

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: P884256

Luminaire Tested: **NAV-SB5A-727-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884256
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-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 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: 15063 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

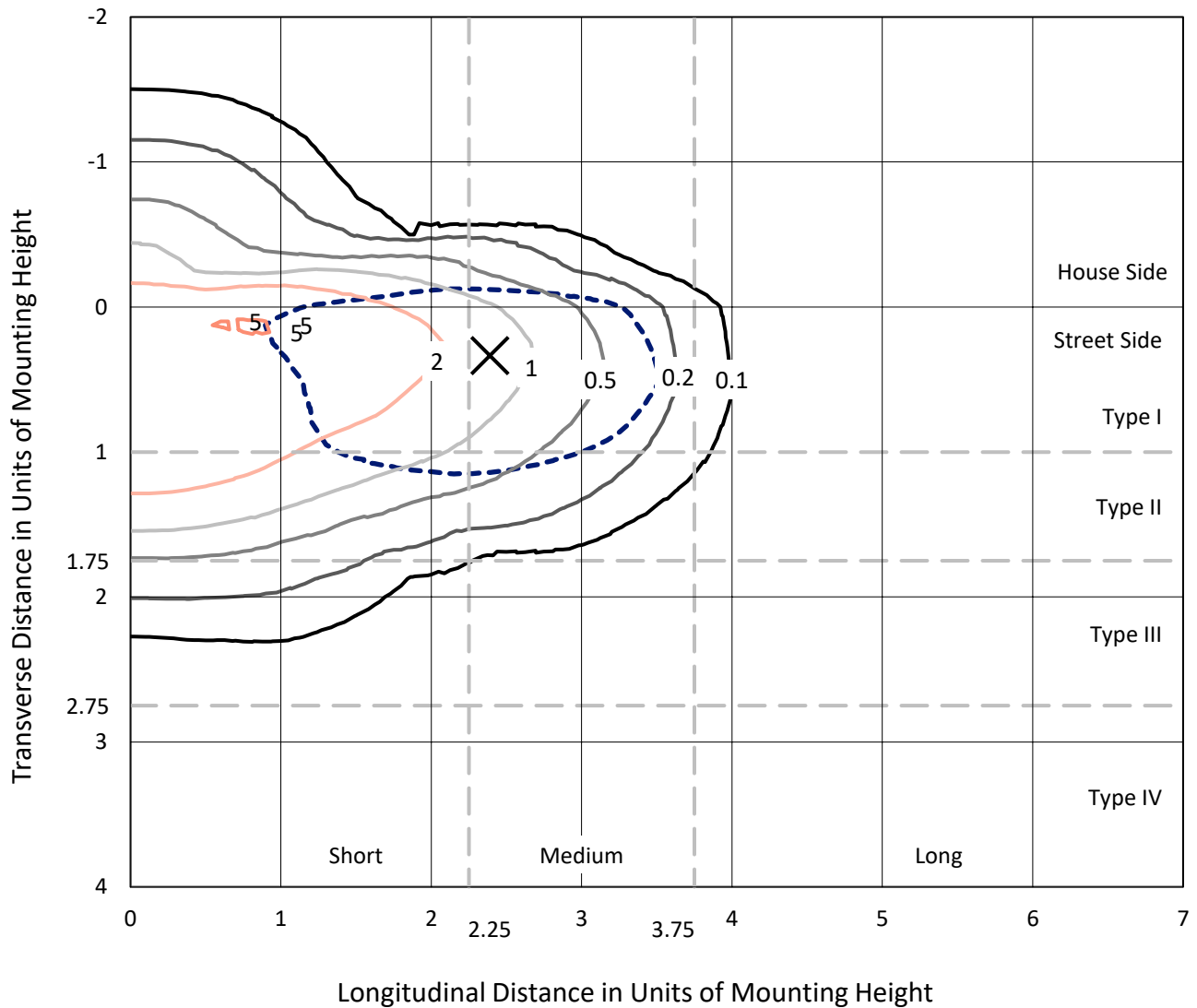
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

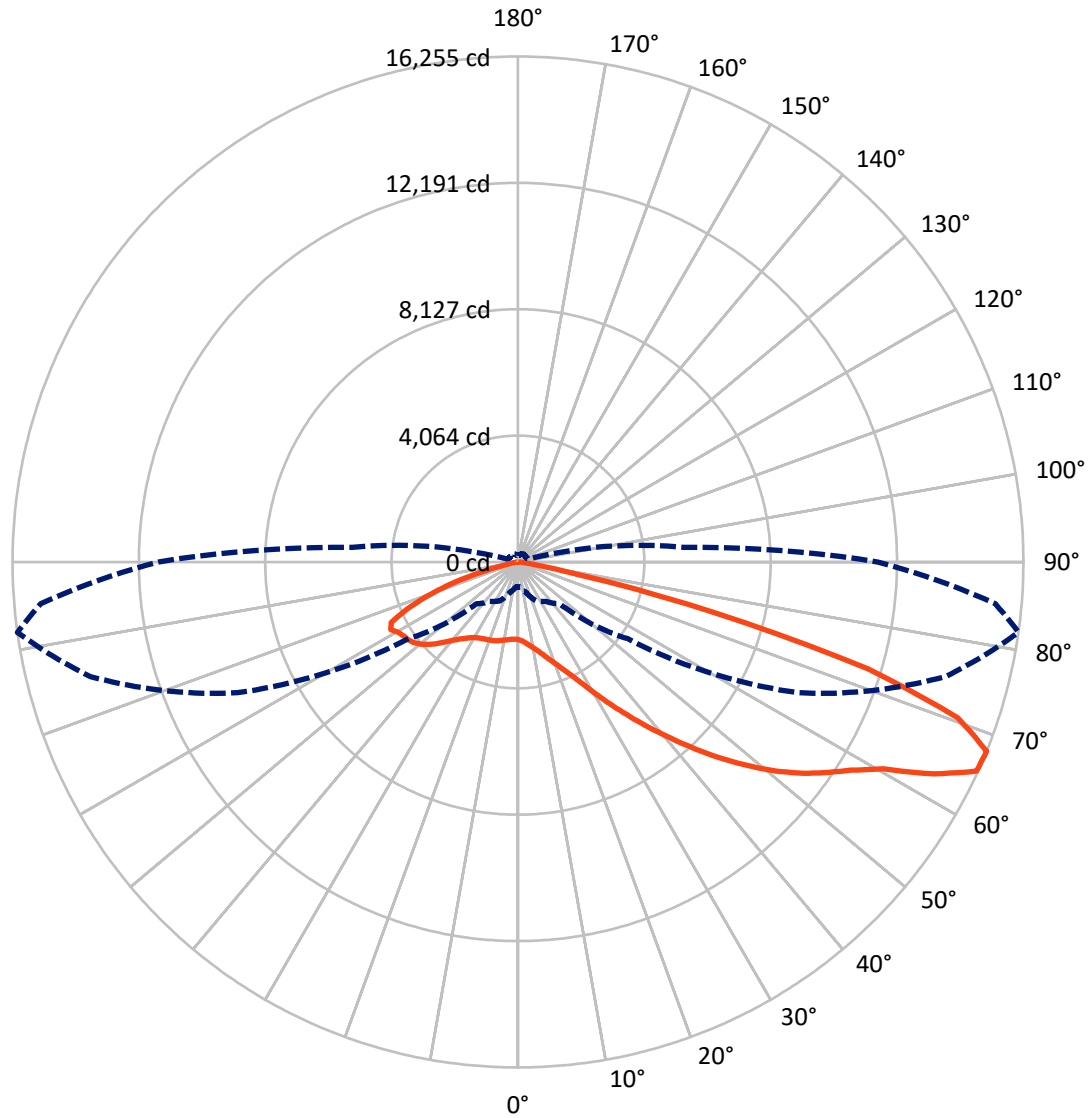
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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	2728.5	0.0	2728.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	12334.5	0.0	12334.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	15063.0	0.0	15063.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.3	1.5
10°-20°	577.7	3.8
20°-30°	925.3	6.1
30°-40°	1636.3	10.9
40°-50°	2866.9	19.0
50°-60°	3823.7	25.4
60°-70°	3559.7	23.6
70°-80°	1366.2	9.1
80°-90°	84.9	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°	15063.0	100.0
0°-180°	15063.0	100.0

Coefficient of Utilization



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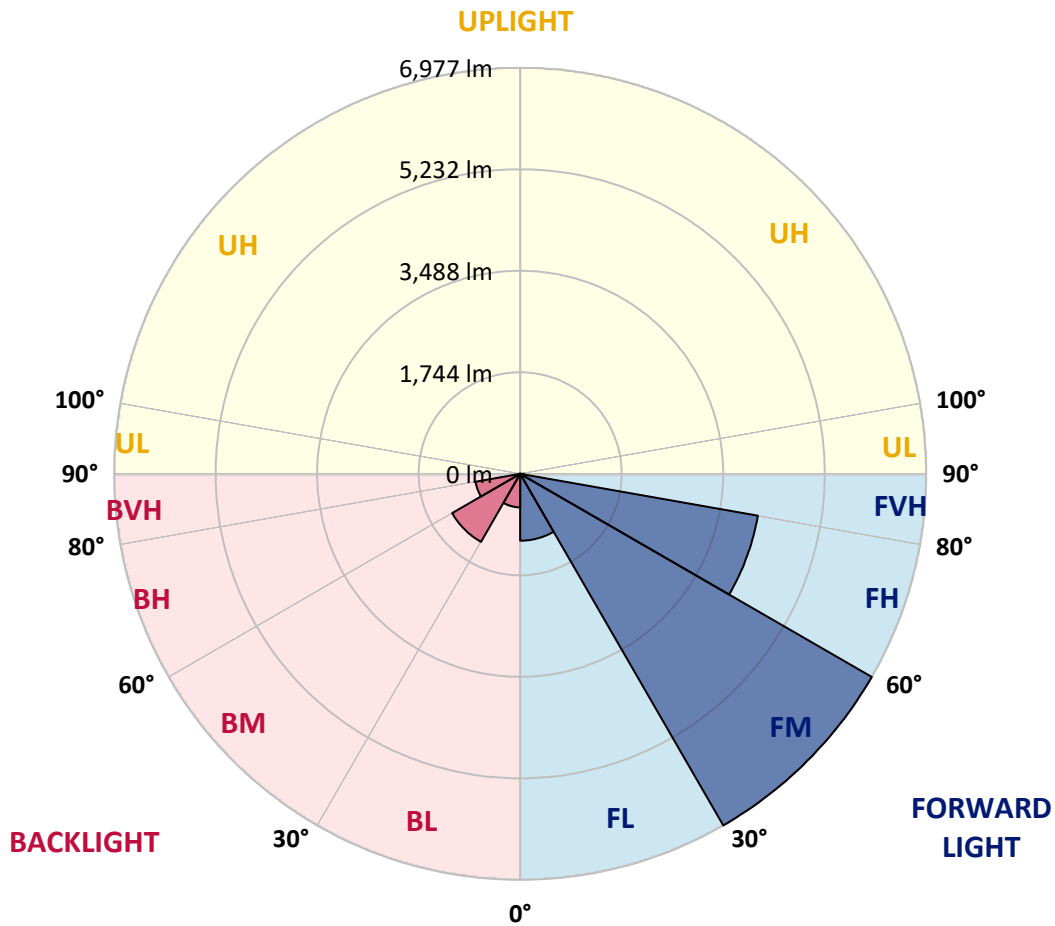
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1149.1	7.6			
FM (30°-60°)	6976.6	46.3			
FH (60°-80°)	4147.1	27.5			G2/5000
FVH (80°-90°)	61.7	0.4			G1/100
BL (0°-30°)	576.3	3.8	B2/1000		
BM (30°-60°)	1350.3	9.0	B2/2500		
