

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: P884319

Luminaire Tested: **NAV-SB5A-827-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884319  
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-SB5A-827-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

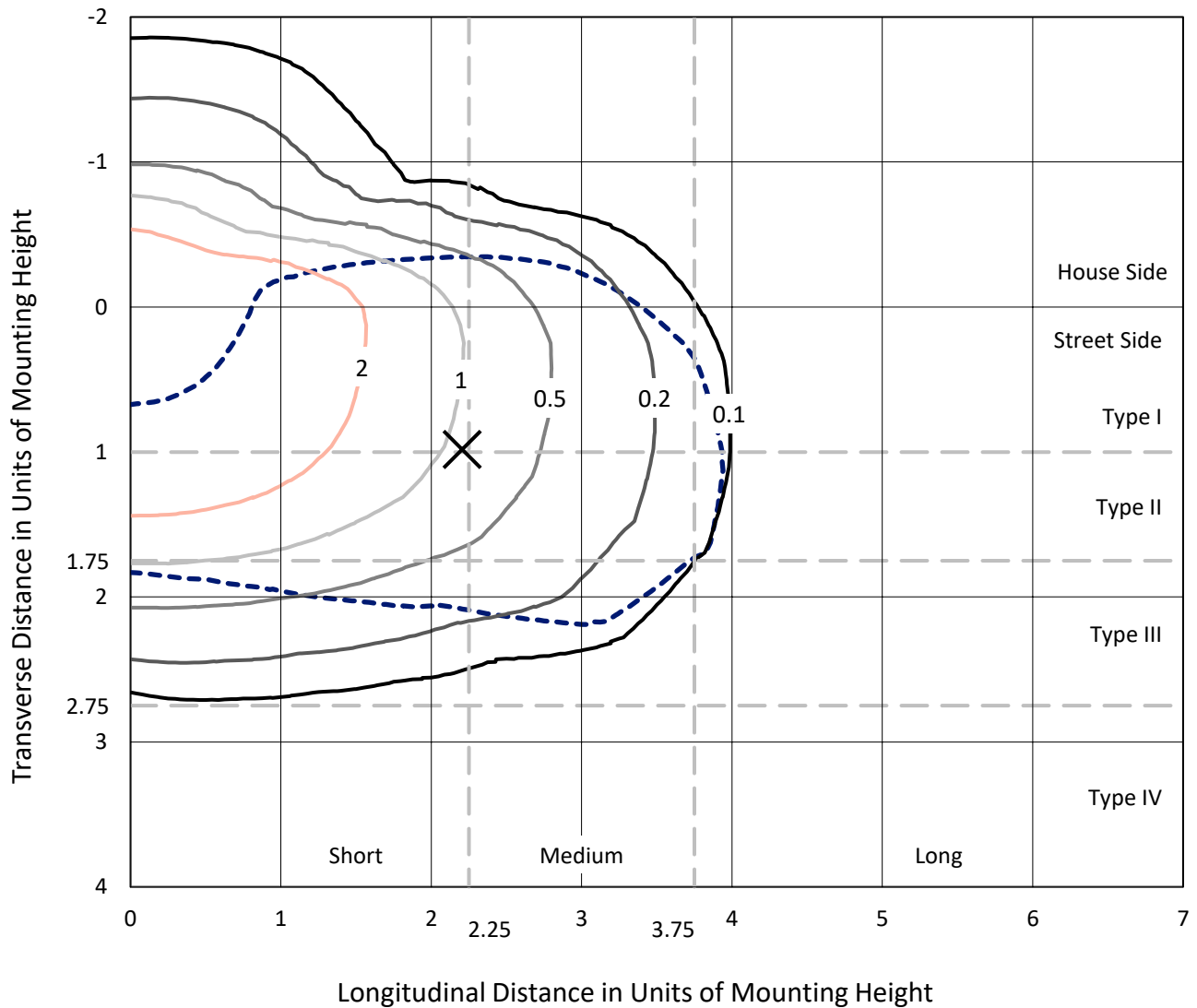
Lumens per Lamp: N/A  
Luminaire Lumens: 18507 lumens  
Efficiency: N/A  
Efficacy: 130.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 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

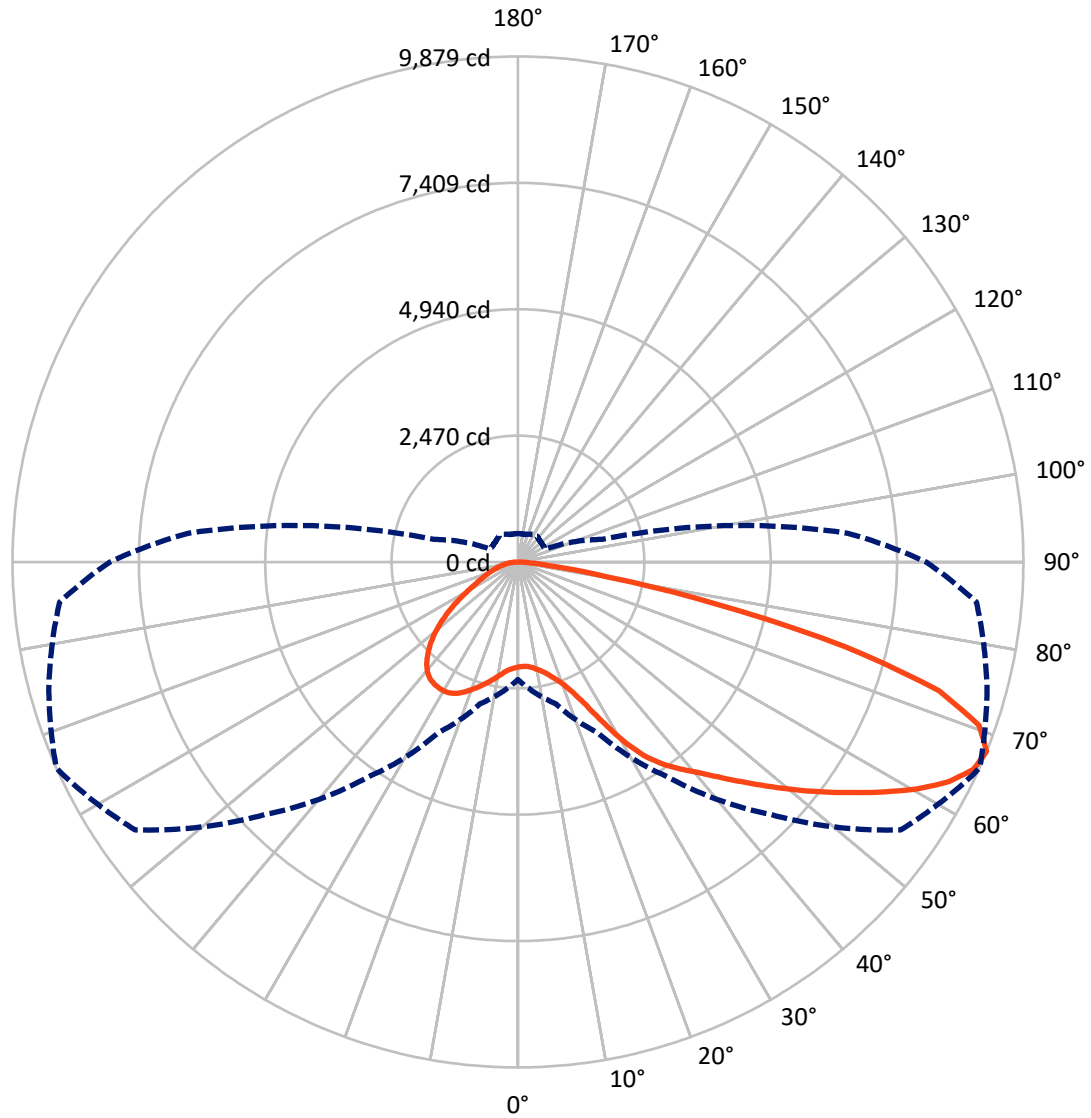
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4601.7	0.0	4601.7
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	13905.3	0.0	13905.3
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	18507.0	0.0	18507.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.5	1.1
10°-20°	672.4	3.6
20°-30°	1296.0	7.0
30°-40°	2272.3	12.3
40°-50°	3378.2	18.3
50°-60°	4282.2	23.1
60°-70°	4190.0	22.6
70°-80°	1998.7	10.8
80°-90°	213.6	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°	18507.0	100.0
0°-180°	18507.0	100.0

**Coefficient of Utilization**



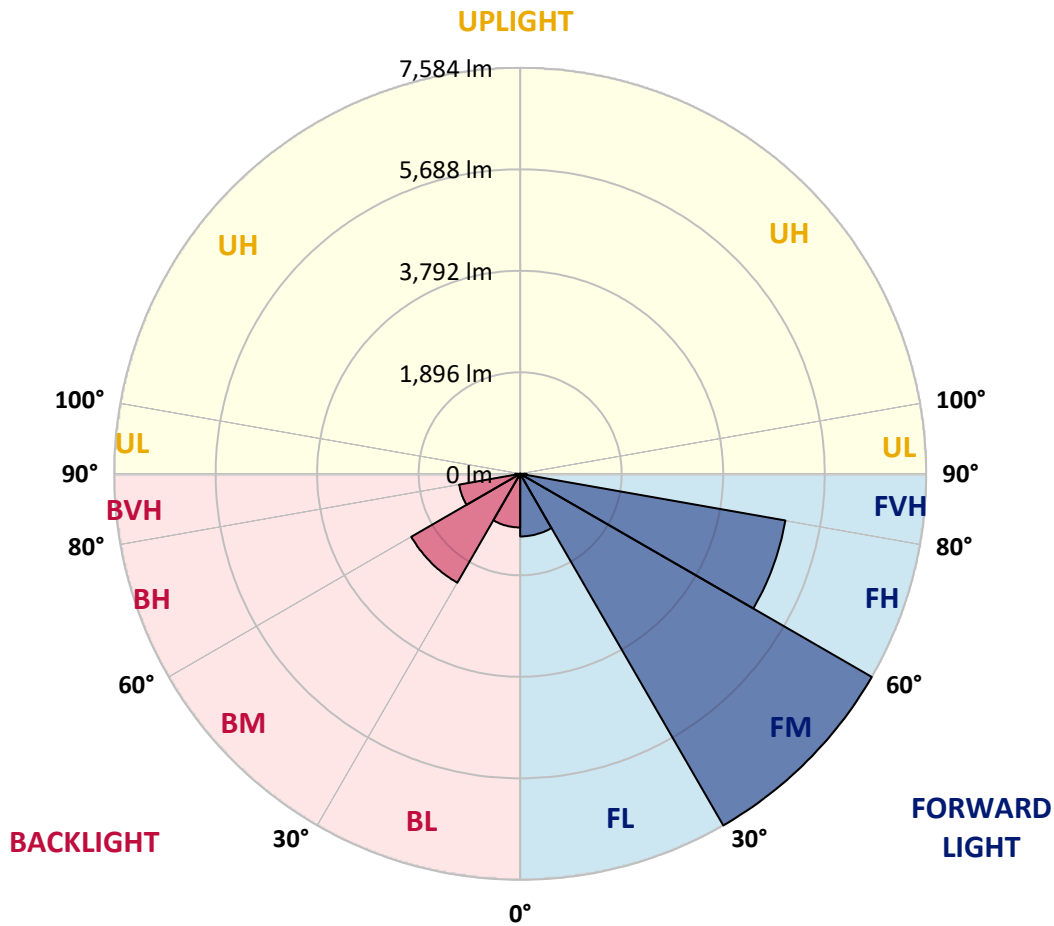
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1169.5	6.3			
FM (30°-60°)	7584.0	41.0			
FH (60°-80°)	5030.7	27.2			G3/7500
FVH (80°-90°)	121.1	0.7			G2/225
BL (0°-30°)	1002.4	5.4	B3/2500		
BM (30°-60°)	2348.8	12.7	B2/2500		
BH (60°-80°)	1158.0	6.3	B3/2500		G3/2500
