

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: P883744

Luminaire Tested: **NAV-SB4B-727-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883744
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-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 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: 20501 lumens
Efficiency: N/A
Efficacy: 139.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

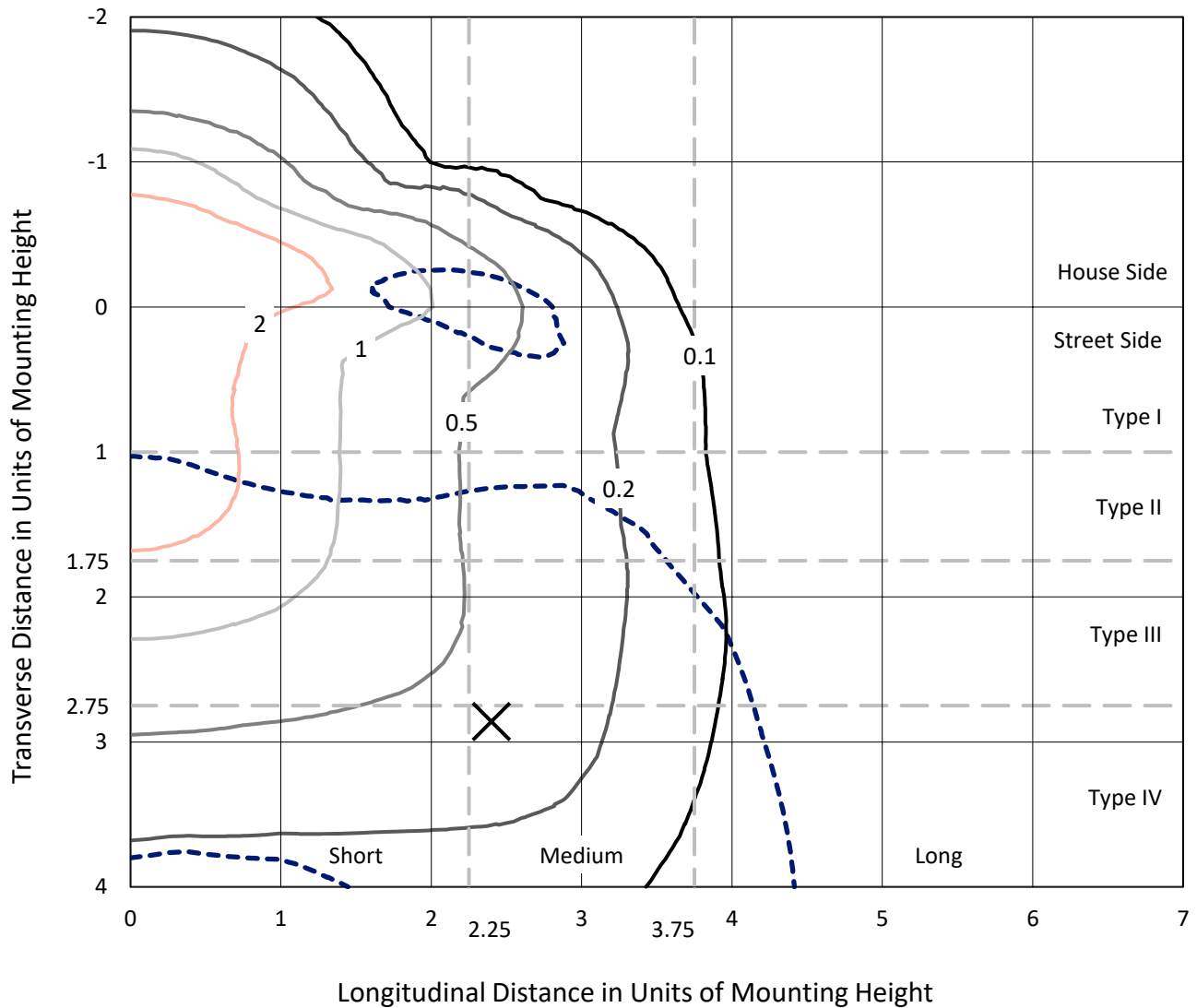
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

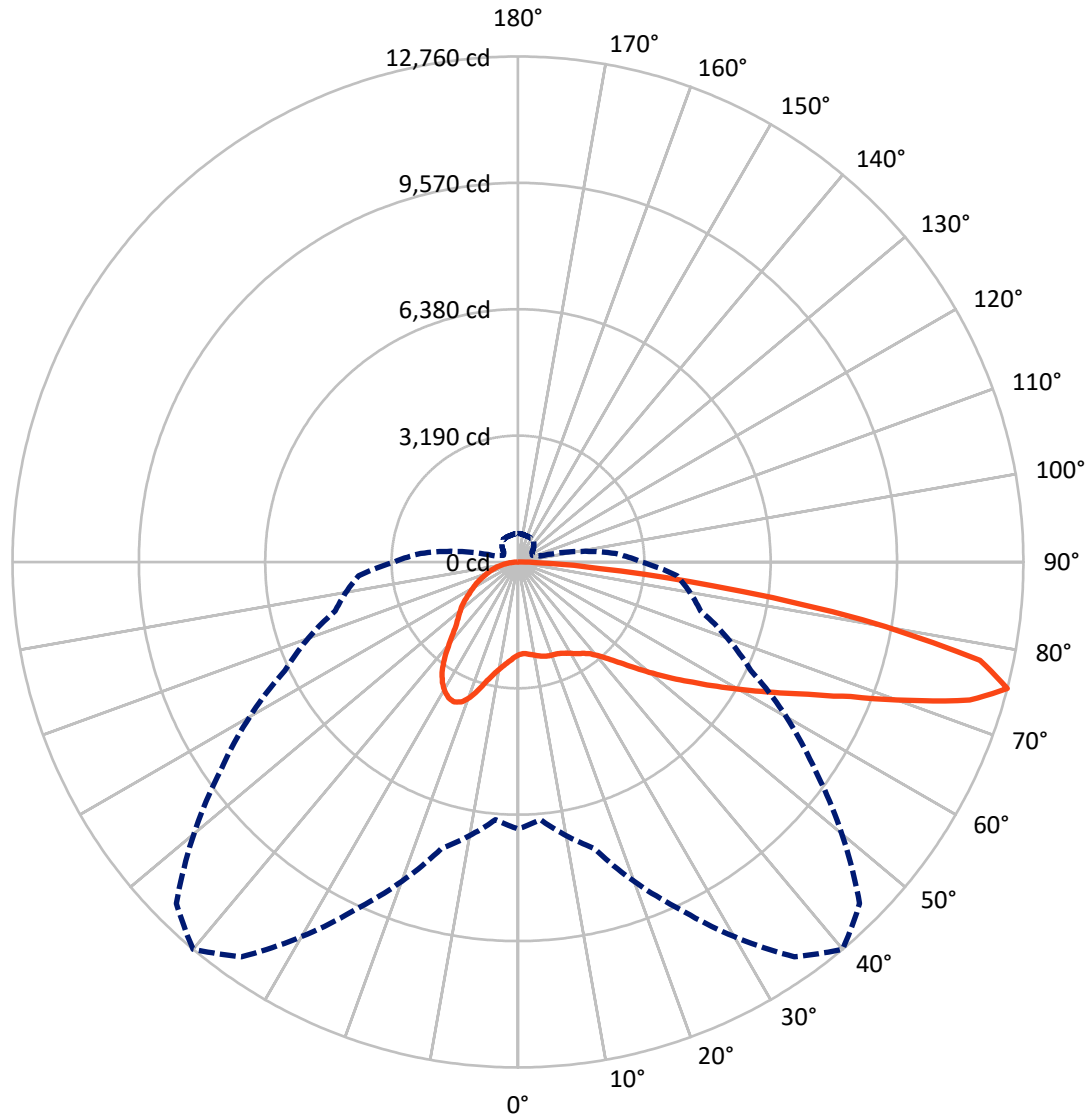
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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
House Side	Lumens	6351.9	0.0	6351.9
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	14149.1	0.0	14149.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	20501.0	0.0	20501.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.0	1.1
10°-20°	785.7	3.8
20°-30°	1434.6	7.0
30°-40°	2034.6	9.9
40°-50°	2747.3	13.4
50°-60°	3695.9	18.0
60°-70°	4691.0	22.9
70°-80°	4257.3	20.8
80°-90°	620.6	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°	20501.0	100.0
0°-180°	20501.0	100.0

Coefficient of Utilization



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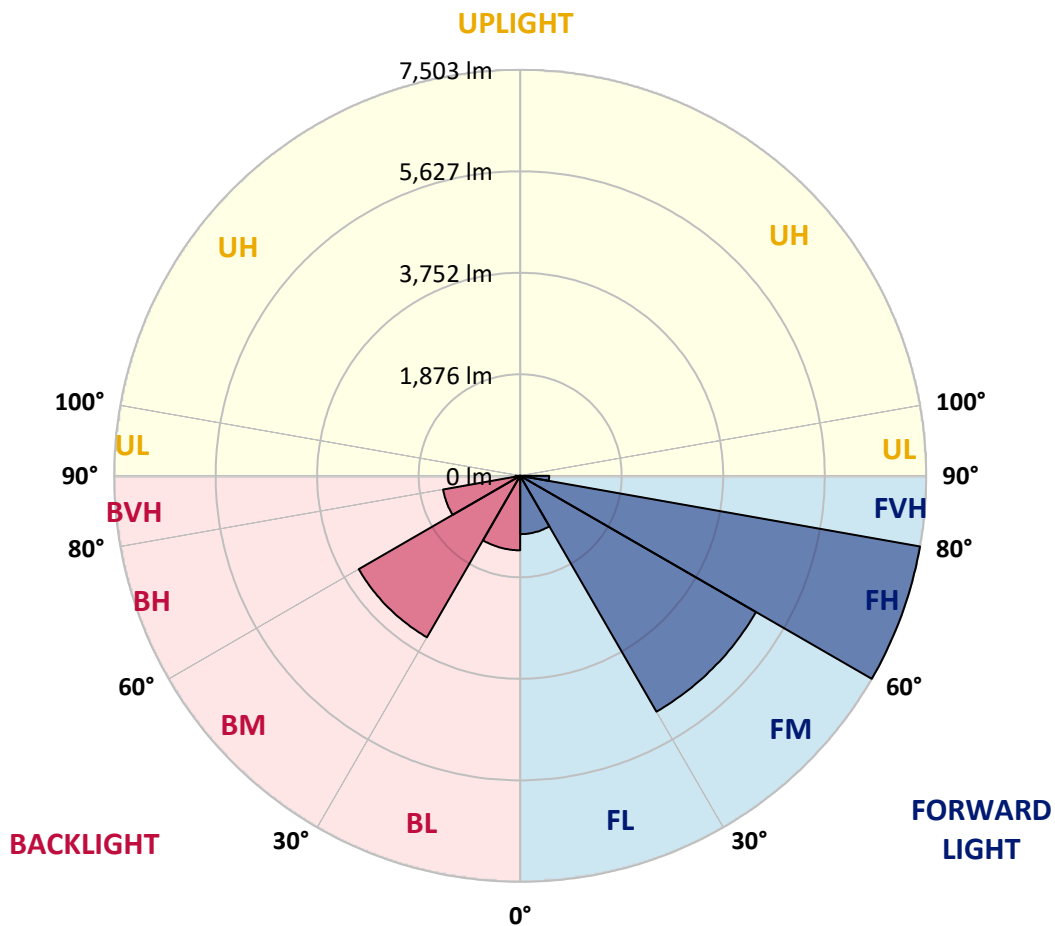
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1078.4	5.3			
FM (30°-60°)	5032.5	24.5			
FH (60°-80°)	7503.0	36.6			G4/12000
FVH (80°-90°)	535.1	2.6			G4/750
BL (0°-30°)	1375.9	6.7	B3/2500		
BM (30°-60°)	3445.3	16.8	B3/5000		
