

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: P883764

Luminaire Tested: **NAV-SB4B-735-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883764  
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-SB4B-735-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

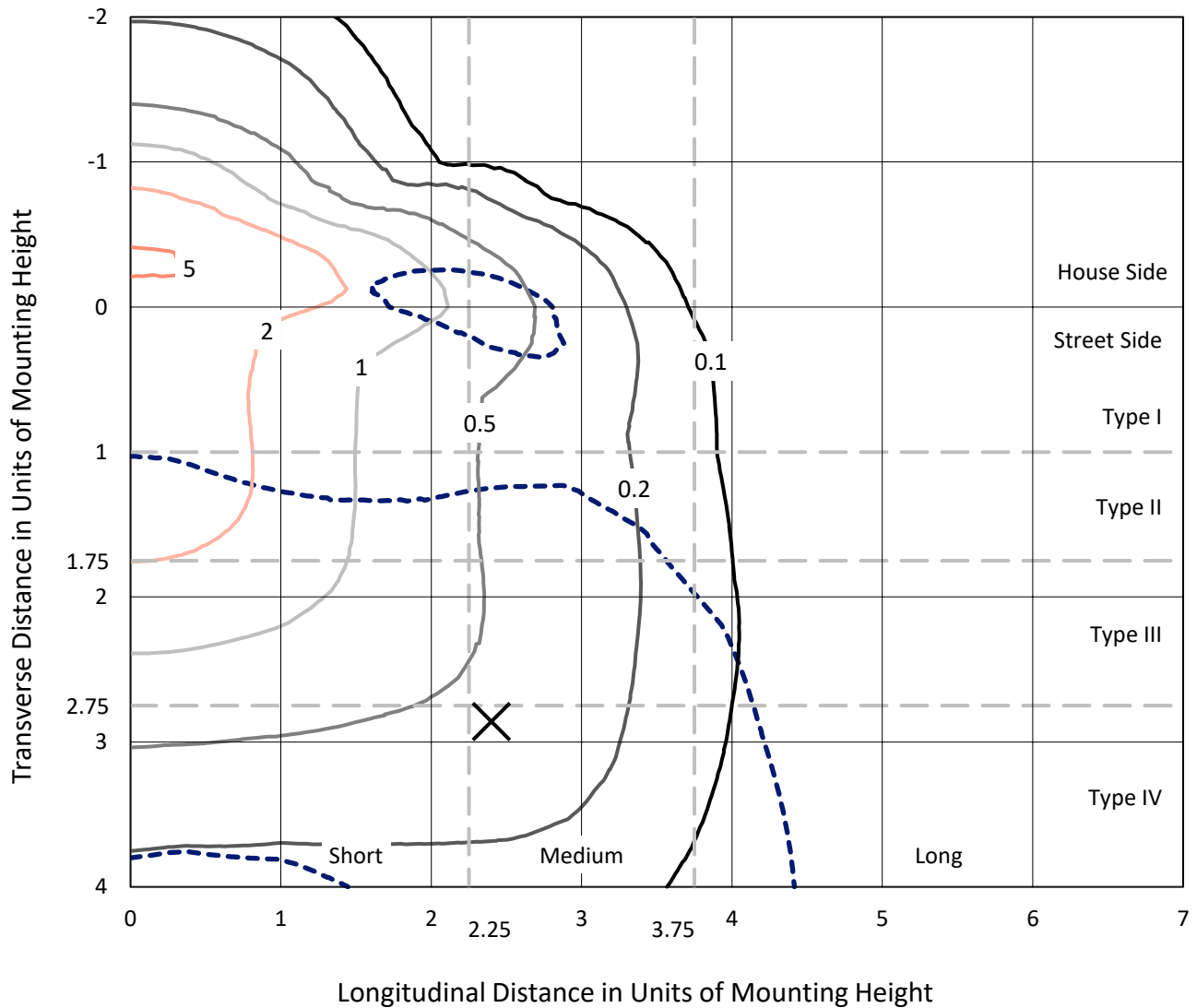
Lumens per Lamp: N/A  
Luminaire Lumens: 22621 lumens  
Efficiency: N/A  
Efficacy: 153.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

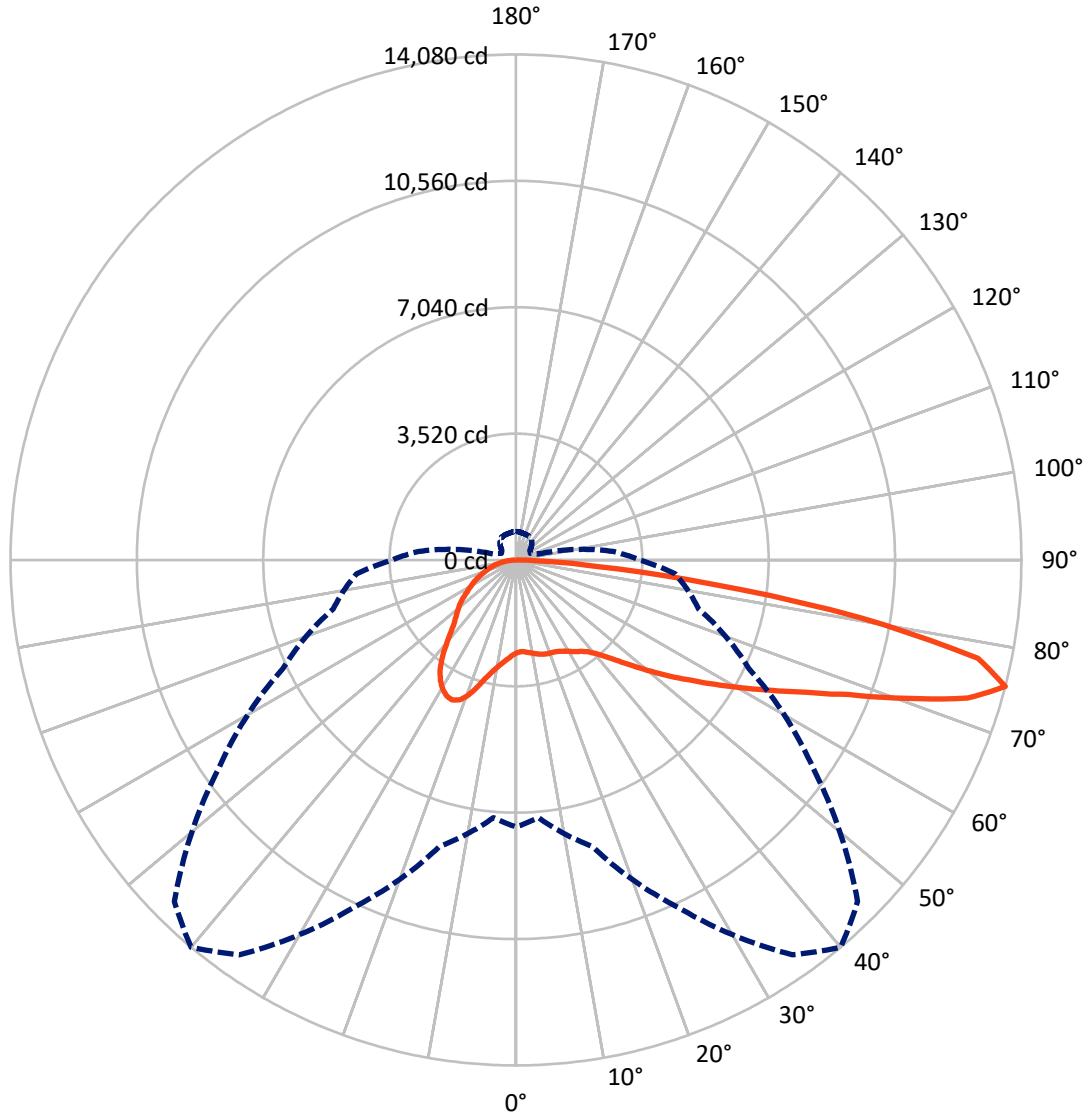
✕ Max cd  
 - - - 1/2 Max cd



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
<b>House Side</b>	Lumens	7008.7	0.0	7008.7
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	15612.3	0.0	15612.3
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	22621.0	0.0	22621.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.2	1.1
10°-20°	866.9	3.8
20°-30°	1582.9	7.0
30°-40°	2245.0	9.9
40°-50°	3031.4	13.4
50°-60°	4078.1	18.0
60°-70°	5176.1	22.9
70°-80°	4697.6	20.8
80°-90°	684.8	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°	22621.0	100.0
0°-180°	22621.0	100.0

**Coefficient of Utilization**



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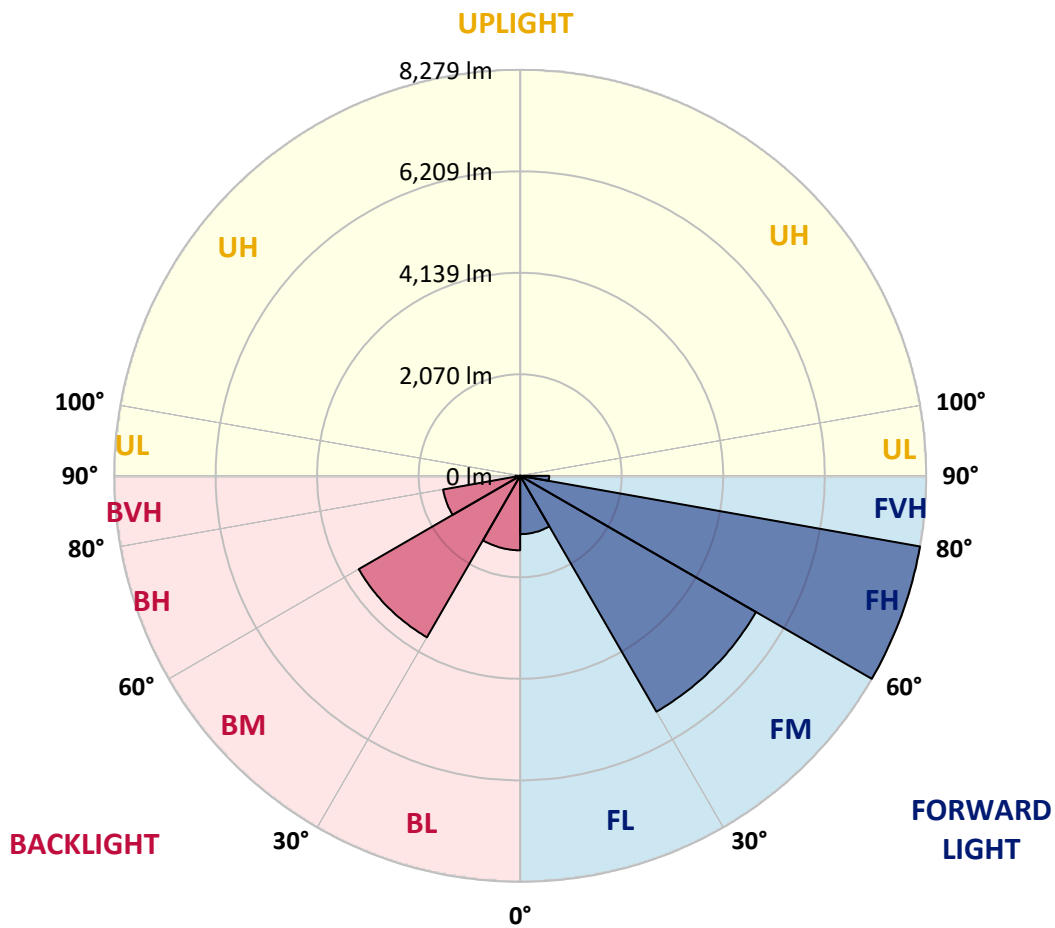
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1189.9	5.3			
FM (30°-60°)	5552.9	24.5			
FH (60°-80°)	8278.9	36.6			G4/12000
FVH (80°-90°)	590.5	2.6			G4/750
BL (0°-30°)	1518.2	6.7	B3/2500		
BM (30°-60°)	3801.6	16.8	B3/5000		
BH (60°-80°)	1594.7	7.0	B3/2500		G3/2500
