

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: P1197173

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

Issue Date: 10/29/2025

Test Information

Test Method: LM-79-2019
Report Number: P1197173
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-LOW-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: 2718.4 lumens
Efficiency: 79.4%
Efficacy: 133.3 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): 20.4
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

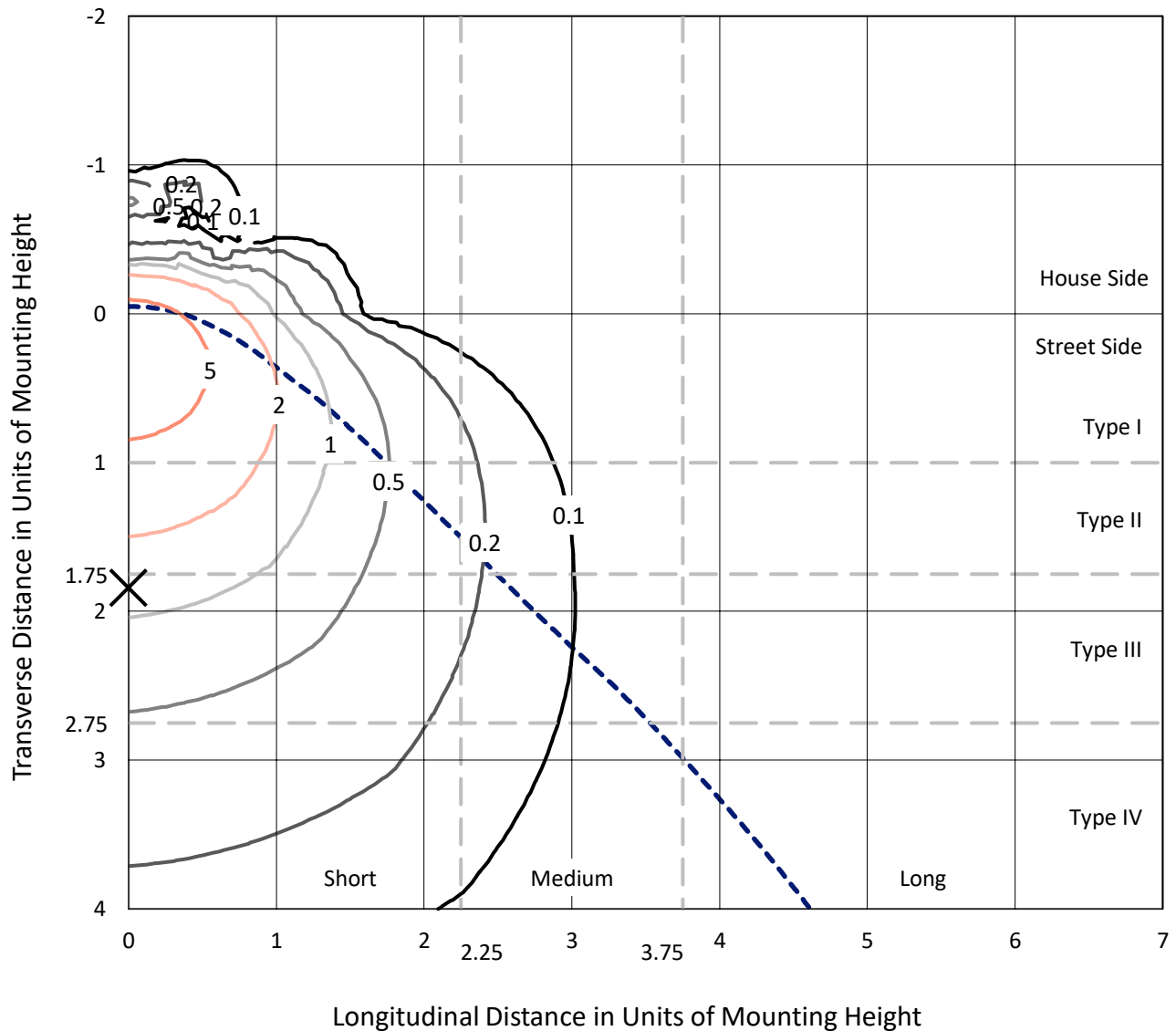
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

