

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: P884274

Luminaire Tested: **NAV-SB5A-735-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884274
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22563 lumens
Efficiency: N/A
Efficacy: 159.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

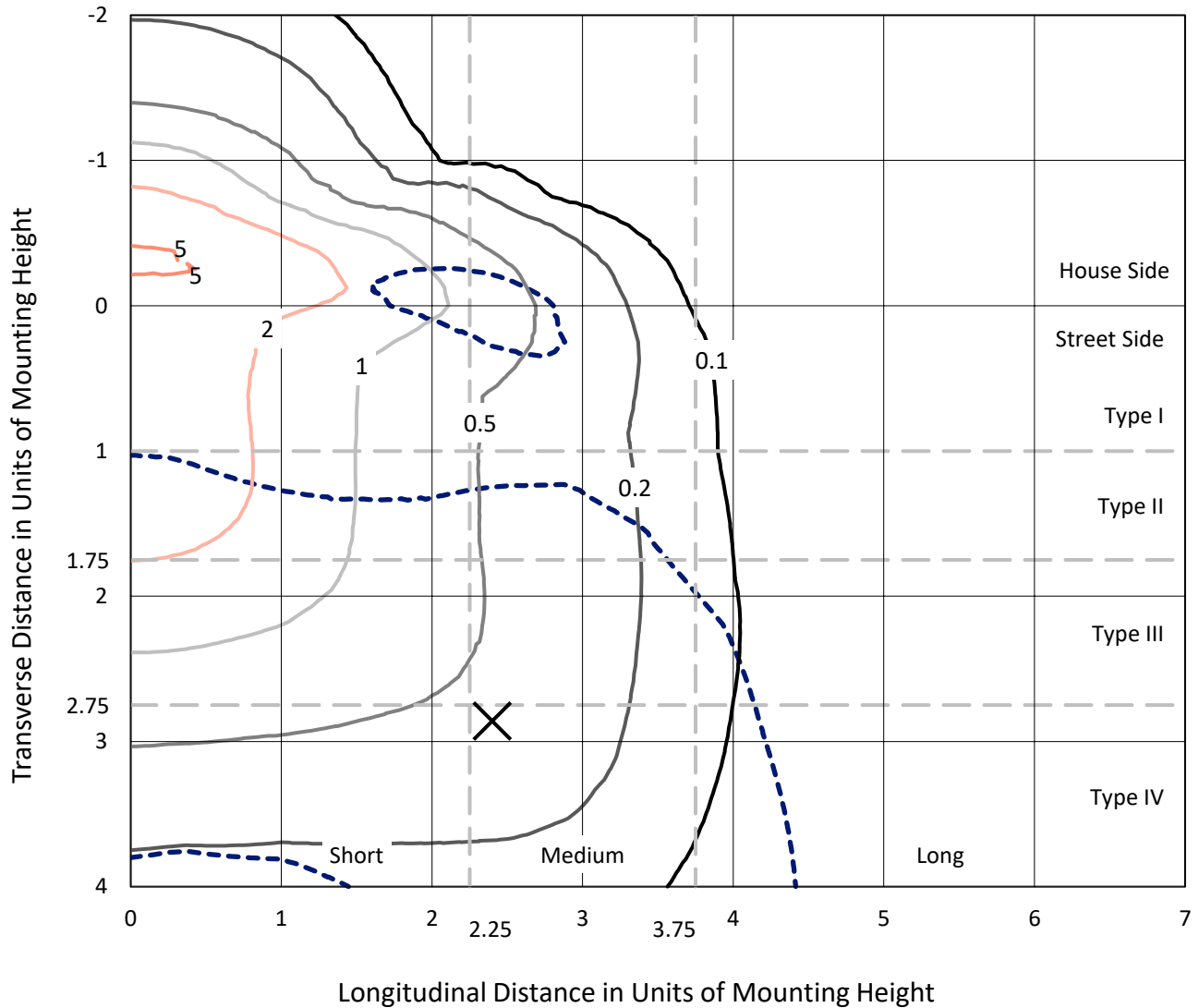
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

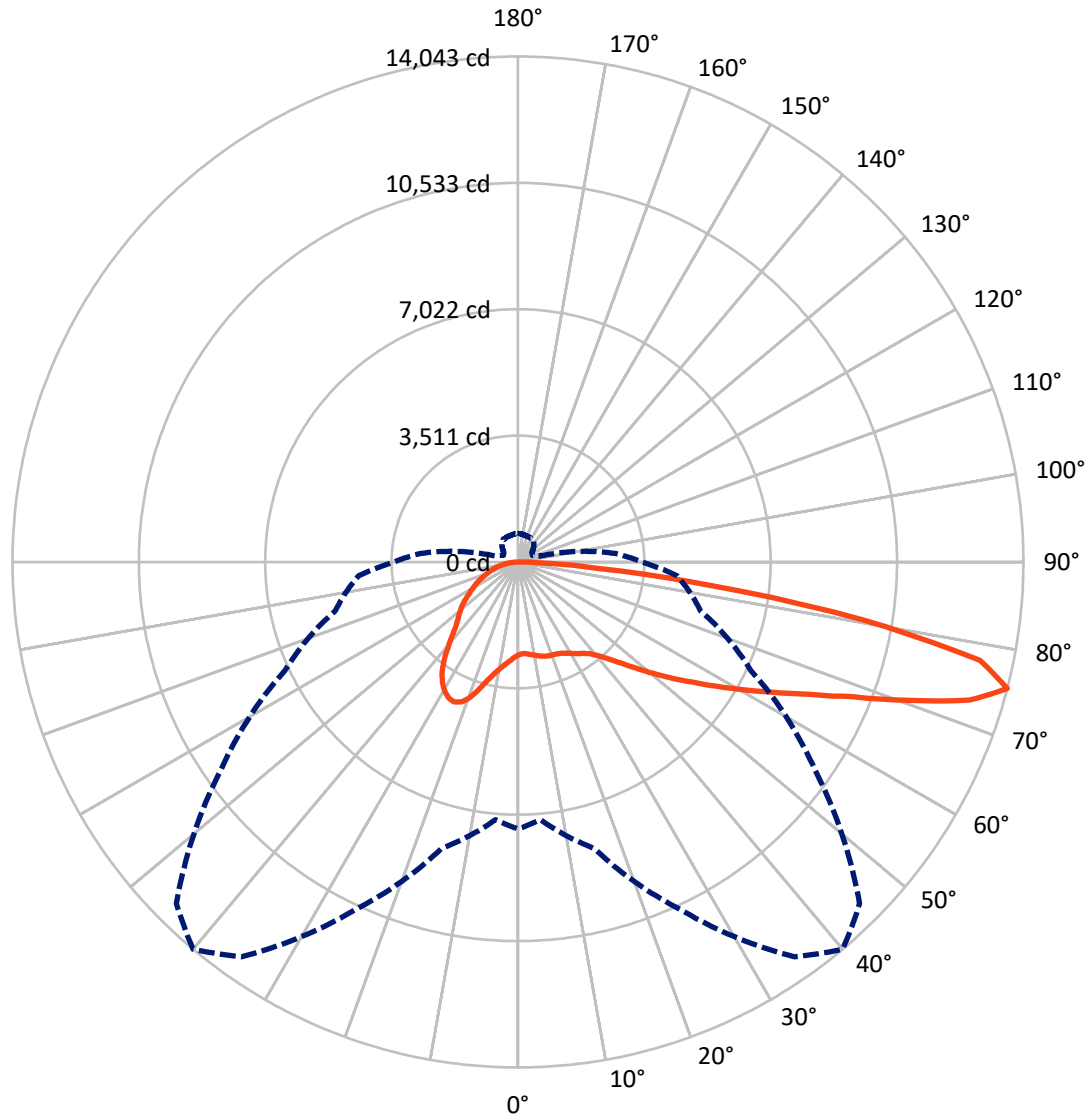
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6990.8	0.0	6990.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	15572.2	0.0	15572.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	22563.0	0.0	22563.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.5	1.1
10°-20°	864.7	3.8
20°-30°	1578.9	7.0
30°-40°	2239.3	9.9
40°-50°	3023.7	13.4
50°-60°	4067.6	18.0
60°-70°	5162.8	22.9
70°-80°	4685.5	20.8
80°-90°	683.0	3.0
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°	22563.0	100.0
0°-180°	22563.0	100.0

Coefficient of Utilization



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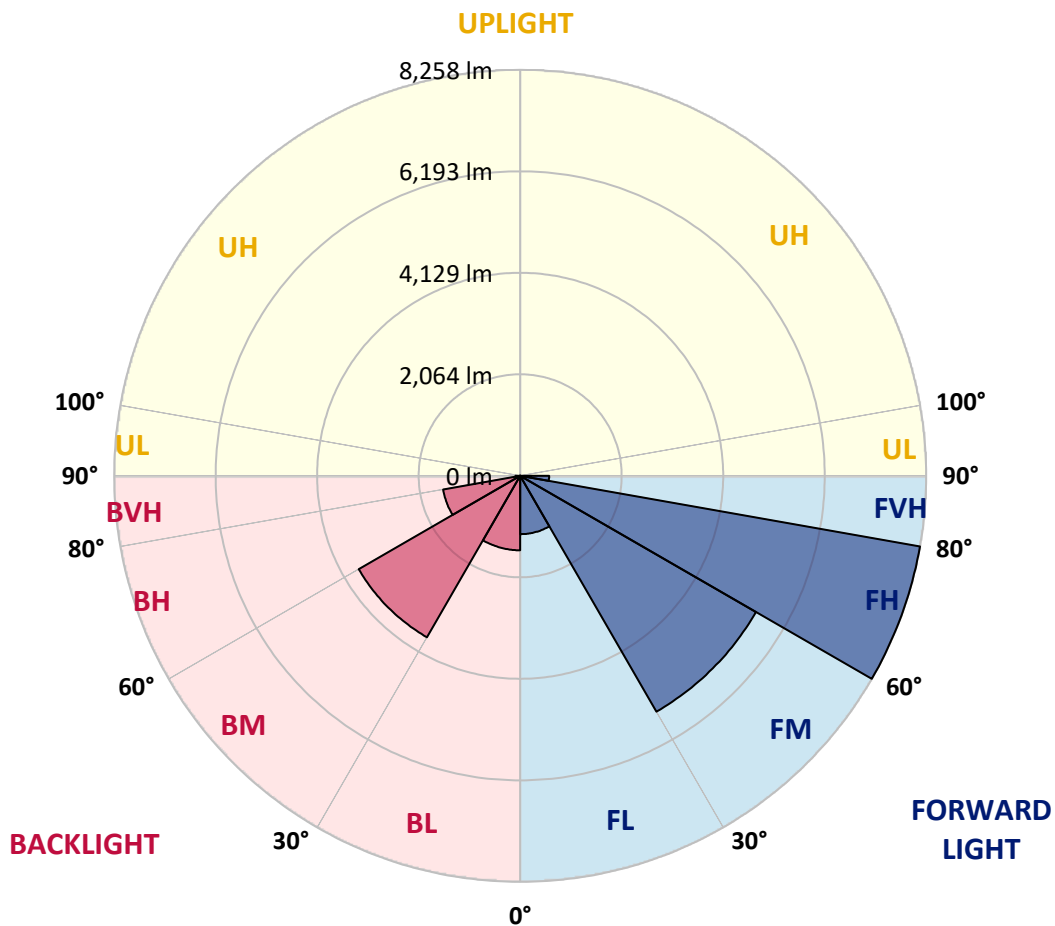
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1186.8	5.3			
FM (30°-60°)	5538.7	24.5			
FH (60°-80°)	8257.7	36.6			G4/12000
FVH (80°-90°)	589.0	2.6			G4/750
BL (0°-30°)	1514.3	6.7	B3/2500		
BM (30°-60°)	3791.9	16.8	B3/5000		
BH (60°-80°)	1590.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	94.0	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-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1
