

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: P1197172

Luminaire Tested: AWPS28S-BZ-HIGH-4000K-POSITION 45

Issue Date: 10/29/2025

Test Information

Test Method: LM-79-2019
Report Number: P1197172
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (LDS)
Test Lab: INNOVATION CENTER
Issue Date: 10/31/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: LUMARK
Catalog Number: AWPS28S-BZ-HIGH-4000K-POSITION 45
Description: AWP Architectural Wall Pack Series - Wall Mount Luminaire
Light Source: 80 CRI, 4000K
Ballast/Driver: -

Summary

Lumens per Lamp: 3422 (1 lamp)
Luminaire Lumens: 3669.5 lumens
Efficiency: 107.2%
Efficacy: 131.1 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 - U3 - G3

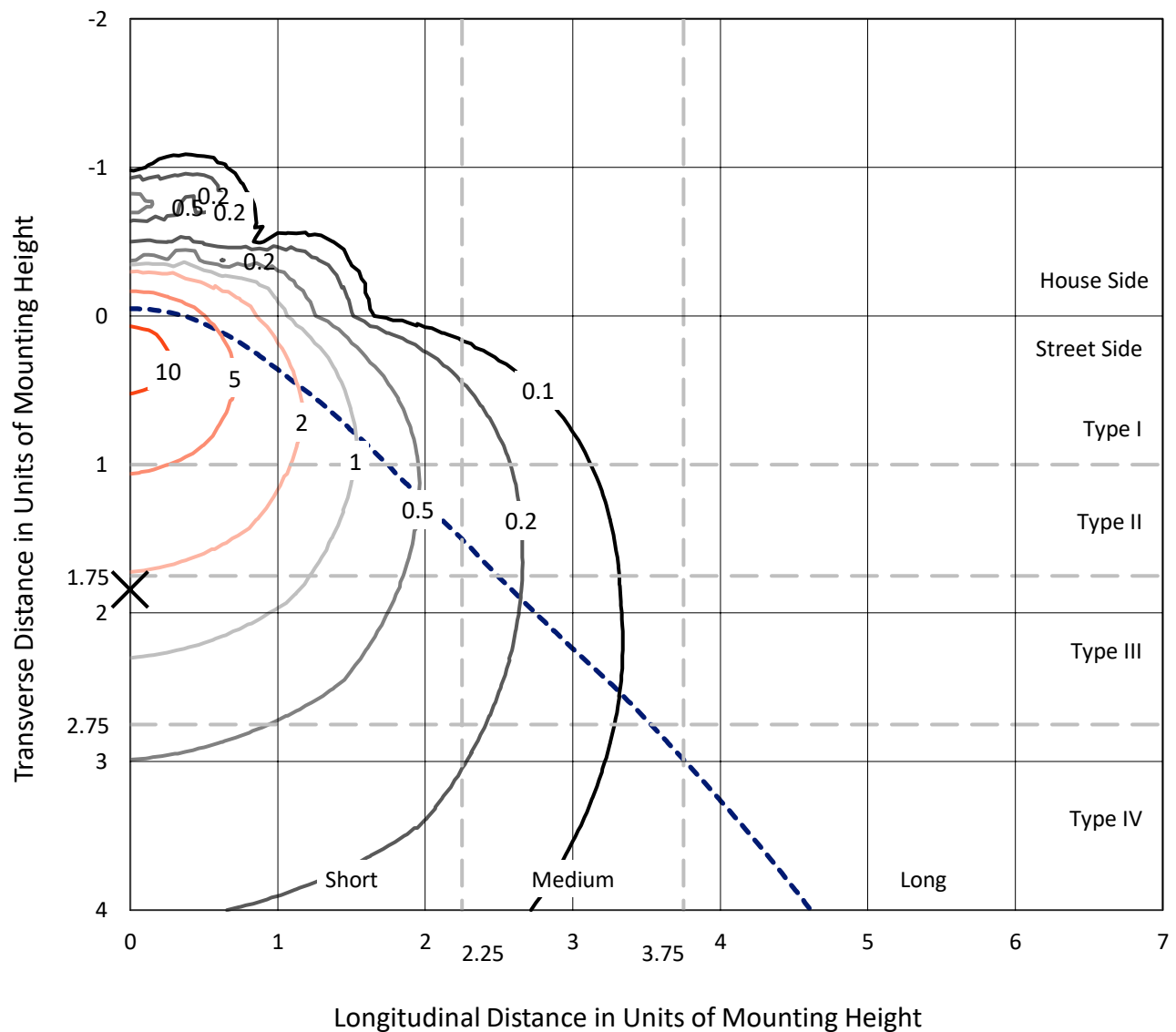
Input Watts (W): 28
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

