

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: P884484

Luminaire Tested: **NAV-SB5B-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884484
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-SB5B-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 23013 lumens
Efficiency: N/A
Efficacy: 126.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

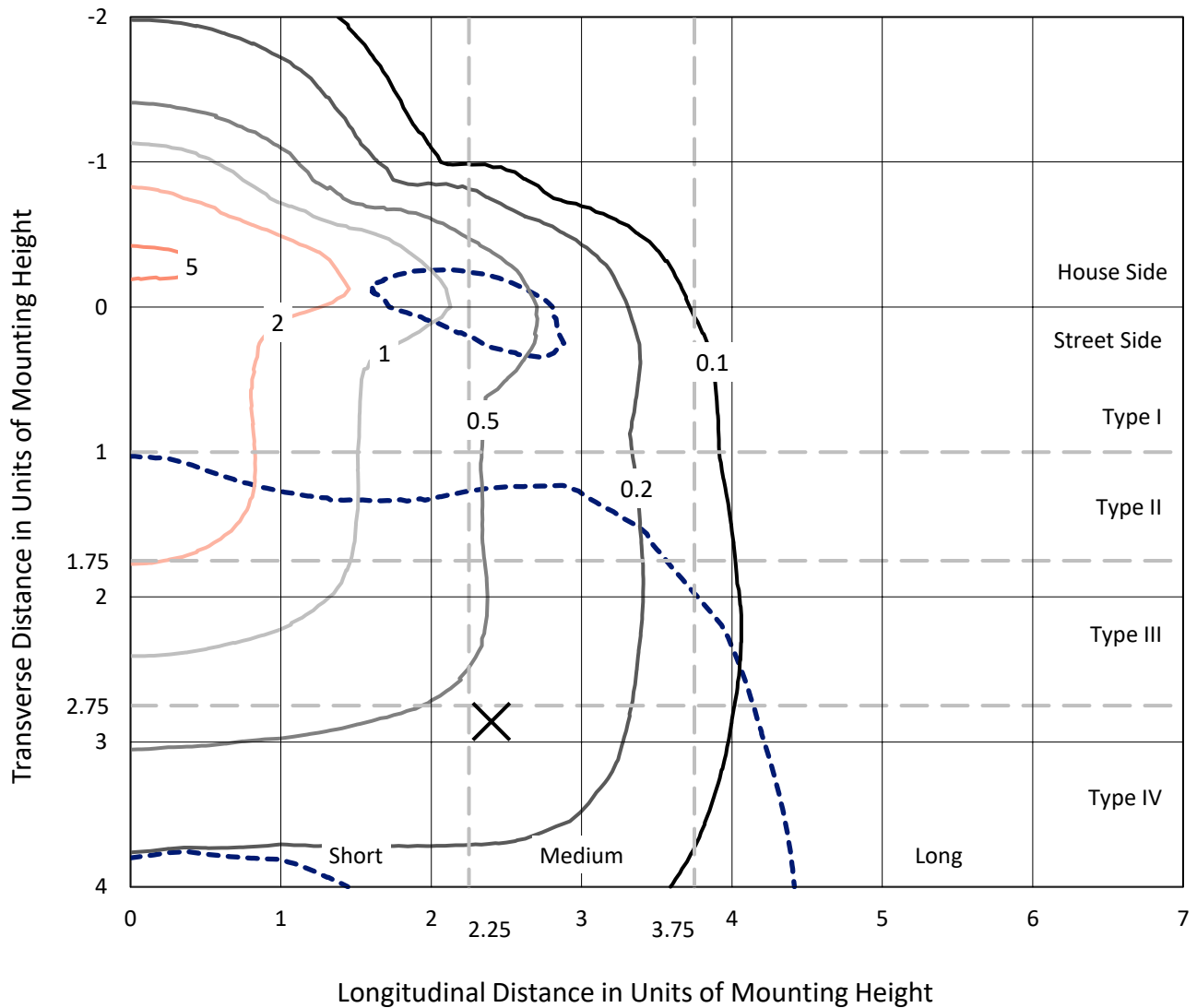
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

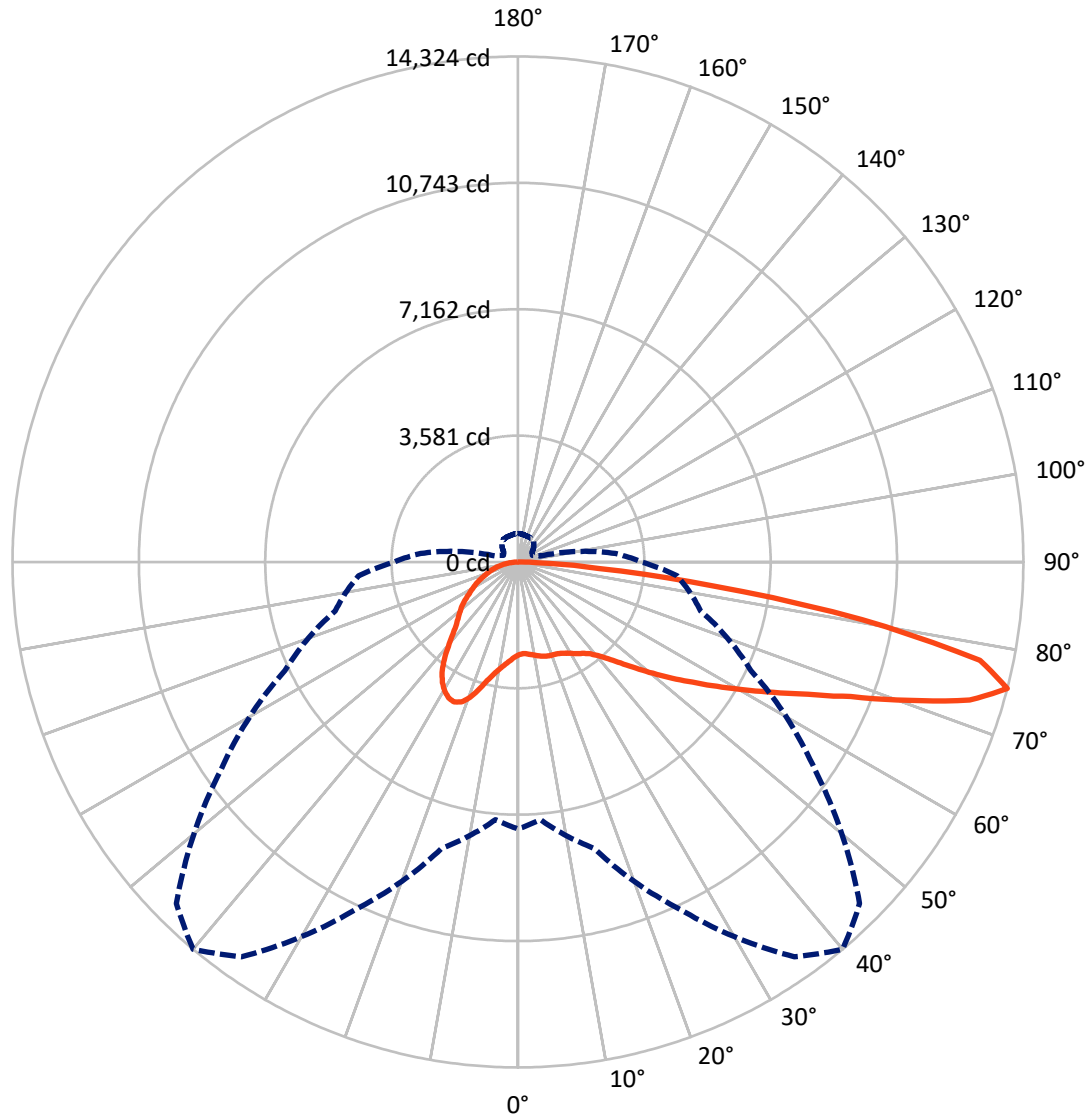
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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	7130.2	0.0	7130.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	15882.8	0.0	15882.8
	% Fixture	69.0	0.0	69.0
Total	Lumens	23013.0	0.0	23013.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.7	1.1
10°-20°	881.9	3.8
20°-30°	1610.3	7.0
30°-40°	2283.9	9.9
40°-50°	3084.0	13.4
50°-60°	4148.8	18.0
60°-70°	5265.8	22.9
70°-80°	4779.0	20.8
80°-90°	696.6	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°	23013.0	100.0
0°-180°	23013.0	100.0

Coefficient of Utilization



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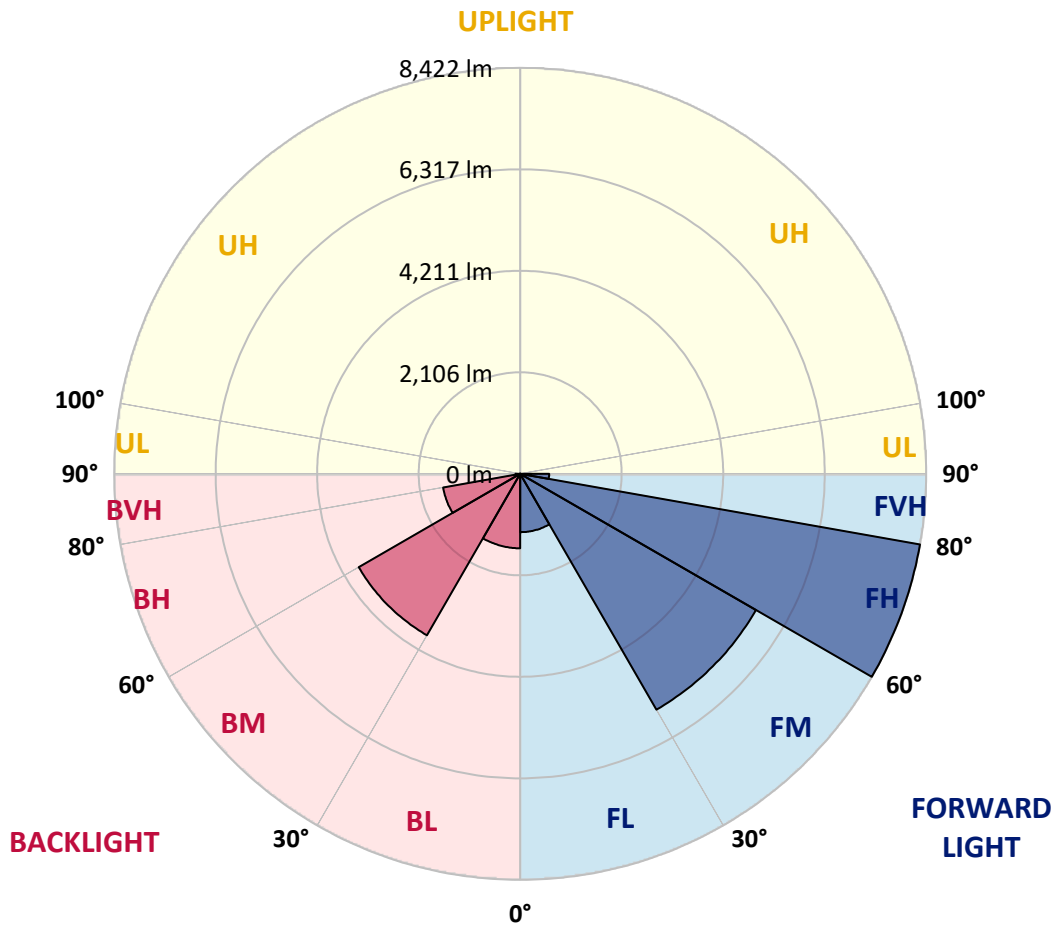
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1210.5	5.3			
FM (30°-60°)	5649.2	24.5			
FH (60°-80°)	8422.4	36.6			G4/12000
FVH (80°-90°)	600.7	2.6			G4/750
BL (0°-30°)	1544.5	6.7	B3/2500		
BM (30°-60°)	3867.5	16.8	B3/5000		
BH (60°-80°)	1622.3	7.0	B3/2500		G3/2500
