

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: LUMARK

Report Number: P1197021

Luminaire Tested: AWP28S-BZ-MID-4000K-POSITION 30

Issue Date: 10/29/2025

Test Information

Test Method: LM-79-2019
Report Number: P1197021
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (LDS)
Test Lab: INNOVATION CENTER
Issue Date: 10/30/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: LUMARK
Catalog Number: AWP28S-BZ-MID-4000K-POSITION 30
Description: AWP Architectural Wall Pack Series - Wall Mount Luminaire
Light Source: 80 CRI, 4000K
Ballast/Driver: -

Summary

Lumens per Lamp: 3521 (1 lamp)
Luminaire Lumens: 3405.2 lumens
Efficiency: 96.7%
Efficacy: 133.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.4' x L: 0.56' x H: 0.69')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U3 - G3

Input Watts (W): 25.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

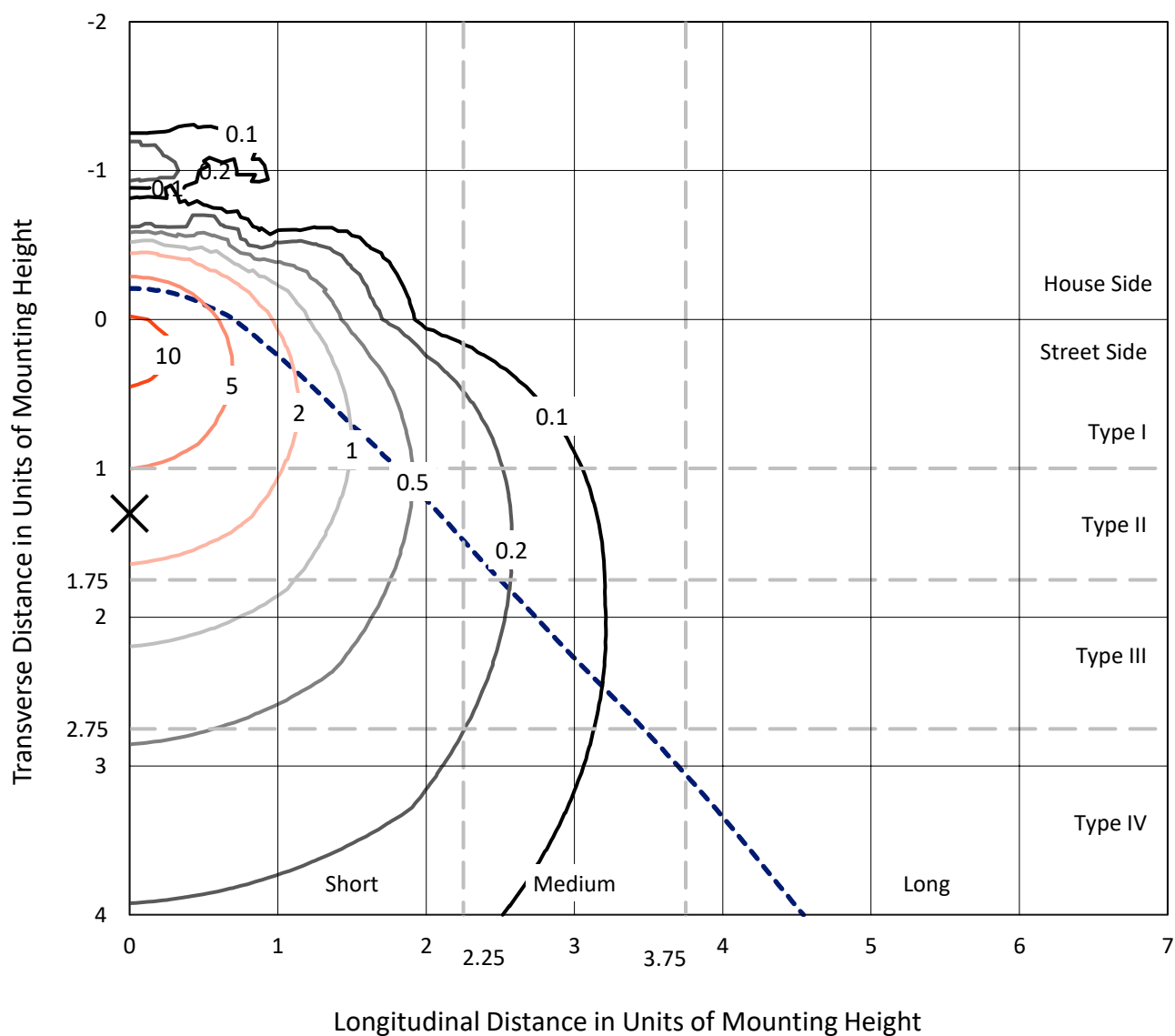
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

