

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: P968442

Luminaire Tested: **NAV-SB5B-835-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968442
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

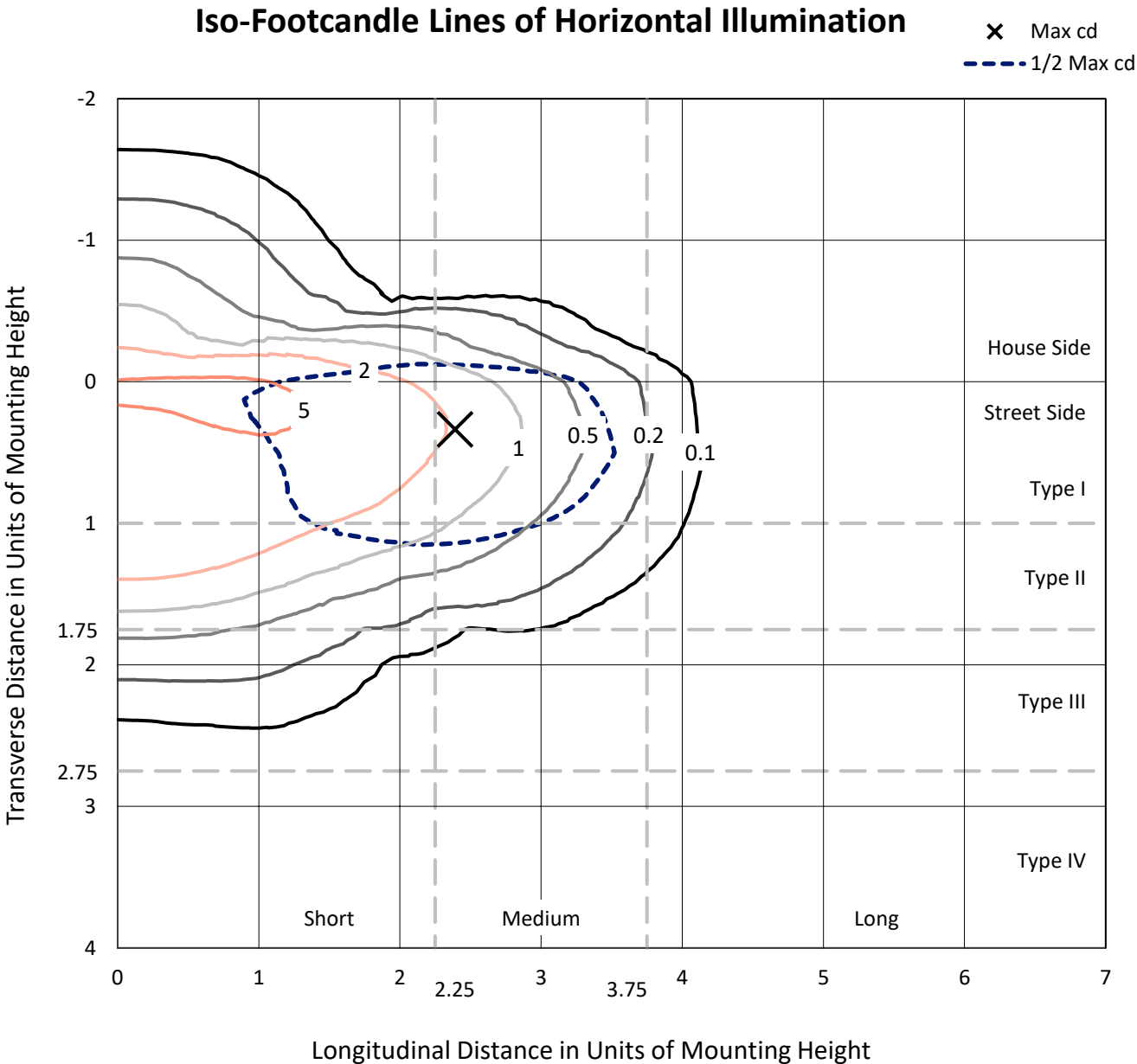
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19747.6 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 182.7
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



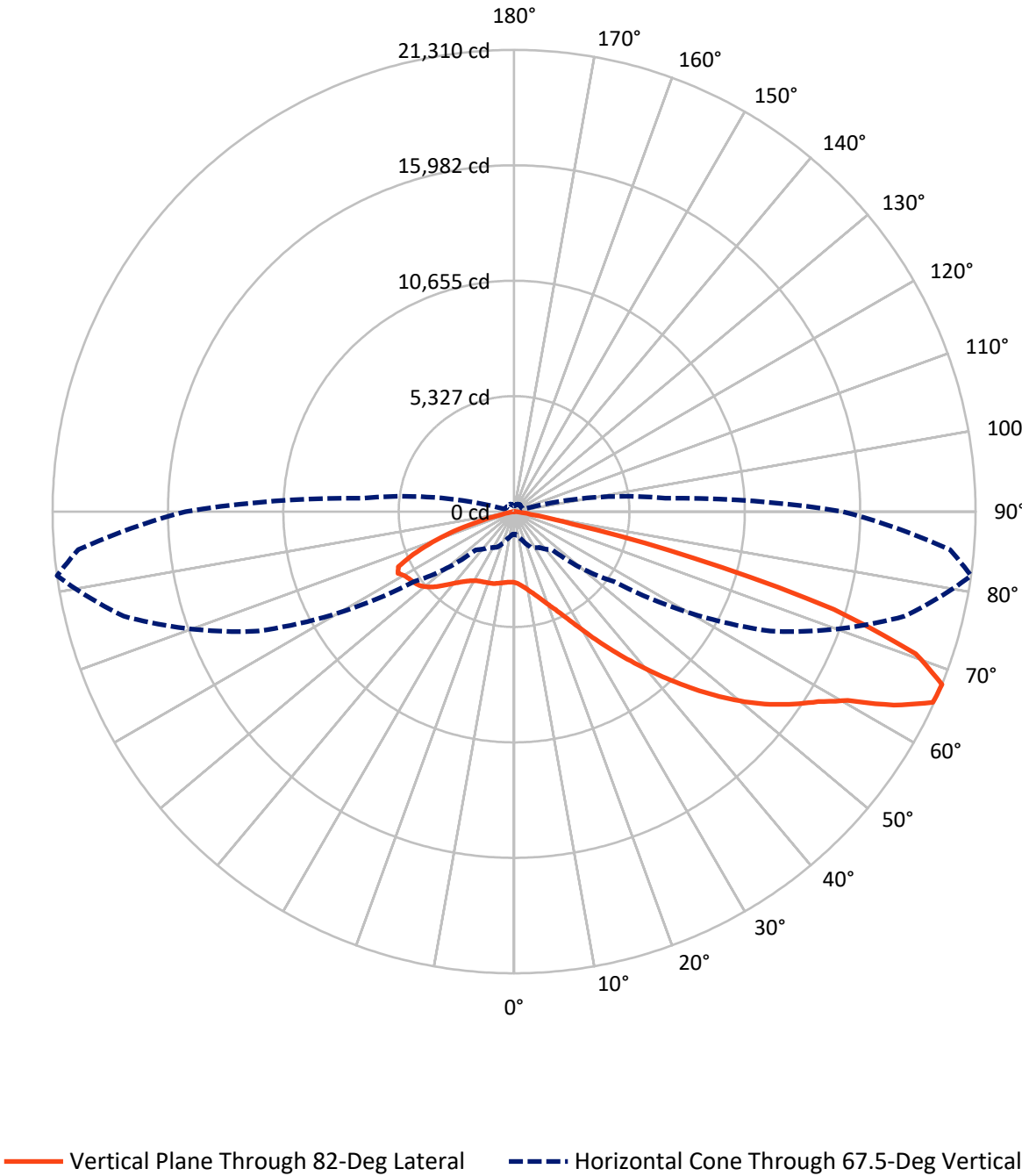
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Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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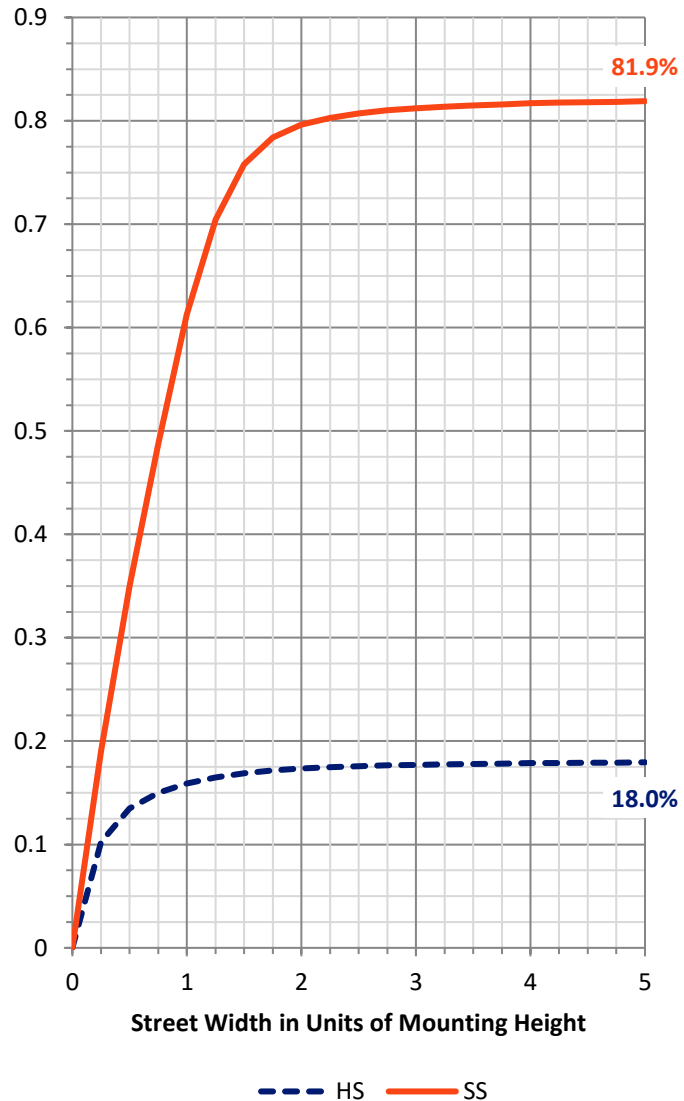
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3577.1	0.0	3577.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	16170.5	0.0	16170.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	19747.6	0.0	19747.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.5	1.5
10°-20°	757.4	3.8
20°-30°	1213.1	6.1
30°-40°	2145.2	10.9
40°-50°	3758.6	19.0
50°-60°	5012.9	25.4
60°-70°	4666.7	23.6
70°-80°	1791.1	9.1
80°-90°	111.2	0.6
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°	19747.6	100.0
0°-180°	19747.6	100.0

