

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: P883819

Luminaire Tested: **NAV-SB4B-830-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883819  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-830-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19982 lumens  
Efficiency: N/A  
Efficacy: 135.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3

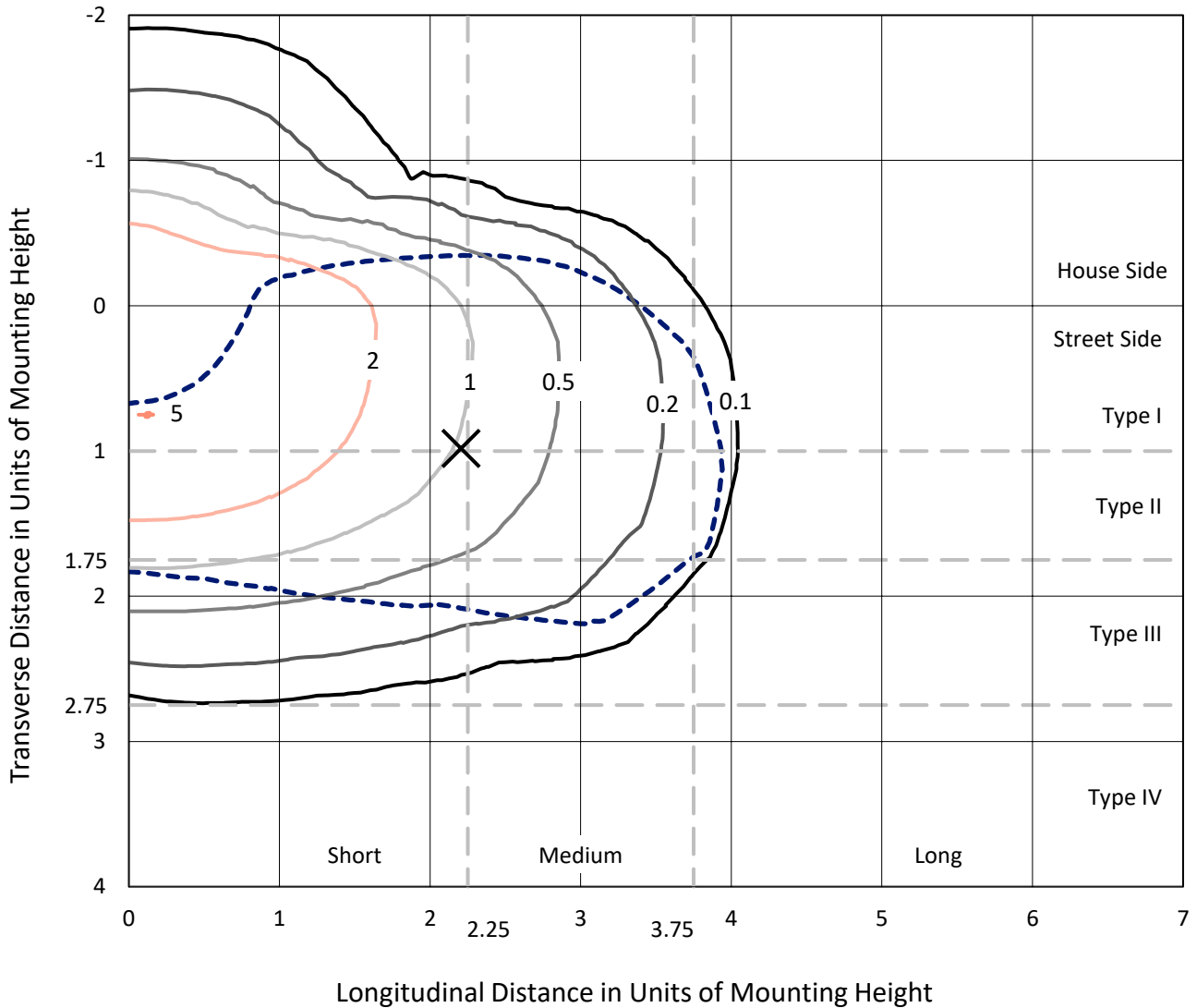
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

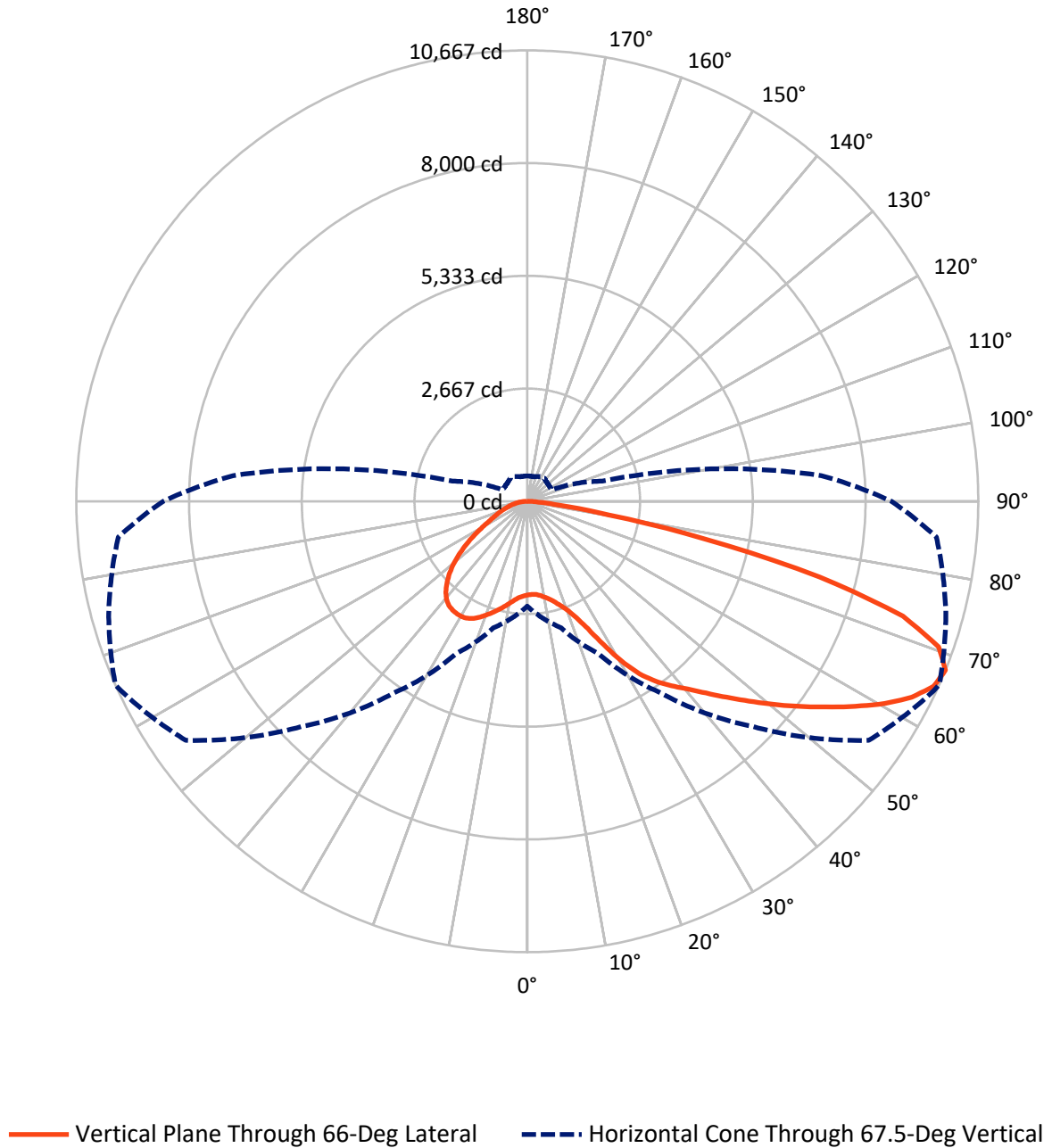
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4968.5	0.0	4968.5
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	15013.5	0.0	15013.5
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	19982.0	0.0	19982.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.7	1.1
10°-20°	726.0	3.6
20°-30°	1399.3	7.0
30°-40°	2453.4	12.3
40°-50°	3647.5	18.3
50°-60°	4623.5	23.1
60°-70°	4524.0	22.6
70°-80°	2158.0	10.8
80°-90°	230.6	1.2
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°	19982.0	100.0
0°-180°	19982.0	100.0

**Coefficient of Utilization**



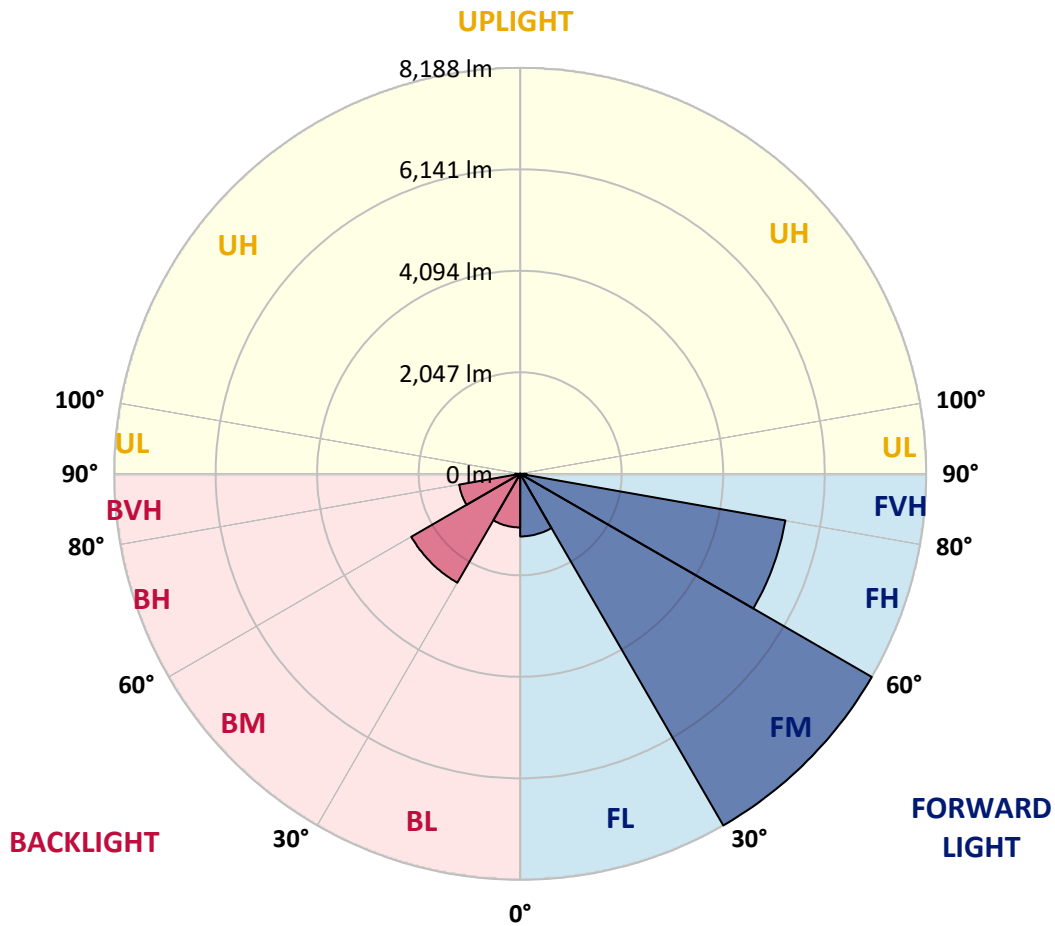
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1262.7	6.3			
FM (30°-60°)	8188.5	41.0			
FH (60°-80°)	5431.7	27.2			G3/7500
FVH (80°-90°)	130.8	0.7			G2/225
BL (0°-30°)	1082.3	5.4	B3/2500		
BM (30°-60°)	2536.0	12.7	B3/5000		
BH (60°-80°)	1250.3	6.3	B3/2500		G3/2500
