

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: P969483

Luminaire Tested: **NAV-SB5D-835-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969483
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-SB5D-835-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49703.3 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

Input Watts (W): 364.9
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

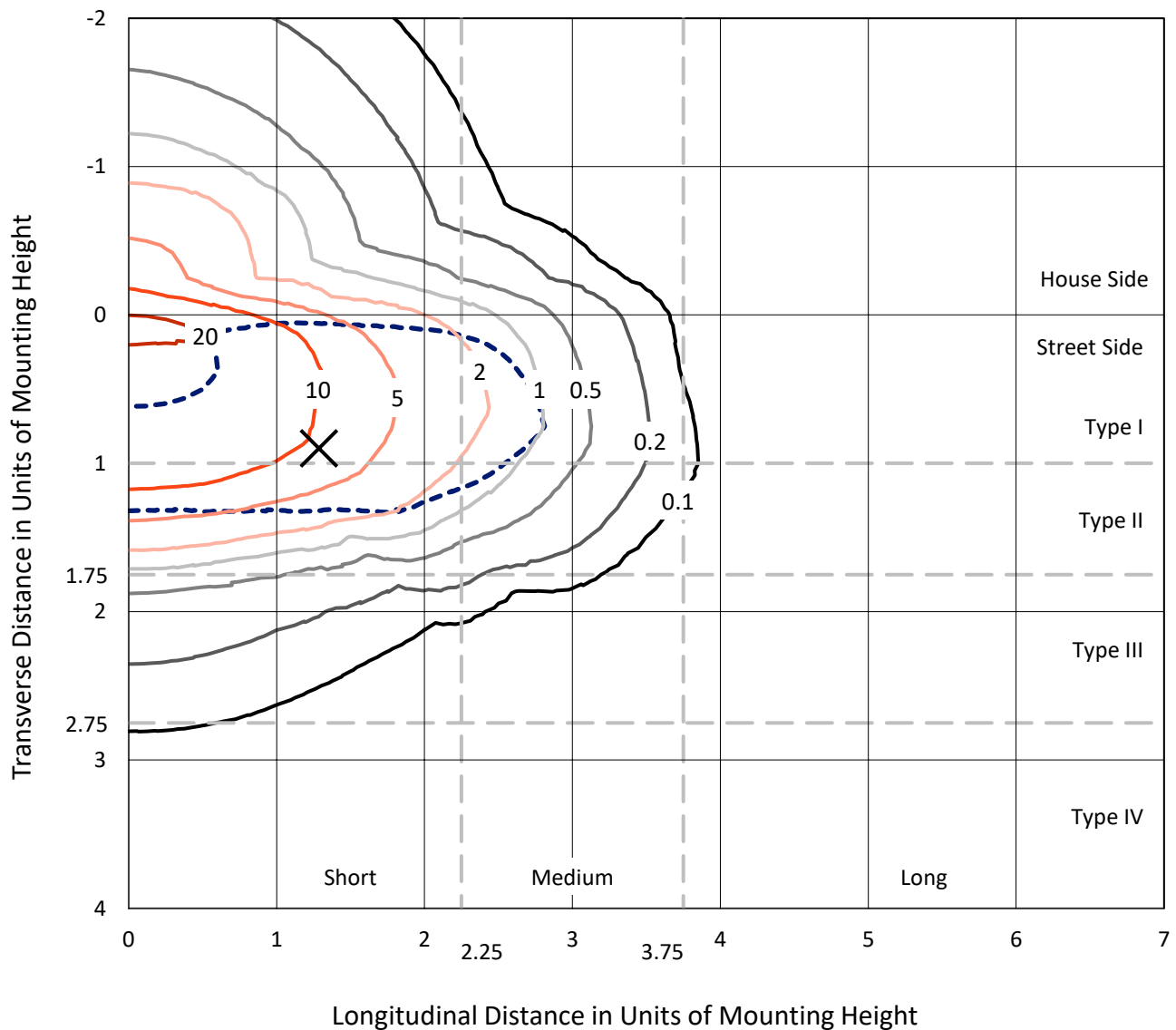


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Iso-Footcandle Lines of Horizontal Illumination

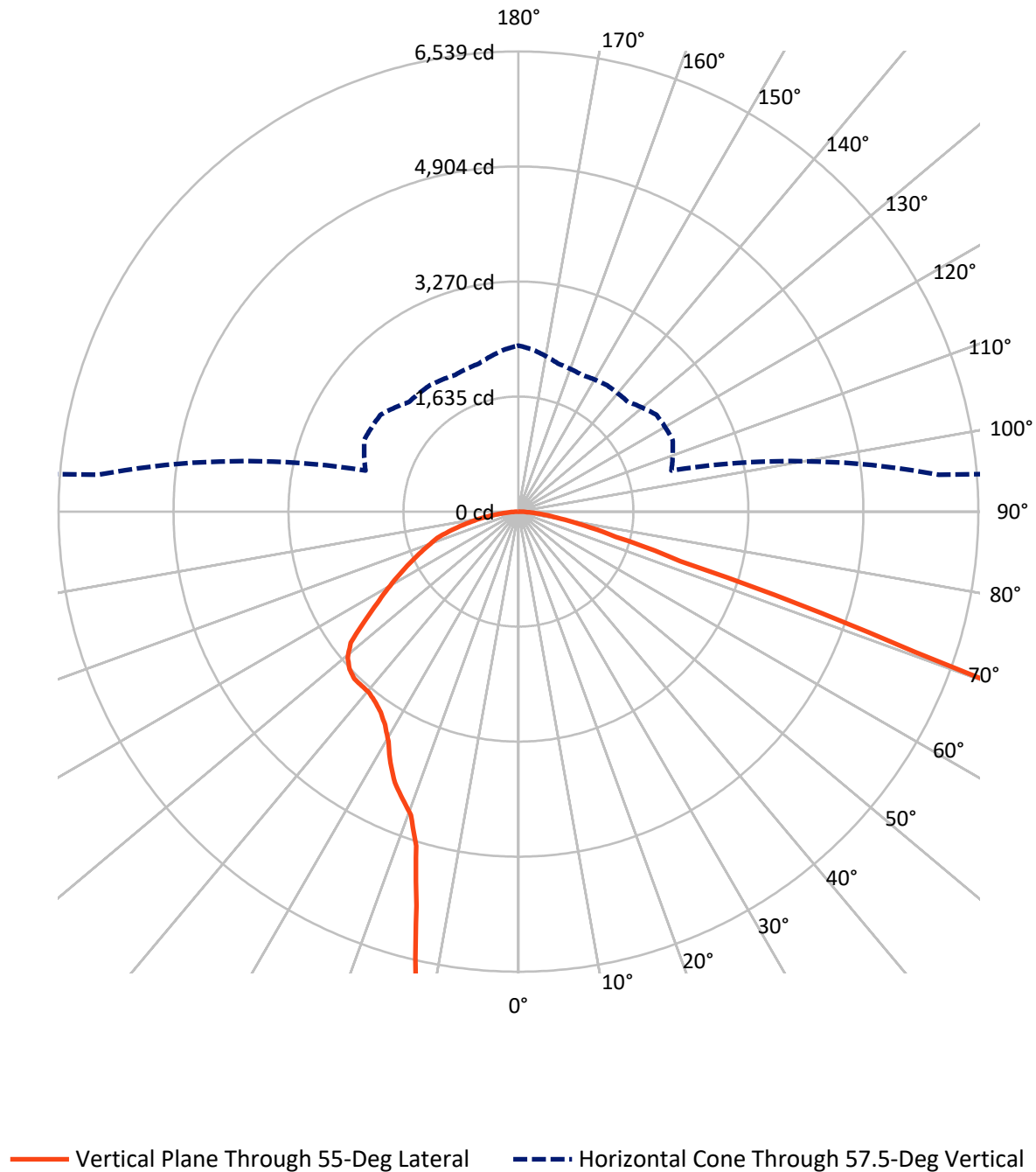
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 24.1 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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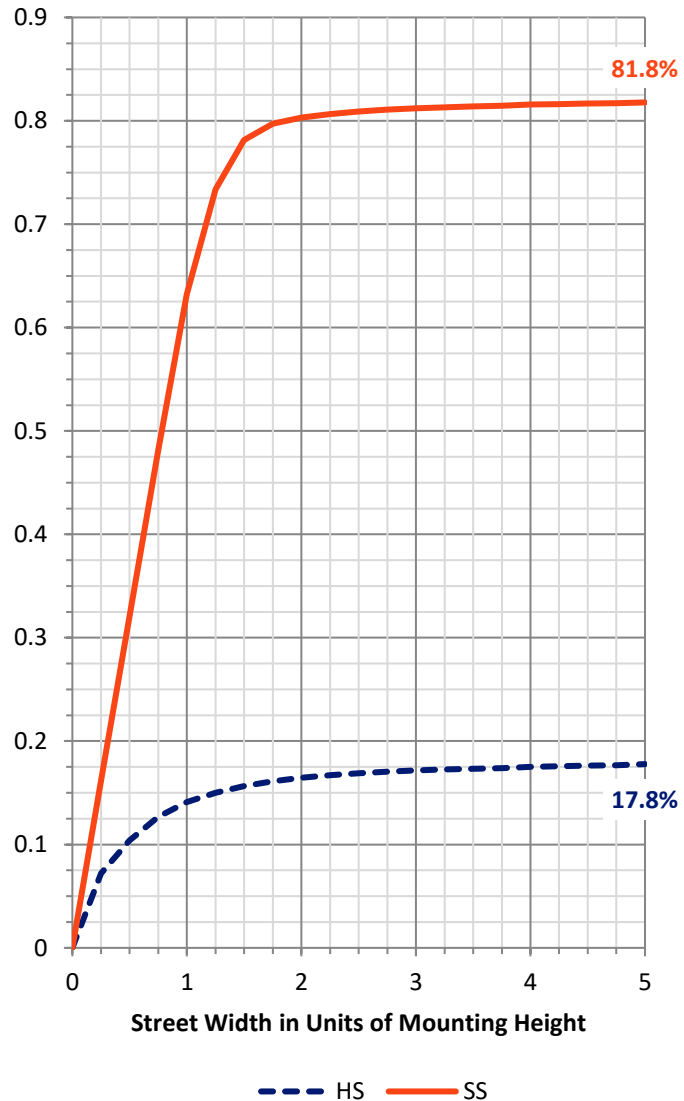
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8993.6	0.0	8993.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	40709.7	0.0	40709.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	49703.3	0.0	49703.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1155.7	2.3
10°-20°	2916.9	5.9
20°-30°	4654.6	9.4
30°-40°	7369.4	14.8
40°-50°	11279.6	22.7
50°-60°	12081.5	24.3
60°-70°	7600.5	15.3
70°-80°	2247.6	4.5
80°-90°	397.4	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°	49703.3	100.0