Coefficient of Utilization



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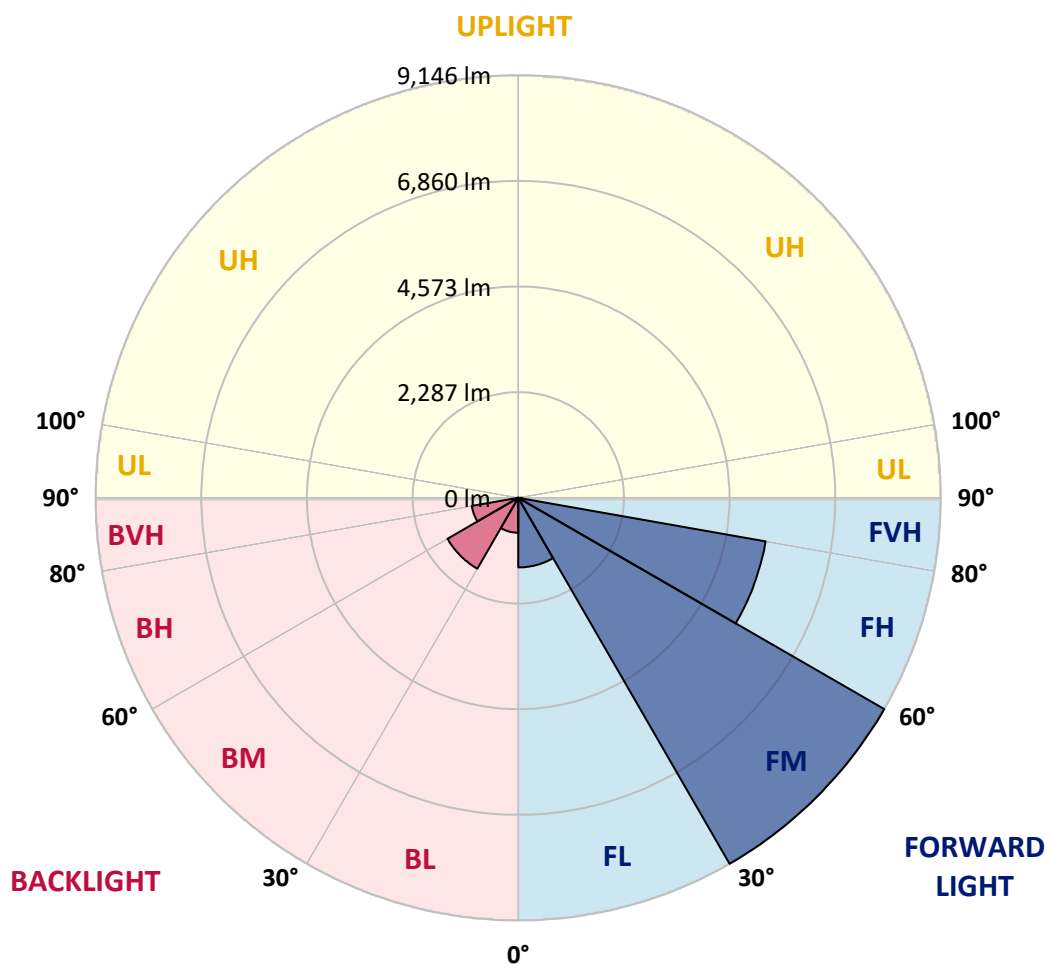
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1506.5	7.6			
FM	(30°-60°)	9146.3	46.3			
FH	(60°-80°)	5436.8	27.5			G3/7500
FVH	(80°-90°)	80.9	0.4			G1/100
BL	(0°-30°)	755.5	3.8	B2/1000		
BM	(30°-60°)	1770.3	9.0	B2/2500		
BH	(60°-80°)	1021.0	5.2	B3/2500		G3/2500
BVH	(80°-90°)	30.4	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5
2.5°	3457.7	3477.7	3466.3	3460.6	3450.7	3436.4	3425.0	3389.6	3352.6	3328.4	3319.9
5°	3527.4	3547.3	3545.9	3551.6	3558.7	3563.0	3560.1	3520.4	3467.7	3426.5	3402.3
7.5°	3467.7	3490.4	3509.0	3537.4	3587.2	3639.8	3665.4	3656.8	3602.8	3545.9	3516.1
10°	3298.6	3322.7	3366.8	3433.6	3538.8	3652.6	3747.8	3791.9	3757.8	3695.2	3654.0
12.5°	2988.6	3012.8	3099.5	3244.5	3420.8	3618.5	3800.4	3918.5	3927.0	3864.4	3816.1
15°	2640.3	2664.4	2756.8	2938.8	3207.5	3524.6	3828.9	4052.0	4127.5	4073.5	4015.1
17.5°	2424.1	2445.4	2515.1	2661.6	2941.6	3336.9	3818.9	4194.3	4366.3	4323.7	4254.0
20°	2358.7	2377.2	2409.9	2512.3	2745.5	3142.1	3753.6	4327.9	4623.7	4599.5	4521.3
22.5°	2428.4	2445.4	2455.4	2500.9	2647.4	3014.2	3671.0	4464.4	4922.3	4925.0	4829.8
