

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: P884317

Luminaire Tested: **NAV-SB5A-827-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884317  
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-SB5A-827-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18325 lumens  
Efficiency: N/A  
Efficacy: 129.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

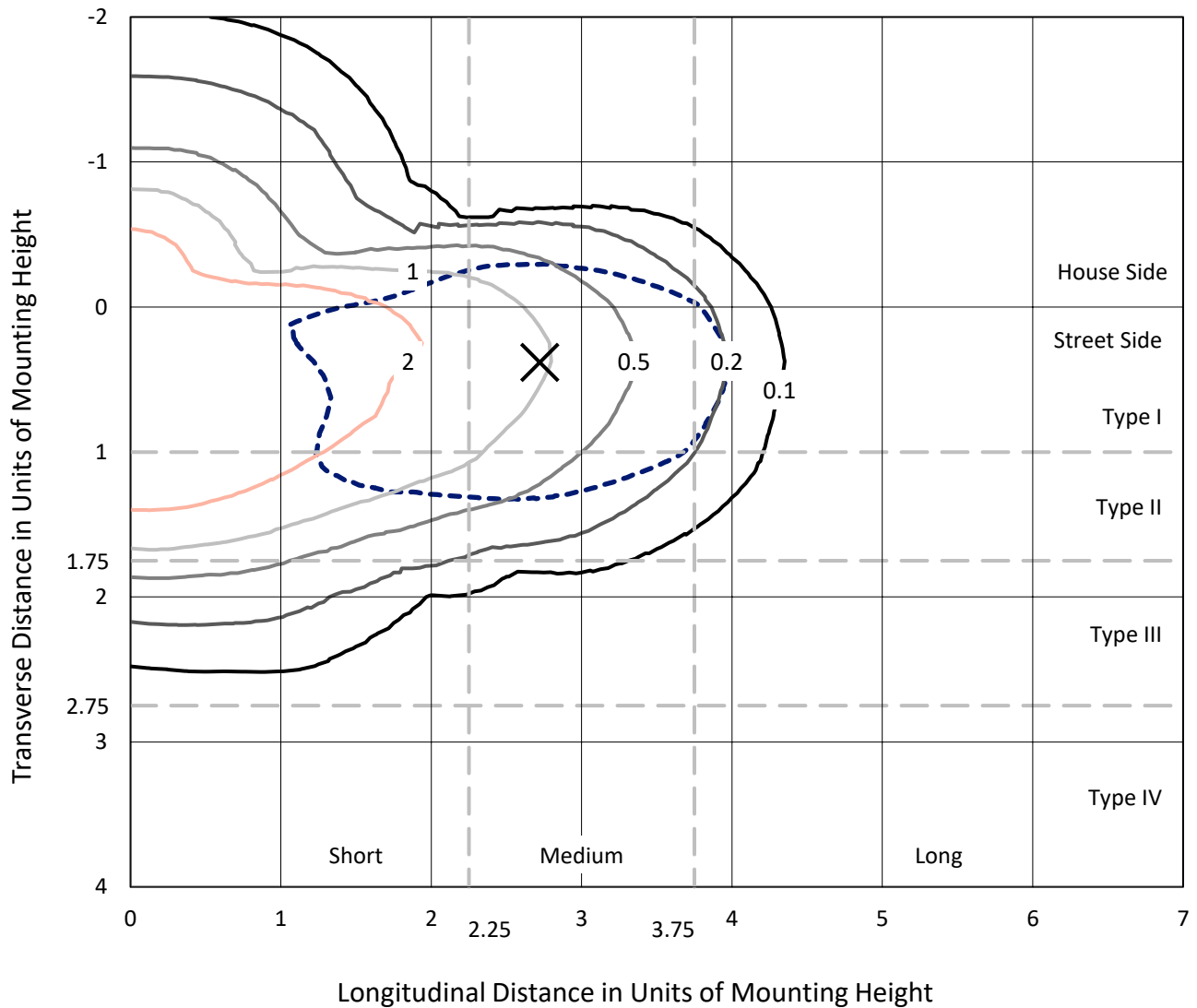
Input Watts (W): 141.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.201  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 10.503  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P884317  
 CATALOG NUMBER: NAV-SB5A-827-U-T2

