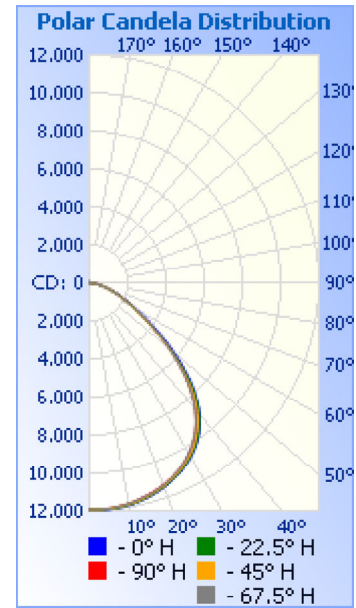


Photometrics Pro

Luminaire Photometric Report

Filename: High Bay 200W HB05 - 120V
Manufacturer: SARIN Energy Inc.
Luminaire: SES-HB05-4000-200 120V
Lamp Output: 1 lamp, rated Lumens/lamp: 26963.9
Max Candela: 11,959.8 at Horizontal: 0°, Vertical: 2°
Input Wattage: 198.46
Luminous Opening: Point
Test Lab: Shenzhen Belling Test Laboratory
Photometry : Type C
Nema Type: 7 X 7



Roadway Summary

Cutoff Classification:	CUTOFF
Distribution:	Type VS
Max Cd, 90 Deg Vert:	25.2
Max Cd, 80 to <90 Deg:	379.3
	Lumens % Lamp
Downward Street Side:	13,766.7 51.1%
Downward House Side:	13,116.8 48.6%
Downward Total:	26,883.5 99.7%
Upward Street Side:	37.8 0.1%
Upward House Side:	42.5 0.2%
Upward Total:	80.4 0.3%
Total Lumens:	26,963.9 100%

