

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: P884334

Luminaire Tested: **NAV-SB5A-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884334
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-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 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: 19038 lumens
Efficiency: N/A
Efficacy: 134.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

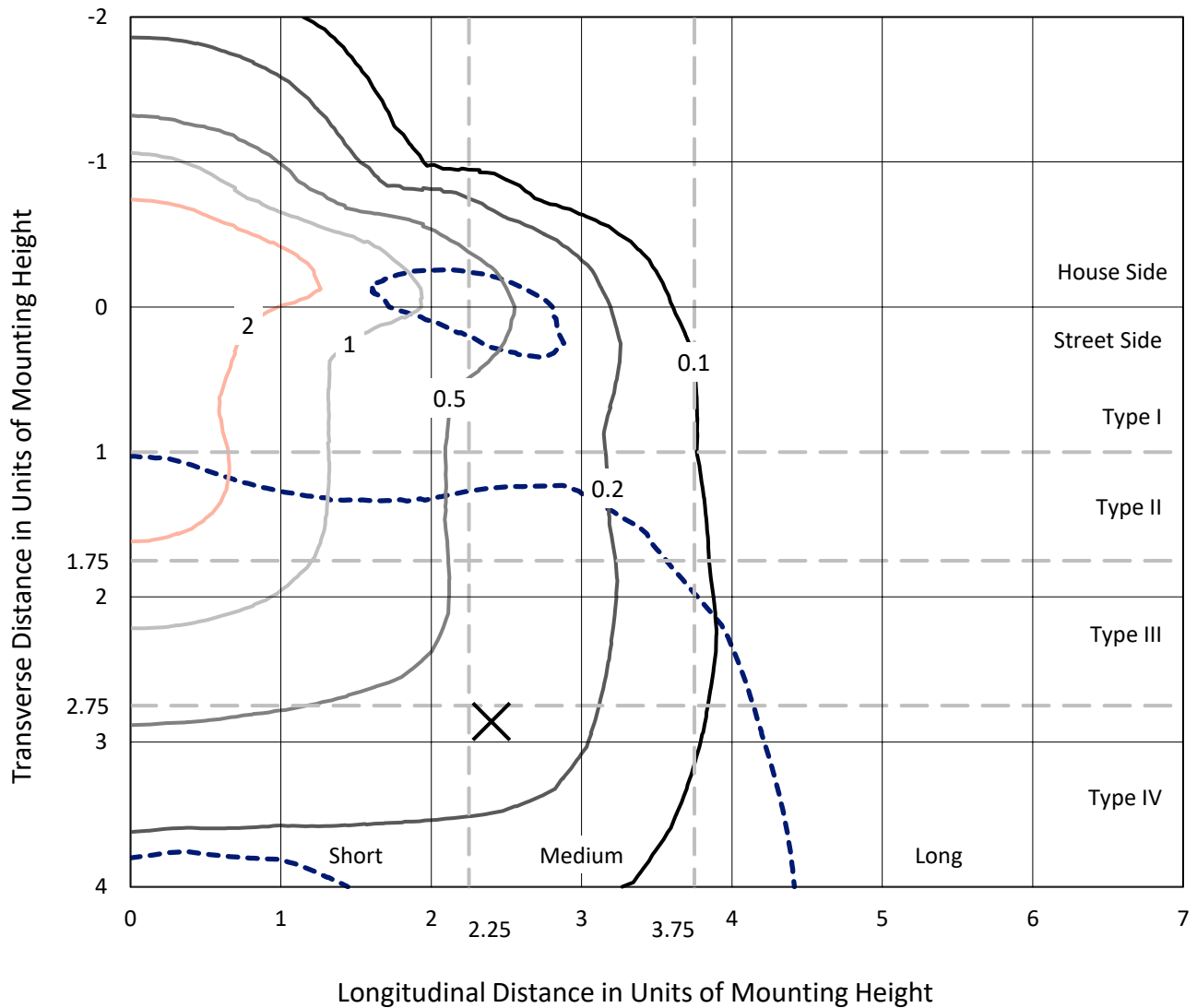
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

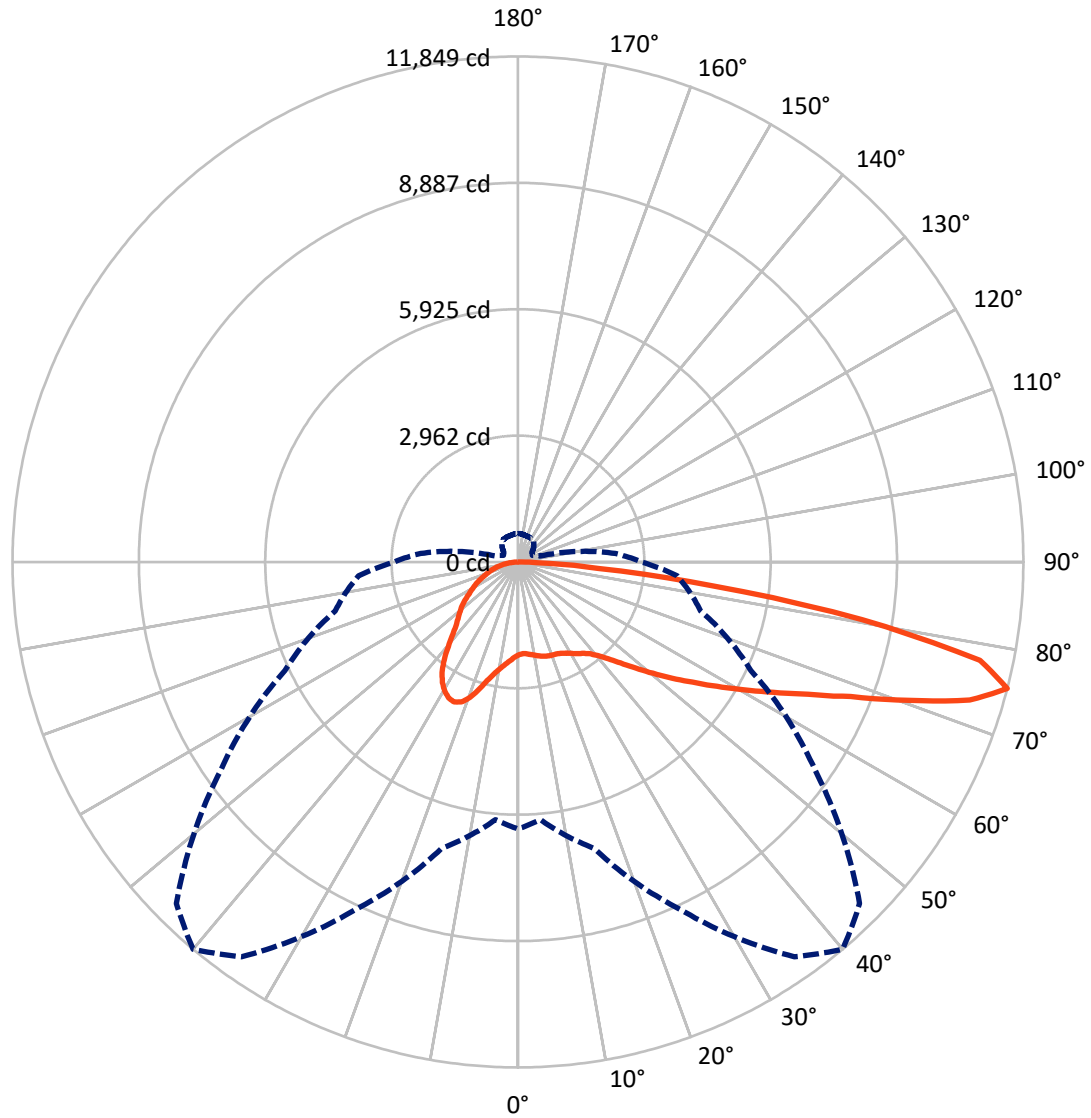
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 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	5898.6	0.0	5898.6
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	13139.4	0.0	13139.4
	% Fixture	69.0	0.0	69.0
Total	Lumens	19038.0	0.0	19038.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.3	1.1
10°-20°	729.6	3.8
20°-30°	1332.2	7.0
30°-40°	1889.4	9.9
40°-50°	2551.3	13.4
50°-60°	3432.2	18.0
60°-70°	4356.2	22.9
70°-80°	3953.5	20.8
80°-90°	576.3	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°	19038.0	100.0
0°-180°	19038.0	100.0

Coefficient of Utilization



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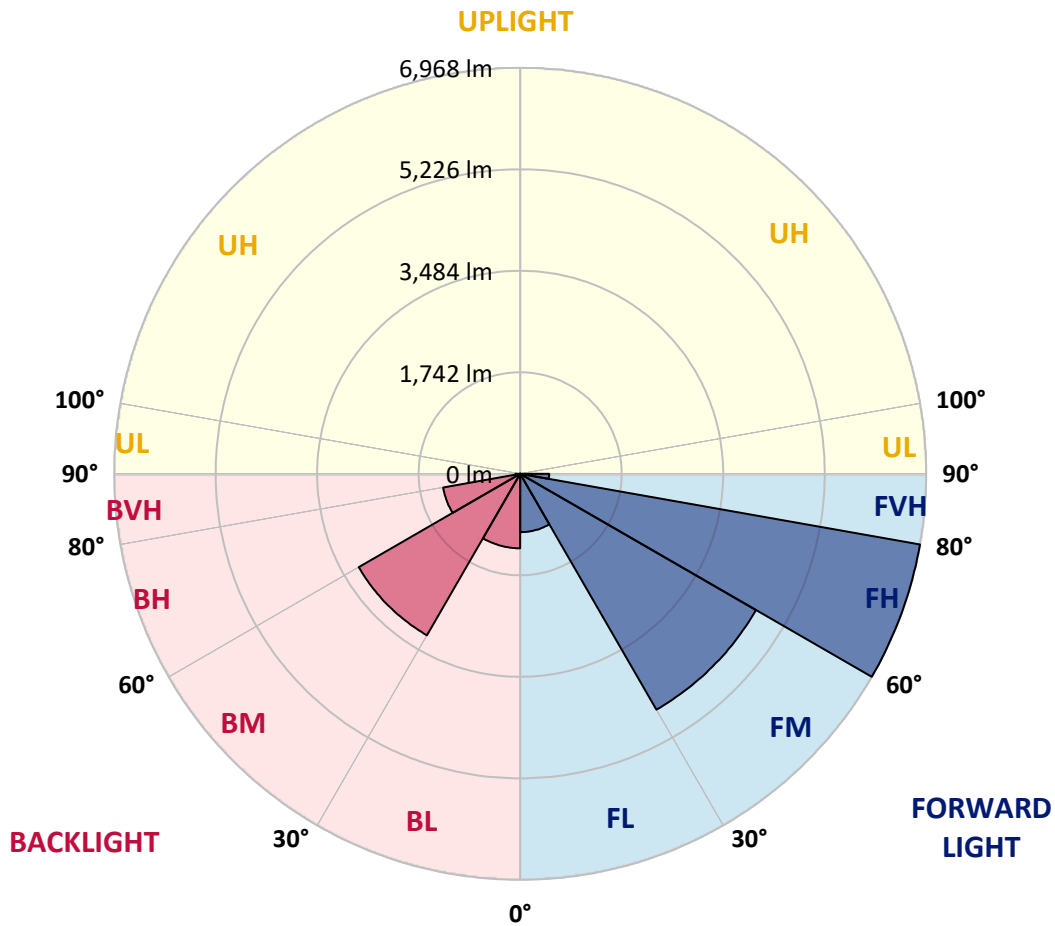
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1001.4	5.3			
FM (30°-60°)	4673.4	24.5			
FH (60°-80°)	6967.6	36.6			G3/7500
FVH (80°-90°)	497.0	2.6			G3/500
BL (0°-30°)	1277.7	6.7	B3/2500		
BM (30°-60°)	3199.5	16.8	B3/5000		