0°-180°	49703.3	100.0

Coefficient of Utilization



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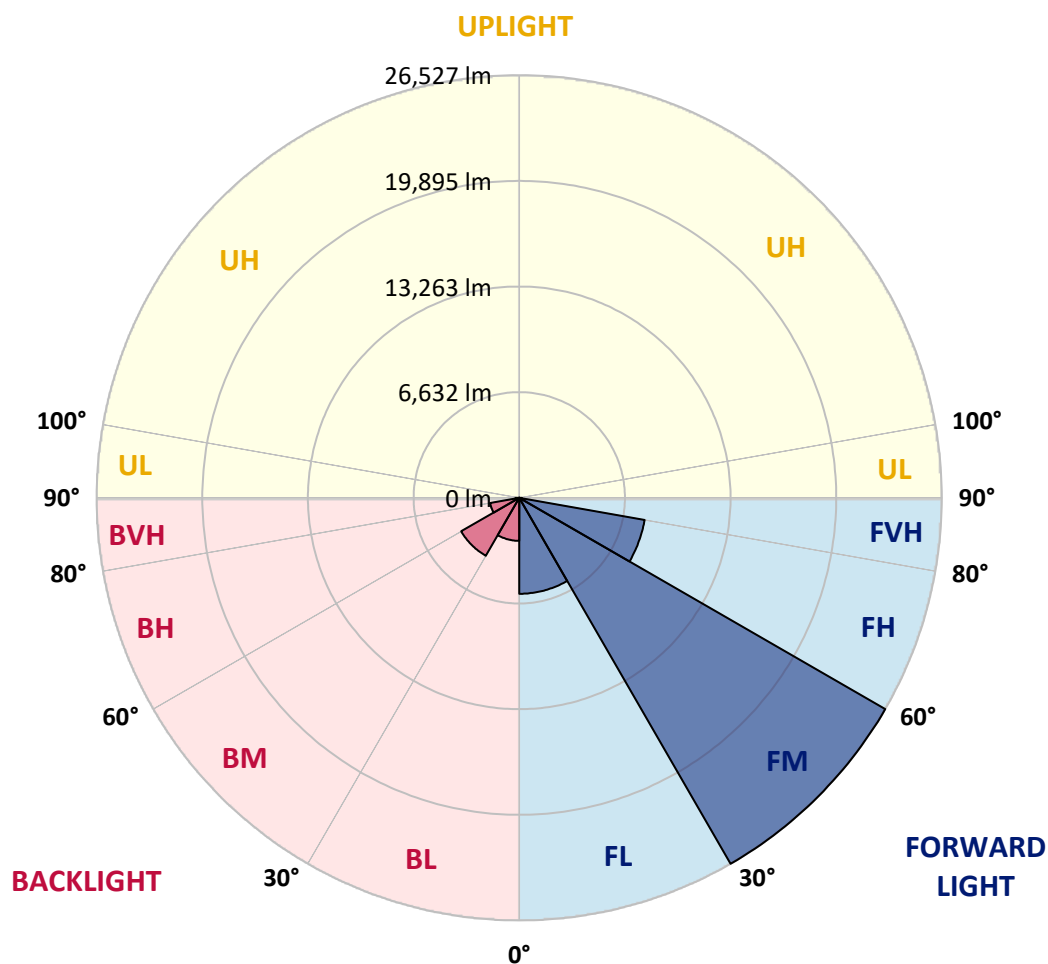
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6024.0	12.1			
FM	(30°-60°)	26527.0	53.4			
FH	(60°-80°)	7990.8	16.1			G4/12000
FVH	(80°-90°)	167.9	0.3			G2/225
BL	(0°-30°)	2703.2	5.4	B4/5000		
BM	(30°-60°)	4203.5	8.5	B3/5000		
BH	(60°-80°)	1857.4	3.7	B3/2500		G3/2500
BVH	(80°-90°)	229.5	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1
2.5°	14288.6	14278.4	14334.8	14142.1	14011.1	13833.8	13600.0	13301.9	12980.8	12641.6	12495.2
5°	15575.9	15485.9	15545.0	15401.1	15257.2	14990.0	14643.2	14157.6	13564.0	12888.2	12528.6
7.5°	15373.0	15311.2	15462.8	15591.3	15699.2	15665.8	15411.5	14902.7	14137.0	13155.5	12633.8
10°	13736.1	13666.8	13880.0	14324.6	14977.2	15545.0	15853.4	15537.4	14722.8	13448.4	12736.6
12.5°	12292.1	12258.8	12400.0	12759.8	13484.4	14573.8	15796.9	16092.3	15331.7	13795.3	12875.4
15°	11675.5	11634.4	11724.4	11906.7	12369.2	13384.1	15283.0	16472.6	15930.4	14196.1	13096.4
17.5°	11539.3	11493.0	11531.6	11626.7	11924.7	12698.1	14507.0	16660.1	16554.9	14643.2	13281.3
20°	11791.1	11752.5	11757.7	11752.5	11960.7	12574.8	13967.5	16588.2	17099.6	15054.3	13461.2
