

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: P1197019

Luminaire Tested: AWPf28S-BZ-HIGH-4000K-POSITION 30

Issue Date: 10/29/2025

Test Information

Test Method: LM-79-2019
Report Number: P1197019
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-HIGH-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: 3691.7 lumens
Efficiency: 104.8%
Efficacy: 131.8 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

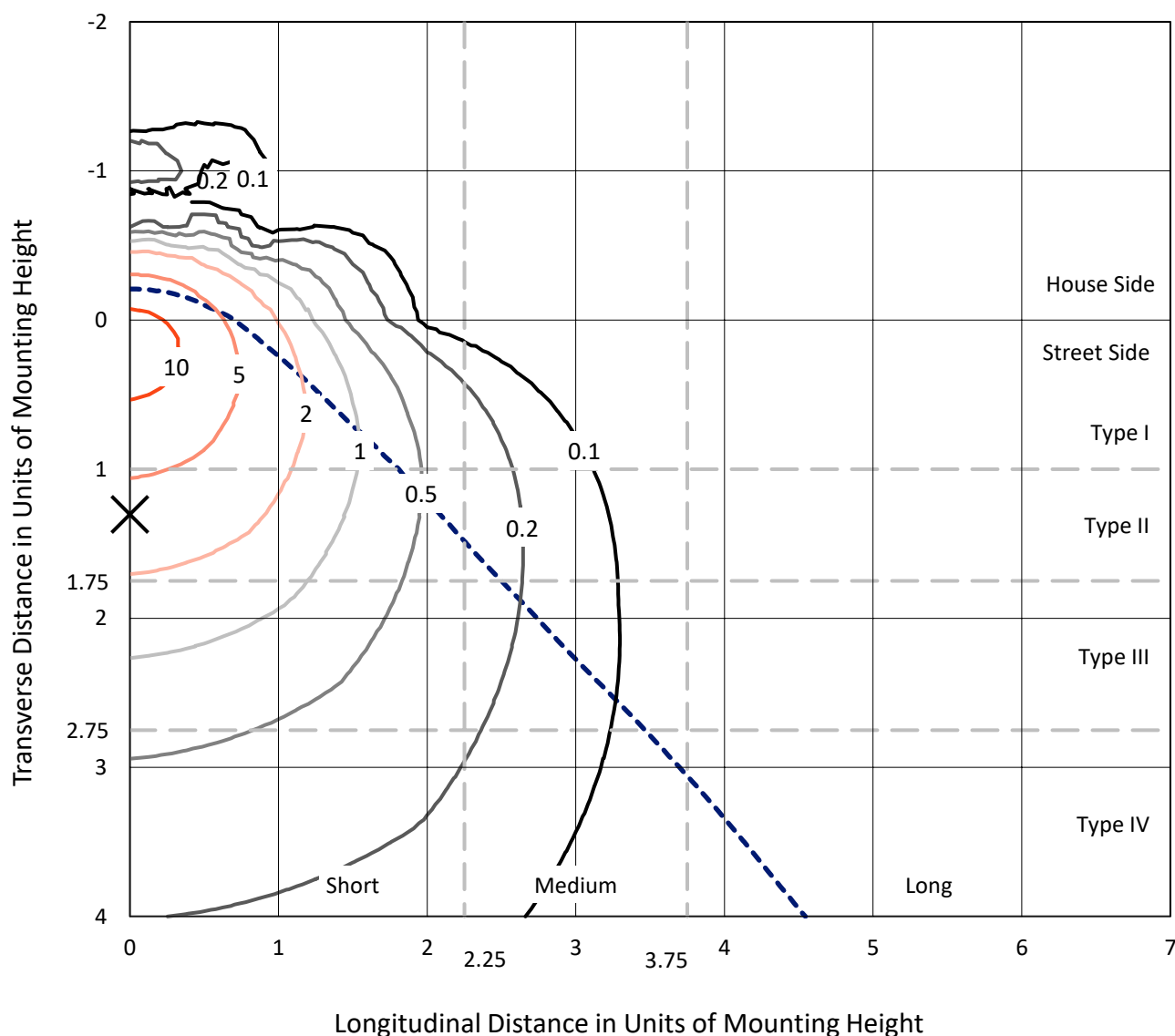
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

