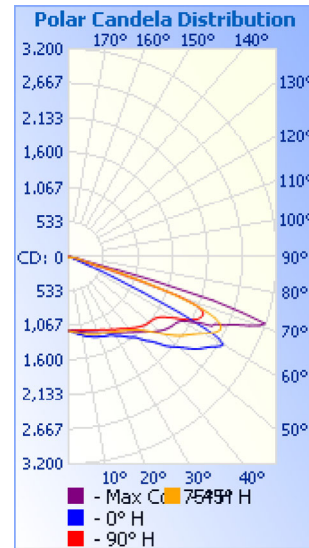


Photometrics Pro

Luminaire Photometric Report

Filename: Street Light STZM 65W
Manufacturer: SARIN Energy Inc.
Luminaire: SES-STZM-5700-65
Lamp Output: 1 lamp, rated Lumens/lamp: 6175
Max Candela: 3,197.6 at Horizontal: 75°, Vertical: 71°
Input Wattage: 65
Luminous Opening: Point
Test Date: 2014.8.13
Photometry : Type C
Nema Type: 7 X 5



Roadway Summary

Cutoff Classification:	CUTOFF
Distribution:	TYPE III, MEDIUM
Max Cd, 90 Deg Vert:	19.5
Max Cd, 80 to <90 Deg:	535.4
	Lumens % Lamp
Downward Street Side:	4,061.1 65.8%
Downward House Side:	2,055.7 33.3%
Downward Total:	6,116.9 99.1%
Total Lumens:	6,116.9 99.1%

Flood Summary

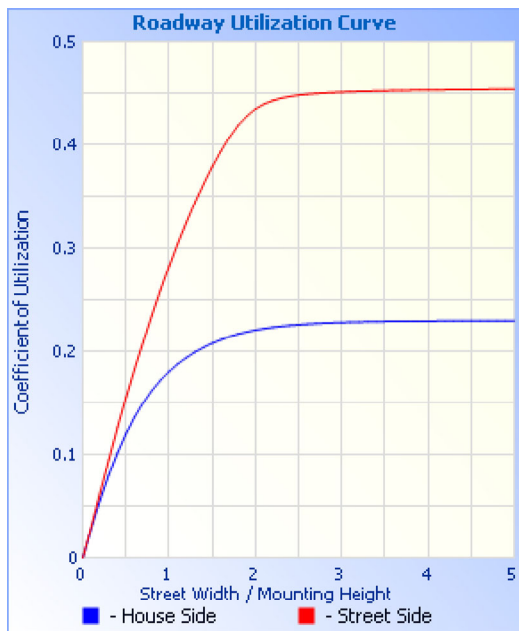
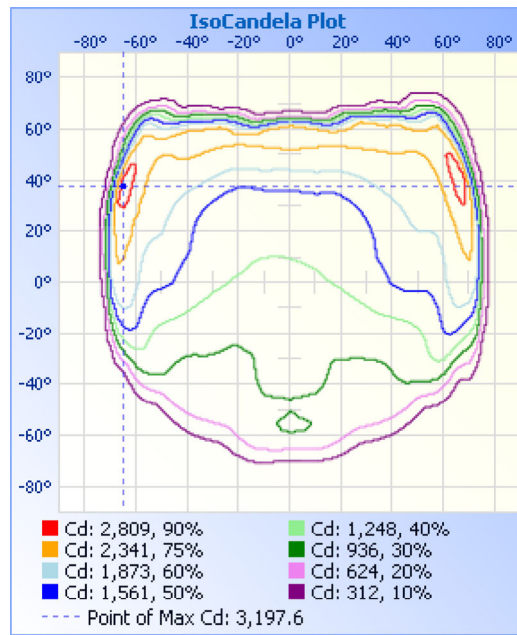
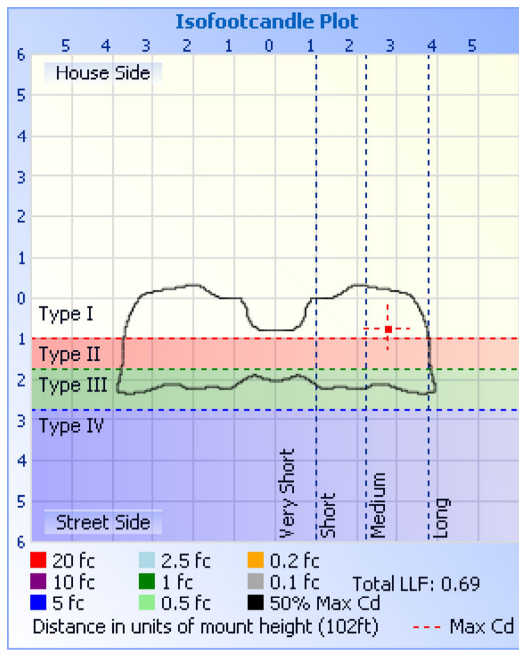
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	96.6%	5,962.3	147.3	97.5
Beam (50%):	47.6%	2,938.5	48.4	66.9
Total:	99%	6,115.5		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	1,004.0	16.3%	16.4%
0-40	1,803.9	29.2%	29.5%
0-60	4,257.5	68.9%	69.6%
60-90	1,859.0	30.1%	30.4%
0-90	6,116.5	99.1%	100%

