

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: P884336

Luminaire Tested: **NAV-SB5A-835-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884336
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14025 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

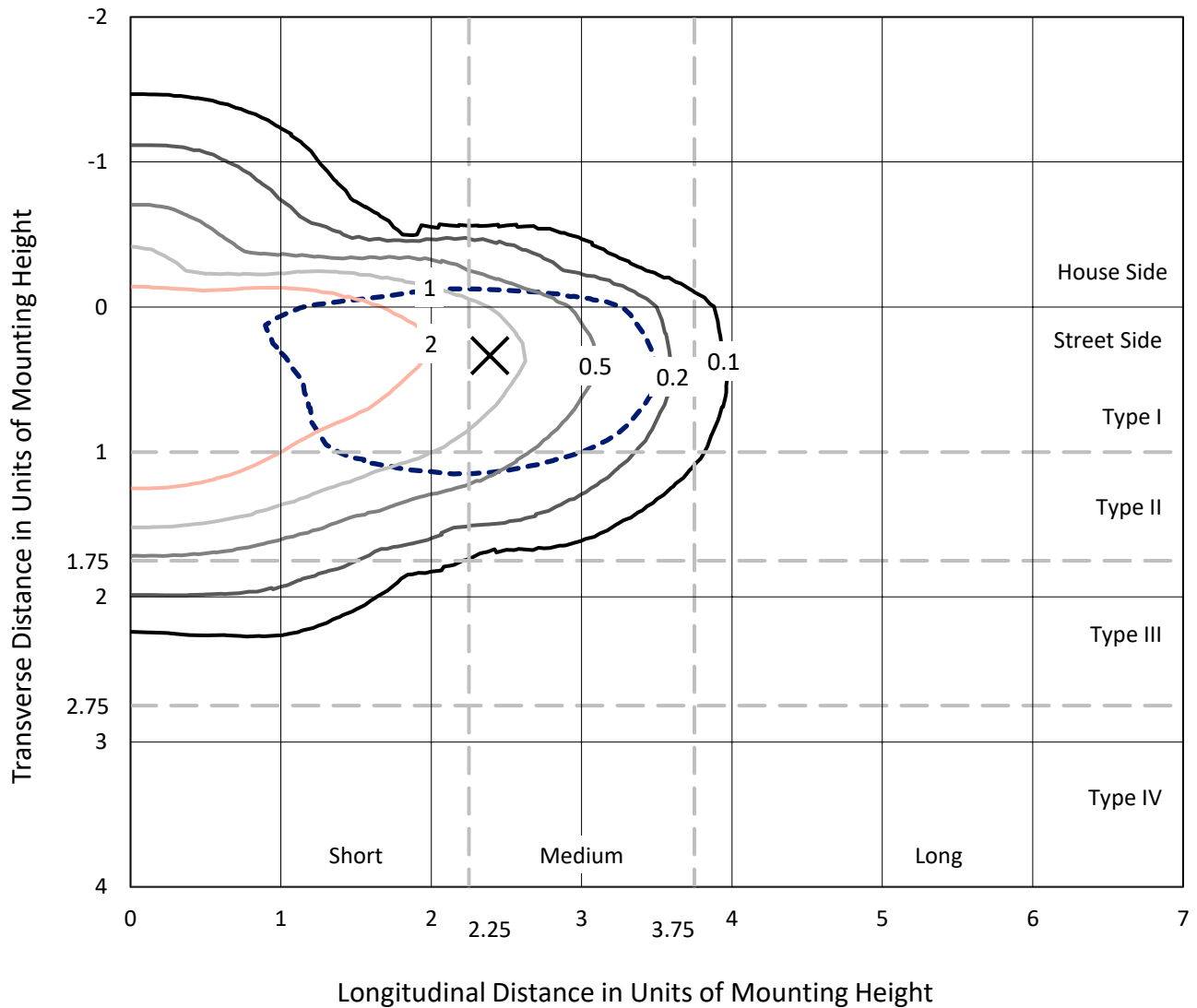
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

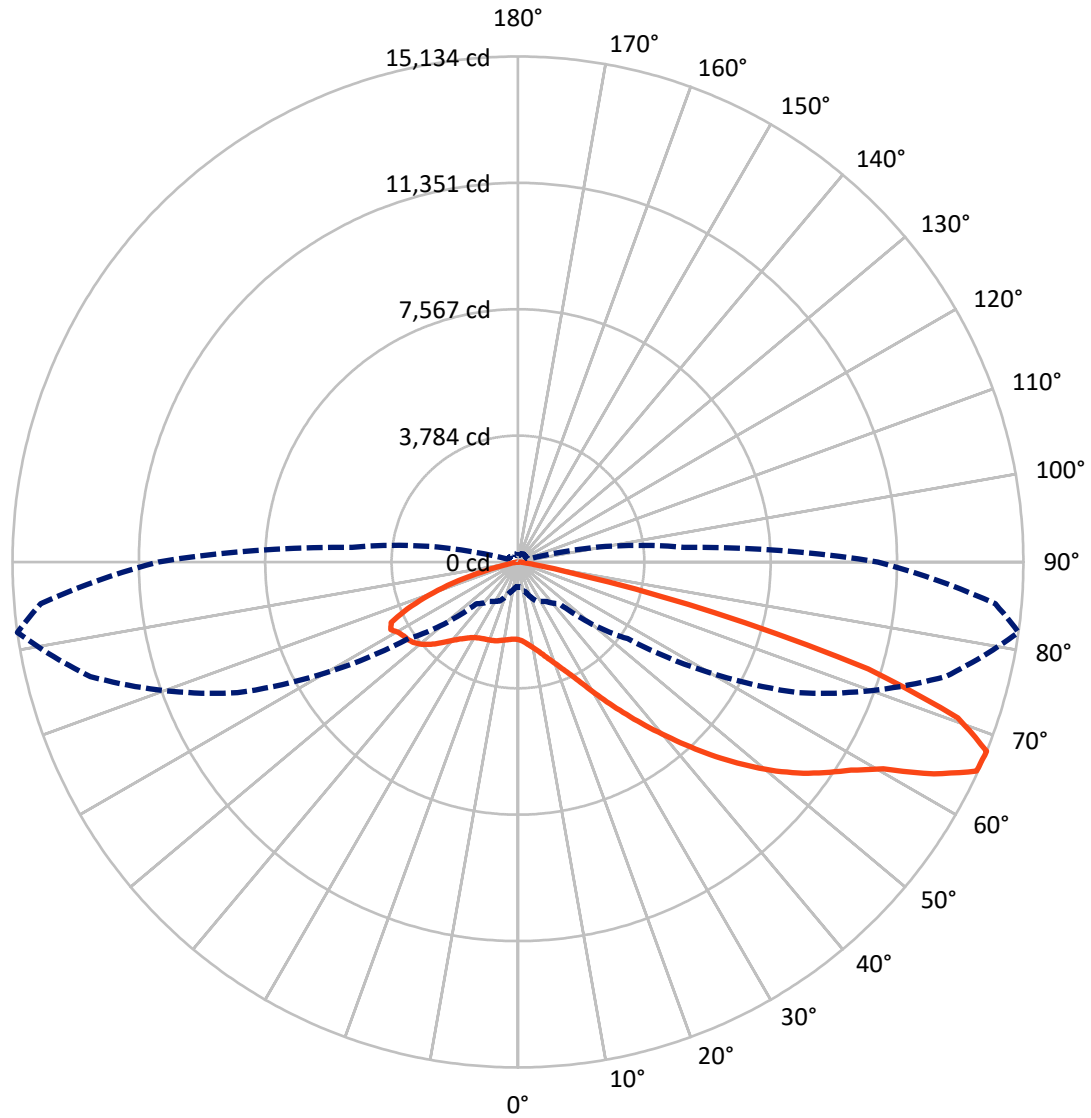
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2540.5	0.0	2540.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	11484.5	0.0	11484.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	14025.0	0.0	14025.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.0	1.5
10°-20°	537.9	3.8
20°-30°	861.6	6.1
30°-40°	1523.5	10.9
40°-50°	2669.4	19.0
50°-60°	3560.2	25.4
60°-70°	3314.4	23.6
70°-80°	1272.0	9.1
80°-90°	79.0	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°	14025.0	100.0
0°-180°	14025.0	100.0

Coefficient of Utilization



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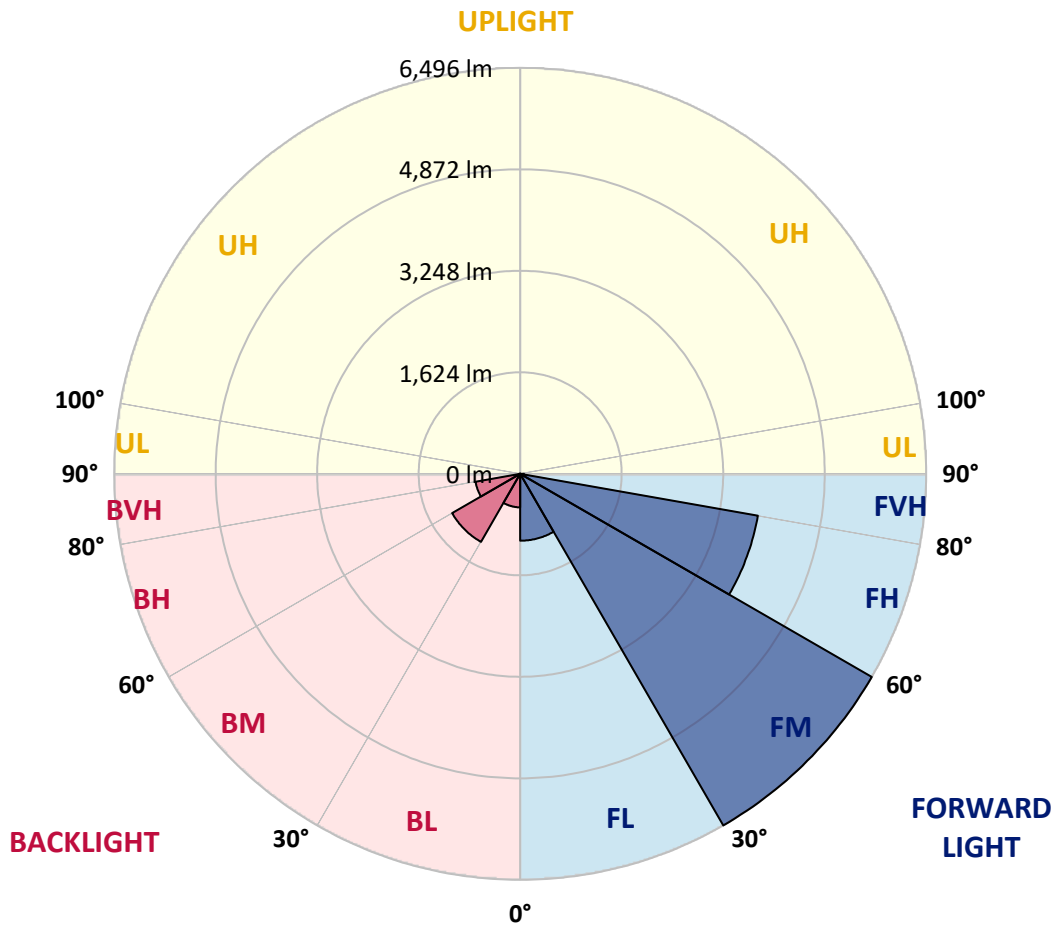
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1070.0	7.6			
FM (30°-60°)	6495.8	46.3			
FH (60°-80°)	3861.3	27.5			G2/5000
FVH (80°-90°)	57.4	0.4			G1/100
BL (0°-30°)	536.5	3.8	B2/1000		
BM (30°-60°)	1257.3	9.0	B2/2500		
BH (60°-80°)	725.1	5.2	B2/1000		G2/1000
BVH (80°-90°)	21.6	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°	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5