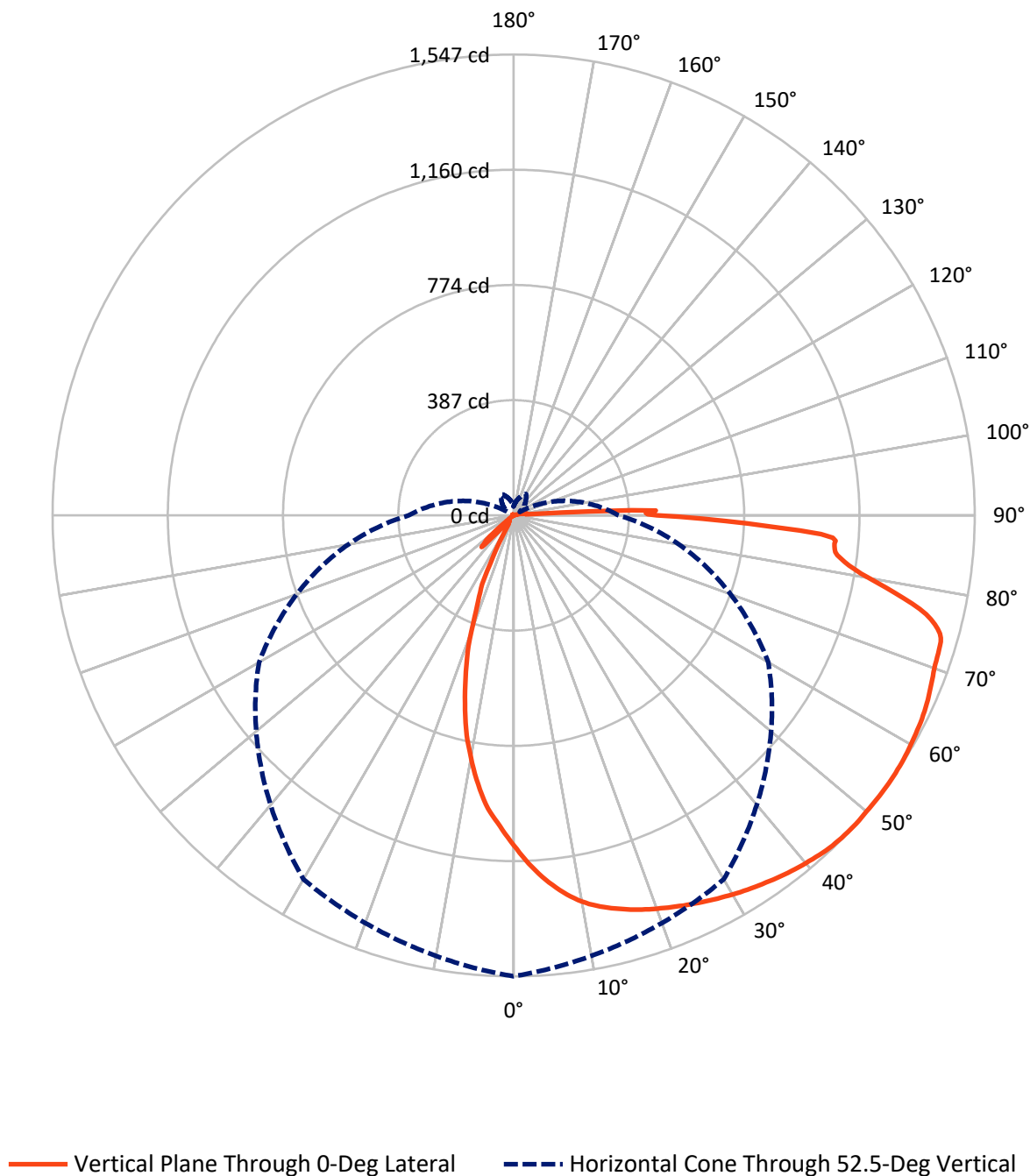


Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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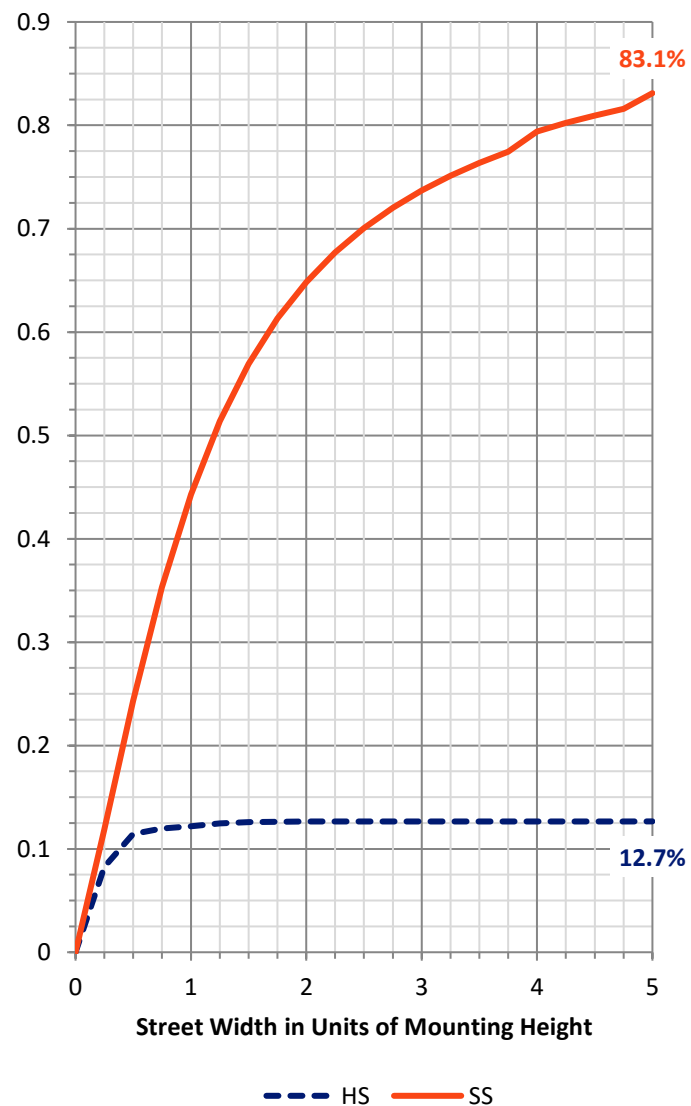
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	451.8	8.5	460.4
	% Lamp	12.8	0.2	13.1
Street Side	Lumens	3167.8	63.5	3231.3
	% Lamp	90.0	1.8	91.8
Total	Lumens	3619.7	72.0	3691.7
	% Lamp	102.8	2.0	104.8

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	105.8	2.9	3.0
10°-20°	292.8	7.9	8.3
20°-30°	410.5	11.1	11.7
30°-40°	467.8	12.7	13.3
40°-50°	506.5	13.7	14.4
50°-60°	521.3	14.1	14.8
60°-70°	497.3	13.5	14.1
70°-80°	467.6	12.7	13.3
80°-90°	350.1	9.5	9.9
90°-100°	59.3	1.6	1.7
100°-110°	4.7	0.1	0.1
110°-120°	1.5	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°	3619.7	98.0	102.8
0°-180°	3691.7	100.0	104.8

