

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: P883829

Luminaire Tested: **NAV-SB4B-835-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883829
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-835-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19268 lumens
Efficiency: N/A
Efficacy: 131.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

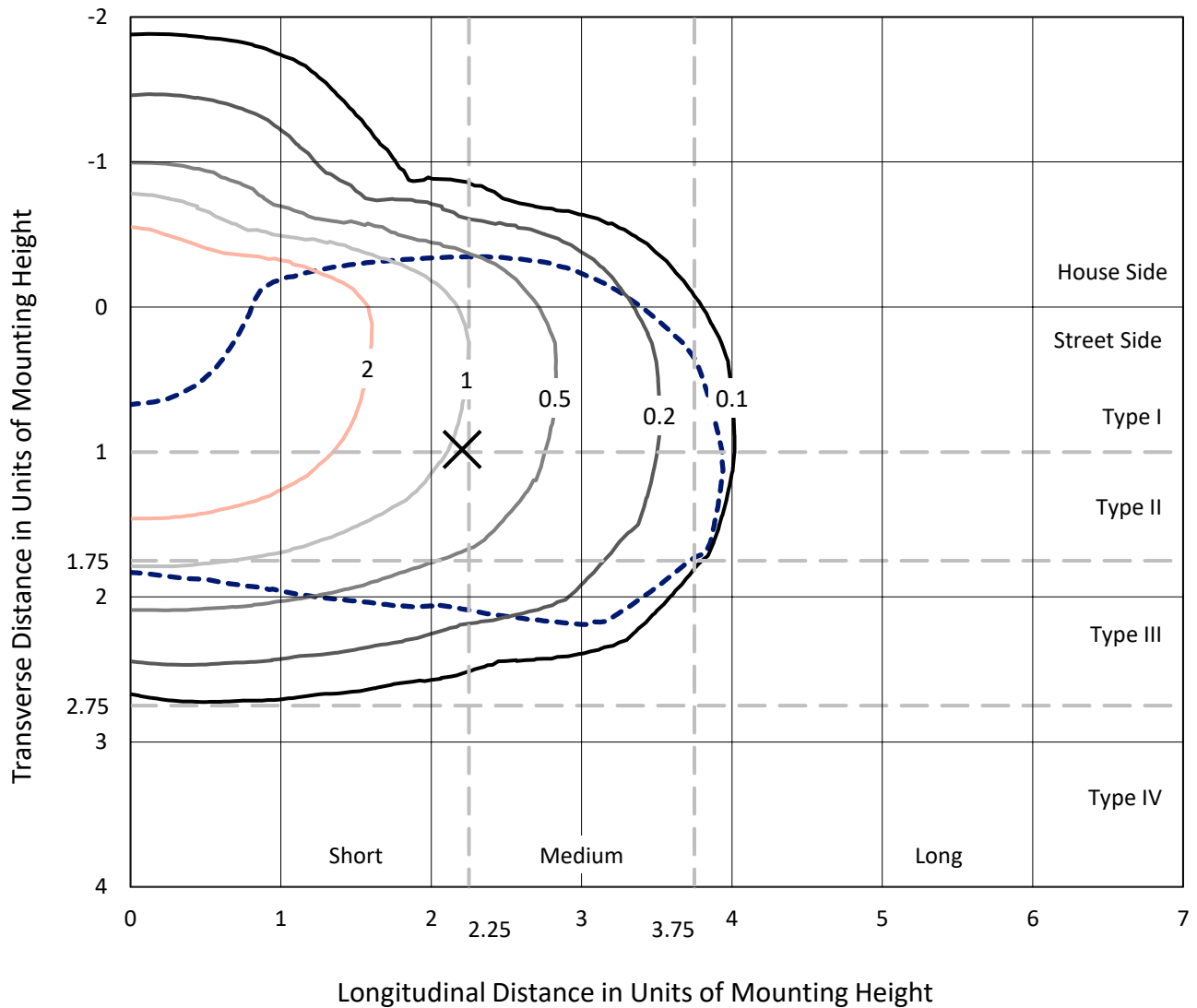
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

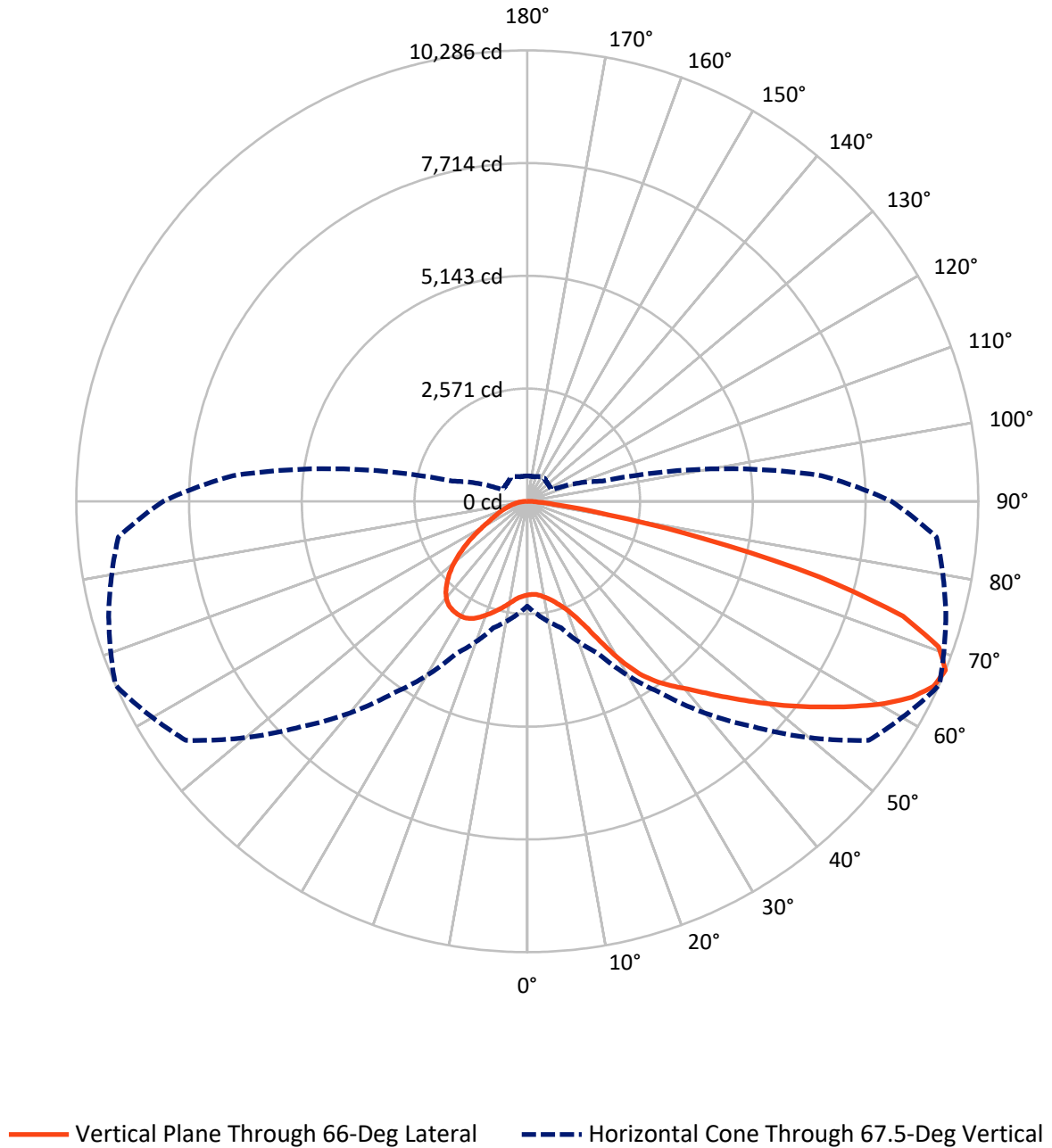
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4790.9	0.0	4790.9
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	14477.1	0.0	14477.1
	% Fixture	75.1	0.0	75.1
Total	Lumens	19268.0	0.0	19268.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.9	1.1
10°-20°	700.0	3.6
20°-30°	1349.3	7.0
30°-40°	2365.8	12.3
40°-50°	3517.1	18.3
50°-60°	4458.3	23.1
60°-70°	4362.3	22.6
70°-80°	2080.9	10.8
80°-90°	222.4	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°	19268.0	100.0
0°-180°	19268.0	100.0

Coefficient of Utilization



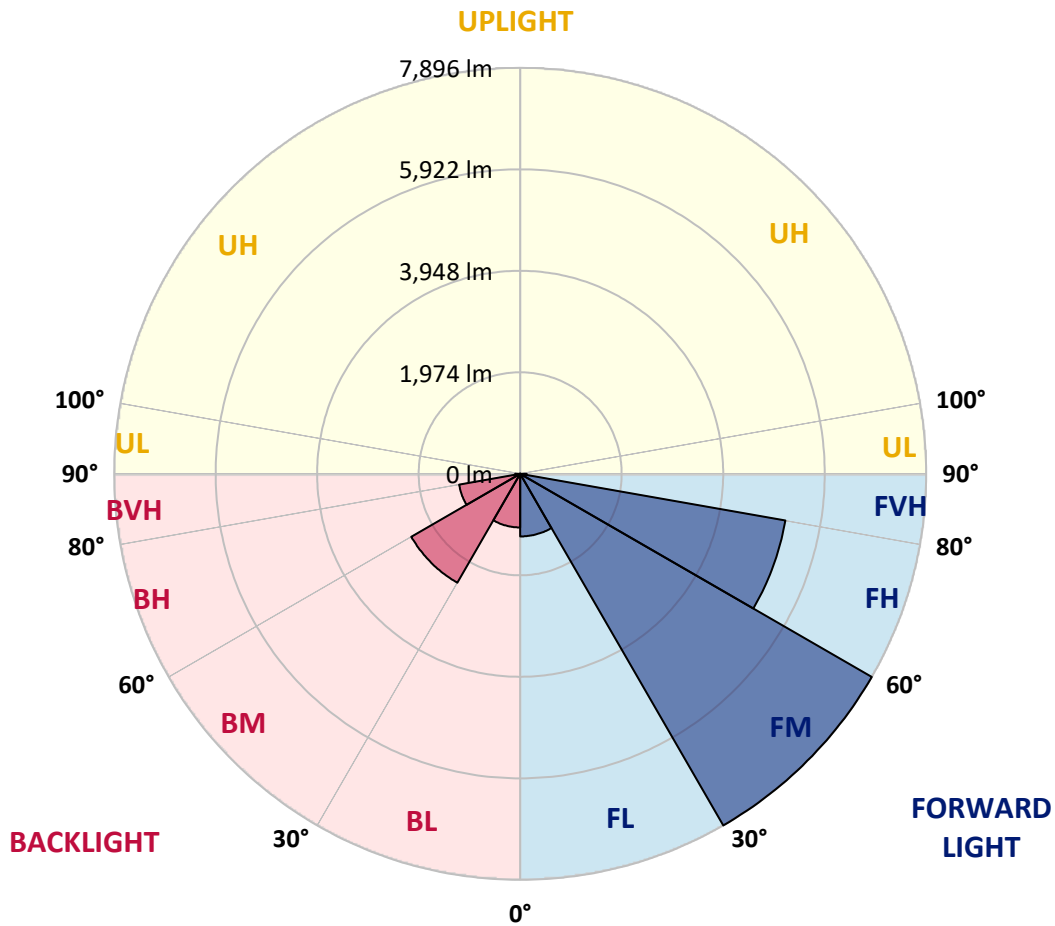
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1217.5	6.3			
FM (30°-60°)	7895.9	41.0			
FH (60°-80°)	5237.6	27.2			G3/7500
FVH (80°-90°)	126.1	0.7			G2/225
BL (0°-30°)	1043.6	5.4	B3/2500		
BM (30°-60°)	2445.3	12.7	B2/2500		
BH (60°-80°)	1205.6	6.3	B3/2500		G3/2500
BVH (80°-90°)	96.3	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°	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1
