

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: P883827

Luminaire Tested: **NAV-SB4B-835-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883827  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-835-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19079 lumens  
Efficiency: N/A  
Efficacy: 129.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

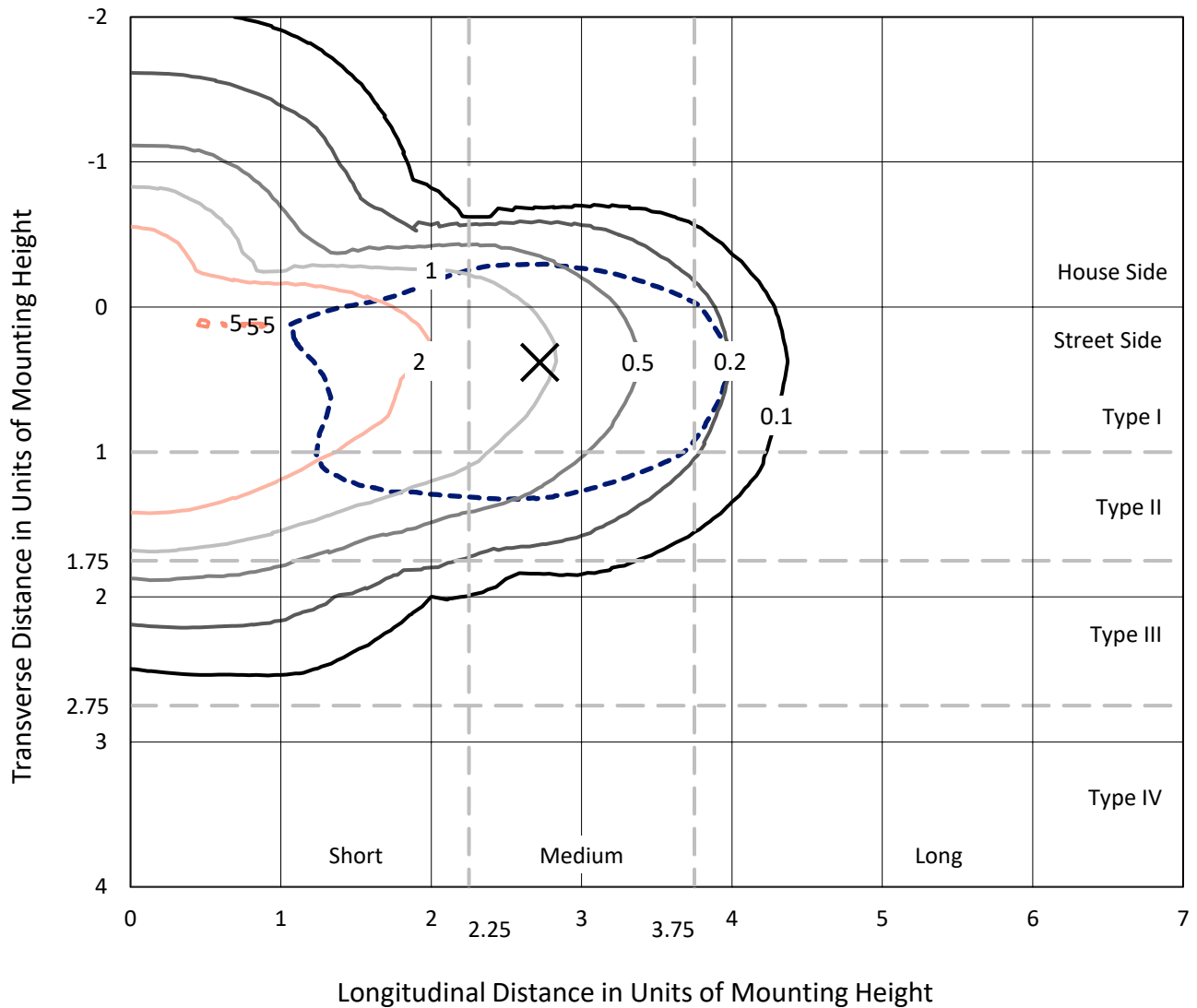
Input Watts (W): 147  
Input Voltage (V): 120.0  
Input Current (Ain): 1.255  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

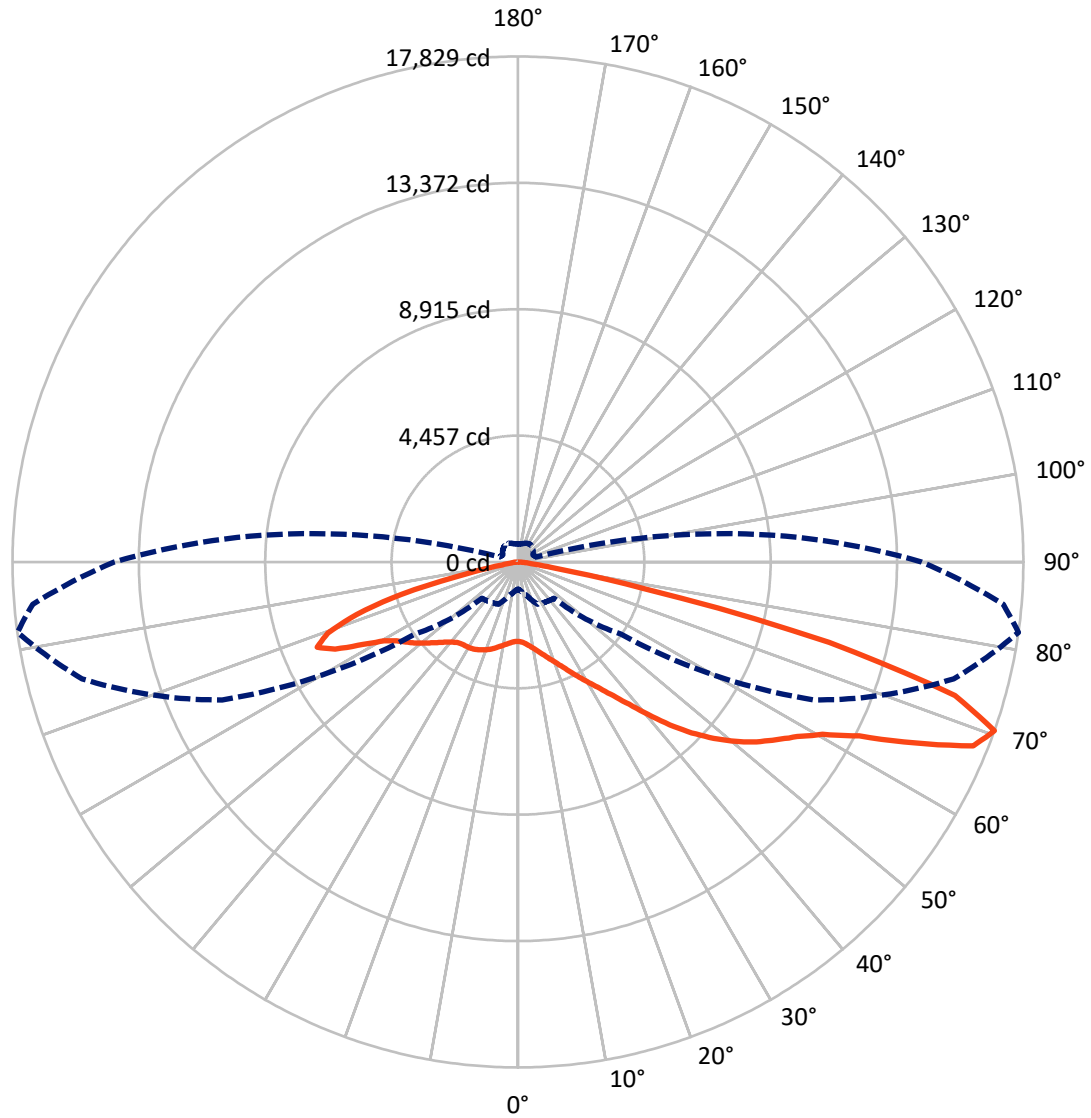
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4703.4	0.0	4703.4
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	14375.6	0.0	14375.6
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	19079.0	0.0	19079.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	264.1	1.4
10°-20°	758.8	4.0
20°-30°	1269.4	6.7
30°-40°	1983.1	10.4
40°-50°	3158.3	16.6
50°-60°	4395.2	23.0
60°-70°	4597.6	24.1
70°-80°	2402.9	12.6
80°-90°	249.5	1.3
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°	19079.0	100.0
0°-180°	19079.0	100.0

**Coefficient of Utilization**



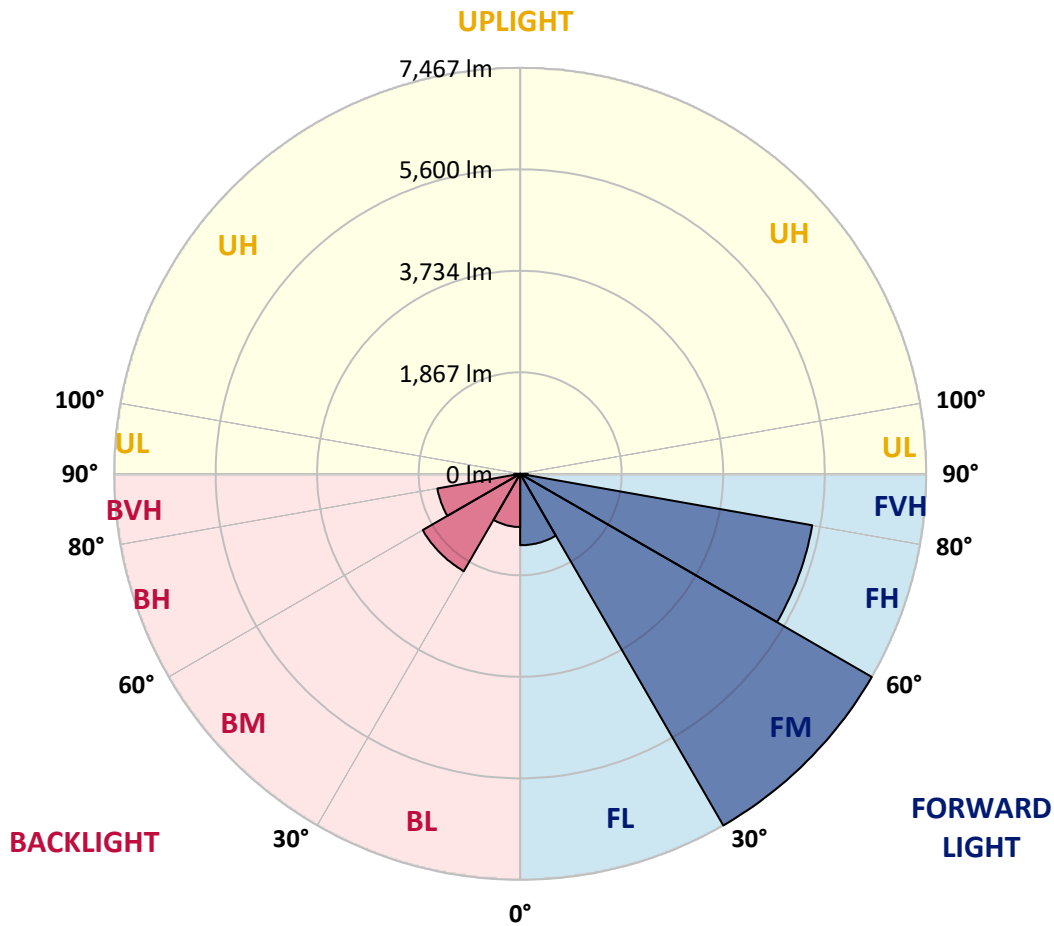
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1313.8	6.9			
FM (30°-60°)	7467.3	39.1			
FH (60°-80°)	5454.7	28.6			G3/7500
FVH (80°-90°)	139.7	0.7			G2/225
BL (0°-30°)	978.5	5.1	B2/1000		
BM (30°-60°)	2069.3	10.8	B2/2500		
BH (60°-80°)	1545.8	8.1	B3/2500		G3/2500
