

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P242077

Luminaire Tested: **AL4850LPCBZ**

Test Date: 04/17/18

Test Information

Test Method: LM-79-08
Report Number: P242077
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-717-1)
Test Lab: INNOVATION CENTER(G2)
Test Date: 04/17/18
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: AL4850LPCBZ
Description: AREA and WALL LIGHT LED BARNLIGHT, 4750LM
Light Source: (1) 5000K CCT, 70 CRI LEDS
A19A-W5SS3913-C7
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5400.5 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.58' x H: 0.25')
IES Classification: Type V - Short - Cutoff
BUG Rating: B3 - U2 - G1

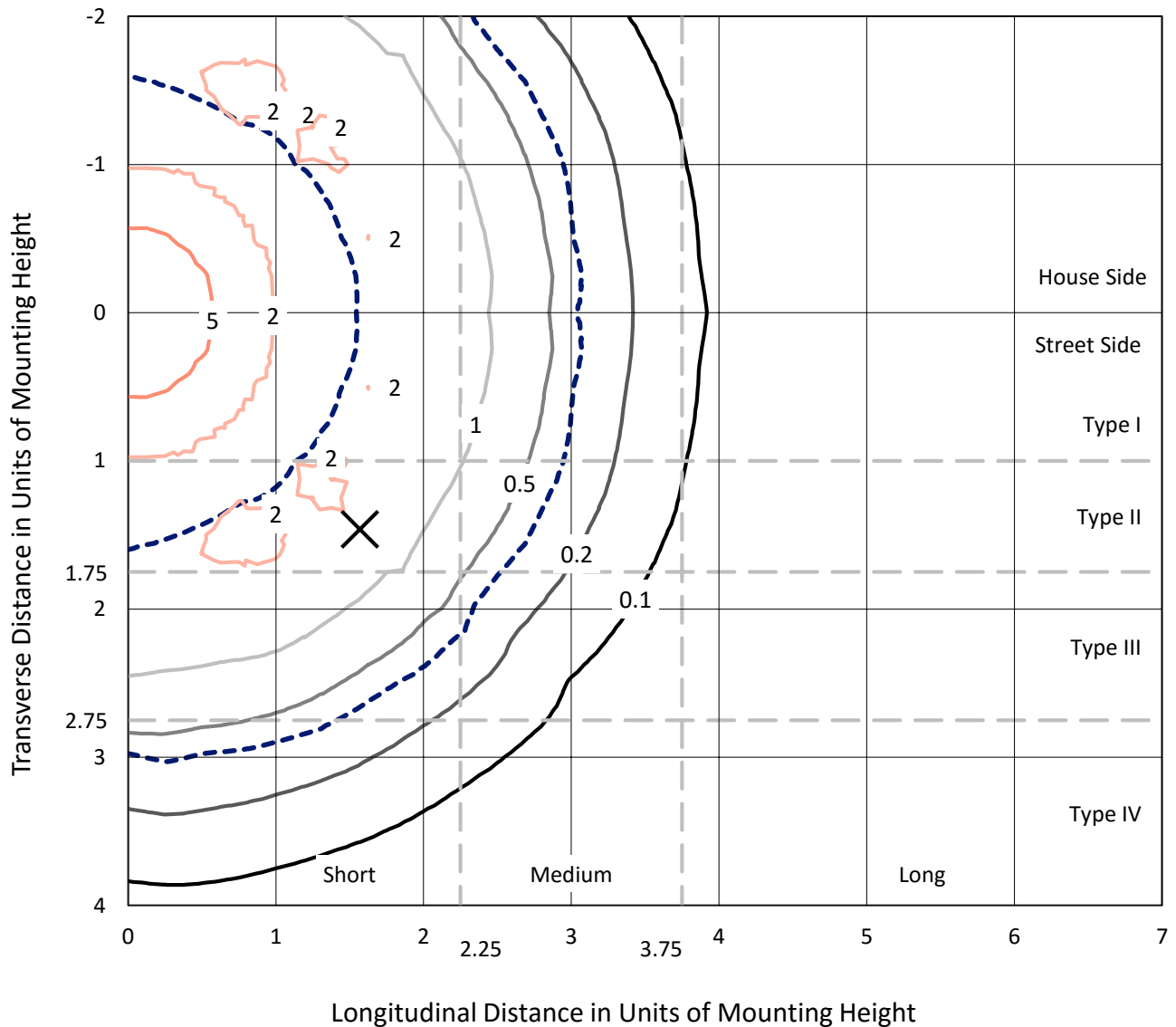
Input Watts (W): 41.5
Input Voltage (V): 120.0
Input Current (A_{in}): 0.349
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): 25.1
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

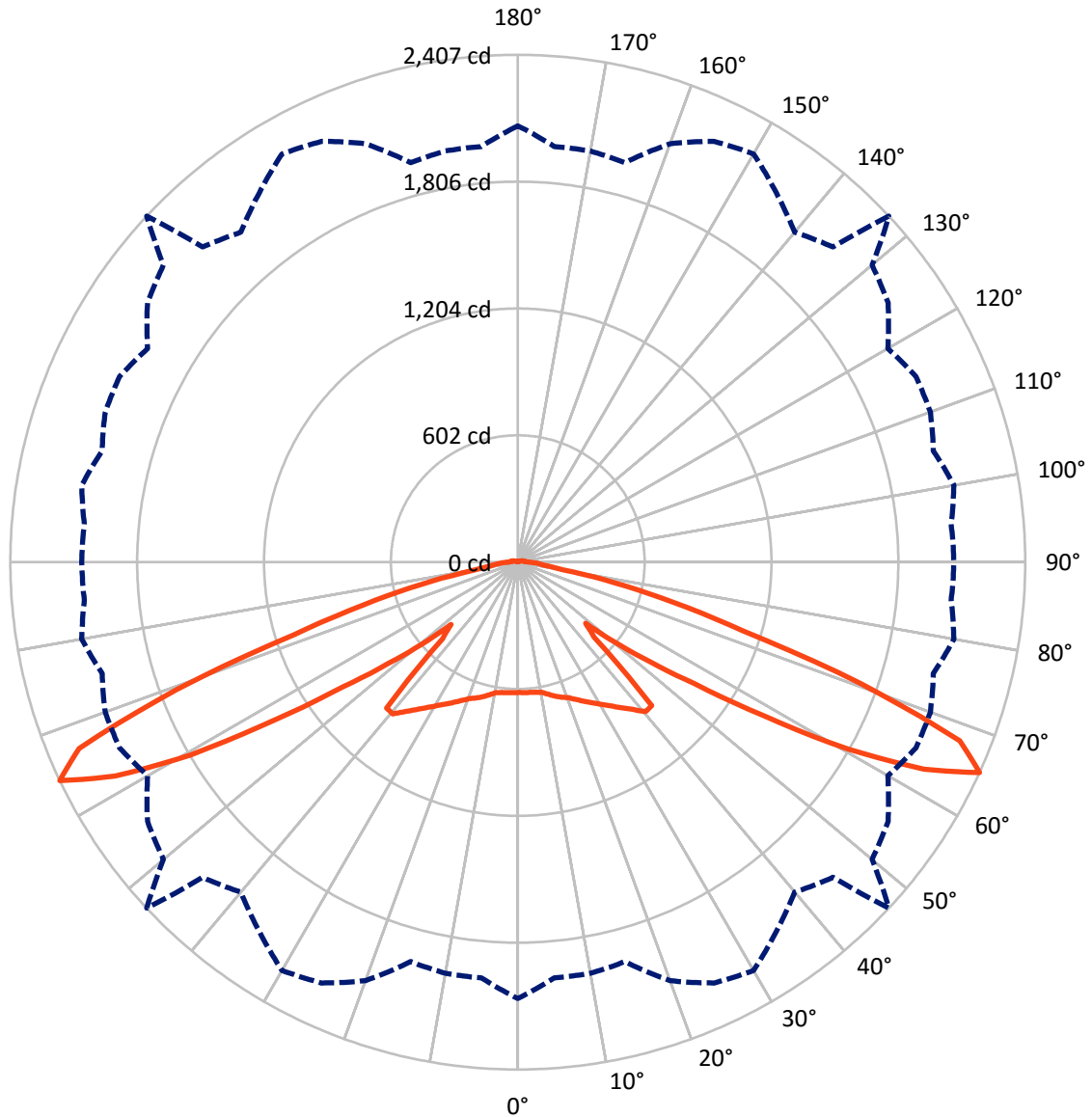
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 fc
 Type V - Short - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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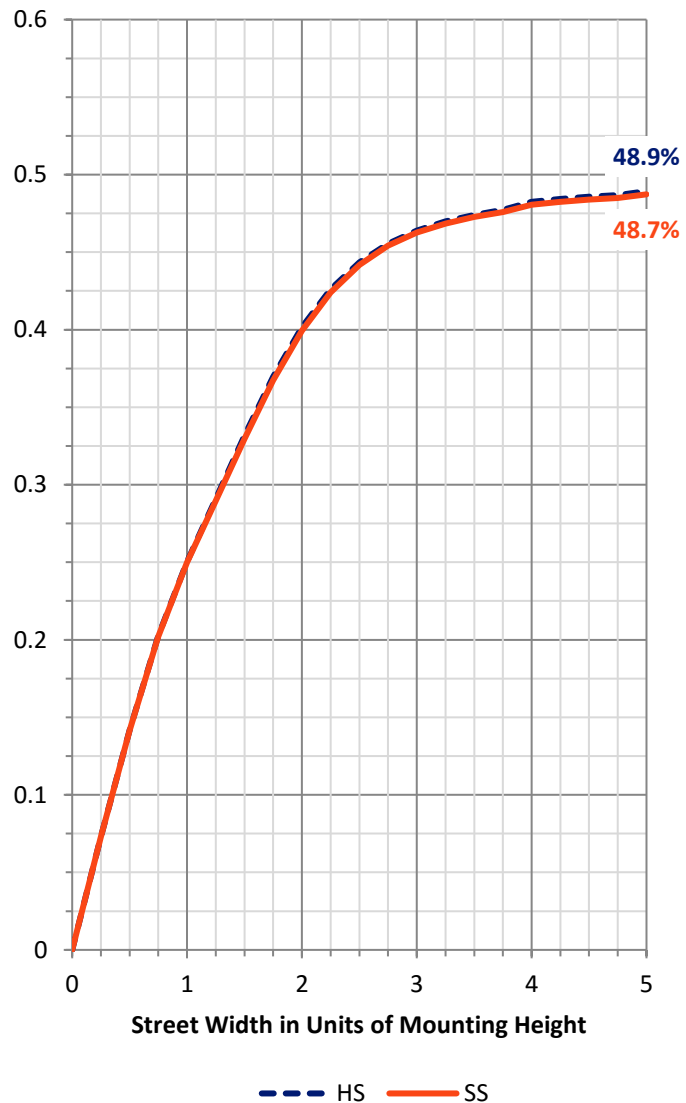
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2656.9	43.4	2700.2
	% Fixture	49.2	0.8	50.0
Street Side	Lumens	2656.9	43.4	2700.2
	% Fixture	49.2	0.8	50.0
Total	Lumens	5313.7	86.8	5400.5
	% Fixture	98.4	1.6	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	1.1
10°-20°	185.2	3.4
20°-30°	335.4	6.2
30°-40°	528.5	9.8
