

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: P883754

Luminaire Tested: **NAV-SB4B-730-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883754
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-730-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 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: 22268 lumens
Efficiency: N/A
Efficacy: 151.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

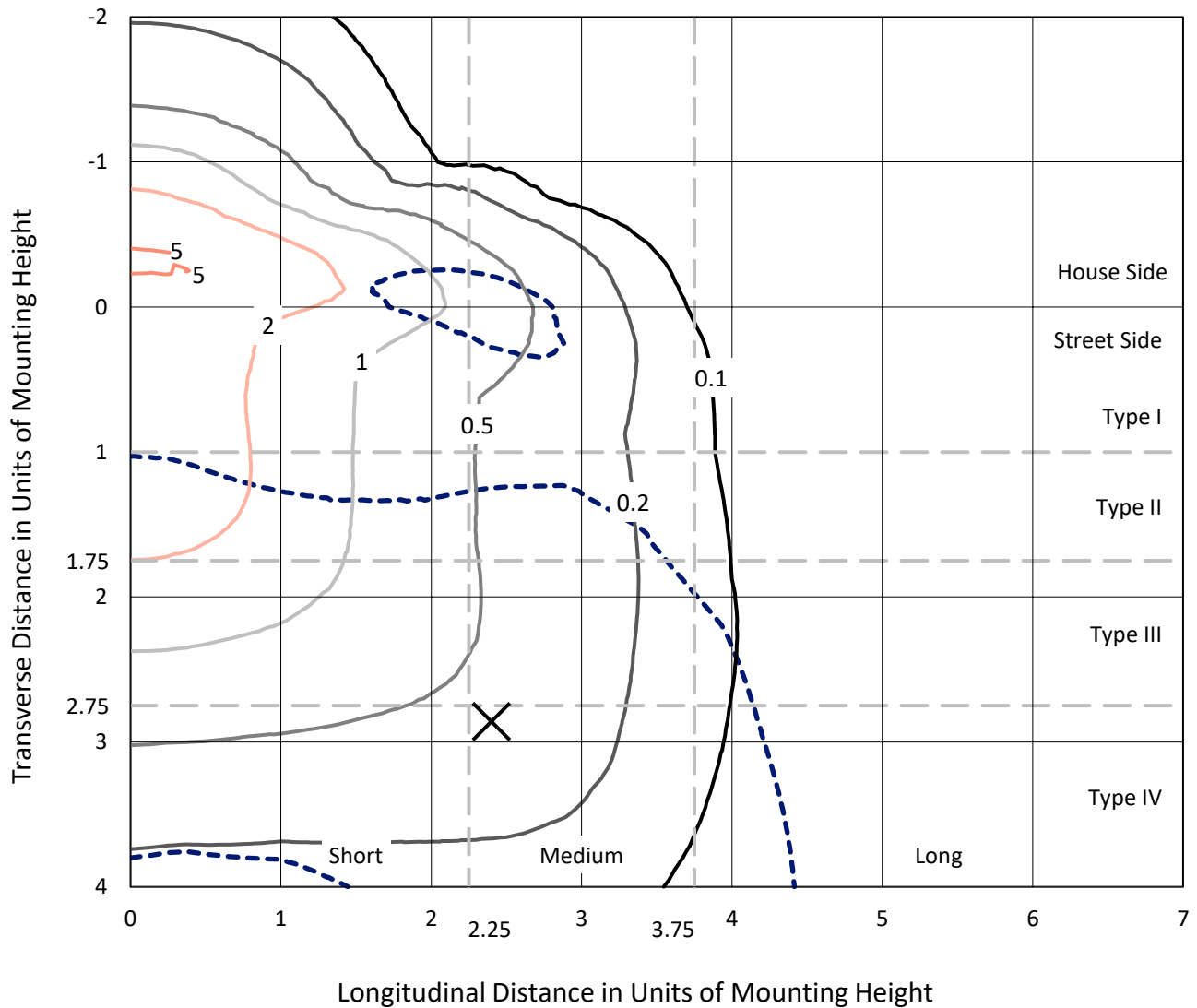
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

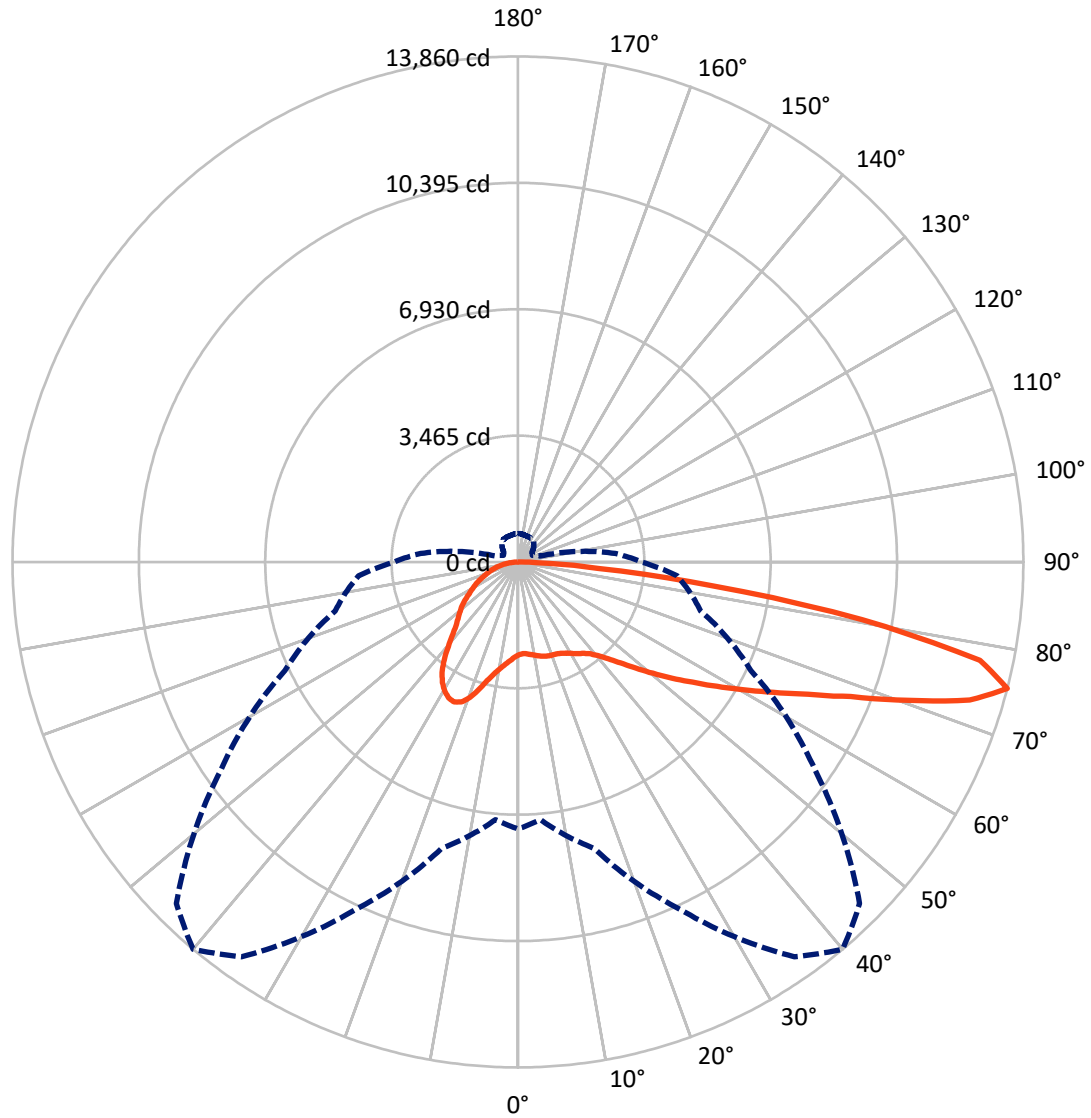
✕ Max cd
 - - - 1/2 Max cd



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
House Side	Lumens	6899.4	0.0	6899.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	15368.6	0.0	15368.6
	% Fixture	69.0	0.0	69.0
Total	Lumens	22268.0	0.0	22268.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.2	1.1
10°-20°	853.4	3.8
20°-30°	1558.2	7.0
30°-40°	2210.0	9.9
40°-50°	2984.1	13.4
50°-60°	4014.5	18.0
60°-70°	5095.3	22.9
70°-80°	4624.3	20.8
80°-90°	674.1	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°	22268.0	100.0
0°-180°	22268.0	100.0

Coefficient of Utilization



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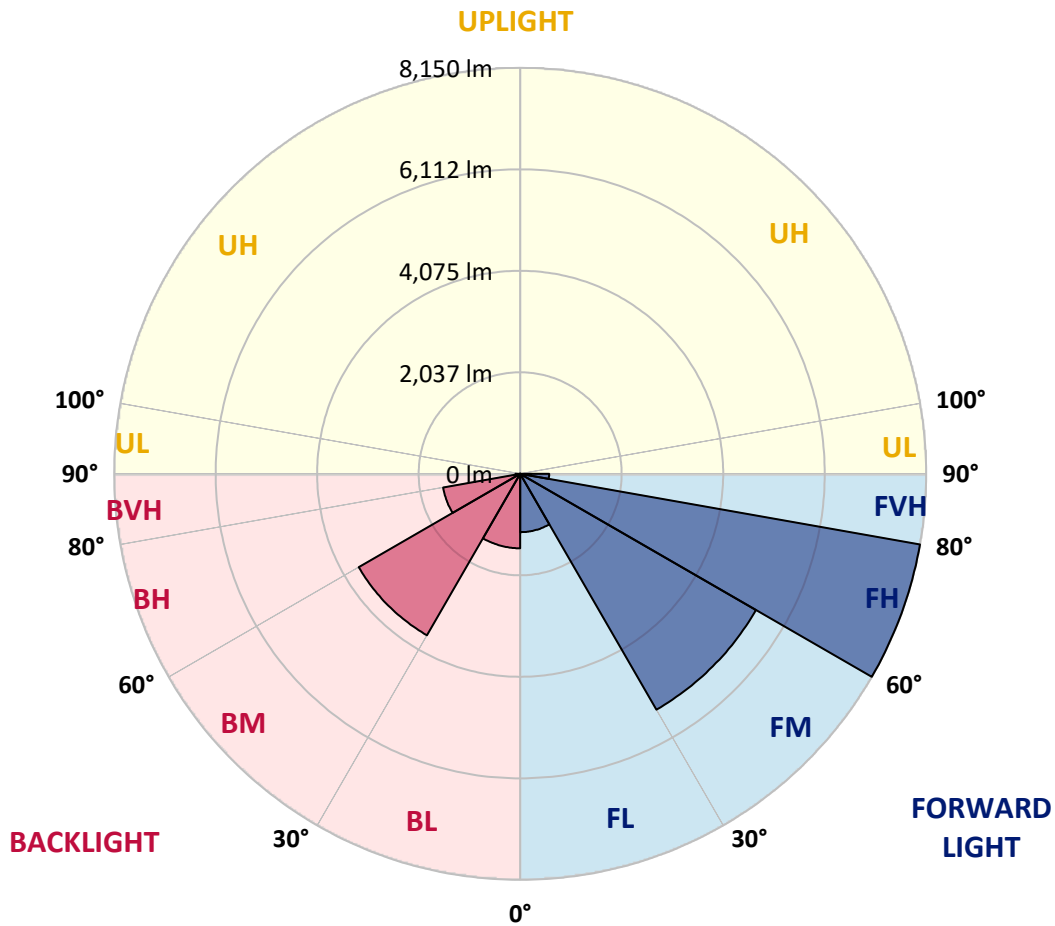
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1171.3	5.3			
FM (30°-60°)	5466.3	24.5			
FH (60°-80°)	8149.7	36.6			G4/12000
FVH (80°-90°)	581.3	2.6			G4/750
BL (0°-30°)	1494.5	6.7	B3/2500		
BM (30°-60°)	3742.3	16.8	B3/5000		
BH (60°-80°)	1569.8	7.0	B3/2500		G3/2500
