

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: P967853

Luminaire Tested: **NAV-SB5A-827-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967853
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-SB5A-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA 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: 14747.7 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - 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

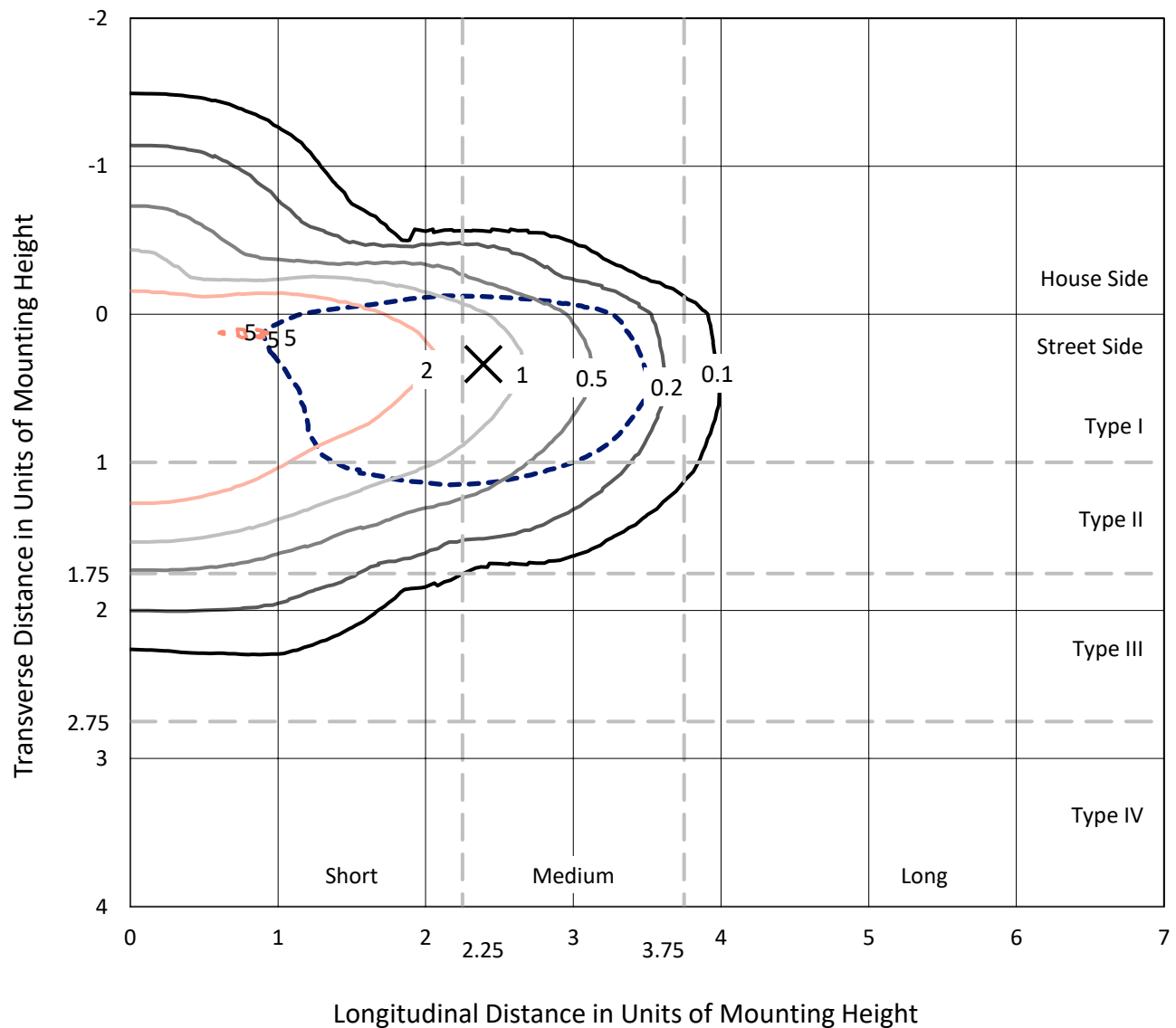


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Iso-Footcandle Lines of Horizontal Illumination

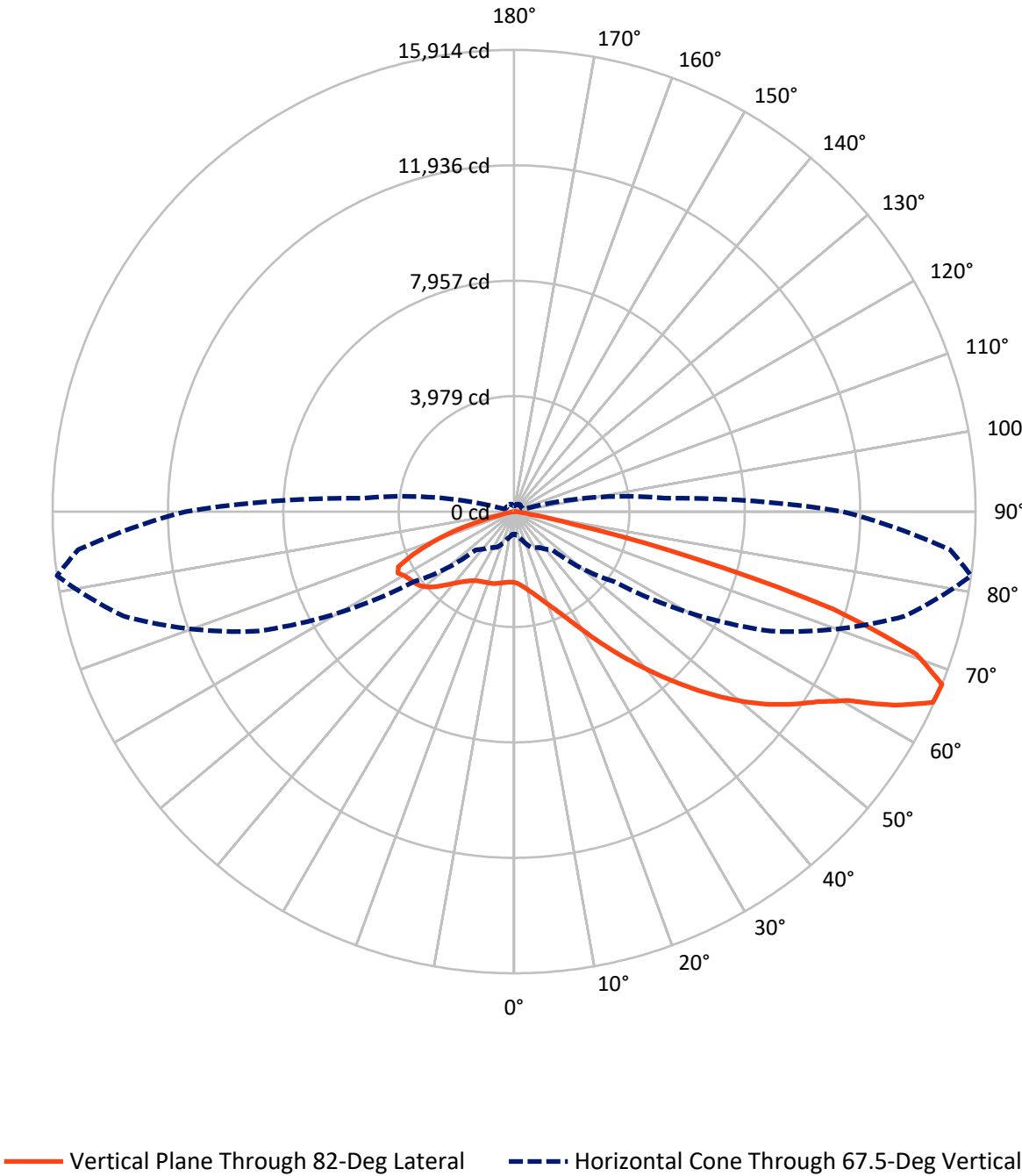
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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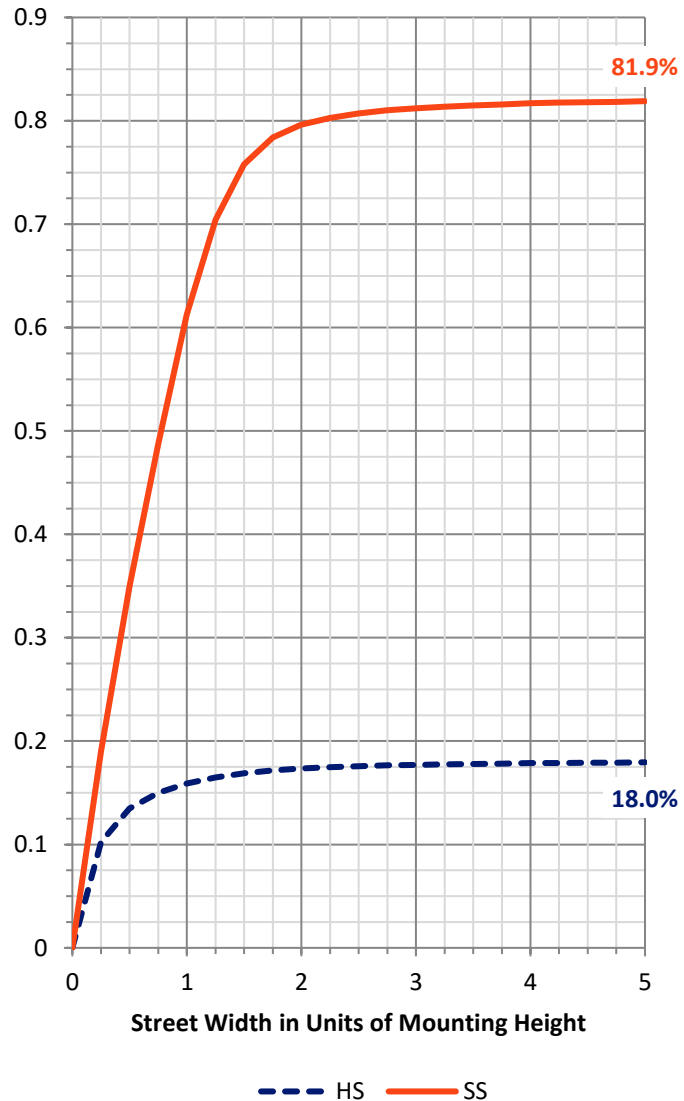
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2671.4	0.0	2671.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	12076.3	0.0	12076.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	14747.7	0.0	14747.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.7	1.5
10°-20°	565.6	3.8
20°-30°	906.0	6.1
30°-40°	1602.0	10.9
40°-50°	2806.9	19.0
50°-60°	3743.6	25.4
60°-70°	3485.1	23.6
70°-80°	1337.6	9.1