BH (60°-80°)	1445.2	7.0	B3/2500		G3/2500
BVH (80°-90°)	85.4	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°	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3
2.5°	2308.4	2321.5	2318.2	2313.9	2313.9	2315.0	2313.9	2321.5	2329.1	2336.7	2348.7
5°	2332.4	2345.4	2338.9	2333.4	2329.1	2328.0	2324.7	2323.7	2328.0	2337.8	2354.1
7.5°	2379.1	2392.2	2382.4	2372.6	2363.9	2359.5	2355.2	2348.7	2345.4	2350.8	2373.7
10°	2431.3	2444.4	2432.4	2415.0	2400.9	2395.4	2391.1	2384.5	2380.2	2383.5	2408.5
12.5°	2483.5	2496.5	2480.2	2456.3	2437.8	2434.6	2429.1	2427.0	2425.9	2424.8	2449.8
15°	2532.4	2543.3	2522.6	2494.4	2474.8	2469.4	2463.9	2467.2	2472.6	2479.1	2507.4
17.5°	2570.5	2581.4	2550.9	2513.9	2495.5	2493.3	2490.0	2500.9	2516.1	2532.4	2567.2
20°	2605.3	2616.2	2577.0	2527.0	2505.2	2505.2	2506.3	2529.2	2550.9	2574.8	2622.7
22.5°	2654.2	2662.9	2615.1	2546.6	2515.0	2517.2	2525.9	2548.7	2575.9	2608.5	2674.9
25°	2727.1	2733.6	2674.9	2583.5	2547.7	2554.2	2561.8	2572.7	2598.8	2636.8	2726.0
27.5°	2844.5	2849.9	2772.7	2648.8	2594.4	2605.3	2616.2	2608.5	2620.5	2653.1	2767.3
30°	3009.8	3013.0	2915.2	2751.0	2673.8	2679.2	2681.4	2649.9	2627.0	2653.1	2796.7
32.5°	3205.5	3204.4	3088.1	2874.9	2764.0	2758.6	2740.1	2678.1	2624.9	2647.7	2822.7
35°	3508.9	3496.9	3346.8	3048.9	2866.2	2832.5	2789.0	2709.7	2635.7	2642.2	2845.6
37.5°	4011.2	3974.2	3766.6	3333.8	3018.5	2932.6	2868.4	2760.8	2659.6	2640.1	2872.8
40°	4577.7	4531.0	4302.6	3724.2	3246.8	3108.7	3005.4	2833.6	2698.8	2649.9	2913.0