BVH (80°-90°)	92.8	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°	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4
2.5°	2507.4	2521.6	2518.0	2513.3	2513.3	2514.5	2513.3	2521.6	2529.8	2538.1	2551.1
5°	2533.4	2547.6	2540.5	2534.6	2529.8	2528.7	2525.1	2523.9	2528.7	2539.3	2557.0
7.5°	2584.2	2598.3	2587.7	2577.1	2567.6	2562.9	2558.2	2551.1	2547.6	2553.5	2578.3
10°	2640.9	2655.0	2642.0	2623.1	2607.8	2601.9	2597.2	2590.1	2585.4	2588.9	2616.1
12.5°	2697.6	2711.7	2694.0	2668.0	2647.9	2644.4	2638.5	2636.1	2635.0	2633.8	2660.9
15°	2750.7	2762.5	2740.1	2709.4	2688.1	2682.2	2676.3	2679.8	2685.7	2692.8	2723.5
17.5°	2792.0	2803.8	2770.8	2730.6	2710.5	2708.2	2704.6	2716.4	2733.0	2750.7	2788.5
20°	2829.8	2841.6	2799.1	2744.8	2721.2	2721.2	2722.4	2747.2	2770.8	2796.8	2848.7
22.5°	2883.0	2892.4	2840.5	2766.1	2731.8	2734.2	2743.6	2768.4	2797.9	2833.4	2905.4
25°	2962.1	2969.2	2905.4	2806.2	2767.2	2774.3	2782.6	2794.4	2822.7	2864.1	2960.9
27.5°	3089.7	3095.6	3011.7	2877.1	2818.0	2829.8	2841.6	2833.4	2846.4	2881.8	3005.8
30°	3269.2	3272.7	3166.4	2988.1	2904.2	2910.1	2912.5	2878.3	2853.5	2881.8	3037.7
32.5°	3481.8	3480.6	3354.2	3122.7	3002.3	2996.4	2976.3	2909.0	2851.1	2875.9	3066.0
35°	3811.3	3798.3	3635.3	3311.7	3113.3	3076.7	3029.4	2943.2	2862.9	2870.0	3090.8
37.5°	4356.9	4316.8	4091.2	3621.1	3278.6	3185.3	3115.6	2998.7	2888.9	2867.6	3120.4
40°	4972.3	4921.5	4673.5	4045.1	3526.7	3376.7	3264.5	3077.9	2931.4	2878.3	3164.1