BVH (80°-90°)	95.9	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°	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6
2.5°	2591.3	2605.9	2602.3	2597.4	2597.4	2598.6	2597.4	2605.9	2614.5	2623.0	2636.4
5°	2618.1	2632.8	2625.5	2619.4	2614.5	2613.3	2609.6	2608.4	2613.3	2624.2	2642.6
7.5°	2670.6	2685.3	2674.3	2663.3	2653.5	2648.7	2643.8	2636.4	2632.8	2638.9	2664.5
10°	2729.2	2743.9	2730.4	2710.9	2695.0	2688.9	2684.1	2676.7	2671.8	2675.5	2703.6
12.5°	2787.8	2802.4	2784.1	2757.3	2736.5	2732.9	2726.8	2724.3	2723.1	2721.9	2750.0
15°	2842.7	2854.9	2831.7	2800.0	2778.0	2771.9	2765.8	2769.5	2775.6	2782.9	2814.7
17.5°	2885.4	2897.7	2863.5	2822.0	2801.2	2798.8	2795.1	2807.3	2824.4	2842.7	2881.8
20°	2924.5	2936.7	2892.8	2836.6	2812.2	2812.2	2813.4	2839.1	2863.5	2890.3	2944.0
22.5°	2979.4	2989.2	2935.5	2858.6	2823.2	2825.6	2835.4	2861.0	2891.6	2928.2	3002.6
25°	3061.2	3068.5	3002.6	2900.1	2859.8	2867.1	2875.7	2887.9	2917.2	2959.9	3060.0
27.5°	3193.0	3199.1	3112.5	2973.3	2912.3	2924.5	2936.7	2928.2	2941.6	2978.2	3106.4
30°	3378.6	3382.2	3272.4	3088.1	3001.4	3007.5	3009.9	2974.5	2948.9	2978.2	3139.3
32.5°	3598.3	3597.0	3466.4	3227.2	3102.7	3096.6	3075.9	3006.3	2946.5	2972.1	3168.6
35°	3938.8	3925.4	3756.9	3422.5	3217.4	3179.6	3130.8	3041.7	2958.7	2966.0	3194.3
37.5°	4502.7	4461.2	4228.1	3742.3	3388.3	3291.9	3219.9	3099.0	2985.5	2963.6	3224.8
40°	5138.6	5086.2	4829.8	4180.5	3644.6	3489.6	3373.7	3180.8	3029.5	2974.5	3269.9
42.5°	5893.0	5818.5	5542.6	4696.8	3969.3	3744.7	3570.2	3284.6	3094.2	3009.9	3331.0