Flood Summary

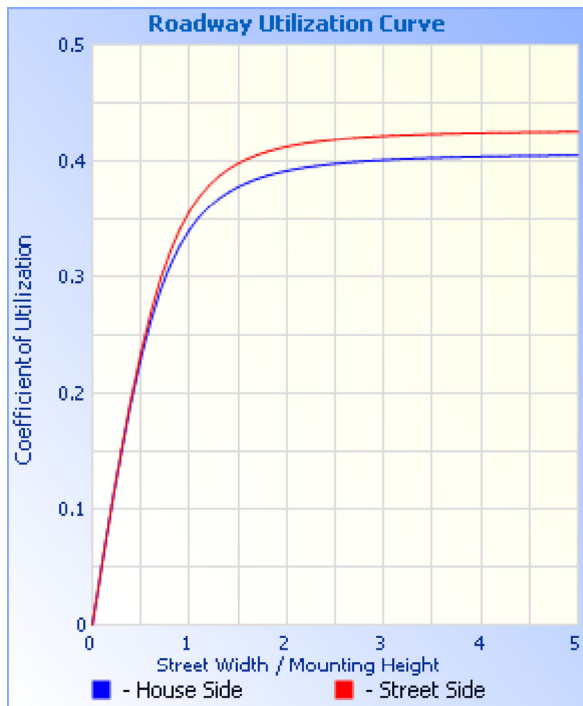
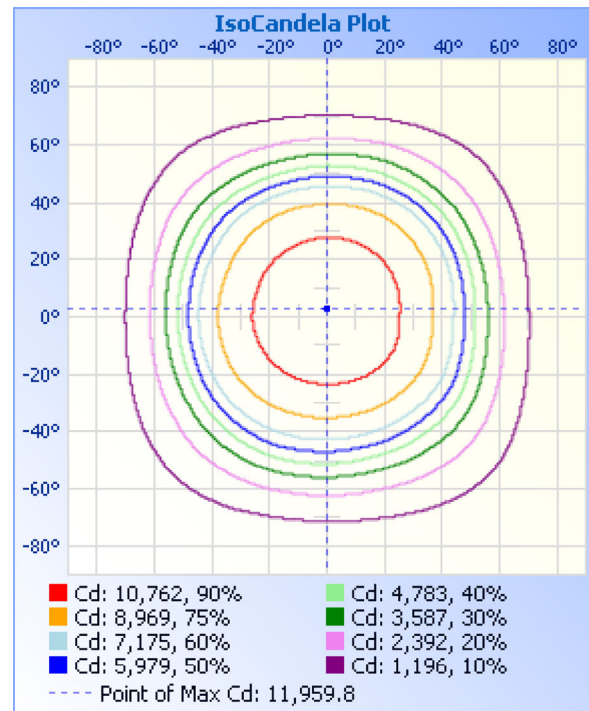
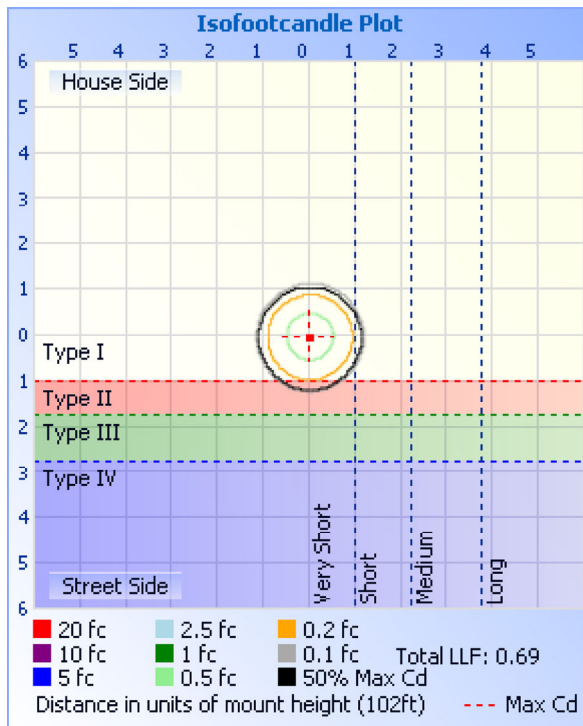
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	96.4%	26,000.6	140.5	142
Beam (50%):	73%	19,688.6	96.1	96.2
Total:	100%	26,953.9		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	9,382.4	34.8%	34.8%
0-40	15,266.9	56.6%	56.6%
0-60	24,073.4	89.3%	89.3%
60-90	2,806.5	10.4%	10.4%
70-100	933.6	3.5%	3.5%
90-120	29.8	0.1%	0.1%
0-90	26,879.9	99.7%	99.7%
90-180	80.4	0.3%	0.3%
0-180	26,960.3	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	1,132.1	4.2%	90-100	11.9	0%
10-20	3,265.9	12.1%	100-110	9.1	0%
20-30	4,984.4	18.5%	110-120	8.8	0%
30-40	5,884.5	21.8%	120-130	9.2	0%
40-50	5,333.4	19.8%	130-140	11.4	0%
50-60	3,473.1	12.9%	140-150	11.4	0%
60-70	1,884.8	7.0%	150-160	9.9	0%
70-80	809.8	3.0%	160-170	6.4	0%
80-90	111.9	0.4%	170-180	2.3	0%



Illuminance at a Distance

Center Beam fc	Beam Width	
42.8 fc	37.2 ft	37.1 ft
10.8 fc	74.2 ft	74.1 ft
4.77 fc	111.4 ft	111.2 ft
2.68 fc	148.7 ft	148.4 ft
1.72 fc	185.7 ft	185.3 ft
1.19 fc	222.9 ft	222.4 ft

Vert. Spread: 96.2°
Horiz. Spread: 96.1°

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	1.07	1.03	1.00	1.08	1.04	1.01	.88	1.00	.98	.95	.96	.94	.92	.93	.91	.89	.87
2	1.02	.95	.89	.84	1.00	.93	.88	.77	.90	.85	.81	.86	.83	.79	.83	.80	.78	.76
3	.94	.85	.78	.72	.92	.83	.77	.67	.80	.75	.70	.78	.73	.69	.75	.71	.68	.66