42.5°	5702.2	5630.1	5363.2	4544.7	3840.8	3623.5	3454.6	3178.2	2994.0	2912.5	3223.1
45°	6598.6	6502.9	6125.0	5108.1	4236.5	3947.1	3721.5	3330.6	3089.7	2978.6	3311.7
47.5°	7504.5	7528.1	6990.7	5753.0	4711.3	4346.3	4055.8	3559.7	3229.0	3084.9	3454.6
50°	8467.1	8483.6	7851.7	6467.5	5249.8	4797.5	4431.4	3816.0	3422.7	3236.1	3668.4
52.5°	9218.2	9220.6	8633.6	7215.1	5810.8	5293.5	4836.5	4108.9	3647.1	3436.9	3953.0
55°	9688.3	9682.4	9181.6	7922.6	6455.7	5814.4	5285.3	4442.0	3921.1	3673.1	4310.9
57.5°	10029.6	10011.9	9559.5	8530.8	7143.1	6429.7	5793.1	4819.9	4244.7	3954.2	4782.1
60°	10159.5	10148.9	9815.8	9056.4	7865.9	7110.0	6378.9	5242.7	4612.1	4286.1	5388.0
62.5°	10209.1	10229.2	10067.4	9565.4	8639.5	7863.5	7022.6	5748.2	5025.4	4661.7	6027.0
65°	10383.9	10420.5	10387.5	10231.6	9513.5	8745.8	7876.5	6349.4	5476.6	5064.4	6694.3
67.5°	10730.0	10766.6	10780.8	11028.8	10581.2	9845.4	8941.8	7098.2	6004.5	5482.5	7196.2
70°	10721.7	10711.1	10961.5	11663.0	11918.1	11367.7	10378.0	8019.4	6634.0	5829.7	7260.0
72.5°	9759.1	9674.1	10265.8	11655.9	13030.7	12957.5	12131.9	9207.6	7177.3	5872.3	6299.8
75°	7321.4	7094.7	8139.9	10504.4	13216.1	13859.8	13246.8	9944.6	7048.6	5188.4	4384.1
77.5°	3131.0	2903.1	4134.9	7776.1	11828.4	12956.3	12224.0	8676.1	5626.6	3431.0	2153.1
80°	819.7	818.5	1249.6	3525.5	8044.2	9567.8	8393.8	5603.0	3214.9	1225.9	594.1
82.5°	339.0	330.7	459.4	1371.2	3930.6	5369.1	4381.8	2499.1	1161.0	331.9	197.2
85°	126.4	125.2	223.2	473.6	1386.6	2214.5	1602.7	639.0	289.4	161.8	88.6