### Iso-Footcandle Lines of Horizontal Illumination

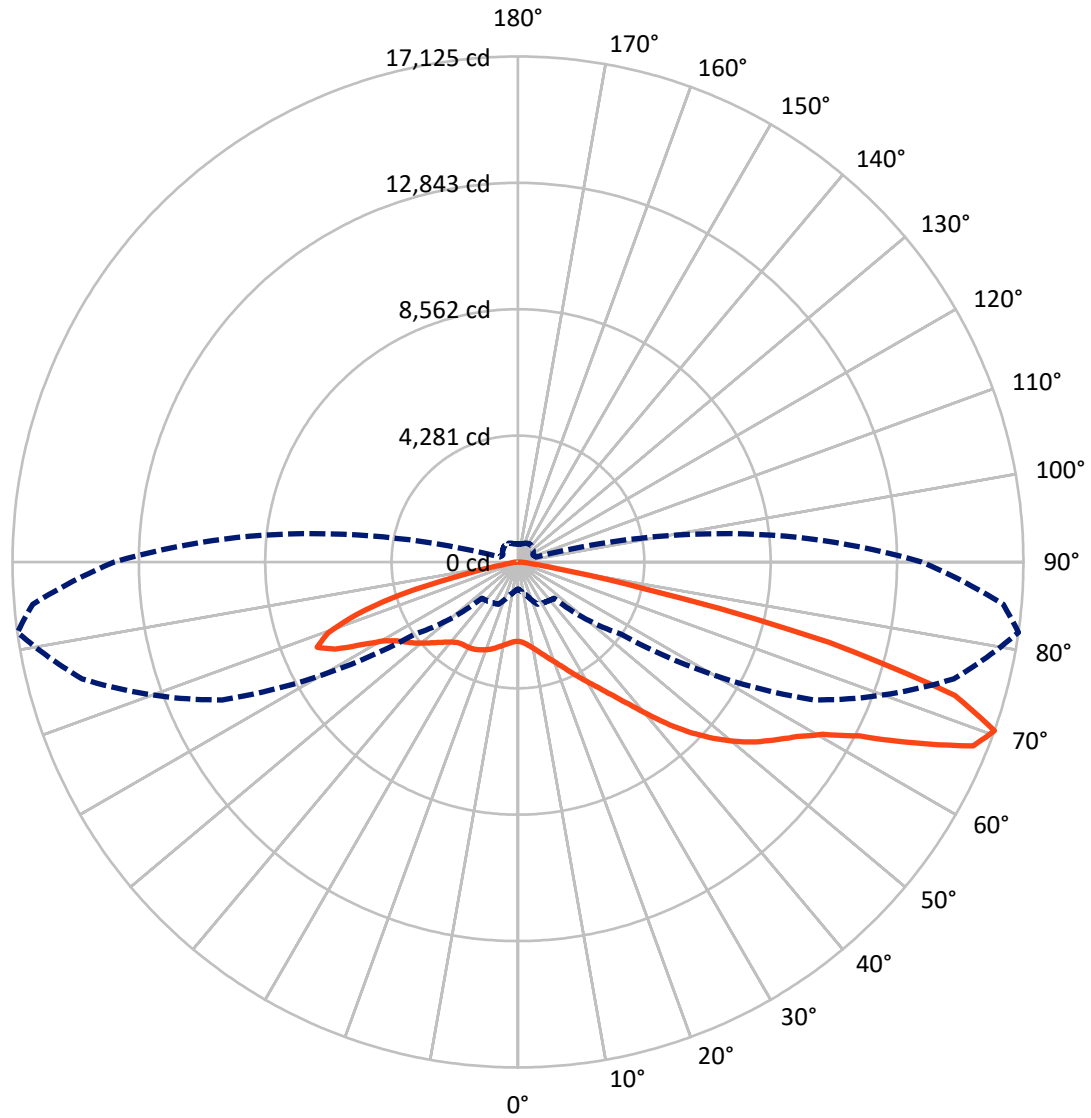
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc  
 Type II - Medium - N/A

REPORT NUMBER: P884317  
CATALOG NUMBER: NAV-SB5A-827-U-T2

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P884317  
 CATALOG NUMBER: NAV-SB5A-827-U-T2

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4517.6	0.0	4517.6
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	13807.4	0.0	13807.4
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	18325.0	0.0	18325.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.7	1.4
10°-20°	728.8	4.0
20°-30°	1219.2	6.7
30°-40°	1904.7	10.4
40°-50°	3033.5	16.6
50°-60°	4221.5	23.0
60°-70°	4415.9	24.1
70°-80°	2308.0	12.6
80°-90°	239.7	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°	18325.0	100.0
0°-180°	18325.0	100.0