Coefficient of Utilization



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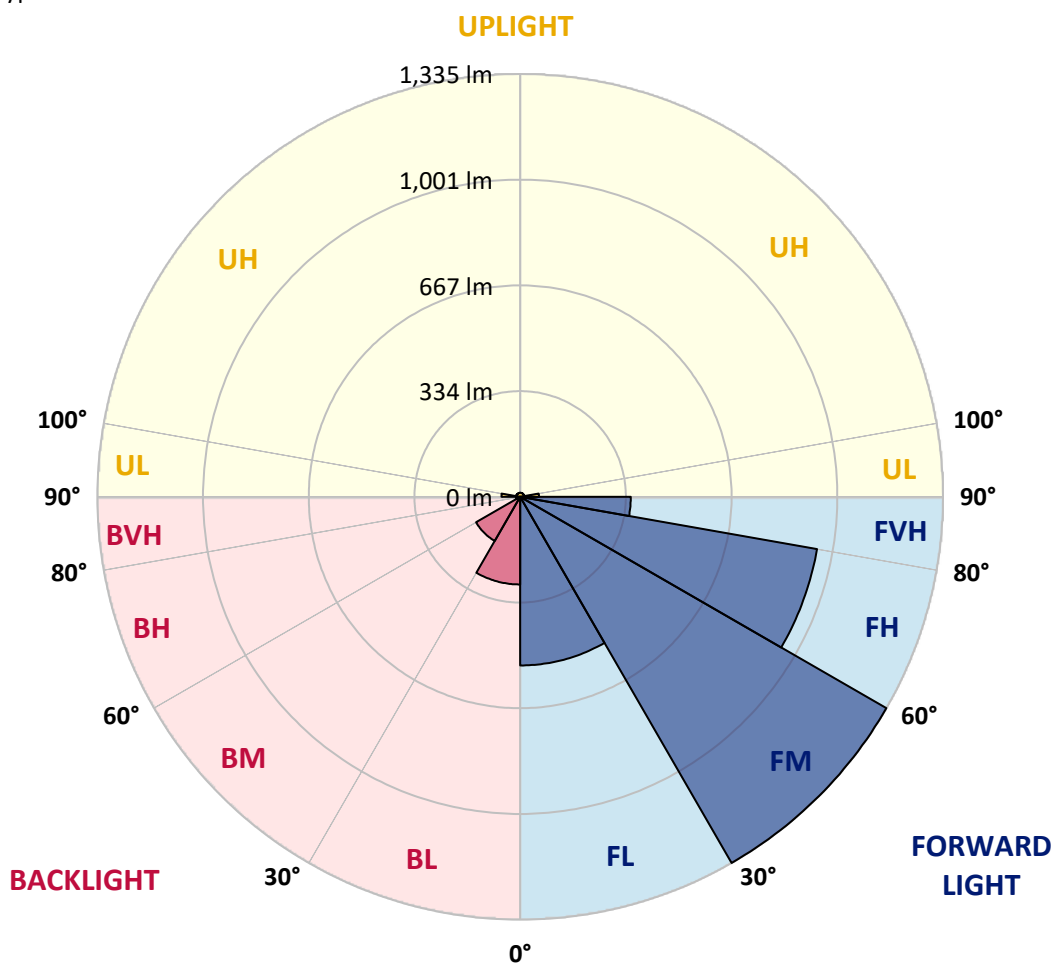
CATALOG NUMBER: AWPf28S-BZ-HIGH-4000K-POSITION 30

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	532.3	15.1			
FM	(30°-60°)	1334.9	37.9			
FH	(60°-80°)	951.6	27.0			G1/1800
FVH	(80°-90°)	349.1	9.9			G3/500
BL	(0°-30°)	276.7	7.9	B1/500		
BM	(30°-60°)	160.6	4.6	B0/220		
BH	(60°-80°)	13.4	0.4	B0/110		G0/110
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	59.3	1.7		U3/500	
UH	(100°-180°)	12.7	0.4		U2/50	
Trapped Light		-170.7	-4.8			