4	.87	.76	.68	.62	.85	.75	.68	.59	.72	.66	.61	.70	.65	.60	.68	.63	.60	.58
5	.80	.69	.61	.55	.78	.68	.60	.52	.66	.59	.54	.64	.58	.53	.62	.57	.53	.51
6	.75	.62	.54	.48	.73	.61	.54	.47	.60	.53	.48	.58	.52	.47	.57	.51	.47	.45
7	.69	.57	.49	.43	.68	.56	.48	.42	.55	.48	.43	.53	.47	.42	.52	.46	.42	.40
8	.65	.52	.44	.39	.63	.52	.44	.38	.50	.43	.38	.49	.43	.38	.48	.42	.38	.36
9	.61	.48	.40	.35	.59	.47	.40	.34	.46	.40	.35	.45	.39	.35	.44	.39	.35	.33
10	.57	.44	.37	.32	.56	.44	.37	.31	.43	.36	.32	.42	.36	.32	.41	.36	.32	.30

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	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937	11937
1	11948	11943	11940	11938	11941	11937	11925	11932	11925	11928	11921	11944	11934	11938	11945	11949	11948
2	11960	11946	11937	11933	11938	11941	11915	11929	11920	11913	11907	11941	11929	11938	11943	11959	11960
3	11957	11941	11936	11935	11930	11928	11909	11910	11903	11901	11903	11927	11922	11927	11934	11960	11957
4	11952	11944	11925	11921	11929	11907	11891	11880	11872	11870	11896	11916	11907	11917	11938	11939	11952
5	11958	11939	11919	11913	11910	11888	11865	11861	11844	11844	11872	11899	11888	11904	11934	11937	11958
6	11944	11933	11908	11898	11894	11880	11843	11841	11816	11822	11845	11882	11860	11895	11923	11942	11944
7	11929	11919	11892	11868	11867	11859	11812	11816	11792	11804	11825	11863	11833	11875	11908	11932	11929
8	11913	11902	11871	11842	11840	11830	11790	11786	11764	11772	11808	11837	11812	11859	11877	11909	11913
9	11896	11879	11851	11814	11819	11805	11763	11741	11730	11740	11780	11809	11774	11834	11856	11889	11896
10	11875	11849	11821	11789	11793	11755	11715	11704	11686	11702	11735	11775	11746	11795	11834	11866	11875
11	11847	11825	11790	11752	11756	11717	11679	11672	11645	11667	11693	11742	11713	11762	11808	11841	11847
12	11813	11794	11765	11709	11705	11680	11636	11625	11606	11633	11653	11706	11675	11720	11776	11809	11813
13	11770	11753	11724	11661	11667	11635	11582	11573	11560	11572	11617	11666	11634	11684	11738	11766	11770
14	11735	11712	11680	11616	11617	11593	11530	11512	11509	11513	11557	11628	11582	11645	11692	11722	11735
15	11691	11672	11640	11582	11580	11527	11467	11446	11442	11449	11500	11580	11529	11590	11650	11679	11691
16	11643	11630	11593	11548	11529	11473	11422	11391	11376	11389	11445	11522	11474	11539	11597	11636	11643
17	11596	11573	11533	11491	11475	11418	11367	11325	11302	11325	11390	11459	11404	11480	11546	11591	11596
18	11544	11513	11479	11431	11417	11362	11294	11250	11228	11258	11319	11397	11342	11420	11489	11539	11544
19	11486	11457	11415	11366	11355	11289	11223	11163	11155	11171	11244	11335	11268	11359	11427	11487	11486