2.5°	2540.6	2555.0	2551.4	2546.6	2546.6	2547.8	2546.6	2555.0	2563.4	2571.7	2584.9
5°	2566.9	2581.3	2574.1	2568.1	2563.4	2562.2	2558.6	2557.4	2562.2	2572.9	2590.9
7.5°	2618.4	2632.8	2622.0	2611.2	2601.6	2596.9	2592.1	2584.9	2581.3	2587.3	2612.4
10°	2675.8	2690.2	2677.0	2657.9	2642.3	2636.4	2631.6	2624.4	2619.6	2623.2	2650.7
12.5°	2733.3	2747.6	2729.7	2703.4	2683.0	2679.4	2673.5	2671.1	2669.9	2668.7	2696.2
15°	2787.1	2799.1	2776.4	2745.3	2723.7	2717.7	2711.7	2715.3	2721.3	2728.5	2759.6
17.5°	2829.0	2841.0	2807.5	2766.8	2746.5	2744.1	2740.5	2752.4	2769.2	2787.1	2825.4
20°	2867.3	2879.3	2836.2	2781.2	2757.2	2757.2	2758.4	2783.6	2807.5	2833.8	2886.5
22.5°	2921.2	2930.7	2878.1	2802.7	2768.0	2770.4	2780.0	2805.1	2835.0	2870.9	2943.9
25°	3001.4	3008.5	2943.9	2843.4	2803.9	2811.1	2819.5	2831.4	2860.1	2902.0	3000.2
27.5°	3130.6	3136.6	3051.6	2915.2	2855.4	2867.3	2879.3	2870.9	2884.1	2920.0	3045.6
30°	3312.5	3316.1	3208.4	3027.7	2942.7	2948.7	2951.1	2916.4	2891.3	2920.0	3077.9
32.5°	3527.9	3526.7	3398.7	3164.1	3042.0	3036.1	3015.7	2947.5	2888.9	2914.0	3106.7
35°	3861.8	3848.6	3683.5	3355.6	3154.5	3117.4	3069.6	2982.2	2900.8	2908.0	3131.8
37.5°	4414.7	4374.0	4145.4	3669.1	3322.1	3227.5	3156.9	3038.4	2927.2	2905.6	3161.7
40°	5038.2	4986.7	4735.4	4098.7	3573.4	3421.4	3307.7	3118.6	2970.2	2916.4	3206.0
42.5°	5777.7	5704.7	5434.3	4604.9	3891.7	3671.5	3500.4	3220.3	3033.7	2951.1	3265.8
