

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: P967861

Luminaire Tested: **NAV-SB5A-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967861
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20733.7 lumens
Efficiency: N/A
Efficacy: 146.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G3

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



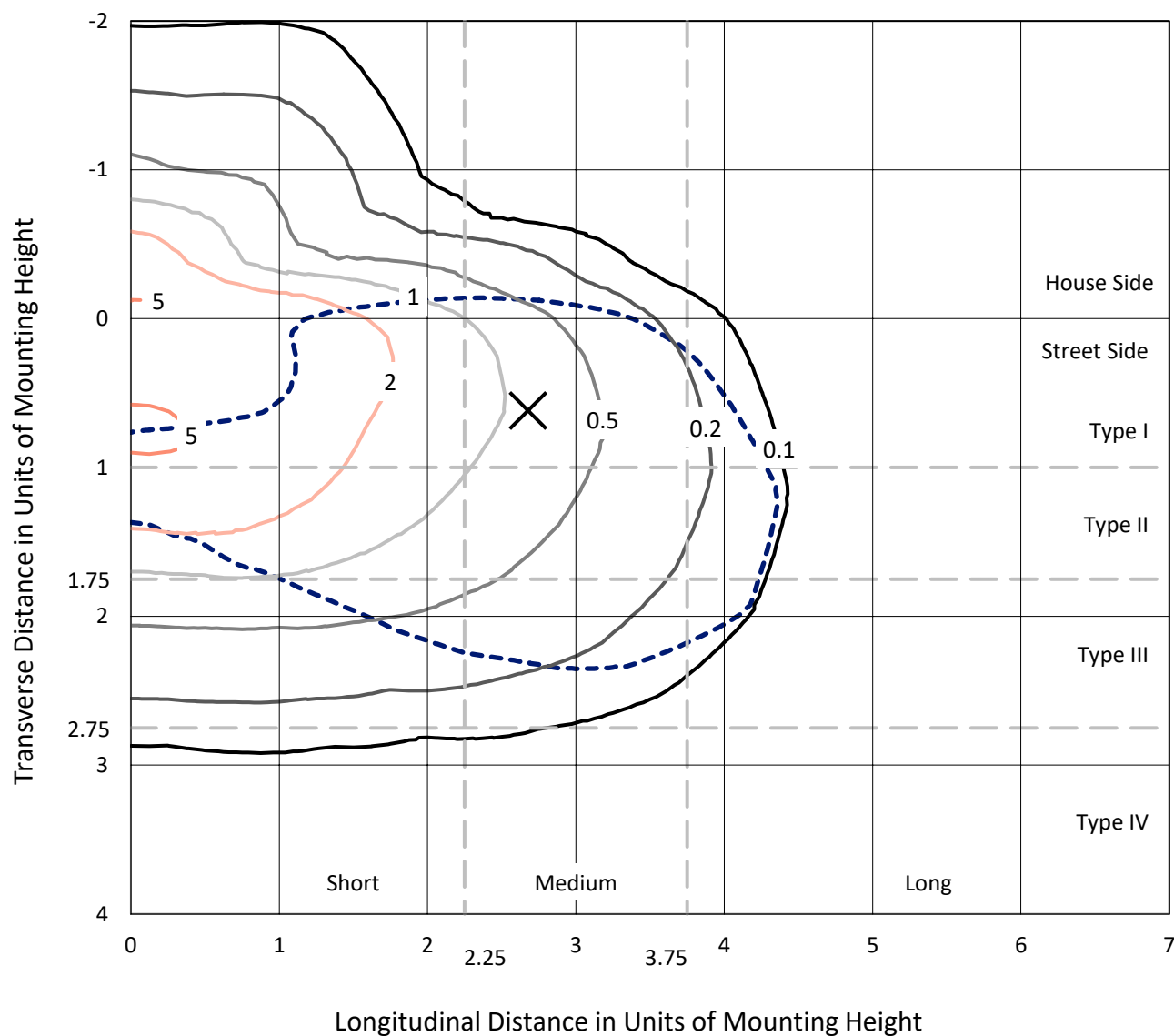
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

