

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: P883824

Luminaire Tested: **NAV-SB4B-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883824
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-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 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: 19087 lumens
Efficiency: N/A
Efficacy: 129.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G3

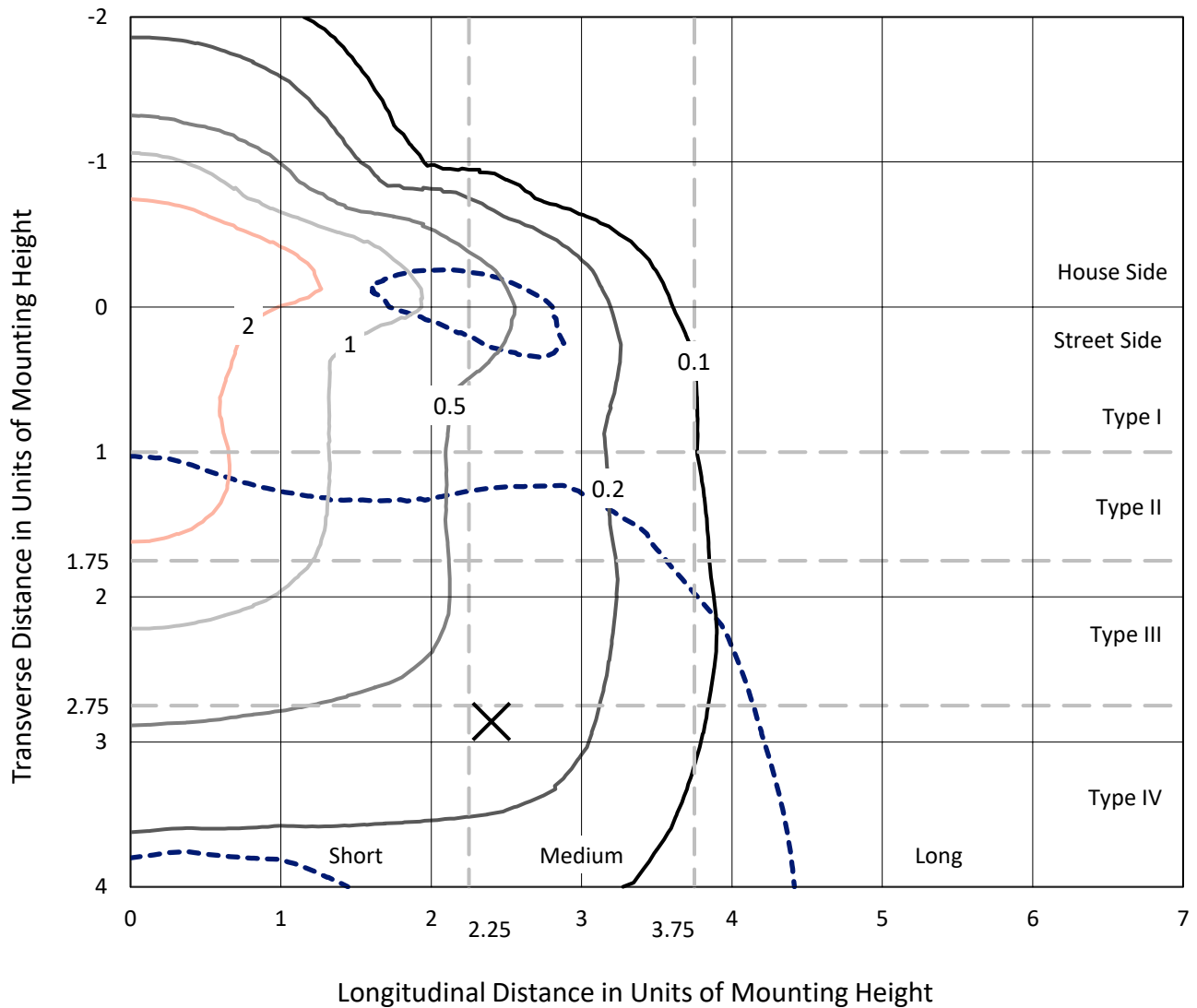
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

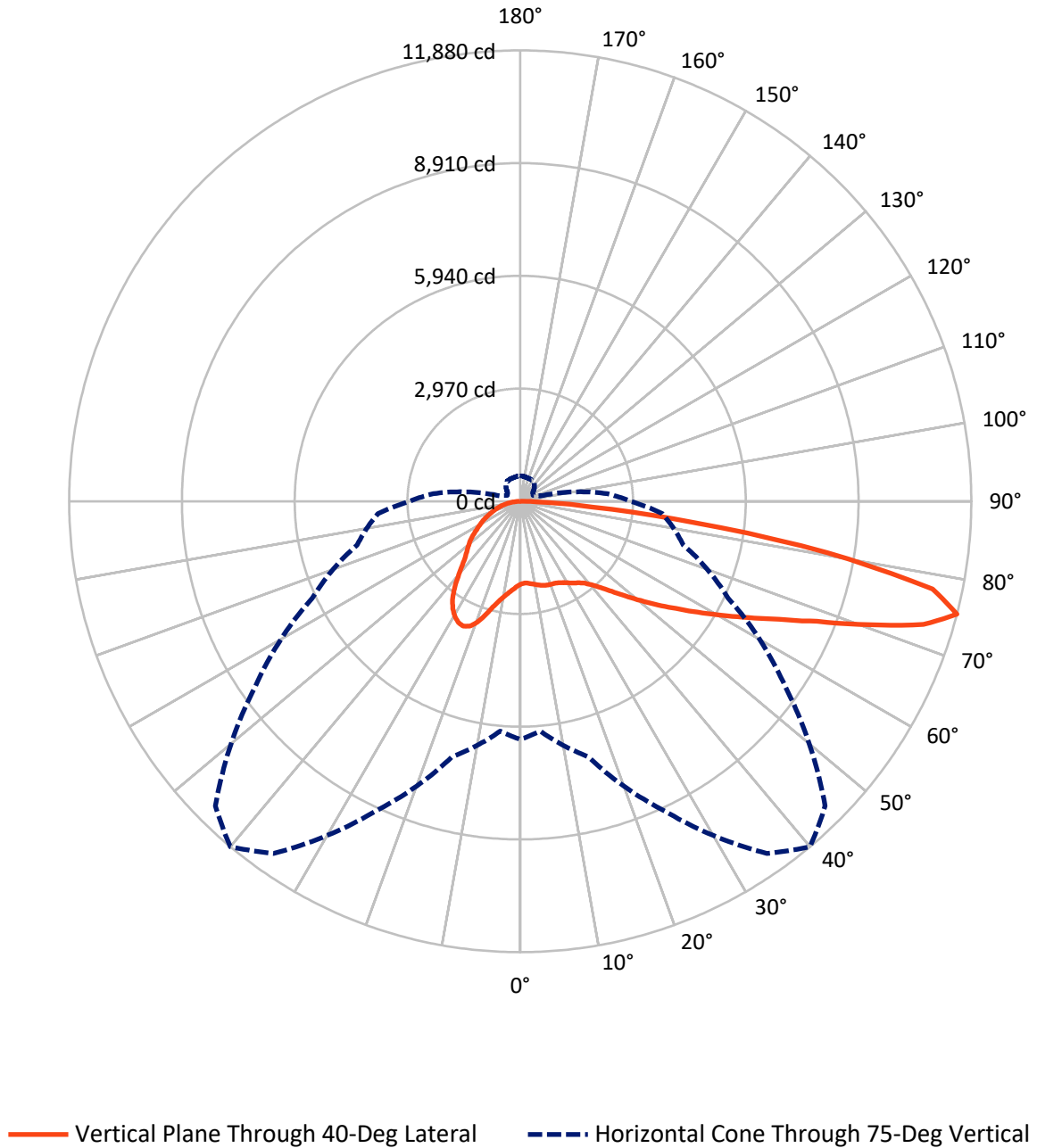
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 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	5913.8	0.0	5913.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	13173.2	0.0	13173.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	19087.0	0.0	19087.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.9	1.1
10°-20°	731.5	3.8
20°-30°	1335.6	7.0
30°-40°	1894.3	9.9
40°-50°	2557.9	13.4
50°-60°	3441.0	18.0
60°-70°	4367.4	22.9
70°-80°	3963.7	20.8
80°-90°	577.8	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°	19087.0	100.0
0°-180°	19087.0	100.0

Coefficient of Utilization



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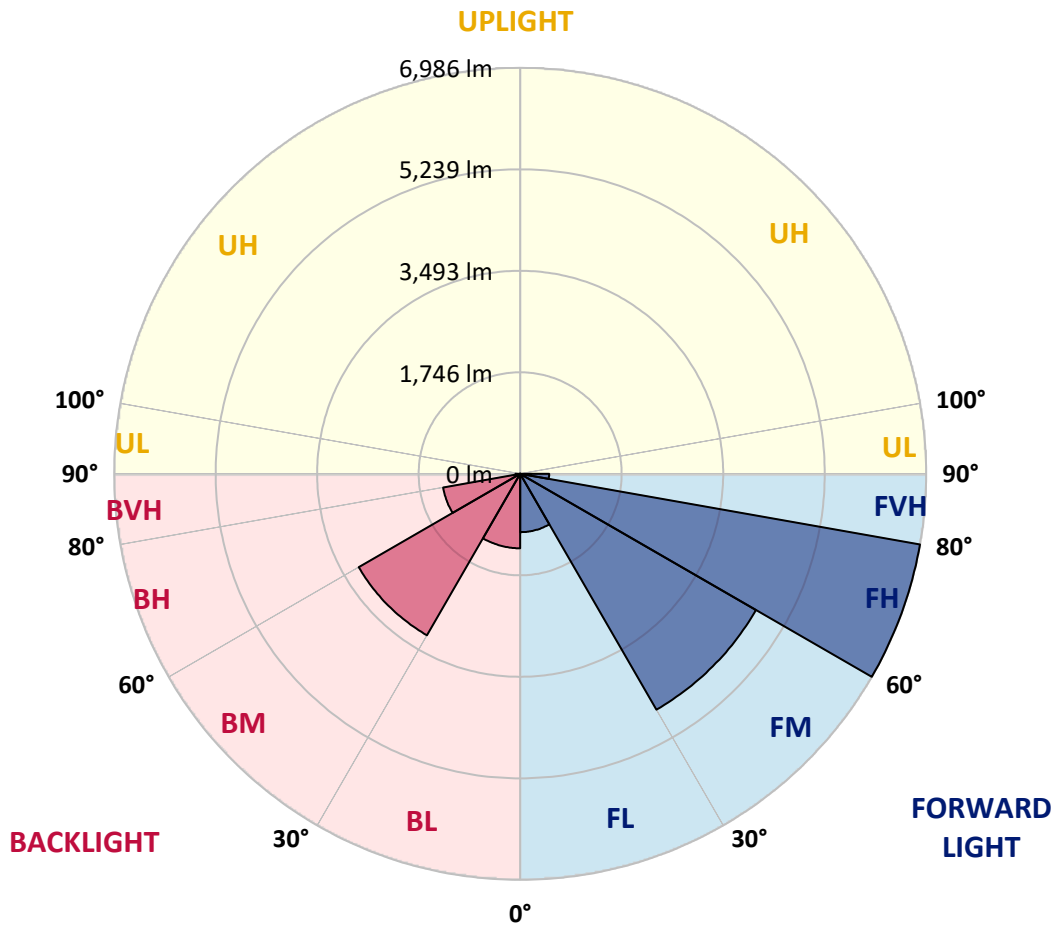
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1004.0	5.3			
FM (30°-60°)	4685.4	24.5			
FH (60°-80°)	6985.5	36.6			G3/7500
FVH (80°-90°)	498.2	2.6			G3/500
BL (0°-30°)	1281.0	6.7	B3/2500		
BM (30°-60°)	3207.7	16.8	B3/5000		
