

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: P967225

Luminaire Tested: **NAV-SB4D-740-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967225
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-740-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43223.2 lumens
Efficiency: N/A
Efficacy: 147.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

Input Watts (W): 293.6
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

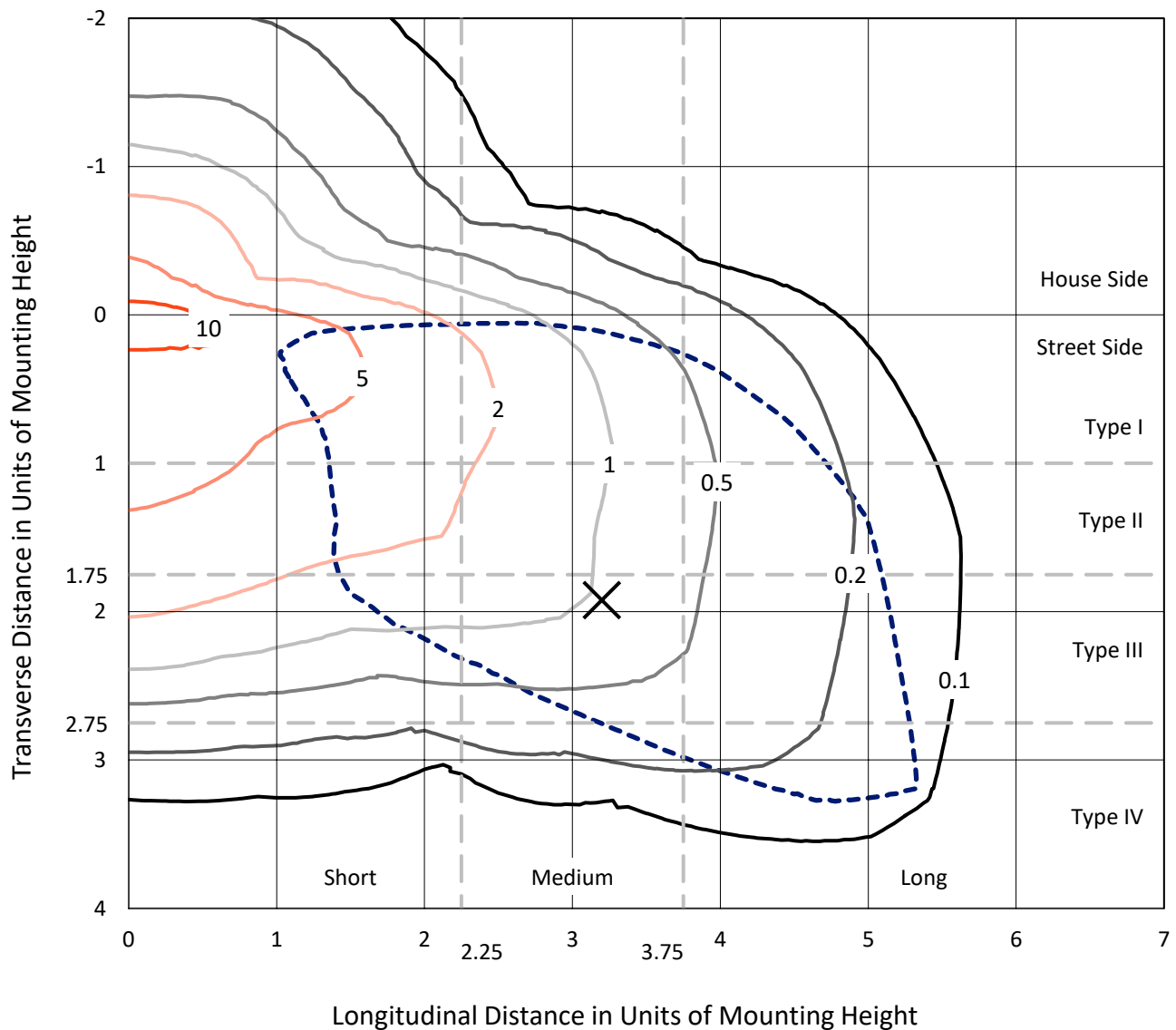


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Iso-Footcandle Lines of Horizontal Illumination

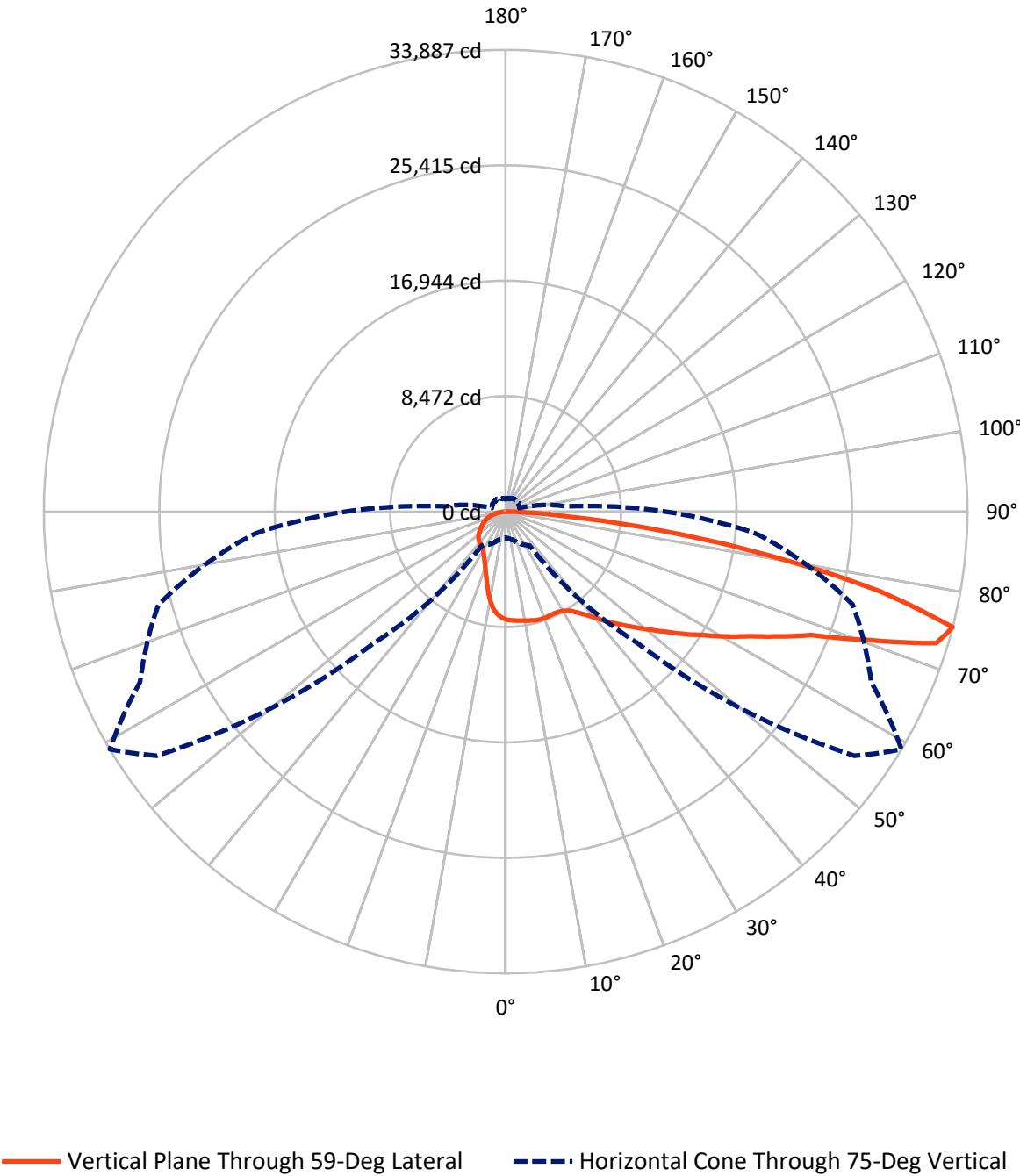
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.7 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8106.8	0.0	8106.8
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	35116.4	0.0	35116.4
	% Fixture	81.2	0.0	81.2
Total	Lumens	43223.2	0.0	43223.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	711.4	1.6
10°-20°	1818.3	4.2
20°-30°	2761.9	6.4
30°-40°	4105.4	9.5
40°-50°	6105.5	14.1
50°-60°	8287.5	19.2
60°-70°	10117.6	23.4
70°-80°	7940.2	18.4
80°-90°	1375.4	3.2
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°	43223.2	100.0
0°-180°	43223.2	100.0

Coefficient of Utilization



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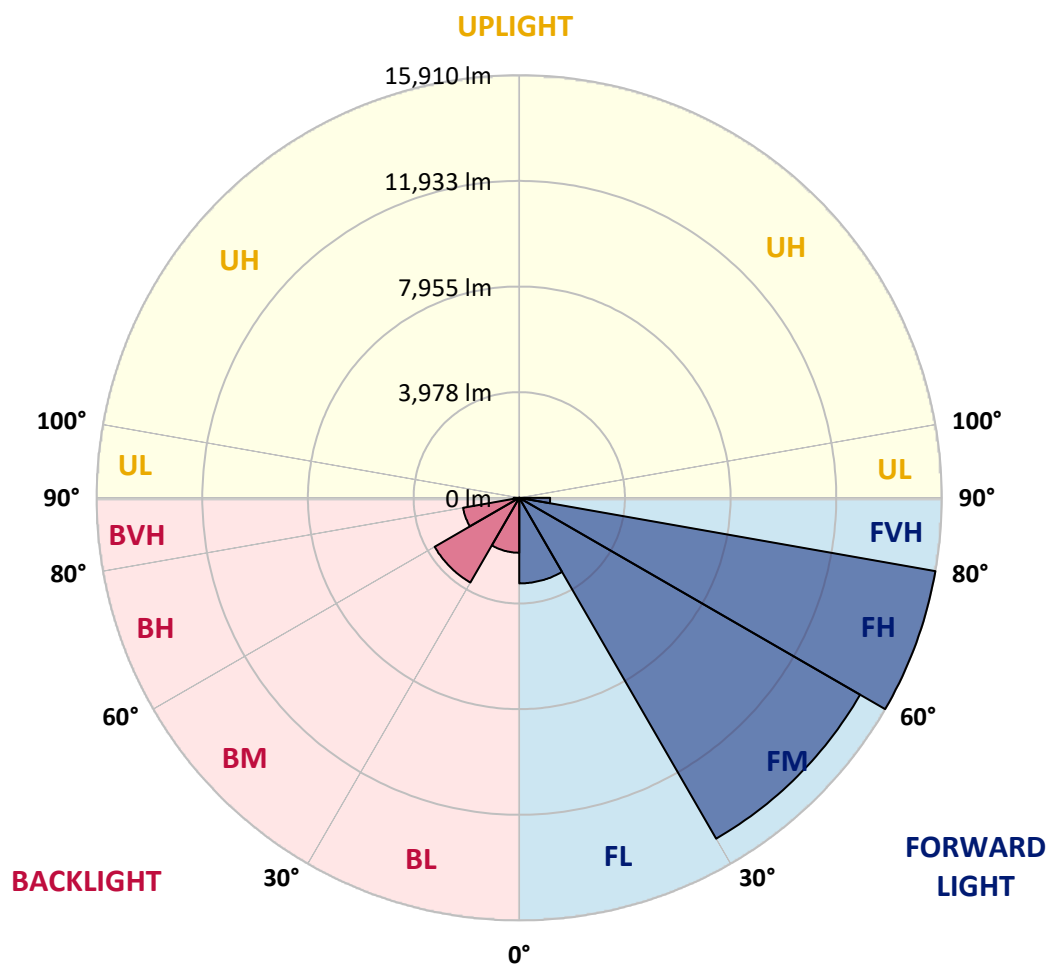
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3222.8	7.5			
FM	(30°-60°)	14818.7	34.3			
FH	(60°-80°)	15910.0	36.8			G5
FVH	(80°-90°)	1164.9	2.7			G5
BL	(0°-30°)	2068.8	4.8	B3/2500		
BM	(30°-60°)	3679.7	8.5	B3/5000		
