

Photometrics Pro

Luminaire Photometric Report

Filename: AST-MWP09-20WBMDA1-abd-120V-9

Manufacturer: SMART LIGHT CO., LTD

Luminaire Cat: AST-MWP09-20WBMDA1-abd Setting at 3000K

Lamp Output: 1 lamp, rated Lumens/lamp: 2724

Max Candela: 1,524.3 at Horizontal: 337.5°, Vertical: 21°

Input Wattage: 21.29

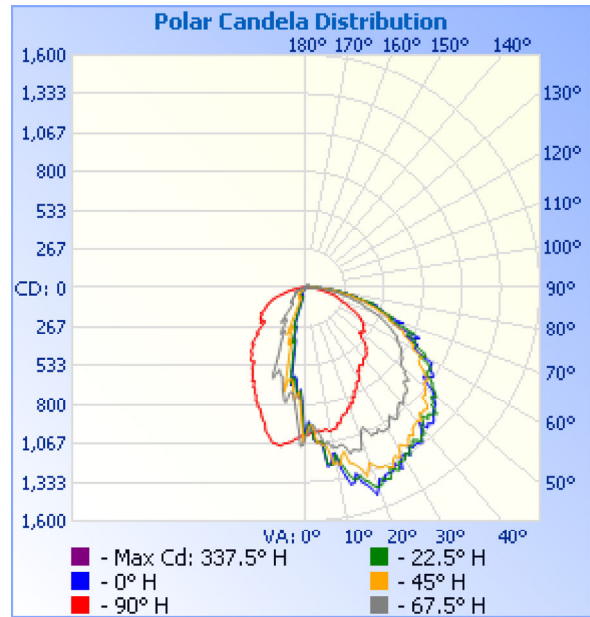
Luminous Opening: Rectangle (L: 4.72", W: 2.87")

Test: BLC2205026E-B-PL

Test Lab: UTEST TECHNICAL LABORATORY

Photometry : Type C

Nema Type: 7 X 6



Roadway Summary

Cutoff Classification:	SEMICUTOFF	
Distribution:	TYPE III, VERY SHORT	
Max Cd, 90 Deg Vert:	80.6	
Max Cd, 80 to <90 Deg:	348.8	
	Lumens	% Lamp
Downward Street Side:	2,264.2	83.1%
Downward House Side:	387.0	14.2%
Downward Total:	2,651.1	97.3%
Upward Street Side:	56.9	2.1%
Upward House Side:	15.9	0.6%
Upward Total:	72.8	2.7%
Total Lumens:	2,724.0	100%

