

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: P1197012

Luminaire Tested: AWPf28S-BZ-MID-4000K-POSITION 15

Issue Date: 10/29/2025

Test Information

Test Method: LM-79-2019
Report Number: P1197012
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 15
Description: AWP Architectural Wall Pack Series - Wall Mount Luminaire
Light Source: 84 CRI, 4000K
Ballast/Driver: -

Summary

Lumens per Lamp: 3604 (1 lamp)
Luminaire Lumens: 3560.4 lumens
Efficiency: 98.8%
Efficacy: 139.1 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 - U2 - 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

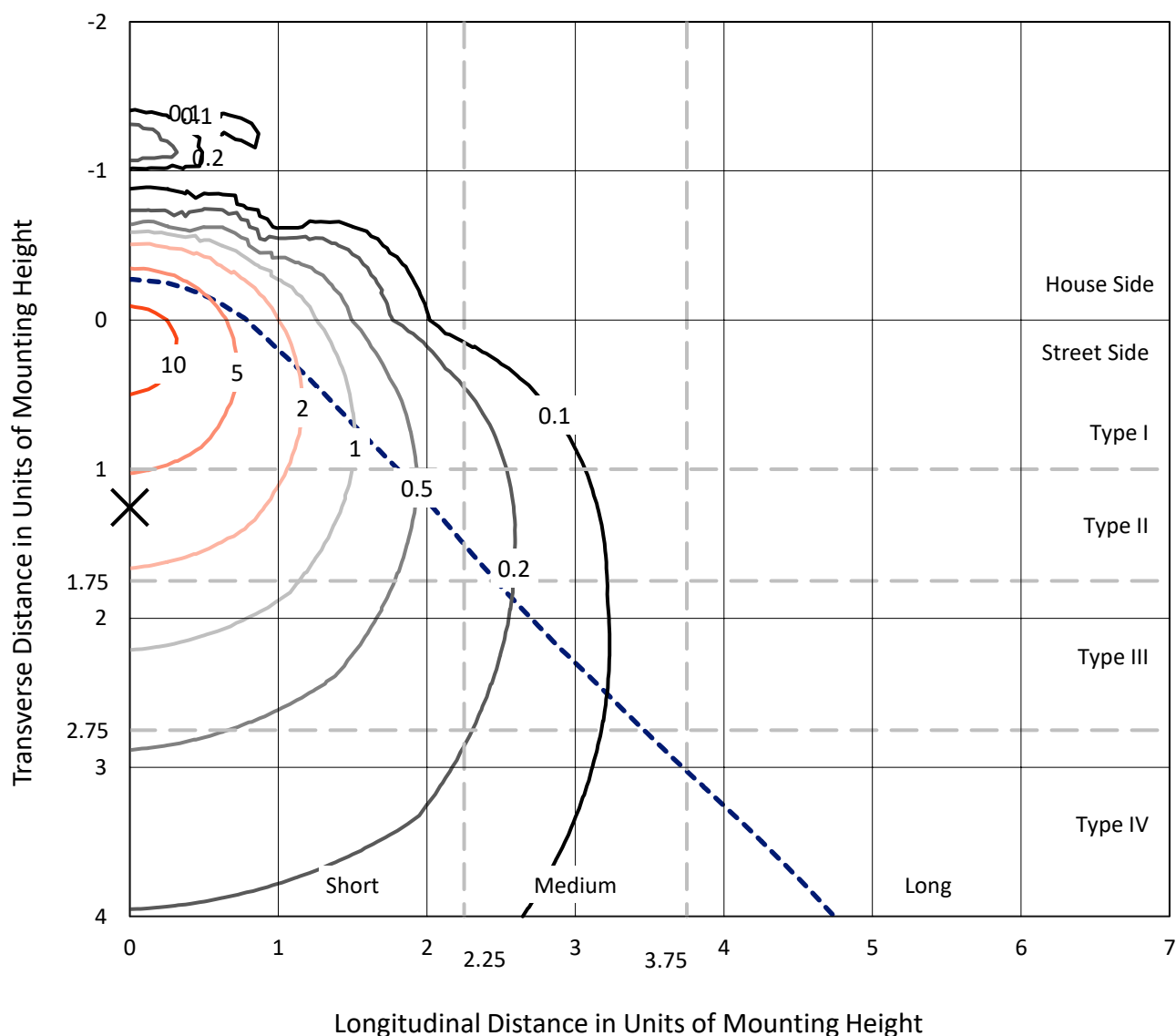
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

