

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: LUMARK

Report Number: P967716

Luminaire Tested: **NAV-SB5A-735-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967716
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23621.1 lumens
Efficiency: N/A
Efficacy: 166.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

Input Watts (W): 141.7
Input Voltage (V): NR
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: 24 FT



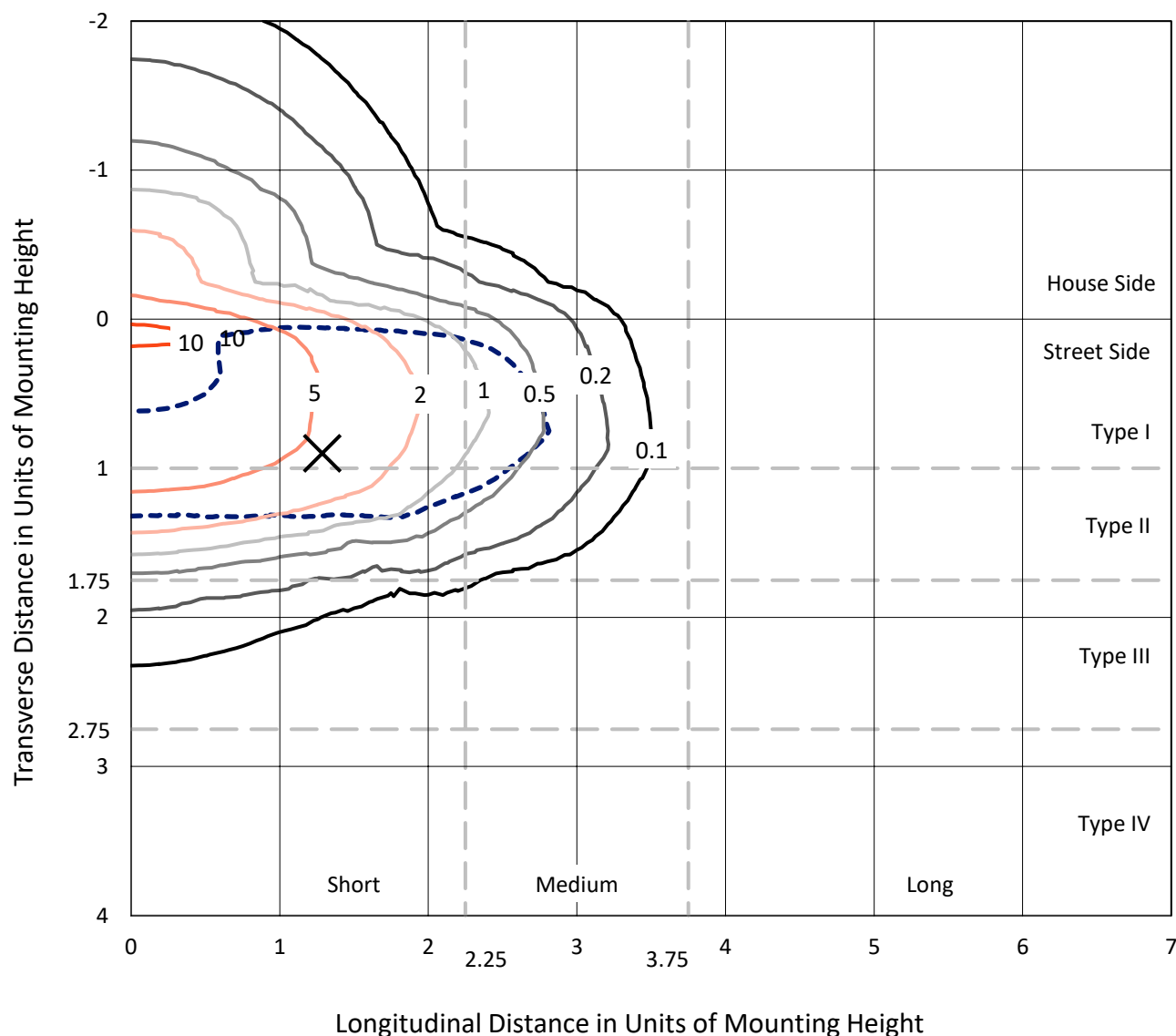
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

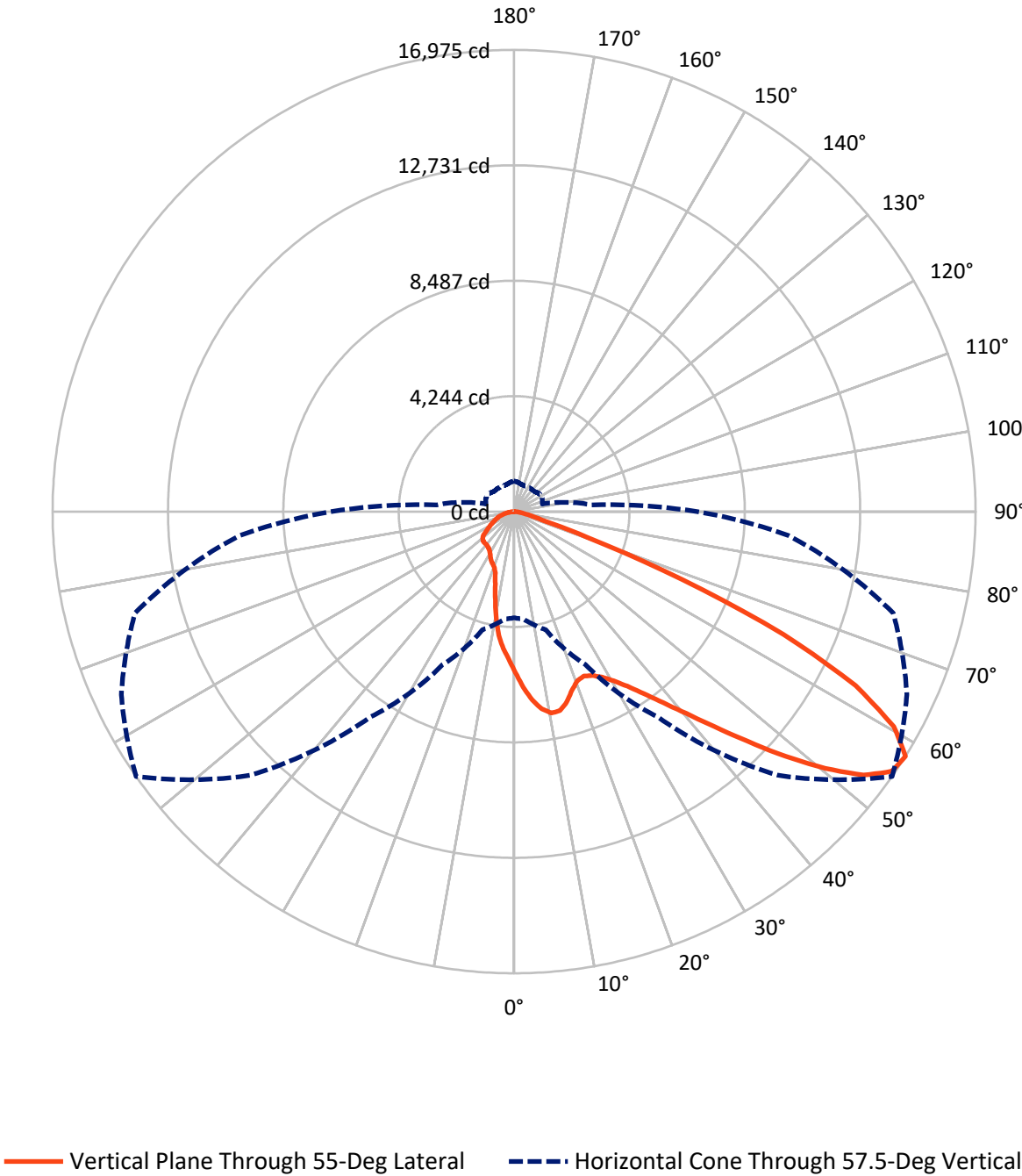


Based on 25 foot mounting height. Maximum calculated value = 11.4 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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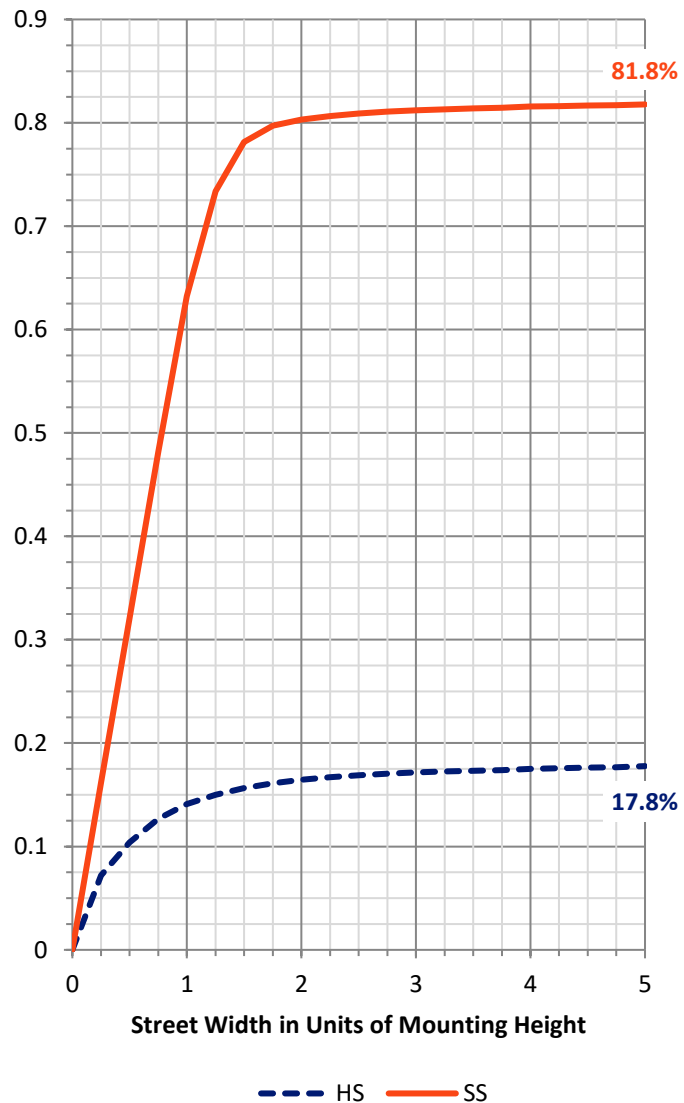
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4274.1	0.0	4274.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	19347.0	0.0	19347.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	23621.1	0.0	23621.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	549.2	2.3
10°-20°	1386.3	5.9
20°-30°	2212.1	9.4
30°-40°	3502.2	14.8
40°-50°	5360.5	22.7
50°-60°	5741.7	24.3
60°-70°	3612.1	15.3
70°-80°	1068.2	4.5
