

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: P967378

Luminaire Tested: **NAV-SB4D-835-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967378
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-835-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38539 lumens
Efficiency: N/A
Efficacy: 131.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G4

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

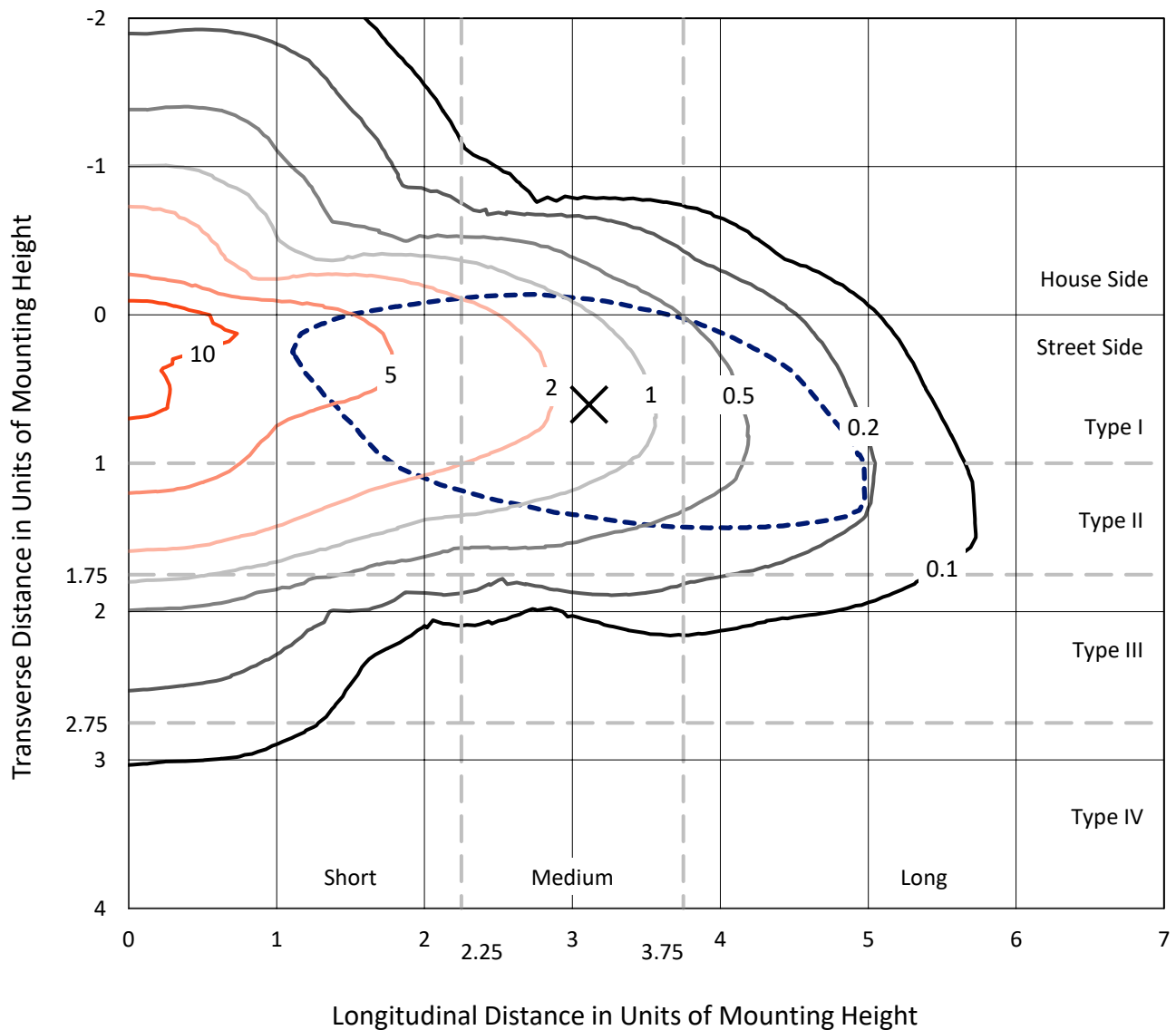


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Iso-Footcandle Lines of Horizontal Illumination

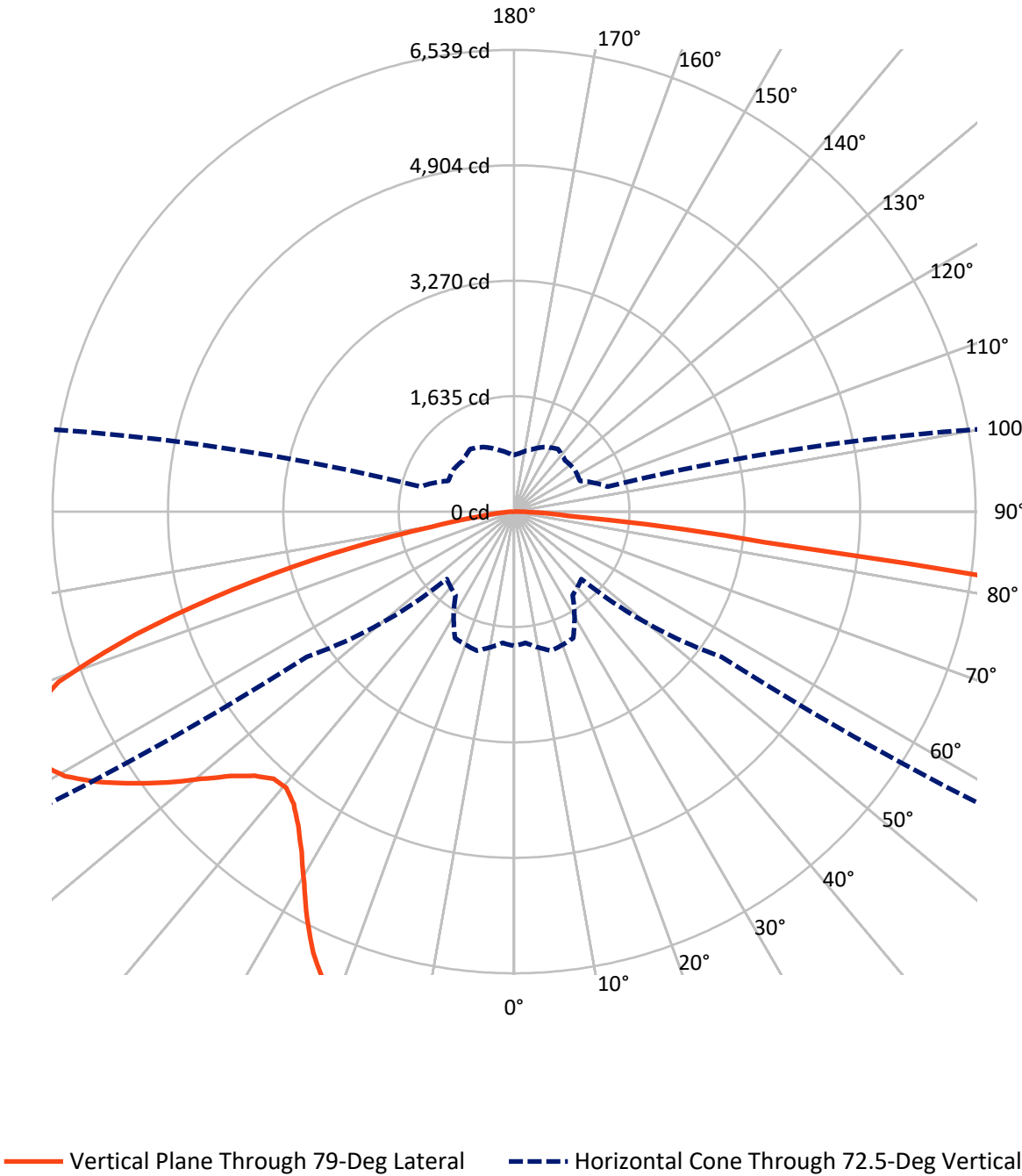
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8480.7	0.0	8480.7
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	30058.3	0.0	30058.3
	% Fixture	78.0	0.0	78.0
Total	Lumens	38539.0	0.0	38539.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	702.2	1.8
10°-20°	1836.0	4.8
20°-30°	2962.5	7.7
30°-40°	4446.4	11.5
40°-50°	6307.4	16.4
50°-60°	7965.4	20.7
60°-70°	8090.0	21.0
70°-80°	5513.7	14.3
80°-90°	715.3	1.9
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°	38539.0	100.0
0°-180°	38539.0	100.0

Coefficient of Utilization



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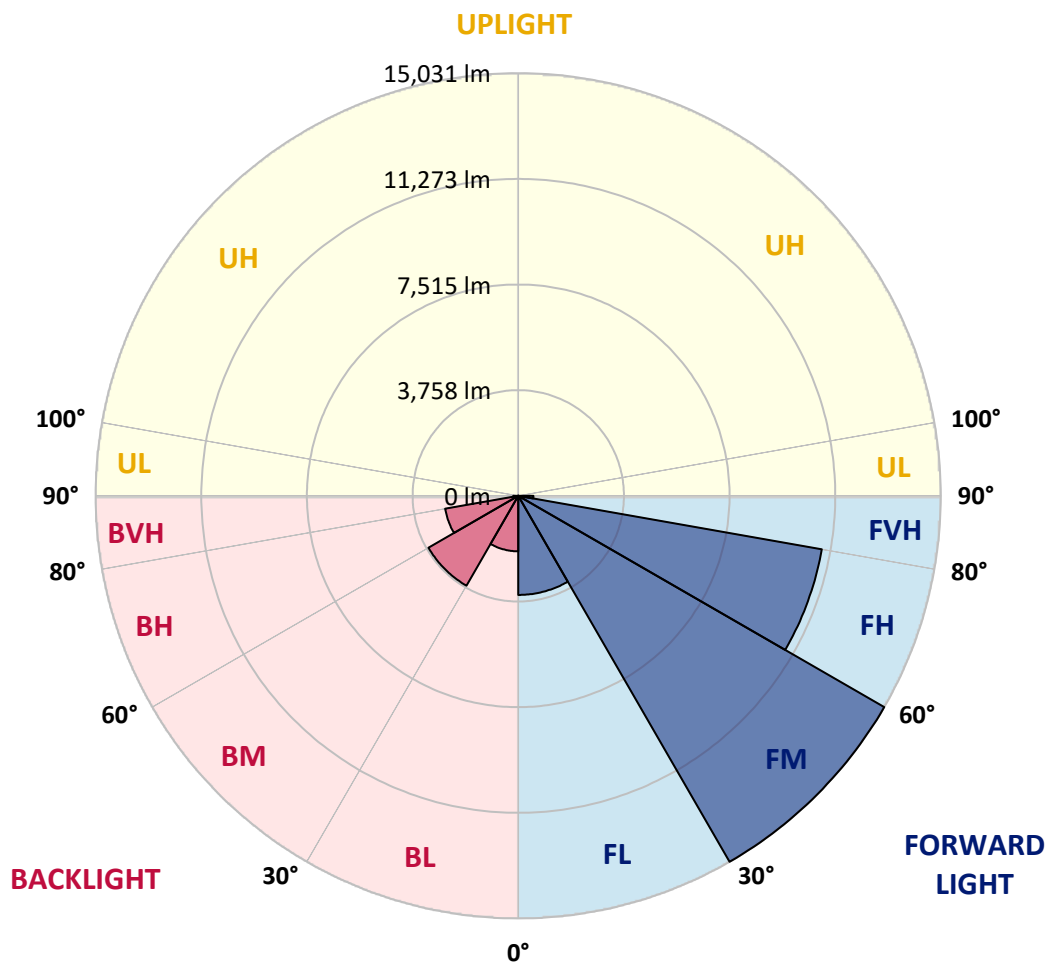
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3525.4	9.1			
FM	(30°-60°)	15031.0	39.0			
FH	(60°-80°)	10963.0	28.4			G4/12000
FVH	(80°-90°)	538.9	1.4			G4/750
BL	(0°-30°)	1975.4	5.1	B3/2500		
BM	(30°-60°)	3688.2	9.6	B3/5000		
BH	(60°-80°)	2640.6	6.9	B4/5000		G4/5000
