

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: P884254

Luminaire Tested: **NAV-SB5A-727-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884254
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-SB5A-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 350mA 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: 20448 lumens
Efficiency: N/A
Efficacy: 144.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

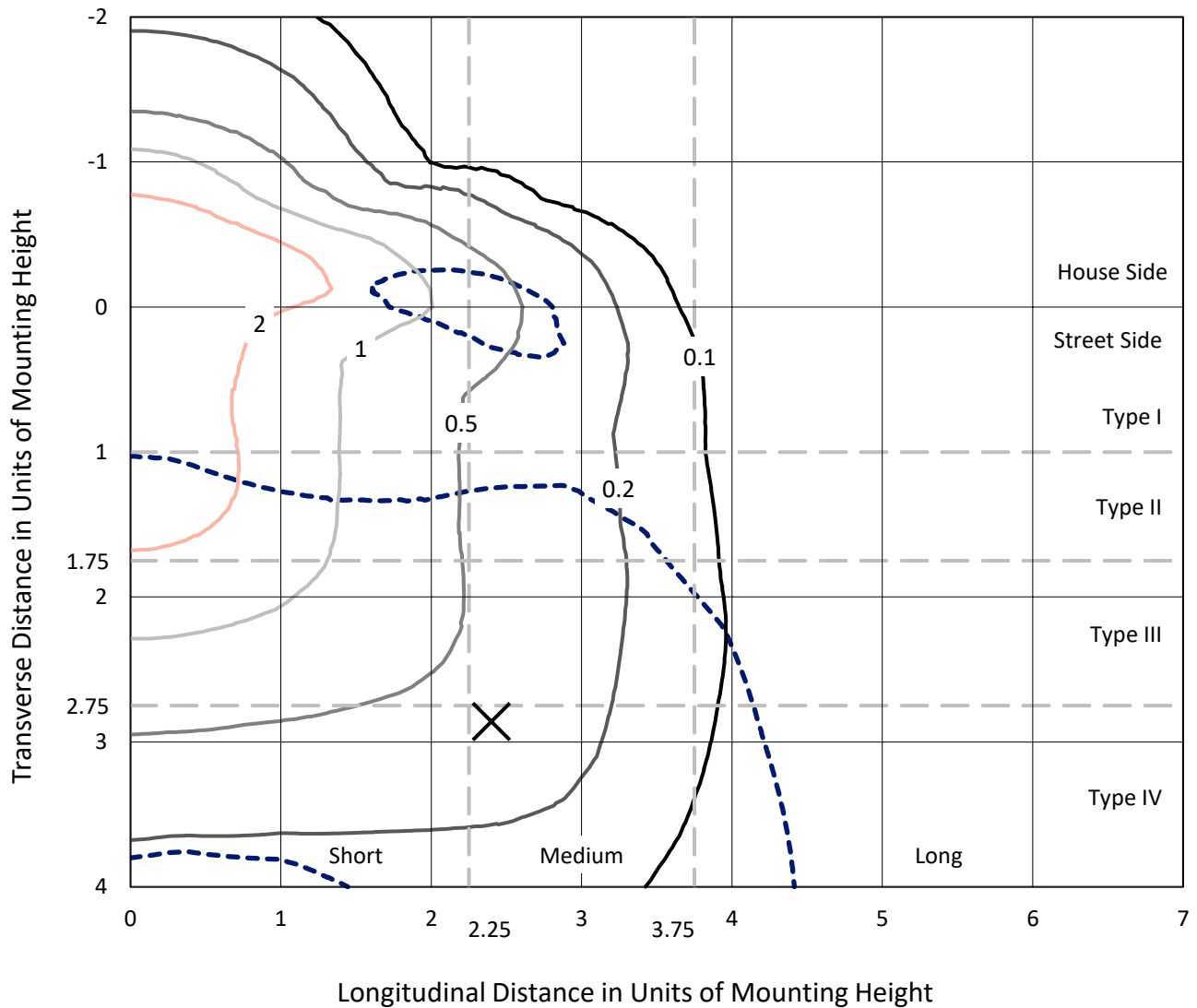
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

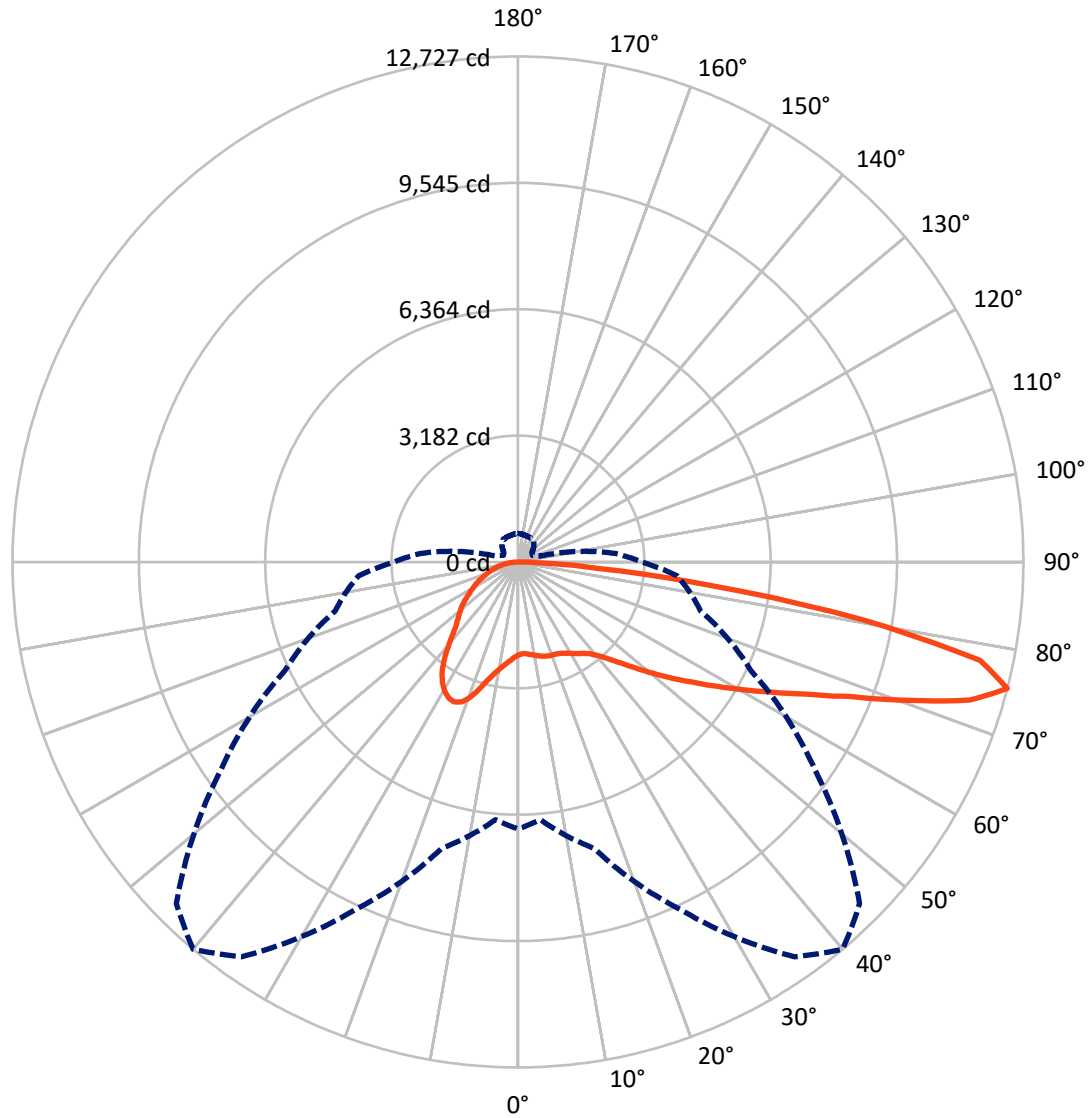
✕ Max cd
 - - - 1/2 Max cd



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	6335.5	0.0	6335.5
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	14112.5	0.0	14112.5
	% Fixture	69.0	0.0	69.0
Total	Lumens	20448.0	0.0	20448.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.4	1.1
10°-20°	783.6	3.8
20°-30°	1430.9	7.0
30°-40°	2029.4	9.9
40°-50°	2740.2	13.4
50°-60°	3686.4	18.0
60°-70°	4678.8	22.9
70°-80°	4246.3	20.8
80°-90°	619.0	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°	20448.0	100.0
0°-180°	20448.0	100.0

Coefficient of Utilization



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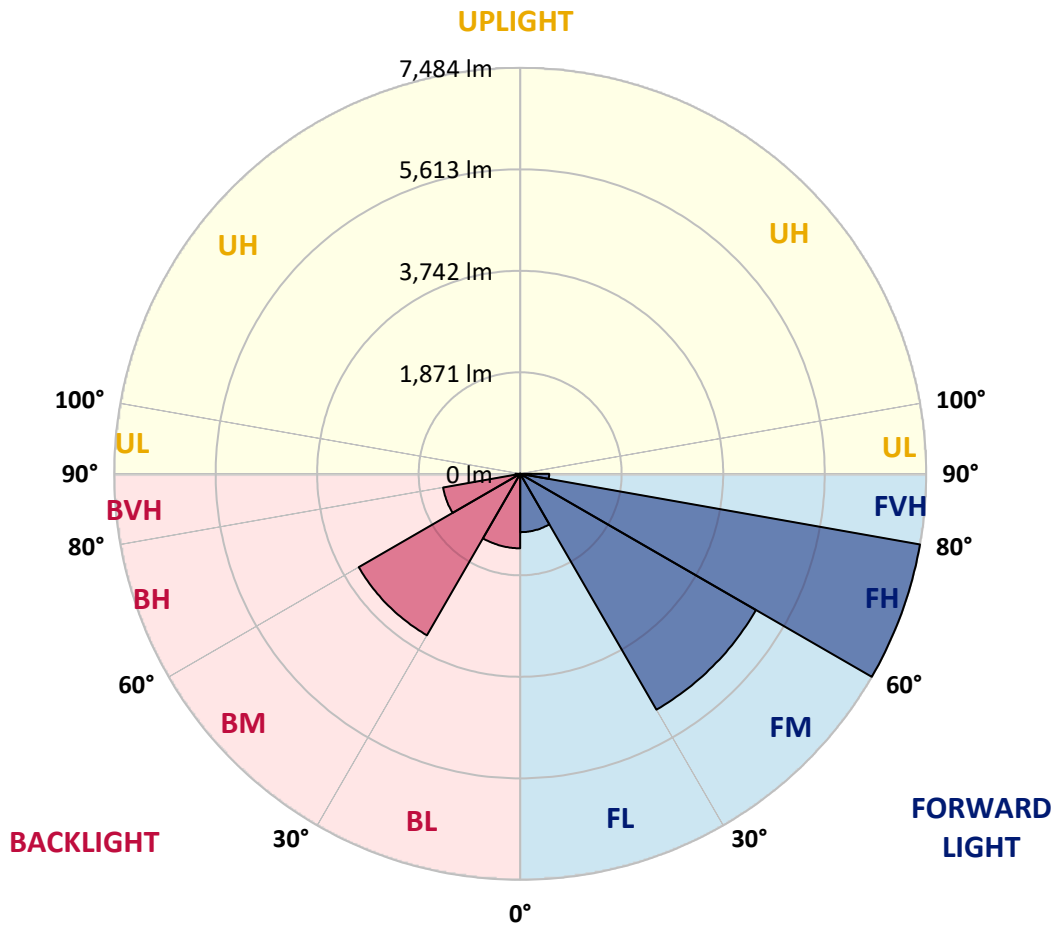
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1075.6	5.3			
FM (30°-60°)	5019.5	24.5			
FH (60°-80°)	7483.7	36.6			G3/7500
FVH (80°-90°)	533.8	2.6			G4/750
BL (0°-30°)	1372.3	6.7	B3/2500		
BM (30°-60°)	3436.4	16.8	B3/5000		
BH (60°-80°)	1441.5	7.0	B3/2500		G3/2500
