

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: P884341

Luminaire Tested: **NAV-SB5A-835-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884341  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5A-835-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

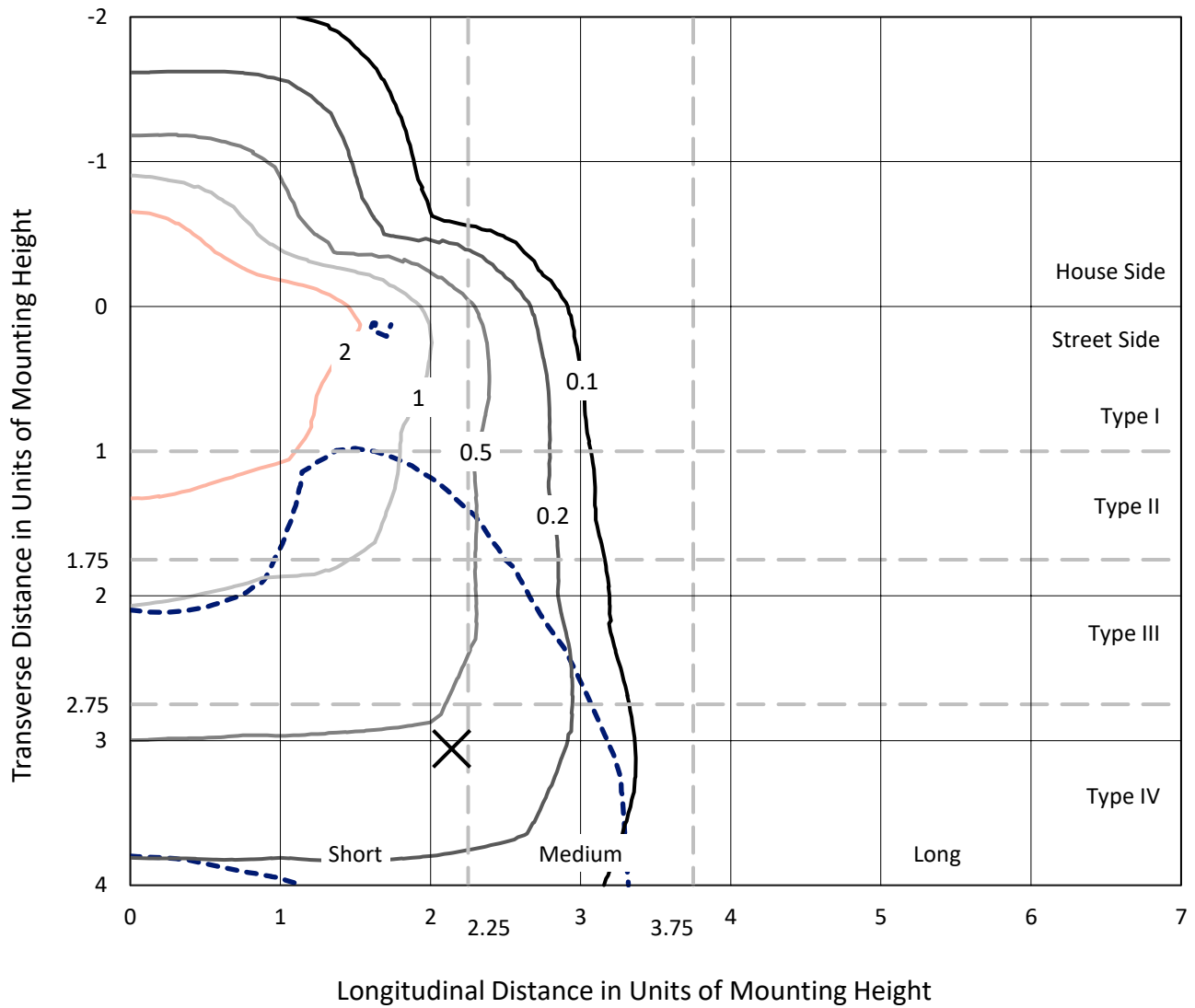
Lumens per Lamp: N/A  
Luminaire Lumens: 18982 lumens  
Efficiency: N/A  
Efficacy: 134.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 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

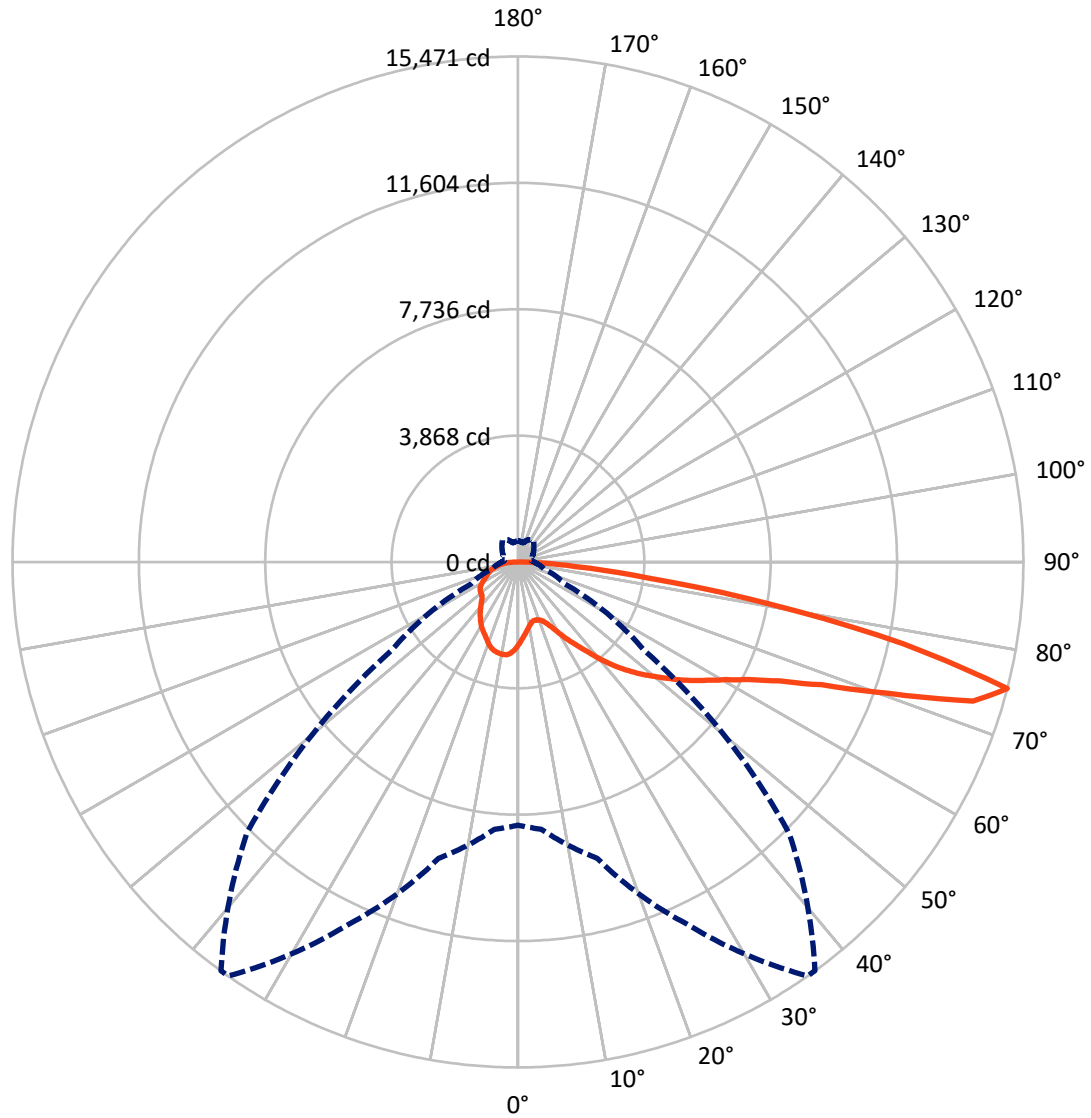
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4517.2	0.0	4517.2
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	14464.8	0.0	14464.8
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	18982.0	0.0	18982.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.5	1.3
10°-20°	690.8	3.6
20°-30°	1160.0	6.1
30°-40°	1802.8	9.5
40°-50°	2675.9	14.1
50°-60°	3694.2	19.5
60°-70°	4482.0	23.6
70°-80°	3704.0	19.5
80°-90°	532.8	2.8
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°	18982.0	100.0
0°-180°	18982.0	100.0

**Coefficient of Utilization**



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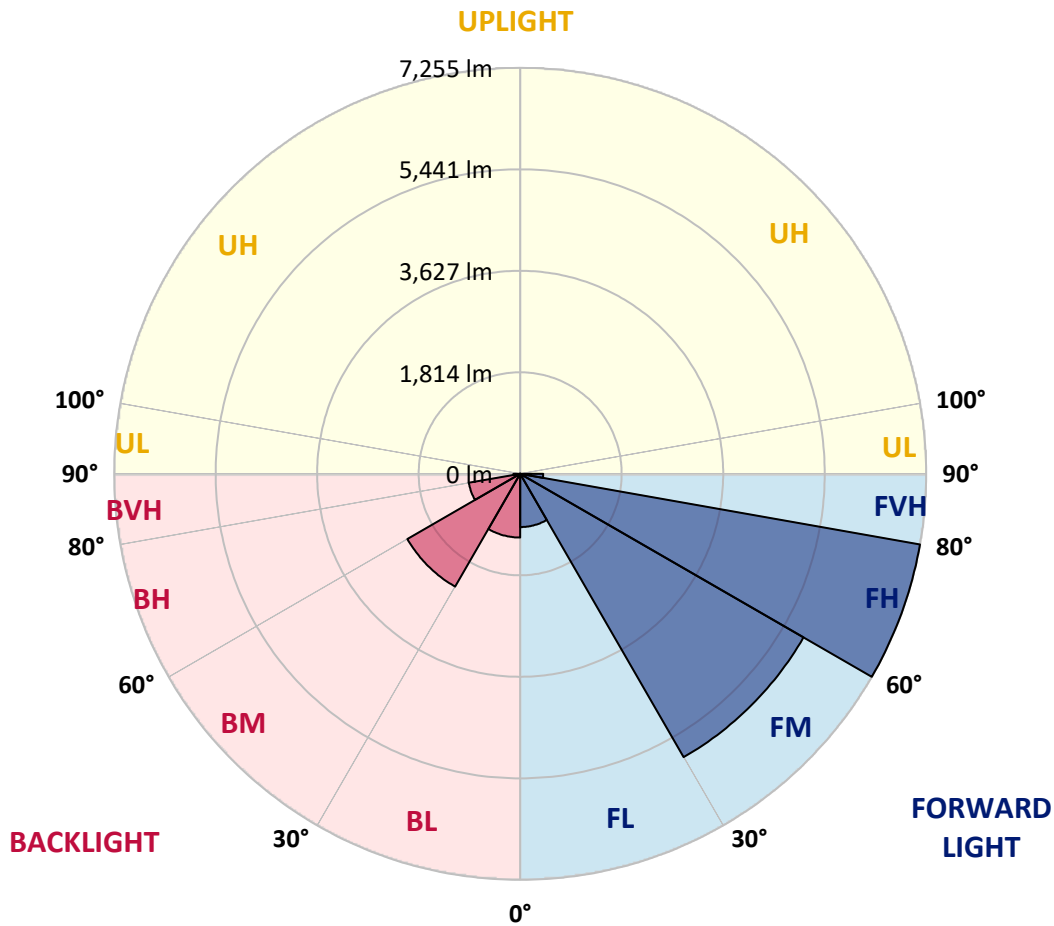
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	951.9	5.0			
FM (30°-60°)	5845.4	30.8			
FH (60°-80°)	7254.6	38.2			G3/7500
FVH (80°-90°)	412.8	2.2			G3/500
BL (0°-30°)	1138.4	6.0	B3/2500		
BM (30°-60°)	2327.6	12.3	B2/2500		
BH (60°-80°)	931.3	4.9	B2/1000		G2/1000