Lumens Per Zone

Zone	Lumens	% Total
0-10	110.2	1.8%
10-20	332.8	5.4%
20-30	560.9	9.2%
30-40	799.9	13.1%
40-50	1,066.6	17.4%
50-60	1,387.0	22.7%
60-70	1,319.5	21.6%
70-80	495.2	8.1%
80-90	44.3	0.7%



Illuminance at a Distance

Height	Center Beam fc	Beam Width	Illuminance
16.7ft	4.13 fc	22.0 ft	15.0 ft
33.3ft	1.04 fc	44.0 ft	29.9 ft
50.0ft	0.46 fc	66.0 ft	44.9 ft
66.7ft	0.26 fc	88.1 ft	59.9 ft
83.3ft	0.17 fc	110.0 ft	74.9 ft
100.0ft	0.12 fc	132.0 ft	89.9 ft

■ Vert. Spread: 66.9°
■ Horiz. Spread: 48.4°

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	1.18	1.18	1.18	1.18	1.15	1.15	1.15	.99	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1	1.07	1.01	.97	.93	1.04	.99	.95	.82	.95	.91	.88	.91	.88	.85	.87	.85	.83	.81
2	.95	.86	.78	.72	.93	.84	.77	.66	.80	.75	.69	.77	.72	.68	.74	.70	.66	.64
3	.85	.74	.64	.57	.83	.72	.63	.53	.69	.61	.55	.66	.60	.54	.63	.58	.53	.51
4	.77	.63	.54	.46	.74	.62	.53	.43	.59	.51	.45	.57	.50	.44	.55	.49	.44	.41
5	.70	.55	.46	.38	.67	.54	.45	.36	.52	.44	.37	.50	.43	.37	.48	.42	.37	.34
6	.64	.49	.39	.32	.62	.48	.39	.31	.46	.38	.32	.44	.37	.31	.43	.36	.31	.29
7	.59	.44	.34	.27	.57	.43	.34	.26	.41	.33	.27	.40	.32	.27	.38	.32	.27	.24
8	.54	.39	.30	.24	.52	.39	.30	.23	.37	.29	.24	.36	.29	.23	.35	.28	.23	.21
9	.50	.36	.27	.21	.49	.35	.27	.20	.34	.26	.21	.33	.26	.21	.32	.25	.20	.18

10 | .47 .33 .24 .19 | .46 .32 .24.18 | .31 .24 .18 | .30 .23 .18 | .29 .23 .18 |.16