BVH (80°-90°)	99.9	0.5			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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3
2.5°	2193.2	2205.8	2202.6	2197.4	2196.3	2198.4	2201.6	2204.7	2203.7	2208.9	2217.3
5°	2186.9	2199.5	2198.4	2198.4	2202.6	2211.0	2216.3	2221.5	2216.3	2222.6	2234.1
7.5°	2191.1	2200.5	2204.7	2208.9	2219.4	2235.2	2247.8	2259.3	2253.0	2260.4	2275.1
10°	2244.6	2252.0	2256.2	2256.2	2263.5	2281.4	2294.0	2315.0	2309.7	2321.3	2340.2
12.5°	2342.3	2349.6	2349.6	2345.4	2350.7	2362.2	2366.4	2389.5	2380.0	2398.9	2417.8
15°	2461.9	2476.6	2465.1	2457.7	2459.8	2471.4	2470.3	2488.2	2478.7	2494.5	2511.3
17.5°	2594.2	2613.1	2594.2	2593.2	2589.0	2601.6	2602.6	2618.4	2601.6	2613.1	2624.7
20°	2750.6	2776.9	2761.1	2766.4	2756.9	2762.2	2767.4	2790.5	2764.3	2772.7	2769.5
22.5°	2971.1	3002.6	2985.8	3005.8	2999.5	2995.3	2994.2	3035.2	2994.2	2997.4	2966.9
25°	3292.4	3330.2	3300.8	3328.1	3328.1	3341.7	3357.5	3410.0	3341.7	3321.8	3243.0
27.5°	3766.9	3804.7	3747.0	3763.8	3758.5	3792.1	3775.3	3905.5	3832.0	3799.5	3640.9
30°	4338.0	4405.2	4296.1	4291.9	4286.6	4340.1	4364.3	4450.4	4375.8	4343.3	4152.2
32.5°	4955.4	5025.7	4895.5	4857.7	4837.8	4870.3	4850.4	4919.7	4868.2	4817.8	4581.6
35°	5608.4	5677.7	5553.8	5480.3	5400.5	5332.3	5260.9	5278.7	5230.4	5153.8	4909.2
37.5°	6225.7	6352.7	6221.5	6142.8	5995.8	5862.5	5663.0	5580.0	5534.9	5464.6	5217.8
40°	6854.6	6927.0	6827.3	6760.1	6600.5	6391.6	6072.4	5897.1	5836.2	5768.0	5559.0
42.5°	7317.6	7386.9	7333.3	7287.1	7162.2	6919.7	6507.1	6287.6	6199.5	6122.8	5945.4