80°-90°	83.1	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°	14747.7	100.0
0°-180°	14747.7	100.0

Coefficient of Utilization



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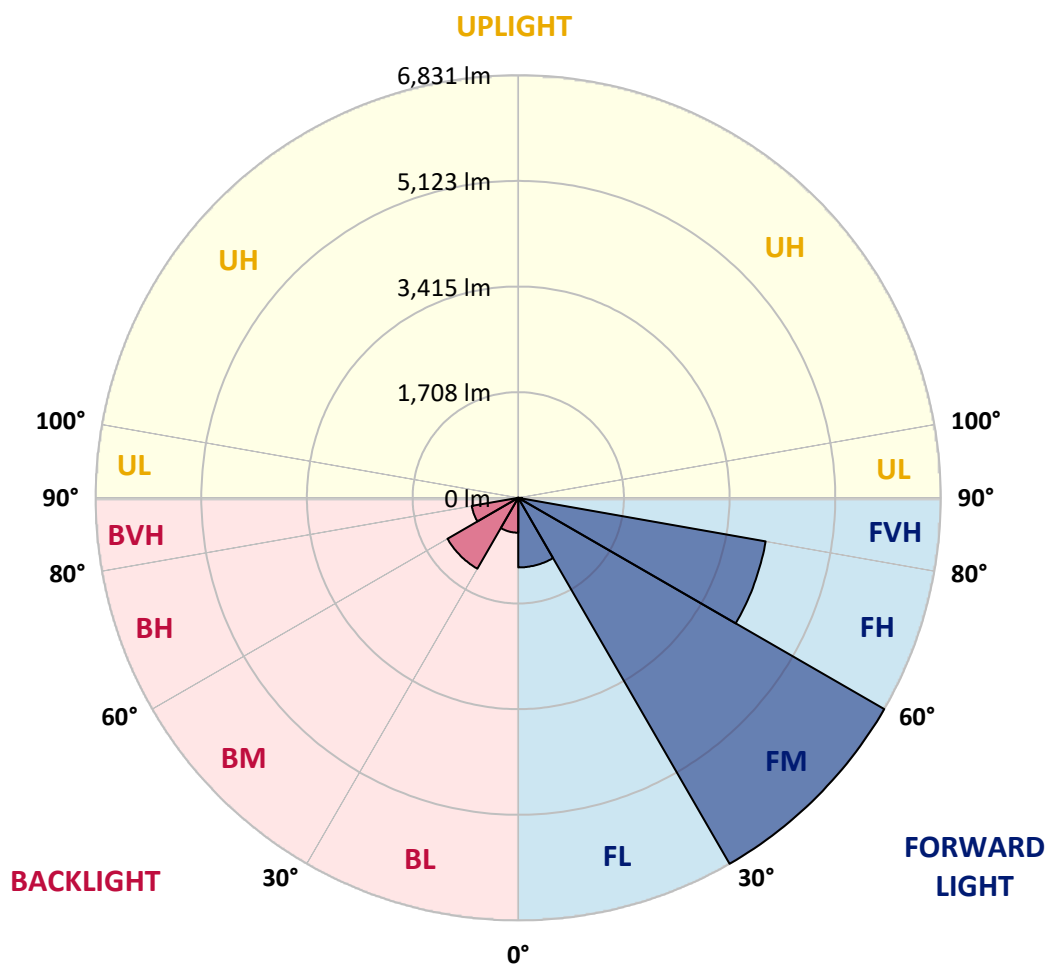
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1125.1	7.6			
FM	(30°-60°)	6830.5	46.3			
FH	(60°-80°)	4060.3	27.5			G2/5000
FVH	(80°-90°)	60.4	0.4			G1/100
BL	(0°-30°)	564.2	3.8	B2/1000		
BM	(30°-60°)	1322.1	9.0	B2/2500		
BH	(60°-80°)	762.5	5.2	B2/1000		G2/1000
BVH	(80°-90°)	22.7	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2
2.5°	2582.3	2597.1	2588.6	2584.4	2577.0	2566.4	2557.9	2531.3	2503.8	2485.6	2479.3
5°	2634.4	2649.2	2648.1	2652.4	2657.7	2660.9	2658.7	2629.0	2589.8	2558.9	2540.9
7.5°	2589.8	2606.7	2620.5	2641.7	2678.9	2718.2	2737.3	2730.9	2690.6	2648.1	2625.8
10°	2463.4	2481.4	2514.3	2564.2	2642.9	2727.7	2798.9	2831.8	2806.3	2759.6	2728.9
12.5°	2231.9	2250.0	2314.8	2423.0	2554.7	2702.3	2838.2	2926.3	2932.7	2886.0	2849.9
15°	1971.8	1989.8	2058.8	2194.7	2395.4	2632.2	2859.4	3026.1	3082.4	3042.1	2998.5
17.5°	1810.4	1826.2	1878.3	1987.7	2196.9	2492.1	2852.0	3132.3	3260.7	3229.0	3176.9
20°	1761.6	1775.3	1799.7	1876.2	2050.3	2346.5	2803.2	3232.1	3452.9	3434.9	3376.6