BVH (80°-90°)	92.5	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°	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7
2.5°	2031.3	2042.9	2040.0	2035.2	2034.2	2036.1	2039.1	2042.0	2041.0	2045.9	2053.6
5°	2025.4	2037.1	2036.1	2036.1	2040.0	2047.8	2052.7	2057.5	2052.7	2058.5	2069.2
7.5°	2029.3	2038.1	2042.0	2045.9	2055.6	2070.2	2081.8	2092.5	2086.7	2093.5	2107.1
10°	2078.9	2085.7	2089.6	2089.6	2096.4	2113.0	2124.6	2144.1	2139.2	2149.9	2167.4
12.5°	2169.4	2176.2	2176.2	2172.3	2177.1	2187.8	2191.7	2213.1	2204.4	2221.9	2239.4
15°	2280.2	2293.8	2283.1	2276.3	2278.3	2289.0	2288.0	2304.5	2295.8	2310.3	2325.9
17.5°	2402.7	2420.2	2402.7	2401.8	2397.9	2409.5	2410.5	2425.1	2409.5	2420.2	2430.9
20°	2547.6	2571.9	2557.3	2562.2	2553.4	2558.3	2563.2	2584.6	2560.2	2568.0	2565.1
22.5°	2751.8	2781.0	2765.4	2783.9	2778.1	2774.2	2773.2	2811.1	2773.2	2776.1	2747.9
25°	3049.3	3084.4	3057.1	3082.4	3082.4	3095.1	3109.6	3158.3	3095.1	3076.6	3003.6
27.5°	3488.9	3523.9	3470.4	3485.9	3481.1	3512.2	3496.6	3617.2	3549.1	3519.0	3372.2
30°	4017.8	4080.1	3978.9	3975.0	3970.2	4019.8	4042.1	4121.9	4052.8	4022.7	3845.7
32.5°	4589.6	4654.7	4534.2	4499.2	4480.7	4510.8	4492.3	4556.5	4508.9	4462.2	4243.4
35°	5194.4	5258.6	5143.8	5075.8	5001.9	4938.7	4872.5	4889.1	4844.3	4773.4	4546.8
37.5°	5766.1	5883.8	5762.3	5689.3	5553.2	5429.7	5245.0	5168.1	5126.3	5061.2	4832.7
40°	6348.6	6415.7	6323.3	6261.1	6113.3	5919.8	5624.2	5461.8	5405.4	5342.2	5148.7