BH (60°-80°)	1342.1	7.0	B3/2500		G3/2500
BVH (80°-90°)	79.3	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-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0
2.5°	2143.7	2155.8	2152.8	2148.7	2148.7	2149.8	2148.7	2155.8	2162.9	2170.0	2181.1
5°	2165.9	2178.0	2172.0	2166.9	2162.9	2161.9	2158.8	2157.8	2161.9	2171.0	2186.1
7.5°	2209.3	2221.4	2212.4	2203.3	2195.2	2191.2	2187.1	2181.1	2178.0	2183.1	2204.3
10°	2257.8	2269.9	2258.8	2242.7	2229.5	2224.5	2220.4	2214.4	2210.3	2213.4	2236.6
12.5°	2306.3	2318.4	2303.2	2281.0	2263.9	2260.8	2255.8	2253.8	2252.8	2251.7	2275.0
15°	2351.7	2361.8	2342.6	2316.4	2298.2	2293.1	2288.1	2291.1	2296.2	2302.2	2328.5
17.5°	2387.0	2397.1	2368.9	2334.5	2317.4	2315.4	2312.3	2322.4	2336.6	2351.7	2384.0
20°	2419.4	2429.5	2393.1	2346.7	2326.5	2326.5	2327.5	2348.7	2368.9	2391.1	2435.5
22.5°	2464.8	2472.9	2428.4	2364.8	2335.6	2337.6	2345.6	2366.9	2392.1	2422.4	2484.0
25°	2532.5	2538.5	2484.0	2399.2	2365.8	2371.9	2379.0	2389.1	2413.3	2448.6	2531.4
27.5°	2641.5	2646.6	2574.9	2459.8	2409.3	2419.4	2429.5	2422.4	2433.5	2463.8	2569.8
30°	2795.0	2798.0	2707.1	2554.7	2483.0	2488.0	2490.0	2460.8	2439.6	2463.8	2597.1
32.5°	2976.7	2975.7	2867.7	2669.8	2566.8	2561.7	2544.6	2487.0	2437.5	2458.7	2621.3
35°	3258.5	3247.4	3108.0	2831.3	2661.7	2630.4	2590.0	2516.3	2447.6	2453.7	2642.5
37.5°	3725.0	3690.6	3497.8	3095.9	2803.1	2723.3	2663.7	2563.8	2469.8	2451.7	2667.8
40°	4251.0	4207.6	3995.6	3458.4	3015.1	2886.9	2790.9	2631.4	2506.2	2460.8	2705.1