22.5°	1813.5	1826.2	1833.7	1867.7	1977.0	2251.0	2741.6	3334.0	3676.0	3678.1	3607.0
25°	1933.6	1946.3	1937.8	1959.0	2006.8	2221.3	2718.2	3454.0	3956.3	3979.7	3898.9
27.5°	2131.1	2132.1	2111.9	2110.9	2118.3	2265.9	2742.6	3582.5	4309.8	4353.4	4253.5
30°	2527.0	2511.1	2433.7	2349.7	2311.6	2399.6	2810.5	3734.4	4727.1	4804.6	4679.3
32.5°	3137.6	3114.3	2972.0	2771.3	2569.6	2615.2	2932.7	3907.4	5181.6	5321.7	5168.9
35°	3800.2	3793.8	3645.1	3346.8	2994.2	2922.1	3131.3	4134.6	5677.5	5900.4	5718.9
37.5°	4416.0	4412.8	4327.9	3976.4	3547.4	3350.0	3449.7	4431.9	6208.3	6531.1	6316.7
40°	4978.7	4988.4	4903.4	4589.1	4156.9	3898.9	3883.0	4799.4	6798.7	7218.0	6963.2
42.5°	5465.1	5475.7	5389.7	5157.2	4759.0	4506.3	4415.0	5249.5	7375.3	7956.0	7654.5
45°	5795.2	5861.2	5848.3	5662.6	5376.9	5114.6	5054.2	5814.4	8032.5	8738.6	8385.0
47.5°	5888.7	5949.2	6044.8	6070.3	5896.1	5638.1	5710.4	6495.0	8697.2	9522.1	9119.7
50°	5658.3	5714.6	5913.1	6177.6	6298.6	6219.0	6348.4	7224.5	9377.8	10303.7	9840.7
52.5°	5203.8	5261.2	5511.8	5930.1	6423.9	6674.5	6988.8	7943.3	10037.2	11043.8	10523.5
55°	4546.6	4607.2	4928.8	5402.5	6185.0	6862.4	7522.8	8661.0	10641.3	11709.5	11139.3
57.5°	3652.6	3697.2	4031.6	4694.2	5584.0	6675.5	7916.8	9444.7	11210.4	12363.6	11749.9