45°	6819.4	6720.5	6329.9	5279.0	4378.2	4079.2	3846.0	3442.0	3193.0	3078.3	3422.5
47.5°	7755.6	7780.0	7224.6	5945.4	4868.9	4491.7	4191.5	3678.8	3337.1	3188.2	3570.2
50°	8750.3	8767.4	8114.4	6683.9	5425.5	4958.0	4579.6	3943.7	3537.2	3344.4	3791.1
52.5°	9526.6	9529.1	8922.4	7456.5	6005.2	5470.6	4998.3	4246.4	3769.1	3551.9	4085.3
55°	10012.4	10006.3	9488.8	8187.6	6671.7	6008.9	5462.1	4590.6	4052.3	3796.0	4455.1
57.5°	10365.2	10346.8	9879.4	8816.2	7382.1	6644.8	5986.9	4981.2	4386.8	4086.5	4942.1
60°	10499.4	10488.4	10144.2	9359.4	8129.1	7347.9	6592.3	5418.1	4766.4	4429.5	5568.3
62.5°	10550.7	10571.4	10404.2	9885.5	8928.5	8126.6	7257.6	5940.6	5193.6	4817.6	6228.6
65°	10731.3	10769.2	10735.0	10573.9	9831.8	9038.4	8140.0	6561.8	5659.8	5233.8	6918.2
67.5°	11089.0	11126.8	11141.4	11397.8	10935.2	10174.7	9241.0	7335.7	6205.4	5665.9	7437.0
70°	11080.4	11069.4	11328.2	12053.2	12316.9	11748.1	10725.2	8287.7	6856.0	6024.8	7502.9
72.5°	10085.6	9997.8	10609.3	12045.9	13466.6	13391.0	12537.8	9515.6	7417.5	6068.7	6510.6
75°	7566.4	7332.0	8412.2	10855.8	13658.3	14323.5	13690.0	10277.3	7284.4	5362.0	4530.8
77.5°	3235.8	3000.2	4273.2	8036.3	12224.1	13389.7	12633.0	8966.4	5814.8	3545.8	2225.1
80°	847.1	845.9	1291.4	3643.4	8313.4	9887.9	8674.7	5790.4	3322.4	1267.0	614.0
82.5°	350.3	341.8	474.8	1417.1	4062.1	5548.7	4528.3	2582.7	1199.8	343.0	203.8
85°	130.6	129.4	230.7	489.5	1433.0	2288.6	1656.3	660.3	299.0	167.2	91.5
87.5°	36.6	35.4	50.0	169.7	349.1	529.7	283.2	108.6	84.2	65.9	26.9
