

Photometrics Pro

Luminaire Photometric Report

Filename: AST-HB11B-150WL1B1T2A1-abc40WD-277V

Manufacturer: SARIN Energy Solutions

Lamp Output: 1 lamp, rated Lumens/lamp: 21004.3

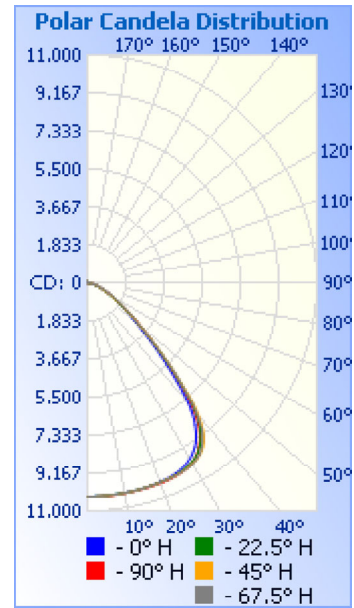
Max Candela: 10,321.9 at Horizontal: 90°, Vertical: 5°

Input Wattage: 144.3

Luminous Opening: Point

Photometry : Type C

Nema Type: 6 X 6



Roadway Summary

Cutoff Classification:	CUTOFF
Distribution:	Type VS
Max Cd, 90 Deg Vert:	8.0
Max Cd, 80 to <90 Deg:	165.3
	Lumens % Lamp
Downward Street Side:	10,611.8 50.5%
Downward House Side:	10,341.7 49.2%
Downward Total:	20,953.5 99.8%
Upward Street Side:	25.9 0.1%
Upward House Side:	24.9 0.1%
Upward Total:	50.8 0.2%
Total Lumens:	21,004.3 100%

Flood Summary

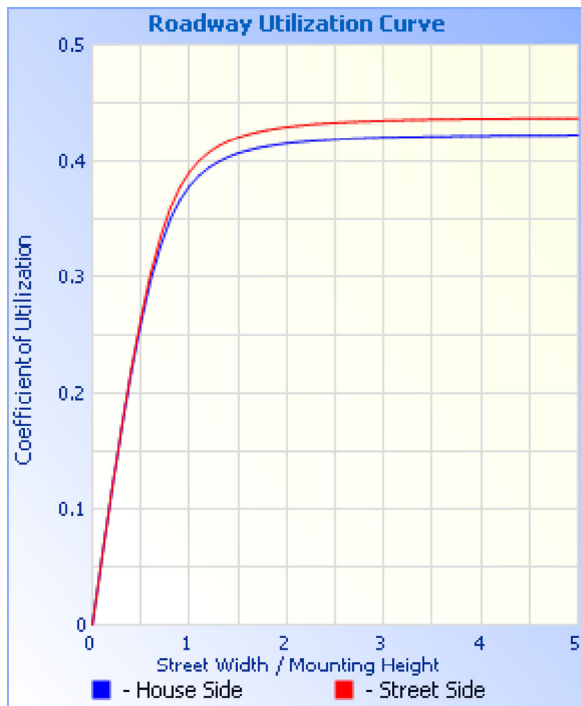
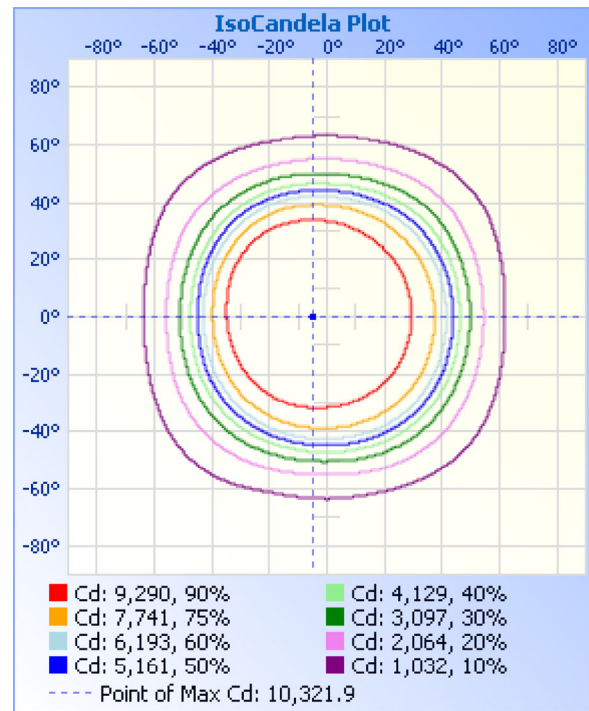
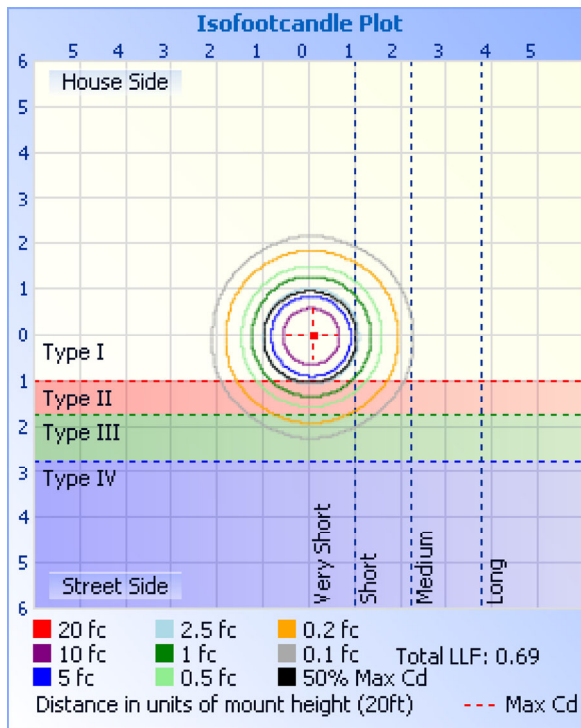
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	95.4%	20,047.0	125.6	126.5
Beam (50%):	76%	15,969.8	88.8	88.8
Total:	100%	20,996.5		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	8,478.1	40.4%	40.4%
0-40	13,929.2	66.3%	66.3%
0-60	19,692.9	93.8%	93.8%
60-90	1,257.6	6%	6%
70-100	378.6	1.8%	1.8%
90-120	3.6	0%	0%
0-90	20,950.5	99.7%	99.8%
90-180	50.8	0.2%	0.2%
0-180	21,001.3	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	983.5	4.7%	90-100	0.7	0%
10-20	2,901.7	13.8%	100-110	0.8	0%
20-30	4,592.8	21.9%	110-120	2.0	0%
30-40	5,451.1	26.0%	120-130	5.1	0%
40-50	3,850.1	18.3%	130-140	9.2	0%
50-60	1,913.6	9.1%	140-150	11.7	0.1%
60-70	879.7	4.2%	150-160	10.9	0.1%
70-80	329.8	1.6%	160-170	7.7	0%
80-90	48.1	0.2%	170-180	2.7	0%