Candela Table - Type C

	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360
0	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153	1153
1	1163	1163	1161	1159	1157	1154	1150	1147	1145	1144	1143	1142	1142	1143	1142	1145	1149	1152	1156	1159	1161	1162	1162	1164	1163
2	1172	1171	1169	1165	1161	1156	1148	1142	1138	1134	1128	1131	1128	1131	1130	1139	1145	1153	1159	1165	1169	1172	1170	1174	1172
3	1181	1180	1174	1171	1164	1158	1148	1137	1130	1125	1114	1118	1110	1120	1119	1133	1142	1153	1163	1172	1177	1181	1179	1184	1181
4	1192	1189	1181	1178	1168	1161	1148	1133	1124	1116	1104	1106	1096	1108	1109	1125	1138	1153	1166	1178	1184	1190	1191	1195	1192
5	1204	1198	1191	1185	1173	1164	1148	1130	1120	1107	1095	1093	1088	1096	1102	1118	1136	1154	1172	1186	1191	1200	1204	1204	1204
6	1214	1206	1201	1192	1177	1168	1148	1127	1116	1098	1085	1079	1078	1084	1094	1111	1134	1156	1178	1193	1200	1210	1216	1214	1214
7	1225	1215	1209	1198	1184	1172	1150	1125	1111	1089	1072	1067	1065	1074	1086	1105	1131	1158	1185	1202	1209	1220	1225	1225	1225
8	1233	1224	1215	1206	1190	1178	1152	1123	1106	1080	1062	1056	1053	1064	1077	1099	1128	1160	1191	1209	1218	1229	1234	1235	1233
9	1240	1232	1221	1212	1195	1182	1156	1123	1101	1073	1053	1046	1048	1056	1068	1093	1124	1162	1196	1217	1228	1239	1241	1245	1240
10	1250	1242	1231	1218	1202	1189	1160	1123	1098	1065	1048	1038	1043	1048	1062	1087	1122	1164	1200	1226	1236	1250	1253	1256	1250
11	1262	1250	1241	1225	1208	1196	1162	1123	1096	1059	1042	1030	1038	1040	1056	1081	1119	1165	1208	1235	1244	1258	1266	1265	1262
12	1275	1258	1248	1232	1214	1202	1166	1124	1092	1052	1038	1024	1032	1034	1052	1075	1115	1167	1217	1245	1254	1267	1277	1274	1275
13	1281	1266	1254	1239	1221	1209	1173	1126	1088	1048	1033	1019	1027	1029	1046	1068	1109	1170	1227	1255	1264	1276	1285	1283	1281
14	1288	1275	1260	1247	1228	1216	1178	1126	1083	1043	1028	1015	1022	1024	1041	1063	1105	1172	1234	1265	1273	1285	1292	1293	1288
15	1296	1283	1269	1254	1235	1222	1181	1128	1079	1038	1022	1011	1019	1021	1038	1056	1102	1175	1240	1276	1283	1293	1299	1301	1296
16	1307	1290	1277	1260	1244	1230	1186	1128	1075	1032	1019	1006	1017	1016	1034	1051	1098	1178	1249	1287	1291	1302	1311	1308	1307
17	1316	1296	1286	1266	1250	1237	1191	1129	1070	1026	1016	1002	1017	1013	1031	1046	1095	1181	1263	1298	1300	1309	1322	1315	1316
18	1324	1303	1292	1273	1258	1245	1198	1130	1064	1021	1012	1000	1016	1012	1028	1040	1092	1184	1274	1311	1313	1318	1330	1323	1324
19	1330	1310	1298	1279	1266	1254	1205	1130	1059	1015	1007	998	1017	1011	1024	1035	1090	1189	1281	1323	1324	1327	1336	1330	1330
20	1336	1316	1303	1286	1272	1262	1212	1131	1053	1010	1004	997	1018	1011	1020	1030	1089	1193	1290	1336	1336	1336	1341	1338	1336
21	1344	1323	1309	1291	1279	1271	1221	1132	1049	1003	1002	996	1019	1011	1018	1025	1089	1197	1303	1350	1348	1344	1349	1344	1344
22	1353	1330	1316	1297	1286	1281	1227	1134	1045	995	997	995	1021	1011	1015	1020	1089	1203	1319	1363	1359	1352	1358	1351	1353
23	1360	1336	1322	1303	1294	1291	1235	1136	1042	988	993	996	1024	1013	1013	1017	1090	1208	1333	1376	1371	1360	1366	1356	1360
24	1365	1343	1327	1308	1303	1301	1245	1138	1039	982	988	997	1026	1015	1010	1013	1091	1213	1343	1391	1383	1369	1372	1363	1365