40°-50°	472.6	8.8
50°-60°	899.7	16.7
60°-70°	1883.1	34.9
70°-80°	829.0	15.4
80°-90°	120.9	2.2
90°-100°	37.6	0.7
100°-110°	23.7	0.4
110°-120°	10.5	0.2
120°-130°	7.2	0.1
130°-140°	4.5	0.1
140°-150°	2.3	0.0
150°-160°	0.8	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	5313.7	98.4
0°-180°	5400.5	100.0



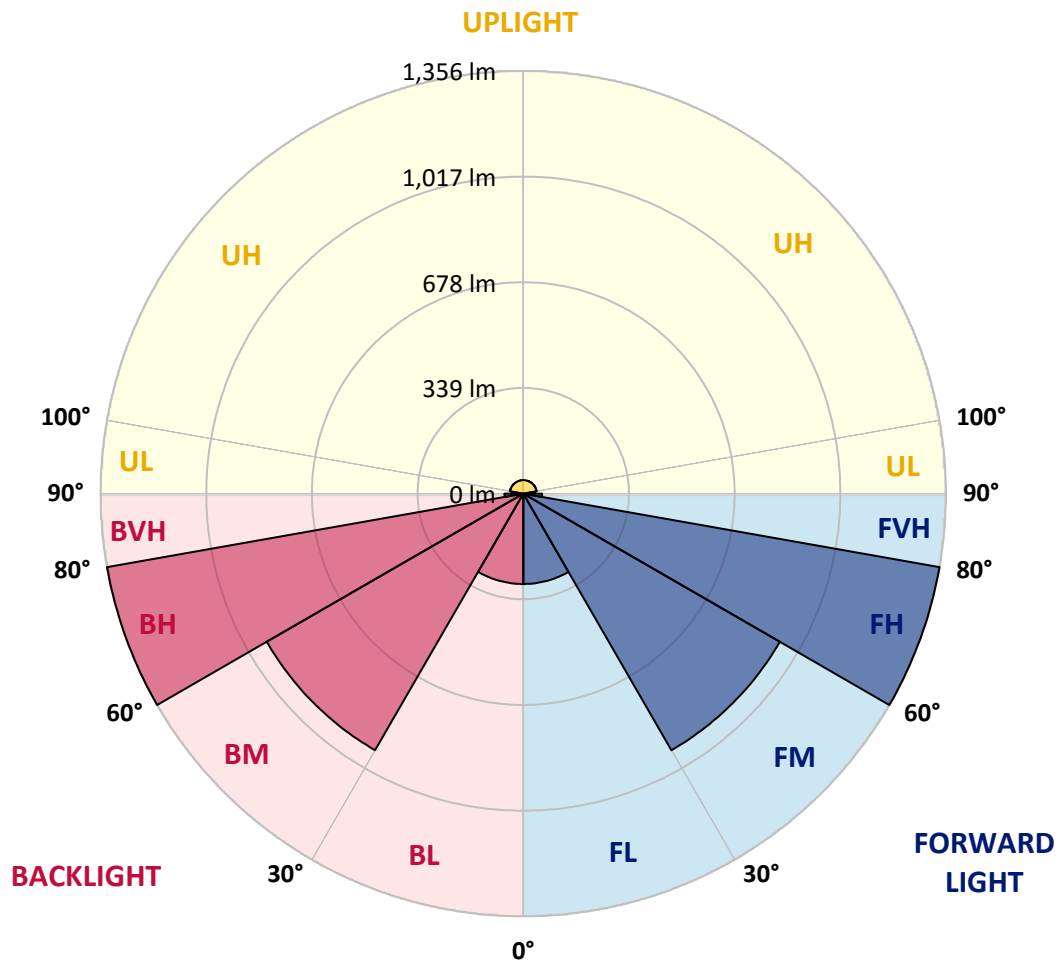
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	289.9	5.4			
FM (30°-60°)	950.4	17.6			
FH (60°-80°)	1356.1	25.1			G1/1800
FVH (80°-90°)	60.5	1.1			G1/100
BL (0°-30°)	289.9	5.4	B1/500		
BM (30°-60°)	950.4	17.6	B1/1000		
BH (60°-80°)	1356.1	25.1	B3/2500		G1/1800
BVH (80°-90°)	60.5	1.1			G1/100
UL (90°-100°)	37.6	0.7		U2/50	
UH (100°-180°)	43.4	0.8		U2/50	

BUG Rating: B3-U2-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47°
0°	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
2.5°	611.0	614.0	617.0	614.0	614.0	615.0	619.9	609.0	613.0	616.0	619.9
5°	619.0	621.9	623.9	619.9	619.0	619.9	623.9	613.0	614.0	617.0	620.9
7.5°	624.9	628.9	629.9	625.9	624.9	624.9	627.9	617.0	618.0	620.9	622.9
10°	622.9	627.9	629.9	626.9	625.9	625.9	631.9	621.9	622.9	627.9	627.9
12.5°	625.9	631.9	633.8	631.9	632.8	635.8	641.8	631.9	635.8	640.8	642.8
15°	642.8	647.7	649.7	646.7	648.7	649.7	655.7	646.7	648.7	652.7	659.6
17.5°	662.6	668.6	668.6	664.6	664.6	663.6	669.5	658.6	660.6	664.6	673.5
20°	679.5	685.4	686.4	682.4	681.4	681.4	685.4	674.5	674.5	678.5	686.4
22.5°	700.3	707.2	707.2	703.3	703.3	702.3	707.2	695.3	695.3	699.3	707.2