BH (60°-80°)	778.8	5.2	B2/1000		G2/1000
BVH (80°-90°)	23.2	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°	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4
2.5°	2637.5	2652.7	2644.0	2639.7	2632.1	2621.2	2612.6	2585.4	2557.2	2538.8	2532.3
5°	2690.6	2705.8	2704.7	2709.1	2714.5	2717.8	2715.6	2685.2	2645.1	2613.6	2595.2
7.5°	2645.1	2662.4	2676.5	2698.2	2736.2	2776.3	2795.8	2789.3	2748.1	2704.7	2682.0
10°	2516.0	2534.5	2568.1	2619.1	2699.3	2786.1	2858.7	2892.4	2866.3	2818.6	2787.2
12.5°	2279.6	2298.1	2364.2	2474.8	2609.3	2760.0	2898.9	2988.9	2995.4	2947.7	2910.8
15°	2013.9	2032.3	2102.8	2241.7	2446.6	2688.5	2920.6	3090.8	3148.3	3107.1	3062.6
17.5°	1849.1	1865.3	1918.5	2030.2	2243.8	2545.3	2913.0	3199.3	3330.5	3298.0	3244.8
20°	1799.2	1813.3	1838.2	1916.3	2094.2	2396.7	2863.1	3301.2	3526.8	3508.4	3448.7
22.5°	1852.3	1865.3	1872.9	1907.6	2019.3	2299.1	2800.2	3405.3	3754.5	3756.7	3684.0
25°	1974.9	1987.9	1979.2	2000.9	2049.7	2268.8	2776.3	3527.9	4040.8	4064.7	3982.3
27.5°	2176.6	2177.7	2157.1	2156.0	2163.6	2314.3	2801.3	3659.1	4402.0	4446.4	4344.5
30°	2581.1	2564.8	2485.7	2400.0	2361.0	2451.0	2870.7	3814.2	4828.2	4907.4	4779.4
32.5°	3204.7	3180.8	3035.5	2830.5	2624.5	2671.1	2995.4	3991.0	5292.3	5435.5	5279.3
35°	3881.4	3874.9	3723.1	3418.3	3058.3	2984.5	3198.2	4223.0	5798.8	6026.6	5841.1
37.5°	4510.4	4507.2	4420.4	4061.4	3623.3	3421.6	3523.5	4526.7	6341.1	6670.7	6451.7