25	1370	1350	1331	1315	1313	1312	1254	1142	1037	974	983	998	1029	1016	1006	1010	1092	1220	1353	1405	1395	1377	1377	1369	1370
26	1376	1357	1335	1321	1322	1325	1264	1145	1036	968	977	999	1028	1019	1002	1007	1092	1225	1364	1418	1407	1386	1381	1376	1376
27	1383	1367	1340	1328	1331	1336	1277	1149	1035	961	970	1001	1029	1019	997	1004	1094	1231	1378	1433	1418	1397	1387	1387	1383
28	1393	1378	1347	1336	1340	1349	1289	1153	1034	956	965	1000	1029	1019	991	1002	1094	1237	1392	1447	1428	1407	1396	1399	1393
29	1409	1391	1355	1344	1349	1362	1296	1157	1034	950	960	999	1030	1018	982	999	1093	1243	1408	1461	1442	1418	1406	1414	1409
30	1431	1409	1363	1354	1360	1377	1306	1162	1034	945	952	998	1030	1017	973	995	1092	1250	1424	1478	1457	1431	1417	1433	1431
31	1447	1427	1370	1364	1372	1390	1319	1166	1034	940	941	997	1031	1015	963	992	1089	1255	1437	1493	1472	1443	1427	1450	1447
32	1462	1446	1377	1376	1385	1403	1336	1170	1033	937	931	995	1031	1014	954	985	1085	1260	1450	1510	1489	1455	1435	1469	1462
33	1479	1465	1388	1386	1397	1418	1348	1175	1031	932	923	994	1032	1013	945	979	1078	1265	1461	1526	1502	1470	1447	1489	1479
34	1504	1485	1403	1398	1409	1433	1357	1181	1030	929	916	994	1032	1010	936	971	1073	1268	1474	1542	1515	1483	1464	1510	1504
35	1531	1508	1421	1410	1422	1450	1371	1184	1027	924	908	994	1030	1009	928	963	1066	1270	1494	1560	1529	1496	1482	1534	1531
36	1560	1529	1437	1424	1436	1468	1387	1188	1023	919	898	994	1027	1006	919	954	1058	1271	1513	1577	1542	1512	1501	1556	1560
37	1581	1552	1451	1439	1451	1485	1403	1193	1019	915	890	992	1022	1002	910	947	1049	1270	1530	1596	1557	1527	1518	1579	1581
38	1601	1580	1463	1453	1466	1502	1422	1198	1013	909	882	990	1017	997	901	939	1040	1268	1543	1619	1575	1544	1532	1608	1601
39	1628	1608	1480	1470	1481	1522	1436	1200	1006	903	873	986	1010	989	890	931	1030	1266	1556	1641	1593	1565	1550	1638	1628
40	1669	1642	1507	1489	1497	1541	1450	1204	1000	897	865	980	1000	982	881	921	1021	1262	1576	1665	1612	1585	1578	1673	1669
41	1717	1684	1534	1509	1516	1560	1470	1207	993	889	854	975	987	973	869	912	1011	1258	1596	1690	1632	1606	1609	1715	1717
42	1770	1726	1562	1533	1535	1584	1489	1209	985	880	841	966	971	960	856	904	999	1253	1612	1715	1652	1633	1639	1755	1770
43	1808	1772	1588	1558	1554	1606	1508	1210	976	871	828	957	956	949	844	895	992	1248	1625	1739	1673	1659	1665	1800	1808
44	1847	1822	1614	1586	1575	1630	1525	1210	966	861	816	946	945	935	832	887	984	1243	1633	1763	1696	1690	1690	1851	1847
45	1906	1871	1650	1624	1599	1658	1543	1210	955	851	801	930	938	919	821	878	978	1238	1642	1786	1718	1723	1733	1897	1906
46	1972	1923	1709	1664	1621	1686	1556	1208	945	841	788	916	935	906	809	869	975	1234	1649	1806	1744	1758	1789	1946	1972
47	2048	1980	1770	1708	1646	1713	1571	1205	934	829	776	904	935	896	800	861	974	1230	1650	1826	1772	1799	1846	1999	2048
48	2102	2031	1824	1762	1679	1744	1584	1200	923	818	765	894	934	889	791	853	974	1227	1647	1842	1800	1840	1891	2046	2102
49	2150	2082	1874	1817	1714	1774	1595	1197	914	807	755	887	934	888	786	846	975	1225	1642	1853	1827	1882	1933	2093	2150
50	2200	2136	1918	1874	1751	1802	1604	1193	906	795	747	883	936	886	785	837	978	1225	1636	1861	1857	1928	1968	2145	2200
51	2261	2185	1972	1938	1792	1830	1612	1189	899	785															

