

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: P966086

Luminaire Tested: **NAV-SB4B-727-U-T2-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966086  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-727-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15668.1 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

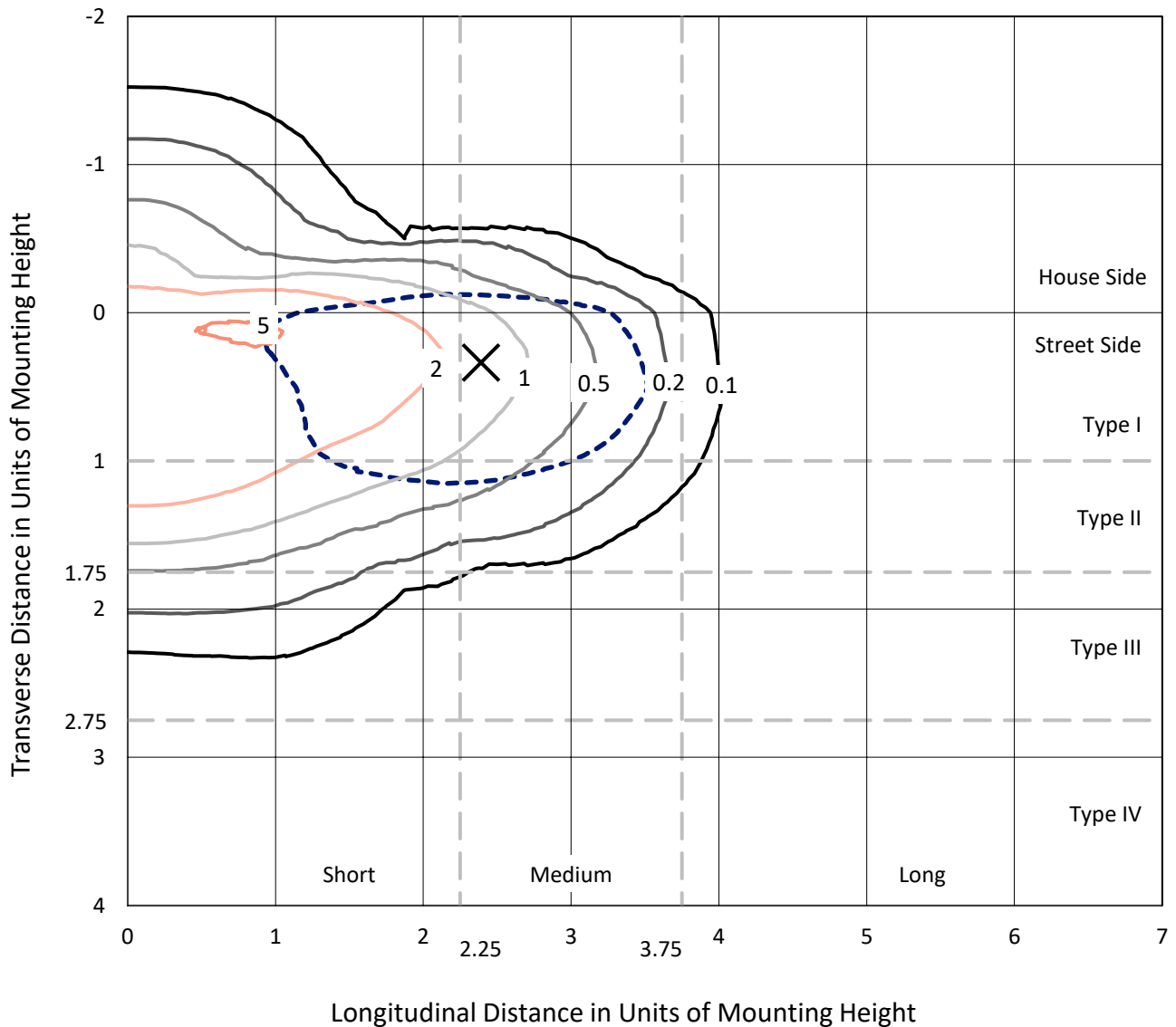
Input Watts (W): 147  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

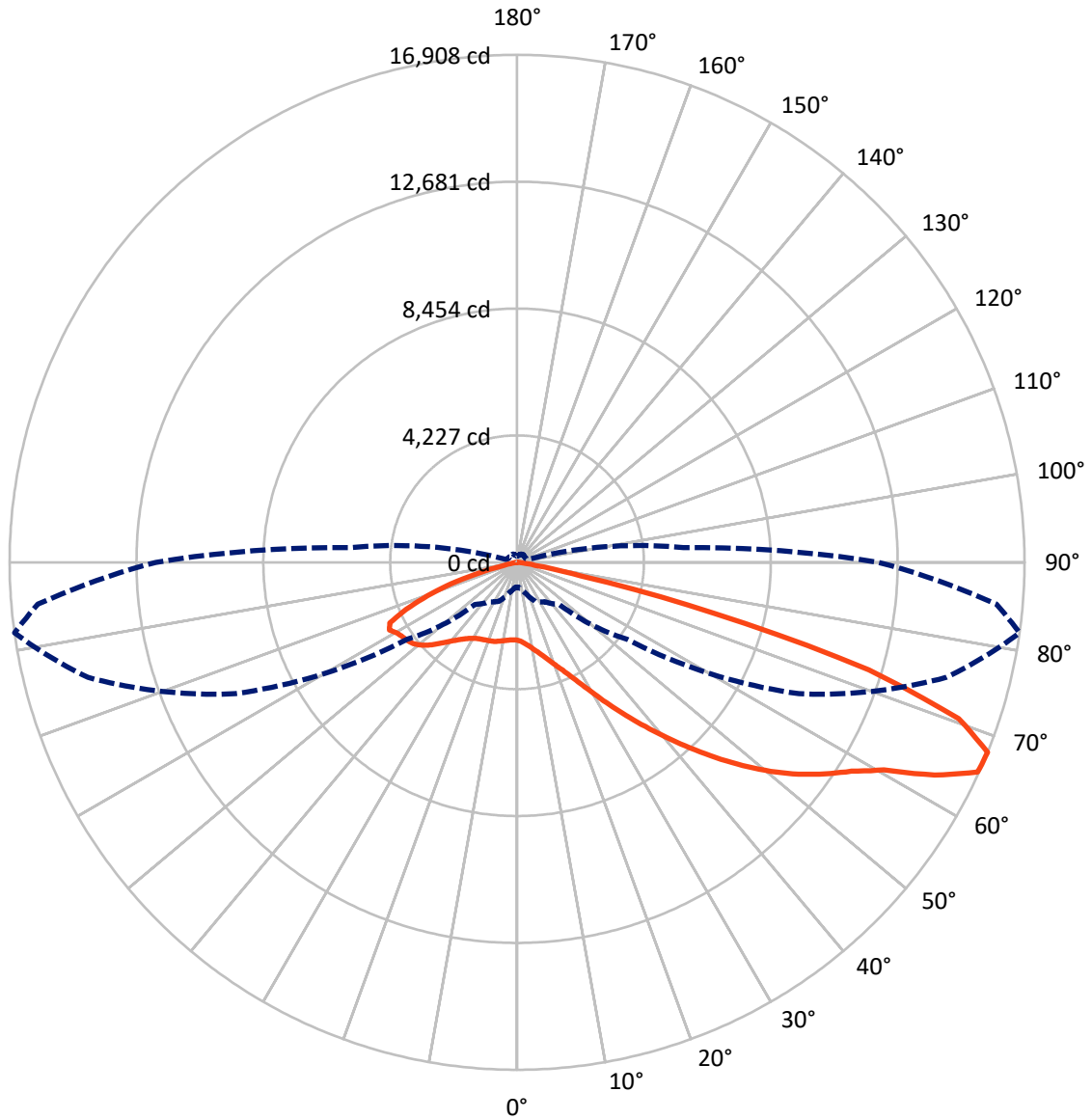
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2838.1	0.0	2838.1
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	12830.0	0.0	12830.0
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	15668.1	0.0	15668.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	231.3	1.5
10°-20°	600.9	3.8
20°-30°	962.5	6.1
30°-40°	1702.0	10.9
40°-50°	2982.1	19.0
50°-60°	3977.3	25.4
60°-70°	3702.7	23.6
70°-80°	1421.1	9.1
80°-90°	88.3	0.6
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°	15668.1	100.0
0°-180°	15668.1	100.0

**Coefficient of Utilization**

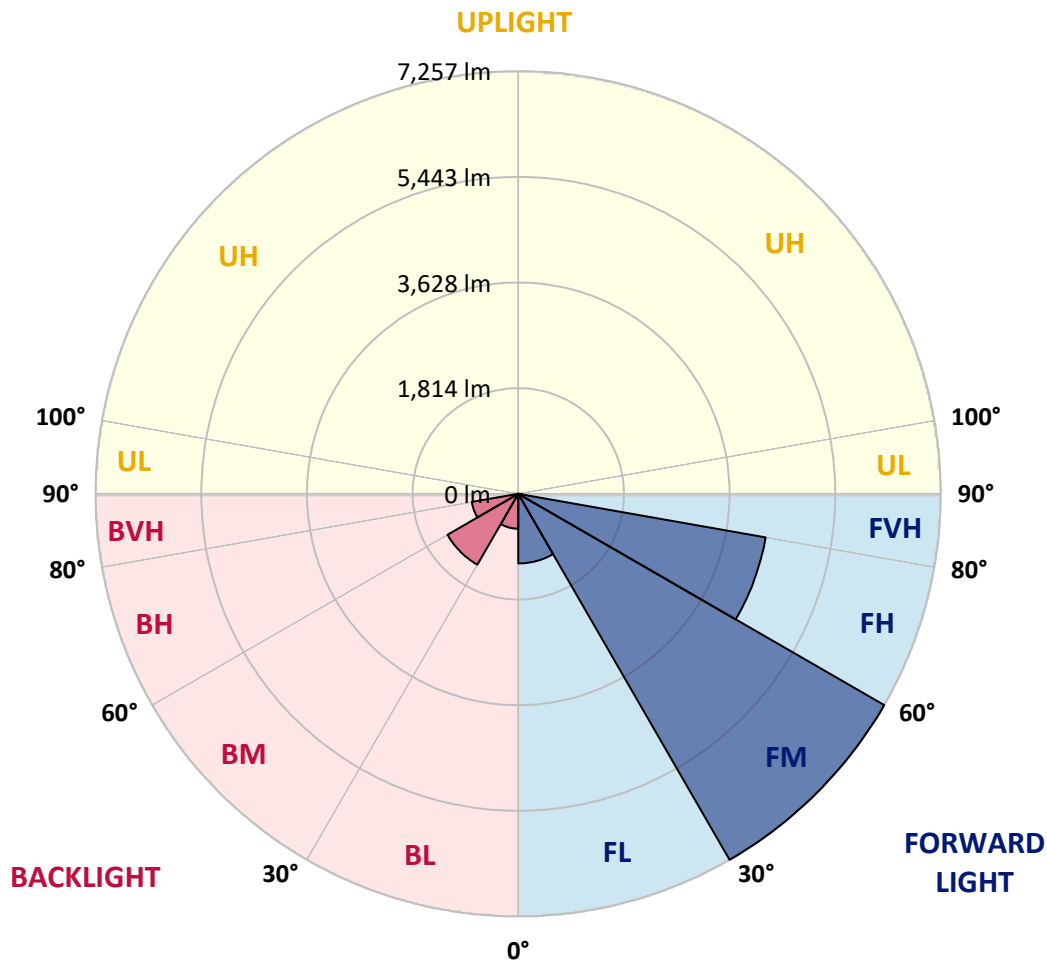


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1195.3	7.6			
FM (30°-60°)	7256.8	46.3			
FH (60°-80°)	4313.7	27.5			G2/5000
FVH (80°-90°)	64.2	0.4			G1/100
BL (0°-30°)	599.4	3.8	B2/1000		
BM (30°-60°)	1404.6	9.0	B2/2500		
BH (60°-80°)	810.1	5.2	B2/1000		G2/1000