BVH (80°-90°)	120.0	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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5
2.5°	2332.5	2346.8	2353.0	2349.9	2365.3	2363.2	2384.8	2411.5	2448.4	2484.3	2536.7
5°	2152.9	2168.3	2181.6	2193.9	2223.7	2232.9	2266.8	2318.1	2385.8	2454.6	2540.8
7.5°	1985.6	1999.0	2019.5	2042.1	2092.3	2101.6	2158.0	2238.1	2332.5	2433.0	2552.1
10°	1849.1	1862.5	1884.0	1909.7	1972.3	1983.6	2055.4	2162.1	2285.3	2412.5	2564.4
12.5°	1790.6	1794.8	1807.1	1832.7	1887.1	1894.3	1973.3	2095.4	2239.1	2397.1	2582.8
15°	1787.6	1795.8	1796.8	1810.1	1855.3	1858.4	1931.2	2052.3	2210.3	2394.0	2610.5
17.5°	1818.4	1824.5	1815.3	1823.5	1861.5	1866.6	1924.0	2031.8	2201.1	2407.4	2657.7
20°	1900.4	1905.6	1877.9	1866.6	1894.3	1898.4	1954.8	2045.1	2210.3	2435.1	2722.4
22.5°	2074.9	2078.0	2010.2	1964.1	1966.1	1968.2	2017.4	2099.5	2246.3	2485.4	2804.5
25°	2346.8	2344.8	2237.0	2147.7	2096.4	2085.2	2118.0	2187.8	2306.8	2552.1	2910.2
27.5°	2664.9	2649.5	2541.8	2408.4	2296.5	2280.1	2272.9	2302.7	2393.0	2640.3	3039.5
30°	3024.1	3009.7	2893.8	2719.3	2564.4	2537.7	2470.0	2454.6	2521.3	2760.4	3219.1
32.5°	3418.1	3408.9	3270.4	3059.0	2851.7	2820.9	2707.0	2666.0	2718.3	2942.0	3469.4
35°	3748.6	3740.3	3625.4	3407.9	3154.4	3116.4	3000.5	2954.3	2981.0	3174.9	3796.8
37.5°	4047.2	4043.1	3944.6	3773.2	3511.5	3465.3	3335.0	3319.6	3314.5	3481.8	4193.9
40°	4324.2	4314.0	4211.4	4121.1	3927.1	3885.0	3770.1	3756.8	3717.8	3859.4	4643.4