25°	2589.0	2606.2	2594.8	2623.2	2687.1	2974.3	3639.8	4625.0	5297.5	5328.9	5220.7
27.5°	2853.5	2854.9	2827.9	2826.5	2836.5	3034.1	3672.5	4797.1	5771.1	5829.3	5695.6
30°	3383.8	3362.5	3258.7	3146.4	3095.2	3213.3	3763.5	5000.4	6329.8	6433.5	6265.8
32.5°	4201.4	4170.1	3979.6	3710.8	3440.7	3501.8	3927.0	5232.1	6938.3	7126.0	6921.2
35°	5088.5	5080.0	4880.9	4481.4	4009.4	3912.7	4192.9	5536.4	7602.2	7900.8	7657.7
37.5°	5913.2	5908.9	5795.1	5324.6	4750.2	4485.7	4619.4	5934.5	8313.2	8745.4	8458.2
40°	6666.7	6679.5	6565.7	6145.0	5566.3	5220.7	5199.4	6426.4	9103.6	9665.2	9324.0
42.5°	7317.9	7332.1	7216.9	6905.6	6372.4	6034.1	5911.8	7029.2	9875.7	10653.4	10249.6
45°	7760.1	7848.2	7831.2	7582.3	7199.9	6848.7	6767.7	7785.7	10755.7	11701.3	11227.8
47.5°	7885.2	7966.2	8094.2	8128.4	7895.2	7549.6	7646.3	8697.0	11645.8	12750.5	12211.6
50°	7576.7	7652.0	7917.9	8272.0	8434.0	8327.4	8500.8	9673.7	12557.2	13796.9	13177.1
52.5°	6968.2	7044.9	7380.5	7940.7	8601.8	8937.3	9358.1	10636.3	13440.1	14788.0	14091.3
55°	6088.1	6169.1	6599.9	7234.0	8281.9	9188.9	10073.3	11597.5	14249.0	15679.4	14915.9
57.5°	4890.9	4950.6	5398.5	6285.7	7477.2	8938.7	10600.8	12646.8	15011.1	16555.2	15733.4
60°	3187.6	3240.2	3760.6	4750.2	6143.5	8102.7	10706.0	13816.9	16023.5	17694.1	16835.3