BVH (80°-90°)	24.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7
2.5°	2743.4	2759.3	2750.2	2745.7	2737.8	2726.5	2717.5	2689.3	2660.0	2640.8	2634.0
5°	2798.8	2814.5	2813.4	2817.9	2823.6	2827.0	2824.7	2793.1	2751.3	2718.6	2699.4
7.5°	2751.3	2769.4	2784.1	2806.7	2846.1	2887.8	2908.1	2901.4	2858.5	2813.4	2789.7
10°	2617.1	2636.3	2671.3	2724.2	2807.8	2898.0	2973.6	3008.6	2981.5	2931.8	2899.1
12.5°	2371.2	2390.4	2459.2	2574.3	2714.1	2870.9	3015.3	3108.9	3115.7	3066.1	3027.7
15°	2094.8	2114.0	2187.4	2331.7	2544.9	2796.5	3037.9	3215.0	3274.8	3231.9	3185.7
17.5°	1923.3	1940.3	1995.6	2111.7	2333.9	2647.6	3030.0	3327.8	3464.3	3430.5	3375.2
20°	1871.4	1886.1	1912.0	1993.3	2178.3	2493.0	2978.1	3433.9	3668.5	3649.3	3587.3
22.5°	1926.7	1940.3	1948.2	1984.3	2100.4	2391.5	2912.6	3542.1	3905.4	3907.6	3832.1
25°	2054.2	2067.7	2058.7	2081.3	2132.0	2360.0	2887.8	3669.6	4203.2	4228.0	4142.2
27.5°	2264.0	2265.1	2243.7	2242.6	2250.5	2407.3	2913.8	3806.1	4578.8	4625.1	4519.0
30°	2684.8	2667.9	2585.6	2496.4	2455.8	2549.5	2986.0	3967.4	5022.2	5104.5	4971.4
32.5°	3333.4	3308.6	3157.4	2944.2	2729.9	2778.5	3115.7	4151.2	5505.0	5653.9	5491.4
35°	4037.4	4030.6	3872.7	3555.6	3181.2	3104.4	3326.6	4392.7	6031.8	6268.7	6075.8
37.5°	4691.6	4688.2	4598.0	4224.6	3768.8	3559.0	3665.1	4708.5	6595.8	6938.7	6710.9
40°	5289.5	5299.7	5209.5	4875.5	4416.4	4142.2	4125.3	5098.9	7223.0	7668.6	7397.8
42.5°	5806.1	5817.5	5726.1	5479.0	5056.0	4787.5	4690.5	5577.1	7835.5	8452.6	8132.2