2.5°	2455.7	2469.9	2461.8	2457.8	2450.7	2440.6	2432.5	2407.3	2381.0	2363.9	2357.8
5°	2505.2	2519.4	2518.4	2522.4	2527.4	2530.5	2528.5	2500.2	2462.8	2433.5	2416.4
7.5°	2462.8	2479.0	2492.1	2512.3	2547.6	2585.0	2603.2	2597.1	2558.7	2518.4	2497.1
10°	2342.7	2359.8	2391.1	2438.6	2513.3	2594.1	2661.7	2693.0	2668.8	2624.4	2595.1
12.5°	2122.5	2139.7	2201.3	2304.3	2429.5	2569.9	2699.1	2782.9	2789.0	2744.5	2710.2
15°	1875.1	1892.3	1957.9	2087.2	2278.0	2503.2	2719.3	2877.8	2931.3	2893.0	2851.6
17.5°	1721.6	1736.8	1786.3	1890.3	2089.2	2369.9	2712.2	2978.8	3101.0	3070.7	3021.2
20°	1675.2	1688.3	1711.6	1784.3	1949.9	2231.6	2665.8	3073.7	3283.8	3266.6	3211.1
22.5°	1724.7	1736.8	1743.9	1776.2	1880.2	2140.7	2607.2	3170.7	3495.8	3497.8	3430.2
25°	1838.8	1850.9	1842.8	1863.0	1908.5	2112.4	2585.0	3284.8	3762.4	3784.6	3707.9
27.5°	2026.6	2027.6	2008.4	2007.4	2014.5	2154.8	2608.2	3406.9	4098.6	4140.0	4045.1
30°	2403.2	2388.1	2314.4	2234.6	2198.3	2282.1	2672.8	3551.3	4495.5	4569.2	4450.0
32.5°	2983.9	2961.6	2826.3	2635.5	2443.6	2487.0	2789.0	3715.9	4927.7	5060.9	4915.5
35°	3613.9	3607.9	3466.5	3182.8	2847.5	2778.9	2977.8	3932.0	5399.2	5611.3	5438.6
37.5°	4199.6	4196.6	4115.8	3781.6	3373.6	3185.8	3280.7	4214.8	5904.1	6211.1	6007.1
40°	4734.8	4743.9	4663.1	4364.2	3953.2	3707.9	3692.7	4564.1	6465.5	6864.4	6622.0
