

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: P884324

Luminaire Tested: **NAV-SB5A-830-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884324  
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-830-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

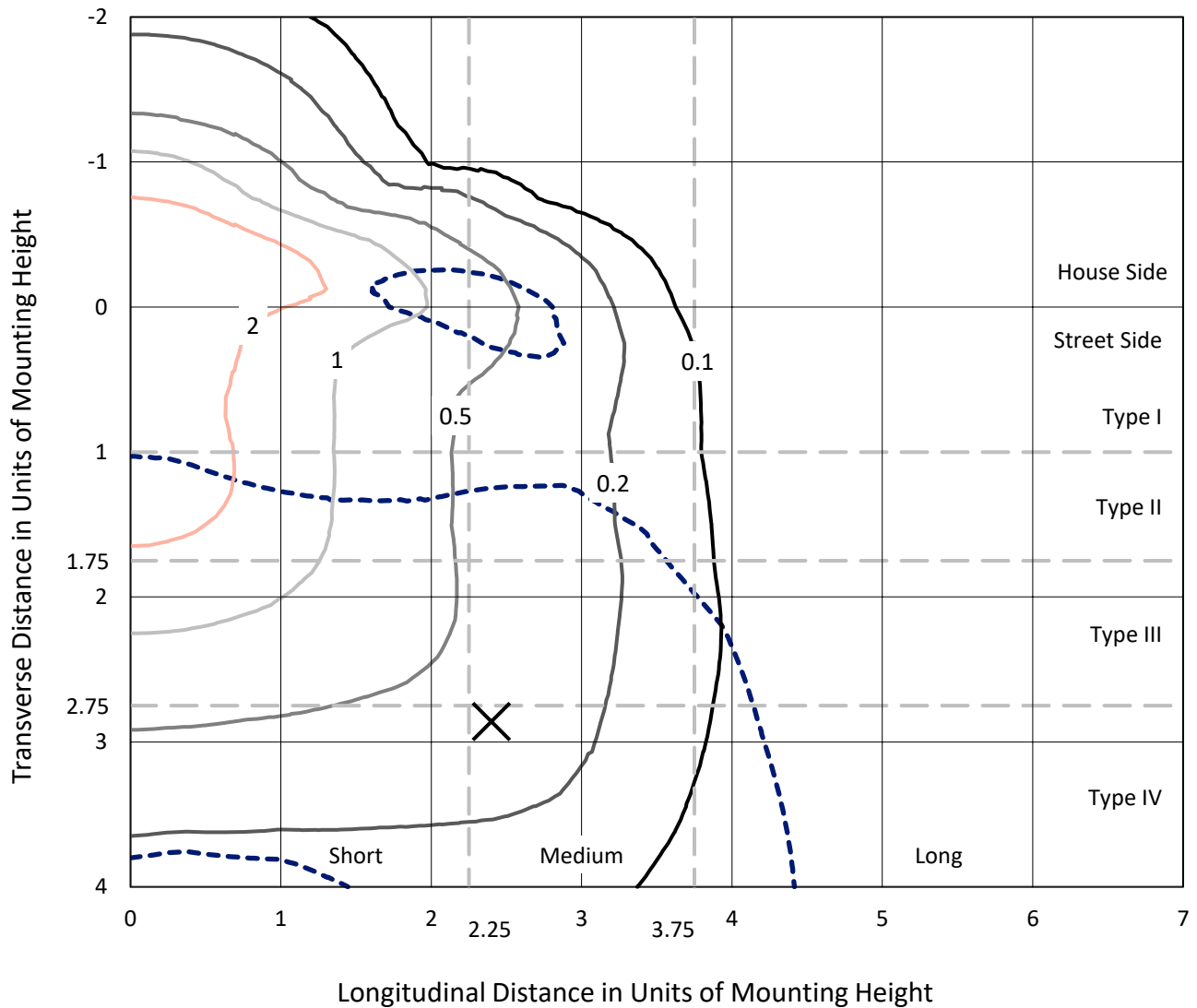
Lumens per Lamp: N/A  
Luminaire Lumens: 19743 lumens  
Efficiency: N/A  
Efficacy: 139.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 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

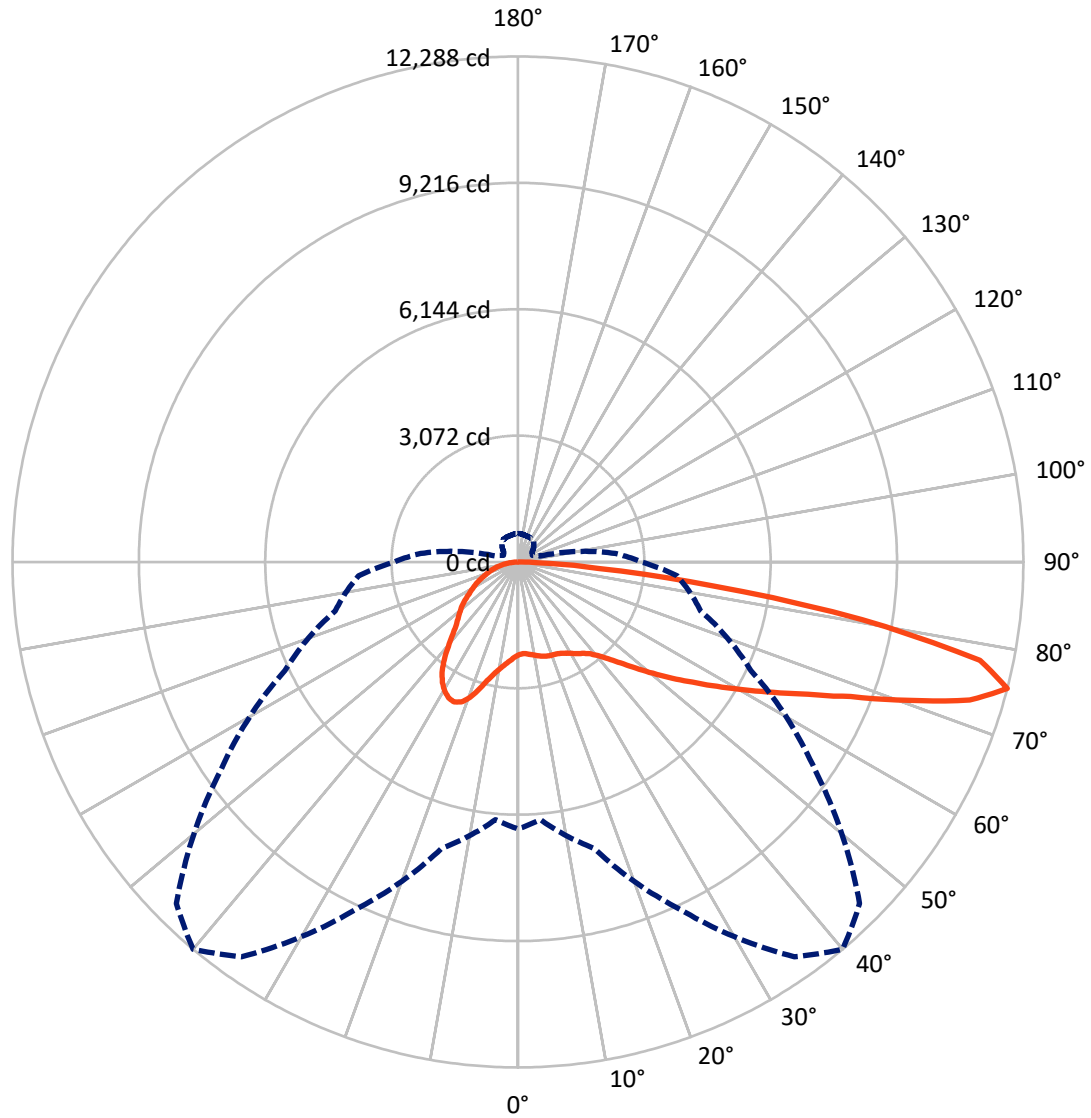
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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	6117.0	0.0	6117.0
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	13625.9	0.0	13625.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	19743.0	0.0	19743.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.4	1.1
10°-20°	756.6	3.8
20°-30°	1381.5	7.0
30°-40°	1959.4	9.9
40°-50°	2645.8	13.4
50°-60°	3559.3	18.0
60°-70°	4517.5	22.9
70°-80°	4099.9	20.8
80°-90°	597.6	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°	19743.0	100.0
0°-180°	19743.0	100.0

**Coefficient of Utilization**



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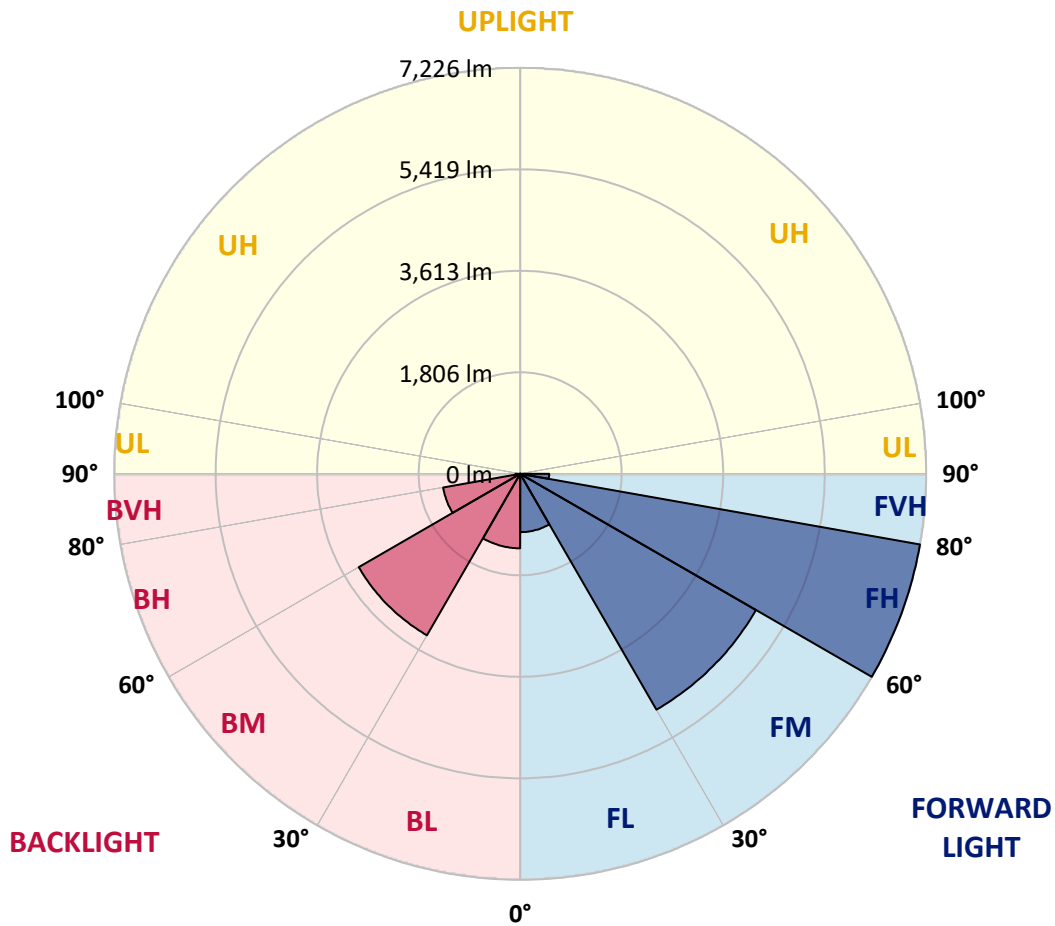
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1038.5	5.3			
FM (30°-60°)	4846.5	24.5			
FH (60°-80°)	7225.6	36.6			G3/7500
FVH (80°-90°)	515.4	2.6			G4/750
BL (0°-30°)	1325.0	6.7	B3/2500		
BM (30°-60°)	3317.9	16.8	B3/5000		