BVH (80°-90°)	109.8	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2
2.5°	2864.0	2880.2	2875.2	2870.1	2870.1	2863.0	2862.0	2851.9	2843.8	2830.6	2827.6
5°	2900.5	2917.7	2915.7	2919.7	2932.9	2935.9	2939.0	2932.9	2916.7	2900.5	2893.4
7.5°	2868.1	2887.3	2893.4	2917.7	2958.2	2994.6	3022.0	3033.1	3017.9	2994.6	2983.5
10°	2758.7	2780.0	2801.3	2859.0	2930.9	3016.9	3089.8	3133.3	3130.3	3108.0	3088.8
12.5°	2537.0	2559.3	2604.9	2717.2	2848.9	3000.7	3136.4	3227.5	3258.9	3242.7	3209.3
15°	2359.9	2379.1	2413.5	2528.9	2700.0	2930.9	3153.6	3330.7	3410.7	3401.6	3361.1
17.5°	2354.8	2362.9	2384.2	2438.8	2570.4	2821.5	3135.4	3432.0	3584.9	3583.8	3533.2
20°	2443.9	2446.9	2459.1	2470.2	2545.1	2738.5	3088.8	3516.0	3780.2	3780.2	3725.6
22.5°	2567.4	2565.4	2577.5	2567.4	2603.9	2731.4	3059.4	3589.9	3997.9	4014.1	3945.3
25°	2752.7	2742.6	2739.5	2716.2	2723.3	2797.2	3091.8	3673.9	4256.1	4289.5	4203.4
27.5°	2999.7	2983.5	2972.4	2918.7	2900.5	2932.9	3191.0	3775.2	4543.6	4601.3	4492.0
30°	3321.6	3292.3	3276.1	3182.9	3117.1	3122.2	3340.9	3909.8	4844.3	4937.4	4798.7
32.5°	3761.0	3715.5	3671.9	3519.1	3398.6	3359.1	3534.2	4096.1	5170.3	5319.1	5140.9
35°	4253.0	4216.6	4170.0	3934.1	3748.9	3657.7	3795.4	4356.3	5551.9	5787.8	5556.0
37.5°	4726.8	4695.4	4717.7	4399.8	4160.9	4028.3	4137.6	4705.6	6022.7	6370.9	6076.3
40°	5216.8	5192.5	5195.6	4891.8	4613.4	4464.6	4552.7	5143.9	6562.3	7064.4	6702.0
42.5°	5749.3	5731.1	5670.4	5401.1	5088.2	4949.6	5030.5	5650.1	7141.4	7854.1	7388.4