BUG Rating: B1-U3-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°
0°	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3	1119.3
0.5°	1132.0	1130.3	1125.7	1119.1	1113.0	1108.2	1107.1
1°	1144.7	1141.0	1132.2	1119.0	1106.6	1097.2	1094.4
1.5°	1157.0	1151.7	1138.5	1118.7	1100.2	1086.4	1081.9
2°	1169.5	1162.2	1144.2	1118.3	1093.9	1075.6	1069.2
2.5°	1182.0	1172.9	1149.9	1117.9	1087.4	1064.5	1057.1
3°	1193.7	1182.8	1155.7	1117.3	1080.7	1053.9	1044.7
3.5°	1205.8	1192.8	1161.7	1116.7	1073.7	1043.1	1033.1
4°	1216.7	1202.6	1167.1	1115.9	1066.8	1032.7	1021.6
4.5°	1227.1	1211.7	1172.1	1115.0	1060.1	1023.1	1010.6
5°	1237.3	1220.0	1177.6	1113.7	1053.1	1013.1	1000.0
5.5°	1247.5	1228.8	1182.4	1112.4	1046.0	1003.2	987.9
6°	1257.3	1237.6	1187.5	1111.1	1038.8	991.8	974.2
6.5°	1266.6	1245.3	1192.2	1109.7	1031.8	979.6	959.8
7°	1275.9	1253.0	1196.7	1108.3	1024.8	966.7	943.7
7.5°	1285.0	1260.6	1201.0	1106.4	1017.7	952.3	927.2
8°	1292.9	1268.0	1204.9	1104.6	1011.2	937.3	910.6
8.5°	1301.0	1275.2	1208.8	1102.4	1004.3	922.7	894.7
9°	1308.7	1281.9	1212.8	1100.5	996.9	908.7	877.5
9.5°	1315.9	1288.5	1217.0	1098.2	989.8	892.9	859.6
10°	1322.2	1294.7	1221.0	1095.9	982.0	877.2	842.6
10.5°	1328.6	1301.0	1224.5	1093.5	973.8	861.2	824.6
11°	1334.1	1306.3	1228.2	1090.9	964.9	845.4	807.0
11.5°	1339.5	1311.4	1231.6	1088.2	956.1	829.3	789.9
12°	1344.8	1316.7	1235.0	1085.1	946.4	813.3	773.3
12.5°	1349.8	1321.1	1237.9	1082.0	936.5	797.3	754.7
13°	1354.3	1325.3	1240.7	1078.6	925.8	782.0	735.4
13.5°	1358.7	1328.9	1243.3	1075.2	914.9	765.6	714.7
14°	1363.2	1332.4	1245.8	1071.7	903.8	748.9	693.7
14.5°	1367.1	1335.8	1248.1	1067.9	892.6	730.3	673.4
15°	1371.4	1339.3	1250.1	1064.2	881.5	712.1	651.8
15.5°	1375.6	1342.6	1251.8	1060.1	869.9	693.0	631.4
16°	1379.8	1346.2	1253.4	1055.8	857.7	673.6	609.9
16.5°	1383.6	1348.9	1254.8	1051.2	846.0	653.6	588.0
17°	1387.4	1351.9	1256.1	1046.2	834.2	633.8	567.9
17.5°	1390.9	1354.7	1257.1	1041.3	821.8	613.7	547.6
18°	1394.5	1357.4	1257.7	1036.1	809.4	593.7	527.9
18.5°	1398.7	1359.7	1258.3	1030.8	796.2	574.1	506.8
19°	1401.9	1362.1	1258.5	1025.4	783.3	554.5	485.7
19.5°	1404.7	1364.7	1258.6	1020.0	770.2	536.0	465.0
20°	1408.1	1366.8	1258.8	1014.5	757.5	517.5	439.5
20.5°	1411.5	1368.8	1258.8	1009.1	745.3	498.7	412.1
21°	1414.6	1371.1	1258.5	1003.0	733.1	480.1	387.3
21.5°	1417.9	1373.4	1258.0	996.5	719.9	460.2	365.5
22°	1421.1	1374.9	1257.3	990.1	706.5	440.7	345.5

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
22.5°	1424.6	1376.8	1256.4	983.2	692.3	416.7	327.2
23°	1428.2	1378.5	1255.4	976.1	676.9	392.5	311.0
23.5°	1431.4	1380.3	1253.7	969.1	660.9	369.5	296.6
24°	1434.4	1382.2	1252.1	961.9	646.0	349.2	282.3
24.5°	1437.4	1383.8	1250.4	954.9	630.8	331.0	268.0
25°	1440.6	1385.9	1249.0	948.0	613.8	314.8	253.6
25.5°	1444.0	1387.8	1246.9	940.7	596.9	301.2	232.7
26°	1447.1	1389.7	1244.5	933.1	579.9	287.6	206.2
26.5°	1450.4	1391.6	1241.8	925.6	563.0	274.0	177.4
27°	1453.7	1393.1	1238.9	918.2	546.1	260.3	154.0
27.5°	1456.6	1394.6	1235.8	910.6	530.1	245.4	134.6
28°	1459.9	1396.4	1232.3	903.3	513.4	227.3	116.9
28.5°	1462.8	1398.0	1228.8	895.8	496.8	203.1	98.9
29°	1465.9	1399.5	1225.2	887.7	480.5	177.5	77.6
29.5°	1469.2	1401.2	1221.9	879.2	464.2	154.0	56.9
30°	1472.6	1402.4	1218.1	870.5	448.4	134.0	42.8
30.5°	1475.5	1403.8	1214.4	862.2	432.7	117.5	37.0
31°	1478.1	1405.5	1210.7	853.7	417.3	101.5	34.8
31.5°	1481.2	1406.7	1207.0	845.4	401.9	84.0	33.6
32°	1483.9	1407.7	1203.4	836.6	386.9	65.4	32.7
32.5°	1486.9	1409.1	1199.5	827.3	372.8	50.3	32.0
33°	1489.5	1410.4	1196.0	817.7	359.0	40.8	31.1
33.5°	1492.5	1411.4	1192.4	807.9	344.3	36.6	30.2
34°	1495.2	1412.5	1188.6	798.3	330.3	34.8	29.2
34.5°	1498.1	1413.5	1184.5	788.3	316.7	33.5	28.1
35°	1501.1	1414.3	1180.3	777.4	303.6	32.5	26.9
35.5°	1503.7	1415.3	1176.6	766.8	289.4	31.8	25.9
36°	1506.6	1416.0	1172.7	756.1	274.4	31.2	25.3
36.5°	1509.5	1416.8	1168.5	745.1	259.1	30.4	25.0
37°	1512.0	1417.4	1164.3	733.8	245.1	29.8	24.8
37.5°	1514.6	1417.9	1159.7	722.7	231.7	29.2	24.6
38°	1517.0	1418.6	1155.2	711.0	218.5	28.7	24.2
38.5°	1519.2	1419.2	1150.7	699.1	204.7	28.3	23.8
39°	1521.8	1419.7	1146.2	687.5	188.1	27.8	23.3
39.5°	1524.4	1420.5	1141.7	675.9	168.5	27.2	22.8
40°	1526.5	1420.9	1136.6	663.6	146.0	26.3	22.3
40.5°	1528.5	1420.9	1131.6	651.5	122.5	25.4	21.7
41°	1530.7	1421.0	1126.5	639.3	100.4	24.6	21.4
41.5°	1533.3	1421.5	1121.7	627.2	82.8	23.7	21.3
42°	1535.5	1422.1	1117.3	615.1	69.7	22.7	21.5
42.5°	1537.1	1422.7	1112.0	603.0	60.4	21.6	22.5
43°	1539.2	1422.8	1106.7	591.1	54.2	21.0	25.5
43.5°	1540.7	1422.6	1101.8	579.3	49.9	20.4	36.7
44°	1541.5	1422.5	1096.2	567.2	46.3	19.7	62.3
44.5°	1542.6	1422.3	1090.7	555.4	43.5	18.9	85.8

