

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: P883814

Luminaire Tested: **NAV-SB4B-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883814
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-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 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: 19794 lumens
Efficiency: N/A
Efficacy: 134.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

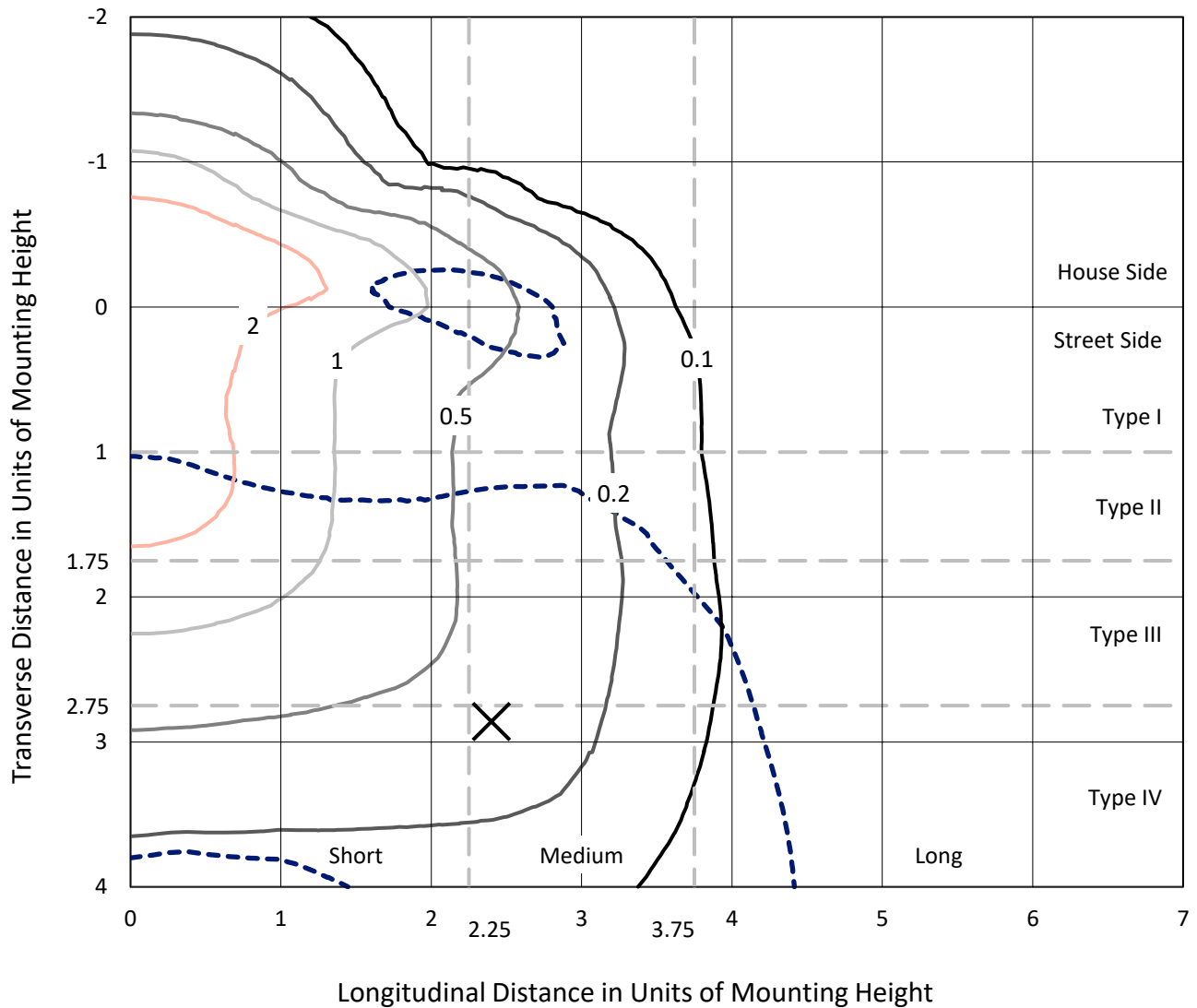
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

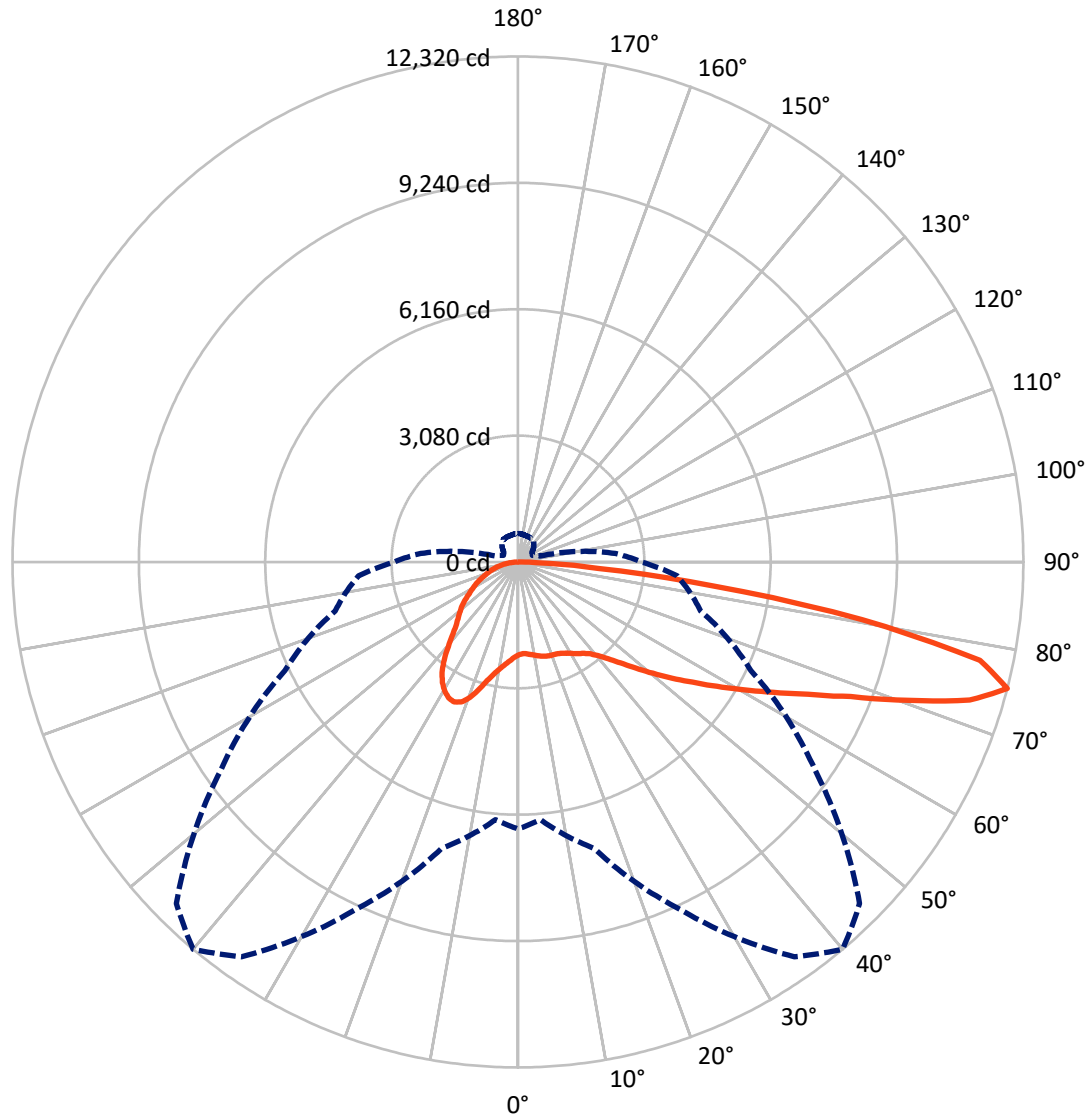
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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
House Side	Lumens	6132.8	0.0	6132.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	13661.1	0.0	13661.1
	% Fixture	69.0	0.0	69.0
Total	Lumens	19794.0	0.0	19794.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.9	1.1
10°-20°	758.6	3.8
20°-30°	1385.1	7.0
30°-40°	1964.4	9.9
40°-50°	2652.6	13.4
50°-60°	3568.5	18.0
60°-70°	4529.2	22.9
70°-80°	4110.5	20.8
80°-90°	599.2	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°	19794.0	100.0
0°-180°	19794.0	100.0

Coefficient of Utilization



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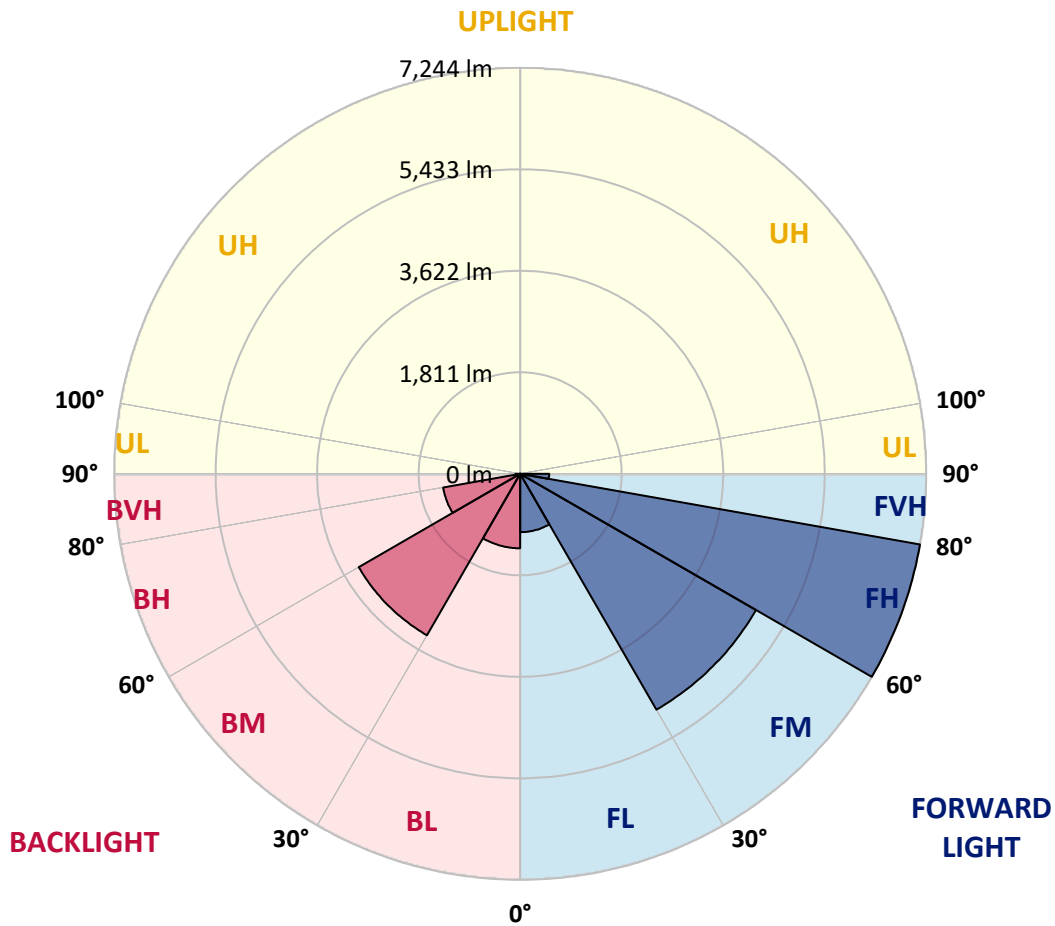
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1041.2	5.3			
FM (30°-60°)	4859.0	24.5			
FH (60°-80°)	7244.3	36.6			G3/7500
FVH (80°-90°)	516.7	2.6			G4/750
BL (0°-30°)	1328.4	6.7	B3/2500		
BM (30°-60°)	3326.5	16.8	B3/5000		