2.5°	2114.8	2127.0	2123.9	2118.9	2117.8	2119.9	2122.9	2125.9	2124.9	2130.0	2138.1
5°	2108.7	2120.9	2119.9	2119.9	2123.9	2132.0	2137.1	2142.1	2137.1	2143.1	2154.3
7.5°	2112.8	2121.9	2125.9	2130.0	2140.1	2155.3	2167.4	2178.6	2172.5	2179.6	2193.8
10°	2164.4	2171.5	2175.5	2175.5	2182.6	2199.8	2212.0	2232.2	2227.2	2238.3	2256.5
12.5°	2258.6	2265.6	2265.6	2261.6	2266.7	2277.8	2281.8	2304.1	2295.0	2313.2	2331.4
15°	2374.0	2388.1	2377.0	2369.9	2371.9	2383.1	2382.1	2399.3	2390.2	2405.3	2421.5
17.5°	2501.5	2519.7	2501.5	2500.5	2496.5	2508.6	2509.6	2524.8	2508.6	2519.7	2530.9
20°	2652.4	2677.7	2662.5	2667.5	2658.4	2663.5	2668.6	2690.8	2665.5	2673.6	2670.6
22.5°	2865.0	2895.3	2879.1	2898.4	2892.3	2888.2	2887.2	2926.7	2887.2	2890.3	2860.9
25°	3174.7	3211.2	3182.8	3209.2	3209.2	3222.3	3237.5	3288.1	3222.3	3203.1	3127.2
27.5°	3632.3	3668.8	3613.1	3629.3	3624.2	3656.6	3640.4	3766.0	3695.1	3663.7	3510.8
30°	4183.0	4247.8	4142.5	4138.5	4133.4	4185.1	4208.3	4291.4	4219.5	4188.1	4003.9
32.5°	4778.3	4846.1	4720.6	4684.2	4664.9	4696.3	4677.1	4743.9	4694.3	4645.7	4417.9
35°	5408.0	5474.8	5355.3	5284.5	5207.5	5141.7	5072.9	5090.1	5043.5	4969.6	4733.8
37.5°	6003.2	6125.7	5999.2	5923.3	5781.5	5653.0	5460.6	5380.7	5337.1	5269.3	5031.4
40°	6609.6	6679.5	6583.3	6518.5	6364.7	6163.2	5855.4	5686.4	5627.7	5561.9	5360.4
42.5°	7056.1	7122.9	7071.3	7026.7	6906.3	6672.4	6274.6	6063.0	5977.9	5904.0	5733.0