42.5°	5249.7	5183.4	4937.6	4184.1	3536.0	3336.0	3180.5	2926.0	2756.4	2681.4	2967.4
45°	6075.0	5986.9	5639.0	4702.8	3900.3	3633.9	3426.2	3066.3	2844.5	2742.3	3048.9
47.5°	6909.0	6930.7	6436.0	5296.5	4337.4	4001.4	3733.9	3277.3	2972.8	2840.1	3180.5
50°	7795.2	7810.4	7228.7	5954.3	4833.3	4416.8	4079.7	3513.2	3151.1	2979.3	3377.3
52.5°	8486.7	8488.9	7948.5	6642.6	5349.7	4873.5	4452.7	3782.9	3357.7	3164.2	3639.3
55°	8919.5	8914.1	8453.0	7293.9	5943.4	5353.0	4865.9	4089.5	3610.0	3381.6	3968.8
57.5°	9233.7	9217.4	8801.0	7853.9	6576.3	5919.5	5333.4	4437.5	3907.9	3640.4	4402.7
60°	9353.3	9343.6	9036.9	8337.8	7241.7	6545.8	5872.8	4826.7	4246.1	3946.0	4960.5
62.5°	9399.0	9417.5	9268.5	8806.4	7953.9	7239.5	6465.4	5292.1	4626.7	4291.8	5548.7
65°	9559.9	9593.6	9563.2	9419.7	8758.6	8051.8	7251.5	5845.6	5042.0	4662.5	6163.1
67.5°	9878.5	9912.2	9925.3	10153.6	9741.5	9064.1	8232.3	6534.9	5528.1	5047.5	6625.2
70°	9870.9	9861.1	10091.7	10737.5	10972.4	10465.7	9554.5	7383.1	6107.6	5367.1	6683.9
72.5°	8984.7	8906.4	9451.2	10731.0	11996.7	11929.3	11169.2	8476.9	6607.8	5406.3	5799.9
75°	6740.5	6531.7	7494.0	9670.8	12167.4	12760.0	12195.7	9155.4	6489.3	4776.7	4036.2
77.5°	2882.6	2672.7	3806.8	7159.1	10889.8	11928.2	11254.0	7987.6	5180.1	3158.7	1982.2
80°	754.6	753.5	1150.4	3245.7	7405.9	8808.6	7727.8	5158.4	2959.8	1128.7	546.9
82.5°	312.1	304.5	423.0	1262.4	3618.7	4943.1	4034.1	2300.8	1068.9	305.5	181.6
85°	116.3	115.3	205.5	436.0	1276.5	2038.8	1475.5	588.3	266.4	149.0	81.6