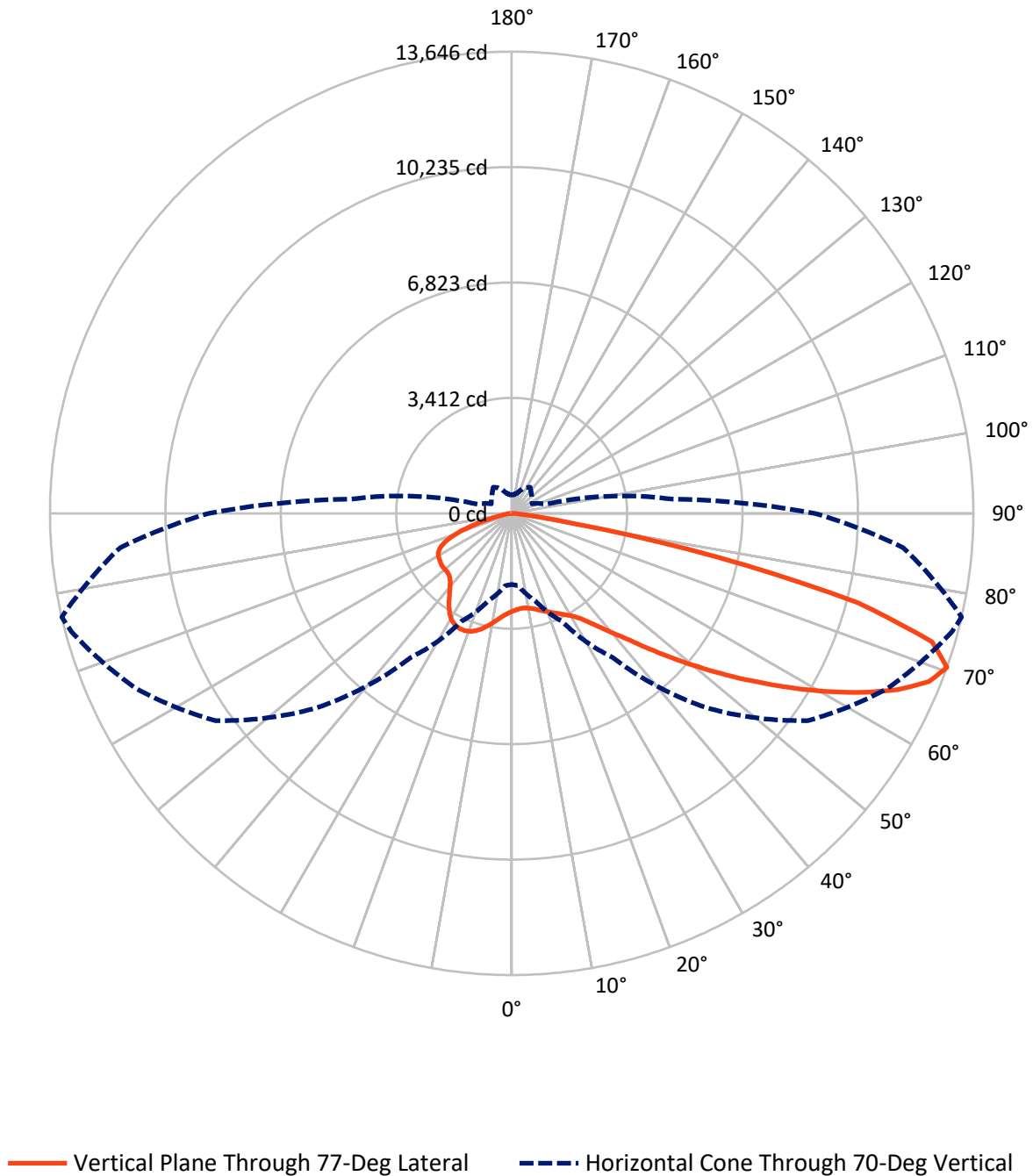


Based on 25 foot mounting height. Maximum calculated value = 5.5 fc

Type III - Medium - N/A

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Luminous Intensity Polar Plot