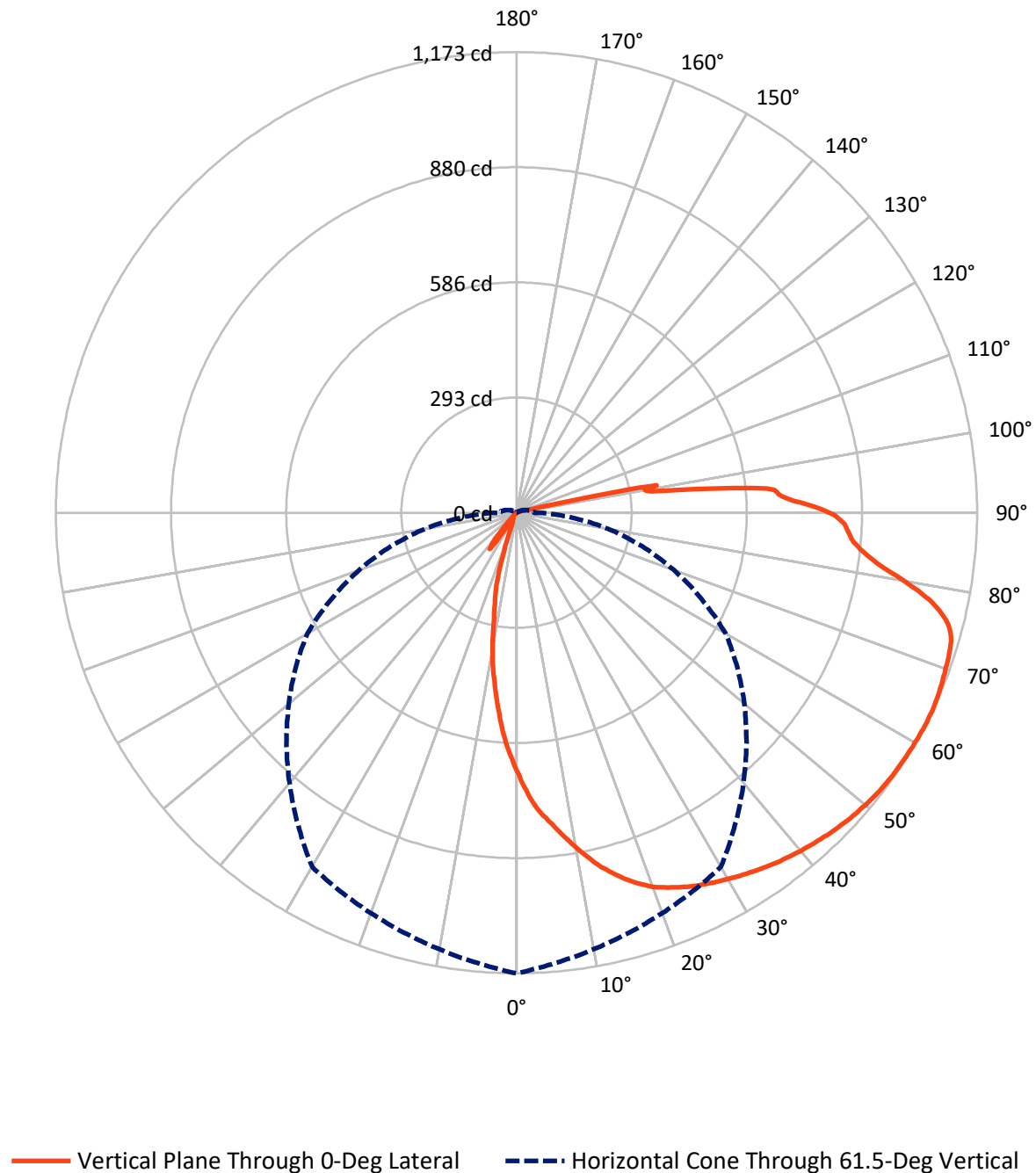


Based on 10 foot mounting height. Maximum calculated value = 8.6 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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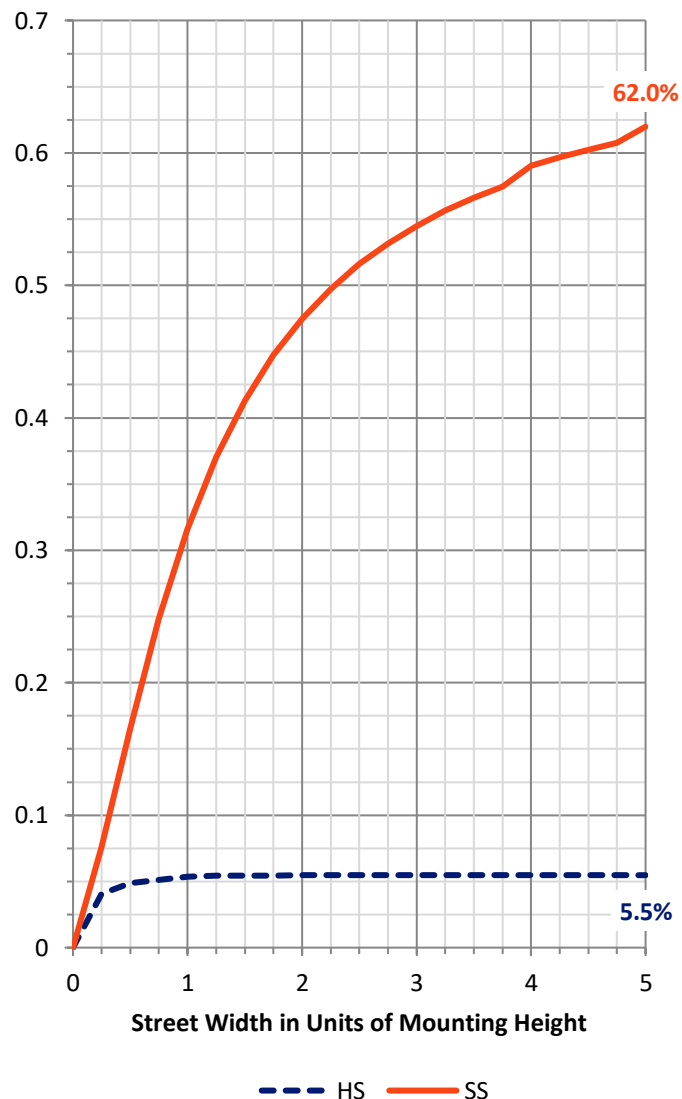
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	189.6	6.4	195.9
	% Lamp	5.5	0.2	5.7
Street Side	Lumens	2332.8	189.7	2522.5
	% Lamp	68.2	5.5	73.7
Total	Lumens	2522.3	196.1	2718.4
	% Lamp	73.7	5.7	79.4

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	61.9	2.3	1.8
10°-20°	168.1	6.2	4.9
20°-30°	243.7	9.0	7.1
30°-40°	306.1	11.3	8.9
40°-50°	353.1	13.0	10.3
50°-60°	365.8	13.5	10.7
60°-70°	370.3	13.6	10.8
70°-80°	359.7	13.2	10.5
80°-90°	293.5	10.8	8.6
90°-100°	175.2	6.4	5.1
100°-110°	14.9	0.5	0.4
110°-120°	1.7	0.1	0.0
120°-130°	1.1	0.0	0.0
130°-140°	1.0	0.0	0.0
140°-150°	0.9	0.0	0.0
150°-160°	0.7	0.0	0.0
160°-170°	0.5	0.0	0.0
170°-180°	0.2	0.0	0.0
0°-90°	2522.3	92.8	73.7
0°-180°	2718.4	100.0	79.4