87.5°	32.6	31.5	44.6	151.1	311.0	471.9	252.3	96.8	75.0	58.7	23.9
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°	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3	2344.3
2.5°	2351.9	2357.4	2367.2	2374.8	2384.5	2395.4	2410.6	2420.4	2430.2	2436.7	2432.4
5°	2361.7	2373.7	2398.7	2423.7	2453.1	2480.2	2511.8	2534.6	2553.1	2558.5	2560.7
7.5°	2383.5	2403.0	2445.4	2487.8	2534.6	2579.2	2624.9	2664.0	2695.5	2707.5	2708.6
10°	2421.5	2447.6	2507.4	2567.2	2629.2	2697.7	2756.4	2813.0	2857.5	2876.0	2877.1
12.5°	2469.4	2502.0	2580.3	2662.9	2748.8	2843.4	2919.5	2989.1	3044.6	3069.6	3069.6
15°	2531.3	2573.7	2673.8	2784.7	2910.8	3042.4	3139.2	3216.4	3278.3	3308.8	3306.6
17.5°	2598.8	2655.3	2781.4	2948.9	3129.4	3302.3	3415.4	3471.9	3536.0	3565.4	3564.3
20°	2664.0	2733.6	2914.1	3157.7	3398.0	3581.7	3673.1	3688.3	3692.6	3695.9	3704.6
22.5°	2731.4	2824.9	3080.4	3420.8	3678.5	3805.7	3818.8	3753.5	3662.2	3619.8	3631.7
25°	2805.4	2929.3	3297.9	3711.1	3919.9	3935.1	3835.1	3676.3	3503.4	3424.1	3436.0
27.5°	2877.1	3050.0	3558.9	3988.4	4093.9	3960.1	3744.8	3519.7	3311.0	3227.2	3237.0
30°	2948.9	3188.1	3847.0	4230.9	4173.2	3898.1	3602.4	3351.2	3141.3	3053.3	3063.1
32.5°	3021.7	3349.0	4178.7	4405.9	4159.1	3766.6	3425.1	3162.0	2977.2	2884.7	2896.7
35°	3104.4	3546.9	4492.9	4501.6	4064.5	3573.0	3191.4	2935.8	2774.9	2701.0	2717.3
37.5°	3212.0	3798.1	4770.2	4525.5	3899.2	3289.2	2901.0	2668.3	2535.7	2502.0	2525.9
40°	3345.8	4100.4	4982.2	4487.5	3654.6	2944.5	2583.5	2397.6	2322.6	2330.2	2356.3