62.5°	2119.9	2155.4	2463.9	3190.5	4326.5	6497.6	10090.4	14751.0	17507.8	19676.0	18724.8
65°	1454.5	1490.0	1798.6	2304.7	2795.2	4298.0	8320.2	14627.3	18852.8	21249.9	20125.3
67.5°	1037.9	1067.7	1329.3	1807.1	2023.1	2496.7	5640.2	13046.3	18659.4	21309.6	20200.7
70°	743.6	760.7	976.7	1407.5	1608.0	1500.0	3136.4	9978.1	16337.7	19677.4	18662.3
72.5°	520.4	526.0	678.1	1072.0	1295.3	1094.8	1492.9	6652.6	12356.7	15444.8	14468.1
75°	352.6	359.7	456.4	786.3	1039.4	836.0	790.5	3567.2	7253.9	8549.2	7663.4
77.5°	216.1	218.9	294.3	537.4	777.7	636.9	509.0	1511.4	2806.6	2755.4	2348.8
80°	122.3	122.3	187.7	334.2	530.3	410.9	356.9	642.7	888.6	780.5	688.2
82.5°	68.3	69.7	136.5	207.6	351.2	243.1	196.2	297.1	383.9	339.8	295.7
85°	28.4	31.3	83.8	98.1	167.8	120.8	79.6	125.2	142.2	126.6	92.5
87.5°	2.9	4.3	25.6	18.4	19.9	24.2	11.4	24.2	19.9	19.9	14.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5	3271.5
2.5°	3292.8	3271.5	3217.5	3155.0	3072.4	3032.7	2978.6	2941.6	2910.4	2913.3	2884.8
5°	3356.9	3302.8	3181.9	3031.2	2843.6	2709.9	2567.7	2469.6	2390.0	2373.0	2334.5
7.5°	3445.0	3359.6	3147.8	2876.3	2559.2	2319.0	2104.2	1966.4	1868.3	1836.9	1805.6
