

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: P883601

Luminaire Tested: **NAV-SB4A-735-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883601  
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-SB4A-735-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 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: 17968 lumens  
Efficiency: N/A  
Efficacy: 157.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

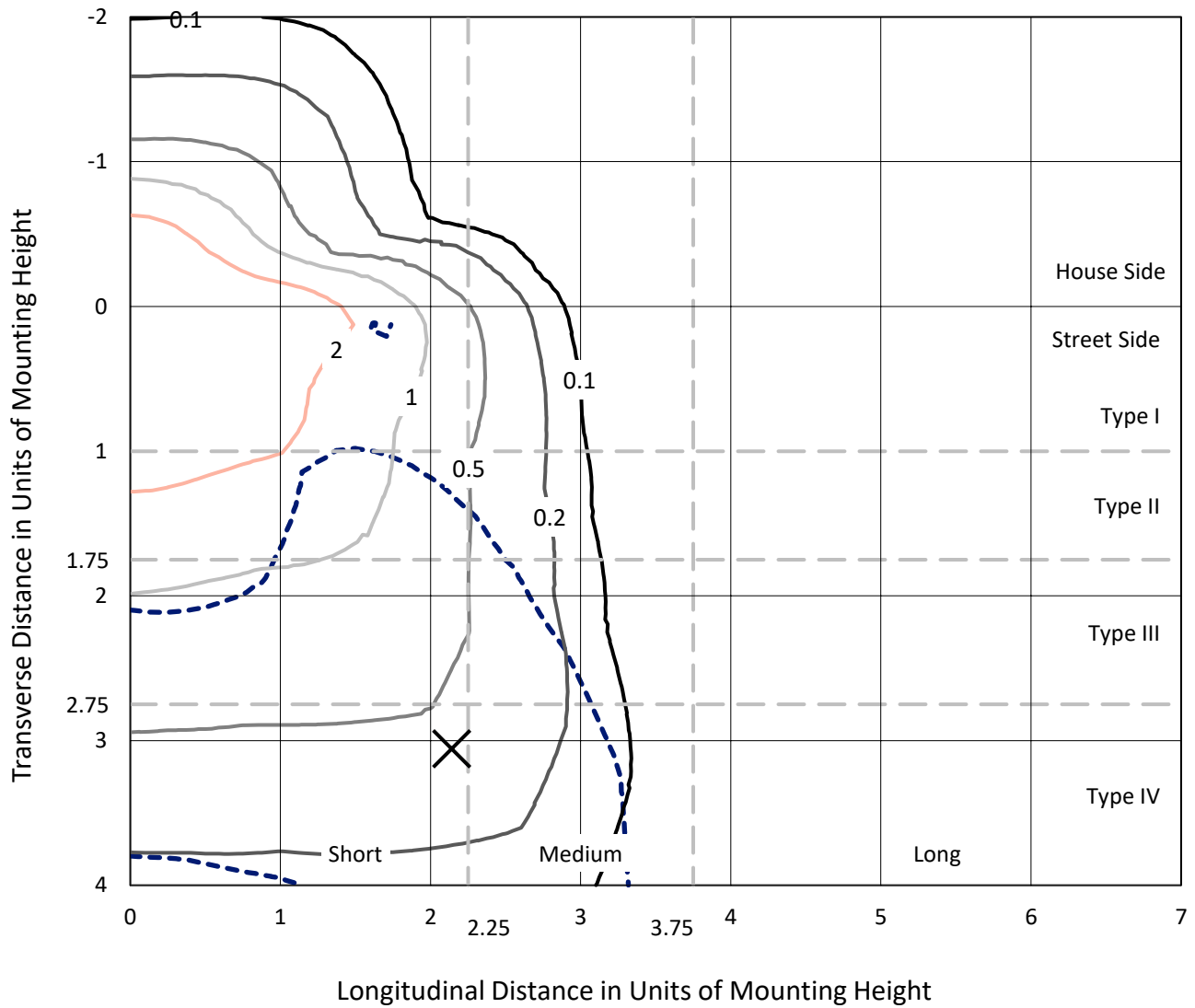
Input Watts (W): 114  
Input Voltage (V): 120.0  
Input Current (Ain): 0.952  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 8.206  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

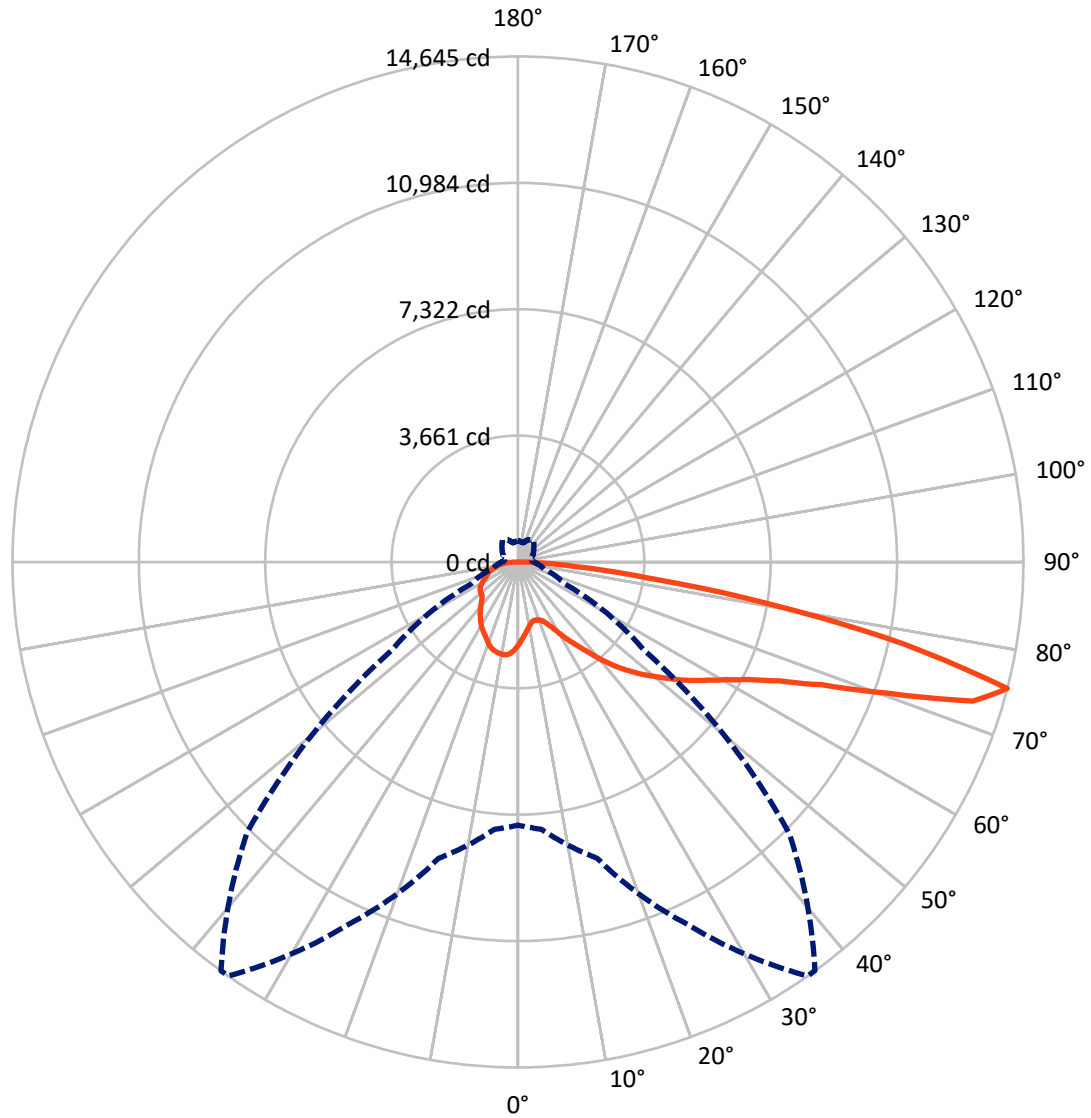
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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	4275.9	0.0	4275.9
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	13692.1	0.0	13692.1
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	17968.0	0.0	17968.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	226.7	1.3
10°-20°	653.9	3.6
20°-30°	1098.1	6.1
30°-40°	1706.5	9.5
40°-50°	2533.0	14.1
50°-60°	3496.9	19.5
60°-70°	4242.5	23.6
70°-80°	3506.1	19.5
80°-90°	504.3	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°	17968.0	100.0
0°-180°	17968.0	100.0

**Coefficient of Utilization**



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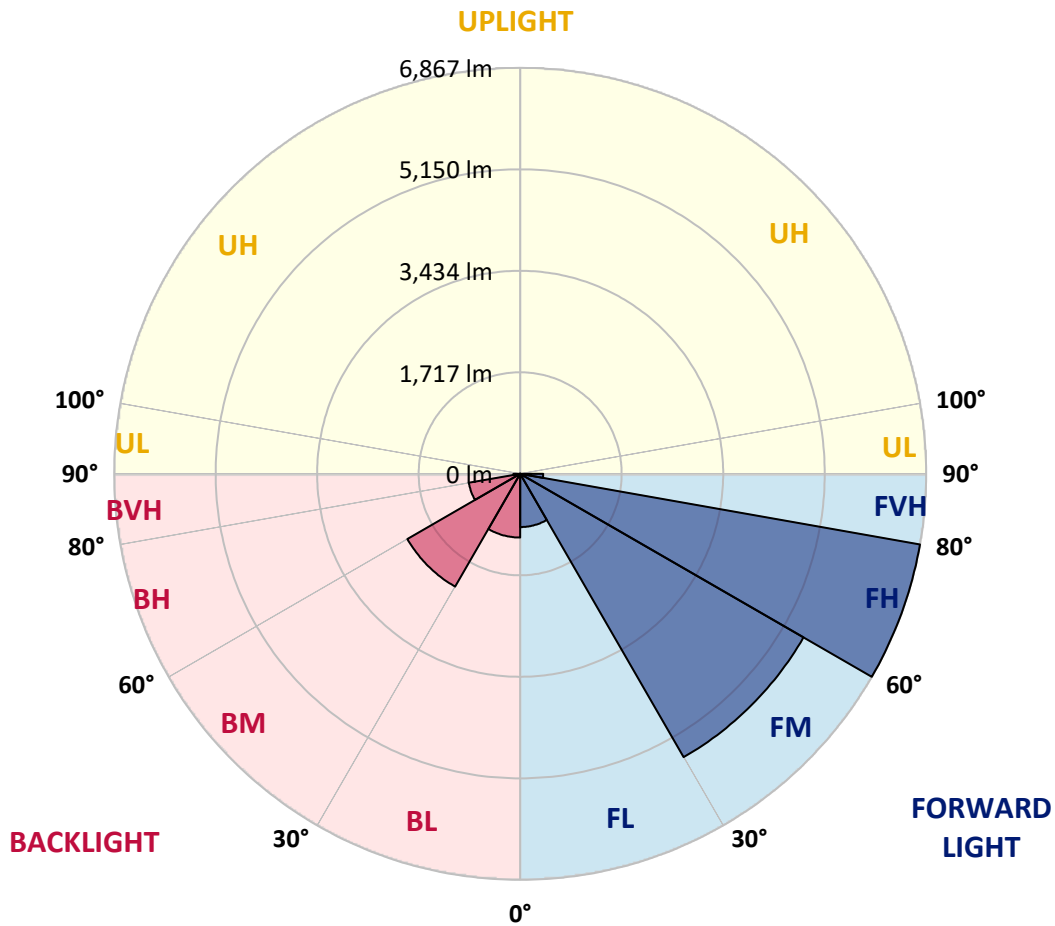
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	901.1	5.0			
FM (30°-60°)	5533.2	30.8			