**Coefficient of Utilization**



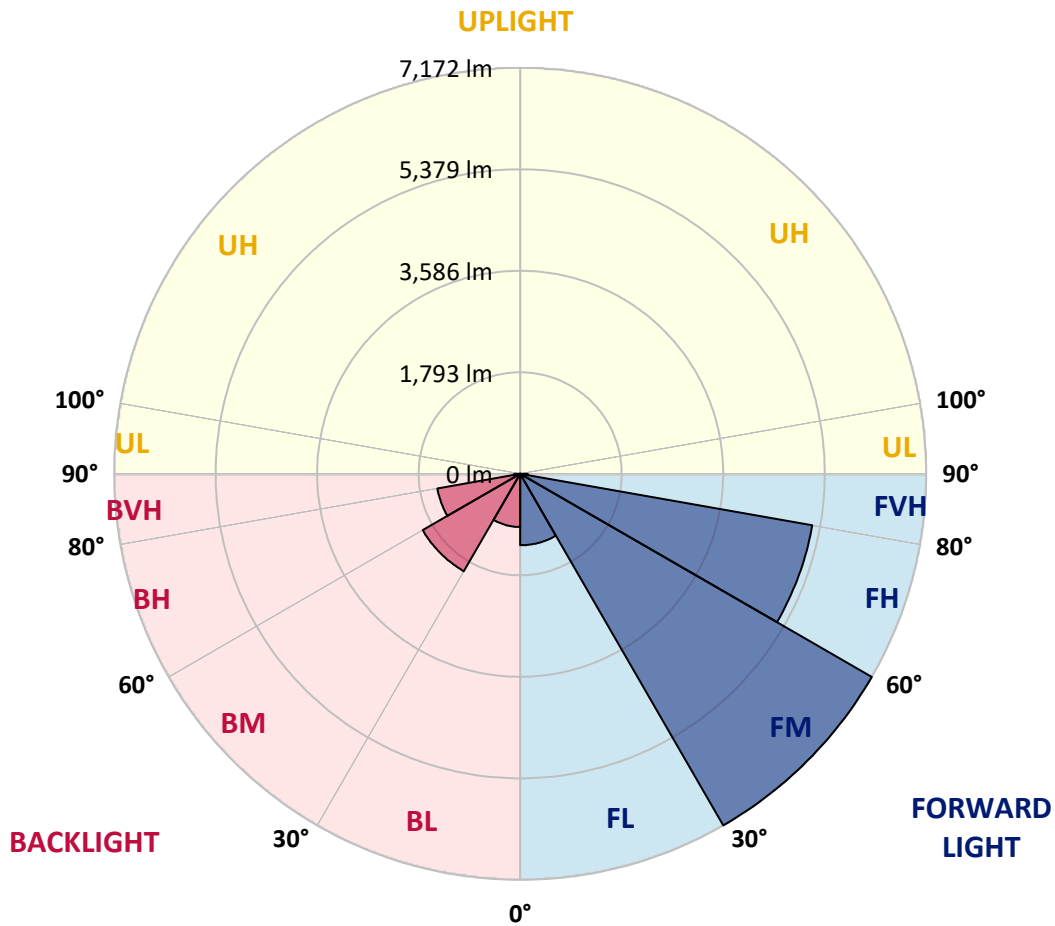
REPORT NUMBER: P884317  
 CATALOG NUMBER: NAV-SB5A-827-U-T2

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1261.9	6.9			
FM (30°-60°)	7172.2	39.1			
FH (60°-80°)	5239.2	28.6			G3/7500
FVH (80°-90°)	134.2	0.7			G2/225
BL (0°-30°)	939.8	5.1	B2/1000		
BM (30°-60°)	1987.6	10.8	B2/2500		
BH (60°-80°)	1484.7	8.1	B3/2500		G3/2500
BVH (80°-90°)	105.5	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