Flood Summary

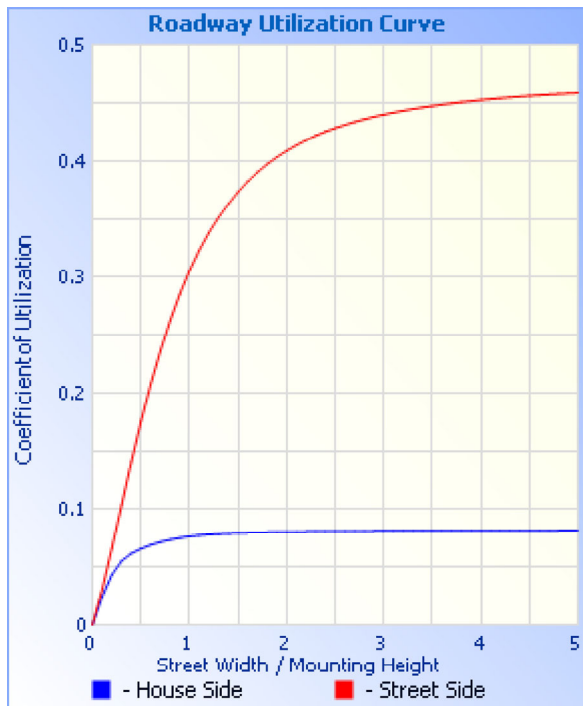
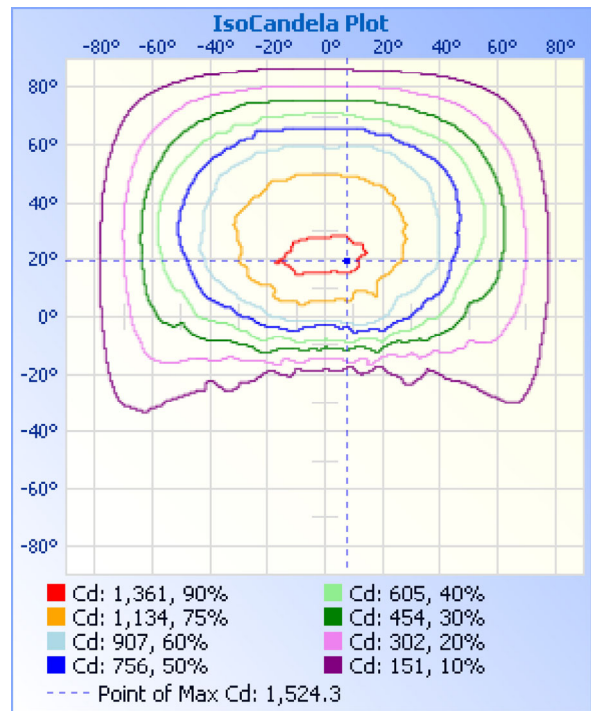
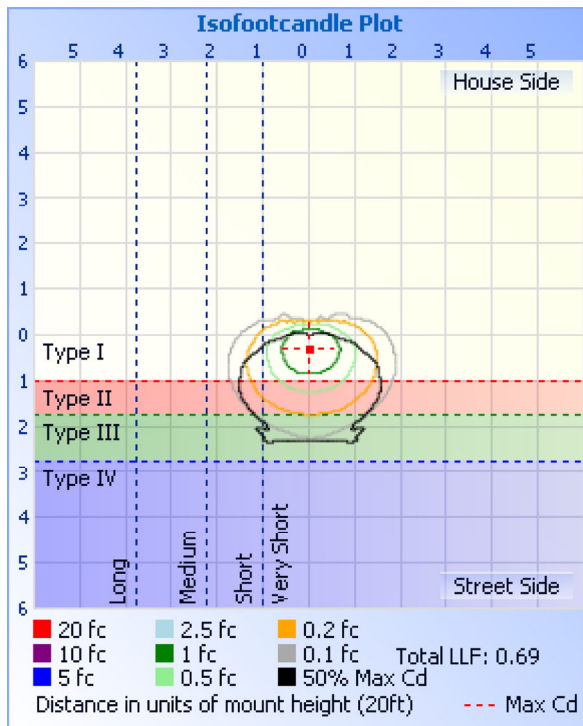
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	92.9%	2,529.9	156.2	103.8
Beam (50%):	61.5%	1,675.2	91.7	69.4
Total:	100%	2,723.3		

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	674.3	24.8%	24.8%
0-40	1,087.2	39.9%	39.9%
0-60	1,966.9	72.2%	72.2%
60-90	684.0	25.1%	25.1%
70-100	346.7	12.7%	12.7%
90-120	47.3	1.7%	1.7%
0-90	2,650.9	97.3%	97.3%
90-180	72.8	2.7%	2.7%
0-180	2,723.7	100%	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	87.3	3.2%	90-100	22.8	0.8%
10-20	243.3	8.9%	100-110	13.3	0.5%
20-30	343.6	12.6%	110-120	11.1	0.4%
30-40	413.0	15.2%	120-130	8.6	0.3%
40-50	449.7	16.5%	130-140	6.8	0.2%
50-60	430.0	15.8%	140-150	5.2	0.2%
60-70	360.1	13.2%	150-160	3.2	0.1%
70-80	232.2	8.5%	160-170	1.4	0.1%
80-90	91.6	3.4%	170-180	0.3	0%



Illuminance at a Distance

	Center Beam fc	Beam Width	
2.5R	161 fc	3.5 ft	5.2 ft
5.0R	40.3 fc	6.9 ft	10.3 ft
7.5R	17.9 fc	10.4 ft	15.5 ft
10.0R	10.1 fc	13.8 ft	20.6 ft
12.5R	6.45 fc	17.3 ft	25.8 ft
15.0R	4.48 fc	20.8 ft	30.9 ft

■ Vert. Spread: 69.4°
■ Horiz. Spread: 91.7°

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	0
RCR: 0	1.18	1.18	1.18	1.18	1.15	1.15	1.15	.97	1.10	1.10	1.10	1.10	1.04	1.04	1.04	1.04	1.00	1.00	1.00	1.00	.97
1	1.07	1.02	.97	.93	1.04	.99	.95	.80	.94	.91	.88	.88	.90	.87	.85	.85	.86	.84	.82	.82	.79
2	.97	.88	.81	.75	.94	.86	.79	.66	.82	.76	.71	.71	.78	.73	.69	.69	.75	.71	.67	.65	.65
3	.88	.77	.68	.61	.85	.75	.67	.56	.72	.65	.59	.59	.68	.63	.58	.58	.66	.61	.57	.54	.54

