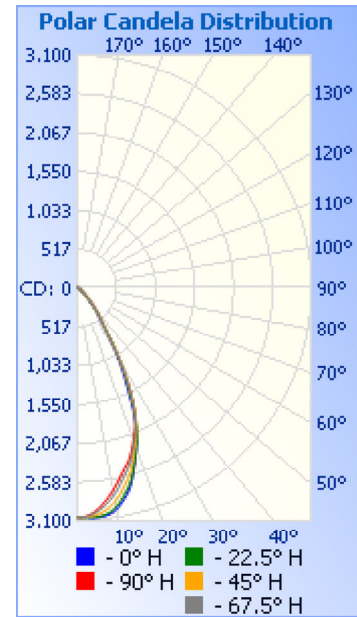


Photometrics Pro

Luminaire Photometric Report

Filename: Downlight 6in Commercial 27W CDL6
Manufacturer: SARIN Energy Inc.
Luminaire: SES-CDL6-5000-27
Lamp Output: Total luminaire Lumens: 2341.1
Max Candela: 3,075.6 at Horizontal: 0°, Vertical: 5°
Input Wattage: 26.5
Luminous Opening: Circular (Dia: 5.91")
Test Date: 2016-04-05
Test Lab: Standard-Tech Co., Ltd.
Photometry : Type C
Nema Type: 5 X 5

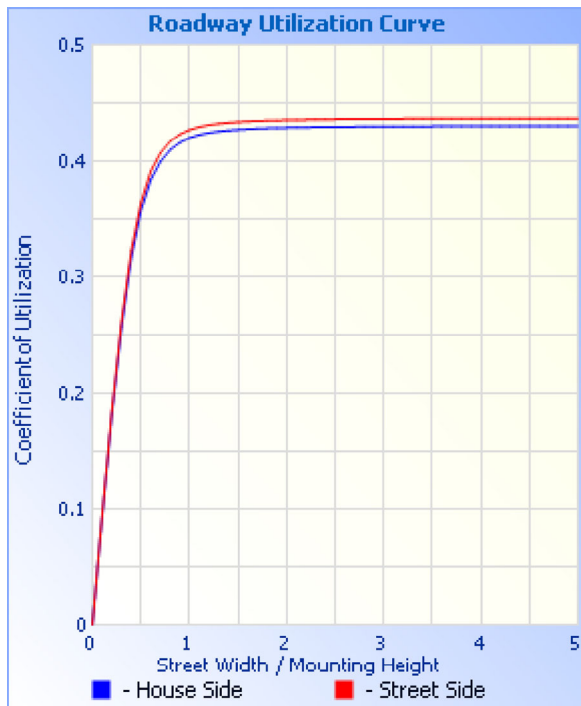
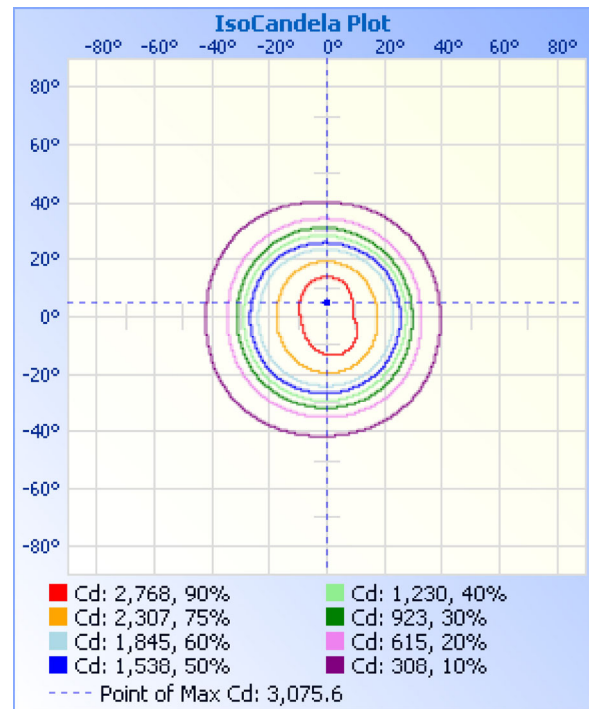
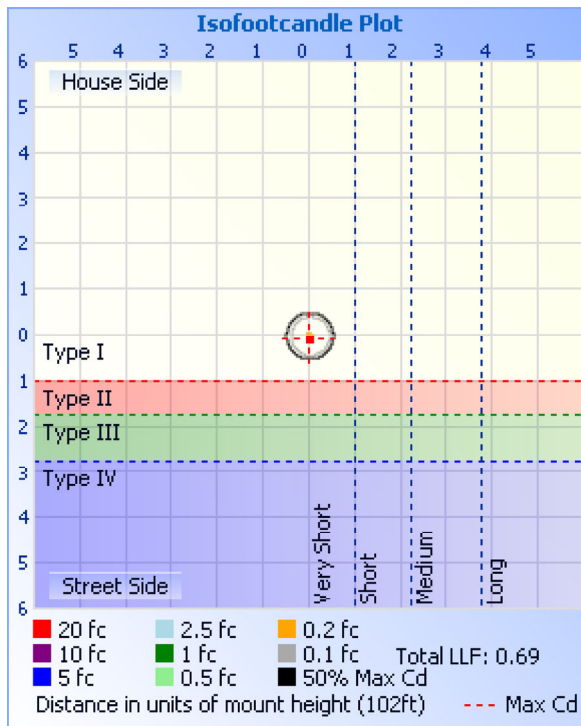