REPORT NUMBER: P884317  
 CATALOG NUMBER: NAV-SB5A-827-U-T2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7
2.5°	2750.9	2766.4	2761.5	2756.7	2756.7	2749.9	2748.9	2739.2	2731.4	2718.8	2715.8
5°	2785.9	2802.4	2800.4	2804.3	2817.0	2819.9	2822.8	2817.0	2801.4	2785.9	2779.0
7.5°	2754.7	2773.2	2779.0	2802.4	2841.3	2876.3	2902.5	2913.2	2898.7	2876.3	2865.6
10°	2649.7	2670.1	2690.6	2746.0	2815.0	2897.7	2967.7	3009.5	3006.6	2985.2	2966.7
12.5°	2436.8	2458.2	2501.9	2609.9	2736.3	2882.1	3012.4	3099.9	3130.1	3114.5	3082.4
15°	2266.6	2285.1	2318.1	2429.0	2593.3	2815.0	3029.0	3199.1	3275.9	3267.2	3228.3
17.5°	2261.7	2269.5	2289.9	2342.5	2468.9	2710.0	3011.4	3296.4	3443.2	3442.2	3393.6
20°	2347.3	2350.2	2361.9	2372.6	2444.6	2630.3	2966.7	3377.1	3630.9	3630.9	3578.3
22.5°	2465.9	2464.0	2475.7	2465.9	2501.0	2623.5	2938.5	3448.0	3839.9	3855.5	3789.3
25°	2643.9	2634.2	2631.2	2608.9	2615.7	2686.7	2969.6	3528.8	4087.9	4120.0	4037.3
27.5°	2881.1	2865.6	2854.9	2803.4	2785.9	2817.0	3064.9	3626.0	4364.0	4419.4	4314.4
30°	3190.4	3162.2	3146.6	3057.1	2993.9	2998.8	3208.8	3755.3	4652.8	4742.3	4609.1
32.5°	3612.4	3568.6	3526.8	3380.0	3264.3	3226.3	3394.6	3934.2	4965.9	5108.9	4937.7
35°	4085.0	4049.9	4005.2	3778.7	3600.7	3513.2	3645.4	4184.1	5332.5	5559.1	5336.4
37.5°	4540.0	4509.9	4531.3	4225.9	3996.5	3869.1	3974.1	4519.6	5784.7	6119.2	5836.2
40°	5010.7	4987.3	4990.2	4698.5	4431.1	4288.2	4372.8	4940.6	6302.9	6785.2	6437.1
42.5°	5522.1	5504.6	5446.3	5187.6	4887.2	4753.9	4831.7	5426.8	6859.1	7543.7	7096.4
45°	6094.9	6084.2	6029.7	5733.1	5388.9	5239.2	5344.2	5963.6	7418.3	8257.4	7758.6
47.5°	6589.8	6598.5	6591.7	6341.8	5985.0	5765.2	5890.7	6523.7	7938.5	8928.4	8393.5
50°	6828.0	6873.7	6940.8	6863.0	6641.3	6417.7	6442.0	7064.3	8434.4	9557.5	9002.3
52.5°	6703.6	6790.1	6972.9	7097.4	7182.9	7136.3	7071.1	7601.1	8901.1	10125.3	9577.9
55°	6239.7	6361.3	6664.7	6965.1	7401.7	7741.1	7826.7	8196.2	9356.2	10625.1	10122.4
57.5°	5394.7	5592.1	5864.4	6472.1	7207.2	8033.8	8707.6	9021.7	9838.5	11159.0	10692.2
60°	3945.9	4210.4	4548.8	5453.1	6526.6	7877.2	9457.3	10289.7	10524.0	11850.3	11434.2
62.5°	2525.3	2688.6	2999.8	3851.6	5085.5	7075.0	9686.8	11874.7	11686.0	12984.1	12546.6
65°	1728.9	1833.9	2118.8	2597.2	3287.6	5266.4	9072.3	13062.9	13531.6	14781.1	14448.5
67.5°	1256.3	1336.0	1579.1	1998.2	2142.1	3116.5	7040.0	13008.4	15325.6	16632.5	16115.2
70°	916.0	972.4	1176.6	1579.1	1648.2	1733.7	4264.8	11057.9	15286.7	17124.5	16505.1
72.5°	678.7	717.6	854.7	1225.2	1334.1	1170.7	2111.0	8036.7	13135.8	15489.0	14992.1
75°	491.0	520.2	621.3	937.4	1067.7	891.7	1053.1	4696.6	9162.7	10895.5	10983.0
77.5°	375.3	397.7	463.8	686.5	854.7	669.0	653.4	2160.6	4344.6	4366.0	4611.0
80°	301.4	316.0	352.0	483.3	655.4	500.8	425.9	872.2	1373.0	1162.0	1219.4
82.5°	221.7	246.0	297.5	339.4	468.7	345.2	259.6	440.5	522.2	449.2	453.1
85°	126.4	142.9	179.9	243.1	299.5	211.0	148.8	195.4	243.1	199.3	177.9
87.5°	44.7	58.3	63.2	95.3	130.3	87.5	57.4	56.4	79.7	59.3	49.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P884317  