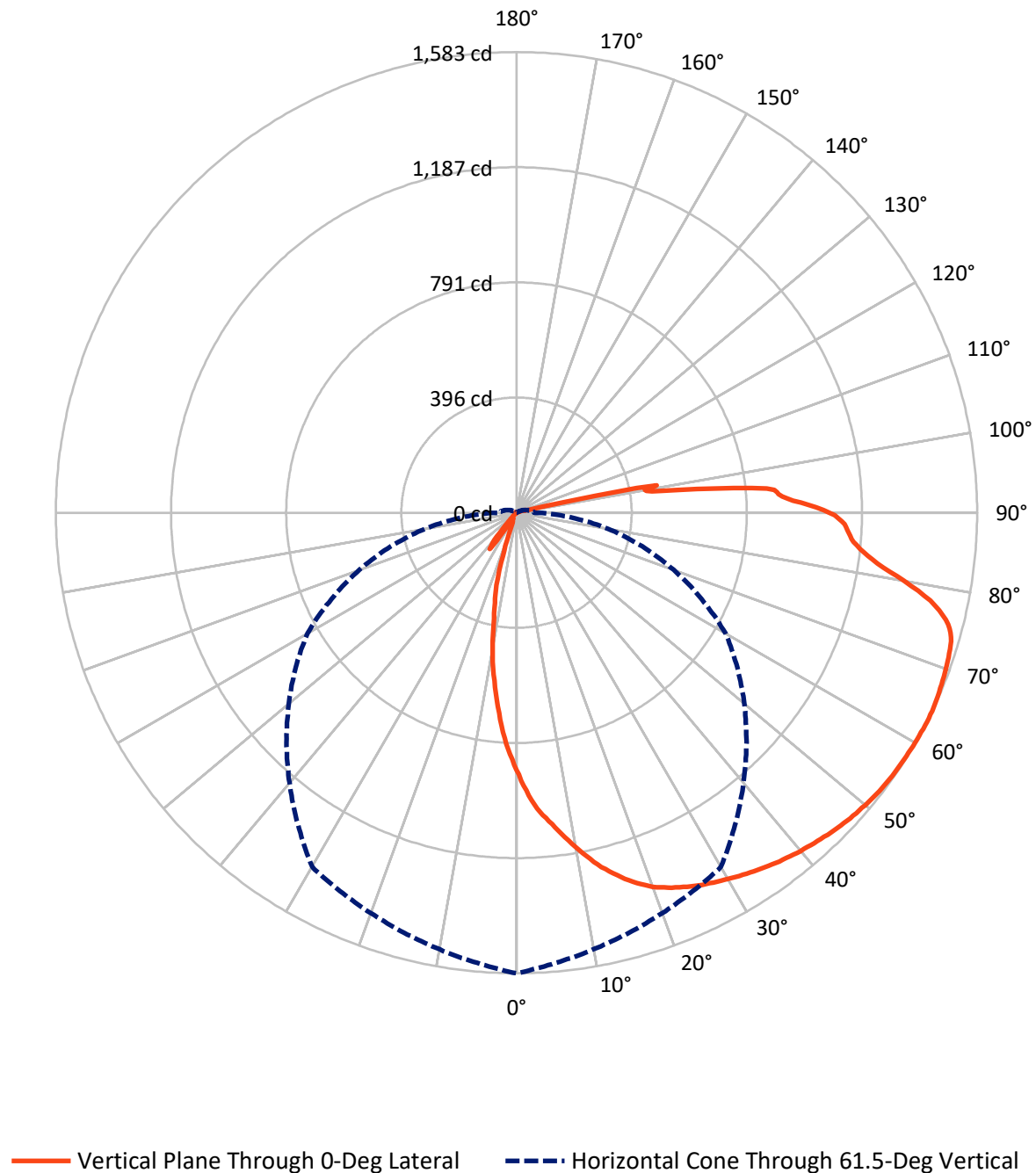


Based on 10 foot mounting height. Maximum calculated value = 11.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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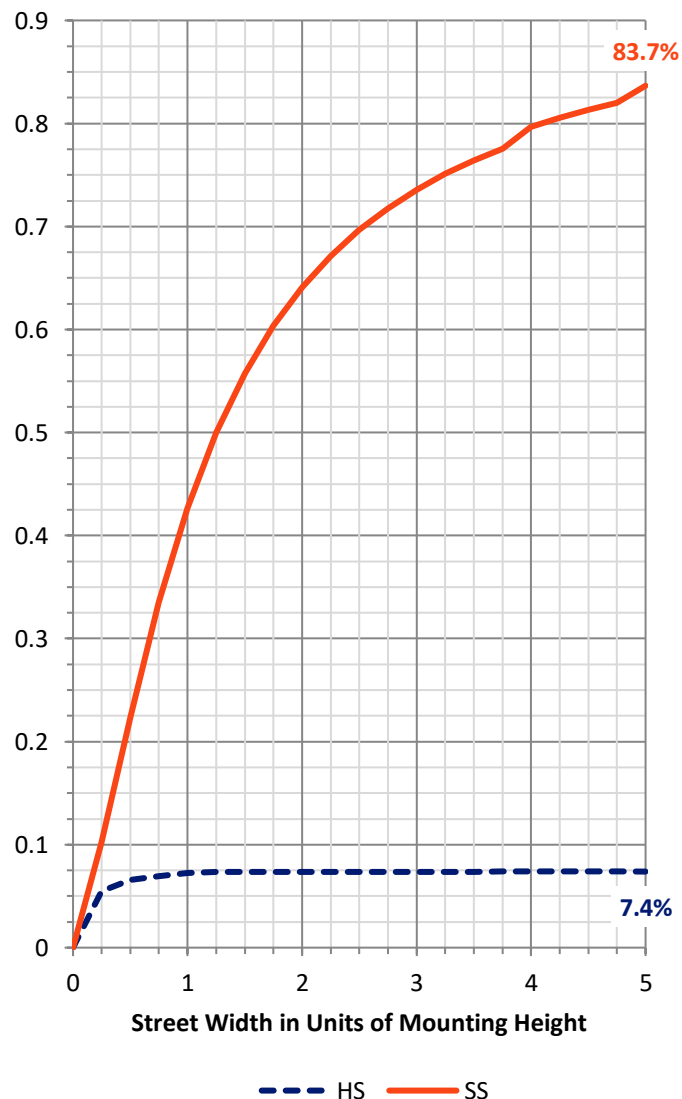
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	255.9	8.6	264.5
	% Lamp	7.5	0.3	7.7
Street Side	Lumens	3148.9	256.1	3405.1
	% Lamp	92.0	7.5	99.5
Total	Lumens	3404.8	264.7	3669.5
	% Lamp	99.5	7.7	107.2