Coefficient of Utilization



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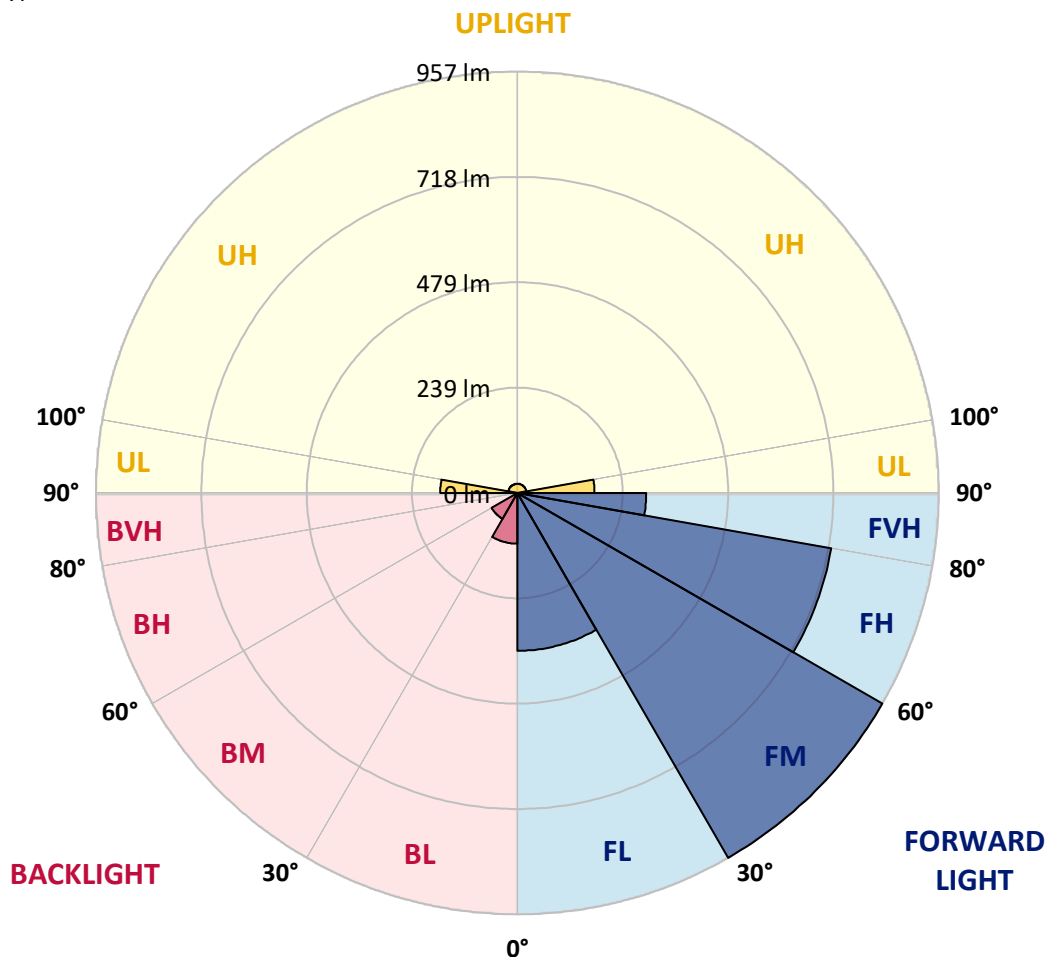
CATALOG NUMBER: AWPS28S-BZ-LOW-4000K-POSITION 45

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	358.6	10.5			
FM	(30°-60°)	957.4	28.0			
FH	(60°-80°)	724.1	21.2			G1/1800
FVH	(80°-90°)	292.8	8.6			G3/500
BL	(0°-30°)	115.2	3.4	B1/500		
BM	(30°-60°)	67.7	2.0	B0/220		
BH	(60°-80°)	5.9	0.2	B0/110		G0/110
BVH	(80°-90°)	0.8	0.0			G0/10
UL	(90°-100°)	175.2	5.1		U3/500	
UH	(100°-180°)	20.9	0.6		U2/50	
Trapped Light		703.6	20.6			