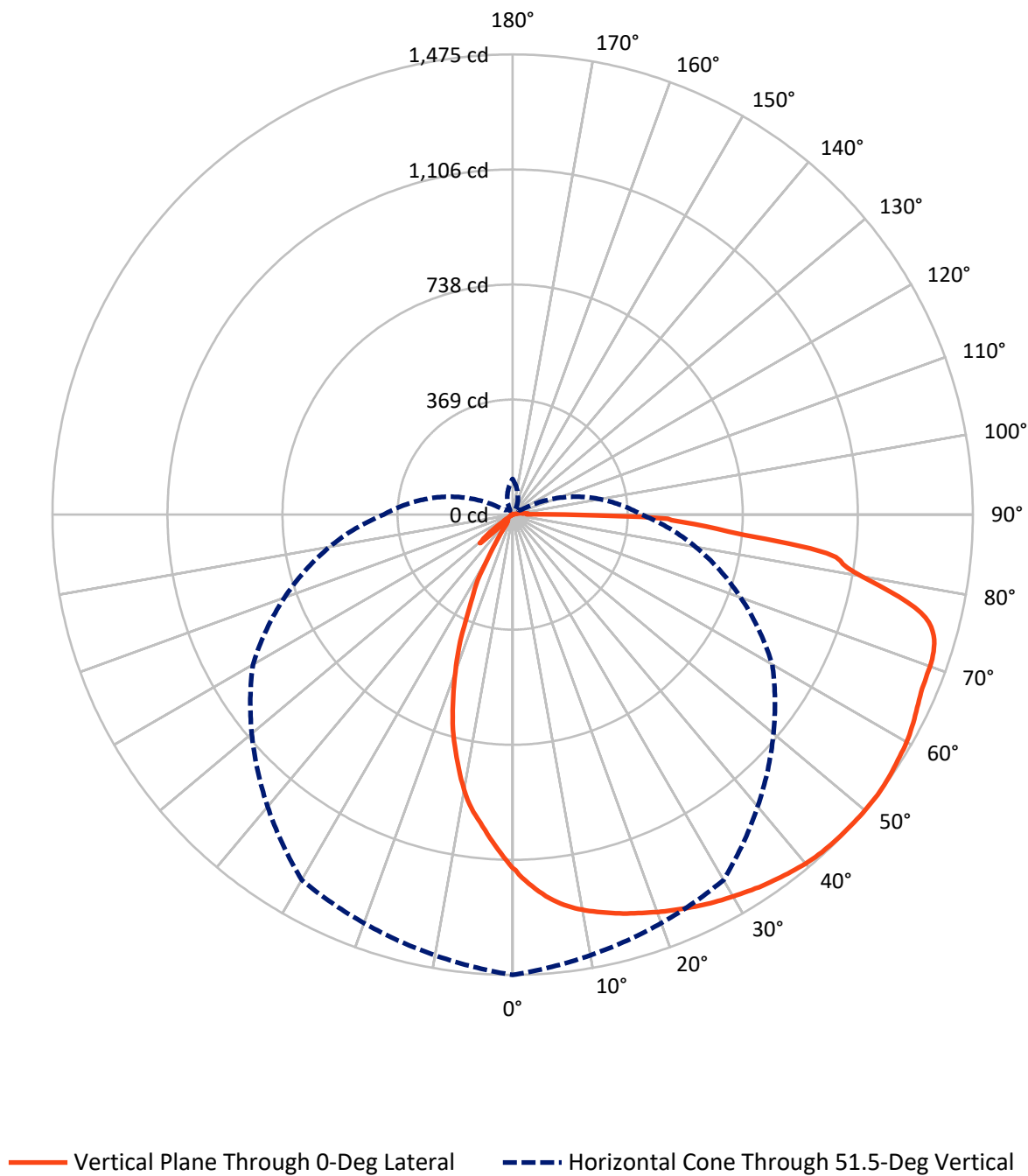


Based on 10 foot mounting height. Maximum calculated value = 12.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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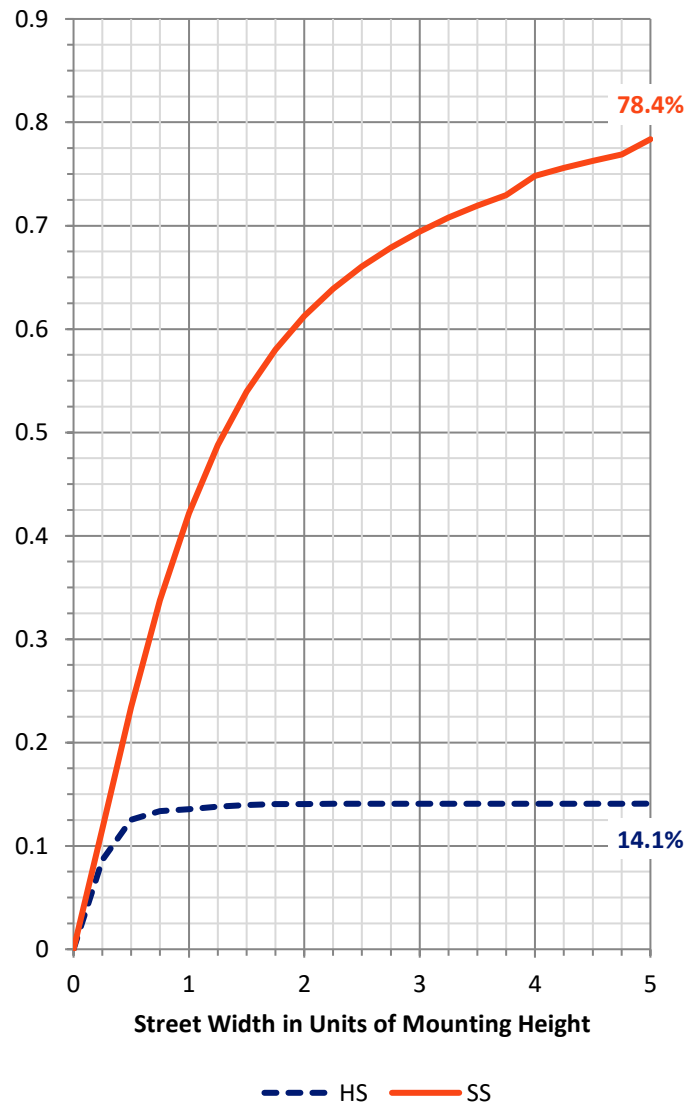
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	513.6	8.0	521.6
	% Lamp	14.3	0.2	14.5
Street Side	Lumens	3010.5	28.3	3038.8
	% Lamp	83.5	0.8	84.3
Total	Lumens	3524.2	36.3	3560.4
	% Lamp	97.8	1.0	98.8

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	107.2	3.0	3.0
10°-20°	298.6	8.4	8.3
20°-30°	423.6	11.9	11.8
30°-40°	473.9	13.3	13.1
40°-50°	497.5	14.0	13.8
50°-60°	507.6	14.3	14.1
60°-70°	476.5	13.4	13.2
70°-80°	447.1	12.6	12.4
80°-90°	292.2	8.2	8.1
90°-100°	25.2	0.7	0.7
100°-110°	3.3	0.1	0.1
110°-120°	1.4	0.0	0.0
120°-130°	1.5	0.0	0.0
130°-140°	1.5	0.0	0.0
140°-150°	1.4	0.0	0.0
150°-160°	1.1	0.0	0.0
160°-170°	0.8	0.0	0.0
170°-180°	0.3	0.0	0.0
0°-90°	3524.2	99.0	97.8
0°-180°	3560.4	100.0	98.8