45°	6686.0	6589.1	6206.1	5175.8	4292.6	3999.4	3770.8	3374.7	3130.6	3018.1	3355.6
47.5°	7603.9	7627.8	7083.3	5829.2	4773.7	4403.9	4109.5	3606.9	3271.8	3125.8	3500.4
50°	8579.2	8596.0	7955.7	6553.2	5319.4	4861.0	4490.1	3866.6	3468.1	3279.0	3717.0
52.5°	9340.3	9342.7	8748.0	7310.7	5887.8	5363.7	4900.5	4163.4	3695.4	3482.4	4005.4
55°	9816.6	9810.6	9303.2	8027.5	6541.2	5891.4	5355.3	4500.8	3973.1	3721.8	4368.0
57.5°	10162.5	10144.5	9686.2	8643.8	7237.7	6514.9	5869.9	4883.8	4301.0	4006.6	4845.5
60°	10294.1	10283.3	9945.9	9176.4	7970.1	7204.2	6463.4	5312.2	4673.2	4342.9	5459.4
62.5°	10344.4	10364.7	10200.8	9692.2	8753.9	7967.7	7115.6	5824.4	5092.0	4723.4	6106.8
65°	10521.5	10558.6	10525.1	10367.1	9639.5	8861.6	7980.9	6433.5	5549.1	5131.5	6783.0
67.5°	10872.1	10909.2	10923.6	11174.9	10721.3	9975.8	9060.3	7192.2	6084.1	5555.1	7291.6
70°	10863.7	10853.0	11106.7	11817.5	12076.0	11518.3	10515.5	8125.7	6721.9	5907.0	7356.2
72.5°	9888.4	9802.3	10401.8	11810.3	13203.3	13129.1	12292.6	9329.6	7272.4	5950.0	6383.3
75°	7418.4	7188.6	8247.7	10643.5	13391.2	14043.4	13422.3	10076.3	7142.0	5257.2	4442.2
77.5°	3172.5	2941.5	4189.7	7879.1	11985.1	13127.9	12386.0	8791.0	5701.1	3476.4	2181.6
80°	830.5	829.3	1266.1	3572.2	8150.8	9694.6	8505.0	5677.2	3257.4	1242.2	601.9
82.5°	343.5	335.1	465.5	1389.4	3982.7	5440.2	4439.8	2532.2	1176.4	336.3	199.9
85°	128.0	126.9	226.2	479.9	1404.9	2243.8	1623.9	647.4	293.2	163.9	89.8
87.5°	35.9	34.7	49.1	166.3	342.3	519.4	277.6	106.5	82.6	64.6	26.3