22.5°	12400.0	12335.9	12338.4	12202.2	12315.3	12790.7	13826.1	16395.5	17585.2	15414.1	13597.4
25°	13391.8	13276.2	13299.4	12952.5	12921.7	13273.6	14047.1	16246.5	18068.2	15701.8	13623.1
27.5°	14748.5	14617.5	14548.1	14031.6	13785.0	13959.7	14496.7	16297.9	18525.5	15951.0	13558.9
30°	16444.4	16285.1	16143.7	15411.5	14964.4	14900.1	15195.6	16637.1	19065.2	16213.1	13448.4
32.5°	18523.0	18338.1	18081.1	17109.8	16480.4	16143.7	16100.1	17240.9	19697.2	16547.1	13391.8
35°	20997.4	20755.8	20391.0	19134.5	18338.1	17649.4	17292.3	18112.0	20563.1	17050.8	13456.1
37.5°	23546.3	23273.9	22939.9	21444.4	20465.6	19450.6	18746.5	19293.9	21716.8	17734.2	13625.7
40°	25897.2	25591.5	25280.6	23949.6	22898.8	21675.7	20527.2	20789.3	23127.5	18551.3	13913.5
42.5°	27284.8	27058.7	26940.5	26221.0	25409.1	24168.1	22742.0	22562.2	24712.7	19491.7	14242.4
45°	27223.1	27130.6	27495.4	27793.5	27600.8	26912.2	25337.2	24522.6	26303.2	20306.2	14545.6
47.5°	25768.8	25830.5	26645.0	28320.2	29057.7	29417.4	28291.9	26447.2	27685.6	20915.1	14681.7
50°	21811.9	21863.2	23749.2	27361.9	29432.8	31460.1	31223.8	28325.4	28757.1	21287.7	14650.9
52.5°	18679.8	18713.1	19522.6	24520.0	28194.4	32487.9	33865.1	30095.7	29540.7	21390.5	14478.7
55°	14070.2	14185.8	15092.8	19237.3	24972.3	31673.3	35473.5	31920.0	30036.6	21400.8	14298.9