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	83.6	2.3	2.4
10°-20°	226.9	6.2	6.6
20°-30°	329.0	9.0	9.6
30°-40°	413.2	11.3	12.1
40°-50°	476.7	13.0	13.9
50°-60°	493.8	13.5	14.4
60°-70°	499.9	13.6	14.6
70°-80°	485.5	13.2	14.2
80°-90°	396.2	10.8	11.6
90°-100°	236.5	6.4	6.9
100°-110°	20.0	0.5	0.6
110°-120°	2.2	0.1	0.1
120°-130°	1.5	0.0	0.0
130°-140°	1.4	0.0	0.0
140°-150°	1.2	0.0	0.0
150°-160°	1.0	0.0	0.0
160°-170°	0.6	0.0	0.0
170°-180°	0.2	0.0	0.0
0°-90°	3404.8	92.8	99.5
0°-180°	3669.5	100.0	107.2

Coefficient of Utilization



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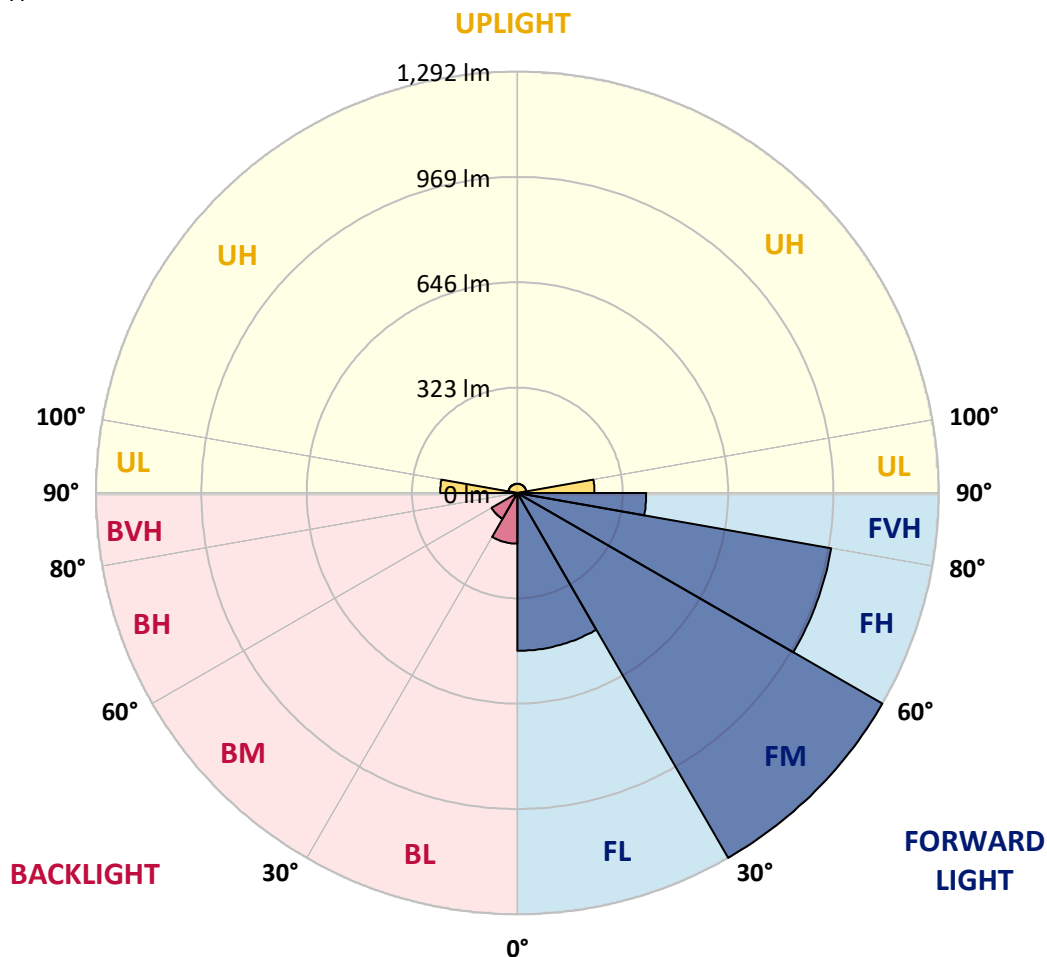
CATALOG NUMBER: AWPS28S-BZ-HIGH-4000K-POSITION 45

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	484.0	14.1			
FM	(30°-60°)	1292.3	37.8			
FH	(60°-80°)	977.4	28.6			G1/1800
FVH	(80°-90°)	395.2	11.5			G3/500
BL	(0°-30°)	155.4	4.5	B1/500		
BM	(30°-60°)	91.4	2.7	B0/220		
BH	(60°-80°)	8.0	0.2	B0/110		G0/110
BVH	(80°-90°)	1.1	0.0			G0/10
UL	(90°-100°)	236.5	6.9		U3/500	
UH	(100°-180°)	28.2	0.8		U2/50	
Trapped Light		-247.5	-7.2			