BH (60°-80°)	1345.6	7.0	B3/2500		G3/2500
BVH (80°-90°)	79.5	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-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6
2.5°	2149.2	2161.4	2158.3	2154.3	2154.3	2155.3	2154.3	2161.4	2168.5	2175.5	2186.7
5°	2171.5	2183.6	2177.6	2172.5	2168.5	2167.4	2164.4	2163.4	2167.4	2176.5	2191.7
7.5°	2215.0	2227.2	2218.1	2208.9	2200.8	2196.8	2192.7	2186.7	2183.6	2188.7	2210.0
10°	2263.6	2275.8	2264.6	2248.4	2235.3	2230.2	2226.2	2220.1	2216.0	2219.1	2242.4
12.5°	2312.2	2324.4	2309.2	2286.9	2269.7	2266.6	2261.6	2259.6	2258.6	2257.5	2280.8
15°	2357.8	2367.9	2348.6	2322.3	2304.1	2299.0	2294.0	2297.0	2302.1	2308.2	2334.5
17.5°	2393.2	2403.3	2375.0	2340.6	2323.3	2321.3	2318.3	2328.4	2342.6	2357.8	2390.2
20°	2425.6	2435.7	2399.3	2352.7	2332.5	2332.5	2333.5	2354.7	2375.0	2397.2	2441.8
22.5°	2471.1	2479.2	2434.7	2370.9	2341.6	2343.6	2351.7	2372.9	2398.3	2428.6	2490.4
25°	2539.0	2545.0	2490.4	2405.3	2371.9	2378.0	2385.1	2395.2	2419.5	2454.9	2538.0
27.5°	2648.3	2653.4	2581.5	2466.1	2415.5	2425.6	2435.7	2428.6	2439.8	2470.1	2576.4
30°	2802.2	2805.2	2714.1	2561.2	2489.4	2494.4	2496.5	2467.1	2445.8	2470.1	2603.8
32.5°	2984.4	2983.4	2875.1	2676.7	2573.4	2568.3	2551.1	2493.4	2443.8	2465.1	2628.1
35°	3266.8	3255.7	3116.0	2838.6	2668.6	2637.2	2596.7	2522.8	2453.9	2460.0	2649.3
37.5°	3734.6	3700.1	3506.8	3103.9	2810.3	2730.3	2670.6	2570.4	2476.2	2458.0	2674.6
40°	4262.0	4218.5	4005.9	3467.3	3022.9	2894.3	2798.1	2638.2	2512.6	2467.1	2712.1