BH (60°-80°)	1391.8	7.0	B3/2500		G3/2500
BVH (80°-90°)	82.3	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°	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6
2.5°	2223.1	2235.6	2232.5	2228.3	2228.3	2229.4	2228.3	2235.6	2243.0	2250.3	2261.8
5°	2246.1	2258.7	2252.4	2247.2	2243.0	2241.9	2238.8	2237.7	2241.9	2251.4	2267.1
7.5°	2291.1	2303.7	2294.3	2284.9	2276.5	2272.3	2268.1	2261.8	2258.7	2263.9	2285.9
10°	2341.4	2354.0	2342.5	2325.7	2312.1	2306.9	2302.7	2296.4	2292.2	2295.3	2319.4
12.5°	2391.7	2404.2	2388.5	2365.5	2347.7	2344.6	2339.3	2337.2	2336.2	2335.1	2359.2
15°	2438.8	2449.3	2429.4	2402.1	2383.3	2378.1	2372.8	2376.0	2381.2	2387.5	2414.7
17.5°	2475.4	2485.9	2456.6	2421.0	2403.2	2401.1	2398.0	2408.4	2423.1	2438.8	2472.3
20°	2509.0	2519.4	2481.7	2433.6	2412.6	2412.6	2413.7	2435.7	2456.6	2479.6	2525.7
22.5°	2556.1	2564.5	2518.4	2452.4	2422.0	2424.1	2432.5	2454.5	2480.7	2512.1	2576.0
25°	2626.2	2632.5	2576.0	2488.0	2453.5	2459.7	2467.1	2477.5	2502.7	2539.3	2625.2
27.5°	2739.3	2744.6	2670.2	2550.8	2498.5	2509.0	2519.4	2512.1	2523.6	2555.0	2665.0
30°	2898.5	2901.6	2807.4	2649.3	2574.9	2580.2	2582.3	2551.9	2529.9	2555.0	2693.2
32.5°	3087.0	3085.9	2973.9	2768.6	2661.8	2656.6	2638.8	2579.1	2527.8	2549.8	2718.4
35°	3379.1	3367.6	3223.1	2936.2	2760.3	2727.8	2685.9	2609.5	2538.3	2544.6	2740.4
37.5°	3862.9	3827.3	3627.3	3210.5	2906.9	2824.1	2762.4	2658.7	2561.3	2542.5	2766.5
40°	4408.5	4363.4	4143.5	3586.5	3126.8	2993.8	2894.3	2728.9	2599.0	2551.9	2805.3