42.5°	4631.1	4604.4	4455.6	4413.5	4361.2	4326.3	4257.5	4259.6	4173.4	4285.2	5119.5
45°	4881.4	4866.0	4713.1	4688.5	4745.0	4730.6	4790.1	4805.5	4638.2	4731.6	5614.1
47.5°	5150.3	5135.9	5006.6	4989.2	5142.1	5146.2	5356.5	5361.7	5091.8	5195.4	6109.7
50°	5481.7	5461.2	5332.9	5354.5	5525.9	5541.3	5926.1	5891.2	5509.4	5666.4	6601.3
52.5°	5700.3	5712.6	5684.9	5719.8	5953.8	5968.1	6486.3	6397.1	5923.0	6131.3	7083.6
55°	5861.4	5886.0	5972.2	6052.3	6405.3	6419.6	7014.8	6878.3	6265.7	6562.3	7537.1
57.5°	6068.7	6033.8	6194.9	6350.9	6834.2	6872.2	7528.9	7342.2	6569.5	6933.8	7848.1
60°	6366.3	6341.7	6466.8	6697.7	7314.5	7375.0	8072.8	7759.8	6792.1	7228.3	7908.6
62.5°	6969.7	6908.1	6927.6	7131.8	7919.9	7999.9	8686.4	8124.1	6903.0	7343.2	7584.3
65°	7871.7	7766.0	7667.5	7809.1	8772.6	8851.6	9379.1	8410.4	6861.9	7120.5	6723.4
67.5°	9007.6	8902.9	8781.9	8915.3	10028.6	10091.2	10233.9	8571.5	6538.7	6262.6	5201.6
70°	9944.5	9905.5	10050.2	10599.2	12034.8	12036.8	11329.8	8438.1	5653.1	4440.2	3009.7
72.5°	9820.3	9796.7	10559.2	12256.4	14563.2	14508.9	12367.3	7428.4	3808.1	2003.1	1127.7
75°	8056.4	8209.3	9390.4	12226.7	15471.4	15464.2	11732.1	4722.4	1575.2	830.2	582.9
77.5°	4320.1	4562.3	6096.4	9027.1	12077.9	12259.5	8248.3	1652.1	676.2	531.5	403.3
80°	1408.9	1620.3	2429.9	4596.2	7848.1	7814.2	3535.1	648.5	462.8	376.6	279.1
82.5°	598.3	622.9	1085.7	2170.3	4027.7	3965.1	1125.7	372.5	325.3	257.6	172.4
85°	234.0	261.7	479.2	1003.6	1744.5	1706.5	406.4	184.7	208.3	168.3	102.6
87.5°	77.0	93.4	171.4	343.8	542.8	523.3	99.5	63.6	90.3	77.0	36.9