FH (60°-80°)	6867.1	38.2			G3/7500
FVH (80°-90°)	390.7	2.2			G3/500
BL (0°-30°)	1077.6	6.0	B3/2500		
BM (30°-60°)	2203.2	12.3	B2/2500		
BH (60°-80°)	881.6	4.9	B2/1000		G2/1000
BVH (80°-90°)	113.6	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°	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4
2.5°	2207.9	2221.5	2227.3	2224.4	2238.9	2237.0	2257.4	2282.7	2317.6	2351.6	2401.2
5°	2037.9	2052.4	2065.1	2076.7	2104.9	2113.6	2145.7	2194.3	2258.4	2323.4	2405.0
7.5°	1879.5	1892.2	1911.6	1933.0	1980.6	1989.3	2042.7	2118.5	2207.9	2303.1	2415.7
10°	1750.4	1763.0	1783.4	1807.7	1866.9	1877.6	1945.6	2046.6	2163.2	2283.6	2427.4
12.5°	1695.0	1698.9	1710.5	1734.8	1786.3	1793.1	1867.9	1983.5	2119.5	2269.1	2444.9
15°	1692.1	1699.8	1700.8	1713.4	1756.2	1759.1	1828.1	1942.7	2092.3	2266.1	2471.1
17.5°	1721.2	1727.0	1718.3	1726.1	1762.0	1766.9	1821.3	1923.3	2083.5	2278.8	2515.8
20°	1798.9	1803.8	1777.6	1766.9	1793.1	1797.0	1850.4	1935.9	2092.3	2305.0	2577.0
22.5°	1964.1	1967.0	1902.9	1859.1	1861.1	1863.0	1909.7	1987.4	2126.3	2352.6	2654.7
25°	2221.5	2219.5	2117.5	2033.0	1984.5	1973.8	2004.8	2070.9	2183.6	2415.7	2754.7
27.5°	2522.6	2508.0	2406.0	2279.7	2173.9	2158.3	2151.5	2179.7	2265.2	2499.3	2877.1
30°	2862.5	2848.9	2739.2	2574.1	2427.4	2402.1	2338.0	2323.4	2386.6	2612.9	3047.1
32.5°	3235.5	3226.8	3095.7	2895.6	2699.4	2670.2	2562.4	2523.5	2573.1	2784.8	3284.1
35°	3548.3	3540.5	3431.8	3225.8	2985.9	2950.0	2840.2	2796.5	2821.7	3005.3	3594.0
37.5°	3831.0	3827.1	3733.8	3571.6	3323.9	3280.2	3156.9	3142.3	3137.4	3295.8	3969.9
