37	38	28	41	47	55	66	52	51	52	42	36	27	24	57
124	43	28	39	40	31	43	47	57	70	61	59	46	39	38	31	24	43
125	45	31	36	43	30	42	52	57	70	55	59	54	34	38	32	31	45
126	47	30	33	38	35	45	52	56	67	62	59	50	47	44	34	30	47
127	46	33	32	47	36	48	58	59	72	59	60	55	40	38	33	27	46
128	44	28	39	46	38	45	53	57	73	60	65	53	46	48	37	31	44
129	37	32	30	47	40	43	63	63	71	67	63	55	47	47	36	29	37
130	50	34	37	51	42	53	63	68	79	66	64	60	50	44	37	34	50
131	50	34	40	48	43	46	60	70	78	68	66	60	52	47	35	36	50
132	47	40	41	54	41	41	63	59	76	73	72	59	48	51	40	31	47
133	37	37	42	52	43	60	67	69	82	69	69	60	55	53	33	38	37
134	46	43	39	46	47	60	61	67	79	70	64	64	59	54	42	38	46
135	50	35	48	47	46	61	68	74	81	76	69	48	58	56	50	31	50
136	47	44	50	57	47	62	66	74	79	74	74	61	60	57	47	39	47
137	50	43	51	60	49	62	69	80	84	73	79	69	65	57	50	42	50
138	54	45	48	58	50	61	72	79	86	80	72	67	64	48	46	43	54
139	48	45	55	63	43	65	72	79	87	75	70	67	63	62	51	46	48
140	58	53	56	63	53	68	71	81	83	81	78	69	69	63	50	50	58
141	53	52	56	63	55	70	73	82	88	77	79	68	67	62	51	52	53
142	59	52	53	60	51	71	72	83	92	80	83	70	70	64	58	44	59
143	59	55	57	55	49	72	78	82	91	84	84	79	70	63	58	52	59
144	49	51	61	61	57	69	76	85	88	86	85	73	71	61	54	57	49

145	65	56	60	68	58	71	82	85	88	85	88	75	70	69	61	55	65
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147	63	64	62	64	61	70	80	89	99	85	86	79	73	73	64	55	63
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151	66	63	59	73	66	80	81	88	99	93	90	79	82	75	61	49	66
152	69	66	67	74	70	79	86	90	99	94	90	81	76	76	68	68	69
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154	73	66	68	79	67	81	86	91	95	94	92	80	80	81	72	69	73
155	74	68	72	79	68	83	86	92	93	93	93	83	80	81	73	66	74
156	69	68	75	79	67	81	87	92	97	90	89	83	82	81	77	70	69
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161	77	71	79	78	70	84	86	94	94	91	90	83	78	83	82	75	77
162	80	77	79	82	72	86	88	95	96	93	88	87	81	86	82	78	80
163	76	73	80	81	76	88	92	96	98	97	93	85	83	83	85	76	76
164	80	79	82	82	77	88	89	99	100	100	100	80	81	88	79	77	80
165	81	80	80	84	75	83	91	98	95	97	97	90	86	88	86	81	81
166	85	81	79	85	78	84	88	93	93	96	93	85	85	88	90	83	85
167	82	84	86	86	77	88	88	96	99	95	97	84	90	91	91	84	82
168	78	80	84	87	77	85	92	93	101	96	94	85	86	88	90	85	78
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170	88	79	86	87	83	93	90	96	94	97	99	85	82	89	87	87	88
171	84	85	85	91	73	89	94	98	100	94	95	88	87	95	87	86	84
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173	87	85	90	91	80	89	95	94	99	98	100	91	88	93	88	79	87
174	91	89	89	88	82	97	95	96	94	97	98	89	88	96	90	90	91
175	89	88	91	89	81	97	96	98	94	96	96	87	92	91	93	91	89
176	93	89	91	96	86	98	95	94	97	95	99	87	88	95	89	88	93
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178	90	93	87	88	85	97	95	90	91	92	94	93	90	101	94	91	90
179	93	90	97	91	89	92	91	94	94	93	91	91	89	95	94	92	93
180	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93

Luminaire Report Summary

IESNA:LM-63-2002
[TEST]
[TESTLAB] Belling Test Laboratory Co., LTD
[ISSUE DATE] 2018-8-17 09:18
[MANUFAC] SARIN Energy Inc
[LUMINAIRE] SES-SB7-4000-450-T4
[_TOTALLUMINAIRELUMENS] 56533.5
[TESTINST] GPM-3000
[TESTDIST] 14.130 M
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.