

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: P884244

Luminaire Tested: **NAV-SB5A-722-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884244
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-722-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 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: 17980 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

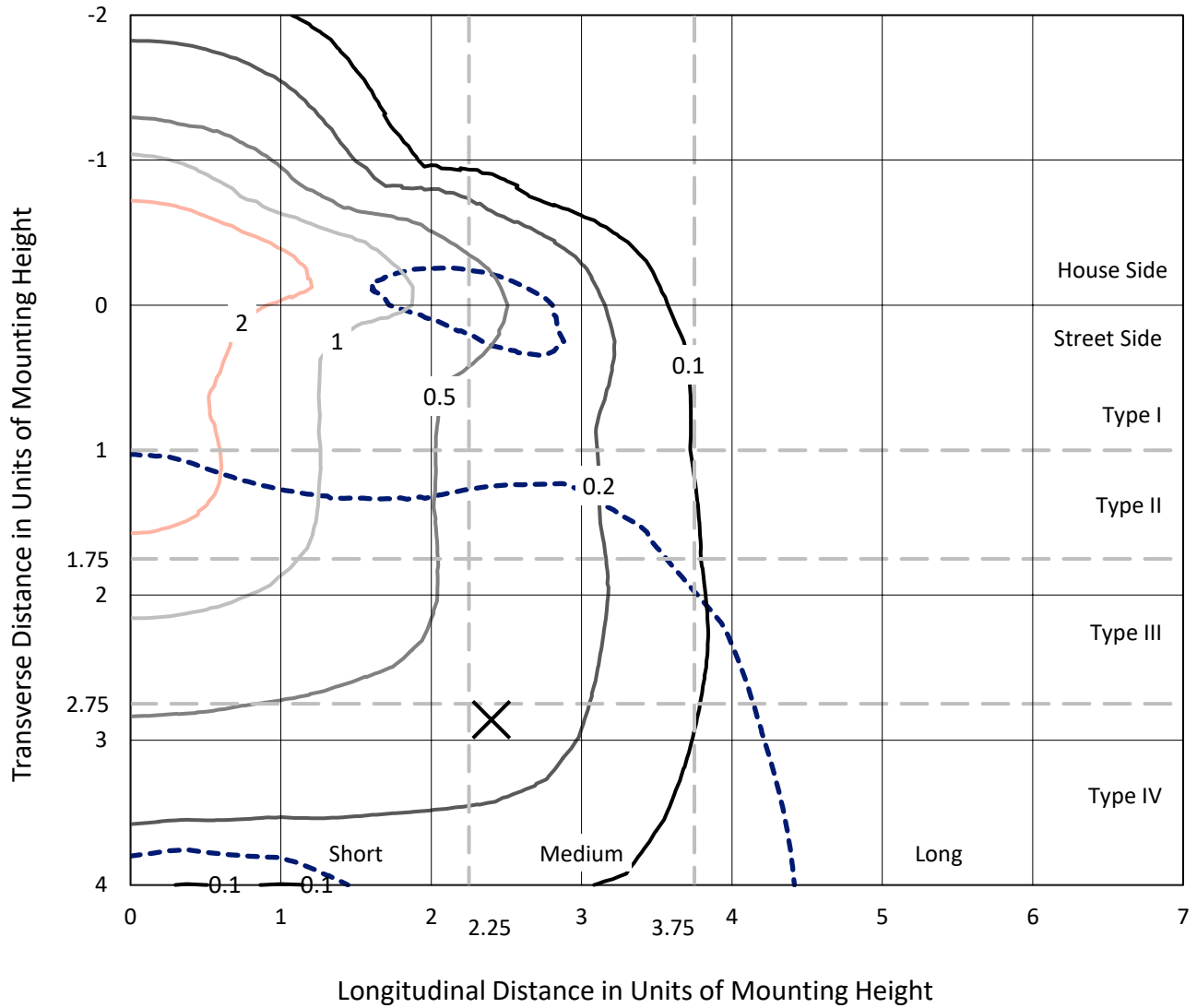
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

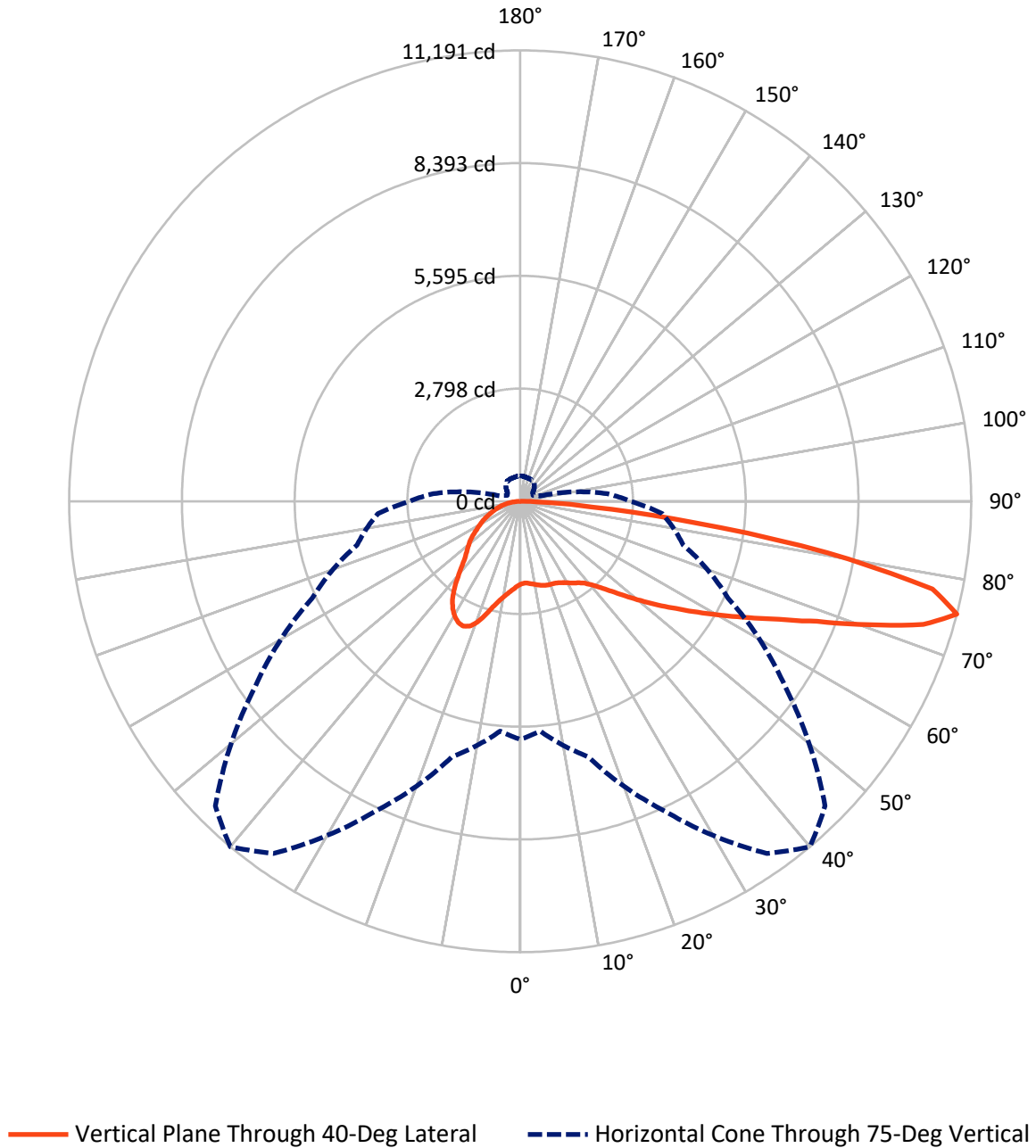
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5570.8	0.0	5570.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	12409.2	0.0	12409.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	17980.0	0.0	17980.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.2	1.1
10°-20°	689.1	3.8
20°-30°	1258.2	7.0
30°-40°	1784.4	9.9
40°-50°	2409.5	13.4
50°-60°	3241.4	18.0
60°-70°	4114.1	22.9
70°-80°	3733.8	20.8
80°-90°	544.3	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°	17980.0	100.0
0°-180°	17980.0	100.0

Coefficient of Utilization



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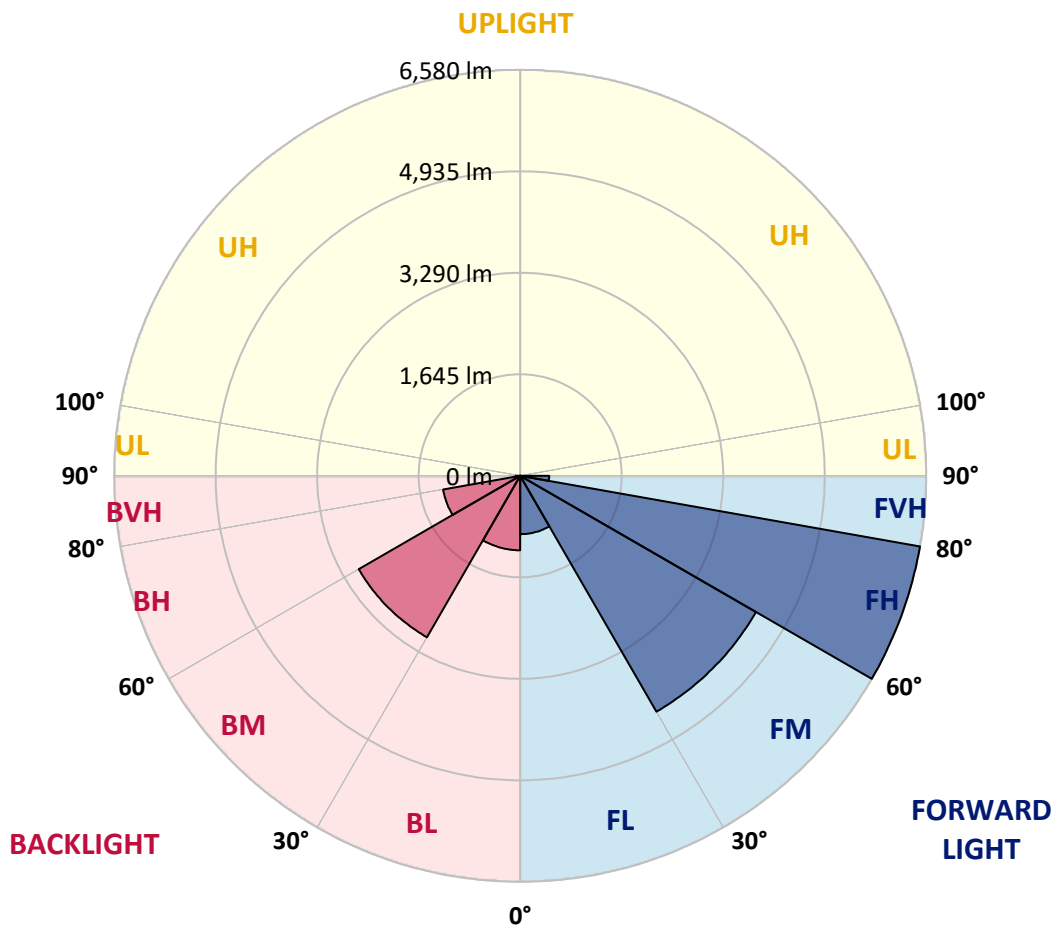
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	945.8	5.3			
FM (30°-60°)	4413.7	24.5			
FH (60°-80°)	6580.4	36.6			G3/7500
FVH (80°-90°)	469.3	2.6			G3/500
BL (0°-30°)	1206.7	6.7	B3/2500		
BM (30°-60°)	3021.7	16.8	B3/5000		
BH (60°-80°)	1267.5	7.0	B3/2500		G3/2500