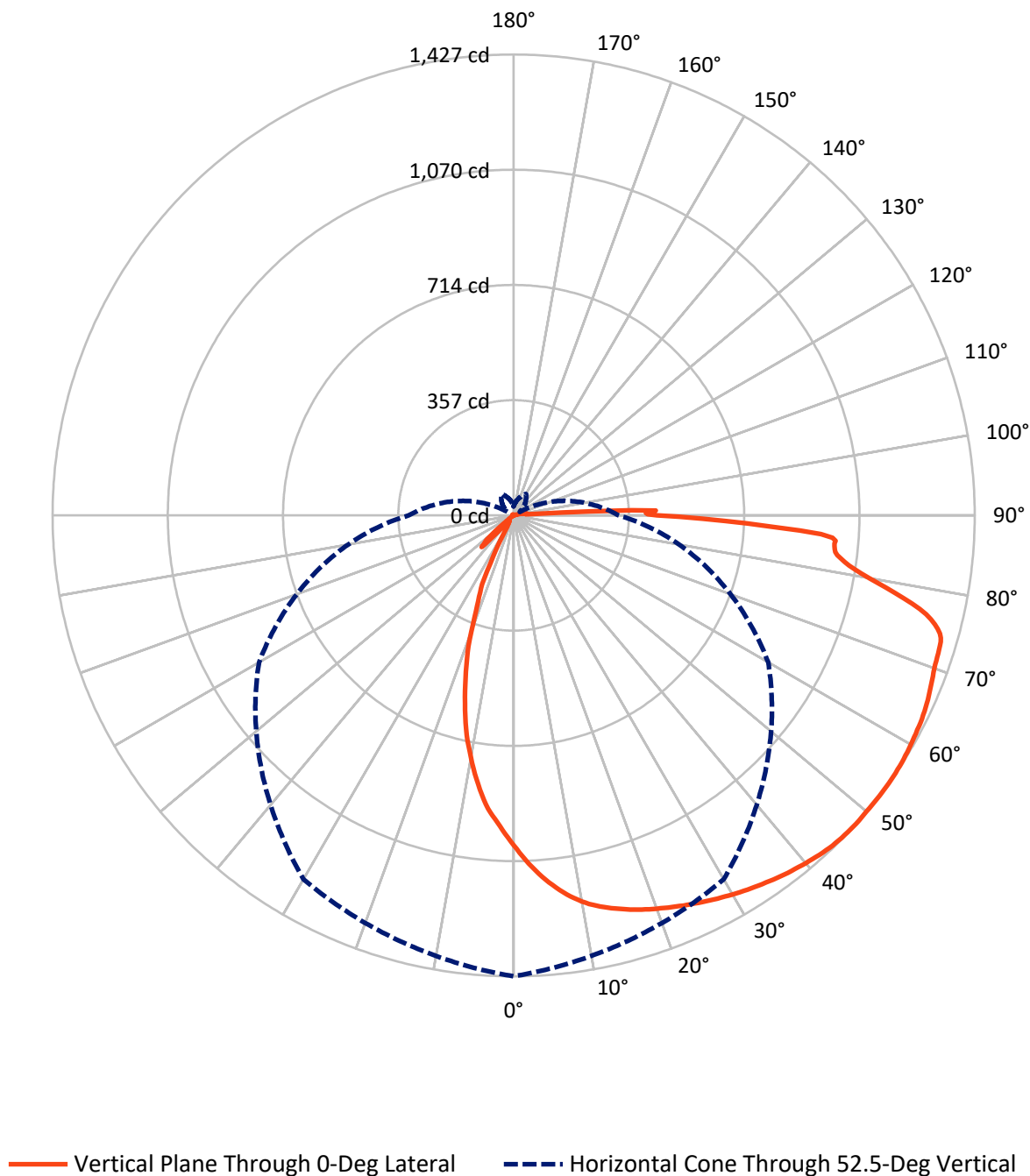


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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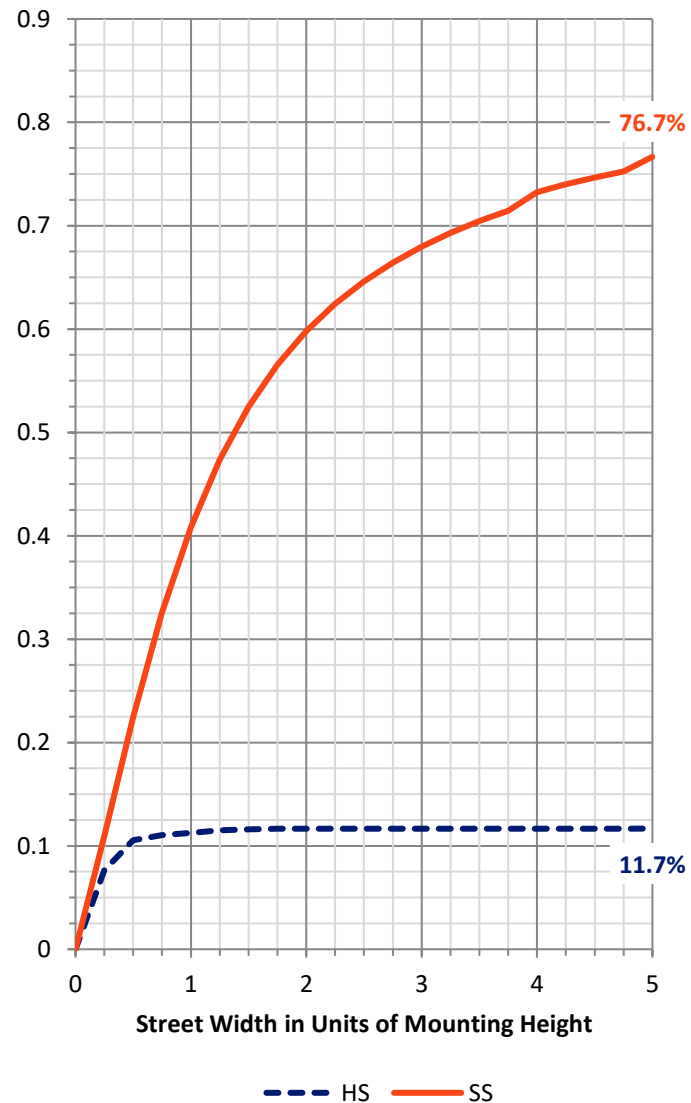
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	416.8	7.9	424.6
	% Lamp	11.8	0.2	12.1
Street Side	Lumens	2922.1	58.6	2980.6
	% Lamp	83.0	1.7	84.7
Total	Lumens	3338.8	66.4	3405.2
	% Lamp	94.8	1.9	96.7