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°	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5	2529.5
2.5°	2551.0	2567.4	2586.9	2615.7	2640.3	2660.8	2682.4	2695.7	2700.8	2716.2	2715.2
5°	2569.5	2605.4	2653.6	2700.8	2747.0	2774.7	2799.4	2811.7	2823.0	2831.2	2833.2
7.5°	2600.3	2646.5	2722.4	2784.0	2823.0	2845.5	2862.0	2857.9	2862.0	2864.0	2867.1
10°	2627.0	2691.6	2781.9	2840.4	2870.2	2871.2	2867.1	2852.7	2845.5	2846.6	2848.6
12.5°	2658.8	2730.6	2828.1	2877.3	2885.6	2863.0	2845.5	2820.9	2811.7	2807.6	2805.5
15°	2701.9	2784.0	2878.4	2896.8	2876.3	2847.6	2817.8	2777.8	2757.3	2740.9	2746.0
17.5°	2754.2	2844.5	2917.4	2904.0	2859.9	2812.7	2764.5	2703.9	2661.9	2644.4	2645.4
20°	2827.1	2908.1	2947.1	2888.6	2821.9	2750.1	2668.0	2594.1	2555.1	2537.7	2535.6
22.5°	2915.3	2993.3	2975.9	2862.0	2767.5	2652.6	2550.0	2495.6	2476.1	2463.8	2465.9
25°	3021.0	3087.7	2996.4	2823.0	2678.3	2523.3	2444.3	2426.9	2417.6	2408.4	2408.4
27.5°	3158.5	3194.4	3011.8	2765.5	2538.7	2385.8	2357.1	2360.2	2357.1	2341.7	2344.8
30°	3340.1	3333.0	3026.1	2672.1	2378.6	2261.7	2263.7	2277.0	2279.1	2268.8	2274.0
32.5°	3579.2	3506.4	3033.3	2551.0	2225.7	2152.9	2154.9	2169.3	2179.6	2162.1	2170.3
35°	3868.6	3708.5	3022.0	2399.2	2107.7	2049.2	2033.8	2038.0	2041.0	2024.6	2035.9
37.5°	4206.2	3935.3	2971.8	2230.9	2010.2	1947.6	1914.8	1887.1	1870.7	1855.3	1865.6
40°	4576.7	4182.6	2879.4	2066.7	1901.5	1839.9	1790.6	1738.3	1682.9	1662.4	1671.6