BVH (80°-90°)	74.9	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°	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0
2.5°	2024.6	2036.0	2033.1	2029.3	2029.3	2030.3	2029.3	2036.0	2042.7	2049.4	2059.9
5°	2045.5	2057.0	2051.3	2046.5	2042.7	2041.7	2038.9	2037.9	2041.7	2050.3	2064.6
7.5°	2086.6	2098.0	2089.4	2080.8	2073.2	2069.4	2065.6	2059.9	2057.0	2061.8	2081.8
10°	2132.3	2143.8	2133.3	2118.0	2105.6	2100.9	2097.0	2091.3	2087.5	2090.4	2112.3
12.5°	2178.1	2189.5	2175.2	2154.3	2138.0	2135.2	2130.4	2128.5	2127.6	2126.6	2148.5
15°	2221.0	2230.6	2212.4	2187.6	2170.5	2165.7	2160.9	2163.8	2168.6	2174.3	2199.1
17.5°	2254.4	2263.9	2237.2	2204.8	2188.6	2186.7	2183.8	2193.4	2206.7	2221.0	2251.5
20°	2284.9	2294.4	2260.1	2216.2	2197.2	2197.2	2198.1	2218.2	2237.2	2258.2	2300.2
22.5°	2327.8	2335.5	2293.5	2233.4	2205.8	2207.7	2215.3	2235.3	2259.2	2287.8	2345.9
25°	2391.7	2397.4	2345.9	2265.8	2234.4	2240.1	2246.8	2256.3	2279.2	2312.6	2390.8
27.5°	2494.7	2499.5	2431.8	2323.1	2275.4	2284.9	2294.4	2287.8	2298.3	2326.9	2427.0
30°	2639.7	2642.5	2556.7	2412.7	2345.0	2349.8	2351.7	2324.0	2304.0	2326.9	2452.7
32.5°	2811.3	2810.4	2708.3	2521.4	2424.1	2419.4	2403.2	2348.8	2302.1	2322.1	2475.6
35°	3077.4	3066.9	2935.3	2674.0	2513.8	2484.2	2446.1	2376.5	2311.6	2317.3	2495.7
37.5°	3518.0	3485.5	3303.4	2923.8	2647.3	2572.0	2515.7	2421.3	2332.6	2315.4	2519.5
40°	4014.8	3973.8	3773.5	3266.2	2847.6	2726.4	2635.8	2485.2	2366.9	2324.0	2554.8
42.5°	4604.1	4546.0	4330.5	3669.6	3101.2	2925.8	2789.4	2566.2	2417.5	2351.7	2602.5