BVH	(80°-90°)	176.5	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3
2.5°	7740.4	7703.7	7726.1	7717.9	7728.2	7740.4	7744.5	7750.6	7771.0	7769.0	7766.9
5°	7724.1	7687.4	7717.9	7707.8	7734.3	7762.8	7787.3	7809.7	7842.4	7856.6	7836.2
7.5°	7689.4	7664.9	7695.6	7726.1	7775.0	7817.9	7852.5	7903.5	7950.4	7958.5	7972.8
10°	7487.6	7469.3	7540.6	7620.2	7754.6	7870.9	7946.3	8005.5	8056.4	8064.5	8084.9
12.5°	7277.7	7255.3	7334.7	7442.7	7661.0	7870.9	8029.8	8107.3	8152.2	8178.7	8209.3
15°	7243.0	7224.6	7269.5	7363.3	7544.7	7815.8	8086.9	8229.6	8268.4	8299.0	8311.2
17.5°	7410.1	7375.5	7393.8	7426.4	7532.5	7764.9	8131.8	8368.3	8427.4	8460.0	8460.0
20°	7797.5	7748.6	7720.0	7654.8	7636.5	7773.0	8127.7	8535.5	8612.9	8653.7	8663.9
22.5°	8313.3	8280.7	8219.5	8054.3	7875.0	7872.9	8205.2	8749.5	8894.2	8933.0	8908.5
25°	8937.1	8888.1	8810.7	8586.4	8241.9	8070.6	8335.7	9022.7	9265.3	9275.4	9204.1
27.5°	9654.6	9581.2	9475.2	9179.6	8714.9	8380.5	8535.5	9336.6	9691.3	9687.3	9540.5
30°	10410.9	10337.5	10225.4	9866.6	9281.6	8798.4	8812.6	9675.0	10196.9	10174.5	9923.7
32.5°	10963.4	10908.4	10885.9	10608.6	9933.9	9291.7	9130.7	10050.1	10820.7	10800.3	10449.7
35°	11387.4	11316.0	11342.5	11201.9	10645.3	9844.2	9520.1	10496.5	11579.0	11577.0	11140.7
37.5°	11807.4	11744.1	11766.6	11672.8	11303.8	10545.5	9995.1	11042.8	12518.8	12563.6	11976.5
40°	12190.6	12123.3	12213.0	12125.3	11815.5	11291.6	10535.3	11660.6	13607.4	13693.0	12987.7
42.5°	12420.9	12368.0	12516.8	12518.8	12259.9	11921.5	11128.5	12341.4	14867.2	15058.8	14231.2