10°	3558.7	3435.0	3103.7	2681.5	2225.1	1919.4	1689.1	1581.1	1514.2	1491.5	1474.4
12.5°	3690.9	3521.8	3045.5	2444.0	1881.0	1586.7	1440.2	1386.2	1364.9	1357.8	1353.5
15°	3857.3	3629.8	2957.3	2162.5	1589.6	1383.4	1320.8	1313.7	1316.6	1313.7	1312.3
17.5°	4054.9	3747.8	2813.7	1872.5	1393.4	1279.6	1256.9	1262.5	1269.7	1268.2	1265.4
20°	4271.1	3864.4	2630.3	1615.1	1259.7	1205.7	1192.9	1198.5	1204.3	1201.4	1200.0
22.5°	4517.0	3989.5	2427.0	1414.7	1170.1	1137.4	1123.2	1124.6	1124.6	1119.0	1116.1
25°	4811.3	4127.5	2213.7	1272.5	1101.9	1076.2	1059.2	1053.5	1045.0	1028.0	1025.1
27.5°	5162.5	4273.8	2009.0	1173.0	1047.9	1023.7	1003.8	989.5	968.2	939.8	937.0
30°	5557.8	4451.6	1835.6	1110.4	1005.2	981.0	958.3	937.0	905.7	870.1	867.3
32.5°	6022.7	4642.1	1709.0	1069.2	966.8	941.3	914.2	888.6	854.4	819.0	820.4
35°	6577.1	4872.4	1635.1	1040.8	937.0	902.8	873.0	844.5	819.0	787.7	784.8
37.5°	7178.6	5117.0	1612.3	1026.5	917.1	864.5	830.4	810.4	807.6	789.0	787.7
40°	7836.8	5407.1	1629.3	1018.0	895.7	827.5	790.5	786.3	793.3	760.7	762.1
42.5°	8533.5	5751.1	1657.8	1008.1	865.8	790.5	755.0	755.0	749.3	703.8	703.8
45°	9287.1	6147.7	1686.2	983.9	830.4	753.6	726.5	716.6	692.4	648.3	646.9
47.5°	10046.3	6551.6	1707.5	939.8	787.7	722.2	698.1	675.4	639.8	600.0	598.6