BH	(60°-80°)	2147.8	5.0	B3/2500		G3/2500
BVH	(80°-90°)	210.6	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5
2.5°	8000.9	7973.1	8000.9	7989.4	7984.6	7975.4	7977.7	7994.0	7984.6	7996.3	7956.8
5°	7947.4	7931.2	7959.1	7952.2	7982.4	7987.0	8017.2	8035.8	8047.5	8049.7	8019.6
7.5°	7859.1	7842.9	7882.4	7914.9	7980.0	7998.6	8061.4	8091.7	8108.0	8135.8	8091.7
10°	7535.9	7528.9	7626.6	7749.8	7903.3	7998.6	8094.0	8145.2	8170.7	8245.1	8194.0
12.5°	6964.0	6973.2	7101.1	7338.3	7645.2	7952.2	8131.1	8205.5	8245.1	8338.1	8314.9
15°	6417.5	6415.2	6554.7	6808.2	7238.3	7747.5	8149.8	8277.7	8345.0	8482.3	8463.6
17.5°	6101.3	6092.0	6189.7	6382.7	6782.5	7433.6	8103.2	8317.2	8461.4	8633.4	8617.2
20°	6043.2	6024.5	6075.7	6171.0	6454.7	7089.5	7982.4	8317.2	8554.3	8777.6	8768.3
22.5°	6254.8	6224.5	6203.6	6191.9	6317.5	6805.8	7845.1	8289.3	8691.5	8984.5	8968.2
25°	6680.2	6633.8	6526.8	6422.1	6384.9	6678.0	7724.3	8282.3	8896.2	9263.5	9203.1
27.5°	7368.5	7310.4	7094.1	6843.0	6617.5	6743.1	7670.8	8324.1	9121.7	9558.8	9437.9
30°	8221.8	8159.1	7887.1	7501.1	7096.5	6984.9	7738.2	8447.4	9410.0	9951.8	9714.6
32.5°	8986.8	8917.1	8684.5	8291.6	7745.2	7403.4	7952.2	8682.3	9863.5	10498.3	10130.8
35°	9665.8	9584.4	9375.2	9012.4	8540.4	7991.6	8338.1	9098.4	10507.5	11386.4	10695.9
37.5°	10330.8	10235.4	10007.6	9623.9	9293.8	8775.2	8870.6	9633.3	11363.2	12465.3	11444.5
40°	11074.8	10937.7	10660.9	10282.0	9961.1	9693.7	9570.4	10288.9	12232.8	13669.7	12379.2
42.5°	11795.7	11665.4	11335.3	11012.1	10609.8	10533.1	10381.9	11056.3	13183.8	14992.8	13328.0