42.5°	6777.4	6841.6	6792.0	6749.2	6633.5	6408.9	6026.7	5823.5	5741.8	5670.9	5506.5
45°	7117.7	7165.4	7134.3	7149.8	7100.2	6882.4	6443.9	6211.5	6126.9	6040.4	5911.0
47.5°	7254.8	7305.4	7355.0	7447.4	7532.0	7371.5	6892.2	6631.6	6542.1	6453.6	6326.2
50°	7239.3	7290.8	7434.7	7631.2	7893.7	7840.2	7364.7	7078.8	6996.2	6895.1	6777.4
52.5°	7114.8	7173.2	7357.9	7684.6	8102.8	8191.2	7846.0	7540.7	7462.9	7342.4	7224.7
55°	6788.1	6823.1	7100.2	7563.1	8152.3	8436.3	8317.6	8032.7	7955.0	7786.7	7658.4
57.5°	6182.3	6232.9	6636.4	7235.4	8027.9	8602.5	8731.9	8550.0	8475.2	8233.0	8098.9
60°	5391.8	5472.5	5934.4	6685.0	7710.9	8601.6	9108.2	9058.6	8996.4	8672.6	8532.5
62.5°	4497.2	4590.6	5034.9	5907.1	7156.6	8357.5	9343.5	9484.5	9452.4	9078.0	8899.1
65°	3453.9	3518.0	3960.5	4900.7	6294.1	7833.4	9370.7	9775.2	9781.1	9386.3	9090.7
67.5°	2299.7	2484.4	2868.5	3677.5	5139.0	6976.7	9131.5	9822.9	9879.3	9492.3	8994.4
70°	1122.1	1365.2	1741.5	2390.1	3677.5	5663.1	8506.3	9432.0	9557.4	9183.1	8420.7
72.5°	465.8	544.5	749.7	1179.5	2111.0	3821.4	7250.0	8372.1	8604.5	8136.8	7079.8
75°	314.1	340.3	428.8	604.8	961.7	1884.5	5228.4	6242.6	6617.0	6145.4	5023.3
77.5°	242.1	258.7	312.1	423.0	571.8	712.7	2798.5	3762.1	3955.6	3661.9	2613.7
80°	190.6	203.2	233.4	308.2	405.5	381.2	953.9	1704.6	1816.4	1523.7	840.1
82.5°	165.3	170.2	167.2	209.1	269.3	222.7	313.1	629.1	694.3	503.7	274.2
85°	119.6	133.2	139.0	129.3	142.9	112.8	128.4	222.7	245.0	218.8	154.6
87.5°	48.6	72.0	88.5	83.6	52.5	32.1	39.9	65.1	74.9	81.7	50.6