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	97.6	2.9	2.8
10°-20°	270.1	7.9	7.7
20°-30°	378.6	11.1	10.8
30°-40°	431.5	12.7	12.3
40°-50°	467.2	13.7	13.3
50°-60°	480.8	14.1	13.7
60°-70°	458.8	13.5	13.0
70°-80°	431.3	12.7	12.3
80°-90°	323.0	9.5	9.2
90°-100°	54.7	1.6	1.6
100°-110°	4.3	0.1	0.1
110°-120°	1.4	0.0	0.0
120°-130°	1.4	0.0	0.0
130°-140°	1.4	0.0	0.0
140°-150°	1.3	0.0	0.0
150°-160°	1.0	0.0	0.0
160°-170°	0.7	0.0	0.0
170°-180°	0.2	0.0	0.0
0°-90°	3338.8	98.0	94.8
0°-180°	3405.2	100.0	96.7

Coefficient of Utilization



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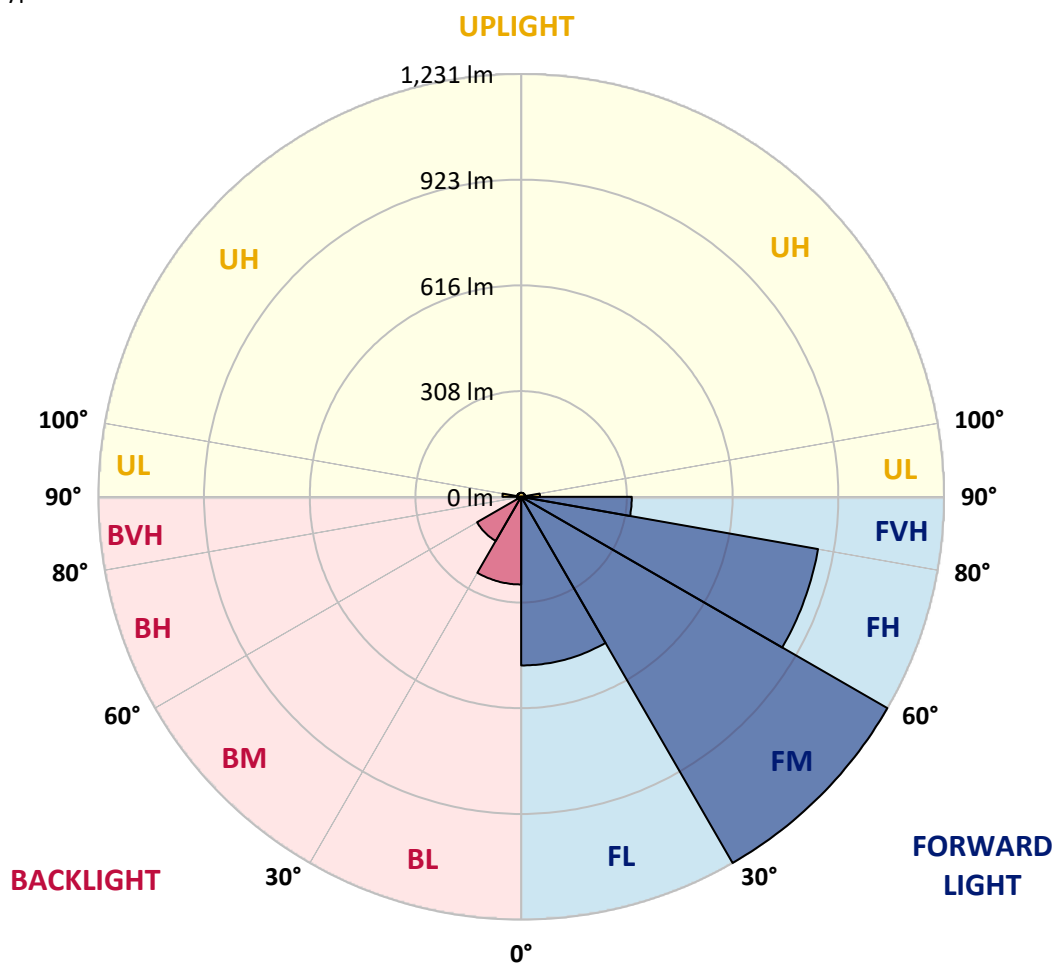
CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 30

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	491.0	13.9			
FM	(30°-60°)	1231.3	35.0			
FH	(60°-80°)	877.7	24.9			G1/1800
FVH	(80°-90°)	322.0	9.1			G3/500
BL	(0°-30°)	255.3	7.2	B1/500		
BM	(30°-60°)	148.2	4.2	B0/220		
BH	(60°-80°)	12.3	0.4	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	54.7	1.6		U3/500	
UH	(100°-180°)	11.8	0.3		U2/50	
Trapped Light		115.8	3.3			