45°	12500.5	12482.1	12706.3	12753.3	12653.3	12286.4	11662.6	13083.5	16224.9	16567.4	15648.0
47.5°	12414.8	12380.2	12690.0	12863.3	12942.8	12457.6	12104.9	13886.7	17611.1	18112.6	17193.2
50°	11982.7	11915.4	12376.1	12741.0	13024.4	12569.8	12551.4	14814.2	19186.9	19735.2	18746.6
52.5°	11205.9	11155.0	11679.0	12312.9	12845.0	12624.8	13052.9	15827.3	20683.3	21392.7	20338.7
55°	10213.2	10145.9	10722.8	11550.5	12398.5	12606.5	13554.4	16960.8	22448.6	23168.2	21983.8
57.5°	8639.4	8504.8	9234.6	10213.2	11670.8	12584.0	14076.2	18088.2	24242.6	25104.8	23739.0
60°	6344.0	6144.3	7039.2	8199.1	10247.8	12365.9	14722.5	19352.0	26395.3	27171.9	25655.2
62.5°	3693.9	3577.7	4162.7	5245.2	7724.1	11081.6	15085.3	20821.8	28511.3	29326.7	27538.9
65°	2868.3	2835.7	2886.6	2970.1	4299.4	8297.0	13966.1	22254.9	31202.2	31773.0	29502.1
67.5°	2623.6	2599.2	2621.5	2464.6	2181.3	4621.4	11049.0	22617.9	34084.7	34431.3	31220.6
70°	2332.1	2303.6	2377.0	2242.4	1716.5	2101.8	7139.0	21300.9	36378.1	37028.4	32527.2
72.5°	1899.9	1867.3	2038.5	1977.4	1445.4	1349.5	3585.9	18171.7	36137.5	37487.0	31591.5
75°	1459.6	1441.3	1645.1	1696.1	1178.2	1062.1	1720.6	13507.4	31801.5	33161.2	27227.0
77.5°	1133.4	1119.2	1223.1	1408.7	950.0	823.6	1058.0	8568.1	23965.3	24203.8	18762.9
80°	850.0	809.3	905.1	1090.6	739.9	601.4	717.6	4996.5	15148.6	13731.7	8166.5
82.5°	532.1	511.7	591.2	727.7	521.8	413.8	466.8	2760.2	6070.9	3575.6	1575.8
85°	303.7	295.6	322.1	415.8	283.3	238.5	267.0	1219.0	1108.9	762.4	475.0