45°	12572.2	12416.4	12016.6	11607.3	11353.8	11091.1	11167.9	11823.6	14116.2	16341.4	14323.1
47.5°	13300.1	13125.6	12653.6	12197.9	12058.4	11560.8	11888.7	12667.6	15085.7	17708.6	15309.0
50°	13693.0	13521.0	13128.0	12716.5	12607.2	12139.8	12669.9	13595.4	16101.9	19071.1	16255.4
52.5°	14020.9	13834.8	13321.0	13093.1	13060.6	12769.9	13632.6	14655.7	17118.0	20275.6	17169.2
55°	14369.7	14162.7	13507.0	13302.3	13451.2	13476.8	14774.2	15857.8	18192.2	21449.9	18031.8
57.5°	14771.9	14509.2	13686.0	13479.1	13832.5	14304.5	16085.6	17104.1	19247.9	22538.0	18799.1
60°	15150.9	14885.9	14030.2	13760.4	14244.1	15264.8	17590.0	18613.1	20443.0	23507.7	19524.6
62.5°	15225.4	15006.7	14304.5	14302.2	14802.1	16385.5	19371.1	20136.1	21487.0	24465.6	20175.6
65°	13937.1	13800.0	13383.7	14281.3	15601.9	17999.2	21354.4	22084.5	22814.7	25302.6	20747.6
67.5°	10607.5	10626.1	10595.8	12328.1	14955.6	20317.4	24226.1	24170.3	24453.9	26242.0	21405.7
70°	4850.3	4959.7	5671.1	8510.2	11981.6	20584.9	28974.1	28250.9	26511.7	27458.1	21975.3
72.5°	2620.5	2704.2	2994.8	4122.5	7203.4	18301.5	32522.3	33036.2	29248.5	28276.6	21349.8
75°	1922.9	1969.4	2171.8	2620.5	3025.1	13602.4	31250.5	33887.2	29590.3	26367.6	18436.4
77.5°	1439.3	1460.2	1625.3	2076.3	1548.6	7170.9	24970.1	28065.0	25330.5	21663.8	13618.6
80°	1044.0	1067.2	1190.5	1557.9	1085.9	2622.8	17145.9	19699.0	17348.2	13809.3	6787.2
82.5°	720.8	730.1	783.6	1060.3	758.0	1018.4	9728.6	11551.5	9684.4	4845.7	1832.3
85°	434.8	446.4	469.7	618.5	430.2	483.6	4199.3	4343.4	2894.8	1157.9	569.7
