

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: P967926

Luminaire Tested: **NAV-SB5A-835-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967926
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21292.3 lumens
Efficiency: N/A
Efficacy: 150.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

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



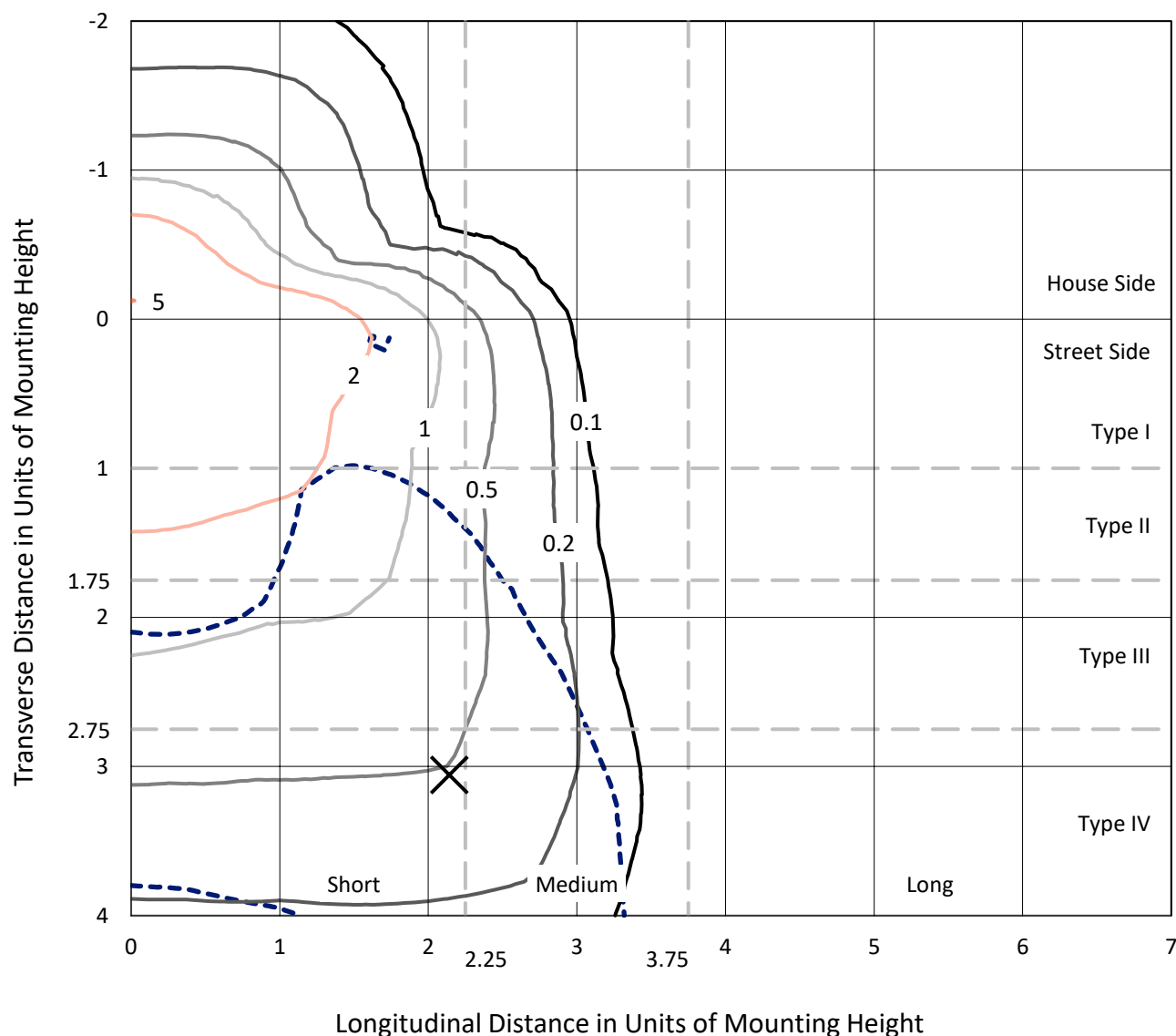
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



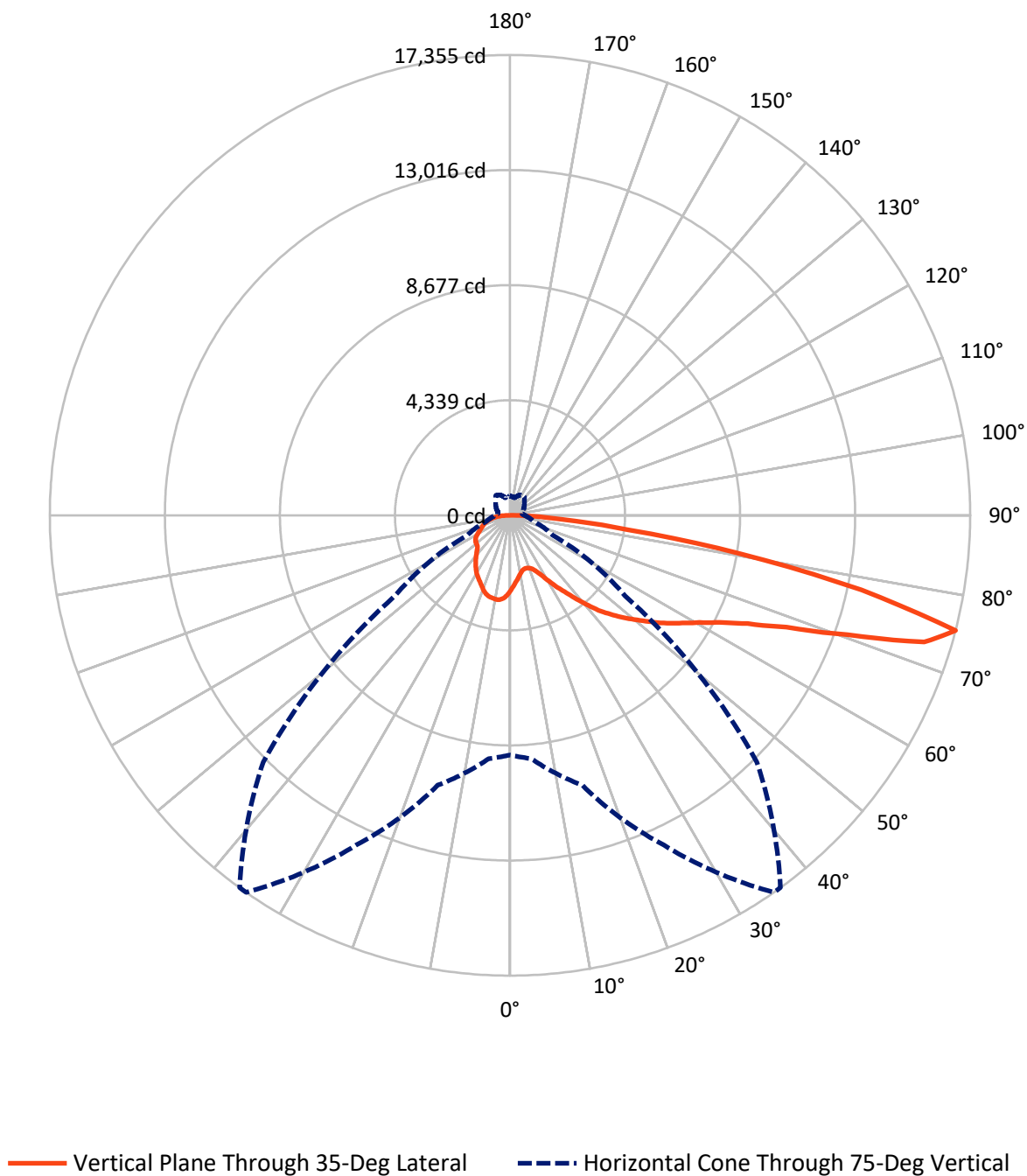
Based on 25 foot mounting height. Maximum calculated value = 5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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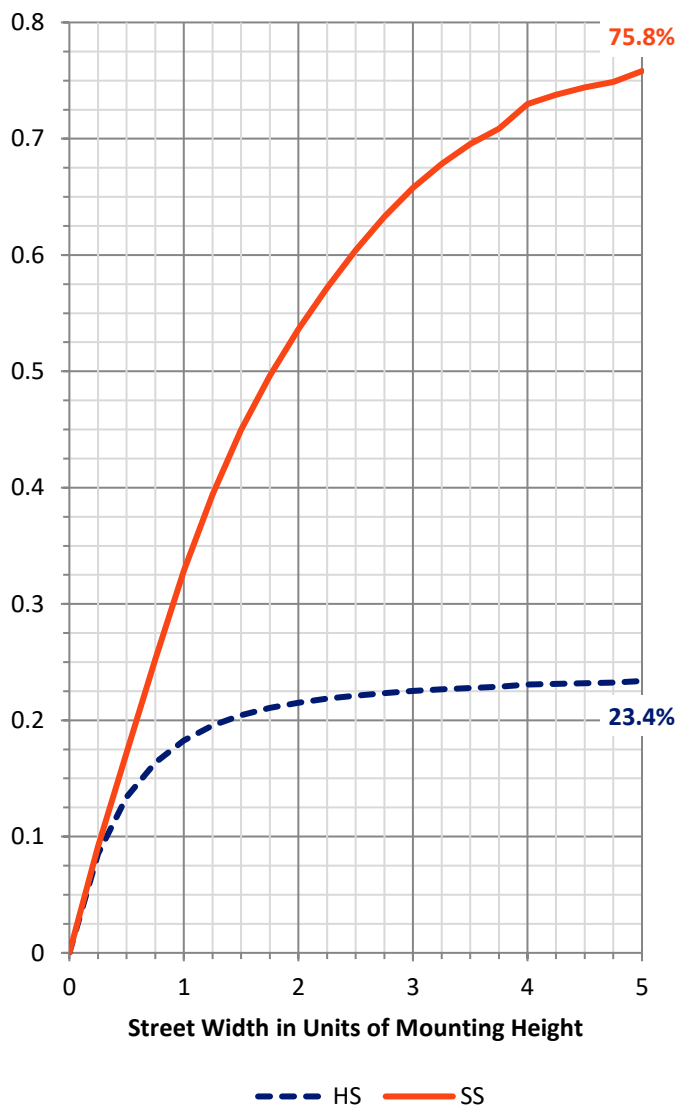
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5067.0	0.0	5067.0
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	16225.3	0.0	16225.3
	% Fixture	76.2	0.0	76.2
Total	Lumens	21292.3	0.0	21292.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.6	1.3
10°-20°	774.9	3.6
20°-30°	1301.2	6.1
30°-40°	2022.3	9.5
40°-50°	3001.6	14.1
50°-60°	4143.9	19.5
60°-70°	5027.5	23.6
70°-80°	4154.8	19.5
80°-90°	597.6	2.8
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°	21292.3	100.0
0°-180°	21292.3	100.0

Coefficient of Utilization