25°	719.1	727.1	728.1	724.1	724.1	723.1	728.1	716.2	716.2	722.1	731.0
27.5°	740.0	748.9	748.9	746.9	746.9	746.9	752.9	740.0	741.0	746.9	755.8
30°	765.8	773.7	774.7	771.7	773.7	773.7	779.6	766.8	767.7	774.7	782.6
32.5°	793.5	801.5	803.5	801.5	802.5	801.5	807.4	794.5	796.5	803.5	813.4
35°	825.3	835.2	836.2	834.2	835.2	834.2	840.2	828.3	828.3	835.2	848.1
37.5°	865.9	874.9	874.9	872.9	874.9	872.9	878.8	865.0	866.9	873.9	886.8
40°	909.6	920.5	920.5	919.5	921.5	920.5	925.5	910.6	911.6	917.5	932.4
42.5°	886.8	890.7	892.7	879.8	893.7	891.7	903.6	905.6	894.7	905.6	931.4
45°	437.4	448.3	450.3	442.4	456.3	458.3	472.2	475.1	486.0	483.1	507.9
47.5°	350.1	379.9	386.8	386.8	395.8	410.7	413.6	389.8	399.7	405.7	432.5
50°	468.2	499.9	523.7	511.8	535.6	543.6	563.4	531.7	536.6	555.5	596.1
52.5°	632.8	676.5	732.0	720.1	729.1	750.9	780.6	729.1	726.1	737.0	782.6
55°	842.1	879.8	963.2	990.9	993.9	1019.7	1049.4	965.1	922.5	956.2	1017.7
57.5°	1089.1	1157.6	1200.2	1250.8	1288.5	1303.4	1345.0	1241.9	1204.2	1233.9	1369.8
60°	1478.0	1558.3	1521.6	1574.2	1630.7	1640.6	1747.8	1627.7	1569.2	1606.9	1801.3
62.5°	1884.6	1899.5	1821.2	1876.7	1946.1	1993.8	2097.9	1991.8	1877.7	1959.0	2162.4
65°	2070.1	1979.9	1980.9	1962.0	2112.8	2203.0	2236.8	2138.6	2043.4	2114.8	2407.4
67.5°	1922.3	1828.1	1846.0	1862.8	1984.8	2071.1	2031.4	1988.8	2007.6	1980.9	2261.6
70°	1466.1	1500.8	1468.0	1542.4	1585.1	1623.8	1587.1	1587.1	1650.6	1602.9	1727.9
72.5°	953.2	1052.4	1020.7	1046.5	1056.4	1087.1	1083.2	1081.2	1110.9	1114.9	1117.9