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°	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7	2052.7
2.5°	2054.6	2061.4	2066.3	2072.1	2076.0	2081.8	2093.5	2100.3	2101.3	2106.2	2105.2
5°	2073.1	2082.8	2093.5	2109.1	2126.6	2141.2	2163.5	2179.1	2184.9	2189.8	2188.8
7.5°	2113.0	2126.6	2146.0	2173.2	2198.5	2218.0	2245.2	2263.7	2282.1	2289.0	2289.9
10°	2172.3	2191.7	2219.9	2256.9	2284.1	2309.4	2337.6	2353.1	2371.6	2379.4	2383.3
12.5°	2246.2	2266.6	2303.5	2355.1	2380.4	2397.9	2407.6	2403.7	2407.6	2414.4	2416.3
15°	2330.8	2353.1	2394.9	2450.4	2467.9	2452.3	2430.9	2411.5	2408.6	2410.5	2417.3
17.5°	2430.9	2447.5	2496.1	2542.7	2530.1	2465.9	2419.3	2388.1	2372.6	2367.7	2374.5
20°	2570.9	2570.9	2610.8	2640.0	2555.4	2446.5	2373.6	2323.0	2290.9	2277.3	2274.4
22.5°	2741.1	2725.6	2750.8	2730.4	2550.5	2392.0	2290.9	2203.4	2154.8	2135.3	2132.4
25°	2957.0	2938.5	2931.7	2805.3	2515.5	2305.5	2141.2	2035.2	1992.4	1981.7	1983.6
27.5°	3282.7	3236.0	3147.6	2846.1	2451.3	2169.4	1966.1	1867.9	1843.6	1844.6	1847.5
30°	3716.4	3623.0	3406.2	2852.9	2346.3	1976.8	1787.2	1717.2	1705.5	1710.4	1726.9
32.5°	4118.0	4029.5	3670.7	2821.8	2184.9	1788.2	1626.8	1580.1	1562.6	1568.4	1576.2
35°	4433.0	4408.7	3915.7	2778.1	1986.5	1611.2	1482.9	1443.0	1409.0	1401.2	1407.0
37.5°	4730.6	4720.9	4099.5	2716.8	1790.1	1485.8	1367.2	1314.6	1265.1	1237.8	1238.8
40°	5057.3	5047.6	4220.1	2622.5	1616.1	1376.9	1263.1	1194.1	1132.8	1083.2	1088.1