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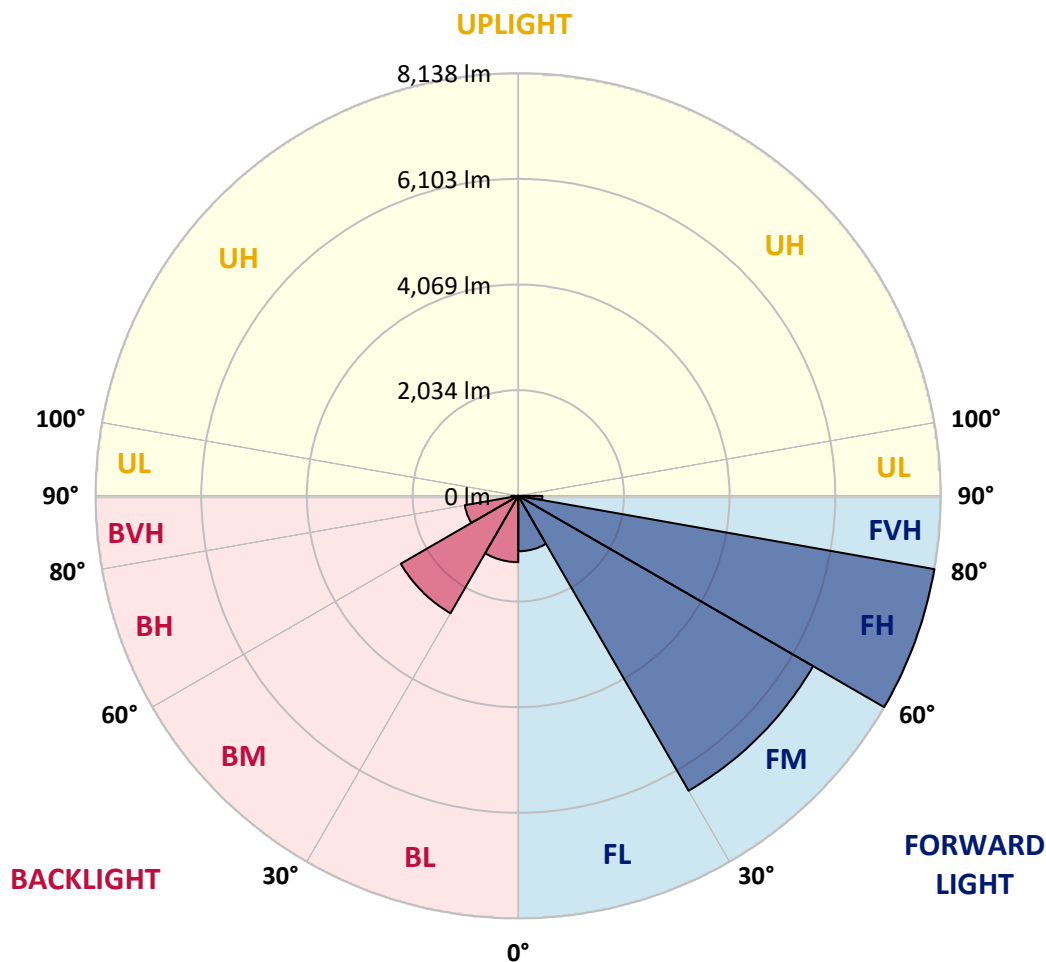
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1067.8	5.0			
FM	(30°-60°)	6556.9	30.8			
FH	(60°-80°)	8137.6	38.2			G4/12000
FVH	(80°-90°)	463.0	2.2			G3/500
BL	(0°-30°)	1277.0	6.0	B3/2500		
BM	(30°-60°)	2610.8	12.3	B3/5000		
BH	(60°-80°)	1044.7	4.9	B3/2500		G3/2500
BVH	(80°-90°)	134.6	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3
2.5°	2616.3	2632.5	2639.4	2635.9	2653.2	2650.9	2675.0	2705.0	2746.4	2786.7	2845.4
5°	2414.9	2432.2	2447.2	2460.9	2494.3	2504.7	2542.7	2600.2	2676.2	2753.4	2850.0
7.5°	2227.3	2242.3	2265.2	2290.6	2347.0	2357.4	2420.6	2510.4	2616.3	2729.2	2862.6
10°	2074.2	2089.2	2113.3	2142.1	2212.4	2225.0	2305.5	2425.3	2563.4	2706.1	2876.5
12.5°	2008.6	2013.2	2027.0	2055.7	2116.8	2124.8	2213.5	2350.4	2511.6	2688.9	2897.2
15°	2005.1	2014.3	2015.5	2030.4	2081.1	2084.5	2166.2	2302.1	2479.4	2685.4	2928.3
17.5°	2039.6	2046.6	2036.2	2045.4	2088.0	2093.8	2158.2	2279.1	2469.0	2700.4	2981.2
20°	2131.8	2137.5	2106.5	2093.8	2124.8	2129.4	2192.8	2294.1	2479.4	2731.4	3053.8
22.5°	2327.5	2330.8	2254.9	2203.1	2205.4	2207.7	2263.0	2355.0	2519.7	2787.9	3145.8
25°	2632.5	2630.1	2509.3	2409.2	2351.6	2338.9	2375.7	2454.1	2587.6	2862.6	3264.4
