

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: P883774

Luminaire Tested: **NAV-SB4B-740-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883774  
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-740-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

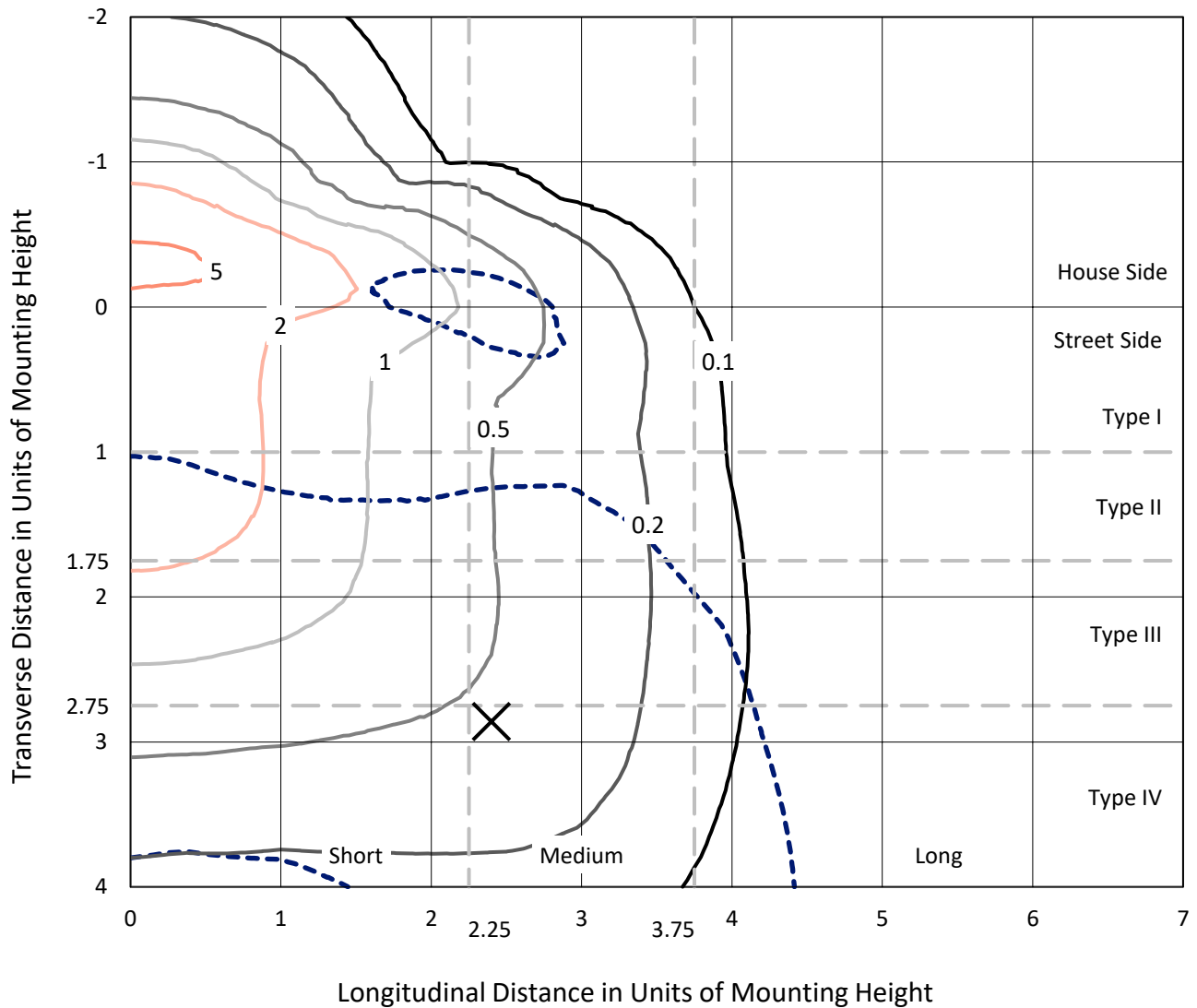
Lumens per Lamp: N/A  
Luminaire Lumens: 24389 lumens  
Efficiency: N/A  
Efficacy: 165.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
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

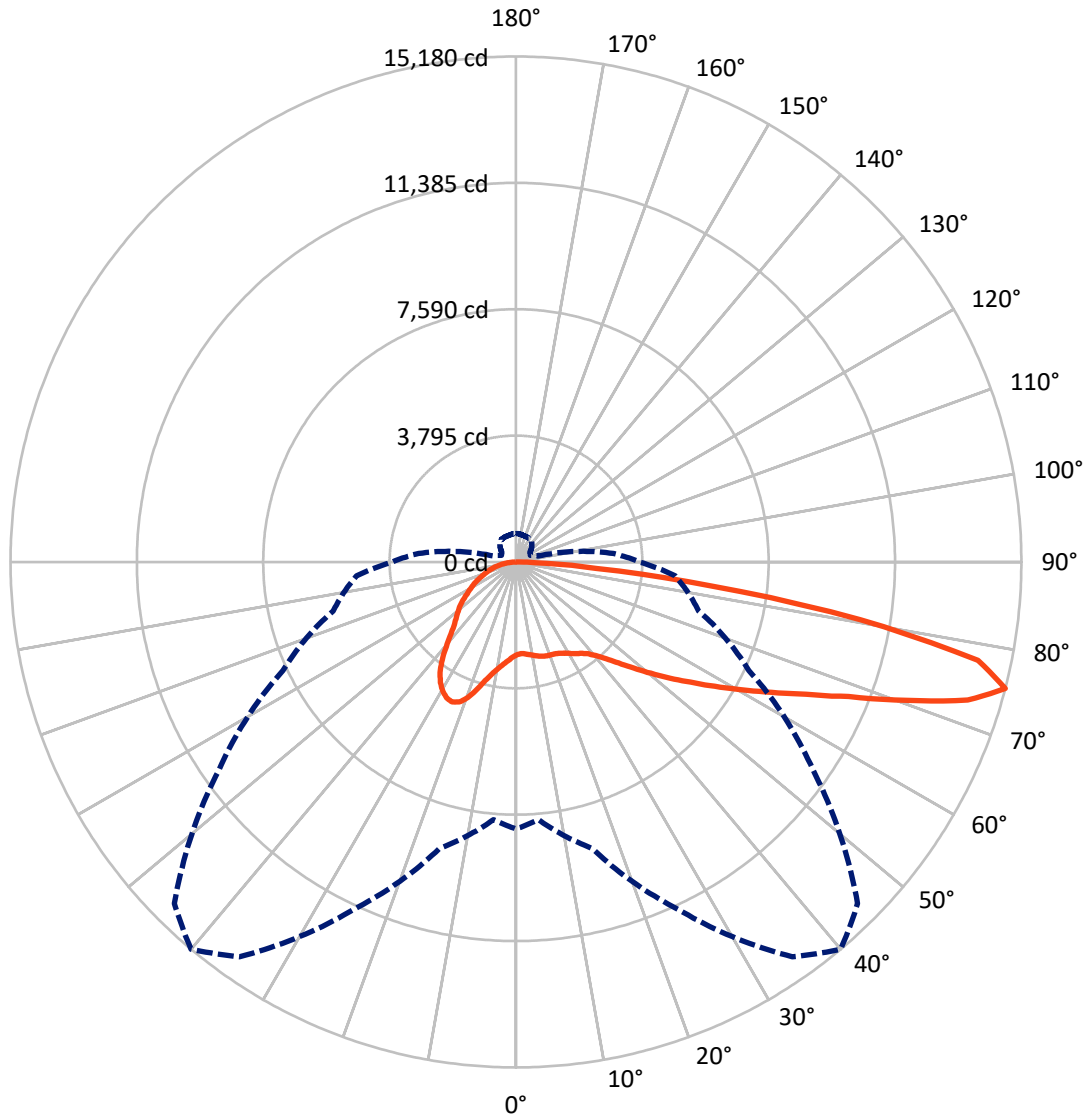
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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	7556.5	0.0	7556.5
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	16832.5	0.0	16832.5
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	24389.0	0.0	24389.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	278.4	1.1
10°-20°	934.7	3.8
20°-30°	1706.6	7.0
30°-40°	2420.5	9.9
40°-50°	3268.4	13.4
50°-60°	4396.8	18.0
60°-70°	5580.6	22.9
70°-80°	5064.7	20.8
80°-90°	738.3	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°	24389.0	100.0
0°-180°	24389.0	100.0

**Coefficient of Utilization**



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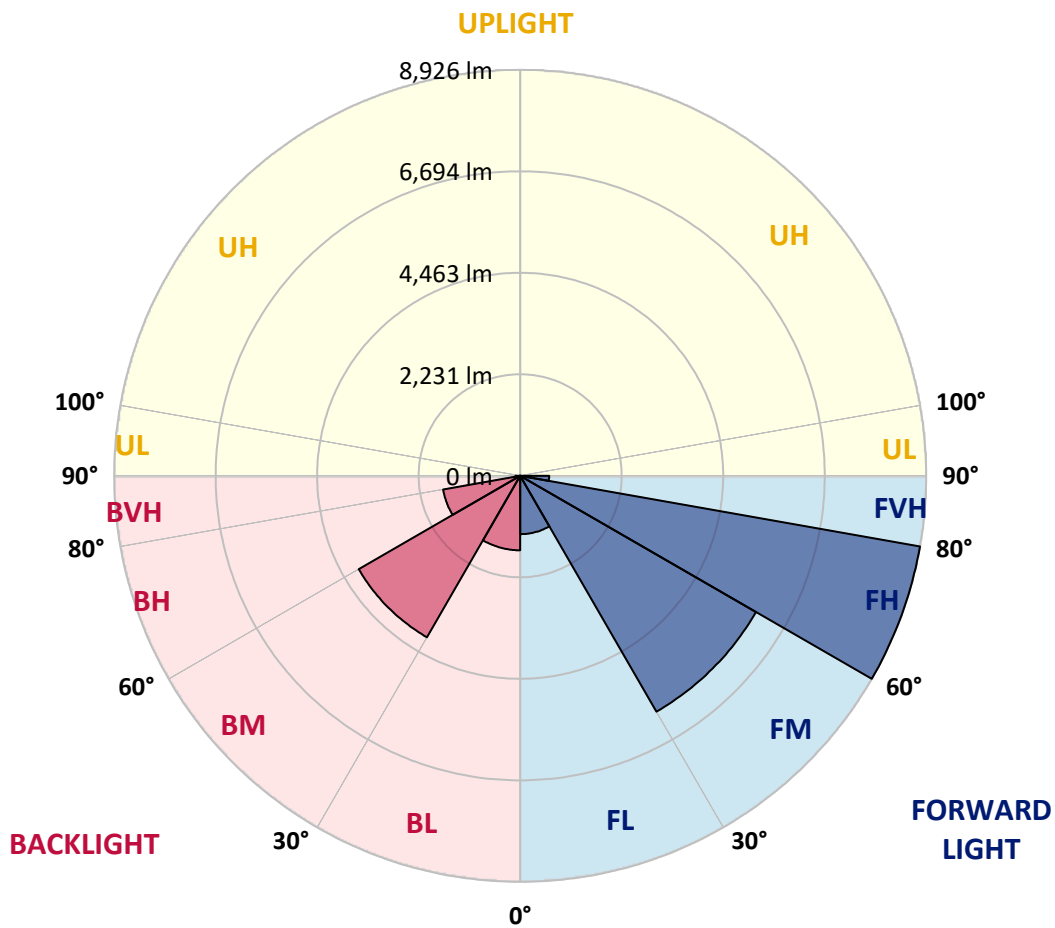
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1282.9	5.3			
FM (30°-60°)	5987.0	24.5			
FH (60°-80°)	8926.0	36.6			G4/12000
FVH (80°-90°)	636.6	2.6			G4/750
BL (0°-30°)	1636.8	6.7	B3/2500		
BM (30°-60°)	4098.7	16.8	B3/5000		