42.5°	4887.6	4825.9	4597.1	3895.5	3292.2	3105.9	2961.1	2724.2	2566.3	2496.5	2762.7
45°	5656.0	5574.0	5250.0	4378.4	3631.3	3383.3	3189.9	2854.8	2648.3	2553.1	2838.6
47.5°	6432.5	6452.7	5992.1	4931.2	4038.3	3725.4	3476.4	3051.2	2767.8	2644.3	2961.1
50°	7257.5	7271.7	6730.1	5543.6	4499.9	4112.2	3798.3	3270.9	2933.8	2773.8	3144.4
52.5°	7901.4	7903.4	7400.3	6184.4	4980.8	4537.3	4145.6	3522.0	3126.1	2945.9	3388.3
55°	8304.3	8299.2	7870.0	6790.8	5533.5	4983.8	4530.3	3807.4	3361.0	3148.4	3695.1
57.5°	8596.9	8581.7	8194.0	7312.2	6122.7	5511.2	4965.6	4131.4	3638.4	3389.3	4099.0
60°	8708.2	8699.1	8413.6	7762.7	6742.2	6094.3	5467.7	4493.8	3953.2	3673.8	4618.3
62.5°	8750.7	8768.0	8629.3	8199.0	7405.3	6740.2	6019.4	4927.1	4307.5	3995.7	5166.0
65°	8900.6	8932.0	8903.6	8770.0	8154.5	7496.4	6751.4	5442.4	4694.3	4341.0	5738.0
67.5°	9197.2	9228.6	9240.7	9453.3	9069.6	8438.9	7664.5	6084.2	5146.8	4699.3	6168.2
70°	9190.1	9181.0	9395.6	9996.9	10215.6	9743.9	8895.5	6873.8	5686.4	4997.0	6222.9
72.5°	8365.0	8292.1	8799.3	9990.9	11169.2	11106.5	10398.8	7892.3	6152.0	5033.4	5399.9
75°	6275.5	6081.2	6977.1	9003.8	11328.2	11879.9	11354.5	8524.0	6041.7	4447.2	3757.8
77.5°	2683.7	2488.4	3544.2	6665.3	10138.7	11105.5	10477.8	7436.7	4822.8	2940.9	1845.5
80°	702.6	701.6	1071.1	3021.9	6895.1	8201.0	7194.8	4802.6	2755.6	1050.8	509.2
82.5°	290.5	283.5	393.8	1175.3	3369.1	4602.1	3755.8	2142.1	995.1	284.5	169.1
85°	108.3	107.3	191.3	406.0	1188.5	1898.2	1373.8	547.7	248.0	138.7	75.9