BUG Rating: B1-U3-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°
0°	900.0	900.0	900.0	900.0	900.0	900.0	900.0
0.5°	921.4	924.3	913.5	901.7	886.7	869.5	884.7
1°	938.6	938.9	922.6	901.5	877.9	854.1	866.8
1.5°	955.2	953.4	931.3	901.1	868.3	838.0	848.7
2°	972.1	968.1	938.8	900.5	859.0	822.4	830.5
2.5°	989.4	982.4	946.7	900.0	849.7	807.3	813.2
3°	1004.2	995.8	954.8	899.2	839.9	791.9	795.1
3.5°	1019.2	1009.1	962.9	898.4	830.2	775.4	775.9
4°	1032.1	1020.6	970.6	897.7	820.9	758.3	755.8
4.5°	1043.4	1031.3	978.5	896.7	811.3	740.2	734.2
5°	1054.6	1040.7	985.3	895.6	801.7	720.9	713.0
5.5°	1065.8	1049.9	991.9	894.4	792.2	702.5	691.1
6°	1077.6	1059.4	998.4	892.8	782.0	683.4	669.1
6.5°	1089.6	1069.4	1004.6	891.3	771.6	663.9	647.9
7°	1102.1	1079.6	1010.4	889.6	760.8	645.2	626.0
7.5°	1114.8	1089.5	1015.7	887.8	749.3	625.8	604.1
8°	1127.8	1100.0	1020.3	886.0	738.1	606.5	582.6
8.5°	1140.6	1110.5	1024.6	883.9	726.1	587.8	562.2
9°	1153.2	1121.2	1028.7	881.8	714.1	568.5	541.6
9.5°	1166.2	1132.2	1032.7	879.6	701.6	550.4	519.9
10°	1178.9	1142.6	1036.5	877.0	688.6	532.5	497.9
10.5°	1191.6	1153.2	1040.5	874.2	675.9	514.0	476.0
11°	1204.0	1163.8	1044.5	871.3	663.2	494.3	448.0
11.5°	1216.4	1174.1	1048.2	868.3	650.0	475.6	421.3
12°	1229.0	1184.1	1052.3	865.4	636.7	454.5	395.9
12.5°	1240.8	1194.2	1056.2	862.3	622.2	430.8	373.6
13°	1252.3	1204.4	1060.1	858.9	607.7	406.1	353.5
13.5°	1262.8	1214.1	1064.1	855.4	593.2	383.7	335.2
14°	1272.9	1224.0	1067.6	851.7	578.8	363.7	319.4
14.5°	1283.7	1233.3	1071.7	847.9	564.3	345.6	304.1
15°	1293.2	1242.1	1075.9	843.7	551.2	328.9	288.8
15.5°	1303.1	1250.9	1080.1	839.3	537.3	313.0	273.6
16°	1312.4	1259.3	1083.9	835.0	524.3	300.0	258.3
16.5°	1321.9	1267.9	1087.8	830.6	511.2	287.0	234.9
17°	1330.5	1276.1	1091.7	826.3	497.9	273.9	206.8
17.5°	1338.4	1283.5	1095.3	821.8	485.1	260.9	178.6
18°	1346.5	1290.9	1098.6	816.4	471.8	243.8	155.9
18.5°	1354.0	1298.3	1101.5	810.9	457.9	222.9	136.0
19°	1361.1	1305.4	1104.5	805.1	443.7	197.7	119.0
19.5°	1367.6	1312.0	1107.4	799.3	429.5	173.5	98.8
20°	1373.9	1318.5	1110.0	793.2	415.7	151.5	76.2
20.5°	1379.5	1324.2	1112.5	787.3	402.6	133.7	56.1
21°	1384.5	1329.9	1115.2	781.4	388.1	117.9	44.8
21.5°	1389.9	1335.2	1117.7	775.3	371.9	102.0	40.1
22°	1394.6	1340.0	1119.9	769.1	355.9	83.7	38.1

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
22.5°	1399.1	1344.7	1122.3	763.3	340.6	64.7	36.8
23°	1404.0	1349.0	1124.5	757.0	326.0	49.1	35.7
23.5°	1408.1	1352.3	1126.6	750.5	312.9	40.4	34.6
24°	1412.4	1356.0	1128.4	744.0	301.1	36.8	33.7
24.5°	1416.4	1359.1	1130.1	737.3	289.4	35.2	32.7
25°	1420.9	1362.1	1131.6	730.7	278.3	34.1	31.5
25.5°	1424.7	1365.0	1132.5	723.8	267.5	33.4	30.3
26°	1428.8	1367.9	1133.7	717.1	256.6	32.9	29.0
26.5°	1432.4	1370.5	1134.5	710.5	245.5	32.4	28.0
27°	1436.1	1372.8	1135.3	703.4	235.5	32.0	27.3
27.5°	1440.0	1375.0	1135.5	696.1	224.6	31.5	26.8
28°	1443.8	1377.0	1135.7	688.6	211.8	31.0	26.6
28.5°	1447.0	1378.9	1135.8	681.1	195.9	30.4	26.3
29°	1450.1	1380.4	1135.9	673.1	177.5	29.7	25.9
29.5°	1453.5	1382.1	1136.0	664.8	157.3	28.8	25.4
30°	1456.8	1383.8	1136.0	656.8	137.3	27.9	24.8
30.5°	1460.3	1385.4	1135.3	648.5	119.0	27.1	24.3
31°	1463.9	1386.7	1134.8	640.0	102.7	26.1	23.7
31.5°	1467.2	1388.6	1134.5	631.2	89.0	25.2	23.0
32°	1471.0	1389.9	1133.9	622.2	77.4	24.5	22.5
32.5°	1474.4	1391.3	1133.2	613.6	68.7	23.7	22.2
33°	1477.8	1392.7	1132.6	604.8	61.3	23.2	22.2
33.5°	1481.0	1393.8	1132.1	596.2	55.8	22.6	23.0
34°	1484.4	1395.0	1131.5	586.9	51.3	22.2	26.7
34.5°	1487.8	1396.5	1130.5	577.3	47.0	21.9	43.9
35°	1491.1	1398.1	1129.1	567.7	42.5	21.5	72.4
35.5°	1494.0	1399.5	1127.3	557.8	38.8	21.1	96.7
36°	1497.3	1401.1	1125.5	547.8	36.3	20.7	116.8
36.5°	1500.3	1402.8	1123.6	537.6	34.6	20.6	152.6
37°	1503.5	1404.4	1121.4	527.5	33.2	20.3	154.9
37.5°	1506.1	1406.1	1119.2	517.0	32.3	19.8	143.8
38°	1509.1	1407.2	1116.7	506.7	31.4	19.5	139.7
38.5°	1512.1	1408.7	1114.0	496.1	30.4	19.3	135.5
39°	1515.2	1410.4	1111.2	485.6	29.5	19.3	128.9
39.5°	1518.0	1411.8	1107.9	474.8	28.6	19.8	119.0
40°	1520.4	1412.9	1104.4	463.7	27.8	23.1	105.6
40.5°	1523.3	1414.2	1100.6	452.6	27.3	34.0	92.5
41°	1525.8	1415.3	1097.1	441.0	26.9	51.8	77.0
41.5°	1528.2	1416.1	1093.3	429.9	26.5	64.9	61.6
42°	1531.0	1417.0	1089.2	418.0	26.0	70.2	49.1
42.5°	1533.6	1417.6	1084.8	405.6	25.6	87.6	41.0
43°	1536.0	1418.0	1080.4	394.0	25.0	98.9	35.1
43.5°	1538.8	1418.4	1075.7	382.2	24.2	88.9	30.0
44°	1541.3	1418.7	1070.5	371.0	23.5	83.5	25.5
44.5°	1543.7	1418.8	1065.6	359.4	22.8	80.4	21.2