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
45°	1543.7	1421.9	1085.1	543.2	41.1	18.4	104.6
45.5°	1544.4	1421.1	1079.2	531.3	39.4	17.9	136.3
46°	1545.3	1420.6	1073.2	518.8	37.7	17.5	150.9
46.5°	1545.8	1420.3	1067.2	506.3	35.6	17.3	140.7
47°	1546.3	1419.9	1061.4	493.5	33.5	17.1	135.1
47.5°	1546.5	1419.5	1055.3	481.2	32.1	16.9	131.9
48°	1546.4	1419.1	1048.9	469.0	31.0	16.8	126.1
48.5°	1546.5	1418.3	1042.6	456.5	30.0	16.9	118.1
49°	1546.1	1418.0	1035.8	443.4	29.0	17.5	105.4
49.5°	1546.0	1417.6	1029.2	430.5	28.2	19.3	92.7
50°	1546.1	1416.6	1022.5	417.9	27.3	25.9	79.1
50.5°	1546.4	1415.8	1015.4	404.8	26.6	39.1	64.1
51°	1546.5	1414.5	1008.4	391.7	25.7	53.5	51.1
51.5°	1546.5	1413.2	1001.3	378.5	24.8	58.9	41.9
52°	1547.0	1411.4	993.9	365.7	24.0	70.3	35.5
52.5°	1547.2	1410.1	986.5	352.1	23.3	83.2	30.3
53°	1547.1	1407.9	978.8	338.1	22.6	76.6	25.5
53.5°	1547.1	1406.1	971.1	324.4	21.9	71.1	21.4
54°	1547.2	1404.6	963.7	310.3	21.3	68.3	17.5
54.5°	1547.0	1403.3	956.1	295.6	20.7	66.0	14.6
55°	1546.8	1402.3	948.3	280.9	20.2	64.4	12.5
55.5°	1546.4	1401.1	940.4	266.2	19.6	62.5	11.0
56°	1545.5	1399.9	932.3	251.5	19.1	60.1	9.6
56.5°	1545.2	1398.8	924.6	236.3	18.7	57.5	8.6
57°	1544.5	1397.6	916.3	220.8	18.3	54.3	7.9
57.5°	1543.6	1396.6	908.1	206.2	17.8	51.0	7.3
58°	1542.6	1395.7	900.4	192.9	17.3	47.5	6.7
58.5°	1541.5	1394.2	892.2	180.9	16.7	43.8	6.2
59°	1540.5	1393.0	883.5	171.0	16.1	39.9	5.7
59.5°	1539.4	1391.5	875.3	162.7	15.5	36.1	5.1
60°	1538.0	1390.1	867.2	156.8	14.8	31.9	4.5
60.5°	1536.3	1388.1	859.5	153.0	14.2	27.9	3.7
61°	1535.5	1386.0	851.5	150.1	13.5	24.3	3.1
61.5°	1534.4	1383.6	843.8	141.1	12.9	21.0	2.7
62°	1533.7	1380.8	835.4	123.0	12.0	17.9	2.6
62.5°	1532.3	1378.3	826.9	101.6	11.2	14.4	2.5
63°	1530.8	1375.5	819.0	85.5	10.6	10.0	2.4
63.5°	1529.1	1372.2	810.7	77.1	10.0	5.3	2.3
64°	1527.6	1369.0	802.7	73.2	9.5	2.6	2.0
64.5°	1525.4	1365.8	793.8	70.8	9.0	1.8	1.8
65°	1523.4	1362.9	784.3	68.5	8.6	1.7	1.6
65.5°	1521.6	1359.6	775.5	66.2	8.1	1.7	1.4
66°	1519.1	1356.6	766.2	64.1	7.7	1.7	1.3
66.5°	1516.4	1353.6	757.2	62.3	7.3	1.6	1.3
67°	1513.7	1350.7	748.6	60.5	6.8	1.5	1.2

