

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: P884787

Luminaire Tested: **NAV-SB5D-735-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884787  
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-SB5D-735-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 51164 lumens  
Efficiency: N/A  
Efficacy: 140.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G5

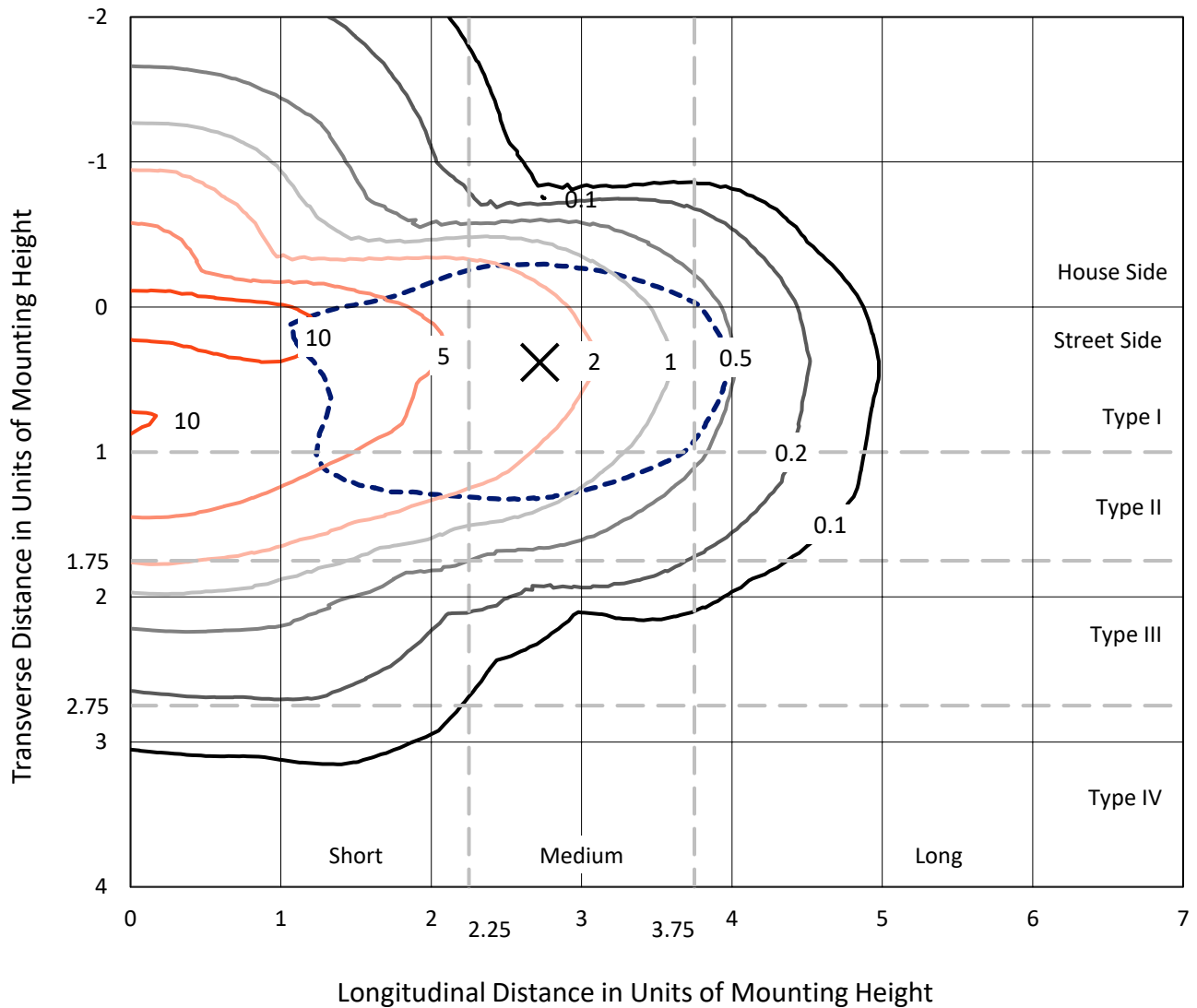
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 3.094  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 3.28  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