Illuminance at a Distance

	Center Beam fc	Beam Width	
2.5R	1,650 fc	4.9 ft	4.9 ft
5.0R	412 fc	9.8 ft	9.8 ft
7.5R	183 fc	14.7 ft	14.7 ft
10.0R	103 fc	19.6 ft	19.6 ft
12.5R	66.0 fc	24.5 ft	24.5 ft
15.0R	45.8 fc	29.4 ft	29.4 ft

Vert. Spread: 88.8°
Horiz. Spread: 88.8°

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	1.11	1.08	1.05	1.02	1.09	1.06	1.03	.90	1.01	.99	.97	.98	.96	.94	.94	.93	.91	.89
2	1.04	.97	.92	.87	1.01	.95	.91	.80	.92	.88	.84	.89	.86	.83	.86	.83	.81	.79
3	.96	.88	.81	.76	.94	.86	.80	.71	.84	.78	.74	.81	.77	.73	.78	.75	.72	.70

4	.90	.80	.72	.67	.87	.78	.72	.63	.76	.70	.66	.74	.69	.65	.72	.67	.64	.62
5	.83	.72	.65	.59	.81	.71	.64	.57	.69	.63	.58	.67	.62	.58	.66	.61	.57	.55
6	.78	.66	.58	.53	.76	.65	.58	.51	.64	.57	.52	.62	.56	.52	.60	.55	.51	.50
7	.72	.61	.53	.48	.71	.60	.53	.46	.58	.52	.47	.57	.51	.47	.56	.51	.47	.45
8	.68	.56	.48	.43	.66	.55	.48	.42	.54	.47	.43	.53	.47	.43	.52	.46	.42	.41
9	.64	.52	.44	.39	.62	.51	.44	.39	.50	.43	.39	.49	.43	.39	.48	.43	.39	.37
10	.60	.48	.41	.36	.59	.47	.40	.35	.46	.40	.36	.45	.40	.36	.45	.39	.35	.34