40°	4093.2	4083.5	3986.4	3900.9	3717.3	3677.5	3568.7	3556.1	3519.2	3653.2	4395.3
42.5°	4383.7	4358.4	4217.6	4177.7	4128.2	4095.2	4030.1	4032.0	3950.4	4056.3	4846.0
45°	4620.7	4606.1	4461.4	4438.1	4491.5	4477.9	4534.2	4548.8	4390.5	4478.9	5314.2
47.5°	4875.2	4861.6	4739.2	4722.7	4867.4	4871.3	5070.4	5075.3	4819.8	4917.9	5783.4
50°	5188.9	5169.5	5048.1	5068.5	5230.7	5245.2	5609.5	5576.5	5215.1	5363.7	6248.6
52.5°	5395.8	5407.5	5381.2	5414.3	5635.7	5649.3	6139.9	6055.3	5606.6	5803.8	6705.2
55°	5548.3	5571.6	5653.2	5729.0	6063.1	6076.7	6640.1	6510.9	5931.0	6211.7	7134.5
57.5°	5744.5	5711.5	5864.0	6011.6	6469.1	6505.1	7126.7	6950.0	6218.5	6563.4	7428.8
60°	6026.2	6002.9	6121.4	6339.9	6923.7	6981.0	7641.5	7345.3	6429.3	6842.1	7486.1
62.5°	6597.4	6539.1	6557.5	6750.8	7496.8	7572.6	8222.4	7690.1	6534.2	6950.9	7179.2
65°	7451.2	7351.1	7257.9	7391.9	8304.0	8378.8	8878.1	7961.1	6495.4	6740.1	6364.2
67.5°	8526.4	8427.4	8312.7	8439.0	9492.9	9552.2	9687.2	8113.6	6189.4	5928.1	4923.7
70°	9413.3	9376.4	9513.3	10033.0	11391.9	11393.8	10724.6	7987.3	5351.1	4203.0	2848.9
72.5°	9295.7	9273.4	9995.1	11601.7	13785.3	13733.8	11706.6	7031.5	3604.6	1896.1	1067.5
75°	7626.0	7770.7	8888.7	11573.5	14644.9	14638.1	11105.4	4470.1	1491.0	785.8	551.7
77.5°	4089.3	4318.6	5770.7	8544.9	11432.7	11604.6	7807.6	1563.9	640.1	503.2	381.7
80°	1333.7	1533.7	2300.1	4350.6	7428.8	7396.8	3346.3	613.9	438.1	356.5	264.2
82.5°	566.3	589.6	1027.7	2054.4	3812.5	3753.3	1065.6	352.6	307.9	243.8	163.2