42.5°	5197.3	5207.4	5125.6	4904.4	4525.8	4285.4	4198.6	4992.3	7013.8	7566.2	7279.4
45°	5511.3	5573.9	5561.8	5385.1	5113.4	4864.0	4806.5	5529.5	7638.9	8310.4	7974.1
47.5°	5600.2	5657.7	5748.6	5772.8	5607.2	5361.8	5430.5	6176.7	8271.0	9055.6	8672.9
50°	5381.0	5434.6	5623.4	5874.8	5989.9	5914.2	6037.4	6870.4	8918.2	9798.8	9358.5
52.5°	4948.9	5003.4	5241.7	5639.5	6109.1	6347.4	6646.3	7554.0	9545.3	10502.6	10007.8
55°	4323.8	4381.4	4687.3	5137.7	5881.9	6526.1	7154.2	8236.6	10119.9	11135.7	10593.4
57.5°	3473.6	3516.0	3834.1	4464.2	5310.4	6348.4	7528.8	8981.9	10661.1	11757.7	11174.1
60°	2263.9	2301.3	2670.8	3373.6	4363.2	5754.6	7603.5	9812.9	11380.0	12566.5	11956.6
62.5°	1505.6	1530.8	1749.9	2265.9	3072.7	4614.6	7166.3	10476.3	12434.2	13974.1	13298.6
65°	1033.0	1058.2	1277.4	1636.8	1985.2	3052.5	5909.1	10388.5	13389.5	15091.9	14293.2
67.5°	737.1	758.3	944.1	1283.4	1436.9	1773.1	4005.7	9265.6	13252.1	15134.3	14346.7
70°	528.1	540.2	693.7	999.7	1142.0	1065.3	2227.5	7086.5	11603.2	13975.1	13254.2
72.5°	369.6	373.6	481.7	761.4	919.9	777.5	1060.3	4724.7	8775.9	10969.1	10275.4
75°	250.4	255.5	324.1	558.4	738.1	593.7	561.4	2533.5	5151.8	6071.7	5442.6
77.5°	153.5	155.5	209.0	381.7	552.3	452.4	361.5	1073.4	1993.3	1956.9	1668.1
80°	86.8	86.8	133.3	237.3	376.6	291.8	253.5	456.4	631.1	554.4	488.7
82.5°	48.5	49.5	96.9	147.4	249.4	172.7	139.3	211.0	272.6	241.3	210.0
85°	20.2	22.2	59.6	69.7	119.2	85.8	56.5	88.9	101.0	89.9	65.6
