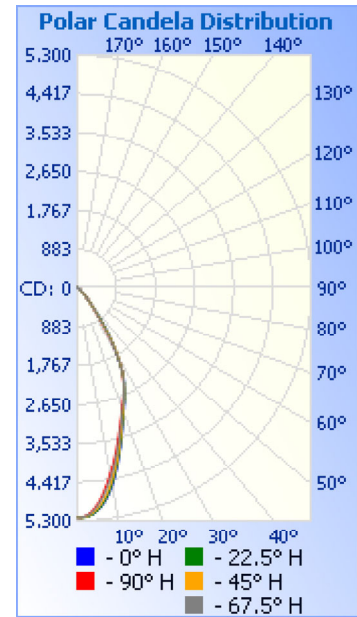


Photometrics Pro

Luminaire Photometric Report

Filename: Downlight 8in Commercial 40W CDL8
Manufacturer: SARIN Energy Inc
Luminaire: SES-CDL8-XXXX-40
Lamp Output: Total luminaire Lumens: 3453.6
Max Candela: 5,241.6 at Horizontal: 22.5°, Vertical: 1°
Input Wattage: 40
Luminous Opening: Circular (Dia: 7.48")
Test Date: 2016-04-05
Test Lab: Standard-Tech Co., Ltd.
Photometry : Type C
Nema Type: 5 X 5

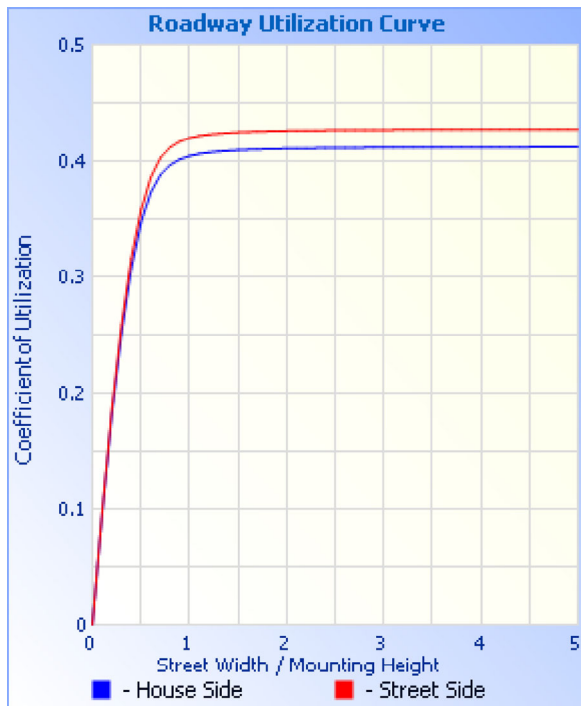
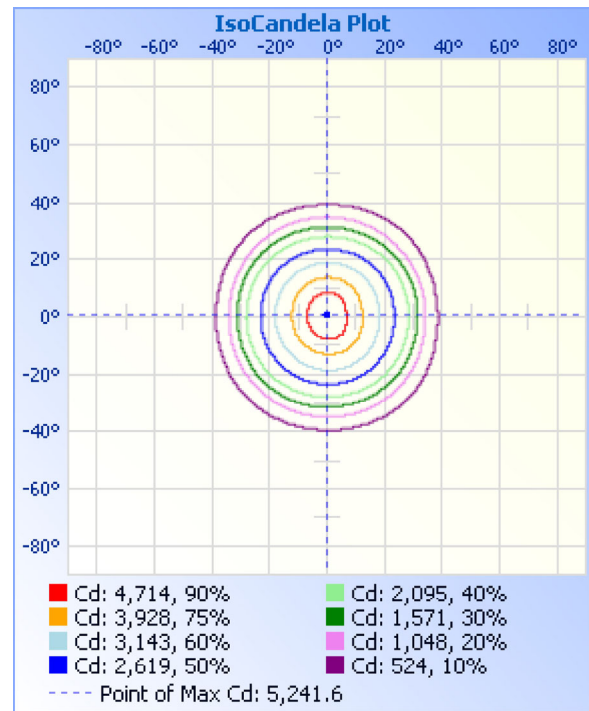
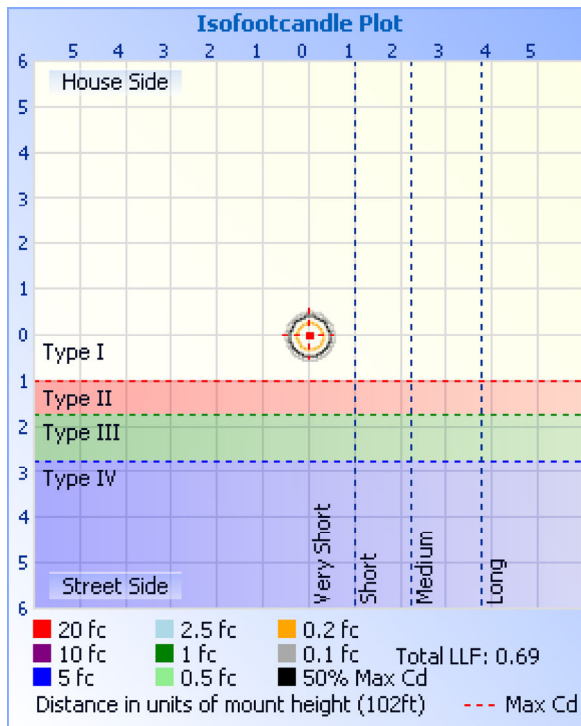