75°	654.7	698.3	698.3	699.3	704.3	722.1	728.1	730.1	751.9	766.8	760.8
77.5°	438.4	441.4	460.2	446.4	447.4	452.3	469.2	470.2	471.2	475.1	468.2
80°	222.2	222.2	230.1	223.2	221.2	228.1	232.1	228.1	224.2	224.2	217.2
82.5°	128.0	130.9	129.9	130.9	129.9	129.9	131.9	129.9	128.9	130.9	130.9
85°	102.2	104.2	104.2	103.2	103.2	103.2	103.2	103.2	102.2	102.2	104.2
87.5°	78.4	79.4	79.4	79.4	79.4	78.4	79.4	78.4	78.4	78.4	79.4
90°	49.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	49.6	50.6	50.6
92.5°	34.7	34.7	35.7	37.7	37.7	37.7	37.7	37.7	36.7	37.7	37.7
95°	27.8	26.8	29.8	31.7	32.7	32.7	32.7	32.7	32.7	32.7	33.7
97.5°	23.8	23.8	26.8	28.8	29.8	29.8	30.7	29.8	29.8	30.7	30.7
100°	21.8	21.8	23.8	25.8	27.8	27.8	28.8	28.8	28.8	28.8	28.8
102.5°	20.8	20.8	21.8	23.8	24.8	25.8	25.8	25.8	26.8	26.8	26.8
105°	18.8	17.9	18.8	20.8	21.8	21.8	22.8	22.8	23.8	23.8	24.8
107.5°	16.9	15.9	15.9	17.9	17.9	17.9	18.8	18.8	18.8	19.8	20.8
110°	12.9	11.9	12.9	13.9	13.9	13.9	14.9	14.9	14.9	14.9	15.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47°
112.5°	9.9	8.9	9.9	9.9	10.9	10.9	10.9	10.9	10.9	11.9	11.9
115°	7.9	7.9	8.9	8.9	8.9	9.9	9.9	9.9	9.9	10.9	10.9
117.5°	7.9	6.9	7.9	7.9	8.9	8.9	8.9	8.9	8.9	9.9	9.9
120°	6.9	6.9	6.9	7.9	7.9	7.9	8.9	8.9	8.9	8.9	9.9
122.5°	6.9	6.9	6.9	7.9	7.9	7.9	7.9	7.9	7.9	8.9	8.9
125°	6.9	6.9	6.9	6.9	7.9	7.9	7.9	7.9	7.9	8.9	8.9
127.5°	6.9	6.0	6.0	6.9	6.9	6.9	7.9	7.9	7.9	7.9	8.9
130°	6.0	6.0	6.0	6.0	6.9	6.9	6.9	6.9	6.9	7.9	7.9
132.5°	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.9	6.9