BUG Rating: B1-U3-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°
0°	1032.4	1032.4	1032.4	1032.4	1032.4	1032.4	1032.4
0.5°	1044.2	1042.6	1038.3	1032.3	1026.6	1022.2	1021.2
1°	1055.9	1052.4	1044.3	1032.2	1020.8	1012.1	1009.5
1.5°	1067.3	1062.3	1050.1	1031.9	1014.9	1002.1	998.0
2°	1078.8	1072.0	1055.4	1031.6	1009.0	992.2	986.2
2.5°	1090.3	1081.9	1060.7	1031.2	1003.1	981.9	975.1
3°	1101.1	1091.0	1066.0	1030.6	996.9	972.1	963.6
3.5°	1112.2	1100.2	1071.5	1030.1	990.4	962.1	952.9
4°	1122.3	1109.3	1076.6	1029.3	984.1	952.6	942.3
4.5°	1131.9	1117.7	1081.2	1028.5	977.9	943.8	932.2
5°	1141.3	1125.4	1086.2	1027.3	971.4	934.5	922.4
5.5°	1150.7	1133.4	1090.7	1026.1	964.8	925.4	911.2
6°	1159.8	1141.5	1095.3	1024.9	958.2	914.8	898.6
6.5°	1168.3	1148.7	1099.7	1023.6	951.7	903.6	885.3
7°	1176.9	1155.8	1103.9	1022.3	945.3	891.6	870.5
7.5°	1185.3	1162.8	1107.8	1020.6	938.7	878.4	855.2
8°	1192.6	1169.7	1111.4	1018.8	932.7	864.6	839.9
8.5°	1200.0	1176.2	1115.1	1016.9	926.4	851.1	825.3
9°	1207.1	1182.5	1118.7	1015.1	919.5	838.2	809.4
9.5°	1213.8	1188.5	1122.6	1013.0	913.0	823.7	792.9
10°	1219.6	1194.3	1126.3	1010.9	905.8	809.1	777.2
10.5°	1225.5	1200.0	1129.5	1008.7	898.2	794.4	760.6
11°	1230.6	1205.0	1132.9	1006.3	890.1	779.8	744.4
11.5°	1235.6	1209.7	1136.1	1003.7	881.9	764.9	728.6
12°	1240.5	1214.5	1139.2	1000.9	873.0	750.2	713.3
12.5°	1245.0	1218.6	1141.9	998.0	863.9	735.4	696.1
13°	1249.2	1222.4	1144.4	994.9	854.0	721.3	678.4
13.5°	1253.2	1225.8	1146.8	991.8	843.9	706.2	659.2
14°	1257.4	1229.0	1149.1	988.5	833.7	690.8	639.9
14.5°	1261.0	1232.2	1151.3	985.0	823.4	673.7	621.2
15°	1265.0	1235.3	1153.1	981.6	813.1	656.9	601.2
15.5°	1268.9	1238.5	1154.7	977.8	802.4	639.3	582.4
16°	1272.7	1241.7	1156.2	973.9	791.1	621.4	562.5
16.5°	1276.3	1244.2	1157.5	969.7	780.3	602.9	542.4
17°	1279.7	1247.0	1158.7	965.0	769.5	584.6	523.8
17.5°	1283.0	1249.6	1159.5	960.5	758.0	566.1	505.1
18°	1286.3	1252.0	1160.1	955.7	746.6	547.7	486.9
18.5°	1290.2	1254.2	1160.7	950.8	734.4	529.6	467.5
19°	1293.1	1256.4	1160.9	945.9	722.5	511.5	448.0
19.5°	1295.7	1258.8	1160.9	940.9	710.4	494.4	429.0
20°	1298.8	1260.7	1161.1	935.8	698.7	477.4	405.4
20.5°	1302.0	1262.6	1161.1	930.8	687.5	460.0	380.2
21°	1304.9	1264.7	1160.8	925.1	676.2	442.9	357.2
21.5°	1307.9	1266.8	1160.4	919.2	664.0	424.5	337.1
22°	1310.8	1268.2	1159.7	913.2	651.7	406.5	318.7

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CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
22.5°	1314.1	1270.0	1158.9	906.9	638.5	384.4	301.9
23°	1317.3	1271.6	1157.9	900.4	624.3	362.1	286.9
23.5°	1320.3	1273.2	1156.5	893.9	609.6	340.9	273.6
24°	1323.1	1274.9	1155.0	887.3	595.9	322.1	260.4
24.5°	1325.8	1276.4	1153.4	880.8	581.8	305.3	247.2
25°	1328.8	1278.4	1152.1	874.4	566.2	290.4	234.0
25.5°	1331.9	1280.1	1150.1	867.7	550.6	277.8	214.6
26°	1334.9	1281.9	1147.9	860.7	534.9	265.3	190.2
26.5°	1337.9	1283.6	1145.4	853.7	519.3	252.7	163.6
27°	1340.9	1285.0	1142.8	847.0	503.7	240.1	142.1
27.5°	1343.6	1286.4	1139.9	840.0	489.0	226.4	124.2
28°	1346.6	1288.1	1136.7	833.2	473.5	209.7	107.8
28.5°	1349.3	1289.6	1133.4	826.3	458.2	187.4	91.2
29°	1352.1	1290.9	1130.1	818.8	443.3	163.7	71.6
29.5°	1355.2	1292.5	1127.1	811.0	428.2	142.1	52.5
30°	1358.3	1293.6	1123.5	803.0	413.6	123.6	39.5
30.5°	1361.0	1294.9	1120.2	795.3	399.2	108.4	34.2
31°	1363.4	1296.5	1116.8	787.4	385.0	93.6	32.1
31.5°	1366.3	1297.5	1113.4	779.8	370.7	77.5	31.0
32°	1368.8	1298.5	1110.0	771.7	356.9	60.4	30.2
32.5°	1371.5	1299.8	1106.5	763.1	343.8	46.4	29.5
33°	1374.0	1300.9	1103.2	754.2	331.1	37.6	28.7
33.5°	1376.7	1301.9	1099.9	745.2	317.6	33.8	27.9
34°	1379.2	1302.9	1096.3	736.4	304.7	32.1	27.0
34.5°	1381.9	1303.8	1092.6	727.1	292.1	30.9	25.9
35°	1384.7	1304.6	1088.8	717.0	280.0	30.0	24.8
35.5°	1387.0	1305.5	1085.3	707.3	266.9	29.4	23.9
36°	1389.7	1306.1	1081.7	697.4	253.1	28.7	23.4
36.5°	1392.4	1306.8	1077.8	687.3	239.0	28.1	23.0
37°	1394.7	1307.4	1073.9	676.9	226.1	27.5	22.9
37.5°	1397.1	1307.9	1069.7	666.6	213.7	26.9	22.7
38°	1399.3	1308.6	1065.5	655.8	201.5	26.5	22.3
38.5°	1401.3	1309.1	1061.4	644.9	188.8	26.1	21.9
39°	1403.7	1309.5	1057.2	634.2	173.5	25.7	21.5
39.5°	1406.1	1310.3	1053.1	623.4	155.4	25.1	21.0
40°	1408.0	1310.6	1048.4	612.1	134.6	24.3	20.6
40.5°	1409.9	1310.6	1043.8	600.9	113.0	23.4	20.1
41°	1412.0	1310.7	1039.1	589.7	92.6	22.7	19.7
41.5°	1414.3	1311.2	1034.6	578.6	76.4	21.8	19.6
42°	1416.3	1311.8	1030.6	567.4	64.3	20.9	19.8
42.5°	1417.8	1312.3	1025.7	556.2	55.7	20.0	20.8
43°	1419.8	1312.4	1020.8	545.2	50.0	19.3	23.5
43.5°	1421.1	1312.2	1016.3	534.4	46.0	18.8	33.9
44°	1421.9	1312.1	1011.2	523.2	42.7	18.2	57.5
44.5°	1422.9	1311.9	1006.0	512.3	40.1	17.4	79.1