42.5°	4875.1	4813.5	4585.3	3885.5	3283.7	3097.9	2953.5	2717.2	2559.7	2490.0	2755.6
45°	5641.5	5559.7	5236.6	4367.2	3622.0	3374.6	3181.7	2847.5	2641.5	2546.6	2831.3
47.5°	6416.0	6436.1	5976.7	4918.5	4027.9	3715.9	3467.5	3043.4	2760.7	2637.5	2953.5
50°	7238.9	7253.0	6712.8	5529.4	4488.3	4101.6	3788.6	3262.5	2926.3	2766.7	3136.3
52.5°	7881.1	7883.1	7381.3	6168.6	4968.0	4525.7	4134.9	3512.9	3118.1	2938.4	3379.6
55°	8283.0	8277.9	7849.8	6773.4	5519.3	4971.0	4518.6	3797.7	3352.4	3140.3	3685.6
57.5°	8574.8	8559.6	8172.9	7293.4	6107.0	5497.1	4952.8	4120.8	3629.0	3380.6	4088.5
60°	8685.9	8676.8	8392.0	7742.8	6724.9	6078.7	5453.7	4482.3	3943.1	3664.4	4606.5
62.5°	8728.3	8745.4	8607.1	8178.0	7386.3	6722.9	6004.0	4914.5	4296.5	3985.5	5152.8
65°	8877.7	8909.0	8880.7	8747.5	8133.5	7477.2	6734.0	5428.4	4682.2	4329.8	5723.3
67.5°	9173.6	9204.9	9217.0	9429.0	9046.3	8417.3	7644.8	6068.6	5133.6	4687.3	6152.4
70°	9166.5	9157.4	9371.5	9971.3	10189.4	9718.8	8872.7	6856.2	5671.8	4984.1	6206.9
72.5°	8343.6	8270.9	8776.7	9965.2	11140.6	11078.0	10372.2	7872.0	6136.2	5020.5	5386.0
75°	6259.4	6065.6	6959.2	8980.7	11299.1	11849.4	11325.4	8502.1	6026.2	4435.8	3748.2
77.5°	2676.8	2482.0	3535.1	6648.2	10112.6	11077.0	10450.9	7417.6	4810.4	2933.3	1840.8
80°	700.8	699.8	1068.3	3014.1	6877.4	8180.0	7176.3	4790.3	2748.5	1048.1	507.9
82.5°	289.8	282.7	392.8	1172.3	3360.4	4590.3	3746.2	2136.6	992.6	283.7	168.6
85°	108.0	107.0	190.8	404.9	1185.4	1893.3	1370.2	546.3	247.4	138.3	75.7
87.5°	30.3	29.3	41.4	140.4	288.8	438.2	234.3	89.9	69.7	54.5	22.2