87.5°	30.4	29.4	41.5	140.7	289.5	439.4	234.9	90.1	69.9	54.7	22.3
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°	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6	2182.6
2.5°	2189.7	2194.8	2203.9	2211.0	2220.1	2230.2	2244.4	2253.5	2262.6	2268.7	2264.6
5°	2198.8	2210.0	2233.2	2256.5	2283.9	2309.2	2338.5	2359.8	2377.0	2382.1	2384.1
7.5°	2219.1	2237.3	2276.8	2316.3	2359.8	2401.3	2443.8	2480.3	2509.6	2520.7	2521.8
10°	2254.5	2278.8	2334.5	2390.2	2447.9	2511.6	2566.3	2618.9	2660.5	2677.7	2678.7
12.5°	2299.0	2329.4	2402.3	2479.2	2559.2	2647.3	2718.2	2782.9	2834.6	2857.9	2857.9
15°	2356.7	2396.2	2489.4	2592.6	2710.1	2832.6	2922.7	2994.5	3052.2	3080.6	3078.6
17.5°	2419.5	2472.2	2589.6	2745.5	2913.5	3074.5	3179.8	3232.4	3292.2	3319.5	3318.5
20°	2480.3	2545.0	2713.1	2939.9	3163.6	3334.7	3419.7	3433.9	3437.9	3441.0	3449.1
22.5°	2543.0	2630.1	2868.0	3184.8	3424.8	3543.2	3555.4	3494.6	3409.6	3370.1	3381.2
25°	2611.9	2727.3	3070.5	3455.1	3649.5	3663.7	3570.6	3422.8	3261.8	3187.9	3199.0
27.5°	2678.7	2839.6	3313.4	3713.3	3811.5	3687.0	3486.5	3277.0	3082.6	3004.7	3013.8
30°	2745.5	2968.2	3581.7	3939.0	3885.4	3629.3	3353.9	3120.1	2924.7	2842.7	2851.8
32.5°	2813.3	3118.0	3890.5	4102.0	3872.2	3506.8	3188.9	2943.9	2771.8	2685.8	2696.9
35°	2890.3	3302.3	4183.0	4191.1	3784.2	3326.6	2971.2	2733.3	2583.5	2514.7	2529.9
37.5°	2990.5	3536.1	4441.2	4213.4	3630.3	3062.4	2700.9	2484.3	2360.8	2329.4	2351.7
40°	3115.0	3817.6	4638.6	4178.0	3402.5	2741.4	2405.3	2232.2	2162.4	2169.5	2193.8