BUG Rating: B1-U3-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°
0°	666.7	666.7	666.7	666.7	666.7	666.7	666.7
0.5°	682.6	684.8	676.7	668.0	656.9	644.1	655.4
1°	695.4	695.6	683.5	667.8	650.3	632.7	642.2
1.5°	707.6	706.3	689.9	667.6	643.3	620.8	628.7
2°	720.2	717.2	695.4	667.1	636.4	609.3	615.3
2.5°	732.9	727.8	701.4	666.7	629.5	598.1	602.4
3°	744.0	737.7	707.4	666.1	622.2	586.6	589.0
3.5°	755.0	747.5	713.3	665.6	615.1	574.5	574.8
4°	764.6	756.1	719.1	665.0	608.1	561.8	559.9
4.5°	773.0	764.0	724.9	664.3	601.0	548.3	543.9
5°	781.3	771.0	729.9	663.5	593.9	534.1	528.2
5.5°	789.6	777.8	734.8	662.6	586.9	520.4	512.0
6°	798.3	784.8	739.6	661.4	579.3	506.3	495.7
6.5°	807.2	792.2	744.2	660.3	571.6	491.8	480.0
7°	816.5	799.8	748.5	659.0	563.6	477.9	463.8
7.5°	825.9	807.1	752.5	657.7	555.1	463.6	447.5
8°	835.5	814.9	755.9	656.3	546.8	449.3	431.6
8.5°	845.0	822.7	759.0	654.8	537.9	435.4	416.5
9°	854.3	830.6	762.1	653.2	529.0	421.2	401.2
9.5°	863.9	838.8	765.0	651.6	519.7	407.7	385.2
10°	873.4	846.4	767.8	649.7	510.2	394.5	368.8
10.5°	882.7	854.3	770.8	647.6	500.7	380.8	352.6
11°	892.0	862.2	773.8	645.5	491.3	366.2	331.9
11.5°	901.1	869.8	776.5	643.3	481.5	352.3	312.1
12°	910.5	877.2	779.5	641.1	471.6	336.7	293.3
12.5°	919.2	884.7	782.4	638.8	460.9	319.1	276.8
13°	927.7	892.2	785.3	636.3	450.2	300.9	261.9
13.5°	935.5	899.4	788.3	633.7	439.5	284.3	248.3
14°	943.0	906.8	790.9	631.0	428.8	269.4	236.6
14.5°	951.0	913.7	793.9	628.1	418.1	256.1	225.3
15°	958.0	920.2	797.0	625.0	408.3	243.7	214.0
15.5°	965.3	926.7	800.1	621.7	398.1	231.9	202.7
16°	972.3	932.9	802.9	618.5	388.4	222.2	191.4
16.5°	979.3	939.2	805.8	615.4	378.7	212.6	174.0
17°	985.6	945.3	808.7	612.2	368.9	202.9	153.2
17.5°	991.5	950.8	811.4	608.8	359.3	193.3	132.3
18°	997.5	956.3	813.8	604.8	349.5	180.6	115.5
18.5°	1003.0	961.8	816.0	600.7	339.2	165.2	100.7
19°	1008.3	967.0	818.2	596.5	328.7	146.5	88.2
19.5°	1013.2	971.9	820.4	592.1	318.2	128.5	73.2
20°	1017.8	976.8	822.3	587.6	308.0	112.3	56.5
20.5°	1021.9	981.0	824.2	583.2	298.3	99.1	41.6
21°	1025.7	985.2	826.2	578.9	287.5	87.4	33.2
21.5°	1029.6	989.1	828.0	574.4	275.5	75.5	29.7
22°	1033.1	992.7	829.6	569.7	263.6	62.0	28.2

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
22.5°	1036.5	996.2	831.4	565.5	252.3	47.9	27.3
23°	1040.1	999.3	833.0	560.8	241.5	36.4	26.4
23.5°	1043.2	1001.8	834.6	556.0	231.8	29.9	25.6
24°	1046.3	1004.6	835.9	551.2	223.1	27.3	25.0
24.5°	1049.3	1006.9	837.2	546.2	214.4	26.0	24.2
25°	1052.6	1009.1	838.3	541.3	206.2	25.3	23.4
25.5°	1055.5	1011.2	839.0	536.2	198.2	24.7	22.5
26°	1058.5	1013.4	839.8	531.2	190.1	24.4	21.5
26.5°	1061.1	1015.2	840.5	526.3	181.9	24.0	20.7
27°	1063.9	1017.0	841.1	521.1	174.5	23.7	20.2
27.5°	1066.7	1018.6	841.2	515.7	166.4	23.4	19.9
28°	1069.6	1020.1	841.4	510.1	156.9	23.0	19.7
28.5°	1072.0	1021.5	841.5	504.6	145.1	22.5	19.5
29°	1074.3	1022.6	841.5	498.6	131.5	22.0	19.2
29.5°	1076.8	1023.9	841.6	492.5	116.5	21.3	18.8
30°	1079.3	1025.1	841.6	486.6	101.7	20.7	18.4
30.5°	1081.8	1026.3	841.1	480.4	88.1	20.1	18.0
31°	1084.5	1027.3	840.7	474.1	76.1	19.4	17.5
31.5°	1086.9	1028.7	840.5	467.6	65.9	18.7	17.1
32°	1089.7	1029.7	840.0	461.0	57.3	18.1	16.7
32.5°	1092.2	1030.7	839.5	454.5	50.9	17.6	16.4
33°	1094.8	1031.7	839.1	448.1	45.4	17.2	16.5
33.5°	1097.1	1032.6	838.7	441.6	41.4	16.8	17.1
34°	1099.7	1033.4	838.2	434.8	38.0	16.4	19.8
34.5°	1102.2	1034.5	837.5	427.7	34.9	16.2	32.5
35°	1104.7	1035.7	836.4	420.5	31.5	15.9	53.7
35.5°	1106.8	1036.8	835.1	413.2	28.7	15.6	71.6
36°	1109.2	1038.0	833.8	405.8	26.9	15.3	86.5
36.5°	1111.5	1039.2	832.4	398.3	25.6	15.2	113.0
37°	1113.8	1040.4	830.8	390.8	24.6	15.0	114.8
37.5°	1115.7	1041.6	829.1	383.0	23.9	14.7	106.5
38°	1118.0	1042.5	827.2	375.4	23.2	14.4	103.5
38.5°	1120.2	1043.6	825.3	367.5	22.6	14.3	100.4
39°	1122.5	1044.9	823.2	359.7	21.9	14.3	95.5
39.5°	1124.5	1045.9	820.8	351.7	21.2	14.7	88.1
40°	1126.4	1046.7	818.2	343.5	20.6	17.1	78.2
40.5°	1128.5	1047.6	815.3	335.3	20.2	25.2	68.5
41°	1130.3	1048.5	812.7	326.7	19.9	38.4	57.0
41.5°	1132.1	1049.1	810.0	318.5	19.6	48.1	45.6
42°	1134.2	1049.8	806.9	309.7	19.3	52.0	36.4
42.5°	1136.1	1050.2	803.6	300.4	18.9	64.9	30.3
43°	1137.9	1050.5	800.4	291.9	18.5	73.3	26.0
43.5°	1140.0	1050.8	796.9	283.1	17.9	65.8	22.2
44°	1141.8	1051.0	793.0	274.8	17.4	61.9	18.9
44.5°	1143.6	1051.1	789.4	266.2	16.9	59.6	15.7