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°	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6	2631.6
2.5°	2640.1	2646.2	2657.2	2665.7	2676.7	2688.9	2706.0	2717.0	2728.0	2735.3	2730.4
5°	2651.1	2664.5	2692.6	2720.7	2753.6	2784.1	2819.5	2845.2	2865.9	2872.0	2874.5
7.5°	2675.5	2697.5	2745.1	2792.7	2845.2	2895.2	2946.5	2990.4	3025.8	3039.2	3040.5
10°	2718.2	2747.5	2814.7	2881.8	2951.4	3028.3	3094.2	3157.6	3207.7	3228.4	3229.7
12.5°	2771.9	2808.6	2896.4	2989.2	3085.6	3191.8	3277.3	3355.4	3417.6	3445.7	3445.7
15°	2841.5	2889.1	3001.4	3125.9	3267.5	3415.2	3523.8	3610.5	3680.0	3714.2	3711.8
17.5°	2917.2	2980.7	3122.2	3310.2	3512.8	3706.9	3833.8	3897.3	3969.3	4002.3	4001.1
20°	2990.4	3068.5	3271.2	3544.6	3814.3	4020.6	4123.1	4140.2	4145.1	4148.7	4158.5
22.5°	3066.1	3171.1	3457.9	3839.9	4129.2	4272.0	4286.7	4213.4	4110.9	4063.3	4076.7
25°	3149.1	3288.2	3702.0	4165.8	4400.2	4417.3	4305.0	4126.8	3932.7	3843.6	3857.0
27.5°	3229.7	3423.7	3995.0	4477.1	4595.5	4445.3	4203.7	3951.0	3716.7	3622.7	3633.7
30°	3310.2	3578.7	4318.4	4749.3	4684.6	4375.8	4043.8	3761.8	3526.3	3427.4	3438.4
32.5°	3392.0	3759.4	4690.7	4945.8	4668.7	4228.1	3844.8	3549.4	3341.9	3238.2	3251.6
35°	3484.8	3981.5	5043.4	5053.2	4562.5	4010.8	3582.4	3295.6	3114.9	3031.9	3050.2
37.5°	3605.6	4263.5	5354.7	5080.0	4377.0	3692.2	3256.5	2995.3	2846.4	2808.6	2835.4
40°	3755.7	4602.8	5592.7	5037.3	4102.4	3305.3	2900.1	2691.4	2607.2	2615.7	2645.0