BVH (80°-90°)	85.2	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°	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3
2.5°	2302.5	2315.5	2312.2	2307.9	2307.9	2309.0	2307.9	2315.5	2323.1	2330.7	2342.6
5°	2326.3	2339.3	2332.8	2327.4	2323.1	2322.0	2318.7	2317.6	2322.0	2331.7	2348.0
7.5°	2373.0	2386.0	2376.2	2366.5	2357.8	2353.4	2349.1	2342.6	2339.3	2344.8	2367.5
10°	2425.0	2438.0	2426.1	2408.8	2394.7	2389.2	2384.9	2378.4	2374.0	2377.3	2402.2
12.5°	2477.1	2490.1	2473.8	2450.0	2431.5	2428.3	2422.8	2420.7	2419.6	2418.5	2443.5
15°	2525.9	2536.7	2516.1	2487.9	2468.4	2463.0	2457.6	2460.8	2466.2	2472.7	2500.9
17.5°	2563.8	2574.7	2544.3	2507.4	2489.0	2486.8	2483.6	2494.4	2509.6	2525.9	2560.6
20°	2598.5	2609.4	2570.3	2520.5	2498.8	2498.8	2499.9	2522.6	2544.3	2568.2	2615.9
22.5°	2647.3	2656.0	2608.3	2540.0	2508.5	2510.7	2519.4	2542.1	2569.3	2601.8	2668.0
25°	2720.0	2726.5	2668.0	2576.9	2541.1	2547.6	2555.2	2566.0	2592.0	2630.0	2718.9
27.5°	2837.1	2842.6	2765.6	2641.9	2587.7	2598.5	2609.4	2601.8	2613.7	2646.3	2760.1
30°	3002.0	3005.2	2907.6	2743.9	2666.9	2672.3	2674.5	2643.0	2620.2	2646.3	2789.4
32.5°	3197.2	3196.1	3080.1	2867.5	2756.9	2751.5	2733.0	2671.2	2618.1	2640.8	2815.5
35°	3499.8	3487.9	3338.2	3041.0	2858.8	2825.2	2781.8	2702.7	2628.9	2635.4	2838.2
37.5°	4000.8	3964.0	3756.8	3325.2	3010.7	2925.0	2861.0	2753.6	2652.8	2633.2	2865.3
40°	4565.9	4519.3	4291.5	3714.5	3238.4	3100.7	2997.7	2826.3	2691.8	2643.0	2905.5