80°-90°	188.9	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	23621.1	100.0
0°-180°	23621.1	100.0

Coefficient of Utilization



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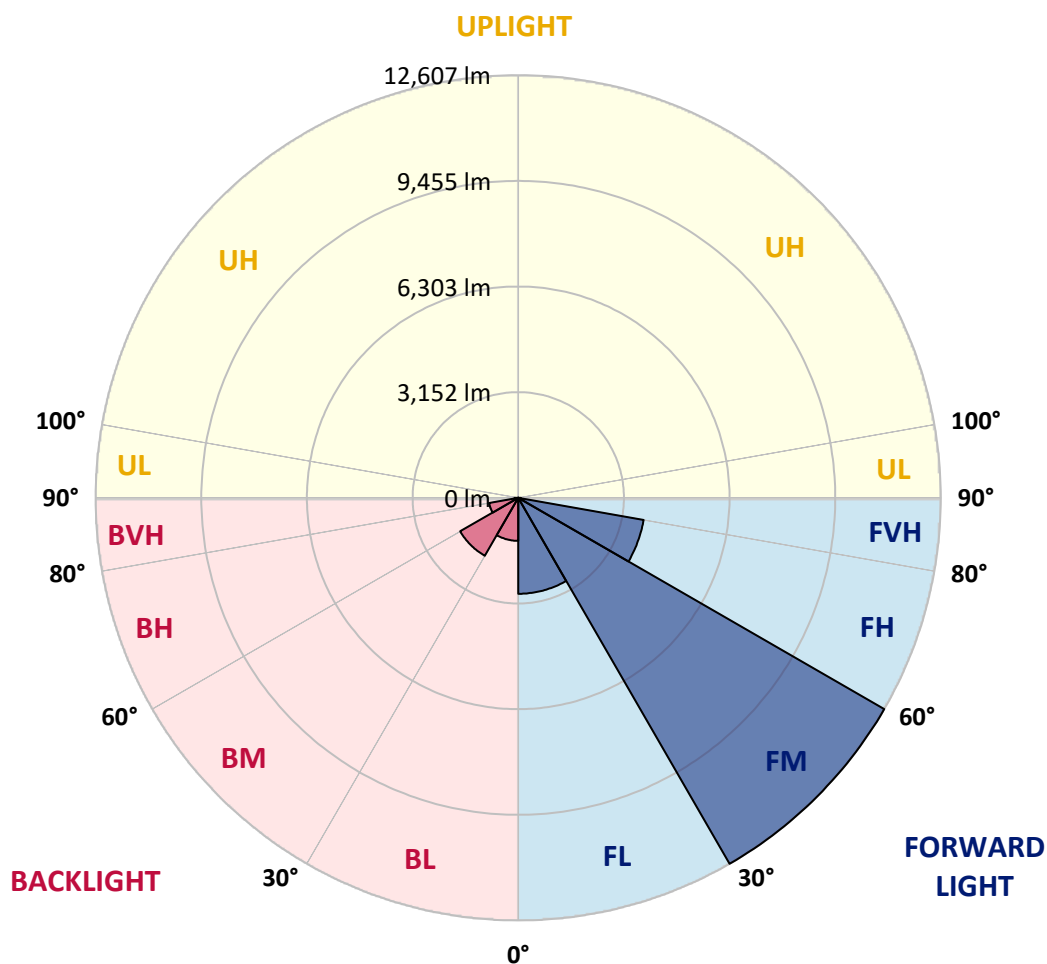
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2862.9	12.1			
FM	(30°-60°)	12606.8	53.4			
FH	(60°-80°)	3797.6	16.1			G2/5000
FVH	(80°-90°)	79.8	0.3			G1/100
BL	(0°-30°)	1284.7	5.4	B3/2500		
BM	(30°-60°)	1997.7	8.5	B2/2500		
BH	(60°-80°)	882.7	3.7	B2/1000		G2/1000
BVH	(80°-90°)	109.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7
2.5°	6790.5	6785.7	6812.6	6720.9	6658.7	6574.5	6463.3	6321.7	6169.0	6007.8	5938.2
5°	7402.3	7359.6	7387.7	7319.3	7251.0	7124.0	6959.0	6728.3	6446.2	6125.1	5954.1
7.5°	7305.9	7276.6	7348.6	7409.6	7461.0	7445.1	7324.1	7082.4	6718.5	6252.1	6004.1
10°	6528.0	6495.0	6596.4	6807.6	7117.8	7387.7	7534.2	7384.0	6997.0	6391.3	6053.0
12.5°	5841.8	5825.9	5893.0	6064.0	6408.3	6926.1	7507.3	7647.7	7286.3	6556.1	6118.9
15°	5548.7	5529.2	5571.9	5658.6	5878.4	6360.7	7263.2	7828.5	7570.9	6746.6	6224.0
17.5°	5484.0	5462.0	5480.3	5525.5	5667.1	6034.7	6894.4	7917.6	7867.6	6959.0	6311.8
20°	5603.7	5585.3	5587.8	5585.3	5684.2	5976.1	6637.9	7883.5	8126.4	7154.4	6397.3