45°	6345.6	6334.5	6277.8	5969.0	5610.6	5454.7	5564.1	6209.0	7723.5	8597.2	8077.8
47.5°	6860.9	6870.0	6863.0	6602.8	6231.2	6002.4	6133.0	6792.1	8265.1	9295.7	8738.9
50°	7109.0	7156.6	7226.4	7145.4	6914.6	6681.7	6707.1	7355.0	8781.4	9950.7	9372.7
52.5°	6979.4	7069.5	7259.8	7389.4	7478.5	7429.9	7362.1	7913.8	9267.4	10542.0	9972.0
55°	6496.5	6623.0	6938.9	7251.7	7706.3	8059.6	8148.7	8533.4	9741.2	11062.3	10538.9
57.5°	5616.7	5822.2	6105.7	6738.4	7503.8	8364.3	9065.9	9392.9	10243.3	11618.1	11132.2
60°	4108.3	4383.6	4735.9	5677.5	6795.1	8201.3	9846.5	10713.1	10957.0	12337.9	11904.6
62.5°	2629.2	2799.2	3123.2	4010.1	5294.8	7366.1	10085.4	12363.2	12166.8	13518.4	13062.8
65°	1800.0	1909.4	2206.0	2704.1	3422.9	5483.1	9445.6	13600.4	14088.4	15389.3	15043.0
67.5°	1308.0	1391.0	1644.1	2080.5	2230.3	3244.7	7329.7	13543.7	15956.2	17316.8	16778.3
70°	953.7	1012.4	1225.0	1644.1	1716.0	1805.1	4440.3	11512.8	15915.7	17829.1	17184.2
72.5°	706.6	747.1	889.9	1275.6	1389.0	1218.9	2197.9	8367.4	13676.3	16126.3	15609.0
75°	511.3	541.6	646.9	975.9	1111.6	928.4	1096.4	4889.8	9539.7	11343.8	11434.9
77.5°	390.8	414.1	482.9	714.7	889.9	696.5	680.3	2249.5	4523.3	4545.6	4800.7
80°	313.8	329.0	366.5	503.2	682.3	521.4	443.4	908.1	1429.5	1209.8	1269.5
82.5°	230.8	256.1	309.8	353.3	488.0	359.4	270.3	458.6	543.7	467.7	471.8
85°	131.6	148.8	187.3	253.1	311.8	219.7	154.9	203.5	253.1	207.5	185.3
87.5°	46.6	60.7	65.8	99.2	135.7	91.1	59.7	58.7	83.0	61.8	51.6