53	2398	2282	2112	2054	1881	1875	1629	1183	891	767	736	879	955	898	799	816	984	1236	1617	1865	1938	2050	2128	2282	2398
54	2455	2326	2172	2111	1935	1892	1640	1184	888	760	733	882	970	906	800	813	980	1246	1624	1868	1958	2083	2186	2321	2455
55	2502	2372	2212	2155	1981	1908	1660	1190	884	753	727	886	976	915	798	812	975	1258	1637	1875	1976	2111	2243	2366	2502
56	2546	2410	2248	2197	2023	1923	1688	1198	878	746	714	889	975	921	784	809	966	1275	1652	1881	1993	2138	2288	2406	2546
57	2595	2447	2300	2241	2063	1936	1725	1213	868	737	697	887	964	920	767	803	956	1298	1676	1887	2005	2168	2344	2447	2595
58	2659	2488	2368	2285	2098	1949	1781	1231	851	724	677	883	950	913	743	789	939	1325	1718	1895	2018	2206	2425	2487	2659
59	2722	2504	2434	2338	2127	1971	1843	1249	820	702	642	871	929	895	699	769	900	1358	1766	1902	2033	2260	2492	2516	2722
60	2748	2416	2494	2400	2142	2004	1919	1265	770	674	599	853	898	872	647	735	843	1386	1817	1909	2048	2314	2553	2488	2748
61	2647	2082	2541	2468	2144	2068	2010	1273	692	632	552	828	861	843	598	692	785	1407	1870	1939	2063	2385	2598	2288	2647
62	2387	1661	2582	2531	2145	2169	2093	1263	616	584	504	795	827	802	540	639	694	1412	1922	2000	2081	2444	2636	1977	2387
63	1917	1185	2606	2574	2156	2260	2164	1230	523	526	449	757	772	755	473	570	595	1392	1994	2075	2103	2500	2682	1539	1917
64	1257	799	2550	2597	2181	2455	2214	1172	430	459	403	715	707	701	425	504	521	1343	2075	2175	2134	2544	2685	1036	1257
65	757	524	2316	2592	2229	2484	2241	1083	345	397	352	666	625	641	363	436	421	1253	2139	2275	2176	2571	2603	691	757
66	471	330	1918	2547	2313	2612	2258	950	259	335	302	614	524	579	304	364	329	1138	2179	2375	2250	2579	2429	403	471
67	312	207	1563	2454	2408	2710	2254	778	182	273	245	555	428	509	246	302	246	979	2200	2474	2352	2565	2226	243	312
68	228	166	1224	2300	2480	2831	2213	596	151	218	213	487	366	435	204	241	187	793	2213	2574	2444	2519	1925	183	228
69	170	145	752	2078	2529	2993	2088	389	131	178	188	415	322	359	177	188	150	614	2217	2706	2510	2437	1302	156	170
70	146	127	415	1732	2539	3128	1816	246	119	153	169	344	291	291	160	158	132	446	2190	2879	2558	2290	829	141	146
71	125	111	246	1285	2513	3198	1231	173	107	136	152	299	229	249	144	140	120	313	2105	3046	2578	2052	355	124	125