4	.80	.68	.59	.52	.78	.66	.58	.48	.63	.56	.50	.61	.54	.49	.58	.53	.48	.46
5	.74	.60	.51	.44	.71	.59	.50	.41	.57	.49	.43	.54	.48	.42	.52	.46	.42	.39
6	.68	.54	.45	.38	.66	.53	.45	.36	.51	.43	.38	.49	.42	.37	.47	.41	.37	.34
7	.63	.49	.40	.34	.61	.48	.40	.32	.46	.39	.33	.45	.38	.33	.43	.37	.32	.30
8	.59	.45	.36	.30	.57	.44	.36	.29	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
9	.55	.41	.33	.27	.53	.40	.32	.26	.39	.32	.27	.38	.31	.26	.37	.31	.26	.24
10	.51	.38	.30	.25	.50	.37	.30	.24	.36	.29	.24	.35	.29	.24	.34	.28	.24	.22

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	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008	1008
1	917	931	958	989	1002	1055	1029	973	944	983	1056	1072	1000	958	931	927	917
2	940	948	938	955	991	1026	874	791	778	814	898	1081	1015	954	912	921	940
3	1040	1039	965	940	989	950	770	707	696	708	780	972	1029	924	943	1005	1040
4	1065	1051	1061	976	989	875	716	721	756	719	713	893	1034	916	995	1042	1065
5	1050	1060	1059	990	978	829	708	736	702	727	731	826	1050	941	1041	1054	1050
6	1087	1055	1082	1041	985	783	753	686	630	674	772	778	1062	959	1060	1041	1087
7	1232	1208	1075	1080	984	753	706	622	609	624	715	723	1070	963	1048	1160	1232
8	1225	1222	1132	1063	973	726	681	633	614	623	652	719	1075	1024	1037	1249	1225
9	1149	1222	1219	1097	993	726	618	625	674	663	634	733	1093	1047	1127	1208	1149
10	1150	1156	1210	1100	992	740	611	650	465	575	635	796	1092	1038	1259	1161	1150
11	1265	1204	1237	1114	983	761	646	464	376	452	644	785	1085	1060	1206	1157	1265
12	1328	1265	1171	1098	984	776	622	391	357	361	721	743	1084	1067	1162	1256	1328
13	1386	1315	1149	1100	954	738	664	360	379	388	558	715	1070	1035	1141	1296	1386
14	1374	1354	1229	1125	958	677	504	381	273	390	475	669	1045	991	1137	1381	1374
15	1317	1358	1244	1174	927	671	442	313	275	266	408	627	1031	980	1177	1345	1317
16	1383	1338	1267	1153	905	641	397	257	278	271	365	621	1011	999	1216	1300	1383
17	1409	1378	1302	1156	904	600	371	307	250	285	410	612	964	1050	1252	1381	1409
18	1444	1399	1358	1167	899	572	376	275	87	283	394	589	955	1110	1288	1398	1444
19	1499	1436	1312	1170	871	553	358	186	62	112	285	612	932	1146	1265	1413	1499
20	1454	1455	1270	1104	874	574	276	78	59	74	277	655	905	1116	1248	1479	1454
21	1403	1447	1299	1050	847	586	257	69	57	73	292	627	884	1058	1210	1524	1403
22	1431	1405	1327	1030	852	550	319	67	57	72	343	514	878	1022	1237	1421	1431
23	1392	1427	1338	1058	810	538	263	68	58	69	238	460	852	1015	1246	1398	1392
24	1389	1430	1329	1107	816	564	252	67	57	69	125	429	845	990	1246	1428	1389
25	1393	1356	1360	1099	778	551	166	66	55	69	94	390	809	980	1289	1381	1393
26	1375	1385	1368	1107	777	504	95	65	55	68	91	345	800	961	1328	1412	1375
27	1348	1402	1313	1085	762	435	84	68	56	68	87	323	768	959	1360	1366	1348
28	1406	1349	1301	1115	732	403	81	68	57	69	85	359	767	976	1263	1407	1406
29	1340	1352	1328	1112	729	376	82	66	58	69	83	344	728	1007	1238	1334	1340
30	1320	1354	1279	1117	730	353	84	69	59	68	82	332	737	966	1241	1358	1320
31	1317	1318	1250	1107	707	351	83	70	59	66	86	261	710	988	1268	1339	1317
32	1348	1342	1273	1068	665	334	82	68	57	65	85	261	693	1019	1244	1282	1348
33	1284	1302	1283	1045	673	310	79	68	56	66	80	259	668	1027	1234	1298	1284
34	1312	1301	1249	1087	644	292	77	67	56	66	78	247	662	977	1206	1333	1312
35	1305	1271	1228	1090	643	277	74	67	56	65	75	289	616	978	1209	1285	1305
36	1307	1288	1249	1069	656	237	74	65	56	65	76	285	624	967	1168	1257	1307
37	1322	1313	1211	1042	648	227	73	65	56	64	77	232	623	932	1163	1264	1322
38	1282	1281	1199	1027	633	250	72	63	56	62	74	174	615	962	1180	1319	1282
39	1260	1287	1196	1011	621	274	69	61	56	59	70	147	586	979	1156	1279	1260
40	1208	1234	1183	1040	626	233	68	60	56	59	71	143	581	952	1117	1291	1208
41	1268	1224	1201	1016	624	228	66	57	55	57	70	141	576	946	1122	1233	1268
42	1247	1180	1156	1000	618	211	68	53	53	54	73	141	541	910	1145	1216	1247
43	1269	1225	1166	988	606	181	69	50	51	52	70	142	526	924	1107	1219	1269
44	1259	1203	1163	991	586	158	66	49	49	49	69	142	533	893	1109	1206	1259
45	1232	1223	1175	976	587	149	64	47	45	47	68	144	499	851	1088	1180	1232
46	1214	1242	1150	926	562	156	64	44	43	44	66	139	451	820	1073	1205	1214