45°	7410.4	7460.0	7427.6	7443.8	7392.2	7165.4	6708.9	6466.9	6378.8	6288.7	6154.1
47.5°	7553.2	7605.8	7657.4	7753.6	7841.7	7674.6	7175.6	6904.2	6811.1	6719.0	6586.4
50°	7537.0	7590.6	7740.4	7944.9	8218.3	8162.6	7667.6	7369.9	7283.9	7178.6	7056.1
52.5°	7407.4	7468.1	7660.5	8000.6	8435.9	8528.1	8168.7	7850.8	7769.8	7644.3	7521.8
55°	7067.2	7103.7	7392.2	7874.1	8487.6	8783.2	8659.7	8363.0	8282.1	8106.9	7973.3
57.5°	6436.5	6489.2	6909.3	7532.9	8358.0	8956.3	9090.9	8901.6	8823.7	8571.6	8431.9
60°	5613.5	5697.5	6178.4	6959.9	8028.0	8955.3	9482.7	9431.1	9366.3	9029.2	8883.4
62.5°	4682.1	4779.3	5242.0	6150.0	7450.9	8701.2	9727.7	9874.5	9841.1	9451.3	9265.0
65°	3595.9	3662.7	4123.3	5102.3	6553.0	8155.5	9756.0	10177.2	10183.3	9772.2	9464.5
67.5°	2394.2	2586.6	2986.4	3828.7	5350.3	7263.6	9507.0	10226.8	10285.5	9882.6	9364.3
70°	1168.3	1421.3	1813.1	2488.4	3828.7	5895.9	8856.1	9819.8	9950.4	9560.7	8767.0
72.5°	484.9	566.9	780.5	1228.0	2197.8	3978.5	7548.1	8716.4	8958.3	8471.4	7370.9
75°	327.0	354.3	446.4	629.7	1001.2	1961.9	5443.4	6499.3	6889.1	6398.1	5229.8
77.5°	252.1	269.3	325.0	440.4	595.3	742.1	2913.6	3916.8	4118.2	3812.5	2721.2
80°	198.4	211.6	243.0	320.9	422.2	396.8	993.1	1774.7	1891.1	1586.4	874.7
82.5°	172.1	177.2	174.1	217.7	280.4	231.8	326.0	655.0	722.8	524.4	285.5
85°	124.5	138.7	144.8	134.6	148.8	117.4	133.6	231.8	255.1	227.8	161.0
87.5°	50.6	74.9	92.1	87.1	54.7	33.4	41.5	67.8	78.0	85.0	52.6