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°	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1	2580.1
2.5°	2588.5	2594.5	2605.2	2613.6	2624.4	2636.4	2653.1	2663.9	2674.6	2681.8	2677.0
5°	2599.3	2612.4	2639.9	2667.5	2699.8	2729.7	2764.4	2789.5	2809.9	2815.9	2818.3
7.5°	2623.2	2644.7	2691.4	2738.1	2789.5	2838.6	2888.9	2931.9	2966.6	2979.8	2981.0
10°	2665.1	2693.8	2759.6	2825.4	2893.6	2969.0	3033.7	3095.9	3145.0	3165.3	3166.5
12.5°	2717.7	2753.6	2839.8	2930.7	3025.3	3129.4	3213.2	3289.8	3350.8	3378.3	3378.3
15°	2785.9	2832.6	2942.7	3064.8	3203.6	3348.4	3454.9	3539.9	3608.1	3641.6	3639.2
17.5°	2860.1	2922.4	3061.2	3245.5	3444.1	3634.4	3758.9	3821.1	3891.7	3924.0	3922.8
20°	2931.9	3008.5	3207.2	3475.2	3739.7	3942.0	4042.5	4059.2	4064.0	4067.6	4077.2
22.5°	3006.1	3109.1	3390.3	3764.9	4048.5	4188.5	4202.8	4131.0	4030.5	3983.9	3997.0
25°	3087.5	3223.9	3629.6	4084.4	4314.1	4330.9	4220.8	4046.1	3855.8	3768.4	3781.6
27.5°	3166.5	3356.8	3916.8	4389.5	4505.6	4358.4	4121.5	3873.8	3644.0	3551.8	3562.6
30°	3245.5	3508.8	4234.0	4656.4	4593.0	4290.2	3964.7	3688.3	3457.3	3360.4	3371.1
32.5°	3325.7	3685.9	4599.0	4849.1	4577.4	4145.4	3769.6	3480.0	3276.6	3174.9	3188.0
35°	3416.6	3903.7	4944.8	4954.4	4473.3	3932.4	3512.3	3231.1	3054.0	2972.6	2990.6
37.5°	3535.1	4180.1	5250.0	4980.7	4291.4	3620.1	3192.8	2936.7	2790.7	2753.6	2780.0
40°	3682.3	4512.8	5483.3	4938.8	4022.1	3240.7	2843.4	2638.7	2556.2	2564.6	2593.3
42.5°	3873.8	4885.0	5647.3	4831.1	3647.6	2849.4	2537.0	2446.1	2485.6	2519.1	2550.2