42.5°	5055.6	4991.7	4755.1	4029.4	3405.3	3212.6	3062.9	2817.9	2654.5	2582.3	2857.7
45°	5850.4	5765.6	5430.5	4528.9	3756.1	3499.5	3299.5	2952.9	2739.3	2640.9	2936.2
47.5°	6653.5	6674.5	6198.0	5100.6	4177.0	3853.5	3595.9	3156.1	2862.9	2735.1	3062.9
50°	7507.0	7521.6	6961.4	5734.2	4654.5	4253.5	3928.9	3383.3	3034.6	2869.2	3252.4
52.5°	8172.9	8175.0	7654.6	6397.0	5151.9	4693.3	4288.0	3643.0	3233.6	3047.2	3504.8
55°	8589.7	8584.5	8140.5	7024.2	5723.7	5155.1	4686.0	3938.3	3476.5	3256.6	3822.1
57.5°	8892.3	8876.6	8475.6	7563.5	6333.1	5700.6	5136.2	4273.4	3763.4	3505.8	4239.9
60°	9007.5	8998.1	8702.8	8029.5	6974.0	6303.8	5655.6	4648.3	4089.1	3800.1	4777.1
62.5°	9051.5	9069.3	8925.8	8480.8	7659.8	6971.9	6226.3	5096.4	4455.6	4133.1	5343.6
65°	9206.5	9238.9	9209.6	9071.4	8434.7	7754.1	6983.4	5629.4	4855.6	4490.1	5935.2
67.5°	9513.3	9545.7	9558.3	9778.2	9381.3	8729.0	7927.9	6293.3	5323.7	4860.8	6380.2
70°	9506.0	9496.5	9718.5	10340.5	10566.7	10078.7	9201.2	7110.1	5881.8	5168.7	6436.8
72.5°	8652.5	8577.1	9101.8	10334.2	11553.1	11488.2	10756.2	8163.5	6363.5	5206.4	5585.5
75°	6491.2	6290.2	7216.9	9313.3	11717.5	12288.2	11744.7	8816.9	6249.3	4600.1	3887.0
77.5°	2776.0	2573.9	3666.0	6894.4	10487.1	11487.1	10837.9	7692.3	4988.6	3041.9	1908.9
80°	726.7	725.7	1107.9	3125.7	7132.1	8482.9	7442.0	4967.6	2850.3	1086.9	526.7
82.5°	300.5	293.2	407.3	1215.7	3484.9	4760.3	3884.9	2215.8	1029.3	294.2	174.9
85°	112.0	111.0	197.9	419.9	1229.3	1963.4	1421.0	566.5	256.5	143.5	78.5