Roadway Summary		
Cutoff Classification:	CUTOFF	
Distribution:	Type VS	
Max Cd, 90 Deg Vert:	0.0	
Max Cd, 80 to <90 Deg:	4.5	
	Lumens	% Lamp
Downward Street Side:	1,170.8	50%
Downward House Side:	1,170.8	50%
Downward Total:	2,341.6	100%
Upward Street Side:	0.1	0%
Upward House Side:	0.1	0%
Upward Total:	0.2	0%
Total Lumens:	2,341.8	100%

Flood Summary				
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	91.3%	2,137.1	81	81.7
Beam (50%):	63.7%	1,491.1	51.4	52.5
Total:	100%	2,341.6		

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1,747.4	74.6%
0-40	2,118.3	90.5%
0-60	2,313.8	98.8%
60-90	27.2	1.2%
70-100	8.9	0.4%
90-120	0.0	0%
0-90	2,340.9	100%
90-180	0.2	0%
0-180	2,341.1	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	282.6	12.1%	90-100	0.0	0%
10-20	714.2	30.5%	100-110	0.0	0%
20-30	750.6	32.1%	110-120	0.0	0%
30-40	370.8	15.8%	120-130	0.0	0%
40-50	147.7	6.3%	130-140	0.0	0%
50-60	47.8	2.0%	140-150	0.0	0%
60-70	18.3	0.8%	150-160	0.0	0%
70-80	7.4	0.3%	160-170	0.0	0%
80-90	1.4	0.1%	170-180	0.0	0%



Illuminance at a Distance

	Center Beam fc	Beam Width	
16.7ft	11.0 fc	16.5 ft	16.1 ft
33.3ft	2.76 fc	32.8 ft	32.1 ft
50.0ft	1.23 fc	49.3 ft	48.1 ft
66.7ft	0.69 fc	65.8 ft	64.2 ft
83.3ft	0.44 fc	82.1 ft	80.2 ft
100.0ft	0.31 fc	98.6 ft	96.3 ft

Vert. Spread: 52.5°
Horiz. Spread: 51.4°

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	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.14	1.11	1.08	1.06	1.11	1.09	1.06	.94	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.94
2	1.08	1.03	.99	.96	1.06	1.01	.98	.88	.98	.95	.93	.95	.93	.91	.92	.90	.89	.87
3	1.03	.96	.91	.87	1.01	.95	.90	.82	.92	.88	.85	.90	.87	.84	.88	.85	.83	.81

4	.98	.90	.85	.80	.96	.89	.84	.77	.87	.82	.79	.85	.81	.78	.83	.80	.77	.76
5	.93	.85	.79	.75	.91	.84	.78	.72	.82	.77	.74	.80	.76	.73	.79	.75	.72	.71
6	.88	.80	.74	.69	.87	.79	.73	.68	.77	.72	.69	.76	.72	.68	.75	.71	.68	.66
7	.84	.75	.69	.65	.83	.74	.69	.64	.73	.68	.64	.72	.67	.64	.71	.67	.64	.62
8	.80	.71	.65	.61	.79	.70	.65	.60	.69	.64	.61	.68	.64	.60	.67	.63	.60	.59
9	.77	.67	.61	.57	.75	.67	.61	.57	.66	.61	.57	.65	.60	.57	.64	.60	.57	.56
10	.73	.64	.58	.54	.72	.63	.58	.54	.62	.58	.54	.62	.57	.54	.61	.57	.54	.53