BH (60°-80°)	1395.4	7.0	B3/2500		G3/2500
BVH (80°-90°)	82.5	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°	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5
2.5°	2228.8	2241.4	2238.3	2234.1	2234.1	2235.1	2234.1	2241.4	2248.8	2256.1	2267.7
5°	2251.9	2264.5	2258.2	2253.0	2248.8	2247.7	2244.6	2243.5	2247.7	2257.2	2272.9
7.5°	2297.1	2309.7	2300.2	2290.8	2282.4	2278.2	2274.0	2267.7	2264.5	2269.8	2291.8
10°	2347.5	2360.1	2348.5	2331.7	2318.1	2312.8	2308.6	2302.3	2298.1	2301.3	2325.4
12.5°	2397.9	2410.4	2394.7	2371.6	2353.8	2350.6	2345.4	2343.3	2342.2	2341.2	2365.3
15°	2445.1	2455.6	2435.6	2408.3	2389.5	2384.2	2379.0	2382.1	2387.4	2393.7	2420.9
17.5°	2481.8	2492.3	2462.9	2427.2	2409.4	2407.3	2404.1	2414.6	2429.3	2445.1	2478.7
20°	2515.4	2525.9	2488.1	2439.8	2418.8	2418.8	2419.9	2441.9	2462.9	2486.0	2532.2
22.5°	2562.7	2571.1	2524.9	2458.7	2428.3	2430.4	2438.8	2460.8	2487.1	2518.6	2582.6
25°	2633.0	2639.3	2582.6	2494.4	2459.8	2466.1	2473.4	2483.9	2509.1	2545.9	2632.0
27.5°	2746.4	2751.6	2677.1	2557.4	2504.9	2515.4	2525.9	2518.6	2530.1	2561.6	2671.9
30°	2906.0	2909.1	2814.6	2656.1	2581.6	2586.8	2588.9	2558.5	2536.4	2561.6	2700.2
32.5°	3094.9	3093.9	2981.6	2775.8	2668.7	2663.5	2645.6	2585.8	2534.3	2556.4	2725.4
35°	3387.9	3376.3	3231.4	2943.8	2767.4	2734.9	2692.9	2616.2	2544.8	2551.1	2747.4
37.5°	3872.9	3837.2	3636.7	3218.8	2914.4	2831.4	2769.5	2665.6	2567.9	2549.0	2773.7
40°	4419.9	4374.7	4154.2	3595.7	3134.8	3001.5	2901.8	2735.9	2605.7	2558.5	2812.5