27.5°	2989.3	2972.0	2851.1	2701.5	2576.0	2557.7	2549.6	2583.0	2684.3	2961.6	3409.5
30°	3392.1	3376.0	3246.0	3050.3	2876.5	2846.5	2770.6	2753.4	2828.2	3096.3	3610.9
32.5°	3834.1	3823.8	3668.4	3431.3	3198.8	3164.3	3036.5	2990.4	3049.2	3300.1	3891.7
35°	4204.8	4195.6	4066.7	3822.6	3538.3	3495.8	3365.7	3313.9	3343.9	3561.4	4258.9
37.5°	4539.7	4535.1	4424.6	4232.4	3938.9	3887.1	3740.9	3723.6	3717.9	3905.6	4704.3
40°	4850.5	4839.0	4723.9	4622.6	4405.0	4357.9	4228.9	4214.0	4170.3	4329.1	5208.5
42.5°	5194.7	5164.8	4997.9	4950.6	4892.0	4852.9	4775.7	4778.0	4681.4	4806.8	5742.6
45°	5475.5	5458.3	5286.7	5259.2	5322.5	5306.3	5373.2	5390.4	5202.8	5307.6	6297.4
47.5°	5777.1	5761.0	5616.0	5596.4	5767.9	5772.5	6008.4	6014.3	5711.5	5827.7	6853.4
50°	6149.0	6125.9	5982.0	6006.2	6198.4	6215.7	6647.3	6608.2	6180.0	6356.1	7404.7
52.5°	6394.1	6407.9	6376.8	6416.0	6678.4	6694.5	7275.8	7175.6	6643.8	6877.5	7945.7
55°	6574.9	6602.4	6699.1	6788.9	7184.8	7201.0	7868.6	7715.5	7028.3	7360.9	8454.5
57.5°	6807.3	6768.2	6948.9	7123.9	7666.0	7708.6	8445.3	8235.8	7369.0	7777.7	8803.2
60°	7141.2	7113.5	7253.9	7512.9	8204.7	8272.6	9055.4	8704.3	7618.8	8108.1	8871.2
62.5°	7818.0	7748.9	7770.7	7999.8	8883.9	8973.6	9743.6	9112.9	7743.2	8236.9	8507.4