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
67.5°	1511.1	1348.3	739.8	58.8	6.4	1.3	1.0
68°	1509.1	1346.5	730.8	57.3	5.9	1.0	1.0
68.5°	1506.8	1344.0	721.9	55.9	5.4	0.9	0.9
69°	1504.4	1341.5	712.9	54.8	4.9	0.8	0.8
69.5°	1502.7	1338.7	703.8	53.7	4.2	0.8	0.8
70°	1500.7	1335.9	695.2	52.8	3.7	0.8	0.8
70.5°	1499.7	1333.2	686.3	51.8	3.2	0.8	0.8
71°	1499.1	1330.9	677.2	50.9	3.0	0.8	0.8
71.5°	1498.2	1328.2	668.8	50.1	2.7	0.8	0.7
72°	1496.7	1325.8	660.8	49.2	2.3	0.7	0.7
72.5°	1496.0	1323.4	652.4	48.3	2.1	0.7	0.7
73°	1494.9	1320.5	644.6	47.2	1.9	0.7	0.8
73.5°	1490.9	1317.1	635.2	46.4	1.6	0.7	0.8
74°	1484.1	1313.7	625.7	45.0	1.3	0.7	0.8
74.5°	1473.6	1310.8	616.2	42.4	1.1	0.7	0.9
75°	1460.4	1309.7	607.0	39.5	1.0	0.7	0.9
75.5°	1443.5	1308.2	598.5	36.2	0.9	0.7	0.9
76°	1423.6	1305.4	590.8	33.2	0.9	0.7	1.0
76.5°	1398.6	1301.5	583.2	29.2	0.8	0.7	1.0
77°	1369.6	1294.8	575.6	25.8	0.7	0.7	1.0
77.5°	1338.4	1285.8	567.9	23.3	0.6	0.6	1.1
78°	1306.2	1274.6	560.3	21.2	0.6	0.6	1.1
78.5°	1273.0	1259.8	554.2	19.2	0.5	0.6	1.2
79°	1240.9	1240.7	548.5	17.6	0.5	0.6	1.2
79.5°	1210.1	1219.3	542.9	16.0	0.5	0.6	1.2
80°	1182.0	1195.4	538.3	14.6	0.5	0.6	1.2
80.5°	1159.5	1174.0	533.5	13.5	0.5	0.6	1.3
81°	1138.4	1156.6	528.3	12.1	0.5	0.7	1.3
81.5°	1121.8	1146.2	523.0	10.9	0.5	0.7	1.4
82°	1107.8	1143.4	518.3	9.8	0.5	0.7	1.5
82.5°	1094.0	1145.9	515.2	9.0	0.5	0.8	1.5
83°	1086.9	1149.8	513.7	8.2	0.5	0.8	1.5
83.5°	1083.2	1154.1	514.5	7.5	0.5	0.9	1.6
84°	1081.7	1145.5	516.7	6.8	0.5	0.9	1.6
84.5°	1081.2	1119.6	519.9	6.2	0.6	0.9	1.7
85°	1084.2	1078.4	523.9	5.7	0.6	0.9	1.8
85.5°	1073.2	1021.1	526.8	5.3	0.6	1.0	1.8
86°	1033.5	947.3	525.6	4.8	0.7	1.0	1.8
86.5°	961.2	861.2	523.6	4.4	0.7	1.1	1.9
87°	862.0	786.1	519.1	4.0	0.7	1.1	1.9
87.5°	785.7	719.3	505.8	3.6	0.7	1.2	2.0
88°	709.3	658.5	486.1	3.3	0.7	1.2	2.1
88.5°	633.0	596.0	460.0	2.9	0.8	1.2	2.1
89°	556.6	525.1	426.8	2.6	0.8	1.3	2.2
89.5°	481.1	496.1	387.0	2.3	0.8	1.3	2.2

REPORT NUMBER: P1197019

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
90°	450.0	506.0	343.1	1.8	0.9	1.4	2.3
90.5°	444.3	520.6	295.2	1.6	0.9	1.4	2.3
91°	468.7	496.6	247.9	1.4	0.9	1.5	2.4
91.5°	477.3	417.1	203.2	1.3	1.0	1.5	2.4
92°	396.3	297.6	167.9	1.2	1.0	1.6	2.5
92.5°	257.4	233.3	139.9	1.1	1.1	1.6	2.5
93°	162.5	170.3	113.9	1.0	1.1	1.6	2.6
93.5°	89.9	107.4	89.1	0.9	1.1	1.7	2.7
94°	49.6	44.6	70.1	0.8	1.1	1.8	2.7
94.5°	41.3	36.0	57.3	0.8	1.2	1.8	2.7
95°	41.6	32.7	51.0	0.7	1.2	1.9	2.8
95.5°	40.8	30.5	50.1	0.7	1.3	1.9	2.8
96°	39.6	29.4	52.4	0.7	1.3	1.9	2.8
96.5°	40.3	29.9	55.2	0.7	1.3	2.0	2.9
97°	44.2	31.4	59.2	0.7	1.4	2.0	2.9
97.5°	45.1	30.2	56.3	0.7	1.4	2.1	3.0
98°	41.0	27.8	44.8	0.7	1.4	2.1	3.0
98.5°	35.4	26.5	32.5	0.6	1.5	2.2	3.0
99°	31.4	25.5	23.2	0.6	1.5	2.2	3.1
99.5°	30.5	23.3	19.7	0.6	1.6	2.3	3.1
100°	30.3	22.0	16.5	0.6	1.6	2.3	3.1
100.5°	28.6	21.5	13.8	0.6	1.6	2.4	3.2
101°	26.8	21.2	11.9	0.6	1.7	2.4	3.3
101.5°	25.0	20.6	10.4	0.6	1.7	2.4	3.3
102°	22.7	19.2	8.8	0.6	1.7	2.5	3.3
102.5°	20.0	17.1	7.0	0.6	1.7	2.5	3.3
103°	17.1	14.4	5.7	0.6	1.8	2.6	3.4
103.5°	14.5	11.6	4.8	0.6	1.8	2.6	3.4
104°	12.5	9.1	4.0	0.6	1.9	2.7	3.4
104.5°	11.2	7.0	3.3	0.6	1.9	2.7	3.5
105°	10.3	5.0	2.7	0.7	1.9	2.7	3.5
105.5°	9.2	3.7	2.3	0.7	2.0	2.8	3.5
106°	7.6	2.8	2.0	0.7	2.0	2.8	3.6
106.5°	5.7	2.3	1.7	0.7	2.0	2.8	3.6
107°	3.9	1.8	1.5	0.7	2.0	2.9	3.7
107.5°	2.4	1.5	1.2	0.7	2.1	2.9	3.7
108°	1.7	1.2	1.0	0.7	2.1	2.9	3.7
108.5°	1.3	1.0	0.9	0.8	2.1	2.9	3.7
109°	1.1	0.8	0.7	0.8	2.2	3.0	3.7
109.5°	0.8	0.5	0.7	0.8	2.2	3.0	3.7
110°	0.6	0.4	0.6	0.9	2.2	3.1	3.7
110.5°	0.4	0.2	0.5	0.9	2.2	3.1	3.7
111°	0.2	0.1	0.4	0.9	2.3	3.1	3.8
111.5°	0.0	0.0	0.4	0.9	2.3	3.1	3.7
112°	0.0	0.0	0.3	0.9	2.3	3.2	3.8