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	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311	10311
1	10310	10307	10310	10308	10315	10312	10314	10311	10311	10311	10314	10308	10309	10310	10310	10307	10310
2	10306	10306	10309	10307	10318	10313	10316	10314	10312	10312	10317	10307	10309	10309	10312	10307	10306
3	10304	10304	10307	10308	10320	10314	10315	10313	10311	10314	10317	10313	10305	10307	10308	10304	10304
4	10303	10302	10307	10307	10318	10314	10317	10316	10310	10314	10320	10312	10304	10305	10305	10303	10303
5	10298	10298	10307	10306	10322	10308	10316	10315	10308	10317	10317	10313	10304	10305	10308	10299	10298
6	10294	10290	10305	10301	10317	10312	10315	10314	10309	10313	10317	10310	10303	10300	10304	10297	10294
7	10289	10287	10303	10300	10315	10307	10315	10313	10305	10310	10313	10307	10303	10297	10304	10295	10289
8	10288	10282	10299	10293	10314	10305	10313	10309	10309	10308	10310	10304	10299	10292	10302	10294	10288
9	10285	10283	10297	10293	10308	10305	10310	10309	10303	10301	10306	10298	10296	10288	10298	10288	10285
10	10281	10284	10294	10288	10303	10302	10306	10307	10300	10295	10301	10290	10290	10282	10294	10285	10281
11	10274	10280	10289	10282	10300	10300	10303	10303	10296	10293	10287	10281	10281	10275	10288	10277	10274
12	10272	10277	10282	10280	10297	10295	10303	10297	10287	10283	10278	10268	10269	10265	10278	10274	10272
13	10270	10270	10279	10272	10292	10295	10297	10293	10283	10275	10267	10252	10251	10248	10270	10267	10270
14	10267	10265	10265	10268	10291	10287	10295	10286	10274	10263	10252	10230	10233	10234	10255	10255	10267
15	10258	10254	10260	10261	10284	10285	10290	10281	10262	10245	10230	10207	10211	10212	10237	10245	10258
16	10250	10249	10248	10252	10281	10286	10286	10271	10248	10227	10207	10185	10179	10186	10217	10237	10250
17	10236	10242	10244	10247	10280	10281	10281	10258	10225	10200	10178	10154	10151	10160	10195	10221	10236
18	10226	10236	10240	10241	10278	10276	10277	10243	10202	10171	10147	10116	10112	10128	10173	10207	10226
19	10216	10228	10236	10237	10274	10271	10266	10222	10176	10143	10106	10073	10070	10091	10146	10187	10216
20	10203	10221	10225	10231	10270	10264	10246	10199	10144	10102	10059	10029	10027	10049	10116	10163	10203
21	10189	10211	10218	10224	10265	10255	10229	10170	10109	10055	10009	9977	9982	9999	10069	10136	10189
22	10176	10204	10210	10222	10255	10237	10203	10142	10071	10008	9953	9916	9923	9948	10029	10105	10176
23	10153	10191	10207	10214	10249	10219	10173	10104	10016	9944	9888	9855	9855	9891	9980	10068	10153
24	10126	10181	10197	10208	10229	10195	10141	10061	9963	9880	9821	9788	9784	9822	9923	10029	10126
25	10092	10163	10185	10200	10215	10164	10101	10005	9903	9810	9736	9705	9710	9746	9856	9977	10092
26	10049	10142	10167	10183	10191	10125	10050	9950	9836	9732	9653	9619	9622	9651	9773	9915	10049
27	10000	10105	10144	10160	10160	10072	9988	9883	9747	9636	9559	9523	9521	9559	9685	9842	10000
28	9940	10069	10124	10138	10120	10016	9924	9804	9661	9537	9456	9415	9413	9457	9582	9756	9940
29	9870	10025	10094	10104	10059	9945	9842	9714	9559	9426	9343	9297	9301	9339	9464	9655	9870
30	9788	9971	10056	10066	9990	9862	9749	9606	9448	9304	9216	9156	9170	9218	9350	9550	9788
31	9690	9900	10013	10008	9908	9765	9640	9489	9322	9172	9066	9013	9039	9091	9207	9428	9690
32	9570	9820	9952	9936	9811	9649	9508	9359	9184	9013	8919	8863	8873	8935	9059	9286	9570
33	9446	9723	9870	9846	9695	9500	9365	9210	9015	8849	8756	8691	8702	8757	8885	9122	9446
34	9277	9579	9778	9721	9541	9342	9203	9037	8841	8669	8572	8471	8507	8554	8689	8930	9277
35	9084	9427	9643	9575	9367	9158	9014	8841	8642	8459	8400	8303	8306	8367	8447	8719	9084
36	8836	9249	9488	9391	9163	8947	8798	8594	8442	8262	8139	8045	8072	8103	8229	8443	8836
37	8574	9015	9270	9171	8922	8694	8507	8366	8185	8005	7876	7784	7813	7803	7936	8200	8574
38	8284	8745	8987	8890	8630	8402	8233	8073	7867	7679	7569	7484	7506	7495	7611	7856	8284
39	7913	8451	8641	8494	8259	8034	7878	7733	7521	7338	7202	7130	7162	7121	7209	7478	7913
40	7501	8028	8247	8119	7845	7638	7484	7352	7110	6942	6811	6715	6758	6707	6766	7028	7501
41	6969	7595	7772	7662	7365	7188	7028	6841	6659	6500	6357	6201	6271	6208	6295	6559	6969
42	6440	7047	7223	7080	6866	6687	6516	6350	6192	6047	5855	5744	5783	5735	5865	6053	6440
43	5909	6455	6587	6555	6372	6171	5996	5850	5704	5556	5402	5325	5348	5326	5392	5596	5909
44	5456	5945	6017	6044	5812	5714	5522	5360	5266	5104	4961	4905	4895	4925	4958	5124	5456
45	4983	5418	5540	5532	5321	5272	5062	4841	4844	4675	4507	4442	4407	4525	4547	4685	4983
46	4560	4918	5031	5021	4856	4841	4586	4405	4421	4272	4100	4052	4064	4147	4210	4289	4560