65°	8829.8	8711.2	8600.7	8759.5	9840.3	9929.0	10520.6	9434.0	7697.1	7987.1	7541.7
67.5°	10103.9	9986.6	9850.8	10000.3	11249.3	11319.5	11479.5	9614.7	7334.5	7024.8	5834.7
70°	11154.9	11111.1	11273.5	11889.2	13499.6	13501.8	12708.8	9465.2	6341.2	4980.6	3376.0
72.5°	11015.6	10989.1	11844.4	13748.2	16335.7	16274.7	13872.5	8332.4	4271.6	2246.9	1265.1
75°	9036.9	9208.4	10533.3	13714.8	17354.5	17346.4	13160.0	5297.1	1766.9	931.2	653.8
77.5°	4845.9	5117.6	6838.4	10125.8	13547.9	13751.6	9252.2	1853.2	758.5	596.2	452.3
80°	1580.3	1817.5	2725.7	5155.5	8803.2	8765.3	3965.4	727.4	519.2	422.4	313.1
82.5°	671.1	698.6	1217.8	2434.5	4517.9	4447.7	1262.7	417.8	364.9	288.9	193.4
85°	262.4	293.6	537.5	1125.8	1956.8	1914.2	455.8	207.2	233.7	188.8	115.1
87.5°	86.3	104.8	192.2	385.6	609.0	587.0	111.6	71.3	101.3	86.3	41.4
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°	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3	2837.3
2.5°	2861.5	2879.9	2901.8	2934.1	2961.6	2984.7	3008.9	3023.9	3029.6	3046.8	3045.7
5°	2882.2	2922.5	2976.6	3029.6	3081.4	3112.4	3140.1	3153.9	3166.5	3175.8	3178.0
7.5°	2916.7	2968.6	3053.8	3122.8	3166.5	3191.8	3210.3	3205.7	3210.3	3212.6	3216.0
10°	2946.7	3019.2	3120.5	3186.1	3219.5	3220.7	3216.0	3199.9	3191.8	3193.0	3195.3