87.5°	35.4	34.3	48.4	164.2	337.8	512.6	274.0	105.1	81.5	63.8	26.0
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°	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4	2546.4
2.5°	2554.6	2560.5	2571.2	2579.4	2590.1	2601.9	2618.4	2629.1	2639.7	2646.8	2642.0
5°	2565.3	2578.3	2605.4	2632.6	2664.5	2694.0	2728.3	2753.1	2773.1	2779.0	2781.4
7.5°	2588.9	2610.2	2656.2	2702.3	2753.1	2801.5	2851.1	2893.6	2927.9	2940.9	2942.0
10°	2630.2	2658.6	2723.5	2788.5	2855.8	2930.2	2994.0	3055.4	3103.8	3123.9	3125.1
12.5°	2682.2	2717.6	2802.7	2892.4	2985.7	3088.5	3171.2	3246.7	3307.0	3334.1	3334.1
15°	2749.5	2795.6	2904.2	3024.7	3161.7	3304.6	3409.7	3493.6	3560.9	3594.0	3591.6
17.5°	2822.7	2884.2	3021.2	3203.0	3399.1	3586.9	3709.7	3771.1	3840.8	3872.7	3871.5
20°	2893.6	2969.2	3165.3	3429.8	3690.8	3890.4	3989.6	4006.2	4010.9	4014.4	4023.9
22.5°	2966.8	3068.4	3346.0	3715.6	3995.5	4133.7	4147.9	4077.0	3977.8	3931.8	3944.8
25°	3047.1	3181.8	3582.2	4031.0	4257.7	4274.3	4165.6	3993.2	3805.4	3719.2	3732.2
27.5°	3125.1	3312.9	3865.6	4332.1	4446.7	4301.4	4067.6	3823.1	3596.3	3505.4	3516.0
30°	3203.0	3462.9	4178.6	4595.5	4532.9	4234.1	3912.9	3640.0	3412.1	3316.4	3327.1
32.5°	3282.2	3637.7	4538.8	4785.7	4517.6	4091.2	3720.4	3434.5	3233.8	3133.4	3146.4
35°	3371.9	3852.6	4880.2	4889.6	4414.8	3881.0	3466.4	3188.9	3014.1	2933.8	2951.5
37.5°	3488.9	4125.5	5181.3	4915.6	4235.3	3572.7	3151.1	2898.3	2754.2	2717.6	2743.6
40°	3634.1	4453.8	5411.6	4874.3	3969.6	3198.3	2806.2	2604.2	2522.8	2531.0	2559.4