87.5°	31.4	30.4	42.9	145.6	299.5	454.5	242.9	93.2	72.3	56.5	23.0
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°	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6	2257.6
2.5°	2265.0	2270.2	2279.6	2287.0	2296.4	2306.9	2321.5	2330.9	2340.4	2346.6	2342.5
5°	2274.4	2285.9	2310.0	2334.1	2362.4	2388.5	2418.9	2440.9	2458.7	2463.9	2466.0
7.5°	2295.3	2314.2	2355.0	2395.9	2440.9	2483.8	2527.8	2565.5	2595.9	2607.4	2608.4
10°	2332.0	2357.1	2414.7	2472.3	2532.0	2598.0	2654.5	2709.0	2751.9	2769.7	2770.7
12.5°	2378.1	2409.5	2484.9	2564.5	2647.2	2738.3	2811.6	2878.6	2932.0	2956.1	2956.1
15°	2437.7	2478.6	2574.9	2681.7	2803.2	2929.9	3023.1	3097.4	3157.1	3186.5	3184.4
17.5°	2502.7	2557.1	2678.6	2839.8	3013.7	3180.2	3289.1	3343.5	3405.3	3433.6	3432.5
20°	2565.5	2632.5	2806.3	3040.9	3272.3	3449.3	3537.2	3551.9	3556.1	3559.2	3567.6
22.5°	2630.4	2720.5	2966.6	3294.3	3542.5	3665.0	3677.6	3614.7	3526.8	3485.9	3497.5
25°	2701.6	2821.0	3176.0	3573.9	3774.9	3789.6	3693.3	3540.4	3373.9	3297.5	3309.0
27.5°	2770.7	2937.2	3427.3	3840.9	3942.5	3813.7	3606.4	3389.6	3188.5	3107.9	3117.3
30°	2839.8	3070.2	3704.8	4074.4	4018.9	3754.0	3469.2	3227.3	3025.2	2940.4	2949.8
32.5°	2910.0	3225.2	4024.2	4243.0	4005.3	3627.3	3298.5	3045.1	2867.1	2778.1	2789.6
35°	2989.6	3415.8	4326.8	4335.2	3914.2	3440.9	3073.4	2827.3	2672.3	2601.1	2616.8
37.5°	3093.3	3657.7	4593.8	4358.2	3755.1	3167.6	2793.8	2569.7	2441.9	2409.5	2432.5
40°	3222.1	3948.8	4798.0	4321.6	3519.4	2835.7	2488.0	2308.9	2236.7	2244.0	2269.2