87.5°	2.0	3.0	18.2	13.1	14.1	17.2	8.1	17.2	14.1	14.1	10.1
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°	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5
2.5°	2338.6	2323.5	2285.1	2240.7	2182.1	2153.8	2115.5	2089.2	2067.0	2069.0	2048.8
5°	2384.1	2345.7	2259.9	2152.8	2019.5	1924.6	1823.6	1754.0	1697.4	1685.3	1658.0
7.5°	2446.7	2386.1	2235.6	2042.8	1817.6	1646.9	1494.5	1396.5	1326.8	1304.6	1282.4
10°	2527.4	2439.6	2204.3	1904.4	1580.3	1363.2	1199.6	1122.9	1075.4	1059.2	1047.1
12.5°	2621.3	2501.2	2162.9	1735.8	1335.9	1126.9	1022.9	984.5	969.4	964.3	961.3
15°	2739.5	2577.9	2100.3	1535.9	1128.9	982.5	938.1	933.0	935.0	933.0	932.0
17.5°	2879.8	2661.7	1998.3	1329.9	989.6	908.8	892.6	896.7	901.7	900.7	898.7
20°	3033.3	2744.5	1868.1	1147.1	894.7	856.3	847.2	851.2	855.3	853.3	852.2
22.5°	3208.0	2833.4	1723.7	1004.7	831.0	807.8	797.7	798.7	798.7	794.7	792.7
25°	3417.0	2931.3	1572.2	903.7	782.6	764.4	752.3	748.2	742.2	730.1	728.0
27.5°	3666.5	3035.4	1426.8	833.1	744.2	727.0	712.9	702.8	687.6	667.5	665.4
30°	3947.2	3161.6	1303.6	788.6	713.9	696.7	680.6	665.4	643.2	618.0	616.0
32.5°	4277.4	3296.9	1213.7	759.3	686.6	668.5	649.3	631.1	606.9	581.6	582.6
35°	4671.2	3460.5	1161.2	739.1	665.4	641.2	620.0	599.8	581.6	559.4	557.4
37.5°	5098.3	3634.1	1145.1	729.0	651.3	613.9	589.7	575.6	573.5	560.4	559.4
40°	5565.8	3840.1	1157.2	723.0	636.2	587.7	561.4	558.4	563.4	540.2	541.2