87.5°	179.1	190.6	209.3	260.5	169.7	134.9	692.9	869.6	541.8	339.5	176.7
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°	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5	7933.5
2.5°	7945.2	7928.9	7884.7	7824.2	7768.5	7698.7	7668.4	7642.9	7619.6	7575.5	7554.6
5°	7994.0	7949.8	7831.2	7677.8	7503.4	7312.7	7126.7	6998.8	6889.5	6808.2	6740.7
7.5°	8068.4	7984.6	7768.5	7454.5	7054.6	6645.4	6275.7	6013.0	5815.2	5743.2	5617.6
10°	8145.2	8045.1	7668.4	7115.0	6424.5	5794.3	5303.8	5034.0	4875.9	4824.8	4745.8
12.5°	8235.8	8089.3	7512.6	6643.0	5719.9	5029.4	4601.5	4443.4	4362.1	4334.1	4341.1
15°	8368.3	8126.5	7277.8	6052.4	5048.0	4471.4	4194.6	4085.3	4043.5	4041.2	4050.5
17.5°	8468.3	8133.5	6912.8	5420.0	4531.8	4134.1	3906.3	3864.5	3892.3	3934.3	3950.5
20°	8580.0	8070.7	6433.8	4843.3	4169.1	3838.8	3743.5	3771.5	3838.8	3899.3	3920.2
22.5°	8659.0	7956.8	5854.8	4394.6	3855.1	3669.1	3664.5	3722.6	3759.8	3790.0	3806.3
25°	8728.7	7763.8	5240.9	4017.9	3597.0	3566.8	3617.9	3599.4	3573.8	3599.4	3615.7
27.5°	8779.8	7459.2	4692.2	3687.7	3415.7	3497.1	3466.9	3425.0	3422.7	3436.6	3459.9
30°	8763.6	7052.3	4241.1	3373.9	3287.8	3366.8	3294.8	3287.8	3280.8	3287.8	3313.4
32.5°	8763.6	6589.5	3894.7	3157.6	3206.4	3176.2	3169.2	3152.9	3125.0	3122.8	3152.9
35°	8812.4	6126.8	3597.0	3041.4	3139.0	3066.9	3071.6	3032.1	2973.9	2946.1	2973.9
37.5°	8912.5	5754.9	3301.7	2985.5	3020.4	3018.1	2999.5	2932.0	2829.7	2741.4	2771.6
40°	9154.3	5645.5	3099.5	2960.0	2964.6	2992.5	2943.7	2813.5	2581.0	2436.8	2455.4