45°	6157.0	6227.0	6213.3	6016.0	5712.5	5433.9	5369.6	6177.3	8533.8	9284.0	8908.4
47.5°	6256.3	6320.6	6422.0	6449.2	6264.2	5990.0	6066.8	6900.4	9240.0	10116.5	9689.0
50°	6011.4	6071.3	6282.2	6563.1	6691.7	6607.0	6744.7	7675.4	9963.1	10946.8	10454.9
52.5°	5528.6	5589.5	5855.8	6300.3	6824.8	7091.1	7424.9	8439.0	10663.6	11733.1	11180.3
55°	4830.4	4894.7	5236.5	5739.6	6571.0	7290.7	7992.3	9201.6	11305.4	12440.3	11834.5
57.5°	3880.5	3927.9	4283.3	4987.1	5932.5	7092.2	8410.8	10034.1	11910.1	13135.2	12483.2
60°	2529.1	2570.9	2983.8	3768.8	4874.4	6428.9	8494.4	10962.6	12713.3	14038.8	13357.5
62.5°	1681.9	1710.1	1955.0	2531.3	3432.7	5155.2	8005.9	11703.7	13891.0	15611.4	14856.7
65°	1154.0	1182.2	1427.0	1828.6	2217.8	3410.2	6601.4	11605.6	14958.1	16860.1	15967.8
67.5°	823.5	847.2	1054.7	1433.8	1605.3	1980.9	4475.0	10351.2	14804.8	16907.5	16027.6
70°	590.0	603.5	775.0	1116.7	1275.8	1190.1	2488.5	7916.8	12962.7	15612.5	14807.0
72.5°	412.9	417.4	538.1	850.5	1027.7	868.6	1184.5	5278.2	9804.0	12254.2	11479.2
75°	279.7	285.4	362.1	623.8	824.6	663.3	627.2	2830.3	5755.4	6783.0	6080.3
77.5°	171.5	173.7	233.5	426.4	617.0	505.3	403.8	1199.1	2226.8	2186.2	1863.6
80°	97.0	97.0	148.9	265.1	420.8	326.1	283.1	509.9	705.0	619.3	546.0
82.5°	54.1	55.2	108.3	164.7	278.6	192.9	155.7	235.7	304.5	269.6	234.6
85°	22.5	24.8	66.5	77.8	133.1	95.8	63.1	99.2	112.9	100.3	73.3