60°	2380.6	2419.8	2808.5	3547.4	4588.0	6051.2	7995.3	10318.6	11966.5	13214.1	12572.8
62.5°	1583.1	1609.7	1840.1	2382.7	3231.0	4852.5	7535.6	11016.2	13075.0	14694.2	13983.9
65°	1086.2	1112.7	1343.2	1721.2	2087.5	3209.8	6213.7	10923.7	14079.4	15869.7	15029.8
67.5°	775.1	797.4	992.8	1349.5	1511.0	1864.5	4212.1	9743.0	13935.0	15914.3	15086.1
70°	555.3	568.1	729.5	1051.1	1200.9	1120.2	2342.3	7451.6	12201.1	14695.2	13937.1
72.5°	388.6	392.9	506.5	800.6	967.3	817.5	1114.9	4968.2	9228.1	11534.3	10804.8
75°	263.3	268.7	340.8	587.2	776.1	624.3	590.4	2664.1	5417.3	6384.6	5723.1
77.5°	161.4	163.5	219.8	401.4	580.8	475.7	380.2	1128.7	2096.0	2057.8	1754.1
80°	91.3	91.3	140.1	249.5	396.1	306.9	266.5	479.9	663.6	582.9	513.9
82.5°	50.9	52.1	101.9	155.0	262.3	181.5	146.6	221.9	286.7	253.8	220.9
85°	21.2	23.4	62.6	73.3	125.3	90.3	59.4	93.5	106.2	94.5	69.0
87.5°	2.2	3.2	19.1	13.8	14.9	18.0	8.5	18.0	14.9	14.9	10.7
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2	2443.2
2.5°	2459.1	2443.2	2402.8	2356.2	2294.6	2264.8	2224.5	2196.9	2173.5	2175.7	2154.3
5°	2506.9	2466.6	2376.3	2263.7	2123.6	2023.8	1917.6	1844.4	1784.8	1772.1	1743.4
7.5°	2572.8	2509.0	2350.8	2148.0	1911.2	1731.8	1571.4	1468.4	1395.2	1371.9	1348.5