135°	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0
137.5°	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0
140°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
142.5°	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0
145°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.0	4.0	4.0
147.5°	2.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
150°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
152.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
155°	1.0	2.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
160°	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
2.5°	611.0	608.0	611.0	619.9	613.0	613.0	609.0	613.0	615.0
5°	612.0	609.0	612.0	619.9	613.0	614.0	610.0	614.0	616.0
7.5°	615.0	612.0	616.0	624.9	619.0	619.9	616.0	619.9	622.9
10°	622.9	619.9	624.9	631.9	625.9	626.9	623.9	627.9	629.9
12.5°	635.8	632.8	636.8	644.7	638.8	638.8	634.8	638.8	640.8
15°	648.7	645.7	650.7	658.6	652.7	651.7	648.7	652.7	653.7
17.5°	659.6	656.6	661.6	669.5	662.6	661.6	658.6	662.6	663.6
20°	672.5	668.6	673.5	680.5	674.5	672.5	669.5	672.5	673.5
22.5°	691.4	687.4	693.4	699.3	691.4	689.4	686.4	689.4	690.4
25°	715.2	712.2	718.1	724.1	718.1	716.2	712.2	714.2	715.2
27.5°	741.0	739.0	744.9	751.9	744.9	742.9	740.0	742.0	743.9
30°	767.7	766.8	773.7	780.6	774.7	772.7	769.7	770.7	772.7
32.5°	796.5	795.5	803.5	811.4	804.4	802.5	798.5	801.5	802.5
35°	830.2	827.3	836.2	844.1	837.2	834.2	831.2	832.2	834.2
37.5°	867.9	865.9	874.9	881.8	876.9	871.9	869.9	869.9	871.9