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
45°	1545.8	1419.2	1060.3	347.3	22.1	77.8	17.6
45.5°	1548.4	1419.4	1054.9	335.1	21.6	75.5	14.9
46°	1550.4	1419.5	1049.3	322.9	21.2	72.5	13.0
46.5°	1552.5	1419.9	1043.1	310.4	20.7	69.0	11.4
47°	1554.5	1419.7	1037.4	298.5	20.3	65.5	10.3
47.5°	1556.3	1420.1	1031.4	286.5	19.8	61.9	9.3
48°	1558.4	1420.1	1025.0	274.6	19.4	58.4	8.7
48.5°	1560.4	1420.5	1018.9	262.6	18.8	54.6	8.1
49°	1562.1	1420.6	1012.8	252.0	18.3	49.9	7.5
49.5°	1563.8	1420.2	1006.4	241.1	17.7	45.1	7.0
50°	1565.5	1420.1	1000.3	231.0	17.0	40.3	6.4
50.5°	1567.5	1420.2	994.0	222.1	16.4	35.3	5.7
51°	1569.1	1420.0	987.7	214.0	15.9	31.2	5.0
51.5°	1570.3	1419.7	981.6	206.5	15.4	27.6	4.2
52°	1572.1	1419.4	975.0	200.0	14.9	24.5	3.6
52.5°	1573.1	1418.8	968.6	193.9	14.4	21.6	3.3
53°	1573.8	1418.0	962.4	187.5	13.8	19.0	3.2
53.5°	1574.8	1417.2	955.5	180.5	13.3	16.5	3.1
54°	1575.7	1416.4	948.8	173.9	12.8	14.2	3.0
54.5°	1576.5	1415.0	942.0	167.1	12.3	10.9	2.8
55°	1577.3	1414.1	935.2	158.9	11.9	6.2	2.5
55.5°	1577.5	1413.3	928.3	147.5	11.4	3.4	2.2
56°	1578.1	1412.3	920.9	132.7	11.1	2.4	2.0
56.5°	1578.5	1411.8	913.2	115.0	10.6	2.2	1.9
57°	1578.8	1411.1	905.1	97.5	10.2	2.1	1.6
57.5°	1579.5	1410.9	897.0	84.7	9.7	2.1	1.3
58°	1579.7	1410.7	888.7	77.0	9.2	2.1	1.2
58.5°	1580.1	1409.9	880.6	72.2	8.7	1.9	1.0
59°	1580.6	1409.6	872.5	69.2	8.2	1.7	0.9
59.5°	1581.4	1408.8	863.9	67.3	7.8	1.5	0.8
60°	1582.0	1408.1	855.3	66.2	7.3	1.3	0.7
60.5°	1582.2	1407.3	846.6	65.2	6.8	1.0	0.7
61°	1582.4	1406.6	838.0	64.2	6.4	0.8	0.7
61.5°	1582.9	1405.4	829.4	63.0	6.0	0.8	0.7
62°	1582.8	1404.5	821.4	61.9	5.6	0.8	0.7
62.5°	1582.9	1403.7	813.8	60.9	5.1	0.7	0.7
63°	1582.9	1403.3	805.8	59.7	4.7	0.7	0.7
63.5°	1582.8	1402.7	797.8	58.5	4.2	0.7	0.7
64°	1582.6	1402.0	789.6	57.0	3.9	0.6	0.7
64.5°	1582.0	1401.3	781.8	55.6	3.6	0.6	0.7
65°	1580.9	1400.6	774.0	54.2	3.3	0.6	0.7
65.5°	1580.3	1400.0	766.4	52.7	3.0	0.6	0.7
66°	1579.5	1399.6	759.0	50.8	2.7	0.6	0.7
66.5°	1578.3	1398.6	751.3	49.2	2.5	0.6	0.8
67°	1576.7	1397.6	744.4	47.7	2.2	0.6	0.9