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	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063	3063
1	3064	3065	3066	3063	3064	3063	3062	3061	3063	3062	3061	3058	3055	3056	3059	3061	3064
2	3067	3068	3063	3056	3054	3053	3055	3058	3063	3063	3058	3048	3038	3040	3048	3059	3067
3	3070	3069	3060	3043	3036	3033	3041	3052	3063	3064	3053	3032	3014	3016	3034	3056	3070
4	3074	3072	3051	3023	3009	3006	3021	3042	3061	3064	3047	3014	2983	2986	3016	3053	3074
5	3076	3069	3037	2999	2975	2971	2995	3028	3054	3063	3039	2991	2947	2951	2994	3048	3076
6	3073	3061	3020	2968	2936	2931	2965	3008	3044	3056	3028	2965	2905	2909	2968	3039	3073
7	3065	3048	2997	2933	2891	2886	2929	2982	3026	3042	3010	2935	2860	2865	2941	3027	3065
8	3052	3028	2968	2894	2842	2838	2888	2950	3002	3023	2987	2901	2814	2819	2911	3011	3052
9	3030	3003	2934	2851	2791	2784	2844	2911	2970	2995	2957	2862	2766	2771	2873	2987	3030
10	2998	2966	2894	2804	2737	2732	2798	2868	2929	2958	2918	2816	2717	2721	2832	2953	2998
11	2957	2921	2845	2752	2682	2678	2747	2817	2880	2911	2870	2767	2667	2672	2784	2910	2957
12	2908	2869	2791	2697	2627	2623	2694	2762	2826	2858	2820	2716	2623	2628	2736	2859	2908
13	2856	2811	2733	2639	2569	2567	2637	2705	2771	2804	2764	2664	2578	2584	2685	2805	2856
14	2799	2757	2675	2581	2514	2514	2583	2653	2716	2745	2699	2601	2522	2529	2624	2741	2799
15	2727	2699	2620	2528	2465	2467	2532	2598	2655	2671	2618	2526	2458	2466	2552	2663	2727
16	2642	2626	2560	2476	2419	2421	2478	2535	2575	2581	2529	2446	2391	2399	2474	2576	2642
17	2550	2540	2484	2413	2368	2369	2413	2457	2487	2486	2438	2366	2322	2330	2395	2485	2550
18	2456	2450	2400	2340	2306	2306	2340	2372	2396	2393	2348	2286	2252	2262	2318	2396	2456
19	2367	2365	2318	2265	2238	2238	2263	2290	2311	2302	2259	2207	2181	2192	2240	2309	2367
20	2279	2284	2243	2193	2169	2169	2190	2212	2225	2215	2173	2127	2107	2120	2160	2221	2279
21	2192	2203	2170	2123	2102	2101	2118	2135	2141	2123	2083	2042	2028	2042	2076	2132	2192
22	2095	2115	2093	2053	2035	2033	2044	2050	2044	2022	1982	1950	1940	1955	1986	2036	2095
23	1982	2010	2001	1974	1965	1961	1960	1947	1932	1900	1861	1840	1836	1853	1878	1921	1982
24	1852	1891	1895	1883	1886	1880	1862	1837	1808	1767	1727	1701	1713	1733	1755	1793	1852
25	1711	1760	1780	1781	1794	1785	1753	1723	1681	1633	1593	1563	1567	1587	1613	1657	1711
26	1570	1626	1665	1671	1672	1668	1645	1610	1554	1500	1459	1423	1407	1429	1459	1511	1570
27	1437	1498	1547	1555	1551	1551	1537	1496	1436	1375	1316	1268	1241	1263	1301	1365	1437
28	1316	1380	1424	1428	1429	1419	1404	1371	1323	1259	1179	1115	1083	1104	1147	1222	1316
29	1200	1266	1294	1286	1284	1274	1262	1237	1210	1146	1056	981	936	956	1006	1092	1200
30	1085	1150	1158	1141	1138	1128	1116	1102	1092	1030	945	864	806	823	884	975	1085
31	969	1031	1028	999	1001	989	977	975	968	916	844	765	723	735	783	872	969
32	854	905	905	872	873	860	852	855	844	803	749	677	640	648	696	785	854
33	763	781	791	785	761	752	747	750	734	703	659	601	557	562	609	693	763
34	672	694	705	698	676	668	664	659	645	620	586	540	506	509	544	602	672
35	581	607	619	612	610	605	600	590	577	555	527	490	462	464	490	536	581
36	521	545	560	558	560	555	548	536	523	501	476	444	421	422	443	481	521
37	468	495	512	514	517	512	504	491	476	454	429	401	381	382	401	433	468
38	421	448	469	474	478	474	464	450	431	407	383	360	342	344	359	387	421
39	374	403	427	435	440	435	426	409	387	362	340	320	305	307	320	343	374
40	330	360	386	396	402	398	387	368	345	320	300	283	271	273	282	302	330
41	291	320	346	357	365	361	349	329	306	282	265	251	240	241	249	266	291
42	256	282	308	320	328	325	313	293	270	249	233	221	211	212	219	234	256
43	224	249	273	285	293	290	278	259	238	219	208	197	185	186	192	205	224
44	197	218	240	252	260	258	246	229	210	196	184	173	162	162	168	179	197
45	172	192	211	222	230	227	217	204	186	172	159	150	142	142	146	157	172
46	151	168	186	195	205	203	193	180	162	149	140	131	123	123	127	136	151