47	1201	1177	1088	927	546	153	63	41	39	40	63	135	461	823	1072	1195	1201
48	1194	1171	1097	944	510	164	61	37	35	36	61	131	446	786	1053	1205	1194
49	1162	1132	1081	891	497	160	60	33	32	32	59	126	419	782	1046	1145	1162
50	1145	1162	1066	884	471	154	57	29	28	30	56	123	379	784	1036	1106	1145
51	1115	1138	1038	834	490	153	55	27	25	27	50	114	364	761	995	1112	1115
52	1035	1096	1036	825	481	142	52	24	22	24	48	111	366	719	991	1113	1035
53	1004	1083	1047	821	498	143	51	21	19	21	42	104	393	708	958	1079	1004
54	1036	1044	1006	815	493	133	46	18	17	18	39	101	370	711	925	1039	1036
55	1061	1003	978	792	478	125	42	15	15	15	35	92	379	713	925	1017	1061
56	1043	1019	937	783	474	123	40	13	12	13	32	89	377	692	919	990	1043
57	1008	1017	920	778	462	118	33	11	11	11	28	91	370	682	886	990	1008
58	1008	987	920	756	469	105	31	10	9	9	25	88	369	665	861	958	1008
59	1006	908	925	738	448	94	28	8	8	8	22	86	352	669	848	936	1006
60	881	944	852	713	431	91	25	7	7	7	19	80	349	653	838	916	881
61	849	925	836	713	429	89	21	6	6	7	17	83	354	628	817	930	849
62	860	851	824	702	413	86	18	5	6	6	15	75	326	610	790	861	860
63	857	824	795	674	398	90	15	5	6	5	12	74	316	605	755	808	857
64	752	835	754	655	373	84	13	5	5	5	9	76	306	587	721	795	752
65	830	767	734	633	346	81	11	4	5	4	9	76	301	561	702	771	830
66	849	764	732	608	320	83	9	4	5	5	7	76	288	542	675	720	849
67	695	806	684	584	314	84	7	4	4	4	7	75	284	522	662	752	695
68	640	740	649	559	302	80	7	4	4	4	5	72	269	496	643	783	640
69	647	621	604	540	268	80	7	3	4	4	6	66	256	478	588	645	647
70	709	606	602	497	252	80	6	3	4	4	6	61	250	448	558	570	709
71	588	632	589	469	245	69	6	3	5	3	6	59	238	427	538	577	588
72	553	592	549	428	235	69	5	3	7	4	5	50	221	394	525	600	553
73	549	544	514	412	225	66	5	4	7	5	5	44	206	376	484	529	549
74	525	527	490	397	214	64	5	4	8	5	5	41	182	351	471	519	525
75	492	494	440	369	201	57	5	3	7	5	5	38	164	334	414	489	492
76	497	464	426	328	184	54	5	5	7	5	5	33	151	306	389	445	497
77	412	468	409	324	167	47	5	5	7	5	5	30	143	276	368	429	412
78	372	391	368	283	148	44	5	5	7	6	5	22	133	253	347	403	372
79	352	353	330	260	129	32	5	5	6	5	5	19	117	235	311	334	352
80	349	341	326	238	121	28	4	4	6	5	5	18	106	213	294	313	349
81	287	305	281	220	110	24	4	4	6	5	5	16	94	187	264	306	287
82	282	263	237	187	97	21	5	4	5	5	4	15	84	167	232	258	282
83	249	245	219	171	84	19	4	4	5	3	4	13	71	147	209	237	249
84	219	225	192	147	76	18	4	4	5	4	4	11	60	131	179	211	219
85	198	195	167	128	67	15	4	3	5	4	4	10	51	109	155	190	198
86	172	163	148	107	46	13	4	4	5	4	4	11	46	90	138	159	172
87	138	151	128	91	38	12	4	4	4	4	4	10	38	76	114	143	138
88	110	115	103	78	35	12	4	3	5	4	4	10	33	66	95	116	110
89	99	94	85	63	30	11	3	3	3	4	4	9	30	54	75	95	99
90	81	80	70	54	27	10	4	3	3	3	3	8	27	48	64	75	81
91	68	68	61	48	26	10	4	3	3	3	4	9	24	43	54	65	68
92	53	55	52	42	19	10	4	3	3	3	4	8	22	37	50	53	53
93	47	49	46	39	15	10	4	3	4	3	4	8	17	35	42	47	47
94	42	43	40	34	12	8	4	4	4	3	4	8	14	33	39	42	42
95	38	40	36	32	10	8	5	4	4	3	4	8	12	29	35	39	38