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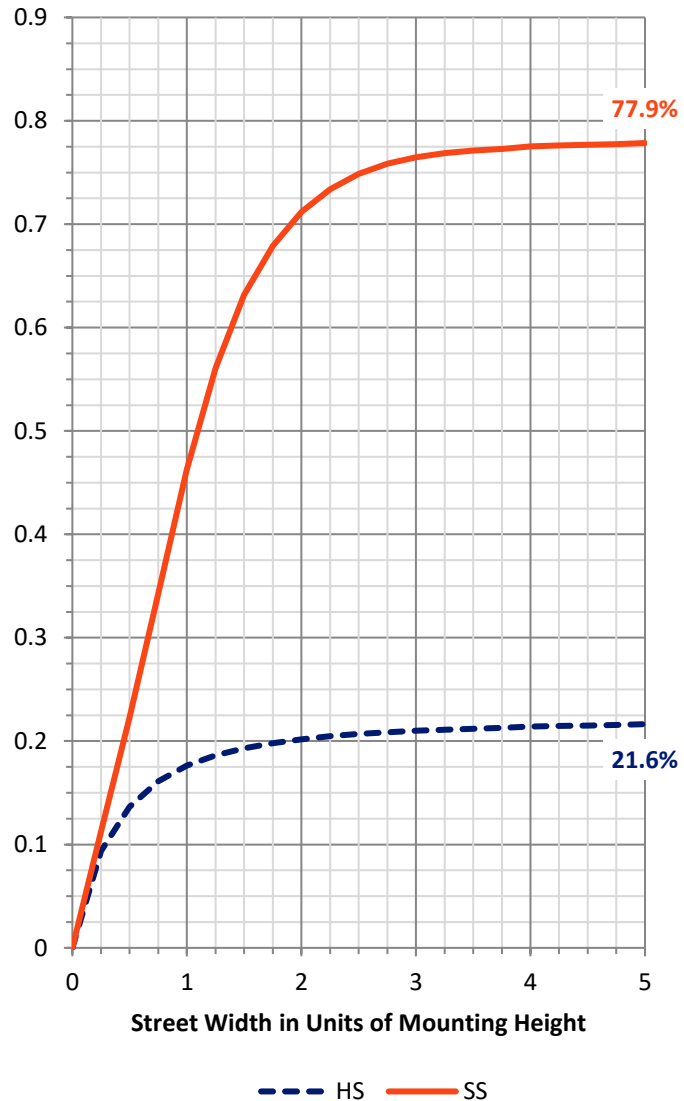
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4540.4	0.0	4540.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	16193.3	0.0	16193.3
	% Fixture	78.1	0.0	78.1
Total	Lumens	20733.7	0.0	20733.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.9	1.3
10°-20°	796.2	3.8
20°-30°	1361.6	6.6
30°-40°	2189.6	10.6
40°-50°	3418.5	16.5
50°-60°	4566.3	22.0
60°-70°	4867.0	23.5
70°-80°	2996.1	14.5
80°-90°	262.5	1.3
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°	20733.7	100.0
0°-180°	20733.7	100.0