40°	5085.2	5095.0	5008.2	4687.2	4245.8	3982.3	3966.0	4901.9	6944.0	7372.4	7112.1
42.5°	5581.9	5592.8	5504.9	5267.4	4860.7	4602.6	4509.3	5361.8	7532.9	8126.1	7818.1
45°	5919.2	5986.4	5973.4	5783.6	5491.9	5224.0	5162.2	5938.7	8204.2	8925.4	8564.3
47.5°	6014.6	6076.4	6174.0	6200.1	6022.2	5758.7	5832.4	6633.9	8883.1	9725.8	9314.8
50°	5779.3	5836.8	6039.6	6309.6	6433.2	6351.9	6484.2	7378.9	9578.3	10524.0	10051.1
52.5°	5315.1	5373.7	5629.6	6056.9	6561.2	6817.2	7138.2	8113.1	10251.8	11279.9	10748.5
55°	4643.8	4705.6	5034.2	5517.9	6317.2	7009.1	7683.7	8846.2	10868.8	11959.8	11377.5
57.5°	3730.7	3776.2	4117.8	4794.6	5703.4	6818.2	8086.0	9646.6	11450.1	12627.9	12001.1
60°	2431.4	2471.6	2868.5	3623.3	4686.1	6180.6	8166.3	10539.1	12222.3	13496.6	12841.5
62.5°	1617.0	1644.1	1879.4	2433.6	3300.1	4956.2	7696.7	11251.7	13354.5	15008.4	14282.8
65°	1109.4	1136.6	1371.9	1758.0	2132.1	3278.4	6346.5	11157.3	14380.4	16208.9	15351.1
67.5°	791.7	814.5	1014.0	1378.4	1543.2	1904.4	4302.2	9951.4	14232.9	16254.5	15408.5
70°	567.2	580.2	745.0	1073.7	1226.6	1144.1	2392.4	7611.0	12462.0	15009.4	14235.1
72.5°	396.9	401.3	517.3	817.7	988.0	835.1	1138.7	5074.4	9425.4	11780.9	11035.8
75°	269.0	274.4	348.1	599.7	792.8	637.7	603.0	2721.0	5533.1	6521.1	5845.4
77.5°	164.8	167.0	224.5	409.9	593.2	485.9	388.3	1152.8	2140.8	2101.8	1791.6
80°	93.3	93.3	143.2	254.9	404.5	313.4	272.2	490.2	677.8	595.4	524.9
82.5°	52.1	53.1	104.1	158.3	267.9	185.4	149.7	226.7	292.8	259.2	225.6