45°	7685.0	7736.5	7702.9	7719.7	7666.1	7431.0	6957.5	6706.5	6615.2	6521.8	6382.1
47.5°	7833.1	7887.6	7941.2	8040.9	8132.3	7959.0	7441.5	7160.1	7063.5	6968.0	6830.4
50°	7816.3	7871.9	8027.3	8239.4	8522.8	8465.1	7951.7	7643.0	7553.8	7444.6	7317.6
52.5°	7681.9	7744.9	7944.3	8297.1	8748.5	8844.1	8471.4	8141.7	8057.7	7927.5	7800.5
55°	7329.1	7366.9	7666.1	8165.9	8802.1	9108.6	8980.6	8672.9	8589.0	8407.3	8268.7
57.5°	6675.1	6729.6	7165.3	7812.1	8667.7	9288.2	9427.8	9231.5	9150.6	8889.2	8744.3
60°	5821.5	5908.6	6407.3	7217.8	8325.4	9287.1	9834.1	9780.6	9713.4	9363.8	9212.6
62.5°	4855.6	4956.4	5436.2	6377.9	7727.0	9023.6	10088.2	10240.4	10205.8	9801.6	9608.4
65°	3729.1	3798.4	4276.1	5291.3	6795.8	8457.7	10117.6	10554.3	10560.6	10134.4	9815.2
67.5°	2482.9	2682.4	3097.1	3970.6	5548.5	7532.8	9859.3	10605.7	10666.6	10248.8	9711.3
70°	1211.5	1474.0	1880.3	2580.6	3970.6	6114.4	9184.2	10183.7	10319.1	9914.9	9091.8
72.5°	502.9	587.9	809.4	1273.5	2279.3	4126.0	7827.8	9039.3	9290.3	8785.3	7644.1
75°	339.1	367.5	463.0	653.0	1038.3	2034.6	5645.1	6740.1	7144.3	6635.2	5423.6
77.5°	261.4	279.3	337.0	456.7	617.3	769.6	3021.5	4061.9	4270.9	3953.8	2822.0
80°	205.8	219.4	252.0	332.8	437.8	411.5	1029.9	1840.4	1961.2	1645.1	907.1
82.5°	178.5	183.7	180.6	225.7	290.8	240.4	338.1	679.3	749.6	543.8	296.1
85°	129.1	143.8	150.1	139.6	154.3	121.8	138.6	240.4	264.6	236.2	166.9
87.5°	52.5	77.7	95.5	90.3	56.7	34.6	43.0	70.3	80.8	88.2	54.6