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
67.5°	1575.5	1396.6	737.2	46.1	1.9	0.6	0.9
68°	1573.9	1395.2	730.1	44.6	1.7	0.6	0.9
68.5°	1572.6	1393.8	722.9	43.5	1.4	0.6	0.9
69°	1571.1	1392.0	715.7	42.4	1.2	0.6	0.9
69.5°	1569.3	1389.7	708.6	41.8	1.2	0.6	0.9
70°	1567.9	1387.4	701.0	41.6	1.2	0.6	1.0
70.5°	1566.5	1384.9	693.1	41.6	1.1	0.6	1.0
71°	1565.6	1382.5	685.0	41.6	1.0	0.6	1.0
71.5°	1563.9	1379.3	676.8	41.6	0.9	0.6	1.1
72°	1562.0	1376.3	668.7	41.1	0.8	0.6	1.1
72.5°	1560.1	1374.1	661.2	40.2	0.7	0.6	1.2
73°	1557.7	1371.6	653.8	39.0	0.7	0.6	1.2
73.5°	1553.5	1368.9	646.3	36.8	0.7	0.6	1.3
74°	1547.8	1366.3	639.7	34.0	0.7	0.7	1.3
74.5°	1541.2	1363.5	632.8	31.3	0.7	0.7	1.4
75°	1532.0	1361.6	626.6	27.4	0.7	0.7	1.4
75.5°	1519.8	1357.8	621.0	24.1	0.7	0.8	1.5
76°	1506.1	1353.2	616.2	21.9	0.6	0.8	1.5
76.5°	1490.9	1346.3	611.1	20.2	0.6	0.9	1.6
77°	1473.9	1337.2	604.1	18.6	0.6	0.9	1.6
77.5°	1453.6	1325.8	597.1	17.1	0.6	0.9	1.7
78°	1430.5	1311.7	590.1	15.7	0.7	1.0	1.7
78.5°	1406.4	1297.3	583.1	14.3	0.7	1.0	1.8
79°	1380.0	1280.0	576.1	13.0	0.7	1.0	1.8
79.5°	1352.4	1260.5	570.8	12.1	0.7	1.1	1.9
80°	1325.7	1237.4	564.8	10.6	0.7	1.1	1.9
80.5°	1299.9	1212.8	558.7	9.5	0.7	1.2	2.0
81°	1274.5	1185.4	552.8	8.5	0.8	1.2	2.0
81.5°	1253.2	1157.4	547.4	7.7	0.8	1.2	2.1
82°	1233.4	1131.5	542.5	7.0	0.8	1.3	2.2
82.5°	1216.6	1107.8	538.3	6.3	0.8	1.3	2.2
83°	1200.9	1087.6	534.4	5.6	0.9	1.4	2.2
83.5°	1186.9	1069.7	530.9	5.0	0.9	1.4	2.3
84°	1174.2	1055.8	526.3	4.5	0.9	1.5	2.3
84.5°	1163.0	1044.8	520.8	4.1	0.9	1.5	2.4
85°	1155.4	1037.4	514.0	3.6	1.0	1.5	2.5
85.5°	1149.5	1031.0	505.3	3.2	1.0	1.6	2.5
86°	1143.6	1026.8	495.6	2.8	1.0	1.6	2.5
86.5°	1138.5	1026.5	485.6	2.5	1.0	1.7	2.6
87°	1134.0	1028.3	475.2	2.2	1.1	1.7	2.6
87.5°	1128.0	1032.0	465.7	1.9	1.1	1.7	2.7
88°	1118.9	1038.7	457.1	1.6	1.1	1.8	2.7
88.5°	1107.2	1047.2	451.4	1.3	1.2	1.8	2.8
89°	1093.1	1059.2	448.7	1.2	1.2	1.9	2.8
89.5°	1076.4	1073.4	445.6	1.0	1.2	1.9	2.9

REPORT NUMBER: P1197172

CATALOG NUMBER: AWPS28S-BZ-HIGH-4000K-POSITION 45

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
90°	1055.2	1083.6	442.7	0.7	1.3	2.0	2.9
90.5°	1030.0	1088.2	443.5	0.6	1.3	2.0	3.0
91°	1004.1	1084.0	439.1	0.6	1.3	2.1	3.0
91.5°	977.6	1060.7	431.3	0.6	1.3	2.1	3.0
92°	951.7	1021.0	423.2	0.6	1.4	2.1	3.0
92.5°	930.5	960.7	407.6	0.6	1.4	2.2	3.1
93°	915.6	881.1	378.2	0.6	1.4	2.2	3.1
93.5°	902.9	796.0	338.0	0.6	1.5	2.2	3.1
94°	898.2	704.3	290.6	0.6	1.5	2.3	3.2
94.5°	889.9	621.6	243.6	0.6	1.5	2.3	3.2
95°	864.9	558.6	202.8	0.6	1.5	2.4	3.2
95.5°	812.7	514.1	166.4	0.6	1.6	2.4	3.3
96°	750.1	469.3	138.4	0.6	1.6	2.5	3.3
96.5°	687.4	410.1	116.1	0.6	1.6	2.5	3.3
97°	625.2	403.6	95.7	0.6	1.7	2.5	3.4
97.5°	563.5	447.7	76.9	0.6	1.7	2.6	3.4
98°	503.3	498.7	65.8	0.6	1.7	2.6	3.5
98.5°	472.1	503.4	66.1	0.6	1.7	2.6	3.5
99°	452.2	429.2	69.5	0.6	1.8	2.7	3.5
99.5°	448.3	300.4	68.6	0.6	1.8	2.7	3.5
100°	470.7	230.6	70.8	0.6	1.8	2.7	3.6
100.5°	491.3	164.2	64.9	0.6	1.8	2.8	3.6
101°	420.8	97.8	52.0	0.6	1.9	2.8	3.6
101.5°	273.8	31.3	35.2	0.6	1.9	2.8	3.6
102°	168.6	22.7	26.3	0.6	1.9	2.9	3.6
102.5°	89.2	21.1	22.7	0.6	2.0	2.9	3.7
103°	40.5	20.8	19.5	0.6	2.0	2.9	3.7
103.5°	27.3	21.2	16.1	0.6	2.0	3.0	3.7
104°	26.6	23.1	13.0	0.6	2.0	3.0	3.7
104.5°	25.7	26.1	10.3	0.6	2.0	3.0	3.8
105°	25.9	25.4	8.4	0.6	2.1	3.0	3.8
105.5°	27.2	23.3	7.1	0.6	2.1	3.0	3.8
106°	30.1	22.3	6.1	0.6	2.1	3.1	3.8
106.5°	31.5	21.9	5.2	0.6	2.1	3.1	3.8
107°	29.3	20.4	4.3	0.6	2.2	3.1	3.8
107.5°	26.2	18.3	3.5	0.7	2.2	3.1	3.8
108°	24.7	15.6	3.0	0.7	2.2	3.2	3.8
108.5°	23.3	12.6	2.6	0.7	2.2	3.2	3.9
109°	20.5	9.9	2.3	0.7	2.3	3.2	3.9
109.5°	16.9	7.7	2.0	0.7	2.3	3.2	3.9
110°	13.9	6.0	1.8	0.7	2.3	3.3	3.9
110.5°	11.5	5.4	1.5	0.7	2.3	3.3	3.9
111°	10.2	5.0	1.3	0.7	2.4	3.3	3.9
111.5°	9.4	4.7	1.1	0.8	2.4	3.3	3.9
112°	8.4	4.2	0.9	0.8	2.4	3.4	3.9