57.5°	8219.6	8345.6	9465.8	13057.9	19409.5	28834.2	35717.7	33538.8	30373.2	21318.6	14190.9
60°	4026.3	4080.2	4568.4	6863.0	11968.4	23363.8	33754.6	34322.4	30560.8	21274.9	14185.8
62.5°	2713.3	2705.6	2726.2	3386.5	5896.8	15010.6	29664.1	32950.4	30460.6	21107.8	14134.4
65°	2333.0	2304.8	2227.7	2376.8	3055.0	6865.6	22919.3	28854.7	29697.4	20689.0	13782.5
67.5°	2017.0	2019.6	2022.1	1975.9	2181.4	3168.1	14006.0	22729.2	26958.4	18705.4	12425.8
70°	1670.1	1693.3	1703.6	1703.6	1778.1	2078.7	5979.0	15578.5	21264.6	14666.3	10007.9
72.5°	1521.1	1472.3	1477.4	1451.7	1451.7	1582.8	2407.5	8831.1	13397.1	8250.4	6107.6
75°	1241.1	1271.8	1277.0	1259.0	1200.0	1207.7	1428.6	3705.1	5732.4	3422.5	3019.0
77.5°	1071.4	1071.4	1081.7	1068.9	1022.6	904.5	953.2	1436.3	1950.2	1402.9	1508.3
80°	860.8	858.2	901.9	927.5	855.7	668.1	609.0	794.0	865.9	616.6	783.7
82.5°	418.8	444.5	619.2	706.6	650.1	483.1	372.6	493.3	462.5	272.3	352.0
85°	244.1	231.2	277.5	393.1	372.6	267.2	179.9	257.0	241.5	138.8	141.3
87.5°	77.1	72.0	56.5	133.7	107.9	74.5	48.8	74.5	66.8	30.9	30.9
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°	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1	12454.1
2.5°	12312.7	12009.5	11708.9	11434.0	11266.9	11159.1	11051.1	10930.4	10884.1	10814.8