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°	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1	2137.1
2.5°	2139.1	2146.2	2151.2	2157.3	2161.4	2167.4	2179.6	2186.7	2187.7	2192.8	2191.7
5°	2158.3	2168.5	2179.6	2195.8	2214.0	2229.2	2252.5	2268.7	2274.8	2279.8	2278.8
7.5°	2199.8	2214.0	2234.3	2262.6	2288.9	2309.2	2337.5	2356.8	2376.0	2383.1	2384.1
10°	2261.6	2281.8	2311.2	2349.7	2378.0	2404.3	2433.7	2449.9	2469.1	2477.2	2481.3
12.5°	2338.5	2359.8	2398.3	2451.9	2478.2	2496.5	2506.6	2502.5	2506.6	2513.7	2515.7
15°	2426.6	2449.9	2493.4	2551.1	2569.4	2553.2	2530.9	2510.6	2507.6	2509.6	2516.7
17.5°	2530.9	2548.1	2598.7	2647.3	2634.1	2567.3	2518.7	2486.3	2470.1	2465.1	2472.2
20°	2676.7	2676.7	2718.2	2748.5	2660.5	2547.1	2471.2	2418.5	2385.1	2370.9	2367.9
22.5°	2853.8	2837.6	2863.9	2842.7	2655.4	2490.4	2385.1	2294.0	2243.4	2223.1	2220.1
25°	3078.6	3059.3	3052.2	2920.6	2619.0	2400.3	2229.2	2118.9	2074.3	2063.2	2065.2
27.5°	3417.7	3369.1	3277.0	2963.2	2552.1	2258.6	2047.0	1944.7	1919.4	1920.4	1923.5
30°	3869.2	3772.0	3546.3	2970.2	2442.8	2058.1	1860.7	1787.8	1775.7	1780.7	1797.9
32.5°	4287.3	4195.2	3821.6	2937.8	2274.8	1861.7	1693.7	1645.1	1626.9	1632.9	1641.0
35°	4615.3	4590.0	4076.7	2892.3	2068.2	1677.5	1543.8	1502.3	1466.9	1458.8	1464.9
37.5°	4925.1	4915.0	4268.1	2828.5	1863.7	1546.9	1423.4	1368.7	1317.1	1288.7	1289.7
40°	5265.2	5255.1	4393.6	2730.3	1682.5	1433.5	1315.0	1243.2	1179.4	1127.8	1132.8