42.5°	5068.7	5004.6	4767.4	4039.8	3414.1	3220.9	3070.8	2825.1	2661.4	2588.9	2865.0
45°	5865.5	5780.5	5444.5	4540.6	3765.8	3508.6	3308.1	2960.6	2746.4	2647.7	2943.8
47.5°	6670.7	6691.7	6214.0	5113.8	4187.8	3863.4	3605.2	3164.2	2870.3	2742.2	3070.8
50°	7526.4	7541.1	6979.4	5749.0	4666.6	4264.5	3939.0	3392.1	3042.5	2876.6	3260.8
52.5°	8194.1	8196.2	7674.4	6413.5	5165.2	4705.4	4299.1	3652.4	3241.9	3055.1	3513.8
55°	8611.9	8606.6	8161.5	7042.4	5738.5	5168.4	4698.1	3948.5	3485.5	3265.0	3831.9
57.5°	8915.3	8899.6	8497.5	7583.0	6349.5	5715.4	5149.5	4284.4	3773.2	3514.9	4250.8
60°	9030.8	9021.3	8725.3	8050.2	6992.0	6320.1	5670.2	4660.3	4099.7	3809.9	4789.4
62.5°	9074.9	9092.7	8948.9	8502.7	7679.6	6989.9	6242.4	5109.6	4467.1	4143.7	5357.4
65°	9230.3	9262.8	9233.4	9094.8	8456.5	7774.1	7001.4	5644.0	4868.1	4501.7	5950.5
67.5°	9537.9	9570.4	9583.0	9803.5	9405.6	8751.5	7948.4	6309.6	5337.4	4873.4	6396.7
70°	9530.5	9521.1	9743.6	10367.2	10594.0	10104.8	9225.0	7128.5	5897.0	5182.0	6453.4
72.5°	8674.9	8599.3	9125.3	10360.9	11583.0	11517.9	10784.0	8184.6	6379.9	5219.8	5599.9
75°	6508.0	6306.4	7235.5	9337.3	11747.8	12320.0	11775.1	8839.7	6265.5	4612.0	3897.0
77.5°	2783.1	2580.5	3675.5	6912.2	10514.2	11516.8	10865.9	7712.2	5001.5	3049.8	1913.9
80°	728.6	727.5	1110.7	3133.8	7150.5	8504.8	7461.3	4980.5	2857.7	1089.7	528.1
82.5°	301.3	294.0	408.4	1218.9	3493.9	4772.6	3894.9	2221.5	1032.0	295.0	175.3
85°	112.3	111.3	198.4	421.0	1232.5	1968.5	1424.6	568.0	257.2	143.8	78.7