5°	12189.4	11603.5	11082.0	10632.3	10223.8	9902.6	9578.8	9316.7	9198.6	9278.2
7.5°	12117.4	11269.6	10465.2	9640.5	8846.6	8211.9	7659.5	7271.5	7096.8	7140.5
10°	12053.2	10891.9	9666.2	8363.5	7222.7	6436.4	5871.1	5575.7	5465.2	5488.3
12.5°	11994.1	10467.8	8702.7	6988.9	5776.1	5257.0	5095.2	5097.7	5118.3	5133.7
15°	11983.8	9956.5	7626.1	5786.3	4994.9	4961.6	5136.3	5246.8	5305.9	5323.8
17.5°	11968.4	9345.0	6528.9	4966.7	4804.8	5030.9	5192.9	5264.8	5311.0	5313.6
20°	11906.7	8569.0	5516.5	4576.1	4763.7	4959.0	5059.2	5115.8	5154.3	5167.1
22.5°	11716.6	7705.7	4727.7	4401.5	4599.3	4756.0	4874.2	4938.4	4961.6	4977.0
25°	11374.8	6739.6	4183.0	4234.4	4370.6	4568.4	4663.5	4676.4	4668.7	4691.7
27.5°	10927.8	5704.1	3843.9	4008.3	4183.0	4352.7	4404.0	4396.3	4380.8	4406.6
30°	10388.2	4774.0	3628.0	3754.0	3992.9	4147.0	4193.3	4175.3	4144.5	4172.8
32.5°	9817.8	4013.5	3450.8	3576.6	3836.2	3987.8	4034.0	4016.1	3992.9	4016.1
35°	9285.9	3481.6	3286.3	3458.5	3712.9	3861.9	3920.9	3923.5	3923.5	3951.8
37.5°	8797.7	3170.6	3150.1	3383.9	3628.0	3761.6	3846.4	3851.5	3741.0	3748.8
40°	8345.6	3039.6	3088.4	3335.1	3545.8	3674.3	3679.4	3391.6	3188.7	3183.5
42.5°	7975.5	3013.9	3106.5	3330.0	3486.7	3491.9	3129.5	2906.0	2849.5	2852.1
45°	7628.7	3006.2	3147.6	3330.0	3399.3	3016.5	2772.4	2713.3	2718.5	2739.0