 CATALOG NUMBER: NAV-SB5A-827-U-T2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7	2686.7
2.5°	2706.1	2701.3	2681.8	2655.6	2628.3	2602.1	2593.3	2574.9	2562.2	2555.4	2563.2
5°	2760.6	2745.0	2699.3	2641.0	2579.7	2513.6	2466.9	2424.1	2393.0	2363.8	2375.5
7.5°	2838.4	2811.1	2732.4	2630.3	2521.4	2411.5	2329.8	2267.6	2225.8	2198.5	2204.4
10°	2928.8	2887.0	2766.4	2613.7	2445.5	2288.0	2191.7	2138.3	2112.0	2097.4	2101.3
12.5°	3032.8	2973.5	2801.4	2575.8	2329.8	2149.9	2083.8	2068.2	2069.2	2070.2	2072.1
15°	3161.2	3078.5	2829.6	2493.2	2179.1	2043.9	2032.3	2057.5	2083.8	2096.4	2095.5
17.5°	3306.1	3189.4	2834.5	2357.0	2031.3	1975.9	2012.8	2067.3	2107.1	2124.6	2128.5
20°	3461.7	3302.2	2799.5	2164.5	1909.7	1920.4	1986.6	2056.6	2100.3	2122.7	2128.5
22.5°	3639.6	3422.8	2715.8	1962.3	1810.6	1860.2	1937.9	2006.0	2051.7	2074.1	2079.9
25°	3842.8	3557.9	2584.6	1792.1	1725.0	1792.1	1869.9	1926.3	1963.2	1983.6	1989.5
27.5°	4068.4	3698.9	2409.5	1656.9	1650.1	1722.1	1786.3	1830.0	1849.5	1865.0	1870.9
30°	4295.0	3827.3	2197.6	1554.8	1585.0	1653.0	1698.7	1718.2	1724.0	1726.9	1733.7
32.5°	4540.0	3938.1	1974.9	1470.2	1522.7	1585.9	1613.2	1621.9	1594.7	1576.2	1582.1
35°	4836.6	4056.8	1757.1	1403.1	1461.5	1515.9	1524.7	1516.9	1484.8	1446.9	1448.8
37.5°	5203.2	4204.6	1583.0	1355.5	1404.1	1440.1	1429.4	1427.4	1430.4	1385.6	1388.6
40°	5652.4	4397.1	1455.6	1318.5	1357.4	1365.2	1335.1	1351.6	1366.2	1298.1	1300.1
42.5°	6151.2	4629.5	1374.9	1293.3	1318.5	1300.1	1253.4	1271.9	1269.9	1180.5	1179.5
45°	6659.8	4882.3	1346.7	1274.8	1282.6	1245.6	1194.1	1198.9	1158.1	1077.4	1080.3
47.5°	7165.4	5153.6	1364.2	1259.2	1237.8	1196.0	1156.2	1134.8	1074.5	1014.2	1014.2
50°	7661.3	5438.5	1428.4	1228.1	1176.6	1152.3	1123.1	1085.2	1021.0	969.5	965.6
52.5°	8121.3	5725.3	1500.4	1176.6	1099.8	1114.3	1095.9	1052.1	988.9	936.4	937.4
55°	8556.9	6012.2	1528.6	1105.6	1027.8	1081.3	1070.6	989.9	914.0	871.2	867.4
57.5°	9031.4	6357.4	1497.5	1015.2	969.5	1043.4	1002.5	913.1	869.3	837.2	834.3
60°	9688.8	6899.0	1430.4	903.3	914.0	987.0	917.0	880.0	832.4	796.4	794.4
62.5°	10780.7	7909.3	1322.4	792.5	848.9	903.3	876.1	839.2	790.5	755.5	755.5
65°	12394.9	9313.4	1119.2	705.9	776.0	821.7	832.4	795.4	744.8	707.9	709.8
67.5°	13756.2	10194.4	846.9	634.0	701.1	755.5	785.7	749.7	696.2	660.2	661.2
70°	13681.3	9554.6	646.6	563.0	635.0	690.4	729.3	701.1	643.7	609.7	612.6
72.5°	12151.8	7992.9	523.1	491.0	567.9	622.3	669.0	647.6	589.3	556.2	556.2
75°	8927.4	5673.8	418.1	418.1	484.2	551.3	602.9	589.3	535.8	512.4	505.6
77.5°	3763.1	2380.4	327.7	347.1	402.6	473.5	537.7	542.6	495.9	525.1	476.5
80°	1000.6	656.4	249.9	273.2	316.0	390.9	467.7	465.8	415.2	388.0	360.8
82.5°	381.2	258.7	177.9	192.5	228.5	299.5	370.5	382.1	331.6	286.9	286.9
85°	146.8	110.9	109.9	115.7	133.2	198.4	280.0	289.8	249.9	212.0	218.8
87.5°	37.9	33.1	40.8	38.9	61.3	106.0	160.4	166.3	152.7	88.5	126.4
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)