Coefficient of Utilization



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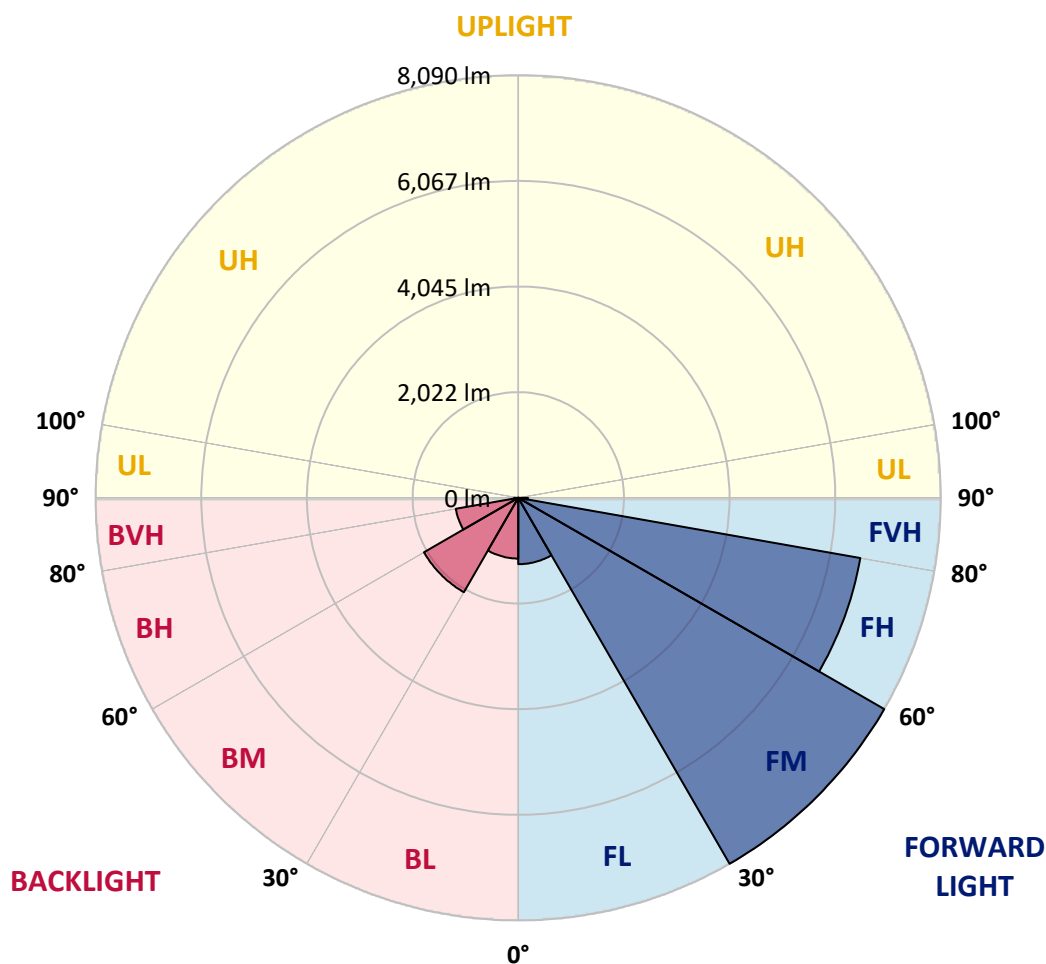
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1270.3	6.1			
FM	(30°-60°)	8089.8	39.0			
FH	(60°-80°)	6649.6	32.1			G3/7500
FVH	(80°-90°)	183.6	0.9			G2/225
BL	(0°-30°)	1163.4	5.6	B3/2500		
BM	(30°-60°)	2084.6	10.1	B2/2500		
BH	(60°-80°)	1213.4	5.9	B3/2500		G3/2500
BVH	(80°-90°)	79.0	0.4			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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5
2.5°	2666.3	2665.3	2679.1	2683.3	2708.9	2726.9	2760.8	2797.0	2843.7	2849.0	2877.7
5°	2512.4	2512.4	2528.4	2545.3	2578.2	2614.4	2666.3	2729.1	2809.7	2822.4	2893.6
7.5°	2381.8	2390.3	2404.0	2437.0	2475.3	2527.2	2606.9	2696.1	2802.2	2822.4	2937.1
10°	2276.6	2286.2	2303.2	2329.7	2387.1	2459.3	2563.3	2678.0	2820.3	2852.2	3000.9
12.5°	2243.7	2253.3	2262.9	2283.0	2336.1	2421.0	2545.3	2686.5	2863.8	2895.7	3087.9
15°	2320.2	2331.9	2324.4	2319.2	2346.7	2424.2	2553.8	2717.4	2918.1	2963.7	3195.1
17.5°	2496.5	2500.7	2483.7	2433.9	2429.6	2471.0	2594.2	2759.8	2986.0	3035.8	3303.5
20°	2781.0	2773.6	2738.6	2639.8	2583.5	2575.0	2663.2	2823.6	3056.0	3109.1	3420.3
22.5°	3167.6	3159.0	3088.9	2932.9	2807.6	2724.8	2763.0	2906.4	3134.7	3194.1	3533.9
25°	3649.6	3637.9	3535.0	3322.6	3128.3	2923.3	2898.9	3015.8	3231.3	3286.5	3652.8
27.5°	4212.4	4202.9	4091.4	3811.1	3530.7	3195.1	3067.7	3144.2	3332.2	3394.8	3786.7
30°	4817.7	4845.3	4647.9	4346.2	3991.6	3549.9	3295.0	3302.4	3462.8	3519.0	3949.1
32.5°	5529.2	5576.9	5339.1	4956.8	4472.6	3935.3	3581.7	3523.3	3652.8	3699.5	4154.0
35°	6234.3	6288.4	6090.9	5668.2	5110.8	4389.8	3881.2	3777.1	3905.6	3956.5	4425.8
37.5°	6843.7	6916.0	6814.0	6446.6	5793.6	4937.7	4271.9	4075.5	4216.6	4280.4	4791.2
40°	7324.8	7435.2	7427.8	7198.5	6598.4	5602.4	4767.8	4443.9	4603.2	4672.3	5234.0
42.5°	7715.6	7811.1	7893.9	7882.2	7438.4	6357.5	5350.8	4922.9	5043.9	5123.6	5732.0
45°	7985.3	8087.2	8265.6	8457.8	8246.5	7165.5	6018.7	5490.9	5601.4	5721.3	6325.6
47.5°	8226.3	8342.1	8573.5	8878.3	8932.5	7976.8	6750.3	6152.5	6253.3	6377.7	6921.3