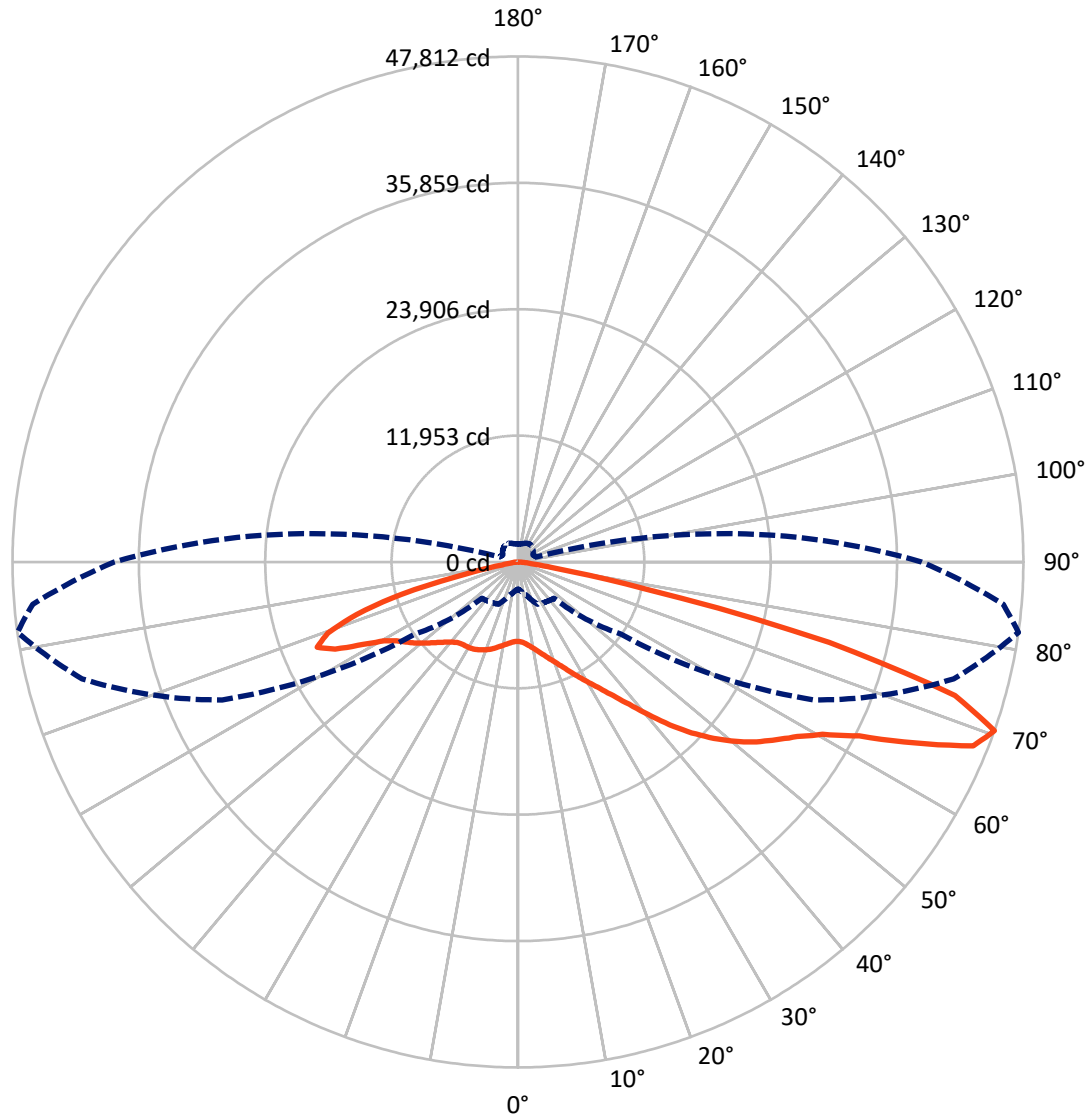
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12613.2	0.0	12613.2
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	38550.8	0.0	38550.8
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	51164.0	0.0	51164.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	708.3	1.4
10°-20°	2034.9	4.0
20°-30°	3404.1	6.7
30°-40°	5318.1	10.4
40°-50°	8469.7	16.6
50°-60°	11786.6	23.0
60°-70°	12329.3	24.1
70°-80°	6444.0	12.6
80°-90°	669.1	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°	51164.0	100.0
0°-180°	51164.0	100.0