REPORT NUMBER: P1197021

CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
45°	1423.9	1311.6	1000.9	501.1	37.9	16.9	96.5
45.5°	1424.6	1310.9	995.5	490.1	36.3	16.5	125.8
46°	1425.4	1310.3	990.0	478.5	34.8	16.1	139.2
46.5°	1425.9	1310.1	984.4	467.0	32.8	15.9	129.8
47°	1426.4	1309.7	979.0	455.2	30.9	15.8	124.6
47.5°	1426.5	1309.4	973.4	443.9	29.6	15.6	121.7
48°	1426.4	1309.0	967.5	432.6	28.6	15.5	116.3
48.5°	1426.5	1308.3	961.7	421.1	27.6	15.6	108.9
49°	1426.1	1308.0	955.5	409.0	26.7	16.2	97.3
49.5°	1426.1	1307.6	949.3	397.1	26.0	17.8	85.5
50°	1426.2	1306.7	943.1	385.5	25.2	23.9	73.0
50.5°	1426.4	1305.9	936.6	373.4	24.5	36.1	59.1
51°	1426.5	1304.8	930.1	361.3	23.7	49.4	47.1
51.5°	1426.5	1303.5	923.6	349.2	22.9	54.3	38.7
52°	1427.0	1301.9	916.8	337.3	22.1	64.8	32.7
52.5°	1427.2	1300.7	909.9	324.8	21.5	76.7	27.9
53°	1427.1	1298.7	902.9	311.9	20.8	70.7	23.5
53.5°	1427.1	1297.0	895.8	299.2	20.2	65.6	19.7
54°	1427.2	1295.7	888.9	286.3	19.6	63.0	16.2
54.5°	1427.0	1294.4	881.9	272.7	19.1	60.9	13.5
55°	1426.8	1293.5	874.8	259.1	18.6	59.4	11.5
55.5°	1426.4	1292.4	867.4	245.5	18.1	57.7	10.1
56°	1425.6	1291.3	859.9	232.0	17.7	55.4	8.9
56.5°	1425.3	1290.3	852.9	217.9	17.3	53.0	8.0
57°	1424.6	1289.2	845.2	203.6	16.9	50.1	7.3
57.5°	1423.9	1288.2	837.7	190.2	16.4	47.0	6.7
58°	1422.9	1287.4	830.6	178.0	15.9	43.8	6.2
58.5°	1421.9	1286.0	822.9	166.9	15.4	40.4	5.7
59°	1421.0	1284.9	815.0	157.7	14.9	36.8	5.2
59.5°	1420.0	1283.5	807.4	150.1	14.3	33.3	4.7
60°	1418.7	1282.2	799.9	144.6	13.6	29.4	4.1
60.5°	1417.1	1280.4	792.8	141.1	13.1	25.8	3.4
61°	1416.3	1278.5	785.4	138.5	12.5	22.4	2.9
61.5°	1415.3	1276.2	778.3	130.2	11.9	19.3	2.5
62°	1414.7	1273.7	770.6	113.4	11.0	16.5	2.4
62.5°	1413.4	1271.4	762.8	93.7	10.4	13.3	2.3
63°	1412.0	1268.8	755.4	78.8	9.8	9.2	2.2
63.5°	1410.5	1265.7	747.8	71.1	9.2	4.9	2.1
64°	1409.0	1262.8	740.4	67.6	8.8	2.4	1.9
64.5°	1407.0	1259.8	732.2	65.3	8.3	1.7	1.7
65°	1405.2	1257.2	723.5	63.1	7.9	1.5	1.4
65.5°	1403.6	1254.1	715.3	61.1	7.5	1.5	1.2
66°	1401.3	1251.3	706.8	59.1	7.1	1.5	1.2
66.5°	1398.7	1248.6	698.4	57.4	6.7	1.5	1.2
67°	1396.2	1245.9	690.5	55.8	6.3	1.4	1.1