Coefficient of Utilization



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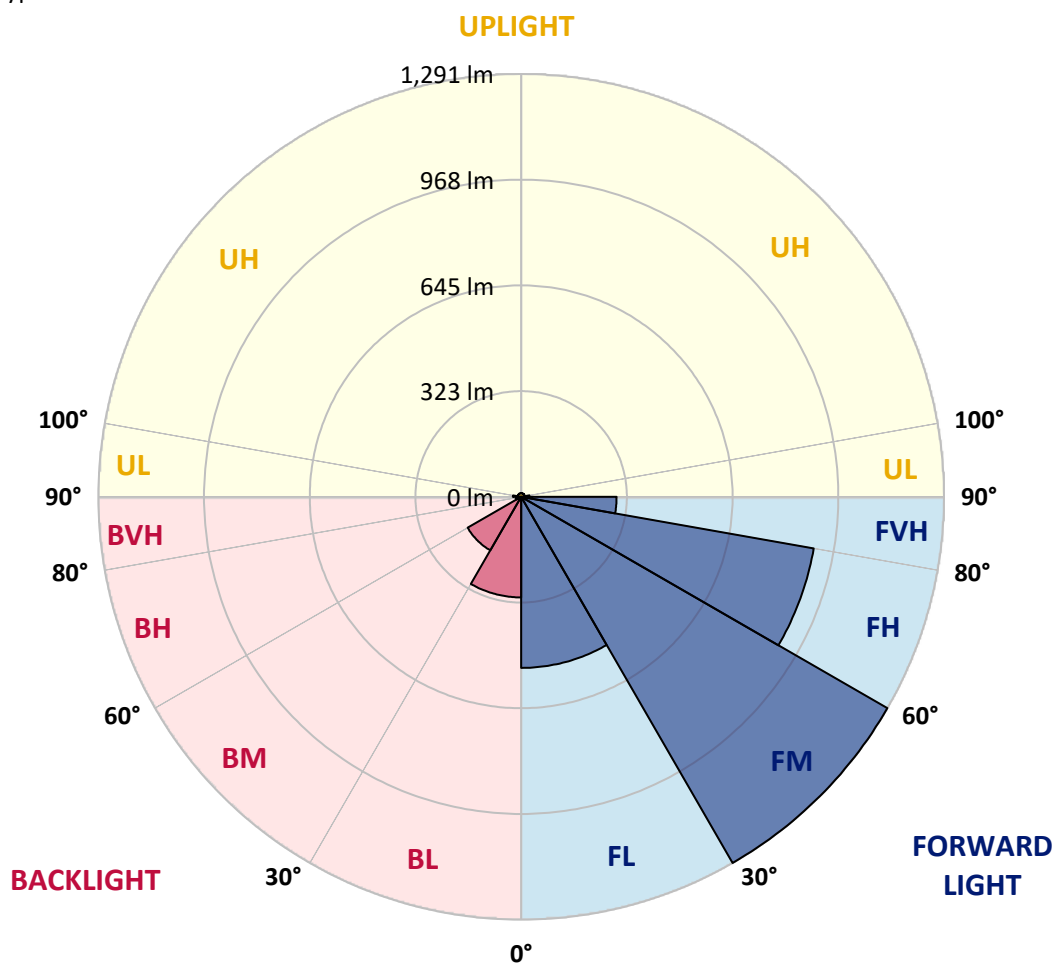
CATALOG NUMBER: AWPf28S-BZ-MID-4000K-POSITION 15

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	522.1	14.5			
FM	(30°-60°)	1290.5	35.8			
FH	(60°-80°)	906.7	25.2			G1/1800
FVH	(80°-90°)	291.2	8.1			G3/500
BL	(0°-30°)	307.2	8.5	B1/500		
BM	(30°-60°)	188.5	5.2	B0/220		
BH	(60°-80°)	17.0	0.5	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	25.2	0.7		U2/50	
UH	(100°-180°)	11.1	0.3		U2/50	
Trapped Light		43.6	1.2			