50°	8247.6	8347.4	8706.2	9138.5	9419.9	8756.2	7536.1	6894.8	6989.3	7122.0	7559.5
52.5°	7734.6	7891.9	8518.4	9131.0	9643.9	9408.2	8316.5	7666.7	7772.9	7932.2	8220.0
55°	6003.8	6234.3	7967.2	8846.5	9564.3	9829.8	9058.8	8487.5	8623.4	8790.2	8884.7
57.5°	5171.3	5272.2	6324.6	8328.2	9201.1	9939.1	9685.3	9316.8	9535.6	9718.2	9587.6
60°	4647.9	4731.7	5354.0	7522.3	8723.3	9766.0	10169.5	10089.9	10467.9	10685.6	10306.6
62.5°	4087.2	4166.8	4732.7	6281.0	8111.6	9478.3	10475.4	10803.5	11423.6	11661.5	10984.0
65°	3530.7	3598.7	4141.3	5277.5	7334.4	9190.5	10633.6	11420.4	12308.2	12554.5	11546.8
67.5°	2910.6	2966.9	3479.8	4452.4	6389.2	8796.6	10712.2	11905.7	13078.0	13289.3	11825.0
70°	2100.4	2143.9	2673.8	3521.2	5203.2	8119.0	10680.3	12249.8	13477.3	13646.1	11614.8
72.5°	992.8	1032.2	1654.4	2286.2	3675.1	6800.3	10035.8	11976.8	13071.6	12987.8	10327.8
75°	529.9	563.9	950.4	1254.1	1941.1	4661.6	8212.5	10317.1	10976.6	10568.8	7632.8
77.5°	359.0	385.5	588.2	752.9	886.6	2213.0	5278.5	7143.2	6872.4	6199.2	3822.7
80°	284.5	312.2	482.1	509.7	429.0	799.6	2181.1	3306.6	2375.4	1899.7	1087.3
82.5°	218.7	249.6	405.6	369.5	233.6	328.1	635.0	1045.9	608.4	463.0	263.3
85°	133.8	166.7	318.6	235.7	131.7	149.8	215.6	291.0	185.8	155.1	94.5
87.5°	68.0	95.5	161.4	86.0	59.4	35.1	57.3	57.3	48.9	42.4	24.4
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°	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5	2892.5
2.5°	2903.2	2924.4	2960.5	2994.4	3021.0	3046.5	3072.0	3085.8	3090.1	3107.1	3116.6
5°	2937.1	2976.4	3046.5	3112.3	3153.7	3179.2	3197.3	3207.9	3210.0	3215.3	3223.8
7.5°	2999.8	3062.4	3160.2	3226.0	3256.7	3254.7	3247.2	3220.7	3210.0	3200.5	3202.6
10°	3087.9	3170.7	3290.8	3336.4	3317.3	3266.4	3200.5	3123.0	3086.9	3051.8	3041.2
12.5°	3197.3	3302.4	3420.3	3418.2	3323.7	3193.1	3040.1	2921.2	2845.8	2791.7	2778.9
15°	3330.0	3451.1	3541.4	3469.1	3262.1	3027.4	2803.4	2648.3	2580.3	2520.9	2514.5
17.5°	3467.1	3596.5	3637.9	3453.2	3107.1	2782.1	2528.4	2406.2	2339.3	2307.5	2317.0
20°	3600.8	3729.3	3695.3	3361.9	2871.3	2503.9	2277.8	2210.8	2197.0	2204.5	2201.3