87.5°	122.3	118.3	146.8	185.5	103.9	87.6	93.8	293.6	244.7	226.3	156.9
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°	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3	7736.3
2.5°	7758.7	7758.7	7730.2	7685.3	7634.4	7601.8	7548.8	7534.5	7479.4	7463.1	7489.7
5°	7852.5	7836.2	7748.6	7622.2	7448.9	7289.9	7114.5	7004.4	6849.6	6794.5	6835.3
7.5°	7970.8	7925.9	7775.0	7497.8	7134.9	6778.2	6407.2	6125.9	5856.7	5761.0	5773.2
10°	8078.8	8015.6	7758.7	7273.6	6645.7	6028.0	5436.8	5023.0	4709.1	4580.6	4609.2
12.5°	8186.9	8070.6	7650.7	6900.5	5950.5	5112.7	4482.8	4160.7	3967.1	3812.1	3863.0
15°	8288.8	8125.7	7483.5	6401.1	5188.1	4338.0	3873.3	3616.4	3461.4	3359.5	3377.9
17.5°	8407.0	8172.6	7232.8	5767.1	4462.4	3801.9	3422.8	3267.8	3237.3	3225.0	3233.2
20°	8572.2	8215.4	6902.6	5057.7	3928.3	3373.8	3178.1	3163.9	3161.8	3155.7	3176.1
22.5°	8749.5	8266.3	6466.3	4413.4	3473.7	3106.8	3072.1	3043.5	3025.2	3023.1	3045.6
25°	8959.4	8282.7	5920.0	3885.5	3086.4	2980.4	2939.6	2896.8	2884.6	2884.6	2896.8
27.5°	9163.3	8227.7	5284.0	3426.8	2868.3	2864.2	2811.2	2796.9	2794.9	2801.0	2817.3
30°	9367.2	8123.6	4652.0	3002.8	2741.9	2741.9	2723.5	2733.7	2741.9	2762.3	2776.5
32.5°	9642.4	8013.6	4124.0	2688.9	2631.8	2611.4	2629.7	2650.1	2658.2	2684.8	2707.2
35°	10046.0	7936.1	3704.0	2517.6	2517.6	2491.2	2501.3	2497.2	2478.9	2466.7	2495.2
37.5°	10580.2	7932.1	3357.5	2438.2	2421.8	2417.8	2419.8	2393.3	2321.9	2236.3	2238.3
40°	11222.3	8042.2	3090.5	2383.1	2370.8	2395.3	2383.1	2311.7	2116.0	1967.2	1963.2
42.5°	12084.5	8356.0	2919.2	2315.8	2352.5	2383.1	2334.1	2087.5	1955.0	1855.0	1851.0