Roadway Summary		
Cutoff Classification:	CUTOFF	
Distribution:	Type VS	
Max Cd, 90 Deg Vert:	0.0	
Max Cd, 80 to <90 Deg:	5.4	
	Lumens	% Lamp
Downward Street Side:	1,756.1	50.8%
Downward House Side:	1,698.4	49.2%
Downward Total:	3,454.5	100%
Upward Street Side:	0.1	0%
Upward House Side:	0.1	0%
Upward Total:	0.3	0%
Total Lumens:	3,454.8	100%

Flood Summary				
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	91.5%	3,160.8	77.2	78.6
Beam (50%):	53.5%	1,848.8	46.6	47.3
Total:	100%	3,454.5		

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	2,575.6	74.6%
0-40	3,193.9	92.5%
0-60	3,421.7	99.1%
60-90	31.6	0.9%
70-100	11.1	0.3%
90-120	0.0	0%
0-90	3,453.4	100%
90-180	0.3	0%
0-180	3,453.6	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	456.7	13.2%	90-100	0.0	0%
10-20	1,006.9	29.2%	100-110	0.0	0%
20-30	1,112.0	32.2%	110-120	0.0	0%
30-40	618.3	17.9%	120-130	0.0	0%
40-50	177.4	5.1%	130-140	0.0	0%
50-60	50.5	1.5%	140-150	0.1	0%
60-70	20.5	0.6%	150-160	0.1	0%
70-80	9.0	0.3%	160-170	0.1	0%
80-90	2.0	0.1%	170-180	0.0	0%



Illuminance at a Distance

	Center Beam fc	Beam Width	
16.7ft	18.8 fc	14.6 ft	14.4 ft
33.3ft	4.72 fc	29.1 ft	28.7 ft
50.0ft	2.09 fc	43.7 ft	43.1 ft
66.7ft	1.18 fc	58.4 ft	57.5 ft
83.3ft	0.75 fc	72.9 ft	71.8 ft
100.0ft	0.52 fc	87.5 ft	86.2 ft

■ Vert. Spread: 47.3°
 ■ Horiz. Spread: 46.6°

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	
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	1.06	1.02	1.02	1.02	1.02	1.00	
1	1.14	1.11	1.08	1.06	1.11	1.09	1.07	.94	1.05	1.03	1.01	1.01	1.01	1.00	.98	.98	.96	.96	.95	.94	
2	1.08	1.03	.99	.96	1.06	1.02	.98	.88	.98	.95	.93	.95	.93	.91	.93	.93	.91	.89	.89	.87	
3	1.03	.97	.92	.88	1.01	.95	.91	.83	.93	.89	.86	.90	.87	.84	.88	.85	.85	.83	.83	.82	