BVH (80°-90°)	94.3	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°	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7
2.5°	2547.1	2561.5	2557.9	2553.1	2553.1	2554.3	2553.1	2561.5	2569.9	2578.3	2591.5
5°	2573.5	2587.9	2580.7	2574.7	2569.9	2568.7	2565.1	2563.9	2568.7	2579.5	2597.5
7.5°	2625.1	2639.5	2628.7	2617.9	2608.3	2603.5	2598.7	2591.5	2587.9	2593.9	2619.1
10°	2682.7	2697.1	2683.9	2664.7	2649.1	2643.1	2638.3	2631.1	2626.3	2629.9	2657.5
12.5°	2740.3	2754.7	2736.7	2710.3	2689.9	2686.3	2680.3	2677.9	2676.7	2675.5	2703.1
15°	2794.3	2806.3	2783.5	2752.3	2730.7	2724.7	2718.7	2722.3	2728.3	2735.5	2766.7
17.5°	2836.3	2848.3	2814.7	2773.9	2753.5	2751.1	2747.5	2759.5	2776.3	2794.3	2832.7
20°	2874.7	2886.7	2843.5	2788.3	2764.3	2764.3	2765.5	2790.7	2814.7	2841.1	2893.9
22.5°	2928.7	2938.3	2885.5	2809.9	2775.1	2777.5	2787.1	2812.3	2842.3	2878.3	2951.5
25°	3009.1	3016.3	2951.5	2850.7	2811.1	2818.3	2826.7	2838.7	2867.5	2909.5	3007.9
27.5°	3138.6	3144.6	3059.5	2922.7	2862.7	2874.7	2886.7	2878.3	2891.5	2927.5	3053.5
30°	3321.0	3324.6	3216.6	3035.5	2950.3	2956.3	2958.7	2923.9	2898.7	2927.5	3085.9
32.5°	3537.0	3535.8	3407.4	3172.2	3049.9	3043.9	3023.5	2955.1	2896.3	2921.5	3114.6
35°	3871.7	3858.5	3692.9	3364.2	3162.6	3125.4	3077.5	2989.9	2908.3	2915.5	3139.8
37.5°	4426.0	4385.2	4156.1	3678.5	3330.6	3235.8	3165.0	3046.3	2934.7	2913.1	3169.8
40°	5051.1	4999.5	4747.6	4109.3	3582.6	3430.2	3316.2	3126.6	2977.9	2923.9	3214.2
42.5°	5792.6	5719.4	5448.2	4616.8	3901.7	3680.9	3509.4	3228.6	3041.5	2958.7	3274.2