BH (60°-80°)	1719.3	7.0	B3/2500		G3/2500
BVH (80°-90°)	101.6	0.4			G2/225
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°	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9
2.5°	2746.2	2761.7	2757.9	2752.7	2752.7	2754.0	2752.7	2761.7	2770.8	2779.9	2794.1
5°	2774.7	2790.2	2782.4	2776.0	2770.8	2769.5	2765.6	2764.3	2769.5	2781.2	2800.6
7.5°	2830.3	2845.8	2834.2	2822.5	2812.2	2807.0	2801.9	2794.1	2790.2	2796.7	2823.8
10°	2892.4	2907.9	2893.7	2873.0	2856.2	2849.7	2844.5	2836.8	2831.6	2835.5	2865.2
12.5°	2954.5	2970.0	2950.6	2922.2	2900.2	2896.3	2889.8	2887.2	2885.9	2884.6	2914.4
15°	3012.7	3025.6	3001.1	2967.4	2944.1	2937.7	2931.2	2935.1	2941.6	2949.3	2982.9
17.5°	3058.0	3070.9	3034.7	2990.7	2968.7	2966.1	2962.3	2975.2	2993.3	3012.7	3054.1
20°	3099.4	3112.3	3065.7	3006.2	2980.4	2980.4	2981.7	3008.8	3034.7	3063.1	3120.1
22.5°	3157.6	3167.9	3111.0	3029.5	2992.0	2994.6	3004.9	3032.1	3064.4	3103.2	3182.2
25°	3244.2	3252.0	3182.2	3073.5	3030.8	3038.6	3047.6	3060.6	3091.6	3136.9	3243.0
27.5°	3384.0	3390.4	3298.6	3151.1	3086.4	3099.4	3112.3	3103.2	3117.5	3156.3	3292.1
30°	3580.6	3584.5	3468.0	3272.7	3180.9	3187.3	3189.9	3152.4	3125.2	3156.3	3327.0
32.5°	3813.4	3812.1	3673.7	3420.2	3288.2	3281.8	3259.8	3186.0	3122.7	3149.8	3358.1
35°	4174.3	4160.1	3981.6	3627.1	3409.8	3369.7	3318.0	3223.6	3135.6	3143.3	3385.2
37.5°	4771.9	4728.0	4480.9	3966.1	3590.9	3488.7	3412.4	3284.3	3164.0	3140.8	3417.6
40°	5445.9	5390.3	5118.6	4430.4	3862.6	3698.3	3575.4	3371.0	3210.6	3152.4	3465.4