REPORT NUMBER: P1197019

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
112.5°	0.0	0.0	0.2	0.9	2.3	3.2	3.8
113°	0.0	0.0	0.2	0.9	2.4	3.2	3.8
113.5°	0.0	0.0	0.1	0.9	2.4	3.2	3.8
114°	0.0	0.0	0.1	1.0	2.4	3.2	3.8
114.5°	0.0	0.0	0.1	1.0	2.5	3.3	3.8
115°	0.0	0.0	0.1	1.0	2.5	3.3	3.9
115.5°	0.0	0.0	0.1	1.0	2.5	3.4	3.9
116°	0.0	0.0	0.1	1.0	2.5	3.4	3.9
116.5°	0.0	0.0	0.1	1.1	2.6	3.4	3.9
117°	0.0	0.0	0.1	1.1	2.6	3.4	3.9
117.5°	0.0	0.0	0.1	1.1	2.6	3.4	3.9
118°	0.0	0.0	0.1	1.1	2.6	3.4	3.9
118.5°	0.0	0.0	0.1	1.2	2.6	3.4	3.9
119°	0.0	0.0	0.2	1.2	2.6	3.5	3.9
119.5°	0.0	0.0	0.2	1.2	2.7	3.5	3.9
120°	0.0	0.0	0.2	1.2	2.7	3.5	4.0
120.5°	0.0	0.0	0.2	1.2	2.7	3.5	3.9
121°	0.0	0.0	0.2	1.2	2.7	3.5	3.9
121.5°	0.0	0.0	0.2	1.2	2.8	3.6	4.0
122°	0.0	0.0	0.3	1.3	2.8	3.6	4.0
122.5°	0.0	0.0	0.3	1.3	2.8	3.6	4.0
123°	0.0	0.0	0.3	1.3	2.8	3.7	4.0
123.5°	0.0	0.0	0.3	1.3	2.8	3.7	4.0
124°	0.0	0.0	0.4	1.3	2.8	3.7	4.0
124.5°	0.0	0.0	0.4	1.4	2.9	3.7	4.0
125°	0.0	0.0	0.4	1.4	2.9	3.7	4.0
125.5°	0.0	0.0	0.4	1.4	2.9	3.7	4.0
126°	0.0	0.0	0.4	1.5	2.9	3.7	4.0
126.5°	0.0	0.0	0.4	1.5	2.9	3.7	4.0
127°	0.0	0.0	0.5	1.5	2.9	3.7	4.0
127.5°	0.0	0.0	0.5	1.5	2.9	3.7	4.0
128°	0.0	0.0	0.5	1.5	2.9	3.7	4.0
128.5°	0.0	0.0	0.5	1.5	2.9	3.7	4.0
129°	0.0	0.0	0.6	1.5	3.0	3.8	4.0
129.5°	0.0	0.0	0.6	1.6	3.0	3.8	4.0
130°	0.0	0.0	0.6	1.6	3.0	3.8	4.0
130.5°	0.0	0.0	0.6	1.6	3.0	3.8	4.0
131°	0.0	0.0	0.7	1.6	3.0	3.8	4.1
131.5°	0.0	0.0	0.7	1.6	3.0	3.8	4.1
132°	0.0	0.0	0.7	1.7	3.0	3.8	4.1
132.5°	0.0	0.0	0.7	1.7	3.0	3.8	4.1
133°	0.0	0.0	0.8	1.7	3.0	3.8	4.1
133.5°	0.0	0.0	0.8	1.8	3.1	3.8	4.1
134°	0.0	0.0	0.8	1.8	3.1	3.8	4.1
134.5°	0.0	0.0	0.8	1.8	3.1	3.8	4.1