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
67.5°	1393.9	1243.7	682.4	54.2	5.9	1.2	1.0
68°	1392.0	1242.0	674.1	52.8	5.5	1.0	0.9
68.5°	1389.9	1239.7	665.9	51.5	5.0	0.8	0.8
69°	1387.7	1237.4	657.6	50.5	4.5	0.8	0.7
69.5°	1386.1	1234.8	649.2	49.6	3.9	0.8	0.7
70°	1384.2	1232.2	641.3	48.7	3.4	0.7	0.7
70.5°	1383.4	1229.7	633.0	47.8	3.0	0.7	0.7
71°	1382.8	1227.6	624.7	46.9	2.7	0.7	0.7
71.5°	1381.9	1225.1	616.9	46.2	2.5	0.7	0.7
72°	1380.5	1222.9	609.6	45.4	2.2	0.7	0.7
72.5°	1379.9	1220.7	601.8	44.5	1.9	0.7	0.7
73°	1378.9	1218.0	594.6	43.5	1.7	0.7	0.7
73.5°	1375.2	1214.9	585.9	42.8	1.5	0.6	0.7
74°	1369.0	1211.8	577.2	41.5	1.2	0.6	0.7
74.5°	1359.3	1209.1	568.4	39.1	1.1	0.6	0.8
75°	1347.1	1208.1	559.9	36.5	0.9	0.6	0.8
75.5°	1331.5	1206.7	552.0	33.4	0.9	0.6	0.9
76°	1313.2	1204.1	545.0	30.6	0.8	0.6	0.9
76.5°	1290.1	1200.6	537.9	27.0	0.7	0.6	0.9
77°	1263.3	1194.4	530.9	23.8	0.6	0.6	1.0
77.5°	1234.6	1186.0	523.8	21.5	0.6	0.6	1.0
78°	1204.9	1175.7	516.9	19.5	0.5	0.6	1.0
78.5°	1174.2	1162.1	511.2	17.8	0.5	0.6	1.1
79°	1144.6	1144.4	505.9	16.2	0.5	0.6	1.1
79.5°	1116.2	1124.7	500.8	14.8	0.5	0.6	1.1
80°	1090.3	1102.6	496.5	13.5	0.5	0.6	1.1
80.5°	1069.5	1082.9	492.1	12.5	0.5	0.6	1.2
81°	1050.0	1066.9	487.3	11.2	0.5	0.6	1.2
81.5°	1034.8	1057.3	482.4	10.0	0.5	0.6	1.2
82°	1021.9	1054.7	478.1	9.1	0.5	0.7	1.4
82.5°	1009.1	1057.0	475.2	8.3	0.5	0.7	1.4
83°	1002.6	1060.6	473.9	7.6	0.5	0.7	1.4
83.5°	999.1	1064.6	474.6	6.9	0.5	0.8	1.5
84°	997.8	1056.6	476.6	6.3	0.5	0.8	1.5
84.5°	997.3	1032.8	479.6	5.8	0.5	0.8	1.5
85°	1000.1	994.8	483.2	5.3	0.6	0.9	1.6
85.5°	989.9	941.9	485.9	4.8	0.6	0.9	1.7
86°	953.3	873.8	484.8	4.4	0.6	0.9	1.7
86.5°	886.6	794.3	483.0	4.1	0.6	1.0	1.7
87°	795.1	725.1	478.8	3.7	0.6	1.0	1.8
87.5°	724.7	663.5	466.6	3.4	0.7	1.1	1.8
88°	654.3	607.4	448.3	3.0	0.7	1.1	1.9
88.5°	583.9	549.8	424.3	2.7	0.7	1.1	2.0
89°	513.4	484.4	393.7	2.4	0.7	1.2	2.0
89.5°	443.8	457.6	357.0	2.1	0.8	1.2	2.0

REPORT NUMBER: P1197021

CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
90°	415.0	466.7	316.4	1.7	0.8	1.3	2.1
90.5°	409.9	480.2	272.3	1.5	0.8	1.3	2.2
91°	432.3	458.0	228.6	1.3	0.9	1.4	2.2
91.5°	440.3	384.8	187.4	1.2	0.9	1.4	2.2
92°	365.6	274.5	154.9	1.1	0.9	1.4	2.3
92.5°	237.4	215.2	129.0	1.0	1.0	1.5	2.3
93°	149.9	157.1	105.1	0.9	1.0	1.5	2.4
93.5°	82.9	99.1	82.2	0.8	1.0	1.6	2.5
94°	45.7	41.2	64.6	0.8	1.0	1.6	2.5
94.5°	38.1	33.2	52.8	0.7	1.1	1.7	2.5
95°	38.3	30.2	47.1	0.7	1.1	1.7	2.5
95.5°	37.7	28.2	46.2	0.7	1.2	1.7	2.6
96°	36.5	27.2	48.3	0.7	1.2	1.8	2.6
96.5°	37.1	27.5	50.9	0.7	1.2	1.8	2.7
97°	40.8	28.9	54.6	0.7	1.3	1.9	2.7
97.5°	41.6	27.9	51.9	0.7	1.3	1.9	2.7
98°	37.9	25.6	41.3	0.6	1.3	2.0	2.8
98.5°	32.6	24.5	30.0	0.6	1.4	2.0	2.8
99°	29.0	23.5	21.4	0.6	1.4	2.1	2.8
99.5°	28.1	21.5	18.1	0.6	1.4	2.1	2.9
100°	27.9	20.3	15.2	0.6	1.5	2.1	2.9
100.5°	26.4	19.9	12.7	0.6	1.5	2.2	2.9
101°	24.7	19.6	11.0	0.6	1.5	2.2	3.0
101.5°	23.0	19.0	9.6	0.6	1.6	2.3	3.0
102°	21.0	17.8	8.1	0.6	1.6	2.3	3.1
102.5°	18.5	15.8	6.4	0.6	1.6	2.3	3.1
103°	15.8	13.3	5.2	0.6	1.7	2.4	3.1
103.5°	13.4	10.7	4.4	0.6	1.7	2.4	3.1
104°	11.6	8.4	3.7	0.6	1.7	2.5	3.2
104.5°	10.3	6.4	3.0	0.6	1.8	2.5	3.2
105°	9.5	4.6	2.5	0.6	1.8	2.5	3.2
105.5°	8.5	3.4	2.1	0.7	1.8	2.6	3.3
106°	7.0	2.6	1.8	0.7	1.8	2.6	3.3
106.5°	5.3	2.1	1.6	0.7	1.9	2.6	3.3
107°	3.6	1.7	1.4	0.7	1.9	2.7	3.4
107.5°	2.2	1.4	1.1	0.7	1.9	2.7	3.4
108°	1.6	1.1	0.9	0.7	2.0	2.7	3.4
108.5°	1.2	0.9	0.8	0.7	2.0	2.7	3.4
109°	1.0	0.7	0.7	0.7	2.0	2.7	3.4
109.5°	0.8	0.5	0.6	0.8	2.0	2.8	3.4
110°	0.6	0.3	0.5	0.8	2.1	2.8	3.4
110.5°	0.3	0.2	0.5	0.8	2.1	2.8	3.5
111°	0.2	0.1	0.4	0.8	2.1	2.9	3.5
111.5°	0.0	0.0	0.4	0.8	2.1	2.9	3.5
112°	0.0	0.0	0.3	0.8	2.1	2.9	3.5