42.5°	6245.3	6166.4	5874.1	4977.6	4206.7	3968.6	3783.7	3481.0	3279.2	3189.9	3530.1
45°	7227.1	7122.3	6708.4	5594.6	4640.0	4323.1	4076.0	3647.8	3384.0	3262.4	3627.1
47.5°	8219.3	8245.1	7656.6	6300.9	5160.0	4760.3	4442.1	3898.8	3536.6	3378.8	3783.7
50°	9273.5	9291.6	8599.6	7083.5	5749.9	5254.4	4853.4	4179.5	3748.7	3544.4	4017.8
52.5°	10096.2	10098.8	9455.9	7902.4	6364.3	5797.7	5297.1	4500.3	3994.5	3764.3	4329.5
55°	10611.1	10604.6	10056.1	8677.2	7070.6	6368.2	5788.7	4865.1	4294.6	4023.0	4721.5
57.5°	10984.9	10965.5	10470.1	9343.4	7823.4	7042.1	6344.9	5279.0	4649.1	4330.8	5237.6
60°	11127.2	11115.6	10750.8	9919.0	8615.1	7787.2	6986.5	5742.1	5051.4	4694.3	5901.2
62.5°	11181.5	11203.5	11026.3	10476.5	9462.4	8612.5	7691.5	6295.8	5504.1	5105.7	6601.0
65°	11373.0	11413.1	11376.9	11206.1	10419.6	9578.8	8626.7	6954.2	5998.2	5546.8	7331.9
67.5°	11752.0	11792.1	11807.6	12079.3	11589.0	10783.1	9793.5	7774.3	6576.5	6004.7	7881.7
70°	11742.9	11731.3	12005.5	12773.9	13053.3	12450.5	11366.5	8783.3	7265.9	6385.0	7951.5
72.5°	10688.7	10595.5	11243.6	12766.1	14271.8	14191.6	13287.4	10084.6	7861.0	6431.6	6899.8
75°	8018.8	7770.4	8915.2	11504.9	14474.9	15179.9	14508.6	10891.8	7720.0	5682.6	4801.7
77.5°	3429.2	3179.6	4528.8	8516.8	12955.0	14190.3	13388.3	9502.5	6162.5	3757.8	2358.2
80°	897.7	896.4	1368.6	3861.3	8810.4	10479.1	9193.3	6136.6	3521.1	1342.7	650.7
82.5°	371.3	362.2	503.2	1501.8	4305.0	5880.5	4799.1	2737.2	1271.6	363.5	216.0
85°	138.4	137.1	244.5	518.7	1518.6	2425.4	1755.4	699.8	316.9	177.2	97.0