47	4124	4453	4549	4558	4462	4439	4204	4029	4036	3913	3745	3696	3736	3827	3887	3953	4124
48	3788	4105	4109	4129	4117	4040	3870	3707	3653	3577	3431	3377	3440	3488	3583	3627	3788
49	3458	3742	3755	3794	3783	3706	3554	3421	3336	3309	3152	3083	3182	3212	3297	3346	3458
50	3183	3435	3433	3486	3508	3411	3241	3151	3047	3072	2882	2801	2947	2946	3056	3074	3183
51	2940	3173	3153	3205	3244	3134	2974	2912	2782	2842	2654	2575	2698	2696	2830	2864	2940
52	2735	2906	2901	2952	2995	2876	2747	2693	2527	2605	2455	2381	2478	2453	2607	2637	2735
53	2518	2646	2672	2727	2734	2669	2540	2481	2317	2390	2261	2200	2276	2273	2417	2428	2518
54	2344	2409	2465	2538	2509	2474	2351	2276	2142	2199	2087	2029	2083	2081	2218	2230	2344
55	2172	2204	2260	2340	2301	2293	2156	2071	1990	2023	1910	1860	1873	1923	2051	2070	2172
56	2015	2010	2082	2159	2096	2100	1988	1894	1842	1836	1761	1720	1695	1784	1885	1909	2015
57	1857	1825	1910	2001	1905	1943	1829	1733	1697	1682	1619	1587	1557	1653	1736	1754	1857
58	1717	1667	1757	1846	1747	1784	1688	1582	1568	1540	1475	1465	1422	1529	1582	1615	1717
59	1588	1529	1609	1692	1605	1645	1566	1430	1451	1404	1344	1336	1298	1419	1448	1475	1588
60	1450	1396	1471	1568	1473	1505	1442	1307	1340	1280	1225	1224	1181	1315	1326	1354	1450
61	1333	1282	1346	1431	1354	1366	1315	1195	1235	1152	1115	1121	1071	1205	1208	1230	1333
62	1220	1171	1232	1310	1230	1248	1207	1094	1124	1055	1018	1027	979	1108	1102	1130	1220
63	1110	1074	1121	1206	1129	1133	1112	994	1032	961	917	931	895	1011	992	1030	1110
64	1013	980	1024	1101	1034	1038	1018	907	944	867	834	852	822	929	911	934	1013
65	923	890	931	1007	950	945	927	827	860	789	758	776	744	846	824	848	923
66	838	808	853	918	869	859	846	751	777	704	684	701	675	768	741	781	838
67	766	734	772	848	783	772	772	688	706	640	620	637	614	694	669	708	766
68	695	668	699	764	712	701	706	623	641	576	557	575	554	628	608	644	695
69	622	598	633	698	649	631	636	564	577	512	501	516	500	564	541	575	622
70	565	543	569	625	585	569	576	514	514	464	449	466	451	511	487	517	565
71	506	491	513	561	525	513	526	465	462	420	409	418	404	455	438	464	506
72	455	441	460	500	468	459	468	415	414	378	363	373	364	406	395	417	455
73	404	394	411	448	419	411	415	376	371	344	328	336	331	364	355	376	404
74	365	360	371	404	382	357	370	341	330	301	292	299	292	330	318	343	365
75	315	314	329	354	336	323	336	301	300	273	260	264	268	291	287	302	315
76	281	282	291	311	294	285	287	268	264	244	239	235	233	255	252	264	281
77	241	245	255	274	259	255	257	236	231	221	206	201	205	220	220	235	241
78	213	214	219	234	221	215	218	204	202	182	179	177	174	189	194	201	213
79	178	181	189	204	188	177	186	177	169	158	156	148	145	159	165	174	178
80	150	152	154	165	154	146	153	146	135	132	129	118	121	131	135	142	150
81	118	119	122	129	121	123	121	116	114	107	100	92	96	97	105	115	118
82	91	89	94	108	87	84	89	89	86	87	74	70	74	78	82	91	91
83	63	64	68	78	69	65	67	67	67	67	57	53	50	53	60	68	63
84	49	51	51	58	46	46	45	52	48	50	39	41	40	36	43	49	49
85	33	38	32	39	27	28	34	33	37	32	28	24	22	25	33	32	33
86	19	24	28	15	16	13	19	24	24	26	13	15	15	12	16	22	19
87	12	14	12	10	0	8	7	14	12	11	8	12	0	9	8	11	12
88	9	9	8	9	0	0	0	0	10	0	0	0	0	0	0	0	9
89	7	0	7	8	0	0	0	0	0	0	0	0	0	0	0	0	7
90	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	8	0	0	0	0	7	0	0	0	0	0	0	9	0
92	8	7	8	8	0	0	0	0	0	0	0	0	0	0	0	0	8
93	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	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	7	0