BUG Rating: B1-U2-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°
0°	1140.0	1140.0	1140.0	1140.0	1140.0	1140.0	1140.0
0.5°	1154.4	1155.4	1148.3	1140.3	1131.2	1120.5	1132.2
1°	1164.3	1163.6	1153.5	1140.1	1125.6	1110.5	1120.7
1.5°	1173.9	1171.9	1158.2	1139.7	1119.8	1100.4	1109.3
2°	1183.6	1180.2	1162.5	1139.5	1113.8	1090.0	1097.6
2.5°	1192.8	1188.2	1167.0	1139.1	1107.5	1080.1	1085.9
3°	1201.9	1195.8	1171.3	1138.5	1101.3	1069.5	1074.0
3.5°	1210.7	1203.3	1175.6	1137.6	1095.2	1059.3	1062.4
4°	1219.2	1210.6	1179.8	1136.9	1088.7	1049.0	1050.8
4.5°	1227.5	1217.7	1183.7	1135.6	1082.2	1038.6	1038.8
5°	1235.0	1224.4	1187.2	1134.3	1075.5	1028.2	1026.9
5.5°	1242.3	1230.7	1190.7	1133.0	1068.6	1017.8	1015.3
6°	1249.1	1236.8	1194.2	1131.6	1061.7	1007.5	1003.9
6.5°	1255.4	1242.9	1197.7	1130.0	1054.7	997.1	992.4
7°	1261.7	1248.5	1201.0	1128.4	1047.7	986.8	981.6
7.5°	1267.0	1253.6	1204.3	1126.8	1040.6	976.7	970.9
8°	1271.7	1258.5	1207.5	1125.1	1033.7	967.1	960.8
8.5°	1277.2	1263.0	1210.8	1123.6	1026.4	957.5	950.0
9°	1281.7	1266.9	1213.7	1121.6	1018.8	948.2	938.3
9.5°	1286.0	1270.3	1216.3	1119.5	1011.2	938.1	924.7
10°	1290.2	1274.2	1218.8	1117.5	1003.5	926.8	910.9
10.5°	1294.2	1277.3	1221.5	1115.4	995.8	914.2	895.5
11°	1297.8	1280.2	1223.8	1112.9	988.1	901.7	879.7
11.5°	1301.5	1283.3	1225.8	1110.3	980.5	888.1	864.1
12°	1305.3	1286.4	1228.0	1107.5	972.7	873.2	848.4
12.5°	1309.1	1289.2	1229.9	1104.4	964.7	859.6	831.7
13°	1312.7	1291.9	1231.5	1101.0	957.0	845.5	815.0
13.5°	1316.5	1294.5	1232.7	1097.6	949.0	830.2	798.0
14°	1319.6	1297.1	1233.5	1094.1	941.3	815.1	781.7
14.5°	1323.1	1299.5	1234.6	1090.3	933.6	800.0	764.9
15°	1327.1	1302.0	1235.1	1086.4	925.6	785.0	749.1
15.5°	1330.2	1304.7	1235.4	1082.2	917.2	769.3	732.6
16°	1333.0	1306.8	1235.6	1078.2	908.4	754.5	715.1
16.5°	1335.9	1309.2	1235.4	1073.9	899.4	739.0	696.1
17°	1338.8	1311.6	1234.8	1069.7	889.4	724.0	676.1
17.5°	1342.3	1314.2	1233.9	1065.5	879.0	708.7	656.4
18°	1345.4	1316.2	1233.1	1060.9	868.6	691.9	636.8
18.5°	1348.6	1317.8	1232.5	1056.1	857.9	674.6	616.7
19°	1351.9	1319.7	1231.7	1051.2	846.8	656.7	597.2
19.5°	1355.7	1321.6	1230.3	1045.9	834.8	638.0	576.7
20°	1358.8	1323.5	1229.0	1040.7	823.1	619.2	556.5
20.5°	1361.9	1325.4	1227.8	1035.3	811.3	600.4	536.9
21°	1364.8	1327.4	1226.6	1030.2	799.4	581.1	517.6
21.5°	1367.9	1329.7	1225.2	1024.6	786.9	561.5	498.4
22°	1370.6	1331.9	1223.6	1018.3	774.4	542.9	478.4

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
22.5°	1373.5	1334.0	1222.0	1011.7	761.5	524.2	458.1
23°	1376.7	1335.6	1219.8	1004.9	747.8	506.0	438.8
23.5°	1379.8	1337.6	1217.8	997.7	733.9	488.6	413.1
24°	1382.7	1339.5	1215.5	990.9	719.9	471.1	387.9
24.5°	1386.1	1341.2	1213.1	983.8	706.5	453.5	364.5
25°	1388.8	1342.8	1210.7	976.7	693.1	435.0	344.5
25.5°	1391.5	1344.6	1208.0	969.4	679.8	416.9	325.7
26°	1394.5	1346.0	1205.1	962.7	666.8	395.6	309.2
26.5°	1397.6	1347.5	1202.1	955.3	654.0	372.2	293.9
27°	1400.3	1349.2	1198.7	947.8	640.5	350.4	280.1
27.5°	1402.8	1351.0	1194.9	940.0	625.8	330.2	266.3
28°	1405.7	1352.0	1191.0	932.4	609.9	312.3	252.5
28.5°	1408.2	1353.3	1187.3	924.9	594.8	297.1	238.7
29°	1410.6	1354.6	1183.4	917.1	578.3	283.8	217.9
29.5°	1413.2	1355.8	1179.3	908.9	561.9	270.7	191.8
30°	1415.9	1356.5	1175.1	900.4	545.5	257.5	165.2
30.5°	1418.5	1357.5	1171.1	892.1	529.0	244.3	143.7
31°	1421.1	1358.7	1167.4	883.8	512.6	230.2	125.3
31.5°	1423.7	1359.7	1163.5	875.0	495.6	213.1	109.1
32°	1426.4	1360.8	1159.5	866.1	478.8	191.0	91.7
32.5°	1428.8	1361.1	1155.9	857.4	462.8	166.8	71.0
33°	1431.9	1362.1	1152.1	848.6	446.1	144.4	51.9
33.5°	1434.0	1362.8	1148.5	839.5	430.1	125.2	39.9
34°	1436.5	1363.5	1144.8	829.9	414.5	109.3	34.9
34.5°	1438.8	1364.0	1141.2	819.5	398.1	94.4	33.0
35°	1441.0	1364.6	1137.7	809.2	381.5	78.3	32.0
35.5°	1443.4	1365.5	1133.9	798.8	366.6	61.0	31.2
36°	1445.8	1366.0	1130.3	787.9	351.4	47.1	30.5
36.5°	1447.8	1366.1	1126.2	776.7	337.7	38.4	29.7
37°	1449.9	1366.3	1122.0	765.5	323.6	34.6	28.8
37.5°	1452.2	1366.6	1117.8	755.0	310.3	32.9	27.8
38°	1454.4	1367.1	1114.0	743.0	297.1	31.7	26.8
38.5°	1456.6	1367.5	1109.4	731.3	284.3	30.9	25.7
39°	1458.4	1367.9	1104.6	719.2	271.2	30.2	24.9
39.5°	1460.4	1367.8	1100.0	707.2	258.3	29.5	24.4
40°	1462.0	1367.7	1096.4	694.9	245.6	28.8	24.1
40.5°	1463.5	1367.6	1091.6	682.7	230.8	28.2	24.0
41°	1465.1	1367.4	1086.9	669.8	216.9	27.7	23.8
41.5°	1466.0	1367.2	1081.8	657.5	203.5	27.3	23.6
42°	1467.3	1366.4	1076.4	644.7	187.6	26.9	23.3
42.5°	1468.0	1365.8	1070.6	631.4	169.9	26.5	22.8
43°	1468.8	1365.2	1065.9	618.9	150.5	26.0	22.3
43.5°	1469.7	1365.0	1060.4	606.7	129.2	25.3	21.8
44°	1470.3	1364.5	1055.2	594.1	107.4	24.4	21.3
44.5°	1470.9	1364.3	1049.9	581.8	86.8	23.5	21.1