96	35	36	33	29	8	8	4	3	4	3	4	8	10	26	32	36	35
97	32	33	31	26	7	8	4	3	4	4	4	6	9	25	31	34	32
98	30	32	29	25	6	8	4	3	4	2	4	6	8	24	28	32	30
99	29	30	27	23	3	8	5	4	5	3	4	7	7	24	27	31	29
100	28	29	26	22	2	8	4	3	4	3	4	7	6	21	26	30	28
101	27	29	26	22	1	7	5	4	4	4	4	7	4	20	25	29	27
102	26	28	25	21	1	7	4	3	4	4	4	7	3	21	24	29	26
103	25	27	25	21	1	8	5	4	4	4	4	6	2	19	24	28	25
104	25	26	25	21	1	8	4	2	4	3	4	7	2	20	23	27	25
105	24	25	24	20	1	7	4	4	4	4	4	7	1	19	23	26	24
106	23	25	23	20	1	7	4	4	4	3	4	7	2	19	22	26	23
107	23	25	23	19	1	7	4	4	4	4	3	6	2	18	22	26	23
108	23	25	23	19	1	7	4	4	5	4	3	6	2	19	22	25	23
109	23	25	23	20	1	8	5	4	5	3	4	7	2	18	22	25	23
110	22	24	22	19	2	7	4	4	4	4	4	6	2	18	21	25	22
111	22	24	22	19	2	7	5	4	4	3	4	6	1	18	21	24	22
112	22	24	22	19	2	7	4	4	4	3	4	6	2	18	21	24	22
113	22	24	21	19	3	7	4	3	4	3	4	6	2	18	20	24	22
114	22	24	21	18	4	7	4	3	4	3	4	6	2	17	20	23	22
115	22	23	20	18	3	7	4	3	4	4	4	6	2	17	19	23	22
116	22	24	20	18	4	7	5	3	4	3	4	6	1	16	18	23	22
117	22	23	19	17	3	7	4	3	4	3	4	7	2	16	18	23	22
118	22	22	18	17	4	7	4	4	4	3	4	6	2	16	17	23	22
119	23	23	18	16	4	7	5	4	3	3	4	6	2	15	17	23	23
120	23	22	18	16	3	7	4	3	3	4	3	7	2	15	16	22	23
121	24	22	17	16	4	7	4	3	4	3	4	6	2	15	16	23	24
122	24	21	17	15	3	8	4	3	4	3	4	7	2	15	16	22	24
123	23	22	17	15	3	7	4	4	4	4	4	7	1	15	17	22	23
124	20	20	17	14	3	8	4	4	4	3	4	7	2	14	16	21	20
125	16	19	17	14	3	8	4	3	3	3	4	7	2	14	16	21	16
126	14	18	16	14	2	8	5	4	3	3	4	8	2	14	15	19	14
127	12	15	16	14	2	9	4	3	4	3	4	8	2	14	15	17	12
128	11	13	16	13	2	9	4	4	4	2	3	9	2	13	16	15	11
129	10	11	17	13	3	10	5	4	3	3	4	9	2	13	16	12	10
130	8	10	17	14	3	10	4	4	4	4	4	9	2	13	16	12	8
131	7	11	17	14	3	11	4	4	3	3	4	10	2	13	16	11	7
132	6	11	17	15	4	11	5	4	3	3	4	10	2	14	15	11	6
133	5	13	17	15	4	12	4	3	2	3	4	11	2	14	16	12	5
134	5	13	17	16	3	12	4	4	3	3	4	11	2	14	16	13	5
135	4	14	17	15	3	12	5	4	4	3	4	11	2	15	16	14	4
136	5	15	16	15	3	13	5	3	4	3	4	12	3	15	16	14	5
137	5	15	17	15	4	13	5	4	4	2	4	11	2	15	16	15	5
138	5	14	16	15	3	13	5	4	4	4	4	12	3	15	15	14	5
139	5	13	16	15	4	13	5	4	4	4	4	12	3	15	15	14	5
140	5	14	15	15	4	14	5	4	4	3	4	12	3	15	14	13	5
141	5	13	14	15	4	14	5	4	4	4	5	12	3	15	14	13	5
142	4	13	14	14	4	14	6	4	4	3	4	12	3	14	13	13	4
143	4	12	14	14	3	14	6	4	4	4	5	11	2	14	13	12	4
144	4	10	14	14	3	14	5	4	4	4	5	11	3	14	12	12	4