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°	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0	2177.0
2.5°	2184.1	2189.1	2198.2	2205.3	2214.4	2224.5	2238.6	2247.7	2256.8	2262.8	2258.8
5°	2193.2	2204.3	2227.5	2250.7	2278.0	2303.2	2332.5	2353.7	2370.9	2375.9	2378.0
7.5°	2213.4	2231.5	2270.9	2310.3	2353.7	2395.1	2437.5	2473.9	2503.2	2514.3	2515.3
10°	2248.7	2272.9	2328.5	2384.0	2441.6	2505.2	2559.7	2612.2	2653.6	2670.8	2671.8
12.5°	2293.1	2323.4	2396.1	2472.9	2552.6	2640.5	2711.2	2775.8	2827.3	2850.5	2850.5
15°	2350.7	2390.1	2483.0	2586.0	2703.1	2825.3	2915.1	2986.8	3044.4	3072.7	3070.6
17.5°	2413.3	2465.8	2582.9	2738.4	2906.1	3066.6	3171.6	3224.1	3283.7	3311.0	3310.0
20°	2473.9	2538.5	2706.1	2932.3	3155.5	3326.1	3410.9	3425.1	3429.1	3432.1	3440.2
22.5°	2536.5	2623.3	2860.6	3176.7	3416.0	3534.1	3546.2	3485.7	3400.8	3361.5	3372.6
25°	2605.2	2720.3	3062.6	3446.3	3640.1	3654.3	3561.4	3414.0	3253.4	3179.7	3190.8
27.5°	2671.8	2832.3	3304.9	3703.8	3801.7	3677.5	3477.6	3268.6	3074.7	2996.9	3006.0
30°	2738.4	2960.6	3572.5	3928.9	3875.4	3620.0	3345.3	3112.0	2917.2	2835.4	2844.5
32.5°	2806.1	3110.0	3880.5	4091.5	3862.3	3497.8	3180.7	2936.4	2764.7	2678.9	2690.0
35°	2882.8	3293.8	4172.3	4180.4	3774.4	3318.0	2963.6	2726.3	2576.9	2508.2	2523.4
37.5°	2982.8	3527.1	4429.8	4202.6	3621.0	3054.5	2694.0	2477.9	2354.7	2323.4	2345.6
40°	3107.0	3807.8	4626.7	4167.2	3393.8	2734.4	2399.2	2226.5	2156.8	2163.9	2188.1