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
45°	1471.6	1363.8	1044.5	569.0	70.8	22.6	21.0
45.5°	1471.6	1363.1	1039.2	556.6	59.9	21.6	21.4
46°	1471.9	1362.9	1033.6	544.5	53.0	20.6	22.7
46.5°	1472.2	1362.4	1027.8	532.4	48.2	19.8	26.6
47°	1472.9	1361.7	1021.9	520.5	44.7	19.0	40.5
47.5°	1473.5	1360.8	1015.6	508.3	41.8	18.3	65.2
48°	1473.8	1360.2	1009.5	496.5	39.5	17.6	89.1
48.5°	1474.3	1359.3	1002.9	484.0	37.7	17.1	105.4
49°	1474.8	1358.4	996.2	472.4	36.0	16.9	134.9
49.5°	1474.6	1357.1	989.3	460.6	34.7	16.6	139.8
50°	1474.9	1355.7	982.5	449.2	33.4	16.4	130.5
50.5°	1475.0	1354.6	975.3	437.3	31.6	16.2	125.9
51°	1475.2	1353.4	968.2	425.1	30.2	16.0	121.3
51.5°	1475.3	1352.3	961.3	413.1	29.2	15.8	114.5
52°	1474.8	1351.3	953.5	401.6	28.3	15.9	105.7
52.5°	1474.1	1350.1	945.7	389.3	27.6	16.6	93.6
53°	1473.7	1349.1	938.4	377.2	26.9	18.7	81.8
53.5°	1472.9	1348.1	930.6	364.4	26.2	26.2	69.5
54°	1471.9	1347.0	922.7	352.0	25.3	41.0	57.3
54.5°	1470.9	1346.1	915.0	338.6	24.3	53.3	47.1
55°	1469.7	1345.0	907.4	325.2	23.6	57.4	39.2
55.5°	1468.5	1343.6	899.7	311.7	22.8	70.3	33.2
56°	1467.4	1342.4	891.7	297.5	22.1	75.4	28.2
56.5°	1465.9	1341.0	883.8	282.4	21.5	69.3	23.9
57°	1464.4	1339.4	875.6	267.3	20.9	65.4	20.0
57.5°	1463.2	1337.4	867.7	252.3	20.3	62.5	16.7
58°	1462.1	1334.6	860.1	237.2	19.7	60.6	14.2
58.5°	1461.3	1331.6	852.0	222.1	19.1	58.8	12.2
59°	1459.9	1328.8	843.6	206.6	18.6	56.7	10.7
59.5°	1458.2	1325.9	835.2	191.5	18.0	54.1	9.4
60°	1456.5	1323.0	827.1	177.1	17.4	51.5	8.5
60.5°	1454.7	1319.7	818.7	164.4	16.9	48.3	7.7
61°	1452.2	1316.3	810.8	155.0	16.3	44.8	7.0
61.5°	1449.9	1313.3	802.6	146.7	15.7	41.4	6.4
62°	1447.9	1310.1	794.8	141.9	15.0	37.9	5.9
62.5°	1445.2	1306.7	786.8	139.3	14.3	34.2	5.3
63°	1442.3	1303.8	778.4	132.9	13.7	30.5	4.7
63.5°	1439.7	1300.8	769.9	117.0	13.1	26.9	4.0
64°	1436.9	1298.0	761.8	95.9	12.4	23.3	3.3
64.5°	1434.7	1295.2	754.1	79.8	11.7	20.0	2.8
65°	1432.5	1292.8	746.2	72.0	10.9	17.0	2.4
65.5°	1430.0	1290.4	738.2	68.6	10.3	14.0	2.3
66°	1428.2	1287.6	729.9	66.4	9.6	10.4	2.2
66.5°	1426.7	1284.5	721.6	64.5	9.1	6.2	2.1
67°	1425.9	1281.5	712.9	62.6	8.7	2.9	1.9