145	4	10	13	14	3	14	6	4	4	4	5	11	4	14	12	10	4
146	5	10	12	14	3	13	6	4	4	4	4	11	3	15	12	10	5
147	5	9	13	14	4	13	6	4	4	4	5	11	4	15	12	9	5
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149	4	8	11	15	4	12	6	4	4	4	5	10	3	15	11	8	4
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156	3	6	10	14	4	9	5	4	5	4	4	7	4	14	10	5	3
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161	4	5	9	9	4	6	5	4	4	4	5	5	2	10	8	5	4
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163	4	4	8	8	4	5	4	4	5	4	4	5	2	7	6	4	4
164	2	5	8	8	4	5	4	4	4	4	4	5	3	6	6	4	2
165	4	5	8	7	3	5	4	3	4	4	5	5	3	4	6	5	4
166	3	5	7	7	3	5	4	4	4	4	5	4	3	5	6	5	3
167	4	4	6	5	3	5	4	4	4	4	4	4	3	5	6	5	4
168	3	5	6	5	3	4	4	4	4	4	4	4	3	5	6	5	3
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172	3	4	3	4	3	4	4	4	4	4	4	4	3	3	4	3	3
173	3	3	4	3	3	4	3	4	4	4	4	4	3	2	3	3	3
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175	3	3	3	3	3	3	2	4	4	4	4	4	4	3	3	3	3
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177	2	3	3	2	3	4	3	4	3	2	3	3	3	3	3	3	2
178	3	2	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3
179	3	3	3	2	3	3	4	4	2	3	3	3	4	3	3	3	3
180	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Luminaire Report Summary

IESNA:LM-63-1995
[TEST] BLC2205026E-B-PL
[ISSUEDATE] 2022-5-20 22:23
[MANUFAC] ASMART LIGHT CO., LTD
[LUMCAT] AST-MWP09-20WBMDA1-abd Setting at 3000K
[LUMINAIRE]
[LAMPCAT]
[LAMP]
[_VOLTAGE] 120.0 V
[_CURRENT] 0.179 A
[_POWERFACTOR] 0.989
[_THD] 9.84
[TESTLAB] UTEST TECHNICAL LABORATORY
[_TESTINST] GPM-3000
[_TESTDIST] 14.140 m [K=1.0000]
[_TESTTEMPERATURE] 25.1 'C
[_TESTHUMIDITY]
[_TESTOPERATOR]
[BALLAST]
[BALLASTCAT]
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.