4	.98	.91	.85	.81	.96	.89	.84	.77	.87	.83	.80	.85	.82	.79	.83	.80	.78	.76
5	.93	.85	.79	.75	.92	.84	.79	.73	.82	.78	.74	.81	.77	.74	.79	.76	.73	.71
6	.89	.80	.74	.70	.87	.79	.74	.68	.78	.73	.69	.76	.72	.69	.75	.71	.68	.67
7	.85	.76	.70	.66	.83	.75	.69	.64	.74	.69	.65	.72	.68	.65	.71	.67	.64	.63
8	.81	.71	.66	.62	.79	.71	.65	.61	.70	.65	.61	.69	.64	.61	.68	.64	.61	.59
9	.77	.68	.62	.58	.76	.67	.62	.57	.66	.61	.58	.65	.61	.58	.65	.60	.57	.56
10	.74	.64	.59	.55	.73	.64	.59	.54	.63	.58	.55	.62	.58	.55	.62	.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	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236	5236
1	5238	5242	5241	5238	5236	5232	5228	5225	5222	5218	5215	5211	5209	5215	5222	5232	5238
2	5228	5232	5227	5215	5209	5201	5198	5197	5194	5187	5176	5165	5157	5170	5189	5212	5228
3	5204	5208	5194	5172	5158	5146	5145	5149	5150	5142	5124	5100	5083	5102	5139	5179	5204
4	5164	5166	5142	5105	5081	5067	5073	5081	5085	5081	5056	5018	4991	5018	5074	5132	5164
5	5108	5105	5071	5018	4983	4971	4982	4994	5003	5003	4975	4923	4882	4916	4996	5072	5108
6	5034	5026	4984	4913	4867	4857	4876	4887	4901	4906	4878	4812	4760	4802	4903	4996	5034
7	4940	4926	4879	4794	4735	4730	4753	4763	4778	4793	4768	4691	4630	4679	4797	4904	4940
8	4829	4810	4760	4663	4596	4591	4618	4626	4644	4666	4645	4562	4490	4547	4682	4795	4829
9	4700	4678	4629	4522	4452	4444	4471	4478	4495	4523	4509	4420	4352	4410	4553	4673	4700
10	4558	4531	4486	4376	4303	4292	4317	4321	4343	4374	4361	4274	4207	4268	4415	4536	4558
11	4403	4378	4334	4225	4152	4138	4159	4162	4184	4214	4209	4126	4066	4126	4268	4389	4403
12	4244	4216	4178	4075	4006	3988	4005	4004	4028	4058	4048	3977	3925	3982	4116	4233	4244
13	4079	4053	4017	3922	3855	3835	3846	3848	3869	3895	3886	3825	3782	3837	3960	4068	4079
14	3913	3889	3857	3774	3711	3687	3692	3698	3716	3740	3727	3677	3642	3693	3806	3902	3913
15	3754	3734	3702	3625	3568	3542	3545	3552	3571	3589	3575	3535	3508	3554	3654	3740	3754
16	3596	3580	3549	3483	3432	3405	3405	3412	3429	3442	3429	3395	3375	3419	3508	3583	3596
17	3450	3434	3405	3347	3305	3273	3268	3278	3297	3304	3291	3262	3249	3290	3367	3436	3450
18	3307	3295	3267	3217	3181	3150	3143	3153	3171	3174	3160	3136	3130	3165	3233	3291	3307
19	3174	3163	3138	3096	3063	3035	3025	3034	3052	3052	3038	3019	3015	3049	3106	3158	3174
20	3048	3040	3017	2981	2951	2923	2915	2923	2939	2936	2924	2908	2908	2937	2989	3031	3048
21	2934	2925	2904	2874	2849	2822	2812	2824	2840	2835	2821	2810	2813	2840	2880	2918	2934
22	2834	2825	2806	2780	2760	2733	2723	2733	2746	2739	2727	2719	2724	2748	2784	2818	2834
23	2730	2727	2709	2689	2673	2644	2626	2631	2640	2629	2618	2617	2627	2649	2678	2713	2730
24	2621	2617	2604	2589	2577	2549	2527	2526	2535	2526	2516	2517	2528	2549	2575	2605	2621
25	2516	2513	2501	2489	2480	2452	2427	2428	2437	2427	2418	2422	2434	2453	2477	2503	2516
26	2417	2412	2400	2392	2382	2355	2326	2320	2329	2318	2312	2322	2340	2357	2379	2404	2417
27	2309	2300	2292	2285	2282	2247	2209	2193	2194	2188	2193	2209	2232	2251	2272	2298	2309
28	2174	2170	2166	2166	2167	2123	2077	2051	2037	2025	2054	2084	2103	2129	2151	2169	2174
29	2014	2021	2029	2031	2024	1982	1936	1897	1868	1856	1896	1935	1953	1984	2011	2011	2014
30	1841	1861	1886	1880	1860	1807	1768	1741	1722	1697	1715	1747	1783	1816	1845	1837	1841
31	1677	1701	1736	1712	1679	1631	1601	1586	1576	1539	1534	1559	1597	1627	1657	1666	1677
32	1528	1546	1563	1523	1499	1456	1434	1430	1430	1389	1353	1371	1399	1423	1447	1492	1528
33	1388	1394	1371	1325	1308	1260	1231	1264	1289	1239	1178	1175	1193	1219	1246	1326	1388
34	1250	1240	1176	1132	1121	1070	1044	1098	1139	1089	1029	1002	1004	1027	1073	1169	1250
35	1096	1079	1003	951	952	899	886	933	975	940	900	855	833	860	928	1018	1096
36	936	914	852	804	802	762	756	787	815	803	781	733	725	751	804	878	936
37	780	775	748	709	676	654	655	665	682	681	672	631	619	643	708	768	780
38	668	659	644	615	582	571	571	576	584	586	580	547	512	535	611	659	668
39	557	544	540	521	512	504	504	506	511	508	503	479	455	470	514	550	557
40	485	474	473	459	456	449	447	448	451	443	438	421	404	417	449	478	485
41	423	415	415	405	406	399	395	395	395	384	379	367	356	367	392	416	423
42	366	359	360	354	356	350	345	343	342	329	324	317	311	320	339	357	366
43	314	308	309	306	310	304	298	296	294	280	275	271	268	276	290	305	314
44	267	262	263	261	266	261	255	253	251	237	232	230	229	236	247	259	267
45	227	222	222	221	226	222	218	217	215	206	201	200	194	200	209	219	227
46	192	187	188	187	196	191	187	187	185	175	171	170	165	170	177	186	192