10°	2657.7	2565.3	2317.9	2002.5	1661.7	1433.5	1261.4	1180.7	1130.8	1113.9	1101.1
12.5°	2756.4	2630.0	2274.4	1825.2	1404.8	1185.0	1075.6	1035.2	1019.4	1014.0	1010.9
15°	2880.7	2710.8	2208.6	1615.0	1187.1	1033.1	986.5	981.1	983.2	981.1	980.0
17.5°	3028.3	2798.9	2101.2	1398.4	1040.6	955.6	938.6	942.9	948.2	947.1	945.0
20°	3189.6	2886.0	1964.3	1206.2	940.7	900.4	890.8	895.1	899.3	897.2	896.2
22.5°	3373.4	2979.4	1812.5	1056.5	873.8	849.4	838.9	839.9	839.9	835.7	833.5
25°	3593.1	3082.4	1653.2	950.3	822.9	803.8	791.0	786.8	780.4	767.7	765.6
27.5°	3855.4	3191.7	1500.3	876.0	782.6	764.4	749.6	739.0	723.0	701.8	699.8
30°	4150.5	3324.5	1370.7	829.2	750.7	732.7	715.7	699.8	676.4	649.8	647.7
32.5°	4497.8	3466.8	1276.3	798.5	722.0	702.9	682.8	663.6	638.2	611.6	612.6
35°	4911.9	3638.7	1221.1	777.3	699.8	674.2	651.9	630.7	611.6	588.2	586.1
37.5°	5361.1	3821.4	1204.1	766.6	684.9	645.5	620.1	605.3	603.1	589.3	588.2
40°	5852.6	4038.0	1216.8	760.2	668.9	618.0	590.4	587.2	592.4	568.1	569.1
42.5°	6372.9	4295.0	1238.1	752.9	646.7	590.4	563.9	563.9	559.5	525.6	525.6
45°	6935.7	4591.2	1259.3	734.7	620.1	562.7	542.5	535.2	517.1	484.2	483.1
47.5°	7502.7	4892.7	1275.2	701.8	588.2	539.4	521.3	504.4	477.9	448.0	447.0