87.5°	38.8	37.5	53.0	179.8	370.0	561.4	300.1	115.1	89.3	69.9	28.5
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°	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9	2788.9
2.5°	2798.0	2804.4	2816.1	2825.1	2836.8	2849.7	2867.8	2879.5	2891.1	2898.9	2893.7
5°	2809.6	2823.8	2853.6	2883.3	2918.3	2950.6	2988.1	3015.3	3037.3	3043.7	3046.3
7.5°	2835.5	2858.8	2909.2	2959.7	3015.3	3068.3	3122.7	3169.2	3206.7	3221.0	3222.3
10°	2880.8	2911.8	2982.9	3054.1	3127.8	3209.3	3279.2	3346.4	3399.5	3421.5	3422.8
12.5°	2937.7	2976.5	3069.6	3167.9	3270.1	3382.7	3473.2	3556.0	3622.0	3651.7	3651.7
15°	3011.4	3061.9	3180.9	3312.8	3462.9	3619.4	3734.5	3826.3	3900.1	3936.3	3933.7
17.5°	3091.6	3158.9	3308.9	3508.1	3722.9	3928.5	4063.1	4130.3	4206.7	4241.6	4240.3
20°	3169.2	3252.0	3466.7	3756.5	4042.4	4261.0	4369.6	4387.8	4392.9	4396.8	4407.2
22.5°	3249.4	3360.7	3664.7	4069.5	4376.1	4527.5	4543.0	4465.4	4356.7	4306.3	4320.5
25°	3337.4	3484.8	3923.4	4414.9	4663.3	4681.4	4562.4	4373.5	4167.8	4073.4	4087.6
27.5°	3422.8	3628.4	4233.8	4744.8	4870.3	4711.1	4455.0	4187.3	3938.9	3839.3	3850.9
30°	3508.1	3792.7	4576.6	5033.2	4964.7	4637.4	4285.6	3986.8	3737.1	3632.3	3644.0
32.5°	3594.8	3984.2	4971.1	5241.5	4947.9	4480.9	4074.7	3761.7	3541.8	3431.8	3446.0
35°	3693.1	4219.6	5345.0	5355.3	4835.3	4250.6	3796.6	3492.6	3301.2	3213.2	3232.6
37.5°	3821.2	4518.4	5674.8	5383.8	4638.7	3913.0	3451.2	3174.4	3016.6	2976.5	3004.9
40°	3980.3	4878.0	5927.1	5338.5	4347.7	3503.0	3073.5	2852.3	2763.0	2772.1	2803.1