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°	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2	2797.2
2.5°	2817.5	2812.4	2792.2	2764.8	2736.5	2709.1	2700.0	2680.8	2667.6	2660.5	2668.6
5°	2874.2	2858.0	2810.4	2749.6	2685.9	2617.0	2568.4	2523.9	2491.5	2461.1	2473.3
7.5°	2955.2	2926.8	2844.8	2738.5	2625.1	2510.7	2425.7	2360.9	2317.3	2289.0	2295.1
10°	3049.3	3005.8	2880.2	2721.3	2546.1	2382.1	2281.9	2226.2	2198.9	2183.7	2187.8
12.5°	3157.6	3095.9	2916.7	2681.8	2425.7	2238.4	2169.5	2153.3	2154.4	2155.4	2157.4
15°	3291.3	3205.2	2946.0	2595.8	2268.8	2128.0	2115.9	2142.2	2169.5	2182.7	2181.7
17.5°	3442.1	3320.6	2951.1	2454.0	2114.9	2057.2	2095.6	2152.3	2193.8	2212.1	2216.1
20°	3604.1	3438.1	2914.7	2253.6	1988.3	1999.5	2068.3	2141.2	2186.8	2210.0	2216.1
22.5°	3789.4	3563.6	2827.6	2043.0	1885.1	1936.7	2017.7	2088.6	2136.1	2159.4	2165.5
25°	4000.9	3704.3	2690.9	1865.8	1796.0	1865.8	1946.8	2005.5	2044.0	2065.3	2071.3
27.5°	4235.8	3851.1	2508.7	1725.1	1718.0	1792.9	1859.8	1905.3	1925.6	1941.8	1947.8
30°	4471.7	3984.7	2288.0	1618.8	1650.2	1721.1	1768.6	1788.9	1795.0	1798.0	1805.1
32.5°	4726.8	4100.2	2056.2	1530.7	1585.4	1651.2	1679.5	1688.7	1660.3	1641.1	1647.2
35°	5035.6	4223.7	1829.4	1460.9	1521.6	1578.3	1587.4	1579.3	1545.9	1506.4	1508.5
37.5°	5417.3	4377.6	1648.2	1411.3	1461.9	1499.3	1488.2	1486.2	1489.2	1442.6	1445.7
40°	5885.0	4578.0	1515.5	1372.8	1413.3	1421.4	1390.0	1407.2	1422.4	1351.5	1353.6