96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	7	0	0	0	8	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	7	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	0
102	0	0	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0
103	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0
105	0	0	0	9	0	0	0	0	0	0	0	8	0	0	0	0	0
106	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0
107	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
108	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	7	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	7	0	0	9	0	0	0	0	0	7	0	0	0	0	0	0	7
111	0	8	8	0	0	0	0	0	0	9	0	0	0	0	0	0	0
112	7	8	0	9	0	0	0	0	7	7	0	0	0	0	0	0	7
113	9	7	9	11	0	0	0	0	0	0	7	0	0	0	0	8	9
114	0	0	0	8	0	0	0	8	0	8	0	0	0	0	0	0	0
115	7	0	8	7	0	0	0	0	0	0	0	0	0	0	0	0	7
116	0	0	0	10	0	0	0	0	7	0	10	7	0	0	0	0	0
117	0	8	0	7	0	0	0	0	0	0	0	8	0	0	0	8	0
118	7	0	0	9	0	0	0	8	0	0	0	8	0	0	0	0	7
119	0	8	0	0	0	0	0	7	7	0	8	8	0	0	0	7	0
120	0	8	0	8	0	0	0	0	9	7	0	0	0	0	0	0	0
121	0	0	0	7	0	0	0	7	8	8	9	9	0	7	0	0	0
122	8	0	0	10	0	0	0	0	8	9	11	0	0	0	0	9	8
123	9	8	8	10	0	0	0	8	9	7	10	11	0	0	8	9	9
124	8	7	0	0	0	0	9	0	8	9	10	11	0	0	0	7	8
125	9	8	9	0	0	0	0	10	7	10	0	8	0	0	7	9	9
126	7	9	8	14	0	0	10	7	10	8	0	12	8	7	9	9	7
127	8	9	9	12	0	0	0	11	0	8	9	8	0	0	0	11	8
128	9	8	11	8	0	0	11	10	10	12	15	10	0	10	8	10	9
129	9	10	10	10	0	8	7	10	9	12	12	15	8	9	8	9	9
130	10	11	11	10	7	0	8	12	11	13	0	11	8	10	11	8	10
131	11	11	10	14	0	9	12	11	9	11	15	13	9	8	8	14	11
132	16	8	9	12	0	0	8	8	13	11	9	12	10	8	13	14	16
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Luminaire Report Summary

IESNA:LM-63-2002
[TEST]
[TESTLAB]
[ISSUEDATE] 2021-10-13 16:02
[MANUFAC] SARIN Energy Solutions
[_TOTALLUMINAIRELUMENS] 21001.2
[_VOLTAGE] 277.0 V
[_CURRENT] 0.551 A
[_POWERFACTOR] 0.946
[_TESTINST] GPM-3000
[_TESTDIST] 14.140 M [K=1.0000]
[_TESTTEMPERATURE] 25.1 'C
[_TESTHUMIDITY]
[_TESTOPERATOR]
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.