REPORT NUMBER: P1197172

CATALOG NUMBER: AWPS28S-BZ-HIGH-4000K-POSITION 45

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
112.5°	7.2	3.6	0.8	0.8	2.4	3.4	3.9
113°	6.1	2.9	0.7	0.8	2.4	3.4	4.0
113.5°	5.2	2.3	0.6	0.8	2.5	3.4	4.0
114°	4.7	1.8	0.5	0.8	2.5	3.4	4.0
114.5°	4.0	1.4	0.4	0.9	2.5	3.5	4.0
115°	3.0	1.2	0.3	0.9	2.5	3.5	4.0
115.5°	2.3	1.0	0.2	0.9	2.5	3.5	4.0
116°	1.8	0.8	0.2	0.9	2.5	3.5	4.1
116.5°	1.4	0.6	0.2	0.9	2.6	3.6	4.1
117°	1.2	0.4	0.1	0.9	2.6	3.6	4.1
117.5°	1.0	0.2	0.1	1.0	2.6	3.6	4.1
118°	0.8	0.1	0.1	1.0	2.6	3.6	4.1
118.5°	0.5	0.0	0.0	1.0	2.6	3.6	4.1
119°	0.3	0.0	0.0	1.0	2.6	3.6	4.1
119.5°	0.1	0.0	0.1	1.0	2.6	3.6	4.1
120°	0.0	0.0	0.0	1.0	2.6	3.6	4.1
120.5°	0.0	0.0	0.1	1.1	2.7	3.6	4.1
121°	0.0	0.0	0.1	1.1	2.7	3.6	4.1
121.5°	0.0	0.0	0.1	1.1	2.7	3.6	4.1
122°	0.0	0.0	0.1	1.1	2.7	3.6	4.1
122.5°	0.0	0.0	0.1	1.1	2.7	3.7	4.1
123°	0.0	0.0	0.1	1.1	2.7	3.7	4.1
123.5°	0.0	0.0	0.1	1.2	2.7	3.7	4.1
124°	0.0	0.0	0.1	1.2	2.7	3.7	4.1
124.5°	0.0	0.0	0.1	1.2	2.7	3.7	4.1
125°	0.0	0.0	0.2	1.2	2.8	3.7	4.1
125.5°	0.0	0.0	0.2	1.2	2.8	3.7	4.1
126°	0.0	0.0	0.2	1.2	2.8	3.7	4.1
126.5°	0.0	0.0	0.2	1.3	2.8	3.7	4.1
127°	0.0	0.0	0.2	1.3	2.8	3.7	4.1
127.5°	0.0	0.0	0.2	1.3	2.8	3.7	4.1
128°	0.0	0.0	0.3	1.3	2.8	3.8	4.1
128.5°	0.0	0.0	0.3	1.4	2.8	3.8	4.1
129°	0.0	0.0	0.3	1.4	2.8	3.8	4.1
129.5°	0.0	0.0	0.3	1.4	2.8	3.8	4.1
130°	0.0	0.0	0.3	1.4	2.9	3.8	4.1
130.5°	0.0	0.0	0.4	1.4	2.9	3.8	4.1
131°	0.0	0.0	0.4	1.4	2.9	3.8	4.1
131.5°	0.0	0.0	0.4	1.4	2.9	3.8	4.1
132°	0.0	0.0	0.4	1.4	2.9	3.8	4.1
132.5°	0.0	0.0	0.4	1.5	2.9	3.8	4.1
133°	0.0	0.0	0.5	1.5	2.9	3.8	4.1
133.5°	0.0	0.0	0.5	1.5	2.9	3.8	4.1
134°	0.0	0.0	0.5	1.6	2.9	3.8	4.1
134.5°	0.0	0.0	0.5	1.5	2.9	3.8	4.1