85°	221.5	247.7	453.6	950.0	1651.3	1615.3	384.7	174.8	197.2	159.3	97.1
87.5°	72.9	88.4	162.2	325.4	513.8	495.4	94.2	60.2	85.5	72.9	35.0
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°	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4	2394.4
2.5°	2414.8	2430.3	2448.8	2476.0	2499.3	2518.7	2539.1	2551.7	2556.6	2571.1	2570.2
5°	2432.2	2466.2	2511.9	2556.6	2600.3	2626.5	2649.8	2661.5	2672.2	2679.9	2681.9
7.5°	2461.4	2505.1	2577.0	2635.3	2672.2	2693.5	2709.1	2705.2	2709.1	2711.0	2713.9
10°	2486.6	2547.8	2633.3	2688.7	2716.8	2717.8	2713.9	2700.3	2693.5	2694.5	2696.4
12.5°	2516.7	2584.7	2677.0	2723.6	2731.4	2710.0	2693.5	2670.2	2661.5	2657.6	2655.6
15°	2557.5	2635.3	2724.6	2742.1	2722.7	2695.5	2667.3	2629.4	2610.0	2594.5	2599.3
17.5°	2607.1	2692.6	2761.5	2748.9	2707.1	2662.4	2616.8	2559.5	2519.7	2503.1	2504.1
20°	2676.0	2752.8	2789.7	2734.3	2671.2	2603.2	2525.5	2455.6	2418.6	2402.1	2400.2
22.5°	2759.6	2833.4	2816.9	2709.1	2619.7	2510.9	2413.8	2362.3	2343.8	2332.2	2334.1
25°	2859.6	2922.8	2836.3	2672.2	2535.2	2388.5	2313.7	2297.2	2288.5	2279.7	2279.7
27.5°	2989.8	3023.8	2850.9	2617.8	2403.1	2258.4	2231.2	2234.1	2231.2	2216.6	2219.5
30°	3161.7	3154.9	2864.5	2529.4	2251.6	2140.8	2142.8	2155.4	2157.4	2147.6	2152.5
32.5°	3388.0	3319.1	2871.3	2414.8	2106.8	2037.9	2039.8	2053.4	2063.1	2046.6	2054.4
35°	3662.0	3510.4	2860.6	2271.0	1995.1	1939.8	1925.2	1929.1	1932.0	1916.5	1927.1
37.5°	3981.5	3725.1	2813.0	2111.7	1902.9	1843.6	1812.5	1786.3	1770.8	1756.2	1765.9
40°	4332.2	3959.2	2725.6	1956.3	1799.9	1741.6	1695.0	1645.5	1593.0	1573.6	1582.3