42.5°	6404.3	4820.0	1431.5	1346.5	1372.8	1353.6	1305.0	1324.2	1322.2	1229.0	1228.0
45°	6933.8	5083.2	1402.2	1327.2	1335.3	1296.9	1243.2	1248.3	1205.8	1121.7	1124.8
47.5°	7460.3	5365.6	1420.4	1311.0	1288.8	1245.2	1203.7	1181.5	1118.7	1055.9	1055.9
50°	7976.6	5662.3	1487.2	1278.6	1225.0	1199.7	1169.3	1129.8	1063.0	1009.3	1005.3
52.5°	8455.4	5960.9	1562.1	1225.0	1145.0	1160.2	1141.0	1095.4	1029.6	974.9	975.9
55°	8909.0	6259.6	1591.5	1151.1	1070.1	1125.8	1114.6	1030.6	951.6	907.1	903.0
57.5°	9403.0	6619.0	1559.1	1056.9	1009.3	1086.3	1043.8	950.6	905.1	871.7	868.6
60°	10087.4	7182.9	1489.2	940.5	951.6	1027.6	954.7	916.2	866.6	829.1	827.1
62.5°	11224.3	8234.7	1376.8	825.1	883.8	940.5	912.2	873.7	823.1	786.6	786.6
65°	12904.9	9696.6	1165.3	735.0	807.9	855.5	866.6	828.1	775.5	737.0	739.0
67.5°	14322.2	10613.8	881.8	660.1	729.9	786.6	818.0	780.5	724.9	687.4	688.4
70°	14244.3	9947.7	673.2	586.2	661.1	718.8	759.3	729.9	670.2	634.8	637.8
72.5°	12651.8	8321.8	544.7	511.3	591.2	647.9	696.5	674.2	613.5	579.1	579.1
75°	9294.7	5907.3	435.3	435.3	504.2	574.0	627.7	613.5	557.8	533.5	526.4
77.5°	3917.9	2478.3	341.2	361.4	419.1	493.0	559.8	564.9	516.3	546.7	496.1
80°	1041.7	683.4	260.2	284.5	329.0	407.0	487.0	484.9	432.3	403.9	375.6
82.5°	396.9	269.3	185.3	200.5	237.9	311.8	385.7	397.9	345.2	298.7	298.7
85°	152.9	115.4	114.4	120.5	138.7	206.5	291.6	301.7	260.2	220.7	227.8
87.5°	39.5	34.4	42.5	40.5	63.8	110.3	167.0	173.1	158.9	92.1	131.6
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)