47	131	147	163	172	180	178	170	155	142	131	122	115	108	108	111	118	131
48	114	128	143	150	156	154	146	135	124	115	108	101	95	94	97	104	114
49	100	112	124	131	136	134	127	118	109	100	94	89	83	83	85	91	100
50	87	97	109	115	119	117	111	103	95	88	83	78	73	74	76	79	87
51	78	85	95	100	104	102	97	90	83	77	73	69	66	66	67	70	78
52	69	76	83	87	90	88	84	79	73	68	65	61	59	57	58	61	69
53	59	67	74	78	79	77	74	69	64	61	58	55	52	51	52	54	59
54	52	58	66	69	69	68	65	61	57	54	52	49	46	45	46	48	52
55	46	51	57	60	61	60	57	54	51	48	46	44	42	41	41	43	46
56	41	46	51	53	54	53	51	48	45	43	42	40	37	36	37	38	41
57	37	41	45	47	48	47	45	42	40	39	38	36	34	33	33	34	37
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61	24	26	29	30	31	30	29	28	27	26	25	24	23	22	22	22	24
62	22	24	26	27	28	27	26	25	24	24	23	22	21	20	20	20	22
63	20	22	24	25	25	24	23	23	22	22	21	20	19	18	18	18	20
64	18	20	21	22	23	22	21	20	20	20	19	19	17	17	17	17	18
65	16	18	19	20	20	20	19	19	18	18	18	17	16	15	15	15	16
66	15	16	18	18	19	18	18	17	17	17	16	16	14	14	14	14	15
67	14	15	16	17	17	17	16	16	15	15	15	14	13	13	13	13	14
68	12	13	15	15	15	15	15	14	14	14	13	13	12	12	11	12	12
69	11	12	13	14	14	14	13	13	13	12	12	12	11	11	10	11	11
70	10	11	12	13	13	12	12	12	12	11	11	11	10	10	10	10	10
71	9	10	11	12	12	11	11	11	10	10	10	10	9	9	9	9	9
72	9	9	10	11	11	10	10	10	10	9	9	9	8	8	8	8	9
73	8	8	9	10	10	9	9	9	9	9	8	8	8	7	7	7	8
74	7	8	8	9	9	9	8	8	8	8	7	7	7	6	6	7	7
75	6	7	8	8	8	8	8	7	7	7	7	6	6	6	6	6	6
76	6	6	7	7	7	7	7	7	6	6	6	6	5	5	5	5	6
77	5	6	6	6	6	6	6	6	6	5	5	5	5	4	5	5	5
78	5	5	5	6	6	6	5	5	5	5	5	4	4	4	4	4	5
79	4	4	5	5	5	5	5	5	4	4	4	4	3	3	3	4	4
80	3	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3
81	3	3	4	4	4	4	4	3	3	3	3	2	2	2	2	3	3
82	2	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2
83	2	2	2	3	3	3	3	2	2	2	2	1	1	1	1	2	2
84	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
85	1	1	1	2	2	2	2	1	1	1	1	1	0	0	1	1	1
86	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1
87	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	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	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	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	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	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	0
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	0	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	0
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	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	0
126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	0	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	0
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	0	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	0
136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	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	0
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	0	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	0
146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	0	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	0
151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	0	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	0
156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	0	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	0
161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	0	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	0
166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	0	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	0
171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	0	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	0
176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	0	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	0

Luminaire Report Summary

IESNA:LM-63-2002
[TEST]
[TESTDATE] 2016-04-05
[TESTLAB] Standard-Tech Co., Ltd.
[ISSUE DATE] 2016-04-05 09:52:10
[MANUFAC] SARIN Energy Inc.
[LUMINAIRE] SES-CDL6-5000-27
[_TOTALLUMINAIRELUMENS] 2341.1
[_LAMPPOSITION] 0,0
[OTHER] EVERFINE GO-R5000_V2 SYSTEMGamma(deg) Fz(lm) Ft(lm) %Lum %Lamp0- 10 282.67
282.67 12.07 12.0710- 20 714.35 997.01 42.58 42.5820- 30 750.82 1747.83 74.64
74.6430- 40 370.98 2118.81 90.48 90.4840- 50 147.77 2266.58 96.79 96.7950- 60
47.83 2314.41 98.83 98.8360- 70 18.30 2332.71 99.61 99.6170- 80 7.43 2340.15 99.93
99.9380- 90 1.42 2341.57 99.99 99.9990-100 0.00 2341.57 99.99 99.99100-110 0.00
2341.57 99.99 99.99110-120 0.01 2341.58 99.99 99.99120-130 0.01 2341.59 99.99
99.99130-140 0.02 2341.61 99.99 99.99140-150 0.04 2341.65 100.00 100.00150-160
0.05 2341.70 100.00 100.00160-170 0.04 2341.74 100.00 100.00170-180 0.01 2341.75
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.