40°	911.6	909.6	918.5	926.5	920.5	914.5	912.6	914.5	914.5
42.5°	901.7	896.7	899.7	920.5	908.6	911.6	906.6	899.7	905.6
45°	485.0	493.0	466.2	485.0	477.1	479.1	471.2	466.2	471.2
47.5°	402.7	395.8	373.0	361.1	362.0	381.9	356.1	358.1	362.0
50°	538.6	532.7	521.7	497.0	506.9	521.7	507.9	502.9	506.9
52.5°	724.1	735.0	720.1	713.2	727.1	713.2	692.4	701.3	706.2
55°	938.4	968.1	973.1	959.2	985.0	921.5	905.6	936.4	954.2
57.5°	1224.0	1213.1	1218.1	1210.1	1241.9	1218.1	1177.4	1183.4	1201.2
60°	1607.9	1619.8	1588.1	1540.4	1616.8	1596.0	1525.6	1557.3	1567.2
62.5°	1955.1	1996.7	1881.7	1887.6	1931.3	1890.6	1900.5	1883.7	1893.6
65°	2194.1	2144.5	2027.5	2084.0	2083.0	2041.4	2100.9	2064.2	2069.1
67.5°	2080.1	1983.8	1954.1	1999.7	1972.9	1950.1	1965.0	1979.9	1865.8
70°	1606.9	1572.2	1604.9	1609.9	1587.1	1591.0	1541.4	1608.9	1483.9
72.5°	1036.6	1058.4	1102.0	1096.1	1118.9	1093.1	1048.5	1072.3	1053.4
75°	689.4	734.0	755.8	759.8	763.8	732.0	716.2	703.3	734.0
77.5°	450.3	463.2	469.2	464.2	458.3	442.4	449.3	431.5	460.2
80°	220.2	220.2	222.2	217.2	222.2	208.3	214.3	212.3	214.3
82.5°	128.0	127.0	127.0	127.0	127.0	123.0	123.0	124.0	123.0
85°	100.2	101.2	102.2	101.2	100.2	99.2	99.2	97.2	97.2
87.5°	77.4	78.4	78.4	78.4	78.4	77.4	77.4	76.4	76.4
90°	50.6	50.6	50.6	50.6	50.6	49.6	50.6	50.6	49.6
92.5°	36.7	37.7	37.7	37.7	37.7	36.7	37.7	37.7	36.7
95°	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7
97.5°	30.7	30.7	30.7	30.7	30.7	30.7	30.7	29.8	29.8
100°	28.8	28.8	29.8	29.8	29.8	28.8	28.8	28.8	28.8
102.5°	26.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	26.8
105°	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
107.5°	19.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	19.8
110°	14.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9



REPORT NUMBER: P242077
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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
115°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
117.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
120°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
122.5°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
125°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
127.5°	7.9	7.9	8.9	7.9	7.9	7.9	8.9	7.9	7.9
130°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	6.9
132.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
135°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
137.5°	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
140°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
142.5°	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0
145°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
147.5°	3.0	3.0	3.0	3.0	4.0	3.0	4.0	3.0	3.0
150°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
152.5°	2.0	2.0	3.0	3.0	3.0	2.0	3.0	3.0	2.0
155°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
157.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
160°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)