42.5°	4964.6	4437.1	2767.5	1909.7	1776.3	1726.0	1673.7	1597.7	1514.6	1472.5	1477.7
45°	5366.8	4697.8	2657.7	1754.7	1648.0	1626.5	1565.9	1474.6	1384.3	1330.9	1326.8
47.5°	5760.9	4944.0	2496.6	1598.8	1527.9	1551.6	1504.3	1420.2	1319.6	1235.5	1226.3
50°	6137.5	5174.9	2232.9	1440.7	1430.5	1529.0	1483.8	1362.7	1247.8	1140.1	1130.8
52.5°	6511.0	5361.7	1895.3	1297.1	1378.1	1522.8	1457.1	1323.7	1183.2	1070.3	1058.0
55°	6828.1	5458.1	1570.0	1173.9	1302.2	1470.5	1425.3	1277.6	1091.8	971.8	961.5
57.5°	7008.7	5380.1	1299.1	1052.8	1197.5	1384.3	1370.9	1179.1	983.1	890.7	878.4
60°	6930.7	5064.1	1077.5	947.1	1098.0	1290.9	1276.5	1081.6	899.9	812.7	800.4
62.5°	6500.7	4461.7	902.0	854.8	1007.7	1195.5	1182.1	1006.7	836.3	752.2	738.8
65°	5634.6	3629.5	765.5	777.8	916.4	1080.5	1100.0	944.1	786.0	703.9	690.6
67.5°	4297.6	2629.0	658.8	711.1	827.1	967.7	1024.1	898.9	744.0	666.0	653.7
70°	2449.4	1493.1	568.5	646.5	748.1	863.0	965.6	863.0	698.8	634.2	626.0
72.5°	928.7	685.5	491.5	581.8	672.1	774.7	901.0	806.6	646.5	598.3	590.0
75°	495.6	417.6	413.5	505.9	584.9	688.6	819.9	751.1	607.5	632.1	652.6
77.5°	337.6	295.5	345.8	433.0	489.5	593.1	733.7	667.0	526.4	524.4	483.3
80°	234.0	209.3	281.2	348.9	378.7	498.7	640.3	572.6	428.9	400.2	382.8
82.5°	140.6	136.5	210.4	260.6	267.8	384.8	530.5	480.2	350.9	305.8	307.8
85°	77.0	81.1	134.4	152.9	156.0	268.9	415.6	371.5	269.9	226.8	228.8
87.5°	21.5	27.7	49.3	60.5	74.9	139.6	247.3	220.6	135.5	94.4	94.4
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)