47	164	159	159	158	167	160	157	158	156	145	140	140	139	144	150	158	164
48	139	134	135	133	137	136	134	135	133	123	119	119	118	121	127	135	139
49	119	115	114	113	116	115	115	116	114	105	101	100	99	103	108	115	119
50	103	98	98	96	99	99	99	101	100	92	88	87	86	89	93	100	103
51	91	86	85	84	86	86	86	88	88	81	77	76	78	80	82	88	91
52	80	78	77	74	76	76	77	79	79	72	69	68	69	71	74	80	80
53	73	69	69	67	68	68	69	71	71	64	62	60	61	62	67	72	73
54	66	61	60	60	61	61	62	64	64	58	55	54	54	56	59	64	66
55	59	55	54	53	54	55	56	57	57	52	49	48	48	50	53	58	59
56	53	50	48	48	49	49	50	52	51	46	44	43	43	45	48	52	53
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58	44	40	39	39	39	40	41	42	42	38	36	35	35	36	39	42	44
59	40	36	35	35	35	36	37	38	38	34	32	32	32	33	35	38	40
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61	33	30	29	28	29	29	30	31	31	28	26	26	26	27	29	32	33
62	30	27	26	26	26	26	27	28	28	25	24	23	24	25	26	29	30
63	27	25	24	23	24	24	25	26	25	23	22	21	21	22	24	26	27
64	25	23	22	21	22	22	23	24	23	21	20	19	20	20	22	24	25
65	22	21	20	19	20	20	21	22	21	19	18	18	18	19	20	22	22
66	21	19	18	18	18	18	19	20	19	18	17	16	16	17	19	20	21
67	19	17	17	16	17	17	18	18	18	16	15	15	15	16	17	19	19
68	17	16	15	15	15	15	16	17	16	15	14	14	14	14	16	17	17
69	16	15	14	14	14	14	15	15	15	14	13	13	13	13	14	16	16
70	15	13	13	13	13	13	14	14	14	12	12	12	12	12	13	14	15
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72	12	11	11	11	11	11	11	12	11	10	10	10	10	10	11	12	12
73	11	10	10	10	10	10	10	11	11	10	9	9	9	9	10	11	11
74	10	10	9	9	9	9	10	10	10	9	8	8	8	9	9	10	10
75	9	9	8	8	8	8	9	9	9	8	8	8	8	8	9	9	9
76	9	8	8	8	7	8	8	8	8	7	7	7	7	7	8	9	9
77	8	7	7	7	7	7	7	7	7	7	6	6	6	7	7	8	8
78	7	6	6	6	6	6	6	7	6	6	6	6	6	6	6	7	7
79	6	6	6	5	5	5	6	6	6	5	5	5	5	5	6	6	6
80	5	5	5	5	5	5	5	5	5	5	4	4	4	5	5	5	5
81	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5
82	4	4	4	4	4	4	4	4	4	3	3	3	3	3	4	4	4
83	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
84	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
85	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2
86	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
87	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1
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
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92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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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
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113	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
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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.
[ISSUEDATE] 2016-04-05 13:56:46
[MANUFAC] SARIN Energy Inc
[LUMINAIRE] SES-CDL8-XXXX-40
[_LAMPPOSITION] 0,0
[_TOTALLUMINAIRELUMENS] 3453.6
[OTHER] EVERFINE GO-R5000_V2 SYSTEMGamma(deg) Fz(lm) Ft(lm) %Lum %Lamp0- 10 456.91
456.91 13.23 13.2310- 20 1007.16 1464.08 42.38 42.3820- 30 1112.20 2576.28 74.57
74.5730- 40 618.62 3194.90 92.48 92.4840- 50 177.47 3372.36 97.61 97.6150- 60
50.50 3422.86 99.08 99.0860- 70 20.55 3443.41 99.67 99.6770- 80 9.03 3452.44 99.93
99.9380- 90 2.05 3454.49 99.99 99.9990-100 0.00 3454.49 99.99 99.99100-110 0.01
3454.50 99.99 99.99110-120 0.01 3454.51 99.99 99.99120-130 0.02 3454.53 99.99
99.99130-140 0.04 3454.56 99.99 99.99140-150 0.07 3454.63 100.00 100.00150-160
0.08 3454.71 100.00 100.00160-170 0.06 3454.77 100.00 100.00170-180 0.02 3454.78
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.