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
45°	1145.2	1051.4	785.5	257.3	16.4	57.7	13.0
45.5°	1147.1	1051.5	781.5	248.2	16.0	55.9	11.1
46°	1148.6	1051.6	777.3	239.2	15.7	53.7	9.6
46.5°	1150.1	1051.9	772.8	230.0	15.3	51.1	8.5
47°	1151.6	1051.7	768.6	221.1	15.0	48.5	7.6
47.5°	1152.9	1052.0	764.1	212.3	14.7	45.9	6.9
48°	1154.5	1052.0	759.4	203.4	14.3	43.3	6.5
48.5°	1156.0	1052.3	754.8	194.6	14.0	40.5	6.0
49°	1157.2	1052.4	750.3	186.7	13.5	36.9	5.6
49.5°	1158.5	1052.1	745.5	178.6	13.1	33.4	5.2
50°	1159.8	1052.0	741.1	171.2	12.6	29.9	4.8
50.5°	1161.3	1052.1	736.4	164.6	12.2	26.2	4.2
51°	1162.4	1051.9	731.7	158.5	11.8	23.1	3.7
51.5°	1163.3	1051.7	727.2	153.0	11.4	20.5	3.1
52°	1164.6	1051.5	722.3	148.1	11.0	18.2	2.7
52.5°	1165.3	1051.1	717.5	143.7	10.7	16.0	2.4
53°	1165.9	1050.5	712.9	138.9	10.2	14.0	2.4
53.5°	1166.7	1049.9	707.8	133.7	9.9	12.2	2.3
54°	1167.3	1049.3	702.9	128.8	9.5	10.5	2.2
54.5°	1167.9	1048.3	697.9	123.8	9.1	8.1	2.1
55°	1168.5	1047.6	692.8	117.7	8.8	4.6	1.8
55.5°	1168.6	1047.0	687.7	109.3	8.5	2.5	1.6
56°	1169.1	1046.2	682.2	98.3	8.2	1.8	1.5
56.5°	1169.4	1045.9	676.5	85.2	7.9	1.6	1.4
57°	1169.6	1045.3	670.5	72.3	7.5	1.6	1.2
57.5°	1170.1	1045.2	664.5	62.8	7.2	1.6	1.0
58°	1170.2	1045.1	658.3	57.0	6.8	1.5	0.9
58.5°	1170.6	1044.4	652.3	53.5	6.5	1.4	0.7
59°	1171.0	1044.2	646.3	51.3	6.1	1.3	0.6
59.5°	1171.5	1043.7	640.0	49.9	5.7	1.1	0.6
60°	1172.0	1043.2	633.6	49.1	5.4	1.0	0.5
60.5°	1172.1	1042.5	627.2	48.3	5.1	0.7	0.5
61°	1172.3	1042.0	620.8	47.5	4.7	0.6	0.5
61.5°	1172.7	1041.1	614.5	46.7	4.4	0.6	0.5
62°	1172.6	1040.5	608.5	45.9	4.1	0.6	0.5
62.5°	1172.6	1039.8	602.9	45.1	3.8	0.5	0.5
63°	1172.6	1039.5	596.9	44.2	3.5	0.5	0.5
63.5°	1172.6	1039.2	591.0	43.3	3.1	0.5	0.5
64°	1172.4	1038.6	584.9	42.2	2.9	0.5	0.5
64.5°	1172.0	1038.1	579.1	41.2	2.6	0.5	0.5
65°	1171.1	1037.6	573.4	40.1	2.4	0.4	0.5
65.5°	1170.7	1037.1	567.7	39.0	2.2	0.5	0.5
66°	1170.1	1036.8	562.3	37.7	2.0	0.5	0.5
66.5°	1169.2	1036.1	556.6	36.4	1.8	0.4	0.6
67°	1168.0	1035.4	551.4	35.3	1.6	0.4	0.6