42.5°	5236.1	5170.0	4924.9	4173.3	3526.9	3327.4	3172.3	2918.5	2749.3	2674.5	2959.7
45°	6059.3	5971.4	5624.4	4690.6	3890.2	3624.5	3417.4	3058.4	2837.1	2735.2	3041.0
47.5°	6891.1	6912.8	6419.4	5282.8	4326.2	3991.1	3724.3	3268.8	2965.1	2832.8	3172.3
50°	7775.0	7790.2	7210.0	5938.9	4820.8	4405.4	4069.2	3504.1	3143.0	2971.6	3368.6
52.5°	8464.8	8467.0	7927.9	6625.4	5335.9	4860.9	4441.2	3773.1	3349.0	3156.0	3629.9
55°	8896.4	8891.0	8431.2	7275.1	5928.1	5339.2	4853.3	4078.9	3600.7	3372.9	3958.6
57.5°	9209.9	9193.6	8778.2	7833.6	6559.3	5904.2	5319.6	4426.0	3897.8	3631.0	4391.3
60°	9329.2	9319.4	9013.6	8316.2	7223.0	6528.9	5857.6	4814.2	4235.1	3935.8	4947.6
62.5°	9374.7	9393.2	9244.6	8783.6	7933.4	7220.8	6448.6	5278.4	4614.7	4280.7	5534.4
65°	9535.2	9568.8	9538.5	9395.3	8735.9	8031.0	7232.8	5830.5	5029.0	4650.5	6147.1
67.5°	9853.0	9886.6	9899.6	10127.4	9716.3	9040.7	8211.0	6518.1	5513.8	5034.4	6608.1
70°	9845.4	9835.6	10065.6	10709.8	10944.0	10438.6	9529.8	7364.0	6091.8	5353.3	6666.6
72.5°	8961.5	8883.4	9426.8	10703.3	11965.7	11898.4	11140.3	8455.0	6590.7	5392.3	5784.9
75°	6723.0	6514.8	7474.6	9645.8	12135.9	12727.0	12164.1	9131.8	6472.5	4764.4	4025.8
77.5°	2875.1	2665.8	3797.0	7140.6	10861.6	11897.3	11224.9	7967.0	5166.7	3150.6	1977.1
80°	752.7	751.6	1147.4	3237.3	7386.8	8785.8	7707.8	5145.0	2952.1	1125.7	545.5
82.5°	311.3	303.7	421.9	1259.1	3609.3	4930.3	4023.6	2294.9	1066.1	304.8	181.1
85°	116.0	115.0	205.0	434.9	1273.2	2033.5	1471.7	586.7	265.7	148.6	81.3