72	111	96	195	864	2457	2812	613	145	96	123	135	267	142	220	130	127	110	222	1985	3129	2581	1646	263	108	111
73	100	83	171	552	2389	2324	292	127	88	110	116	220	100	190	115	116	102	172	1807	3099	2574	1087	220	93	100
74	86	71	146	360	2291	1353	208	112	81	98	86	152	82	139	98	106	93	147	1412	2725	2541	635	181	80	86
75	72	62	123	250	2084	627	176	102	73	89	63	100	71	94	75	96	86	131	829	2047	2444	389	152	69	72
76	61	55	103	200	1690	369	152	93	65	78	53	79	62	74	60	87	79	117	392	1250	2223	273	131	61	61
77	52	47	87	175	1160	264	134	83	58	69	45	66	53	62	51	79	71	107	235	610	1859	220	113	54	52
78	47	43	75	155	645	210	115	72	51	60	38	56	46	53	43	71	64	97	195	365	1376	193	99	46	47
79	43	38	65	139	398	177	96	63	43	46	32	47	39	46	37	62	57	89	174	268	904	176	86	41	43
80	39	35	50	120	277	149	80	54	35	38	28	40	32	39	32	49	49	79	152	216	535	160	72	37	39
81	35	32	41	102	222	125	63	44	27	32	24	34	28	34	28	40	43	69	132	189	360	146	53	34	35
82	32	29	36	79	186	107	44	35	20	26	20	29	23	30	25	34	36	60	117	163	283	131	43	31	32
83	31	27	33	54	147	89	28	30	16	22	17	25	13	25	21	29	27	51	105	140	233	113	39	29	31
84	27	24	28	35	116	70	19	25	14	17	14	21	9	21	17	23	20	42	84	121	194	89	35	26	27
85	24	22	25	25	82	49	14	22	10	12	11	17	7	18	15	19	16	33	68	104	159	57	30	23	24
86	22	20	23	18	55	28	10	13	7	7	8	14	4	15	12	14	13	28	51	89	125	34	26	21	22
87	19	19	21	14	33	13	5	7	2	4	2	10	2	11	7	9	10	24	32	73	94	23	23	20	19
88	16	17	17	10	17	5	0	4	0	2	1	3	0	7	2	7	7	18	20	51	64	17	21	19	16
89	14	14	12	6	10	0	1	1	0	0	0	0	0	2	0	4	3	10	13	28	42	13	18	16	14
90	9	11	6	1	1	0	0	0	0	0	0	1	0	1	0	1	1	5	7	16	19	10	12	14	9

Luminaire Report Summary

IESNA:LM-63-2002
[TEST]
[TESTDATE] 2014.8.13
[TESTLAB]
[ISSUEDATE] 2014-08-14 08:55:27
[MANUFAC] SARIN Energy Inc.
[LUMINAIRE] SES-STZM-5700-65
[_TOTALLUMINAIRELUMENS] 6116.5
[_LAMPPOSITION] 0,0
[OTHER] EVERFINE GO-2000B SYSTEM
FILE: CANDELA MULTIPLIER: 1
FILE: VERTICAL ANGLES: 91, HORIZONTAL ANGLES: 25
FILE: COORDINATE SYSTEM: TYPE C
FILE: UNIT OF MEASURE: METRIC
FILE: BALLAST FACTOR: 1

Photometrics Pro 1.3.29 copyright 2003-2019 by jSolutions, Inc.
Reported data calculated from manufacturer's data file, based on IES recommended methods.