REPORT NUMBER: P1197021

CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
112.5°	0.0	0.0	0.2	0.8	2.2	2.9	3.5
113°	0.0	0.0	0.2	0.9	2.2	3.0	3.5
113.5°	0.0	0.0	0.1	0.9	2.2	3.0	3.5
114°	0.0	0.0	0.1	0.9	2.3	3.0	3.5
114.5°	0.0	0.0	0.1	0.9	2.3	3.0	3.5
115°	0.0	0.0	0.1	0.9	2.3	3.1	3.6
115.5°	0.0	0.0	0.1	0.9	2.3	3.1	3.6
116°	0.0	0.0	0.1	1.0	2.3	3.1	3.6
116.5°	0.0	0.0	0.1	1.0	2.4	3.1	3.6
117°	0.0	0.0	0.1	1.0	2.4	3.1	3.6
117.5°	0.0	0.0	0.1	1.0	2.4	3.1	3.6
118°	0.0	0.0	0.1	1.0	2.4	3.2	3.6
118.5°	0.0	0.0	0.1	1.1	2.4	3.2	3.6
119°	0.0	0.0	0.2	1.1	2.4	3.2	3.6
119.5°	0.0	0.0	0.2	1.1	2.5	3.2	3.6
120°	0.0	0.0	0.2	1.1	2.5	3.2	3.6
120.5°	0.0	0.0	0.2	1.1	2.5	3.3	3.6
121°	0.0	0.0	0.2	1.1	2.5	3.3	3.6
121.5°	0.0	0.0	0.2	1.1	2.6	3.3	3.7
122°	0.0	0.0	0.2	1.2	2.6	3.3	3.7
122.5°	0.0	0.0	0.3	1.2	2.6	3.4	3.7
123°	0.0	0.0	0.3	1.2	2.6	3.4	3.7
123.5°	0.0	0.0	0.3	1.2	2.6	3.4	3.7
124°	0.0	0.0	0.3	1.2	2.6	3.4	3.7
124.5°	0.0	0.0	0.3	1.3	2.6	3.4	3.7
125°	0.0	0.0	0.4	1.3	2.7	3.4	3.7
125.5°	0.0	0.0	0.4	1.3	2.7	3.4	3.7
126°	0.0	0.0	0.4	1.4	2.7	3.4	3.7
126.5°	0.0	0.0	0.4	1.4	2.7	3.4	3.7
127°	0.0	0.0	0.4	1.4	2.7	3.4	3.7
127.5°	0.0	0.0	0.4	1.4	2.7	3.4	3.7
128°	0.0	0.0	0.5	1.4	2.7	3.5	3.7
128.5°	0.0	0.0	0.5	1.4	2.7	3.4	3.7
129°	0.0	0.0	0.5	1.4	2.7	3.5	3.7
129.5°	0.0	0.0	0.5	1.4	2.7	3.5	3.7
130°	0.0	0.0	0.6	1.5	2.7	3.5	3.7
130.5°	0.0	0.0	0.6	1.5	2.8	3.5	3.7
131°	0.0	0.0	0.6	1.5	2.8	3.5	3.7
131.5°	0.0	0.0	0.6	1.5	2.8	3.5	3.7
132°	0.0	0.0	0.6	1.5	2.8	3.5	3.7
132.5°	0.0	0.0	0.7	1.6	2.8	3.5	3.7
133°	0.0	0.0	0.7	1.6	2.8	3.5	3.7
133.5°	0.0	0.0	0.7	1.6	2.8	3.5	3.8
134°	0.0	0.0	0.7	1.7	2.8	3.5	3.7
134.5°	0.0	0.0	0.8	1.7	2.8	3.5	3.7