47.5°	7240.7	2975.4	3155.3	3283.7	3147.6	2682.5	2610.6	2584.8	2574.6	2579.7
50°	6816.7	2864.9	3057.6	3191.2	2715.8	2538.6	2448.6	2440.9	2453.8	2461.5
52.5°	6369.7	2685.1	2890.6	3024.3	2518.0	2412.6	2312.5	2330.4	2387.0	2405.0
55°	6076.7	2474.4	2669.6	2690.2	2379.3	2294.5	2209.7	2250.8	2356.2	2389.6
57.5°	5999.6	2250.8	2417.9	2394.7	2202.0	2191.8	2140.3	2176.3	2309.9	2358.7
60°	5976.5	2050.4	2171.2	2153.2	2029.8	2078.7	2065.8	2083.8	2130.1	2145.4
62.5°	5796.7	1891.1	1950.2	1924.5	1875.6	1960.5	1991.3	1952.7	1988.7	2006.7
65°	5339.2	1762.6	1734.4	1716.4	1737.0	1814.0	1875.6	1798.6	1832.0	1883.4
67.5°	4583.9	1587.9	1510.8	1531.4	1595.6	1636.7	1716.4	1629.0	1657.3	1744.7
70°	3707.7	1366.9	1297.5	1356.7	1418.3	1503.2	1516.0	1456.8	1523.7	1621.3
72.5°	2623.4	1143.4	1094.6	1215.3	1235.9	1346.3	1318.1	1289.9	1382.3	1415.7
75°	1819.2	922.4	894.2	986.7	1061.2	1156.2	1135.7	1169.1	1364.4	1379.8
77.5°	1151.1	716.9	698.8	758.0	860.8	966.1	999.5	1379.8	2330.4	2423.0
80°	668.1	534.4	513.9	560.2	650.1	747.7	963.5	1693.3	1536.5	1518.5
82.5°	372.6	367.5	341.7	354.5	434.2	539.6	1361.8	1192.2	968.6	999.5
85°	174.8	215.9	185.0	177.3	244.1	632.1	909.6	680.9	452.2	442.0
87.5°	46.2	41.1	41.1	46.2	102.8	544.7	362.3	290.4	172.2	167.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)