87.5°	2.3	3.4	20.3	14.7	15.8	19.2	9.0	19.2	15.8	15.8	11.3
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°	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7	2595.7
2.5°	2612.6	2595.7	2552.9	2503.2	2437.8	2406.2	2363.3	2333.9	2309.1	2311.4	2288.8
5°	2663.4	2620.5	2524.6	2405.1	2256.1	2150.1	2037.3	1959.5	1896.2	1882.7	1852.3
7.5°	2733.3	2665.6	2497.5	2282.1	2030.5	1839.9	1669.5	1560.2	1482.3	1457.4	1432.6
10°	2823.6	2725.4	2462.6	2127.5	1765.5	1522.8	1340.2	1254.4	1201.4	1183.4	1169.8
12.5°	2928.4	2794.3	2416.3	1939.2	1492.4	1258.9	1142.8	1099.8	1082.9	1077.3	1073.9
15°	3060.4	2879.9	2346.4	1715.7	1261.2	1097.6	1048.0	1042.3	1044.6	1042.3	1041.2
17.5°	3217.3	2973.6	2232.4	1485.6	1105.5	1015.3	997.2	1001.7	1007.4	1006.2	1004.0
20°	3388.8	3066.1	2086.9	1281.5	999.5	956.6	946.5	951.0	955.5	953.2	952.1
22.5°	3583.9	3165.4	1925.6	1122.5	928.4	902.4	891.1	892.3	892.3	887.8	885.5
25°	3817.4	3274.8	1756.4	1009.6	874.2	853.9	840.4	835.9	829.1	815.6	813.3
27.5°	4096.0	3391.0	1594.0	930.7	831.4	812.2	796.4	785.2	768.2	745.7	743.4
30°	4409.7	3531.9	1456.3	881.0	797.6	778.4	760.3	743.4	718.6	690.3	688.1
32.5°	4778.4	3683.1	1356.0	848.3	767.1	746.8	725.4	705.0	677.9	649.7	650.9
35°	5218.5	3865.9	1297.2	825.7	743.4	716.4	692.6	670.0	649.7	624.9	622.7
37.5°	5695.6	4059.9	1279.2	814.5	727.6	685.8	658.8	643.0	640.7	626.1	624.9
40°	6217.9	4290.0	1292.7	807.7	710.6	656.5	627.2	623.8	629.5	603.5	604.6