22.5°	5893.0	5862.5	5863.7	5799.0	5852.7	6078.7	6570.8	7791.8	8357.2	7325.4	6462.1
25°	6364.4	6309.5	6320.5	6155.5	6140.9	6308.3	6675.7	7721.0	8586.8	7462.2	6474.3
27.5°	7009.2	6946.8	6913.9	6668.4	6551.2	6634.2	6889.4	7745.4	8804.1	7580.6	6443.8
30°	7815.0	7739.4	7672.2	7324.1	7111.7	7081.2	7221.6	7906.6	9060.6	7705.1	6391.3
32.5°	8802.9	8715.1	8592.9	8131.3	7832.1	7672.2	7651.4	8193.6	9361.0	7863.9	6364.4
35°	9978.9	9864.1	9690.7	9093.6	8715.1	8387.8	8218.0	8607.5	9772.5	8103.2	6394.9
37.5°	11190.2	11060.8	10902.0	10191.4	9726.1	9243.8	8909.2	9169.2	10320.7	8428.1	6475.5
40°	12307.5	12162.1	12014.4	11381.9	10882.4	10301.2	9755.4	9880.0	10991.2	8816.3	6612.3
42.5°	12966.9	12859.4	12803.3	12461.3	12075.5	11485.7	10808.0	10722.5	11744.6	9263.3	6768.6
45°	12937.6	12893.6	13067.0	13208.7	13117.1	12789.8	12041.3	11654.2	12500.4	9650.4	6912.7
47.5°	12246.5	12275.7	12662.8	13459.0	13809.4	13980.4	13445.5	12568.9	13157.4	9939.7	6977.4
50°	10365.9	10390.3	11286.7	13003.6	13987.8	14951.2	14838.8	13461.4	13666.6	10116.9	6962.7
52.5°	8877.4	8893.3	9278.0	11653.0	13399.2	15439.7	16094.1	14302.7	14039.0	10165.6	6880.9
55°	6686.8	6741.7	7172.7	9142.4	11867.9	15052.5	16858.6	15169.8	14274.7	10170.6	6795.4