22.5°	3742.1	3856.8	3707.0	3185.6	2570.8	2219.3	2095.1	2097.1	2128.0	2150.2	2155.6
25°	3886.5	3964.0	3676.2	2930.8	2248.0	2010.1	1979.4	2013.3	2073.9	2117.3	2129.0
27.5°	4025.6	4059.5	3609.3	2615.4	1970.9	1860.4	1865.7	1935.8	2027.1	2087.6	2102.5
30°	4182.7	4144.5	3480.8	2260.7	1778.7	1731.9	1776.5	1858.3	1949.5	2003.8	2016.5
32.5°	4360.0	4217.8	3276.9	1932.6	1642.8	1628.9	1702.2	1755.3	1795.6	1811.6	1820.1
35°	4580.9	4320.8	3015.8	1702.2	1520.6	1553.5	1623.6	1597.1	1581.2	1572.7	1581.2
37.5°	4867.6	4459.9	2709.9	1552.5	1421.9	1499.4	1528.1	1445.2	1382.5	1351.8	1359.1
40°	5212.7	4663.8	2415.7	1436.7	1359.1	1452.6	1402.7	1302.9	1223.2	1179.8	1183.0
42.5°	5596.1	4877.2	2168.4	1349.6	1324.2	1414.4	1310.4	1191.5	1062.9	1049.1	1062.9
45°	5998.5	5097.0	1999.5	1282.8	1307.2	1381.5	1257.3	1065.1	973.7	1030.0	1059.7
47.5°	6400.9	5298.7	1897.6	1232.9	1298.7	1344.3	1210.5	995.0	930.2	1012.0	1050.2
50°	6849.0	5479.2	1851.9	1196.7	1289.1	1329.4	1140.4	976.9	884.6	938.7	979.1
52.5°	7294.0	5619.5	1817.9	1160.6	1275.3	1317.7	1106.5	955.7	829.3	832.5	854.8
55°	7737.8	5710.8	1780.7	1112.8	1244.6	1292.3	1103.3	932.3	787.9	773.1	783.6
57.5°	8211.5	5762.8	1735.1	1059.7	1191.5	1227.5	1100.1	914.3	775.2	750.7	753.9
60°	8693.5	5839.2	1675.7	995.0	1120.3	1150.0	1092.6	907.9	767.7	726.3	729.5
62.5°	9125.8	5865.8	1604.5	933.4	1029.0	1073.6	1076.8	902.6	747.5	676.4	676.4
65°	9409.3	5751.1	1480.2	863.3	930.2	995.0	1045.9	884.6	711.5	640.3	640.3
67.5°	9397.6	5424.1	1286.0	773.1	834.7	907.9	1001.3	853.7	667.9	595.7	598.9
70°	8960.0	4778.4	1039.6	667.9	729.5	814.5	944.0	808.1	615.9	546.8	553.2
72.5°	7684.7	3739.9	755.0	544.8	607.4	717.8	869.7	752.9	562.8	503.4	500.1
75°	5489.9	2366.9	511.8	418.4	472.5	608.4	777.3	688.1	513.9	505.4	476.8
77.5°	2804.4	1130.9	338.8	305.9	329.2	480.0	653.0	614.8	521.4	417.3	371.7
80°	912.1	417.3	213.4	208.2	218.7	319.6	505.4	504.4	395.0	283.5	250.6
82.5°	291.0	179.5	139.1	133.8	128.5	200.7	352.5	399.2	266.5	179.5	178.4
85°	115.7	107.2	81.8	75.4	54.1	94.5	184.8	265.5	198.5	129.6	132.7
87.5°	42.4	42.4	22.3	15.9	11.7	31.9	49.9	79.6	113.6	66.9	65.8
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)