12.5°	2982.3	3062.9	3172.3	3227.5	3236.7	3211.4	3191.8	3164.3	3153.9	3149.3	3147.0
15°	3030.7	3122.8	3228.7	3249.5	3226.4	3194.2	3160.8	3115.9	3092.8	3074.5	3080.2
17.5°	3089.5	3190.7	3272.4	3257.4	3207.9	3155.1	3100.9	3033.0	2985.8	2966.2	2967.4
20°	3171.1	3262.1	3305.8	3240.2	3165.4	3084.8	2992.7	2909.9	2866.1	2846.5	2844.3
22.5°	3270.2	3357.6	3338.0	3210.3	3104.4	2975.5	2860.4	2799.4	2777.4	2763.7	2766.0
25°	3388.6	3463.5	3361.1	3166.5	3004.3	2830.4	2741.8	2722.2	2711.8	2701.5	2701.5
27.5°	3542.9	3583.2	3378.3	3102.1	2847.7	2676.2	2644.0	2647.5	2644.0	2626.7	2630.1
30°	3746.7	3738.6	3394.5	2997.3	2668.2	2536.9	2539.2	2554.2	2556.5	2545.0	2550.7
32.5°	4014.9	3933.1	3402.5	2861.5	2496.6	2414.9	2417.3	2433.4	2444.8	2425.3	2434.5
35°	4339.4	4159.9	3389.9	2691.1	2364.3	2298.7	2281.3	2286.0	2289.4	2271.0	2283.7
37.5°	4718.2	4414.3	3333.4	2502.4	2254.9	2184.7	2147.9	2116.8	2098.4	2081.1	2092.6
40°	5133.7	4691.7	3229.9	2318.2	2132.9	2063.8	2008.6	1949.9	1887.7	1864.7	1875.0
42.5°	5568.8	4977.2	3104.4	2142.1	1992.5	1936.1	1877.4	1792.2	1698.9	1651.8	1657.5
45°	6020.0	5269.5	2981.2	1968.3	1848.6	1824.4	1756.5	1654.0	1552.8	1492.9	1488.3
47.5°	6462.0	5545.8	2800.5	1793.3	1713.9	1740.3	1687.5	1593.1	1480.3	1385.9	1375.6