42.5°	3519.7	4438.5	5131.2	4389.6	3314.2	2589.0	2305.2	2222.5	2258.4	2288.9	2317.1
45°	3745.9	4789.8	5223.6	4223.2	2929.3	2287.8	2141.0	2160.6	2187.7	2191.0	2212.7
47.5°	4035.1	5145.3	5284.5	3972.1	2536.8	2075.7	2036.6	2040.9	2035.5	2012.7	2030.1
50°	4396.1	5491.1	5338.9	3639.3	2203.0	1943.1	1890.9	1875.7	1800.6	1726.7	1736.5
52.5°	4807.2	5808.6	5361.7	3226.2	1943.1	1832.2	1747.4	1651.7	1511.4	1488.6	1496.2
55°	5263.8	6102.2	5303.0	2718.4	1724.5	1689.7	1561.4	1446.2	1430.9	1411.4	1414.6
57.5°	5809.7	6418.6	5183.4	2151.9	1500.5	1523.4	1398.3	1411.4	1384.2	1353.7	1348.3
60°	6406.6	6745.9	4973.5	1635.4	1268.9	1315.7	1355.9	1354.8	1347.2	1322.2	1313.5
62.5°	6943.8	6961.2	4560.3	1252.6	1065.6	1154.8	1264.6	1263.5	1257.0	1242.8	1237.4
65°	7263.5	6928.6	3870.9	986.2	898.1	1022.1	1140.6	1149.3	1150.4	1149.3	1149.3
67.5°	7206.9	6546.9	2925.0	785.1	760.1	887.3	1017.8	1029.7	1038.4	1040.6	1042.8
70°	6567.6	5708.6	1907.2	626.3	637.2	768.8	901.4	913.4	921.0	929.7	934.0
72.5°	5119.2	4197.2	1091.7	506.7	529.5	666.5	786.2	800.3	804.6	820.9	827.5
75°	3119.6	2468.3	589.3	399.1	434.9	569.8	672.0	688.3	695.9	715.5	717.6
77.5°	1483.1	1068.9	336.0	311.0	350.1	465.4	567.6	586.1	565.4	576.3	567.6
80°	501.3	396.9	212.0	237.0	267.5	363.2	454.5	473.0	429.5	427.3	423.0
82.5°	175.1	160.9	134.8	157.7	172.9	259.9	343.6	367.5	319.7	318.6	303.4
85°	68.5	65.2	75.0	85.9	103.3	159.8	226.2	238.1	196.8	158.8	156.6
87.5°	14.1	15.2	18.5	19.6	31.5	55.5	81.6	100.0	79.4	67.4	62.0
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)