REPORT NUMBER: P1197172

CATALOG NUMBER: AWPS28S-BZ-HIGH-4000K-POSITION 45

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
135°	0.0	0.0	0.5	1.6	2.9	3.8	4.1
135.5°	0.0	0.0	0.6	1.6	2.9	3.8	4.1
136°	0.0	0.0	0.6	1.6	2.9	3.8	4.1
136.5°	0.0	0.0	0.6	1.6	2.9	3.8	4.1
137°	0.0	0.0	0.6	1.6	2.9	3.8	4.1
137.5°	0.0	0.0	0.6	1.7	2.9	3.8	4.1
138°	0.0	0.0	0.6	1.7	2.9	3.8	4.1
138.5°	0.0	0.0	0.7	1.7	2.9	3.8	4.1
139°	0.0	0.0	0.7	1.7	3.0	3.8	4.0
139.5°	0.0	0.0	0.7	1.7	3.0	3.8	4.0
140°	0.0	0.0	0.8	1.7	3.0	3.8	4.0
140.5°	0.0	0.0	0.8	1.7	3.0	3.8	4.0
141°	0.0	0.0	0.8	1.8	3.0	3.8	4.0
141.5°	0.0	0.0	0.8	1.8	3.0	3.8	4.0
142°	0.0	0.0	0.9	1.8	3.0	3.7	3.9
142.5°	0.0	0.0	0.9	1.8	3.0	3.7	3.9
143°	0.0	0.0	0.9	1.8	3.0	3.7	3.9
143.5°	0.0	0.0	0.9	1.9	3.0	3.7	3.9
144°	0.0	0.0	1.0	1.9	3.0	3.7	3.9
144.5°	0.0	0.1	1.0	1.9	3.0	3.7	3.9
145°	0.0	0.1	1.0	1.9	3.0	3.7	3.8
145.5°	0.0	0.1	1.0	1.9	3.0	3.7	3.8
146°	0.0	0.1	1.0	1.9	3.0	3.7	3.8
146.5°	0.0	0.1	1.1	1.9	3.0	3.7	3.8
147°	0.0	0.2	1.1	1.9	3.0	3.7	3.8
147.5°	0.0	0.2	1.1	2.0	3.0	3.6	3.8
148°	0.1	0.2	1.1	2.0	3.0	3.6	3.7
148.5°	0.1	0.3	1.2	2.0	3.0	3.6	3.7
149°	0.1	0.3	1.2	2.0	3.0	3.6	3.7
149.5°	0.1	0.3	1.2	2.0	3.0	3.6	3.7
150°	0.1	0.3	1.2	2.0	3.0	3.6	3.7
150.5°	0.1	0.4	1.3	2.0	3.0	3.6	3.6
151°	0.1	0.4	1.3	2.1	3.0	3.6	3.6
151.5°	0.1	0.4	1.3	2.1	3.0	3.6	3.6
152°	0.2	0.4	1.3	2.1	3.0	3.6	3.6
152.5°	0.2	0.5	1.3	2.1	3.0	3.6	3.5
153°	0.2	0.5	1.4	2.1	3.0	3.6	3.5
153.5°	0.2	0.5	1.4	2.2	3.0	3.6	3.5
154°	0.2	0.5	1.4	2.2	3.0	3.6	3.5
154.5°	0.3	0.5	1.5	2.2	3.0	3.5	3.4
155°	0.3	0.6	1.5	2.2	3.0	3.5	3.4
155.5°	0.3	0.6	1.5	2.2	3.0	3.5	3.4
156°	0.3	0.6	1.5	2.2	3.0	3.5	3.4
156.5°	0.4	0.6	1.5	2.2	3.0	3.5	3.3
157°	0.4	0.7	1.5	2.2	3.0	3.5	3.3

REPORT NUMBER: P1197172

CATALOG NUMBER: AWPS28S-BZ-HIGH-4000K-POSITION 45

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
157.5°	0.4	0.7	1.6	2.2	3.0	3.4	3.3
158°	0.4	0.7	1.6	2.2	3.0	3.4	3.3
158.5°	0.5	0.8	1.6	2.2	3.0	3.4	3.2
159°	0.5	0.8	1.6	2.2	3.0	3.4	3.2
159.5°	0.5	0.8	1.7	2.3	3.0	3.4	3.2
160°	0.5	0.9	1.7	2.3	3.0	3.4	3.2
160.5°	0.5	0.9	1.7	2.3	2.9	3.4	3.2
161°	0.6	0.9	1.7	2.3	2.9	3.3	3.1
161.5°	0.6	0.9	1.8	2.3	2.9	3.3	3.1
162°	0.6	1.0	1.8	2.3	2.9	3.3	3.1
162.5°	0.6	1.0	1.8	2.3	2.9	3.3	3.0
163°	0.7	1.0	1.8	2.3	2.9	3.3	3.0
163.5°	0.7	1.1	1.8	2.3	2.9	3.3	2.9
164°	0.7	1.1	1.8	2.4	2.9	3.2	2.9
164.5°	0.8	1.1	1.9	2.4	2.9	3.2	2.9
165°	0.8	1.2	1.9	2.4	2.9	3.2	2.8
165.5°	0.8	1.2	1.9	2.4	2.9	3.2	2.8
166°	0.8	1.2	1.9	2.4	2.9	3.2	2.8
166.5°	0.9	1.3	2.0	2.4	2.9	3.2	2.8
167°	0.9	1.3	2.0	2.5	2.9	3.2	2.7
167.5°	0.9	1.3	2.0	2.5	2.9	3.2	2.7
168°	1.0	1.4	2.0	2.5	2.9	3.1	2.7
168.5°	1.0	1.4	2.1	2.5	2.9	3.1	2.6
169°	1.0	1.4	2.1	2.5	2.9	3.1	2.6
169.5°	1.0	1.4	2.1	2.5	2.9	3.1	2.6
170°	1.1	1.5	2.1	2.5	2.9	3.1	2.5
170.5°	1.1	1.5	2.1	2.5	2.8	3.1	2.5
171°	1.1	1.5	2.1	2.5	2.8	3.0	2.4
171.5°	1.2	1.6	2.2	2.5	2.8	3.0	2.4
172°	1.2	1.6	2.2	2.5	2.8	3.0	2.4
172.5°	1.2	1.6	2.2	2.5	2.8	2.9	2.3
173°	1.2	1.7	2.2	2.5	2.8	2.9	2.3
173.5°	1.3	1.7	2.3	2.5	2.8	2.9	2.2
174°	1.3	1.7	2.3	2.5	2.8	2.9	2.2
174.5°	1.3	1.7	2.3	2.5	2.8	2.9	2.2
175°	1.4	1.8	2.3	2.5	2.8	2.9	2.1
175.5°	1.4	1.8	2.3	2.6	2.8	2.8	2.1
176°	1.4	1.9	2.4	2.6	2.8	2.8	2.0
176.5°	1.5	1.9	2.4	2.6	2.7	2.8	2.0
177°	1.5	1.9	2.4	2.6	2.7	2.8	2.0
177.5°	1.5	1.9	2.4	2.6	2.7	2.7	1.9
178°	1.6	2.0	2.4	2.6	2.7	2.7	1.9
178.5°	1.6	2.0	2.4	2.6	2.7	2.7	1.8
179°	1.7	2.0	2.4	2.6	2.7	2.7	1.8
179.5°	1.7	2.0	2.4	2.6	2.7	2.6	1.8



REPORT NUMBER: P1197172
CATALOG NUMBER: AWPS28S-BZ-HIGH-4000K-POSITION 45

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7

(END OF REPORT)