42.5°	4187.3	5280.3	6104.3	5222.1	3942.8	3080.0	2742.3	2644.0	2686.7	2722.9	2756.6
45°	4456.3	5698.1	6214.3	5024.2	3484.8	2721.6	2547.0	2570.3	2602.6	2606.5	2632.4
47.5°	4800.4	6121.1	6286.7	4725.4	3017.9	2469.4	2422.8	2428.0	2421.5	2394.4	2415.1
50°	5229.9	6532.5	6351.4	4329.5	2620.8	2311.6	2249.5	2231.4	2142.1	2054.2	2065.8
52.5°	5718.8	6910.2	6378.5	3838.0	2311.6	2179.6	2078.8	1964.9	1798.0	1770.9	1779.9
55°	6262.1	7259.5	6308.7	3233.9	2051.6	2010.2	1857.6	1720.4	1702.3	1679.0	1682.9
57.5°	6911.5	7635.9	6166.4	2560.0	1785.1	1812.3	1663.5	1679.0	1646.7	1610.5	1604.0
60°	7621.7	8025.2	5916.7	1945.5	1509.6	1565.2	1613.1	1611.8	1602.7	1573.0	1562.6
62.5°	8260.7	8281.4	5425.2	1490.2	1267.7	1373.8	1504.4	1503.1	1495.4	1478.5	1472.1
65°	8641.0	8242.6	4605.1	1173.3	1068.5	1215.9	1356.9	1367.3	1368.6	1367.3	1367.3
67.5°	8573.7	7788.5	3479.7	934.0	904.2	1055.5	1210.8	1225.0	1235.3	1237.9	1240.5
70°	7813.1	6791.2	2268.9	745.1	758.0	914.5	1072.4	1086.6	1095.6	1106.0	1111.2
72.5°	6090.1	4993.1	1298.7	602.8	630.0	793.0	935.2	952.1	957.2	976.6	984.4
75°	3711.2	2936.4	701.1	474.7	517.4	677.8	799.4	818.8	827.9	851.2	853.7
77.5°	1764.4	1271.6	399.7	370.0	416.5	553.6	675.2	697.2	672.7	685.6	675.2
80°	596.3	472.1	252.2	282.0	318.2	432.0	540.7	562.7	511.0	508.4	503.2
82.5°	208.3	191.4	160.4	187.6	205.7	309.2	408.8	437.2	380.3	379.0	360.9
85°	81.5	77.6	89.3	102.2	122.9	190.2	269.1	283.3	234.1	188.9	186.3
87.5°	16.8	18.1	22.0	23.3	37.5	66.0	97.0	119.0	94.4	80.2	73.7
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)