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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
67.5°	1167.2	1034.6	546.1	34.2	1.4	0.4	0.7
68°	1166.0	1033.5	540.8	33.1	1.2	0.4	0.7
68.5°	1165.0	1032.5	535.5	32.2	1.1	0.4	0.7
69°	1163.9	1031.2	530.2	31.4	0.9	0.4	0.7
69.5°	1162.5	1029.5	524.9	30.9	0.9	0.4	0.7
70°	1161.5	1027.8	519.3	30.8	0.9	0.4	0.7
70.5°	1160.5	1025.9	513.4	30.8	0.8	0.4	0.7
71°	1159.8	1024.1	507.5	30.8	0.8	0.4	0.8
71.5°	1158.5	1021.8	501.4	30.8	0.7	0.4	0.8
72°	1157.2	1019.6	495.4	30.4	0.6	0.5	0.8
72.5°	1155.7	1018.0	489.8	29.8	0.5	0.5	0.9
73°	1154.0	1016.1	484.4	28.9	0.5	0.5	0.9
73.5°	1150.9	1014.1	478.8	27.3	0.5	0.5	0.9
74°	1146.6	1012.1	473.9	25.2	0.5	0.5	1.0
74.5°	1141.7	1010.1	468.8	23.2	0.5	0.5	1.0
75°	1134.9	1008.7	464.2	20.3	0.5	0.5	1.0
75.5°	1125.9	1005.9	460.1	17.8	0.5	0.6	1.1
76°	1115.7	1002.4	456.5	16.3	0.5	0.6	1.1
76.5°	1104.5	997.4	452.7	14.9	0.5	0.6	1.2
77°	1091.9	990.6	447.5	13.8	0.5	0.7	1.2
77.5°	1076.8	982.2	442.3	12.7	0.5	0.7	1.2
78°	1059.8	971.7	437.1	11.6	0.5	0.7	1.3
78.5°	1041.8	961.1	431.9	10.6	0.5	0.8	1.3
79°	1022.3	948.2	426.8	9.7	0.5	0.8	1.4
79.5°	1001.9	933.8	422.9	8.9	0.5	0.8	1.4
80°	982.1	916.7	418.4	7.9	0.5	0.8	1.4
80.5°	963.0	898.5	413.9	7.0	0.6	0.9	1.5
81°	944.2	878.2	409.5	6.3	0.6	0.9	1.5
81.5°	928.4	857.4	405.5	5.7	0.6	0.9	1.5
82°	913.7	838.2	401.9	5.2	0.6	0.9	1.6
82.5°	901.3	820.7	398.8	4.7	0.6	1.0	1.6
83°	889.6	805.7	395.9	4.2	0.6	1.0	1.7
83.5°	879.2	792.4	393.3	3.7	0.7	1.0	1.7
84°	869.8	782.2	389.9	3.4	0.7	1.1	1.7
84.5°	861.6	774.0	385.8	3.0	0.7	1.1	1.8
85°	855.9	768.6	380.8	2.7	0.7	1.1	1.8
85.5°	851.5	763.8	374.3	2.3	0.7	1.2	1.8
86°	847.2	760.7	367.1	2.1	0.8	1.2	1.9
86.5°	843.4	760.4	359.7	1.8	0.8	1.2	1.9
87°	840.1	761.8	352.1	1.6	0.8	1.3	1.9
87.5°	835.6	764.6	345.0	1.4	0.8	1.3	2.0
88°	828.9	769.5	338.6	1.2	0.8	1.3	2.0
88.5°	820.2	775.8	334.4	1.0	0.9	1.4	2.1
89°	809.7	784.7	332.4	0.9	0.9	1.4	2.1
89.5°	797.4	795.2	330.1	0.8	0.9	1.4	2.1

REPORT NUMBER: P1197173

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
90°	781.7	802.7	327.9	0.5	0.9	1.5	2.2
90.5°	763.0	806.1	328.6	0.5	1.0	1.5	2.2
91°	743.8	803.0	325.3	0.5	1.0	1.5	2.2
91.5°	724.2	785.8	319.5	0.5	1.0	1.5	2.2
92°	705.0	756.4	313.5	0.5	1.0	1.6	2.2
92.5°	689.3	711.7	301.9	0.5	1.0	1.6	2.3
93°	678.3	652.7	280.2	0.5	1.1	1.6	2.3
93.5°	668.9	589.7	250.4	0.5	1.1	1.7	2.3
94°	665.4	521.7	215.3	0.4	1.1	1.7	2.3
94.5°	659.2	460.5	180.4	0.4	1.1	1.7	2.4
95°	640.7	413.8	150.2	0.4	1.1	1.7	2.4
95.5°	602.1	380.9	123.2	0.4	1.2	1.8	2.4
96°	555.7	347.7	102.5	0.4	1.2	1.8	2.5
96.5°	509.2	303.8	86.0	0.4	1.2	1.8	2.5
97°	463.2	299.0	70.9	0.4	1.2	1.9	2.5
97.5°	417.5	331.6	56.9	0.4	1.3	1.9	2.5
98°	372.9	369.4	48.7	0.4	1.3	1.9	2.6
98.5°	349.7	373.0	49.0	0.4	1.3	1.9	2.6
99°	335.0	318.0	51.5	0.4	1.3	2.0	2.6
99.5°	332.1	222.5	50.8	0.5	1.3	2.0	2.6
100°	348.7	170.8	52.4	0.5	1.4	2.0	2.6
100.5°	364.0	121.7	48.1	0.5	1.4	2.1	2.7
101°	311.7	72.4	38.5	0.5	1.4	2.1	2.7
101.5°	202.8	23.2	26.0	0.5	1.4	2.1	2.7
102°	124.9	16.8	19.5	0.5	1.4	2.1	2.7
102.5°	66.1	15.7	16.8	0.5	1.4	2.2	2.7
103°	30.0	15.4	14.5	0.5	1.5	2.2	2.7
103.5°	20.3	15.7	11.9	0.5	1.5	2.2	2.8
104°	19.7	17.1	9.6	0.5	1.5	2.2	2.8
104.5°	19.1	19.3	7.6	0.5	1.5	2.2	2.8
105°	19.2	18.9	6.2	0.5	1.5	2.2	2.8
105.5°	20.1	17.2	5.3	0.5	1.6	2.3	2.8
106°	22.3	16.5	4.6	0.5	1.6	2.3	2.8
106.5°	23.3	16.2	3.9	0.5	1.6	2.3	2.8
107°	21.7	15.1	3.2	0.5	1.6	2.3	2.8
107.5°	19.4	13.6	2.6	0.5	1.6	2.3	2.8
108°	18.3	11.6	2.2	0.5	1.6	2.3	2.8
108.5°	17.3	9.3	1.9	0.5	1.7	2.4	2.9
109°	15.2	7.3	1.7	0.5	1.7	2.4	2.9
109.5°	12.6	5.7	1.5	0.5	1.7	2.4	2.9
110°	10.3	4.5	1.3	0.5	1.7	2.4	2.9
110.5°	8.5	4.0	1.1	0.5	1.7	2.4	2.9
111°	7.6	3.7	0.9	0.6	1.7	2.5	2.9
111.5°	7.0	3.5	0.8	0.6	1.8	2.5	2.9
112°	6.2	3.1	0.7	0.6	1.8	2.5	2.9