42.5°	9533.2	5829.3	3055.3	2897.2	2927.4	2955.3	2860.0	2557.7	2392.7	2306.6	2306.6
45°	10014.6	6150.1	3150.6	2806.4	2839.0	2887.8	2604.2	2460.0	2385.7	2387.9	2399.6
47.5°	10623.7	6487.2	3327.4	2727.4	2711.1	2739.1	2434.5	2346.1	2243.8	2269.4	2334.4
50°	11328.3	6829.1	3494.7	2620.5	2569.4	2478.7	2325.2	2241.5	2111.3	2050.8	2067.1
52.5°	12091.0	7159.2	3562.2	2490.2	2415.8	2311.3	2250.8	2148.5	1990.3	1890.4	1888.0
55°	12814.0	7459.2	3487.8	2334.4	2262.4	2181.0	2171.8	2108.9	1939.2	1799.7	1799.7
57.5°	13497.7	7710.4	3301.7	2176.4	2106.6	2057.8	2120.5	2090.4	1876.5	1697.4	1688.1
60°	14076.6	7882.4	3032.1	2016.0	1967.1	1941.6	2036.9	2027.6	1788.1	1588.1	1581.2
62.5°	14537.1	7949.8	2734.4	1862.4	1850.8	1804.3	1920.6	1920.6	1676.5	1481.1	1474.2
65°	14897.5	7884.7	2432.1	1711.3	1734.6	1664.8	1778.8	1764.8	1557.9	1385.8	1376.5
67.5°	15216.0	7670.8	2097.4	1562.5	1616.0	1527.7	1630.0	1597.4	1427.6	1290.5	1281.1
70°	15357.9	7173.2	1716.0	1413.7	1478.8	1392.8	1481.1	1420.6	1281.1	1188.2	1169.5
72.5°	14218.5	5961.8	1350.9	1257.9	1313.7	1243.9	1320.7	1250.9	1123.1	1081.2	1046.3
75°	11763.1	4473.6	1039.4	1088.1	1130.1	1076.6	1127.7	1076.6	960.3	990.6	904.5
77.5°	8542.8	3020.4	795.2	909.2	927.7	899.8	944.0	885.9	781.3	774.3	739.4
80°	4248.1	1769.5	623.2	718.5	711.6	692.9	744.0	716.2	627.8	665.0	658.0
82.5°	1230.0	758.0	453.5	504.6	490.6	495.3	532.5	546.4	818.5	811.5	830.0
85°	386.0	297.7	272.0	281.4	267.4	274.4	313.9	623.2	576.7	337.1	365.1
87.5°	99.9	102.3	67.4	72.1	74.4	88.4	99.9	379.0	181.3	118.6	125.6
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)