87.5°	32.5	31.5	44.5	150.8	310.2	470.7	251.6	96.5	74.8	58.6	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°	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3	2338.3
2.5°	2345.8	2351.3	2361.0	2368.6	2378.4	2389.2	2404.4	2414.2	2423.9	2430.4	2426.1
5°	2355.6	2367.5	2392.5	2417.4	2446.7	2473.8	2505.3	2528.0	2546.5	2551.9	2554.1
7.5°	2377.3	2396.8	2439.1	2481.4	2528.0	2572.5	2618.1	2657.1	2688.6	2700.5	2701.6
10°	2415.3	2441.3	2500.9	2560.6	2622.4	2690.7	2749.3	2805.7	2850.2	2868.6	2869.7
12.5°	2463.0	2495.5	2573.6	2656.0	2741.7	2836.1	2912.0	2981.4	3036.7	3061.6	3061.6
15°	2524.8	2567.1	2666.9	2777.5	2903.3	3034.5	3131.1	3208.1	3269.9	3300.2	3298.1
17.5°	2592.0	2648.4	2774.2	2941.3	3121.3	3293.7	3406.5	3462.9	3526.9	3556.2	3555.1
20°	2657.1	2726.5	2906.6	3149.5	3389.2	3572.5	3663.6	3678.7	3683.1	3686.3	3695.0
22.5°	2724.4	2817.6	3072.5	3411.9	3669.0	3795.9	3808.9	3743.8	3652.7	3610.4	3622.3
25°	2798.1	2921.7	3289.4	3701.5	3909.7	3924.9	3825.2	3666.8	3494.4	3415.2	3427.1
27.5°	2869.7	3042.1	3549.7	3978.1	4083.3	3949.9	3735.1	3510.6	3302.4	3218.9	3228.7
30°	2941.3	3179.9	3837.1	4219.9	4162.4	3888.1	3593.1	3342.5	3133.2	3045.4	3055.1
32.5°	3013.9	3340.4	4167.9	4394.5	4148.3	3756.8	3416.3	3153.8	2969.5	2877.3	2889.2
35°	3096.3	3537.8	4481.3	4490.0	4054.0	3563.8	3183.1	2928.2	2767.7	2694.0	2710.3
37.5°	3203.7	3788.3	4757.9	4513.8	3889.1	3280.7	2893.5	2661.4	2529.1	2495.5	2519.4
40°	3337.1	4089.8	4969.3	4475.9	3645.1	2936.9	2576.9	2391.4	2316.6	2324.2	2350.2