REPORT NUMBER: P1197173

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
112.5°	5.3	2.7	0.6	0.6	1.8	2.5	2.9
113°	4.5	2.2	0.5	0.6	1.8	2.5	2.9
113.5°	3.8	1.7	0.5	0.6	1.8	2.5	2.9
114°	3.5	1.3	0.4	0.6	1.8	2.6	3.0
114.5°	2.9	1.0	0.3	0.7	1.8	2.6	3.0
115°	2.2	0.9	0.2	0.7	1.9	2.6	3.0
115.5°	1.7	0.7	0.2	0.7	1.9	2.6	3.0
116°	1.3	0.6	0.1	0.7	1.9	2.6	3.0
116.5°	1.1	0.5	0.1	0.7	1.9	2.6	3.0
117°	0.9	0.3	0.1	0.7	1.9	2.6	3.0
117.5°	0.7	0.2	0.1	0.7	1.9	2.6	3.0
118°	0.6	0.1	0.1	0.7	1.9	2.7	3.0
118.5°	0.4	0.0	0.0	0.7	1.9	2.7	3.0
119°	0.2	0.0	0.0	0.7	1.9	2.7	3.0
119.5°	0.1	0.0	0.0	0.8	2.0	2.7	3.0
120°	0.0	0.0	0.0	0.8	2.0	2.7	3.0
120.5°	0.0	0.0	0.0	0.8	2.0	2.7	3.0
121°	0.0	0.0	0.1	0.8	2.0	2.7	3.0
121.5°	0.0	0.0	0.1	0.8	2.0	2.7	3.0
122°	0.0	0.0	0.1	0.8	2.0	2.7	3.0
122.5°	0.0	0.0	0.1	0.8	2.0	2.7	3.0
123°	0.0	0.0	0.1	0.8	2.0	2.7	3.0
123.5°	0.0	0.0	0.1	0.9	2.0	2.7	3.0
124°	0.0	0.0	0.1	0.9	2.0	2.7	3.0
124.5°	0.0	0.0	0.1	0.9	2.0	2.7	3.0
125°	0.0	0.0	0.1	0.9	2.1	2.7	3.0
125.5°	0.0	0.0	0.1	0.9	2.1	2.7	3.0
126°	0.0	0.0	0.1	0.9	2.1	2.7	3.0
126.5°	0.0	0.0	0.2	0.9	2.1	2.7	3.0
127°	0.0	0.0	0.2	1.0	2.1	2.7	3.0
127.5°	0.0	0.0	0.2	1.0	2.1	2.8	3.0
128°	0.0	0.0	0.2	1.0	2.1	2.8	3.0
128.5°	0.0	0.0	0.2	1.0	2.1	2.8	3.0
129°	0.0	0.0	0.2	1.0	2.1	2.8	3.0
129.5°	0.0	0.0	0.2	1.0	2.1	2.8	3.0
130°	0.0	0.0	0.3	1.0	2.1	2.8	3.0
130.5°	0.0	0.0	0.3	1.0	2.1	2.8	3.0
131°	0.0	0.0	0.3	1.1	2.1	2.8	3.0
131.5°	0.0	0.0	0.3	1.1	2.1	2.8	3.0
132°	0.0	0.0	0.3	1.1	2.1	2.8	3.0
132.5°	0.0	0.0	0.3	1.1	2.1	2.8	3.0
133°	0.0	0.0	0.3	1.1	2.1	2.8	3.0
133.5°	0.0	0.0	0.4	1.1	2.2	2.8	3.0
134°	0.0	0.0	0.4	1.1	2.1	2.8	3.0
134.5°	0.0	0.0	0.4	1.1	2.2	2.8	3.0