45°	5328.0	5250.7	4945.6	4124.5	3420.7	3187.0	3004.9	2689.3	2494.7	2405.1	2674.0
47.5°	6059.4	6078.5	5644.6	4645.2	3804.0	3509.4	3274.8	2874.3	2607.2	2490.9	2789.4
50°	6836.6	6850.0	6339.8	5222.1	4238.9	3873.7	3578.0	3081.2	2763.6	2613.0	2962.0
52.5°	7443.1	7445.0	6971.1	5825.8	4691.9	4274.2	3905.1	3317.7	2944.8	2775.1	3191.8
55°	7822.7	7817.9	7413.6	6397.0	5212.6	4694.7	4267.5	3586.6	3166.1	2965.8	3480.8
57.5°	8098.3	8084.0	7718.7	6888.1	5767.6	5191.6	4677.6	3891.8	3427.4	3192.8	3861.3
60°	8203.2	8194.6	7925.7	7312.5	6351.2	5740.9	5150.6	4233.2	3723.9	3460.7	4350.5
62.5°	8243.2	8259.4	8128.8	7723.5	6975.8	6349.3	5670.3	4641.3	4057.7	3764.0	4866.4
65°	8384.4	8413.9	8387.2	8261.3	7681.5	7061.7	6359.8	5126.7	4422.0	4089.2	5405.2
67.5°	8663.8	8693.3	8704.8	8905.0	8543.6	7949.5	7220.0	5731.3	4848.3	4426.8	5810.5
70°	8657.1	8648.5	8850.7	9417.1	9623.1	9178.7	8379.6	6475.2	5356.6	4707.1	5862.0
72.5°	7879.9	7811.2	8289.0	9411.4	10521.5	10462.3	9795.7	7434.5	5795.2	4741.5	5086.7
75°	5911.6	5728.5	6572.5	8481.6	10671.2	11190.9	10696.0	8029.6	5691.3	4189.3	3539.9
77.5°	2528.1	2344.0	3338.7	6278.7	9550.7	10461.4	9870.1	7005.4	4543.1	2770.3	1738.5
80°	661.8	660.9	1008.9	2846.6	6495.2	7725.4	6777.5	4524.0	2595.8	989.9	479.7
82.5°	273.7	267.0	371.0	1107.2	3173.7	4335.2	3538.0	2017.9	937.4	268.0	159.3
85°	102.0	101.1	180.2	382.4	1119.6	1788.1	1294.1	515.9	233.6	130.6	71.5
87.5°	28.6	27.7	39.1	132.6	272.7	413.9	221.2	84.9	65.8	51.5	21.0