87.5°	31.5	30.4	43.0	145.9	300.3	455.6	243.6	93.4	72.4	56.7	23.1
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°	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5	2263.5
2.5°	2270.8	2276.1	2285.5	2292.9	2302.3	2312.8	2327.5	2337.0	2346.4	2352.7	2348.5
5°	2280.3	2291.8	2316.0	2340.1	2368.5	2394.7	2425.1	2447.2	2465.0	2470.3	2472.4
7.5°	2301.3	2320.2	2361.1	2402.1	2447.2	2490.2	2534.3	2572.1	2602.6	2614.1	2615.2
10°	2338.0	2363.2	2420.9	2478.7	2538.5	2604.7	2661.4	2716.0	2759.0	2776.8	2777.9
12.5°	2384.2	2415.7	2491.3	2571.1	2654.0	2745.4	2818.8	2886.0	2939.6	2963.7	2963.7
15°	2444.0	2485.0	2581.6	2688.7	2810.4	2937.5	3030.9	3105.4	3165.3	3194.7	3192.6
17.5°	2509.1	2563.7	2685.5	2847.2	3021.5	3188.4	3297.6	3352.2	3414.1	3442.4	3441.4
20°	2572.1	2639.3	2813.6	3048.8	3280.8	3458.2	3546.4	3561.1	3565.3	3568.4	3576.8
22.5°	2637.2	2727.5	2974.2	3302.8	3551.6	3674.5	3687.1	3624.1	3535.9	3494.9	3506.5
25°	2708.6	2828.3	3184.2	3583.1	3784.7	3799.4	3702.8	3549.5	3382.6	3306.0	3317.5
27.5°	2777.9	2944.8	3436.1	3850.8	3952.7	3823.5	3615.7	3398.4	3196.8	3115.9	3125.4
30°	2847.2	3078.2	3714.4	4085.0	4029.3	3763.7	3478.1	3235.6	3033.0	2948.0	2957.4
32.5°	2917.5	3233.5	4034.6	4254.0	4015.7	3636.7	3307.0	3053.0	2874.5	2785.2	2796.8
35°	2997.3	3424.6	4338.0	4346.4	3924.3	3449.8	3081.3	2834.6	2679.2	2607.8	2623.6
37.5°	3101.2	3667.1	4605.7	4369.5	3764.8	3175.8	2801.0	2576.3	2448.2	2415.7	2438.8
40°	3230.4	3959.0	4810.4	4332.7	3528.5	2843.0	2494.4	2314.9	2242.5	2249.8	2275.0