REPORT NUMBER: P1197021

CATALOG NUMBER: AWPf28S-BZ-MID-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
135°	0.0	0.0	0.8	1.7	2.8	3.5	3.7
135.5°	0.0	0.1	0.8	1.7	2.8	3.5	3.8
136°	0.0	0.1	0.8	1.7	2.8	3.5	3.8
136.5°	0.0	0.1	0.9	1.7	2.9	3.5	3.8
137°	0.0	0.1	0.9	1.7	2.9	3.5	3.8
137.5°	0.0	0.1	0.9	1.8	2.9	3.5	3.8
138°	0.0	0.1	0.9	1.8	2.9	3.5	3.8
138.5°	0.1	0.1	1.0	1.8	2.9	3.5	3.8
139°	0.1	0.2	1.0	1.8	2.9	3.5	3.8
139.5°	0.1	0.2	1.0	1.8	2.9	3.5	3.8
140°	0.1	0.2	1.0	1.8	2.9	3.5	3.8
140.5°	0.1	0.3	1.0	1.9	2.9	3.5	3.8
141°	0.1	0.3	1.0	1.9	2.9	3.5	3.7
141.5°	0.1	0.3	1.1	1.9	2.9	3.5	3.7
142°	0.1	0.4	1.1	2.0	2.9	3.5	3.7
142.5°	0.1	0.4	1.1	2.0	2.9	3.5	3.7
143°	0.2	0.4	1.2	2.0	2.9	3.5	3.7
143.5°	0.2	0.4	1.2	2.0	2.9	3.5	3.7
144°	0.2	0.4	1.2	2.0	2.9	3.5	3.7
144.5°	0.2	0.4	1.2	2.0	2.9	3.5	3.7
145°	0.2	0.4	1.2	2.0	3.0	3.5	3.7
145.5°	0.2	0.5	1.3	2.0	3.0	3.5	3.6
146°	0.3	0.5	1.3	2.0	3.0	3.5	3.6
146.5°	0.3	0.5	1.3	2.1	3.0	3.5	3.6
147°	0.3	0.5	1.3	2.1	3.0	3.5	3.6
147.5°	0.3	0.6	1.4	2.1	3.0	3.5	3.6
148°	0.3	0.6	1.4	2.1	3.0	3.5	3.6
148.5°	0.4	0.6	1.4	2.1	3.0	3.5	3.6
149°	0.4	0.6	1.4	2.1	3.0	3.5	3.6
149.5°	0.4	0.6	1.4	2.2	3.0	3.5	3.5
150°	0.4	0.7	1.5	2.2	3.0	3.5	3.5
150.5°	0.4	0.7	1.5	2.2	3.0	3.5	3.5
151°	0.5	0.8	1.5	2.2	3.0	3.5	3.5
151.5°	0.5	0.8	1.5	2.2	3.1	3.5	3.5
152°	0.5	0.8	1.6	2.2	3.1	3.5	3.5
152.5°	0.5	0.8	1.6	2.3	3.1	3.5	3.5
153°	0.6	0.9	1.6	2.3	3.1	3.5	3.5
153.5°	0.6	0.9	1.6	2.3	3.1	3.5	3.5
154°	0.6	0.9	1.6	2.3	3.1	3.5	3.5
154.5°	0.7	0.9	1.7	2.3	3.1	3.5	3.4
155°	0.7	1.0	1.7	2.4	3.1	3.5	3.4
155.5°	0.7	1.0	1.7	2.4	3.1	3.5	3.4
156°	0.7	1.1	1.7	2.4	3.1	3.5	3.4
156.5°	0.7	1.1	1.8	2.4	3.1	3.5	3.4
157°	0.8	1.1	1.8	2.4	3.1	3.5	3.4

REPORT NUMBER: P1197021

CATALOG NUMBER: AWPf28S-BZ-MID-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
157.5°	0.8	1.1	1.8	2.4	3.1	3.5	3.4
158°	0.8	1.1	1.8	2.4	3.1	3.5	3.4
158.5°	0.9	1.2	1.8	2.4	3.1	3.5	3.3
159°	0.9	1.2	1.8	2.5	3.1	3.4	3.3
159.5°	0.9	1.2	1.9	2.5	3.1	3.5	3.3
160°	1.0	1.3	1.9	2.5	3.1	3.4	3.3
160.5°	1.0	1.3	1.9	2.5	3.1	3.4	3.3
161°	1.0	1.3	2.0	2.5	3.1	3.4	3.3
161.5°	1.0	1.4	2.0	2.5	3.1	3.4	3.2
162°	1.0	1.4	2.0	2.5	3.1	3.4	3.2
162.5°	1.1	1.4	2.0	2.5	3.1	3.4	3.2
163°	1.1	1.4	2.0	2.6	3.1	3.3	3.2
163.5°	1.1	1.5	2.1	2.6	3.1	3.3	3.1
164°	1.2	1.5	2.1	2.6	3.1	3.3	3.1
164.5°	1.2	1.5	2.1	2.6	3.1	3.3	3.1
165°	1.2	1.5	2.1	2.6	3.1	3.3	3.1
165.5°	1.2	1.6	2.1	2.6	3.1	3.3	3.1
166°	1.3	1.6	2.2	2.6	3.1	3.3	3.1
166.5°	1.3	1.7	2.2	2.7	3.1	3.3	3.0
167°	1.3	1.7	2.2	2.7	3.1	3.3	3.0
167.5°	1.4	1.7	2.2	2.7	3.1	3.3	3.0
168°	1.4	1.7	2.3	2.7	3.1	3.3	2.9
168.5°	1.4	1.8	2.3	2.7	3.1	3.3	2.9
169°	1.5	1.8	2.3	2.7	3.1	3.3	2.9
169.5°	1.5	1.8	2.3	2.7	3.1	3.2	2.9
170°	1.5	1.8	2.4	2.7	3.1	3.2	2.9
170.5°	1.6	1.9	2.4	2.7	3.0	3.2	2.8
171°	1.6	1.9	2.4	2.7	3.0	3.2	2.8
171.5°	1.6	1.9	2.4	2.7	3.0	3.2	2.8
172°	1.7	2.0	2.4	2.7	3.0	3.1	2.8
172.5°	1.7	2.0	2.5	2.7	3.0	3.1	2.7
173°	1.7	2.0	2.5	2.8	2.9	3.1	2.7
173.5°	1.8	2.0	2.5	2.8	2.9	3.1	2.7
174°	1.8	2.1	2.5	2.8	2.9	3.0	2.6
174.5°	1.8	2.1	2.6	2.8	2.9	3.0	2.6
175°	1.9	2.1	2.6	2.8	2.9	3.0	2.6
175.5°	1.9	2.2	2.6	2.8	2.9	3.0	2.5
176°	1.9	2.2	2.6	2.8	2.9	3.0	2.5
176.5°	2.0	2.2	2.6	2.8	2.9	3.0	2.5
177°	2.0	2.3	2.7	2.8	2.9	3.0	2.4
177.5°	2.0	2.3	2.7	2.8	2.9	3.0	2.4
178°	2.1	2.3	2.7	2.8	2.9	2.9	2.4
178.5°	2.1	2.3	2.7	2.8	2.9	2.9	2.3
179°	2.1	2.4	2.7	2.8	2.9	2.9	2.3
179.5°	2.2	2.4	2.7	2.8	2.9	2.9	2.3



REPORT NUMBER: P1197021
CATALOG NUMBER: AWPf28S-BZ-MID-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8

(END OF REPORT)