42.5°	3268.6	4121.8	4765.0	4076.4	3077.7	2404.2	2140.7	2063.9	2097.3	2125.5	2151.8
45°	3478.6	4447.9	4850.8	3921.9	2720.3	2124.5	1988.2	2006.4	2031.6	2034.6	2054.8
47.5°	3747.2	4778.1	4907.4	3688.6	2355.7	1927.6	1891.3	1895.3	1890.3	1869.0	1885.2
50°	4082.4	5099.2	4957.9	3379.6	2045.8	1804.4	1756.0	1741.8	1672.1	1603.5	1612.6
52.5°	4464.1	5394.1	4979.1	2995.9	1804.4	1701.4	1622.7	1533.8	1403.6	1382.3	1389.4
55°	4888.2	5666.7	4924.5	2524.4	1601.5	1569.2	1450.0	1343.0	1328.8	1310.7	1313.7
57.5°	5395.1	5960.6	4813.5	1998.3	1393.5	1414.7	1298.5	1310.7	1285.4	1257.1	1252.1
60°	5949.4	6264.5	4618.6	1518.7	1178.4	1221.8	1259.2	1258.1	1251.1	1227.9	1219.8
62.5°	6448.3	6464.4	4234.9	1163.2	989.6	1072.4	1174.3	1173.3	1167.3	1154.1	1149.1
65°	6745.1	6434.1	3594.7	915.8	834.1	949.2	1059.2	1067.3	1068.3	1067.3	1067.3
67.5°	6692.6	6079.7	2716.2	729.0	705.8	824.0	945.1	956.2	964.3	966.3	968.4
70°	6098.9	5301.2	1771.1	581.6	591.7	713.9	837.1	848.2	855.3	863.3	867.4
72.5°	4753.9	3897.6	1013.8	470.5	491.7	619.0	730.0	743.2	747.2	762.4	768.4
75°	2897.0	2292.1	547.3	370.6	403.9	529.1	624.0	639.2	646.2	664.4	666.4
77.5°	1377.3	992.6	312.0	288.8	325.1	432.2	527.1	544.3	525.1	535.2	527.1
80°	465.5	368.6	196.9	220.1	248.4	337.3	422.1	439.2	398.9	396.8	392.8
82.5°	162.6	149.4	125.2	146.4	160.6	241.3	319.1	341.3	296.9	295.9	281.7
85°	63.6	60.6	69.7	79.8	95.9	148.4	210.0	221.1	182.8	147.4	145.4
87.5°	13.1	14.1	17.2	18.2	29.3	51.5	75.7	92.9	73.7	62.6	57.6
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)