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°	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0	2056.0
2.5°	2062.7	2067.5	2076.1	2082.7	2091.3	2100.9	2114.2	2122.8	2131.4	2137.1	2133.3
5°	2071.3	2081.8	2103.7	2125.7	2151.4	2175.2	2202.9	2222.9	2239.1	2243.9	2245.8
7.5°	2090.4	2107.5	2144.7	2181.9	2222.9	2262.0	2302.1	2336.4	2364.1	2374.6	2375.5
10°	2123.7	2146.6	2199.1	2251.5	2305.9	2366.0	2417.5	2467.1	2506.2	2522.4	2523.3
12.5°	2165.7	2194.3	2263.0	2335.5	2410.8	2493.8	2560.5	2621.5	2670.2	2692.1	2692.1
15°	2220.1	2257.3	2345.0	2442.3	2552.9	2668.3	2753.1	2820.9	2875.2	2901.9	2900.0
17.5°	2279.2	2328.8	2439.4	2586.3	2744.6	2896.2	2995.4	3045.0	3101.2	3127.0	3126.0
20°	2336.4	2397.4	2555.7	2769.4	2980.1	3141.3	3221.4	3234.7	3238.5	3241.4	3249.0
22.5°	2395.5	2477.5	2701.6	3000.1	3226.1	3337.7	3349.2	3291.9	3211.8	3174.7	3185.1
25°	2460.4	2569.1	2892.4	3254.8	3437.9	3451.2	3363.5	3224.2	3072.6	3003.0	3013.5
27.5°	2523.3	2674.9	3121.2	3497.9	3590.4	3473.1	3284.3	3086.9	2903.8	2830.4	2839.0
30°	2586.3	2796.1	3374.0	3710.6	3660.1	3418.8	3159.4	2939.1	2755.1	2677.8	2686.4
32.5°	2650.2	2937.2	3664.8	3864.1	3647.7	3303.4	3004.0	2773.2	2611.1	2530.0	2540.5
35°	2722.6	3110.8	3940.4	3948.0	3564.7	3133.6	2798.9	2574.8	2433.7	2368.8	2383.1
37.5°	2817.0	3331.0	4183.6	3969.0	3419.7	2884.7	2544.3	2340.2	2223.9	2194.3	2215.3
40°	2934.3	3596.2	4369.6	3935.7	3205.2	2582.4	2265.8	2102.8	2037.0	2043.6	2066.5