42.5°	5424.8	5367.5	4277.5	2487.3	1468.3	1284.5	1178.5	1085.2	1004.5	958.8	961.7
45°	5826.4	5697.1	4276.5	2315.2	1343.8	1199.9	1088.1	955.8	881.0	838.2	836.2
47.5°	6252.3	6012.2	4224.0	2124.6	1223.2	1106.6	948.1	846.9	797.3	771.1	765.3
50°	6691.8	6306.8	4134.5	1905.8	1099.7	1000.6	860.5	791.5	753.6	729.3	720.5
52.5°	7105.1	6574.2	4026.6	1657.9	974.3	897.5	821.7	768.2	728.3	701.1	689.4
55°	7489.2	6804.6	3873.9	1404.1	872.2	828.5	803.2	758.4	712.7	680.7	668.0
57.5°	7830.5	6954.4	3610.4	1165.9	799.3	780.8	783.7	741.9	689.4	662.2	644.7
60°	8114.4	7064.3	3220.5	945.1	740.0	734.1	753.6	710.8	649.5	618.4	604.8
62.5°	8284.6	7062.3	2742.1	774.0	689.4	691.4	713.7	671.9	609.7	580.5	571.8
65°	8270.0	6889.2	2217.0	662.2	640.8	642.7	671.9	629.1	576.6	559.1	558.1
67.5°	7977.3	6467.2	1700.7	589.3	587.3	596.1	630.1	600.0	556.2	554.3	557.2
70°	7184.8	5591.1	1225.2	530.9	531.9	544.5	589.3	581.5	545.5	549.4	548.4
72.5°	5761.3	4262.9	822.6	469.7	470.6	491.0	550.4	566.9	534.8	586.3	594.1
75°	3837.0	2658.5	529.0	404.5	405.5	431.7	516.3	538.7	505.6	584.4	589.3
77.5°	1843.6	1195.0	383.1	340.3	340.3	364.6	446.3	482.3	430.8	454.1	416.2
80°	636.9	449.2	301.4	274.2	268.4	284.9	376.3	418.1	371.4	342.3	320.9
82.5°	250.9	233.4	242.1	212.9	193.5	204.2	292.7	345.2	273.2	247.0	246.0
85°	143.9	151.7	171.1	141.0	111.8	125.4	214.9	248.0	206.1	181.8	185.7
87.5°	38.9	53.5	78.8	72.9	50.6	53.5	102.1	137.1	118.6	91.4	94.3
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)