REPORT NUMBER: P1197019

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
135°	0.0	0.0	0.8	1.8	3.1	3.8	4.1
135.5°	0.0	0.1	0.9	1.8	3.1	3.8	4.1
136°	0.0	0.1	0.9	1.8	3.1	3.8	4.1
136.5°	0.0	0.1	0.9	1.8	3.1	3.8	4.1
137°	0.0	0.1	0.9	1.9	3.1	3.8	4.1
137.5°	0.0	0.1	1.0	1.9	3.1	3.8	4.1
138°	0.1	0.1	1.0	1.9	3.1	3.8	4.1
138.5°	0.1	0.2	1.0	1.9	3.1	3.8	4.1
139°	0.1	0.2	1.1	2.0	3.1	3.8	4.1
139.5°	0.1	0.3	1.1	2.0	3.1	3.8	4.1
140°	0.1	0.3	1.1	2.0	3.1	3.8	4.1
140.5°	0.1	0.3	1.1	2.1	3.2	3.8	4.1
141°	0.1	0.3	1.1	2.1	3.2	3.8	4.1
141.5°	0.1	0.3	1.2	2.1	3.2	3.8	4.1
142°	0.1	0.4	1.2	2.1	3.2	3.8	4.0
142.5°	0.2	0.4	1.2	2.1	3.2	3.8	4.0
143°	0.2	0.4	1.2	2.1	3.2	3.8	4.0
143.5°	0.2	0.4	1.3	2.1	3.2	3.8	4.0
144°	0.2	0.4	1.3	2.2	3.2	3.8	4.0
144.5°	0.2	0.4	1.3	2.2	3.2	3.8	4.0
145°	0.2	0.5	1.4	2.2	3.2	3.8	4.0
145.5°	0.3	0.5	1.4	2.2	3.2	3.8	3.9
146°	0.3	0.5	1.4	2.2	3.2	3.8	3.9
146.5°	0.3	0.6	1.4	2.2	3.2	3.8	3.9
147°	0.3	0.6	1.4	2.2	3.2	3.8	3.9
147.5°	0.4	0.6	1.5	2.3	3.2	3.8	3.9
148°	0.4	0.6	1.5	2.3	3.2	3.8	3.9
148.5°	0.4	0.7	1.5	2.3	3.2	3.8	3.9
149°	0.4	0.7	1.6	2.3	3.2	3.8	3.9
149.5°	0.4	0.7	1.6	2.4	3.3	3.8	3.8
150°	0.5	0.7	1.6	2.4	3.3	3.8	3.8
150.5°	0.5	0.8	1.6	2.4	3.3	3.8	3.8
151°	0.5	0.9	1.6	2.4	3.3	3.8	3.8
151.5°	0.5	0.9	1.7	2.4	3.3	3.8	3.8
152°	0.6	0.9	1.7	2.4	3.3	3.8	3.8
152.5°	0.6	0.9	1.7	2.4	3.3	3.8	3.8
153°	0.6	0.9	1.7	2.4	3.3	3.8	3.8
153.5°	0.7	1.0	1.7	2.5	3.3	3.8	3.7
154°	0.7	1.0	1.8	2.5	3.3	3.8	3.8
154.5°	0.7	1.0	1.8	2.5	3.3	3.8	3.7
155°	0.7	1.0	1.8	2.6	3.4	3.8	3.7
155.5°	0.8	1.1	1.9	2.6	3.4	3.8	3.7
156°	0.8	1.2	1.9	2.6	3.4	3.8	3.7
156.5°	0.8	1.2	1.9	2.6	3.4	3.8	3.7
157°	0.8	1.2	1.9	2.6	3.4	3.8	3.7

REPORT NUMBER: P1197019

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
157.5°	0.9	1.2	2.0	2.6	3.4	3.8	3.6
158°	0.9	1.2	2.0	2.6	3.4	3.8	3.6
158.5°	0.9	1.3	2.0	2.7	3.4	3.8	3.6
159°	1.0	1.3	2.0	2.7	3.4	3.7	3.6
159.5°	1.0	1.3	2.0	2.7	3.4	3.7	3.6
160°	1.0	1.4	2.1	2.7	3.4	3.7	3.5
160.5°	1.1	1.4	2.1	2.7	3.4	3.7	3.5
161°	1.1	1.5	2.1	2.7	3.4	3.7	3.5
161.5°	1.1	1.5	2.2	2.7	3.4	3.7	3.5
162°	1.1	1.5	2.2	2.7	3.4	3.7	3.5
162.5°	1.2	1.5	2.2	2.7	3.4	3.7	3.5
163°	1.2	1.5	2.2	2.8	3.4	3.6	3.4
163.5°	1.2	1.6	2.2	2.8	3.4	3.6	3.4
164°	1.3	1.6	2.3	2.8	3.4	3.6	3.4
164.5°	1.3	1.6	2.3	2.8	3.4	3.6	3.4
165°	1.3	1.7	2.3	2.8	3.4	3.6	3.3
165.5°	1.3	1.8	2.3	2.8	3.4	3.6	3.3
166°	1.4	1.8	2.3	2.9	3.4	3.6	3.3
166.5°	1.4	1.8	2.4	2.9	3.4	3.6	3.3
167°	1.4	1.8	2.4	2.9	3.4	3.5	3.3
167.5°	1.5	1.8	2.4	2.9	3.4	3.6	3.2
168°	1.5	1.9	2.5	2.9	3.4	3.5	3.2
168.5°	1.6	1.9	2.5	2.9	3.3	3.5	3.2
169°	1.6	1.9	2.5	2.9	3.3	3.5	3.2
169.5°	1.6	1.9	2.5	2.9	3.3	3.5	3.1
170°	1.7	2.0	2.6	2.9	3.3	3.5	3.1
170.5°	1.7	2.0	2.6	2.9	3.3	3.5	3.1
171°	1.7	2.1	2.6	2.9	3.2	3.5	3.1
171.5°	1.7	2.1	2.6	2.9	3.2	3.4	3.0
172°	1.8	2.1	2.6	2.9	3.2	3.4	3.0
172.5°	1.8	2.1	2.7	3.0	3.2	3.4	3.0
173°	1.9	2.2	2.7	3.0	3.2	3.3	2.9
173.5°	1.9	2.2	2.7	3.0	3.2	3.3	2.9
174°	1.9	2.2	2.8	3.0	3.2	3.3	2.9
174.5°	2.0	2.3	2.8	3.0	3.2	3.3	2.8
175°	2.0	2.3	2.8	3.0	3.2	3.3	2.8
175.5°	2.0	2.4	2.8	3.1	3.2	3.3	2.8
176°	2.1	2.4	2.8	3.1	3.2	3.2	2.7
176.5°	2.1	2.4	2.8	3.1	3.2	3.2	2.7
177°	2.2	2.4	2.9	3.1	3.2	3.2	2.6
177.5°	2.2	2.5	2.9	3.1	3.2	3.2	2.6
178°	2.3	2.5	2.9	3.1	3.2	3.2	2.6
178.5°	2.3	2.5	2.9	3.1	3.1	3.2	2.5
179°	2.3	2.6	2.9	3.1	3.1	3.1	2.5
179.5°	2.3	2.6	2.9	3.1	3.1	3.1	2.5



REPORT NUMBER: P1197019
CATALOG NUMBER: AWPf28S-BZ-HIGH-4000K-POSITION 30

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
180°	3.1	3.1	3.1	3.1	3.1	3.1	3.1

(END OF REPORT)