42.5°	3277.0	4132.4	4777.3	4086.9	3085.6	2410.4	2146.2	2069.2	2102.6	2131.0	2157.3
45°	3487.5	4459.4	4863.3	3932.0	2727.3	2130.0	1993.3	2011.5	2036.8	2039.9	2060.1
47.5°	3756.8	4790.4	4920.0	3698.1	2361.8	1932.6	1896.1	1900.2	1895.1	1873.9	1890.1
50°	4092.9	5112.4	4970.6	3388.3	2051.0	1809.1	1760.5	1746.3	1676.4	1607.6	1616.7
52.5°	4475.6	5408.0	4991.9	3003.6	1809.1	1705.8	1626.8	1537.8	1407.2	1385.9	1393.0
55°	4900.8	5681.3	4937.2	2530.9	1605.6	1573.2	1453.7	1346.4	1332.3	1314.0	1317.1
57.5°	5409.0	5975.9	4825.9	2003.4	1397.0	1418.3	1301.9	1314.0	1288.7	1260.4	1255.3
60°	5964.8	6280.6	4630.5	1522.6	1181.4	1224.9	1262.4	1261.4	1254.3	1231.0	1222.9
62.5°	6464.9	6481.1	4245.8	1166.2	992.1	1075.1	1177.4	1176.3	1170.3	1157.1	1152.1
65°	6762.5	6450.7	3604.0	918.2	836.2	951.6	1062.0	1070.1	1071.1	1070.1	1070.1
67.5°	6709.8	6095.4	2723.2	730.9	707.6	826.1	947.6	958.7	966.8	968.8	970.8
70°	6114.6	5314.8	1775.7	583.1	593.2	715.7	839.2	850.4	857.5	865.6	869.6
72.5°	4766.1	3907.7	1016.4	471.8	493.0	620.6	731.9	745.1	749.1	764.3	770.4
75°	2904.4	2298.0	548.7	371.5	404.9	530.5	625.6	640.8	647.9	666.1	668.2
77.5°	1380.8	995.1	312.8	289.5	326.0	433.3	528.4	545.7	526.4	536.5	528.4
80°	466.7	369.5	197.4	220.7	249.0	338.1	423.2	440.4	399.9	397.9	393.8
82.5°	163.0	149.8	125.5	146.8	161.0	242.0	319.9	342.2	297.6	296.6	282.4
85°	63.8	60.7	69.9	80.0	96.2	148.8	210.6	221.7	183.2	147.8	145.8
87.5°	13.2	14.2	17.2	18.2	29.4	51.6	75.9	93.1	73.9	62.8	57.7
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)