20	11429	11400	11354	11294	11284	11219	11140	11082	11074	11086	11165	11266	11196	11293	11370	11418	11429
21	11364	11334	11288	11232	11232	11145	11057	11004	10987	11003	11084	11186	11109	11222	11309	11342	11364
22	11290	11258	11210	11155	11145	11055	10973	10913	10872	10907	10998	11089	11034	11147	11233	11276	11290
23	11214	11179	11137	11072	11067	10982	10882	10802	10773	10807	10905	11004	10936	11063	11151	11198	11214
24	11140	11098	11057	10981	10991	10902	10788	10694	10669	10692	10806	10917	10842	10971	11063	11128	11140
25	11064	11021	10970	10891	10898	10805	10676	10588	10554	10581	10687	10819	10740	10880	10982	11048	11064
26	10982	10933	10886	10800	10812	10700	10575	10475	10437	10456	10572	10695	10631	10785	10895	10959	10982
27	10871	10837	10776	10698	10711	10597	10456	10337	10302	10334	10438	10575	10517	10677	10799	10868	10871
28	10780	10750	10679	10593	10604	10488	10330	10203	10165	10196	10313	10456	10391	10570	10689	10770	10780
29	10684	10643	10572	10468	10496	10360	10202	10065	10019	10042	10164	10336	10265	10459	10580	10665	10684
30	10575	10536	10469	10341	10390	10224	10064	9920	9869	9893	10016	10192	10105	10325	10479	10566	10575
31	10458	10403	10342	10214	10245	10092	9917	9765	9690	9725	9845	10022	9962	10183	10370	10442	10458
32	10337	10297	10219	10092	10100	9945	9754	9599	9509	9547	9667	9865	9802	10060	10231	10320	10337
33	10209	10159	10070	9929	9964	9798	9592	9405	9330	9368	9489	9701	9617	9904	10096	10201	10209
34	10067	10017	9926	9776	9807	9625	9404	9212	9129	9149	9296	9516	9440	9753	9954	10062	10067
35	9921	9870	9757	9607	9640	9442	9215	9021	8926	8937	9098	9336	9271	9565	9811	9916	9921
36	9758	9691	9582	9414	9454	9258	9011	8808	8687	8719	8863	9145	9067	9386	9651	9743	9758
37	9570	9526	9401	9228	9262	9055	8802	8573	8472	8488	8637	8912	8847	9208	9469	9576	9570
38	9388	9325	9199	9015	9052	8845	8577	8349	8236	8222	8404	8697	8634	9005	9259	9393	9388
39	9168	9122	8984	8788	8830	8617	8334	8106	7996	7965	8156	8475	8382	8765	9048	9190	9168
40	8959	8883	8752	8565	8606	8377	8082	7864	7750	7714	7895	8238	8130	8536	8822	8953	8959
41	8717	8656	8507	8299	8361	8091	7817	7614	7491	7435	7626	7986	7897	8269	8591	8702	8717
42	8454	8381	8222	8044	8073	7825	7522	7329	7208	7161	7322	7709	7610	8018	8318	8460	8454
43	8180	8090	7948	7754	7812	7534	7248	7075	6953	6858	7053	7455	7348	7739	8018	8181	8180
44	7906	7805	7652	7469	7533	7207	6955	6802	6680	6576	6760	7186	7074	7457	7710	7902	7906
45	7607	7493	7322	7189	7200	6894	6622	6533	6410	6292	6437	6906	6768	7143	7378	7592	7607
46	7282	7142	6968	6857	6890	6558	6313	6261	6108	6007	6143	6584	6443	6792	7044	7236	7282