85°	21.7	23.9	64.0	74.8	128.0	92.2	60.7	95.4	108.4	96.5	70.5
87.5°	2.2	3.3	19.5	14.1	15.2	18.4	8.7	18.4	15.2	15.2	10.8
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°	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4	2495.4
2.5°	2511.7	2495.4	2454.2	2406.5	2343.6	2313.2	2272.0	2243.8	2220.0	2222.1	2200.4
5°	2560.5	2519.3	2427.1	2312.1	2169.0	2067.1	1958.6	1883.8	1823.0	1810.0	1780.7
7.5°	2627.7	2562.7	2401.1	2193.9	1952.1	1768.8	1605.1	1499.9	1425.0	1401.2	1377.3
10°	2714.5	2620.1	2367.5	2045.4	1697.2	1464.1	1288.4	1206.0	1155.0	1137.6	1124.6
12.5°	2815.4	2686.3	2323.0	1864.3	1434.8	1210.3	1098.6	1057.4	1041.1	1035.7	1032.4
15°	2942.2	2768.7	2255.8	1649.5	1212.5	1055.2	1007.5	1002.1	1004.2	1002.1	1001.0
17.5°	3093.0	2858.7	2146.2	1428.3	1062.8	976.0	958.7	963.0	968.5	967.4	965.2
20°	3257.8	2947.7	2006.3	1232.0	960.9	919.7	909.9	914.2	918.6	916.4	915.3
22.5°	3445.4	3043.1	1851.2	1079.1	892.5	867.6	856.8	857.8	857.8	853.5	851.3
25°	3669.9	3148.3	1688.6	970.6	840.5	821.0	808.0	803.6	797.1	784.1	781.9
27.5°	3937.8	3260.0	1532.4	894.7	799.3	780.8	765.7	754.8	738.5	716.9	714.7
30°	4239.3	3395.6	1400.1	847.0	766.7	748.3	731.0	714.7	690.8	663.7	661.5
32.5°	4593.9	3540.9	1303.6	815.5	737.5	717.9	697.3	677.8	651.8	624.7	625.8
35°	5016.9	3716.6	1247.2	793.9	714.7	688.7	665.9	644.2	624.7	600.8	598.6
37.5°	5475.6	3903.1	1229.8	783.0	699.5	659.4	633.3	618.2	616.0	601.9	600.8