50°	10767.1	6914.1	1684.8	874.4	739.3	692.4	666.9	635.5	597.2	570.1	565.9
52.5°	11411.2	7228.3	1588.1	797.7	688.2	661.1	638.4	605.7	574.4	545.9	543.1
55°	11971.4	7482.8	1417.5	725.1	642.7	634.1	611.4	570.1	527.5	503.3	500.5
57.5°	12508.8	7676.2	1204.3	665.4	601.4	604.2	570.1	533.2	493.3	467.8	464.9
60°	13223.9	7934.9	988.1	610.0	557.3	565.9	528.9	501.8	452.1	419.4	415.1
62.5°	14367.1	8337.3	784.8	541.7	506.1	509.0	493.3	460.6	401.0	362.5	359.7
65°	15274.1	8189.4	618.5	467.8	447.8	452.1	452.1	416.6	352.6	308.5	304.2
67.5°	15171.8	7012.2	493.3	395.2	392.4	395.2	405.2	375.4	312.8	277.3	271.5
70°	13976.1	5577.6	395.2	328.4	341.2	334.2	362.5	342.7	281.5	246.0	241.7
72.5°	11404.2	4018.0	301.5	271.5	261.6	273.0	327.0	308.5	234.6	194.7	190.5
75°	6663.9	2144.1	224.7	214.7	189.1	227.4	290.1	263.0	179.2	143.6	139.3
77.5°	2169.6	747.8	164.9	157.8	140.7	183.4	247.4	221.8	146.5	113.8	109.5
80°	581.5	226.0	112.3	103.8	91.0	136.5	196.2	176.3	105.2	73.9	72.5
82.5°	233.2	95.2	65.4	58.3	49.7	93.8	155.0	142.2	78.2	46.9	46.9
85°	75.3	31.3	24.2	18.4	22.8	58.3	92.5	96.7	55.5	24.2	18.4
87.5°	9.9	4.3	4.3	5.6	4.3	9.9	28.4	27.1	15.7	2.9	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)