57.5°	3906.3	3966.1	4498.5	6205.7	9224.2	13703.2	16974.5	15939.1	14434.7	10131.5	6744.2
60°	1913.5	1939.1	2171.2	3261.5	5687.9	11103.5	16041.7	16311.5	14523.8	10110.7	6741.7
62.5°	1289.4	1285.9	1295.6	1609.5	2802.5	7133.7	14097.6	15659.4	14476.2	10031.4	6717.3
65°	1108.7	1095.3	1058.7	1129.6	1451.9	3262.8	10892.3	13713.0	14113.5	9832.3	6550.0
67.5°	958.6	959.8	961.0	939.0	1036.7	1505.6	6656.2	10801.9	12811.8	8889.6	5905.2
70°	793.8	804.7	809.5	809.5	845.0	987.9	2841.5	7403.6	10105.9	6970.1	4756.2
72.5°	722.9	699.7	702.1	689.9	689.9	752.2	1144.2	4197.0	6366.8	3920.9	2902.6
75°	589.8	604.4	606.9	598.3	570.2	573.9	679.0	1760.8	2724.2	1626.5	1434.8
77.5°	509.2	509.2	514.0	508.0	486.0	429.8	453.0	682.5	926.8	666.8	716.8
80°	409.1	407.8	428.7	440.9	406.6	317.4	289.4	377.3	411.5	293.0	372.5
82.5°	199.1	211.3	294.3	335.8	308.9	229.6	177.0	234.4	219.8	129.5	167.3
85°	116.0	109.9	131.9	186.9	177.0	127.0	85.5	122.1	114.8	65.9	67.1
87.5°	36.6	34.2	26.9	63.4	51.2	35.4	23.2	35.4	31.8	14.7	14.7
90°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7	5918.7
2.5°	5851.5	5707.4	5564.5	5433.9	5354.5	5303.2	5252.0	5194.6	5172.6	5139.7
5°	5792.9	5514.5	5266.7	5052.9	4858.8	4706.1	4552.2	4427.7	4371.5	4409.4