40°	5977.8	4124.3	1242.8	776.5	683.2	631.2	603.0	599.7	605.1	580.2	581.3
42.5°	6509.2	4386.8	1264.5	768.9	660.5	603.0	575.9	575.9	571.5	536.8	536.8
45°	7083.9	4689.4	1286.2	750.5	633.3	574.8	554.2	546.6	528.2	494.5	493.4
47.5°	7663.1	4997.4	1302.5	716.9	600.8	550.9	532.5	515.1	488.0	457.7	456.6
50°	8212.9	5273.9	1285.1	667.0	563.9	528.2	508.6	484.8	455.5	434.9	431.6
52.5°	8704.2	5513.6	1211.4	608.4	524.9	504.3	486.9	462.0	438.1	416.4	414.3
55°	9131.5	5707.7	1081.2	553.1	490.2	483.7	466.3	434.9	402.3	383.9	381.7
57.5°	9541.4	5855.2	918.6	507.5	458.7	460.9	434.9	406.7	376.3	356.8	354.6
60°	10086.9	6052.6	753.7	465.2	425.1	431.6	403.4	382.8	344.9	319.9	316.7
62.5°	10958.8	6359.5	598.6	413.2	386.1	388.3	376.3	351.4	305.8	276.5	274.4
65°	11650.8	6246.7	471.8	356.8	341.6	344.9	344.9	317.8	269.0	235.3	232.1
67.5°	11572.7	5348.7	376.3	301.5	299.3	301.5	309.1	286.3	238.6	211.5	207.1
70°	10660.6	4254.5	301.5	250.5	260.3	254.9	276.5	261.4	214.7	187.6	184.4
72.5°	8698.8	3064.8	229.9	207.1	199.5	208.2	249.4	235.3	178.9	148.6	145.3
75°	5083.0	1635.4	171.4	163.8	144.2	173.5	221.2	200.6	136.6	109.5	106.3
77.5°	1654.9	570.4	125.8	120.4	107.4	139.9	188.7	169.2	111.7	86.8	83.5
80°	443.6	172.4	85.7	79.2	69.4	104.1	149.7	134.5	80.3	56.4	55.3
82.5°	177.9	72.7	49.9	44.5	38.0	71.6	118.2	108.4	59.6	35.8	35.8
85°	57.5	23.9	18.4	14.1	17.4	44.5	70.5	73.7	42.3	18.4	14.1
87.5°	7.6	3.3	3.3	4.3	3.3	7.6	21.7	20.6	11.9	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)