45°	13099.8	8865.7	2831.6	2244.4	2317.8	2354.5	2118.1	2010.0	1904.0	1783.7	1775.6
47.5°	14249.6	9507.8	2811.2	2177.2	2240.3	2262.8	2026.3	1977.4	1857.1	1726.6	1716.5
50°	15501.2	10268.2	2866.2	2097.7	2128.2	2050.8	1995.8	1950.9	1826.6	1698.1	1683.9
52.5°	16795.6	11106.1	2976.3	1989.6	2016.2	1930.5	1983.5	1944.8	1808.2	1634.9	1622.7
55°	18067.8	11950.1	3082.3	1863.2	1902.0	1822.4	1948.8	1920.3	1724.7	1528.9	1518.7
57.5°	19360.2	12789.9	3186.3	1751.1	1791.9	1718.5	1893.8	1855.0	1630.9	1431.1	1427.0
60°	20703.6	13605.3	3235.2	1643.1	1671.6	1622.7	1810.3	1743.0	1524.9	1331.2	1325.0
62.5°	21961.4	14284.2	3155.7	1535.0	1553.4	1533.0	1700.2	1610.5	1418.8	1219.0	1217.0
65°	23223.2	14687.8	2911.1	1429.1	1433.2	1422.9	1545.2	1467.8	1294.5	1121.2	1108.9
67.5°	24366.9	14914.1	2521.7	1314.9	1304.7	1300.6	1400.5	1312.8	1174.2	1023.4	1011.2
70°	24609.5	14339.2	1926.5	1180.3	1180.3	1170.1	1241.5	1151.8	1041.7	919.4	915.3
72.5°	22477.1	12062.2	1367.9	1027.5	1043.8	1023.4	1082.5	1007.1	907.1	825.6	801.1
75°	18124.9	8845.3	994.9	870.4	899.0	864.4	919.4	866.4	780.7	778.7	701.3
77.5°	12453.5	5469.5	721.6	717.6	738.0	693.1	756.3	727.7	650.3	615.6	576.9
80°	5314.5	2181.3	525.9	554.5	554.5	513.7	587.1	595.2	528.0	511.7	511.7
82.5°	1058.0	619.7	369.0	381.2	358.7	346.6	415.8	460.7	636.0	707.4	709.4
85°	318.1	228.3	222.2	208.0	183.5	185.5	244.7	462.8	570.8	326.2	281.4
87.5°	87.6	57.1	59.1	46.8	38.7	50.9	83.5	350.7	191.7	81.6	69.3
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)