7.5°	5758.8	5355.7	4973.5	4581.5	4204.2	3902.7	3640.1	3455.7	3372.7	3393.5
10°	5728.2	5176.2	4593.7	3974.6	3432.5	3058.9	2790.3	2649.8	2597.2	2608.3
12.5°	5700.1	4974.7	4135.9	3321.4	2745.1	2498.3	2421.5	2422.7	2432.4	2439.8
15°	5695.2	4731.8	3624.2	2750.0	2373.8	2357.9	2440.9	2493.5	2521.6	2530.1
17.5°	5687.9	4441.1	3102.8	2360.4	2283.5	2390.9	2467.9	2502.0	2524.1	2525.3
20°	5658.6	4072.4	2621.7	2174.7	2263.9	2356.7	2404.3	2431.2	2449.5	2455.6
22.5°	5568.2	3662.1	2246.8	2091.7	2185.8	2260.2	2316.4	2346.9	2357.9	2365.3
25°	5405.8	3202.9	1988.0	2012.4	2077.1	2171.2	2216.3	2222.4	2218.7	2229.8
27.5°	5193.4	2710.8	1826.8	1905.0	1988.0	2068.6	2092.9	2089.3	2082.0	2094.2
30°	4936.9	2268.8	1724.2	1784.0	1897.6	1970.9	1992.8	1984.3	1969.6	1983.1
32.5°	4665.8	1907.3	1639.9	1699.8	1823.1	1895.1	1917.2	1908.5	1897.6	1908.5
35°	4413.0	1654.6	1561.8	1643.6	1764.5	1835.4	1863.4	1864.6	1864.6	1878.1
37.5°	4181.1	1506.9	1497.1	1608.2	1724.2	1787.7	1828.0	1830.4	1778.0	1781.6
40°	3966.1	1444.5	1467.8	1585.0	1685.1	1746.2	1748.6	1611.8	1515.4	1512.9
42.5°	3790.3	1432.3	1476.3	1582.6	1657.0	1659.5	1487.3	1381.1	1354.2	1355.5
45°	3625.4	1428.6	1495.9	1582.6	1615.5	1433.6	1317.5	1289.4	1291.9	1301.6