45°	6703.2	6606.0	6222.1	5189.1	4303.6	4009.7	3780.5	3383.4	3138.6	3025.9	3364.2
47.5°	7623.4	7647.4	7101.5	5844.2	4786.0	4415.2	4120.1	3616.2	3280.2	3133.8	3509.4
50°	8601.3	8618.1	7976.2	6570.0	5333.1	4873.5	4501.6	3876.5	3477.0	3287.4	3726.5
52.5°	9364.3	9366.7	8770.4	7329.5	5903.0	5377.4	4913.1	4174.1	3704.9	3491.4	4015.7
55°	9841.9	9835.9	9327.1	8048.2	6558.0	5906.6	5369.0	4512.4	3983.3	3731.3	4379.2
57.5°	10188.6	10170.6	9711.1	8666.1	7256.3	6531.6	5885.0	4896.3	4312.0	4016.9	4857.9
60°	10320.6	10309.8	9971.4	9200.0	7990.6	7222.7	6480.1	5325.9	4685.2	4354.0	5473.4
62.5°	10371.0	10391.4	10227.0	9717.1	8776.4	7988.2	7133.9	5839.4	5105.1	4735.6	6122.5
65°	10548.5	10585.7	10552.1	10393.8	9664.3	8884.4	8001.4	6450.1	5563.4	5144.7	6800.4
67.5°	10900.1	10937.3	10951.7	11203.6	10748.9	10001.4	9083.6	7210.7	6099.7	5569.4	7310.3
70°	10891.7	10880.9	11135.2	11847.9	12107.1	11548.0	10542.5	8146.6	6739.2	5922.2	7375.1
72.5°	9913.8	9827.5	10428.6	11840.7	13237.3	13162.9	12324.2	9353.5	7291.1	5965.3	6399.7
75°	7437.5	7207.1	8268.9	10670.9	13425.6	14079.5	13456.8	10102.2	7160.3	5270.7	4453.6
77.5°	3180.6	2949.1	4200.5	7899.4	12015.9	13161.7	12417.8	8813.6	5715.8	3485.4	2187.2
80°	832.7	831.5	1269.4	3581.4	8171.8	9719.5	8526.9	5691.8	3265.8	1245.4	603.5
82.5°	344.3	335.9	466.7	1393.0	3992.9	5454.2	4451.2	2538.7	1179.4	337.1	200.4
85°	128.4	127.2	226.8	481.1	1408.6	2249.6	1628.1	649.1	293.9	164.4	90.0
87.5°	36.0	34.8	49.2	166.8	343.1	520.7	278.4	106.8	82.8	64.8	26.4