42.5°	4699.4	4200.1	2619.7	1807.7	1681.4	1633.8	1584.3	1512.4	1433.7	1393.9	1398.7
45°	5080.1	4446.8	2515.8	1661.0	1560.0	1539.6	1482.3	1395.8	1310.3	1259.8	1255.9
47.5°	5453.1	4679.9	2363.3	1513.4	1446.3	1468.7	1424.0	1344.3	1249.1	1169.5	1160.8
50°	5809.6	4898.5	2113.6	1363.8	1354.1	1447.3	1404.6	1289.9	1181.2	1079.2	1070.4
52.5°	6163.2	5075.3	1794.1	1227.8	1304.5	1441.5	1379.3	1253.0	1120.0	1013.1	1001.5
55°	6463.3	5166.6	1486.2	1111.2	1232.6	1391.9	1349.2	1209.3	1033.5	919.9	910.1
57.5°	6634.3	5092.7	1229.7	996.6	1133.6	1310.3	1297.7	1116.1	930.5	843.1	831.5
60°	6560.4	4793.6	1019.9	896.5	1039.3	1221.9	1208.3	1023.8	851.9	769.3	757.6
62.5°	6153.5	4223.4	853.8	809.1	953.9	1131.6	1119.0	952.9	791.6	712.0	699.4
65°	5333.6	3435.6	724.6	736.3	867.4	1022.8	1041.3	893.6	744.0	666.3	653.7
67.5°	4068.0	2488.6	623.6	673.1	782.9	916.0	969.4	850.9	704.2	630.4	618.7
70°	2318.6	1413.3	538.1	611.9	708.1	816.9	914.0	816.9	661.5	600.3	592.5
72.5°	879.1	648.9	465.3	550.8	636.2	733.4	852.8	763.5	611.9	566.3	558.5
75°	469.2	395.3	391.5	478.9	553.7	651.8	776.1	711.0	575.0	598.3	617.8
77.5°	319.6	279.7	327.3	409.9	463.3	561.4	694.5	631.4	498.3	496.4	457.5
80°	221.5	198.2	266.1	330.3	358.4	472.1	606.1	542.0	406.0	378.8	362.3
82.5°	133.1	129.2	199.1	246.7	253.5	364.3	502.2	454.6	332.2	289.5	291.4
85°	72.9	76.7	127.2	144.7	147.6	254.5	393.4	351.6	255.5	214.7	216.6
87.5°	20.4	26.2	46.6	57.3	70.9	132.1	234.1	208.8	128.2	89.4	89.4
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)