47	6927	6763	6613	6498	6561	6203	5980	5973	5832	5713	5829	6272	6091	6419	6664	6912	6927
48	6578	6401	6252	6190	6234	5853	5661	5662	5547	5386	5512	5951	5787	6066	6276	6539	6578
49	6244	6016	5899	5835	5902	5471	5297	5374	5273	5101	5181	5637	5453	5693	5918	6172	6244
50	5874	5662	5539	5524	5534	5118	4978	5078	4968	4818	4882	5328	5115	5349	5521	5827	5874
51	5528	5296	5200	5203	5204	4789	4670	4800	4692	4542	4599	5023	4817	5000	5146	5483	5528
52	5213	4937	4838	4907	4887	4482	4371	4503	4441	4265	4325	4705	4514	4652	4821	5165	5213
53	4867	4611	4524	4576	4576	4177	4100	4233	4177	4022	4066	4419	4254	4337	4480	4803	4867
54	4540	4292	4236	4308	4258	3872	3816	3994	3946	3791	3811	4152	3976	4029	4154	4513	4540
55	4254	4014	3934	4014	3978	3614	3568	3746	3699	3572	3584	3870	3715	3753	3849	4207	4254
56	3943	3716	3657	3757	3713	3371	3346	3497	3484	3350	3375	3629	3475	3469	3584	3925	3943
57	3697	3477	3423	3530	3460	3137	3126	3278	3277	3164	3168	3400	3230	3237	3329	3656	3697
58	3430	3223	3171	3269	3230	2906	2930	3066	3080	2964	2984	3184	3010	2988	3103	3394	3430
59	3175	2990	2951	3036	3001	2699	2737	2868	2891	2781	2793	2977	2816	2768	2858	3144	3175
60	2946	2770	2732	2817	2773	2525	2544	2686	2700	2621	2609	2786	2622	2562	2672	2925	2946
61	2745	2592	2550	2620	2587	2355	2388	2490	2540	2442	2456	2586	2433	2392	2478	2709	2745
62	2528	2389	2367	2432	2393	2185	2215	2333	2382	2298	2290	2419	2258	2214	2299	2513	2528
63	2350	2210	2194	2252	2231	2028	2065	2166	2231	2151	2159	2245	2100	2048	2125	2319	2350
64	2163	2057	2024	2060	2053	1882	1922	2010	2059	2015	2001	2106	1948	1889	1985	2138	2163
65	1998	1901	1867	1909	1897	1746	1786	1859	1915	1880	1861	1931	1796	1737	1825	1975	1998
66	1833	1758	1726	1756	1758	1621	1660	1718	1786	1756	1744	1796	1661	1619	1683	1821	1833
67	1687	1623	1603	1614	1625	1506	1541	1596	1657	1625	1629	1670	1532	1494	1556	1674	1687
68	1558	1506	1472	1481	1487	1385	1421	1490	1529	1517	1505	1542	1413	1375	1433	1534	1558
69	1421	1379	1351	1362	1375	1286	1320	1366	1415	1407	1389	1420	1301	1279	1330	1408	1421
70	1298	1267	1238	1234	1267	1189	1217	1254	1312	1297	1292	1318	1190	1160	1203	1286	1298
71	1178	1149	1129	1121	1158	1086	1103	1147	1203	1186	1187	1209	1082	1059	1102	1165	1178
72	1074	1045	1023	1011	1038	981	1008	1041	1093	1083	1074	1103	973	959	1001	1060	1074
73	961	948	926	912	946	890	920	951	988	989	971	992	882	868	912	963	961
74	861	859	842	815	854	807	831	857	900	892	890	899	787	782	825	854	861
75	757	755	740	730	760	723	751	762	792	797	798	809	683	696	723	751	757
76	673	661	644	637	676	639	662	669	695	706	710	714	609	616	642	670	673
77	589	583	572	558	595	564	583	589	608	629	617	633	525	527	569	579	589
78	507	504	490	489	516	498	511	508	516	545	537	540	444	457	483	494	507
79	434	417	419	402	436	425	437	428	433	456	459	453	377	387	397	421	434
80	365	348	343	339	365	348	358	360	367	379	369	379	305	318	319	347	365
81	278	266	262	265	289	280	282	284	291	298	282	295	225	246	234	278	278
82	210	201	180	196	237	215	220	221	227	223	210	239	170	171	164	204	210
83	143	133	126	138	167	155	152	150	156	144	148	174	105	112	112	144	143
84	84	96	73	89	115	106	95	99	84	99	97	125	47	61	68	85	84
85	52	51	51	58	64	57	47	58	55	62	64	82	33	38	38	59	52
86	34	37	32	43	24	31	33	35	31	36	30	54	18	15	35	43	34
87	31	29	14	34	17	20	24	34	28	21	24	36	0	14	25	28	31
88	18	17	21	30	0	12	20	25	26	19	17	28	0	0	13	20	18
89	21	17	20	30	0	0	22	25	21	0	0	23	0	0	0	25	21
90	16	19	17	25	0	0	12	16	19	16	13	23	0	0	12	17	16
91	16	18	13	20	0	0	12	19	20	15	16	21	0	0	17	12	16
92	14	13	0	26	0	0	13	17	16	14	15	19	0	0	14	17	14
93	20	18	16	28	0	0	13	18	17	17	11	27	0	0	0	16	20
94	20	18	11	23	0	0	13	21	18	13	13	20	0	0	13	23	20
95	18	13	15	24	0	0	0	19	11	14	0	24	0	0	15	24	18