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°	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7	2586.7
2.5°	2595.1	2601.1	2611.9	2620.3	2631.1	2643.1	2659.9	2670.7	2681.5	2688.7	2683.9
5°	2605.9	2619.1	2646.7	2674.3	2706.7	2736.7	2771.5	2796.7	2817.1	2823.1	2825.5
7.5°	2629.9	2651.5	2698.3	2745.1	2796.7	2845.9	2896.3	2939.5	2974.3	2987.5	2988.7
10°	2671.9	2700.7	2766.7	2832.7	2901.1	2976.7	3041.5	3103.8	3153.0	3173.4	3174.6
12.5°	2724.7	2760.7	2847.1	2938.3	3033.1	3137.4	3221.4	3298.2	3359.4	3387.0	3387.0
15°	2793.1	2839.9	2950.3	3072.7	3211.8	3357.0	3463.8	3549.0	3617.4	3651.0	3648.6
17.5°	2867.5	2929.9	3069.1	3253.8	3453.0	3643.8	3768.5	3830.9	3901.7	3934.1	3932.9
20°	2939.5	3016.3	3215.4	3484.2	3749.3	3952.1	4052.9	4069.7	4074.5	4078.1	4087.7
22.5°	3013.9	3117.0	3399.0	3774.5	4058.9	4199.3	4213.7	4141.7	4040.9	3994.1	4007.3
25°	3095.5	3232.2	3639.0	4094.9	4325.2	4342.0	4231.6	4056.5	3865.7	3778.1	3791.3
27.5°	3174.6	3365.4	3926.9	4400.8	4517.2	4369.6	4132.1	3883.7	3653.4	3561.0	3571.8
30°	3253.8	3517.8	4244.8	4668.4	4604.8	4301.2	3974.9	3697.7	3466.2	3369.0	3379.8
32.5°	3334.2	3695.3	4610.8	4861.5	4589.2	4156.1	3779.3	3489.0	3285.0	3183.0	3196.2
35°	3425.4	3913.7	4957.5	4967.1	4484.8	3942.5	3521.4	3239.4	3061.9	2980.3	2998.3
37.5°	3544.2	4190.9	5263.5	4993.5	4302.4	3629.4	3201.0	2944.3	2797.9	2760.7	2787.1
40°	3691.7	4524.4	5497.4	4951.5	4032.5	3249.0	2850.7	2645.5	2562.7	2571.1	2599.9