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
67.5°	1425.4	1278.2	704.0	60.9	8.2	1.7	1.7
68°	1424.5	1275.7	694.6	59.4	7.7	1.4	1.4
68.5°	1423.8	1272.6	685.6	57.8	7.3	1.4	1.2
69°	1423.3	1269.9	676.2	56.3	6.9	1.4	1.2
69.5°	1423.5	1267.5	666.0	55.0	6.5	1.4	1.3
70°	1423.3	1264.6	656.4	53.9	6.1	1.2	1.3
70.5°	1422.5	1261.2	647.1	52.8	5.5	1.0	1.1
71°	1420.7	1257.5	638.2	51.7	5.0	0.9	1.0
71.5°	1419.2	1254.7	629.3	50.5	4.4	0.8	0.9
72°	1416.5	1253.1	619.5	49.4	3.7	0.8	0.9
72.5°	1413.6	1253.4	610.7	48.3	3.2	0.8	0.8
73°	1409.6	1254.0	601.3	46.9	2.9	0.8	0.8
73.5°	1404.6	1255.9	592.7	45.7	2.6	0.8	0.8
74°	1396.8	1257.9	583.1	44.9	2.3	0.7	0.8
74.5°	1388.7	1261.1	573.5	43.7	2.0	0.7	0.8
75°	1378.1	1264.5	565.4	41.3	1.8	0.7	0.8
75.5°	1363.9	1267.6	557.3	38.4	1.5	0.7	0.8
76°	1345.5	1269.3	549.2	35.3	1.2	0.7	0.8
76.5°	1323.6	1268.6	541.1	32.4	1.0	0.7	0.8
77°	1296.5	1266.5	533.1	28.5	0.8	0.7	0.8
77.5°	1266.6	1264.7	526.6	24.9	0.7	0.7	0.8
78°	1232.8	1261.5	520.0	22.3	0.7	0.7	0.9
78.5°	1199.8	1260.7	514.4	20.2	0.6	0.7	0.9
79°	1166.7	1259.6	508.7	18.3	0.5	0.6	1.0
79.5°	1135.7	1258.3	502.8	16.8	0.5	0.6	1.0
80°	1108.0	1251.7	496.7	15.2	0.5	0.6	1.1
80.5°	1086.7	1240.7	490.9	13.9	0.5	0.6	1.1
81°	1070.4	1220.5	486.1	12.9	0.5	0.6	1.1
81.5°	1061.3	1186.4	482.8	11.5	0.5	0.6	1.1
82°	1045.5	1133.4	482.2	10.3	0.5	0.6	1.2
82.5°	1014.6	1064.0	484.4	9.3	0.5	0.6	1.2
83°	961.1	982.0	489.9	8.4	0.5	0.6	1.2
83.5°	891.1	887.1	498.6	7.7	0.5	0.7	1.3
84°	815.1	795.7	508.3	7.0	0.5	0.7	1.3
84.5°	746.1	727.5	513.7	6.4	0.5	0.7	1.3
85°	695.3	679.9	517.3	5.9	0.5	0.7	1.4
85.5°	658.0	636.9	519.7	5.4	0.5	0.7	1.4
86°	620.7	588.0	517.0	5.0	0.5	0.8	1.5
86.5°	583.4	568.1	507.1	4.5	0.5	0.8	1.5
87°	546.2	590.6	491.8	4.0	0.5	0.8	1.6
87.5°	510.0	617.1	470.5	3.6	0.6	0.9	1.6
88°	498.4	617.2	440.7	3.2	0.6	0.9	1.7
88.5°	411.3	552.7	403.2	2.8	0.6	1.0	1.7
89°	267.6	425.8	357.6	2.4	0.6	1.0	1.8
89.5°	168.6	284.3	306.3	2.0	0.6	1.0	1.8

REPORT NUMBER: P1197012

CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 15

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
90°	96.2	220.7	254.6	1.6	0.7	1.1	1.9
90.5°	53.5	160.8	206.9	1.3	0.7	1.1	2.0
91°	45.3	101.0	167.7	1.2	0.7	1.1	2.0
91.5°	46.6	41.3	134.3	1.0	0.8	1.2	2.1
92°	46.9	36.6	106.9	0.9	0.8	1.2	2.1
92.5°	45.6	34.5	85.7	0.8	0.8	1.3	2.2
93°	45.4	33.1	70.3	0.8	0.9	1.3	2.2
93.5°	48.0	33.2	57.8	0.7	0.9	1.4	2.3
94°	49.0	34.8	46.6	0.7	0.9	1.4	2.3
94.5°	45.2	35.0	41.2	0.7	1.0	1.5	2.3
95°	39.9	32.6	41.4	0.7	1.0	1.5	2.4
95.5°	35.9	30.2	42.7	0.7	1.0	1.6	2.4
96°	35.1	29.1	44.4	0.7	1.1	1.6	2.5
96.5°	35.3	26.8	47.2	0.7	1.1	1.7	2.5
97°	33.4	24.1	46.9	0.7	1.2	1.7	2.6
97.5°	30.6	22.6	36.9	0.7	1.2	1.7	2.6
98°	29.5	22.4	25.9	0.6	1.2	1.8	2.7
98.5°	28.9	22.7	18.3	0.6	1.3	1.8	2.7
99°	28.1	23.0	15.3	0.6	1.3	1.9	2.8
99.5°	26.5	22.8	13.2	0.6	1.3	1.9	2.8
100°	24.2	22.0	11.2	0.6	1.4	2.0	2.8
100.5°	21.2	20.5	9.4	0.6	1.4	2.0	2.9
101°	18.0	18.3	8.2	0.6	1.5	2.1	2.9
101.5°	15.1	15.7	6.9	0.6	1.5	2.1	2.9
102°	12.8	12.5	5.5	0.6	1.5	2.1	3.0
102.5°	11.0	9.1	4.4	0.6	1.6	2.2	3.0
103°	10.0	6.1	3.5	0.6	1.6	2.2	3.0
103.5°	9.4	4.1	3.0	0.6	1.6	2.3	3.1
104°	8.4	2.7	2.6	0.6	1.7	2.3	3.1
104.5°	6.9	2.1	2.3	0.6	1.7	2.3	3.2
105°	5.1	1.8	2.0	0.7	1.7	2.4	3.2
105.5°	3.2	1.5	1.7	0.7	1.8	2.4	3.2
106°	1.7	1.2	1.5	0.7	1.8	2.5	3.2
106.5°	0.9	0.9	1.2	0.7	1.8	2.5	3.3
107°	0.6	0.6	1.0	0.7	1.9	2.5	3.3
107.5°	0.4	0.4	0.9	0.7	1.9	2.6	3.3
108°	0.3	0.2	0.7	0.7	1.9	2.6	3.3
108.5°	0.1	0.1	0.6	0.8	2.0	2.7	3.4
109°	0.0	0.0	0.5	0.8	2.0	2.7	3.4
109.5°	0.0	0.0	0.5	0.8	2.0	2.7	3.4
110°	0.0	0.0	0.4	0.8	2.1	2.8	3.5
110.5°	0.0	0.0	0.4	0.8	2.1	2.8	3.5
111°	0.0	0.0	0.3	0.9	2.1	2.8	3.5
111.5°	0.0	0.0	0.2	0.9	2.1	2.8	3.5
112°	0.0	0.0	0.2	0.9	2.2	2.9	3.5