96	15	0	14	28	0	0	12	13	15	13	0	23	0	0	0	15	15
97	0	16	12	24	0	0	16	23	0	0	0	25	0	0	13	22	0
98	13	18	12	20	0	0	0	12	17	0	0	24	0	0	12	20	13
99	14	21	15	13	0	0	0	18	15	0	13	17	0	0	16	22	14
100	0	0	0	24	0	0	14	12	14	12	15	26	0	0	20	17	0
101	11	0	13	18	0	0	11	19	0	14	14	25	0	0	14	16	11
102	0	0	0	24	0	0	12	18	0	0	0	21	0	0	0	18	0
103	12	0	0	21	0	0	14	22	0	15	15	23	0	0	14	16	12
104	0	12	11	22	0	0	14	15	20	0	12	18	0	0	16	12	0
105	14	12	0	22	0	0	0	18	15	0	11	25	0	0	0	0	14
106	14	14	0	12	0	0	15	0	0	19	13	23	0	0	11	0	14
107	11	12	15	23	0	0	13	17	16	18	12	18	0	0	15	0	11
108	0	13	0	20	0	0	19	19	0	15	12	23	0	0	15	0	0
109	0	12	0	18	0	0	15	17	0	18	11	24	0	0	16	16	0
110	11	0	0	18	0	0	13	14	15	11	0	13	0	0	14	17	11
111	13	12	0	22	0	0	11	15	0	12	0	19	0	0	0	20	13
112	15	0	0	17	0	0	13	15	15	17	13	19	0	0	13	13	15
113	14	20	0	14	0	0	12	12	13	14	11	18	0	0	12	14	14
114	11	0	0	20	0	0	0	16	15	0	0	13	0	0	17	12	11
115	12	0	13	21	0	0	13	14	13	15	0	18	0	0	15	17	12
116	12	12	14	19	0	0	0	15	14	13	13	22	0	0	14	12	12
117	0	12	12	20	0	0	0	13	16	15	0	24	0	0	0	15	0
118	0	11	15	24	0	0	0	17	17	16	0	20	0	0	15	15	0
119	12	11	13	22	0	0	16	16	22	19	0	19	0	0	0	17	12
120	0	0	0	20	0	0	12	15	0	13	15	27	0	0	11	18	0
121	0	0	0	21	0	0	18	16	0	11	0	16	0	0	14	17	0
122	17	0	0	17	0	0	17	17	19	17	16	16	0	0	12	15	17
123	11	15	0	20	0	0	14	16	15	16	19	0	0	0	0	12	11
124	0	0	0	20	0	12	18	22	14	13	16	17	0	0	14	0	0
125	11	0	0	22	0	0	21	14	19	14	0	24	0	0	15	17	11
126	0	12	0	21	0	0	0	17	15	19	18	30	0	0	0	15	0
127	13	13	0	20	0	0	19	19	17	18	16	28	0	0	18	23	13
128	13	0	13	18	0	0	17	23	12	15	0	28	0	0	19	18	13
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156	27	26	27	35	0	16	26	20	22	22	16	35	12	20	22	29	27
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176	29	26	30	37	0	16	29	33	26	28	24	37	0	20	29	31	29
177	33	23	23	36	0	14	18	24	24	28	26	34	17	20	27	28	33
178	24	24	23	36	0	15	27	24	19	17	26	29	13	18	28	31	24
179	26	24	19	37	13	14	22	28	28	20	22	35	0	14	26	29	26
180	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22

Luminaire Report Summary

IESNA:LM-63-2002
[TEST]
[TESTLAB] Shenzhen Belling Test Laboratory
[ISSUE DATE] 2018-4-20 08:49
[MANUFAC] SARIN Energy Inc.
[LUMINAIRE] SES-HB05-4000-200 120V
[_TOTALLUMINAIRELUMENS] 26960.3
[VOLTAGE] 119.6 V
[CURRENT] 1.668 A
[POWERFACTOR] 0.995
[TESTINST] GPM-3000
[TESTDIST] 18.546 M
[TESTTEMPERATURE] 22.3 '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.