42.5°	3951.0	4982.4	5759.9	4927.5	3720.3	2906.2	2587.6	2494.9	2535.1	2569.3	2601.1
45°	4204.9	5376.6	5863.7	4740.7	3288.2	2568.1	2403.3	2425.3	2455.8	2459.5	2483.9
47.5°	4529.6	5775.8	5932.0	4458.8	2847.6	2330.1	2286.1	2291.0	2284.9	2259.3	2278.8
50°	4934.8	6163.9	5993.0	4085.3	2472.9	2181.2	2122.6	2105.5	2021.3	1938.3	1949.3
52.5°	5396.2	6520.3	6018.7	3621.5	2181.2	2056.7	1961.5	1854.1	1696.6	1671.0	1679.5
55°	5908.8	6849.9	5952.8	3051.4	1935.8	1896.8	1752.8	1623.4	1606.3	1584.3	1588.0
57.5°	6521.6	7205.1	5818.5	2415.5	1684.4	1710.0	1569.7	1584.3	1553.8	1519.6	1513.5
60°	7191.6	7572.5	5582.9	1835.8	1424.4	1476.9	1522.1	1520.8	1512.3	1484.2	1474.5
62.5°	7794.6	7814.1	5119.1	1406.1	1196.2	1296.3	1419.5	1418.3	1411.0	1395.1	1389.0
65°	8153.5	7777.5	4345.3	1107.1	1008.2	1147.3	1280.4	1290.2	1291.4	1290.2	1290.2
67.5°	8090.0	7349.1	3283.4	881.3	853.2	996.0	1142.5	1155.9	1165.7	1168.1	1170.5
70°	7372.3	6408.0	2140.9	703.1	715.3	862.9	1011.9	1025.3	1033.8	1043.6	1048.5
72.5°	5746.5	4711.4	1225.5	568.8	594.4	748.2	882.5	898.3	903.2	921.5	928.9
75°	3501.8	2770.7	661.6	448.0	488.2	639.6	754.3	772.6	781.2	803.1	805.6
77.5°	1664.9	1199.8	377.2	349.1	393.0	522.4	637.1	657.9	634.7	646.9	637.1
80°	562.7	445.5	238.0	266.1	300.3	407.7	510.2	531.0	482.1	479.7	474.8
82.5°	196.5	180.6	151.4	177.0	194.1	291.7	385.7	412.6	358.9	357.6	340.5
85°	76.9	73.2	84.2	96.4	116.0	179.4	253.9	267.3	220.9	178.2	175.8
87.5°	15.9	17.1	20.7	22.0	35.4	62.2	91.5	112.3	89.1	75.7	69.6
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)