45°	4122.7	5271.5	5749.0	4648.0	3223.9	2517.9	2356.3	2377.9	2407.8	2411.4	2435.3
47.5°	4441.0	5662.8	5816.0	4371.6	2791.9	2284.5	2241.4	2246.2	2240.2	2215.1	2234.3
50°	4838.3	6043.4	5875.9	4005.4	2424.5	2138.5	2081.1	2064.3	1981.8	1900.4	1911.1
52.5°	5290.7	6392.8	5901.0	3550.6	2138.5	2016.5	1923.1	1817.8	1663.4	1638.3	1646.7
55°	5793.3	6715.9	5836.4	2991.8	1898.0	1859.7	1718.5	1591.6	1574.9	1553.3	1556.9
57.5°	6394.0	7064.2	5704.7	2368.3	1651.5	1676.6	1539.0	1553.3	1523.4	1489.9	1483.9
60°	7051.0	7424.4	5473.8	1799.9	1396.6	1448.0	1492.3	1491.1	1482.7	1455.2	1445.6
62.5°	7642.2	7661.3	5019.0	1378.6	1172.8	1270.9	1391.8	1390.6	1383.4	1367.8	1361.9
65°	7994.0	7625.4	4260.3	1085.4	988.5	1124.9	1255.3	1264.9	1266.1	1264.9	1264.9
67.5°	7931.8	7205.4	3219.2	864.0	836.5	976.5	1120.1	1133.3	1142.9	1145.3	1147.6
70°	7228.1	6282.7	2099.0	689.3	701.3	846.1	992.1	1005.2	1013.6	1023.2	1028.0
72.5°	5634.1	4619.3	1201.5	557.7	582.8	733.6	865.2	880.8	885.6	903.5	910.7
75°	3433.4	2716.5	648.6	439.2	478.7	627.1	739.6	757.5	765.9	787.4	789.8
77.5°	1632.3	1176.4	369.8	342.3	385.3	512.2	624.7	645.0	622.3	634.3	624.7
80°	551.7	436.8	233.4	260.9	294.4	399.7	500.2	520.6	472.7	470.3	465.5
82.5°	192.7	177.1	148.4	173.5	190.3	286.0	378.2	404.5	351.8	350.6	333.9
85°	75.4	71.8	82.6	94.5	113.7	175.9	248.9	262.1	216.6	174.7	172.3
87.5°	15.6	16.8	20.3	21.5	34.7	61.0	89.8	110.1	87.4	74.2	68.2
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)