REPORT NUMBER: P1197012

CATALOG NUMBER: AWPf28S-BZ-MID-4000K-POSITION 15

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
112.5°	0.0	0.0	0.2	0.9	2.2	2.9	3.5
113°	0.0	0.0	0.2	0.9	2.2	2.9	3.6
113.5°	0.0	0.0	0.2	1.0	2.2	2.9	3.6
114°	0.0	0.0	0.2	1.0	2.3	2.9	3.6
114.5°	0.0	0.0	0.2	1.0	2.3	3.0	3.6
115°	0.0	0.0	0.2	1.0	2.3	3.0	3.6
115.5°	0.0	0.0	0.2	1.0	2.3	3.0	3.6
116°	0.0	0.0	0.2	1.0	2.4	3.0	3.6
116.5°	0.0	0.0	0.2	1.0	2.4	3.1	3.6
117°	0.0	0.0	0.2	1.1	2.4	3.1	3.6
117.5°	0.0	0.0	0.2	1.1	2.4	3.1	3.6
118°	0.0	0.0	0.2	1.1	2.5	3.1	3.6
118.5°	0.0	0.0	0.2	1.1	2.5	3.1	3.6
119°	0.0	0.0	0.2	1.1	2.5	3.2	3.7
119.5°	0.0	0.0	0.2	1.1	2.5	3.2	3.7
120°	0.0	0.0	0.2	1.2	2.6	3.2	3.7
120.5°	0.0	0.0	0.3	1.2	2.6	3.2	3.7
121°	0.0	0.0	0.3	1.2	2.6	3.3	3.7
121.5°	0.0	0.0	0.3	1.2	2.6	3.3	3.7
122°	0.0	0.0	0.3	1.2	2.6	3.3	3.7
122.5°	0.0	0.0	0.3	1.3	2.7	3.3	3.7
123°	0.0	0.0	0.4	1.3	2.7	3.3	3.7
123.5°	0.0	0.0	0.4	1.3	2.7	3.3	3.7
124°	0.0	0.0	0.4	1.3	2.7	3.3	3.8
124.5°	0.0	0.0	0.4	1.4	2.7	3.4	3.8
125°	0.0	0.0	0.5	1.4	2.7	3.4	3.8
125.5°	0.0	0.0	0.5	1.4	2.8	3.4	3.8
126°	0.0	0.0	0.5	1.4	2.8	3.5	3.8
126.5°	0.0	0.0	0.5	1.4	2.8	3.4	3.8
127°	0.0	0.0	0.5	1.4	2.8	3.5	3.8
127.5°	0.0	0.0	0.6	1.5	2.8	3.5	3.8
128°	0.0	0.0	0.6	1.5	2.8	3.5	3.8
128.5°	0.0	0.0	0.6	1.5	2.8	3.5	3.8
129°	0.0	0.0	0.6	1.5	2.8	3.5	3.8
129.5°	0.0	0.0	0.7	1.6	2.9	3.5	3.8
130°	0.0	0.0	0.7	1.6	2.9	3.5	3.8
130.5°	0.0	0.0	0.7	1.6	2.9	3.5	3.8
131°	0.0	0.0	0.7	1.6	2.9	3.6	3.8
131.5°	0.0	0.0	0.8	1.7	2.9	3.6	3.8
132°	0.0	0.0	0.8	1.7	2.9	3.6	3.8
132.5°	0.0	0.0	0.8	1.7	2.9	3.6	3.8
133°	0.0	0.1	0.8	1.7	2.9	3.6	3.9
133.5°	0.0	0.1	0.8	1.7	2.9	3.6	3.9
134°	0.0	0.1	0.9	1.7	2.9	3.6	3.9
134.5°	0.0	0.1	0.9	1.8	2.9	3.6	3.9