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°	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3	2216.3
2.5°	2218.4	2225.7	2231.0	2237.3	2241.5	2247.8	2260.4	2267.7	2268.8	2274.0	2273.0
5°	2238.3	2248.8	2260.4	2277.2	2296.1	2311.8	2336.0	2352.8	2359.0	2364.3	2363.2
7.5°	2281.4	2296.1	2317.1	2346.5	2373.7	2394.7	2424.1	2444.1	2464.0	2471.4	2472.4
10°	2345.4	2366.4	2396.8	2436.7	2466.1	2493.4	2523.9	2540.7	2560.6	2569.0	2573.2
12.5°	2425.2	2447.2	2487.1	2542.8	2570.1	2589.0	2599.5	2595.3	2599.5	2606.8	2608.9
15°	2516.5	2540.7	2585.8	2645.7	2664.6	2647.8	2624.7	2603.7	2600.5	2602.6	2610.0
17.5°	2624.7	2642.5	2695.0	2745.4	2731.8	2662.5	2612.1	2578.5	2561.7	2556.4	2563.8
20°	2775.8	2775.8	2818.9	2850.4	2759.0	2641.5	2562.7	2508.1	2473.5	2458.8	2455.6
22.5°	2959.6	2942.8	2970.1	2948.0	2753.8	2582.7	2473.5	2379.0	2326.5	2305.5	2302.4
25°	3192.6	3172.7	3165.3	3028.9	2716.0	2489.2	2311.8	2197.4	2151.2	2139.6	2141.7
27.5°	3544.3	3494.0	3398.4	3073.0	2646.7	2342.3	2122.8	2016.8	1990.5	1991.6	1994.7
30°	4012.6	3911.8	3677.7	3080.3	2533.3	2134.4	1929.7	1854.1	1841.5	1846.7	1864.6
32.5°	4446.2	4350.6	3963.2	3046.7	2359.0	1930.7	1756.4	1706.0	1687.1	1693.4	1701.8
35°	4786.3	4760.1	4227.8	2999.5	2144.9	1739.6	1601.0	1558.0	1521.3	1512.9	1519.2
37.5°	5107.6	5097.1	4426.2	2933.3	1932.8	1604.2	1476.1	1419.4	1365.9	1336.5	1337.5
40°	5460.4	5449.9	4556.4	2831.5	1744.9	1486.6	1363.8	1289.2	1223.1	1169.6	1174.8