42.5°	6060.6	4084.5	1177.4	715.9	614.9	561.4	536.2	536.2	532.1	499.8	499.8
45°	6595.8	4366.2	1197.6	698.8	589.7	535.2	516.0	508.9	491.8	460.5	459.4
47.5°	7135.0	4653.0	1212.7	667.5	559.4	513.0	495.8	479.6	454.4	426.1	425.1
50°	7646.9	4910.5	1196.6	621.0	525.1	491.8	473.6	451.4	424.1	404.9	401.9
52.5°	8104.4	5133.6	1127.9	566.5	488.7	469.5	453.4	430.2	407.9	387.7	385.7
55°	8502.2	5314.4	1006.7	515.0	456.4	450.4	434.2	404.9	374.6	357.5	355.4
57.5°	8883.9	5451.7	855.3	472.6	427.1	429.1	404.9	378.7	350.4	332.2	330.2
60°	9391.8	5635.5	701.8	433.2	395.8	401.9	375.6	356.4	321.1	297.9	294.9
62.5°	10203.7	5921.3	557.4	384.7	359.5	361.5	350.4	327.2	284.8	257.5	255.5
65°	10847.9	5816.2	439.2	332.2	318.1	321.1	321.1	295.9	250.4	219.1	216.1
67.5°	10775.2	4980.2	350.4	280.7	278.7	280.7	287.8	266.6	222.1	196.9	192.9
70°	9926.0	3961.3	280.7	233.3	242.3	237.3	257.5	243.4	199.9	174.7	171.7
72.5°	8099.3	2853.6	214.1	192.9	185.8	193.9	232.2	219.1	166.6	138.3	135.3
75°	4732.8	1522.7	159.5	152.5	134.3	161.6	206.0	186.8	127.2	102.0	99.0
77.5°	1540.9	531.1	117.1	112.1	100.0	130.3	175.7	157.5	104.0	80.8	77.8
80°	413.0	160.6	79.8	73.7	64.6	96.9	139.3	125.2	74.7	52.5	51.5
82.5°	165.6	67.7	46.4	41.4	35.3	66.6	110.1	101.0	55.5	33.3	33.3
85°	53.5	22.2	17.2	13.1	16.2	41.4	65.6	68.7	39.4	17.2	13.1
87.5°	7.1	3.0	3.0	4.0	3.0	7.1	20.2	19.2	11.1	2.0	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)