REPORT NUMBER: P1197173

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
135°	0.0	0.0	0.4	1.2	2.2	2.8	3.0
135.5°	0.0	0.0	0.4	1.2	2.2	2.8	3.0
136°	0.0	0.0	0.4	1.2	2.2	2.8	3.0
136.5°	0.0	0.0	0.5	1.2	2.2	2.8	3.0
137°	0.0	0.0	0.5	1.2	2.2	2.8	3.0
137.5°	0.0	0.0	0.5	1.2	2.2	2.8	3.0
138°	0.0	0.0	0.5	1.2	2.2	2.8	3.0
138.5°	0.0	0.0	0.5	1.3	2.2	2.8	3.0
139°	0.0	0.0	0.5	1.3	2.2	2.8	3.0
139.5°	0.0	0.0	0.5	1.3	2.2	2.8	3.0
140°	0.0	0.0	0.6	1.3	2.2	2.8	3.0
140.5°	0.0	0.0	0.6	1.3	2.2	2.8	3.0
141°	0.0	0.0	0.6	1.3	2.2	2.8	2.9
141.5°	0.0	0.0	0.6	1.3	2.2	2.8	2.9
142°	0.0	0.0	0.6	1.3	2.2	2.8	2.9
142.5°	0.0	0.0	0.6	1.3	2.2	2.8	2.9
143°	0.0	0.0	0.7	1.4	2.2	2.8	2.9
143.5°	0.0	0.0	0.7	1.4	2.2	2.8	2.9
144°	0.0	0.0	0.7	1.4	2.2	2.7	2.9
144.5°	0.0	0.1	0.7	1.4	2.2	2.7	2.9
145°	0.0	0.1	0.7	1.4	2.2	2.7	2.9
145.5°	0.0	0.1	0.8	1.4	2.2	2.7	2.8
146°	0.0	0.1	0.8	1.4	2.2	2.7	2.8
146.5°	0.0	0.1	0.8	1.4	2.2	2.7	2.8
147°	0.0	0.1	0.8	1.4	2.2	2.7	2.8
147.5°	0.0	0.1	0.8	1.4	2.2	2.7	2.8
148°	0.0	0.2	0.8	1.5	2.2	2.7	2.8
148.5°	0.0	0.2	0.9	1.5	2.2	2.7	2.7
149°	0.1	0.2	0.9	1.5	2.2	2.7	2.7
149.5°	0.1	0.2	0.9	1.5	2.2	2.7	2.7
150°	0.1	0.2	0.9	1.5	2.2	2.7	2.7
150.5°	0.1	0.3	0.9	1.5	2.2	2.7	2.7
151°	0.1	0.3	0.9	1.5	2.2	2.7	2.7
151.5°	0.1	0.3	1.0	1.5	2.2	2.7	2.7
152°	0.1	0.3	1.0	1.5	2.2	2.7	2.6
152.5°	0.1	0.3	1.0	1.5	2.2	2.7	2.6
153°	0.1	0.3	1.0	1.6	2.2	2.6	2.6
153.5°	0.2	0.4	1.0	1.6	2.2	2.6	2.6
154°	0.2	0.4	1.0	1.6	2.2	2.6	2.6
154.5°	0.2	0.4	1.1	1.6	2.2	2.6	2.5
155°	0.2	0.4	1.1	1.6	2.2	2.6	2.5
155.5°	0.2	0.4	1.1	1.6	2.2	2.6	2.5
156°	0.2	0.4	1.1	1.6	2.2	2.6	2.5
156.5°	0.3	0.5	1.1	1.6	2.2	2.6	2.5
157°	0.3	0.5	1.1	1.6	2.2	2.6	2.5

REPORT NUMBER: P1197173

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

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
157.5°	0.3	0.5	1.2	1.6	2.2	2.6	2.4
158°	0.3	0.5	1.2	1.6	2.2	2.5	2.4
158.5°	0.3	0.6	1.2	1.7	2.2	2.5	2.4
159°	0.4	0.6	1.2	1.7	2.2	2.5	2.4
159.5°	0.4	0.6	1.2	1.7	2.2	2.5	2.4
160°	0.4	0.6	1.3	1.7	2.2	2.5	2.3
160.5°	0.4	0.7	1.3	1.7	2.2	2.5	2.3
161°	0.4	0.7	1.3	1.7	2.2	2.5	2.3
161.5°	0.4	0.7	1.3	1.7	2.2	2.5	2.3
162°	0.5	0.7	1.3	1.7	2.2	2.4	2.3
162.5°	0.5	0.8	1.3	1.7	2.2	2.4	2.2
163°	0.5	0.8	1.3	1.7	2.2	2.4	2.2
163.5°	0.5	0.8	1.4	1.7	2.2	2.4	2.2
164°	0.5	0.8	1.4	1.7	2.2	2.4	2.2
164.5°	0.6	0.8	1.4	1.8	2.2	2.4	2.1
165°	0.6	0.9	1.4	1.8	2.1	2.4	2.1
165.5°	0.6	0.9	1.4	1.8	2.1	2.4	2.1
166°	0.6	0.9	1.4	1.8	2.2	2.4	2.1
166.5°	0.6	0.9	1.5	1.8	2.2	2.3	2.1
167°	0.7	1.0	1.5	1.8	2.1	2.3	2.0
167.5°	0.7	1.0	1.5	1.8	2.1	2.3	2.0
168°	0.7	1.0	1.5	1.8	2.1	2.3	2.0
168.5°	0.7	1.0	1.5	1.8	2.1	2.3	1.9
169°	0.8	1.0	1.5	1.8	2.1	2.3	1.9
169.5°	0.8	1.1	1.5	1.9	2.1	2.3	1.9
170°	0.8	1.1	1.6	1.9	2.1	2.3	1.9
170.5°	0.8	1.1	1.6	1.9	2.1	2.3	1.8
171°	0.8	1.1	1.6	1.9	2.1	2.2	1.8
171.5°	0.9	1.2	1.6	1.9	2.1	2.2	1.8
172°	0.9	1.2	1.6	1.9	2.1	2.2	1.7
172.5°	0.9	1.2	1.6	1.9	2.1	2.2	1.7
173°	0.9	1.2	1.7	1.9	2.1	2.2	1.7
173.5°	1.0	1.3	1.7	1.9	2.1	2.2	1.7
174°	1.0	1.3	1.7	1.9	2.1	2.1	1.6
174.5°	1.0	1.3	1.7	1.9	2.1	2.1	1.6
175°	1.0	1.3	1.7	1.9	2.1	2.1	1.6
175.5°	1.0	1.3	1.7	1.9	2.1	2.1	1.5
176°	1.1	1.4	1.7	1.9	2.1	2.1	1.5
176.5°	1.1	1.4	1.8	1.9	2.0	2.1	1.5
177°	1.1	1.4	1.8	1.9	2.0	2.1	1.5
177.5°	1.1	1.4	1.8	1.9	2.0	2.0	1.4
178°	1.2	1.5	1.8	1.9	2.0	2.0	1.4
178.5°	1.2	1.5	1.8	1.9	2.0	2.0	1.4
179°	1.2	1.5	1.8	1.9	2.0	2.0	1.3
179.5°	1.2	1.5	1.8	1.9	2.0	1.9	1.3



REPORT NUMBER: P1197173
CATALOG NUMBER: AWPS28S-BZ-LOW-4000K-POSITION 45

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3

(END OF REPORT)