42.5°	5647.9	5588.2	4453.3	2589.6	1528.7	1337.3	1227.0	1129.8	1045.8	998.2	1001.2
45°	6066.0	5931.4	4452.3	2410.4	1399.1	1249.2	1132.8	995.1	917.2	872.6	870.6
47.5°	6509.4	6259.4	4397.7	2212.0	1273.5	1152.1	987.0	881.8	830.1	802.8	796.7
50°	6967.0	6566.1	4304.5	1984.2	1145.0	1041.7	895.9	824.1	784.6	759.3	750.2
52.5°	7397.3	6844.5	4192.2	1726.1	1014.4	934.4	855.4	799.8	758.3	729.9	717.8
55°	7797.1	7084.4	4033.2	1461.8	908.1	862.5	836.2	789.6	742.1	708.6	695.5
57.5°	8152.5	7240.3	3758.9	1213.8	832.2	812.9	816.0	772.4	717.8	689.4	671.2
60°	8448.1	7354.7	3352.9	984.0	770.4	764.3	784.6	740.0	676.3	643.9	629.7
62.5°	8625.2	7352.7	2854.8	805.8	717.8	719.8	743.1	699.5	634.7	604.4	595.3
65°	8610.1	7172.5	2308.2	689.4	667.1	669.2	699.5	655.0	600.3	582.1	581.1
67.5°	8305.3	6733.2	1770.6	613.5	611.5	620.6	656.0	624.6	579.1	577.0	580.1
70°	7480.3	5821.0	1275.6	552.7	553.8	566.9	613.5	605.4	567.9	572.0	571.0
72.5°	5998.2	4438.2	856.5	489.0	490.0	511.2	573.0	590.2	556.8	610.4	618.5
75°	3994.7	2767.8	550.7	421.1	422.2	449.5	537.6	560.8	526.4	608.4	613.5
77.5°	1919.4	1244.2	398.9	354.3	354.3	379.6	464.7	502.1	448.5	472.8	433.3
80°	663.1	467.7	313.8	285.5	279.4	296.6	391.8	435.3	386.7	356.3	334.1
82.5°	261.2	243.0	252.1	221.7	201.5	212.6	304.7	359.4	284.5	257.1	256.1
85°	149.8	157.9	178.2	146.8	116.4	130.6	223.7	258.1	214.6	189.3	193.4
87.5°	40.5	55.7	82.0	75.9	52.6	55.7	106.3	142.7	123.5	95.2	98.2
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)