42.5°	3086.9	3892.7	4500.2	3849.8	2906.7	2270.6	2021.7	1949.2	1980.7	2007.4	2032.2
45°	3285.3	4200.8	4581.3	3703.9	2569.1	2006.4	1877.7	1894.9	1918.7	1921.6	1940.6
47.5°	3538.9	4512.6	4634.7	3483.6	2224.8	1820.5	1786.2	1790.0	1785.2	1765.2	1780.4
50°	3855.5	4815.9	4682.3	3191.8	1932.1	1704.1	1658.4	1645.0	1579.2	1514.4	1523.0
52.5°	4216.0	5094.3	4702.4	2829.4	1704.1	1606.9	1532.5	1448.6	1325.6	1305.5	1312.2
55°	4616.5	5351.8	4650.9	2384.1	1512.5	1481.9	1369.4	1268.3	1255.0	1237.8	1240.7
57.5°	5095.3	5629.3	4546.0	1887.2	1316.0	1336.0	1226.4	1237.8	1214.0	1187.3	1182.5
60°	5618.8	5916.4	4361.9	1434.3	1112.9	1153.9	1189.2	1188.2	1181.6	1159.6	1152.0
62.5°	6089.9	6105.2	3999.5	1098.6	934.6	1012.8	1109.1	1108.1	1102.4	1090.0	1085.2
65°	6370.3	6076.6	3394.9	864.9	787.7	896.4	1000.4	1008.0	1008.9	1008.0	1008.0
67.5°	6320.7	5741.8	2565.3	688.5	666.6	778.2	892.6	903.1	910.7	912.6	914.5
70°	5760.0	5006.6	1672.7	549.3	558.8	674.2	790.6	801.1	807.7	815.4	819.2
72.5°	4489.7	3681.0	957.4	444.4	464.4	584.6	689.5	701.9	705.7	720.0	725.7
75°	2736.0	2164.8	516.9	350.0	381.5	499.7	589.3	603.7	610.3	627.5	629.4
77.5°	1300.8	937.4	294.7	272.7	307.1	408.2	497.8	514.0	495.9	505.4	497.8
80°	439.6	348.1	186.0	207.9	234.6	318.5	398.6	414.8	376.7	374.8	371.0
82.5°	153.5	141.1	118.3	138.3	151.6	227.9	301.3	322.3	280.4	279.4	266.1
85°	60.1	57.2	65.8	75.3	90.6	140.2	198.4	208.8	172.6	139.2	137.3
87.5°	12.4	13.4	16.2	17.2	27.7	48.6	71.5	87.7	69.6	59.1	54.4
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)