42.5°	5857.2	5795.3	4618.4	2685.6	1585.3	1386.9	1272.4	1171.7	1084.5	1035.2	1038.3
45°	6290.8	6151.2	4617.3	2499.7	1450.9	1295.5	1174.8	1032.0	951.2	905.0	902.9
47.5°	6750.6	6491.3	4560.6	2294.0	1320.7	1194.7	1023.6	914.4	860.9	832.5	826.2
50°	7225.2	6809.4	4464.0	2057.7	1187.4	1080.3	929.1	854.6	813.6	787.4	778.0
52.5°	7671.4	7098.1	4347.5	1790.0	1052.0	969.0	887.1	829.4	786.3	757.0	744.4
55°	8086.1	7347.0	4182.7	1516.0	941.7	894.5	867.2	818.9	769.6	734.9	721.3
57.5°	8454.6	7508.6	3898.2	1258.8	863.0	843.0	846.2	801.0	744.4	715.0	696.1
60°	8761.1	7627.3	3477.2	1020.5	798.9	792.6	813.6	767.5	701.3	667.7	653.0
62.5°	8944.9	7625.2	2960.6	835.7	744.4	746.5	770.6	725.5	658.3	626.8	617.3
65°	8929.1	7438.3	2393.7	715.0	691.9	694.0	725.5	679.3	622.6	603.7	602.6
67.5°	8613.1	6982.7	1836.2	636.2	634.1	643.6	680.3	647.8	600.5	598.4	601.6
70°	7757.5	6036.7	1322.8	573.2	574.3	587.9	636.2	627.8	589.0	593.2	592.1
72.5°	6220.5	4602.6	888.2	507.1	508.1	530.2	594.2	612.1	577.4	633.1	641.5
75°	4142.8	2870.3	571.1	436.7	437.8	466.1	557.5	581.6	545.9	631.0	636.2
77.5°	1990.5	1290.3	413.6	367.5	367.5	393.7	481.9	520.7	465.1	490.3	449.3
80°	687.7	485.0	325.5	296.1	289.8	307.6	406.3	451.4	401.0	369.6	346.5
82.5°	270.9	252.0	261.4	229.9	208.9	220.5	316.0	372.7	295.0	266.7	265.6
85°	155.4	163.8	184.8	152.2	120.7	135.4	232.0	267.7	222.6	196.3	200.5
87.5°	42.0	57.7	85.0	78.7	54.6	57.7	110.2	148.0	128.1	98.7	101.8
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)