47.5°	3441.0	1414.0	1499.5	1560.6	1495.9	1274.8	1240.7	1228.5	1223.5	1226.0
50°	3239.6	1361.5	1453.1	1516.6	1290.7	1206.4	1163.7	1160.1	1166.1	1169.8
52.5°	3027.1	1276.0	1373.7	1437.3	1196.7	1146.6	1099.0	1107.5	1134.4	1143.0
55°	2887.9	1175.9	1268.7	1278.5	1130.8	1090.4	1050.1	1069.7	1119.7	1135.6
57.5°	2851.2	1069.7	1149.0	1138.1	1046.5	1041.6	1017.2	1034.2	1097.8	1120.9
60°	2840.3	974.5	1031.9	1023.3	964.6	987.9	981.7	990.4	1012.3	1019.7
62.5°	2754.8	898.7	926.8	914.6	891.4	931.7	946.4	928.0	945.2	953.7
65°	2537.5	837.6	824.2	815.7	825.4	862.1	891.4	854.7	870.6	895.0
67.5°	2178.4	754.6	718.0	727.7	758.3	777.9	815.7	774.2	787.6	829.1
70°	1762.1	649.6	616.6	644.7	674.0	714.3	720.5	692.4	724.2	770.5
72.5°	1246.7	543.4	520.2	577.6	587.3	639.9	626.4	612.9	656.9	672.8
75°	864.6	438.4	425.0	468.9	504.3	549.5	539.8	555.7	648.4	655.7
77.5°	547.0	340.7	332.1	360.2	409.1	459.1	475.0	655.7	1107.5	1151.5
80°	317.4	254.0	244.3	266.2	308.9	355.4	457.9	804.7	730.2	721.7
82.5°	177.0	174.7	162.4	168.5	206.3	256.5	647.2	566.6	460.3	475.0
85°	83.0	102.6	87.9	84.3	116.0	300.4	432.2	323.6	214.9	210.0
87.5°	21.9	19.6	19.6	21.9	48.9	258.9	172.2	138.0	81.8	79.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)