REPORT NUMBER: P1197012

CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 15

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
135°	0.1	0.1	0.9	1.8	2.9	3.6	3.9
135.5°	0.1	0.1	0.9	1.8	3.0	3.6	3.9
136°	0.1	0.2	1.0	1.8	3.0	3.6	3.9
136.5°	0.1	0.2	1.0	1.8	3.0	3.6	3.9
137°	0.1	0.2	1.0	1.9	3.0	3.6	3.9
137.5°	0.1	0.2	1.0	1.9	3.0	3.6	3.9
138°	0.1	0.2	1.1	1.9	3.0	3.6	3.9
138.5°	0.1	0.3	1.1	1.9	3.0	3.6	3.9
139°	0.2	0.3	1.1	2.0	3.0	3.6	3.9
139.5°	0.2	0.3	1.1	2.0	3.0	3.6	3.9
140°	0.2	0.4	1.2	2.0	3.0	3.6	3.9
140.5°	0.2	0.4	1.2	2.0	3.0	3.6	3.9
141°	0.2	0.4	1.2	2.0	3.0	3.6	3.9
141.5°	0.2	0.4	1.2	2.0	3.1	3.6	3.9
142°	0.3	0.4	1.2	2.1	3.1	3.6	3.9
142.5°	0.3	0.5	1.3	2.1	3.1	3.6	3.9
143°	0.3	0.5	1.3	2.1	3.1	3.6	3.8
143.5°	0.3	0.5	1.3	2.1	3.1	3.6	3.8
144°	0.3	0.5	1.3	2.1	3.1	3.6	3.8
144.5°	0.3	0.6	1.4	2.1	3.1	3.6	3.8
145°	0.4	0.6	1.4	2.2	3.1	3.6	3.8
145.5°	0.4	0.6	1.4	2.2	3.1	3.6	3.8
146°	0.4	0.7	1.4	2.2	3.1	3.6	3.8
146.5°	0.4	0.7	1.5	2.2	3.1	3.6	3.8
147°	0.5	0.7	1.5	2.3	3.1	3.6	3.8
147.5°	0.5	0.7	1.5	2.3	3.1	3.6	3.8
148°	0.5	0.8	1.5	2.3	3.2	3.6	3.7
148.5°	0.5	0.8	1.6	2.3	3.2	3.6	3.7
149°	0.5	0.8	1.6	2.3	3.2	3.6	3.7
149.5°	0.6	0.9	1.6	2.3	3.2	3.6	3.7
150°	0.6	0.9	1.6	2.3	3.2	3.6	3.7
150.5°	0.6	0.9	1.7	2.4	3.2	3.6	3.7
151°	0.7	1.0	1.7	2.4	3.2	3.6	3.7
151.5°	0.7	1.0	1.7	2.4	3.2	3.6	3.7
152°	0.7	1.0	1.7	2.4	3.2	3.6	3.7
152.5°	0.7	1.0	1.8	2.4	3.2	3.6	3.6
153°	0.8	1.1	1.8	2.4	3.2	3.6	3.6
153.5°	0.8	1.1	1.8	2.5	3.2	3.6	3.6
154°	0.8	1.1	1.8	2.5	3.2	3.6	3.6
154.5°	0.8	1.2	1.8	2.5	3.2	3.6	3.6
155°	0.9	1.2	1.9	2.5	3.2	3.6	3.6
155.5°	0.9	1.2	1.9	2.6	3.2	3.6	3.6
156°	0.9	1.3	1.9	2.6	3.2	3.6	3.6
156.5°	1.0	1.3	1.9	2.6	3.2	3.6	3.6
157°	1.0	1.3	2.0	2.6	3.2	3.6	3.6

REPORT NUMBER: P1197012

CATALOG NUMBER: AWP28S-BZ-MID-4000K-POSITION 15

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
157.5°	1.0	1.3	2.0	2.6	3.2	3.6	3.6
158°	1.0	1.4	2.0	2.6	3.2	3.6	3.6
158.5°	1.1	1.4	2.0	2.6	3.2	3.6	3.5
159°	1.1	1.4	2.1	2.6	3.2	3.6	3.5
159.5°	1.1	1.4	2.1	2.6	3.2	3.6	3.5
160°	1.2	1.5	2.1	2.7	3.2	3.6	3.5
160.5°	1.2	1.5	2.1	2.7	3.2	3.6	3.5
161°	1.2	1.5	2.2	2.7	3.2	3.6	3.5
161.5°	1.2	1.5	2.2	2.7	3.2	3.5	3.4
162°	1.3	1.6	2.2	2.7	3.2	3.5	3.4
162.5°	1.3	1.6	2.2	2.7	3.2	3.5	3.4
163°	1.3	1.6	2.2	2.7	3.2	3.5	3.4
163.5°	1.4	1.7	2.3	2.8	3.2	3.5	3.4
164°	1.4	1.7	2.3	2.8	3.2	3.5	3.3
164.5°	1.4	1.7	2.3	2.8	3.2	3.5	3.3
165°	1.5	1.8	2.4	2.8	3.2	3.5	3.3
165.5°	1.5	1.8	2.4	2.8	3.2	3.5	3.3
166°	1.5	1.8	2.4	2.8	3.2	3.5	3.3
166.5°	1.5	1.8	2.4	2.9	3.2	3.5	3.3
167°	1.6	1.9	2.5	2.9	3.2	3.5	3.3
167.5°	1.6	1.9	2.5	2.9	3.2	3.4	3.2
168°	1.7	2.0	2.5	2.9	3.2	3.4	3.2
168.5°	1.7	2.0	2.5	2.9	3.2	3.4	3.2
169°	1.7	2.0	2.5	2.9	3.2	3.4	3.2
169.5°	1.8	2.0	2.6	2.9	3.2	3.4	3.1
170°	1.8	2.1	2.6	2.9	3.2	3.4	3.1
170.5°	1.8	2.1	2.6	2.9	3.2	3.4	3.1
171°	1.9	2.1	2.6	2.9	3.2	3.4	3.1
171.5°	1.9	2.1	2.7	2.9	3.2	3.3	3.0
172°	1.9	2.2	2.7	2.9	3.2	3.3	3.0
172.5°	2.0	2.2	2.7	2.9	3.2	3.3	3.0
173°	2.0	2.3	2.7	3.0	3.2	3.3	2.9
173.5°	2.0	2.3	2.8	3.0	3.2	3.3	2.9
174°	2.1	2.3	2.8	3.0	3.2	3.3	2.9
174.5°	2.1	2.3	2.8	3.0	3.2	3.2	2.9
175°	2.2	2.4	2.8	3.0	3.2	3.2	2.9
175.5°	2.2	2.4	2.8	3.0	3.2	3.2	2.8
176°	2.2	2.4	2.9	3.0	3.2	3.2	2.8
176.5°	2.3	2.5	2.9	3.0	3.2	3.2	2.8
177°	2.3	2.5	2.9	3.0	3.2	3.2	2.7
177.5°	2.4	2.6	2.9	3.0	3.1	3.1	2.7
178°	2.4	2.6	2.9	3.0	3.1	3.1	2.7
178.5°	2.4	2.6	2.9	3.0	3.1	3.1	2.6
179°	2.4	2.6	2.9	3.0	3.1	3.1	2.6
179.5°	2.4	2.7	2.9	3.0	3.1	3.1	2.6



REPORT NUMBER: P1197012
CATALOG NUMBER: AWPf28S-BZ-MID-4000K-POSITION 15

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5

(END OF REPORT)