42.5°	3823.1	4821.1	5573.4	4768.0	3599.9	2812.1	2503.9	2414.1	2453.1	2486.1	2516.8
45°	4068.8	5202.6	5673.8	4587.3	3181.8	2485.0	2325.5	2346.8	2376.3	2379.8	2403.5
47.5°	4382.9	5588.8	5740.0	4314.4	2755.4	2254.7	2212.1	2216.9	2211.0	2186.2	2205.0
50°	4775.0	5964.4	5799.0	3953.0	2392.8	2110.6	2053.9	2037.3	1955.8	1875.5	1886.2
52.5°	5221.5	6309.2	5823.8	3504.2	2110.6	1990.1	1898.0	1794.0	1641.7	1616.9	1625.1
55°	5717.5	6628.1	5760.1	2952.7	1873.2	1835.4	1696.0	1570.8	1554.3	1533.0	1536.6
57.5°	6310.4	6971.8	5630.1	2337.3	1629.9	1654.7	1518.8	1533.0	1503.5	1470.4	1464.5
60°	6958.8	7327.3	5402.2	1776.3	1378.3	1429.1	1472.8	1471.6	1463.3	1436.2	1426.7
62.5°	7542.3	7561.2	4953.4	1360.6	1157.4	1254.3	1373.6	1372.4	1365.3	1350.0	1344.1
65°	7889.5	7525.7	4204.6	1071.2	975.6	1110.2	1238.9	1248.4	1249.6	1248.4	1248.4
67.5°	7828.1	7111.2	3177.1	852.7	825.6	963.7	1105.5	1118.5	1127.9	1130.3	1132.6
70°	7133.6	6200.6	2071.6	680.3	692.1	835.0	979.1	992.1	1000.4	1009.8	1014.5
72.5°	5560.5	4558.9	1185.8	550.4	575.2	724.0	853.9	869.3	874.0	891.7	898.8
75°	3388.5	2681.0	640.1	433.5	472.4	618.9	729.9	747.6	755.9	777.1	779.5
77.5°	1611.0	1161.0	364.9	337.8	380.3	505.5	616.5	636.6	614.2	626.0	616.5
80°	544.5	431.1	230.3	257.5	290.5	394.5	493.7	513.8	466.5	464.2	459.4
82.5°	190.2	174.8	146.5	171.3	187.8	282.3	373.2	399.2	347.2	346.1	329.5
85°	74.4	70.9	81.5	93.3	112.2	173.6	245.7	258.7	213.8	172.4	170.1
87.5°	15.4	16.5	20.1	21.3	34.3	60.2	88.6	108.7	86.2	73.2	67.3
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)