42.5°	3510.6	4427.1	5117.9	4378.3	3305.7	2582.3	2299.2	2216.8	2252.6	2282.9	2311.1
45°	3736.2	4777.4	5210.1	4212.3	2921.7	2281.9	2135.4	2155.0	2182.1	2185.3	2207.0
47.5°	4024.7	5132.0	5270.8	3961.8	2530.2	2070.4	2031.3	2035.7	2030.2	2007.5	2024.8
50°	4384.8	5476.9	5325.1	3629.9	2197.3	1938.1	1886.0	1870.8	1796.0	1722.2	1732.0
52.5°	4794.7	5793.6	5347.8	3217.8	1938.1	1827.4	1742.8	1647.4	1507.5	1484.7	1492.3
55°	5250.2	6086.4	5289.3	2711.3	1720.1	1685.4	1557.4	1442.4	1427.2	1407.7	1411.0
57.5°	5794.7	6402.0	5170.0	2146.3	1496.7	1519.4	1394.7	1407.7	1380.6	1350.2	1344.8
60°	6390.1	6728.5	4960.7	1631.1	1265.7	1312.3	1352.4	1351.3	1343.7	1318.8	1310.1
62.5°	6925.8	6943.2	4548.5	1249.4	1062.8	1151.8	1261.3	1260.2	1253.7	1239.6	1234.2
65°	7244.7	6910.7	3860.9	983.7	895.8	1019.5	1137.7	1146.4	1147.4	1146.4	1146.4
67.5°	7188.3	6530.0	2917.4	783.0	758.1	885.0	1015.1	1027.1	1035.7	1037.9	1040.1
70°	6550.6	5693.8	1902.3	624.7	635.5	766.8	899.1	911.0	918.6	927.3	931.6
72.5°	5106.0	4186.3	1088.9	505.4	528.2	664.8	784.1	798.2	802.6	818.8	825.3
75°	3111.5	2461.9	587.8	398.0	433.8	568.3	670.2	686.5	694.1	713.6	715.8
77.5°	1479.3	1066.1	335.1	310.2	349.2	464.2	566.1	584.6	564.0	574.8	566.1
80°	500.0	395.9	211.5	236.4	266.8	362.2	453.3	471.8	428.4	426.2	421.9
82.5°	174.6	160.5	134.5	157.3	172.4	259.2	342.7	366.6	318.9	317.8	302.6
85°	68.3	65.1	74.8	85.7	103.0	159.4	225.6	237.5	196.3	158.3	156.2
87.5°	14.1	15.2	18.4	19.5	31.5	55.3	81.3	99.8	79.2	67.2	61.8
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)