42.5°	3883.7	4897.5	5661.8	4843.5	3657.0	2856.7	2543.5	2452.4	2492.0	2525.6	2556.7
45°	4133.3	5285.1	5763.8	4660.0	3232.2	2524.4	2362.4	2384.0	2414.0	2417.6	2441.6
47.5°	4452.4	5677.4	5831.0	4382.8	2799.1	2290.4	2247.2	2252.0	2246.0	2220.8	2240.0
50°	4850.7	6058.9	5891.0	4015.7	2430.8	2144.0	2086.4	2069.6	1986.8	1905.3	1916.1
52.5°	5304.3	6409.3	5916.2	3559.8	2144.0	2021.6	1928.1	1822.5	1667.7	1642.5	1650.9
55°	5808.2	6733.2	5851.4	2999.5	1902.9	1864.5	1722.9	1595.7	1578.9	1557.3	1560.9
57.5°	6410.5	7082.3	5719.4	2374.4	1655.7	1680.9	1542.9	1557.3	1527.3	1493.7	1487.7
60°	7069.1	7443.5	5487.8	1804.5	1400.2	1451.7	1496.1	1494.9	1486.5	1458.9	1449.3
62.5°	7661.8	7681.0	5031.9	1382.2	1175.8	1274.2	1395.4	1394.2	1387.0	1371.4	1365.4
65°	8014.6	7645.0	4271.2	1088.2	991.0	1127.8	1258.6	1268.2	1269.4	1268.2	1268.2
67.5°	7952.2	7223.9	3227.4	866.2	838.7	979.0	1123.0	1136.2	1145.8	1148.2	1150.6
70°	7246.7	6298.9	2104.4	691.1	703.1	848.2	994.6	1007.8	1016.2	1025.8	1030.6
72.5°	5648.6	4631.2	1204.6	559.1	584.3	735.5	867.4	883.0	887.8	905.8	913.0
75°	3442.2	2723.5	650.3	440.3	479.9	628.7	741.5	759.5	767.9	789.5	791.9
77.5°	1636.5	1179.4	370.7	343.1	386.3	513.5	626.3	646.7	623.9	635.9	626.3
80°	553.1	437.9	234.0	261.6	295.1	400.7	501.5	521.9	473.9	471.5	466.7
82.5°	193.2	177.6	148.8	174.0	190.8	286.7	379.1	405.5	352.7	351.5	334.7
85°	75.6	72.0	82.8	94.8	114.0	176.4	249.6	262.8	217.2	175.2	172.8
87.5°	15.6	16.8	20.4	21.6	34.8	61.2	90.0	110.4	87.6	74.4	68.4
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)