42.5°	6770.6	4563.0	1315.3	799.8	687.0	627.2	599.0	599.0	594.5	558.4	558.4
45°	7368.5	4877.8	1337.9	780.6	658.8	597.9	576.5	568.6	549.4	514.4	513.3
47.5°	7970.9	5198.1	1354.8	745.7	624.9	573.1	553.9	535.9	507.6	476.0	474.9
50°	8542.9	5485.8	1336.8	693.7	586.6	549.4	529.1	504.2	473.8	452.3	449.0
52.5°	9053.8	5735.1	1260.0	632.8	546.0	524.6	506.5	480.5	455.7	433.2	430.9
55°	9498.4	5937.0	1124.7	575.3	509.9	503.1	485.0	452.3	418.5	399.3	397.1
57.5°	9924.8	6090.4	955.5	528.0	477.1	479.4	452.3	423.0	391.4	371.2	368.9
60°	10492.1	6295.8	784.0	483.9	442.2	449.0	419.6	398.2	358.7	332.8	329.4
62.5°	11399.1	6614.9	622.7	429.8	401.6	403.8	391.4	365.5	318.2	287.6	285.4
65°	12118.8	6497.7	490.7	371.2	355.4	358.7	358.7	330.6	279.7	244.8	241.4
67.5°	12037.6	5563.6	391.4	313.6	311.4	313.6	321.5	297.8	248.2	220.0	215.5
70°	11088.9	4425.4	313.6	260.6	270.7	265.1	287.6	271.8	223.3	195.2	191.8
72.5°	9048.2	3188.0	239.1	215.5	207.6	216.6	259.4	244.8	186.1	154.6	151.2
75°	5287.3	1701.1	178.2	170.4	150.1	180.5	230.1	208.7	142.2	114.0	110.6
77.5°	1721.4	593.4	130.9	125.3	111.7	145.5	196.3	176.0	116.2	90.2	86.8
80°	461.4	179.4	89.1	82.3	72.2	108.3	155.7	139.9	83.4	58.6	57.5
82.5°	185.0	75.5	51.9	46.2	39.5	74.4	123.0	112.9	62.0	37.2	37.2
85°	59.8	24.8	19.2	14.7	18.0	46.2	73.3	76.7	44.0	19.2	14.7
87.5°	7.9	3.4	3.4	4.5	3.4	7.9	22.5	21.4	12.4	2.3	0.0
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)