50°	8041.0	5163.5	1258.2	653.0	552.2	517.1	497.9	474.6	446.0	425.8	422.6
52.5°	8522.0	5398.2	1186.0	595.6	513.9	493.7	476.7	452.3	429.0	407.7	405.6
55°	8940.4	5588.2	1058.6	541.5	479.9	473.6	456.5	425.8	393.9	375.9	373.7
57.5°	9341.6	5732.6	899.3	496.9	449.2	451.3	425.8	398.2	368.5	349.3	347.2
60°	9875.8	5925.9	738.0	455.5	416.3	422.6	395.0	374.8	337.6	313.2	310.1
62.5°	10729.5	6226.4	586.1	404.6	378.0	380.2	368.5	344.0	299.4	270.8	268.7
65°	11406.9	6116.0	461.9	349.3	334.5	337.6	337.6	311.1	263.3	230.4	227.2
67.5°	11330.5	5236.8	368.5	295.2	293.0	295.2	302.6	280.3	233.6	207.0	202.8
70°	10437.5	4165.4	295.2	245.3	254.8	249.5	270.8	255.9	210.2	183.7	180.5
72.5°	8516.6	3000.7	225.1	202.8	195.4	203.9	244.3	230.4	175.2	145.4	142.3
75°	4976.7	1601.2	167.8	160.3	141.2	169.8	216.6	196.4	133.8	107.2	104.0
77.5°	1620.3	558.5	123.2	117.9	105.2	136.9	184.7	165.6	109.4	85.0	81.8
80°	434.3	168.8	83.8	77.5	68.0	101.9	146.6	131.7	78.6	55.2	54.1
82.5°	174.1	71.1	48.9	43.6	37.2	70.1	115.7	106.2	58.4	35.1	35.1
85°	56.3	23.4	18.0	13.8	17.0	43.6	69.0	72.2	41.4	18.0	13.8
87.5°	7.5	3.2	3.2	4.2	3.2	7.5	21.2	20.2	11.7	2.2	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)