42.5°	3389.6	4274.4	4941.5	4227.3	3191.7	2493.2	2219.9	2140.4	2174.9	2204.2	2231.5
45°	3607.4	4612.7	5030.5	4067.1	2821.0	2203.2	2061.8	2080.7	2106.8	2110.0	2130.9
47.5°	3885.9	4955.1	5089.1	3825.2	2443.0	1999.0	1961.3	1965.5	1960.3	1938.3	1955.0
50°	4233.6	5288.1	5141.5	3504.8	2121.5	1871.2	1821.0	1806.3	1734.1	1662.9	1672.3
52.5°	4629.4	5593.8	5163.5	3106.9	1871.2	1764.4	1682.8	1590.6	1455.5	1433.5	1440.9
55°	5069.2	5876.6	5106.9	2617.9	1660.8	1627.3	1503.7	1392.7	1378.0	1359.2	1362.3
57.5°	5594.9	6181.3	4991.7	2072.3	1445.1	1467.0	1346.6	1359.2	1333.0	1303.7	1298.5
60°	6169.8	6496.5	4789.6	1574.9	1222.0	1267.0	1305.8	1304.7	1297.4	1273.3	1264.9
62.5°	6687.0	6703.8	4391.7	1206.3	1026.2	1112.1	1217.8	1216.8	1210.5	1196.9	1191.6
65°	6994.9	6672.4	3727.8	949.8	864.9	984.3	1098.5	1106.8	1107.9	1106.8	1106.8
67.5°	6940.5	6304.8	2816.8	756.0	732.0	854.5	980.1	991.6	1000.0	1002.1	1004.2
70°	6324.7	5497.5	1836.7	603.2	613.6	740.3	868.1	879.6	886.9	895.3	899.5
72.5°	4929.9	4042.0	1051.3	488.0	510.0	641.9	757.1	770.7	774.9	790.6	796.9
75°	3004.3	2377.0	567.6	384.3	418.9	548.7	647.1	662.8	670.2	689.0	691.1
77.5°	1428.3	1029.3	323.6	299.5	337.2	448.2	546.6	564.4	544.5	555.0	546.6
80°	482.7	382.2	204.2	228.3	257.6	349.7	437.7	455.5	413.6	411.5	407.3
82.5°	168.6	155.0	129.8	151.8	166.5	250.3	330.9	353.9	307.9	306.8	292.2
85°	66.0	62.8	72.3	82.7	99.5	153.9	217.8	229.3	189.5	152.9	150.8
87.5°	13.6	14.7	17.8	18.8	30.4	53.4	78.5	96.3	76.4	64.9	59.7
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)