42.5°	3398.4	4285.5	4954.2	4238.2	3199.9	2499.7	2225.7	2145.9	2180.5	2209.9	2237.2
45°	3616.7	4624.6	5043.5	4077.6	2828.3	2208.9	2067.1	2086.0	2112.3	2115.4	2136.4
47.5°	3896.0	4967.9	5102.3	3835.1	2449.3	2004.2	1966.4	1970.6	1965.3	1943.3	1960.1
50°	4244.5	5301.7	5154.7	3513.8	2127.0	1876.1	1825.7	1811.0	1738.5	1667.2	1676.6
52.5°	4641.4	5608.3	5176.8	3114.9	1876.1	1769.0	1687.1	1594.7	1459.3	1437.2	1444.6
55°	5082.3	5891.7	5120.1	2624.6	1665.1	1631.5	1507.6	1396.3	1381.6	1362.7	1365.9
57.5°	5609.3	6197.2	5004.6	2077.6	1448.8	1470.8	1350.1	1362.7	1336.5	1307.1	1301.8
60°	6185.7	6513.3	4802.0	1579.0	1225.2	1270.3	1309.2	1308.1	1300.8	1276.6	1268.2
62.5°	6704.3	6721.1	4403.1	1209.4	1028.9	1114.9	1221.0	1219.9	1213.6	1200.0	1194.7
65°	7013.0	6689.6	3737.5	952.2	867.2	986.9	1101.3	1109.7	1110.7	1109.7	1109.7
67.5°	6958.4	6321.1	2824.1	758.0	733.8	856.7	982.7	994.2	1002.6	1004.7	1006.8
70°	6341.1	5511.7	1841.4	604.7	615.2	742.2	870.3	881.9	889.2	897.6	901.8
72.5°	4942.7	4052.4	1054.0	489.2	511.3	643.6	759.0	772.7	776.9	792.6	798.9
75°	3012.0	2383.2	569.0	385.3	419.9	550.1	648.8	664.6	671.9	690.8	692.9
77.5°	1432.0	1032.0	324.4	300.3	338.1	449.3	548.0	565.9	545.9	556.4	548.0
80°	484.0	383.2	204.7	228.9	258.3	350.6	438.8	456.7	414.7	412.6	408.4
82.5°	169.0	155.4	130.2	152.2	166.9	250.9	331.8	354.8	308.7	307.6	292.9
85°	66.1	63.0	72.4	82.9	99.7	154.3	218.4	229.9	190.0	153.3	151.2
87.5°	13.6	14.7	17.8	18.9	30.4	53.5	78.7	96.6	76.6	65.1	59.8
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)