50°	6884.4	5804.8	2504.7	1616.1	1604.5	1715.0	1664.4	1528.6	1399.6	1278.8	1268.4
52.5°	7303.4	6014.3	2126.0	1454.9	1545.9	1708.2	1634.5	1484.8	1327.2	1200.6	1186.7
55°	7659.1	6122.4	1761.2	1316.8	1460.7	1649.4	1598.8	1433.1	1224.7	1090.1	1078.5
57.5°	7861.6	6035.0	1457.2	1181.0	1343.3	1552.8	1537.8	1322.6	1102.7	999.1	985.3
60°	7774.2	5680.4	1208.6	1062.4	1231.6	1448.0	1431.9	1213.2	1009.5	911.6	897.8
62.5°	7292.0	5004.8	1011.8	958.8	1130.4	1341.0	1326.0	1129.1	938.1	843.7	828.7
65°	6320.5	4071.3	858.6	872.5	1027.9	1212.1	1233.9	1058.9	881.7	789.7	774.7
67.5°	4820.6	2949.0	739.0	797.7	927.7	1085.5	1148.7	1008.3	834.6	747.0	733.2
70°	2747.6	1674.7	637.7	725.2	839.2	968.0	1083.1	968.0	783.8	711.3	702.1
72.5°	1041.7	768.9	551.3	652.6	754.0	869.0	1010.6	904.8	725.2	671.1	661.8
75°	556.0	468.5	463.9	567.4	656.1	772.3	919.7	842.6	681.4	709.1	732.1
77.5°	378.7	331.5	387.9	485.7	549.1	665.3	823.0	748.1	590.5	588.1	542.1
80°	262.4	234.8	315.4	391.3	424.8	559.4	718.2	642.3	481.1	449.0	429.4
82.5°	157.6	153.1	236.0	292.3	300.4	431.6	595.1	538.7	393.7	343.0	345.3
85°	86.3	90.9	150.8	171.5	175.0	301.6	466.2	416.7	302.7	254.4	256.7
87.5°	24.2	31.1	55.2	68.0	84.0	156.5	277.4	247.4	151.9	105.9	105.9
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)