**Coefficient of Utilization**



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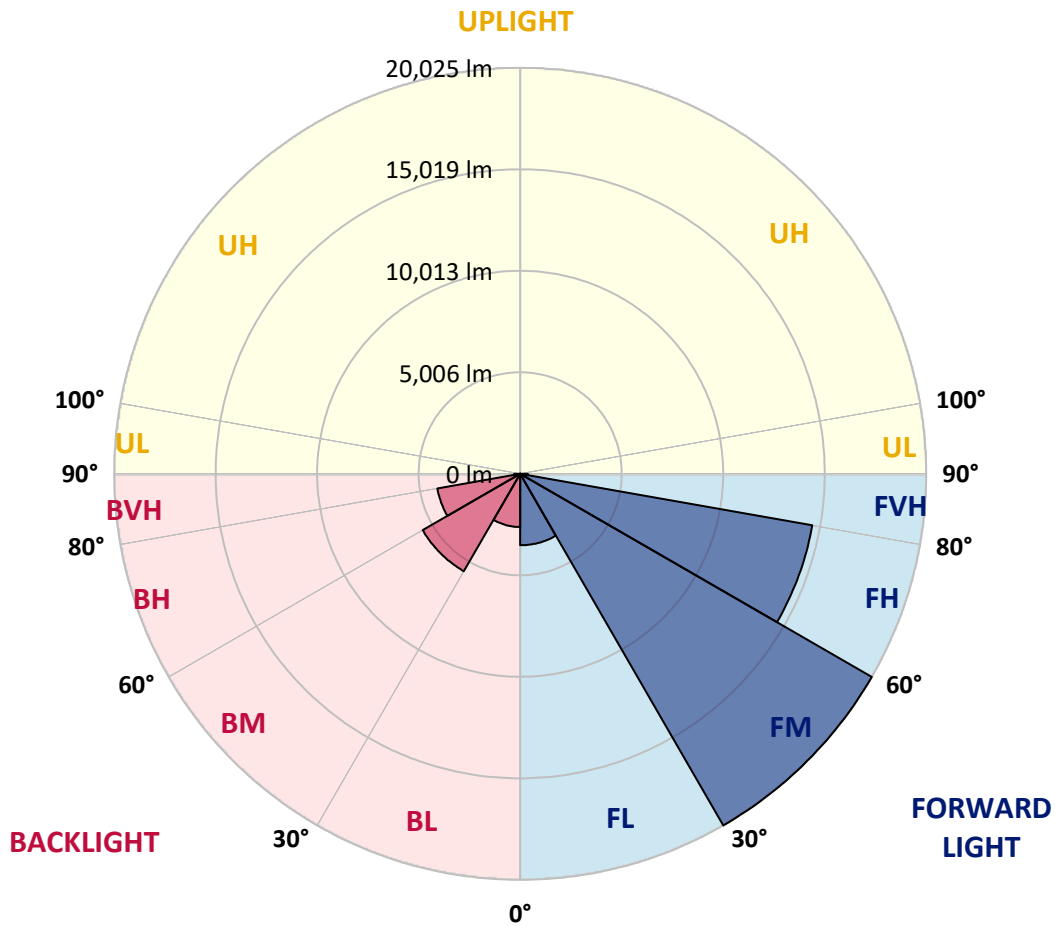
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3523.2	6.9			
FM (30°-60°)	20025.1	39.1			
FH (60°-80°)	14627.9	28.6			G5
FVH (80°-90°)	374.6	0.7			G3/500
BL (0°-30°)	2624.0	5.1	B4/5000		
BM (30°-60°)	5549.3	10.8	B4/8500		
BH (60°-80°)	4145.3	8.1	B4/5000		G4/5000
BVH (80°-90°)	294.5	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3
2.5°	7680.5	7723.9	7710.3	7696.8	7696.8	7677.8	7675.0	7647.9	7626.2	7590.9	7582.7
5°	7778.2	7824.4	7818.9	7829.8	7865.1	7873.2	7881.4	7865.1	7821.6	7778.2	7759.2
7.5°	7691.3	7742.9	7759.2	7824.4	7933.0	8030.7	8104.0	8133.9	8093.1	8030.7	8000.8
10°	7398.1	7455.1	7512.1	7666.9	7859.6	8090.4	8285.9	8402.6	8394.5	8334.8	8283.2
12.5°	6803.6	6863.3	6985.5	7286.8	7639.7	8047.0	8410.8	8655.1	8739.3	8695.8	8606.2
15°	6328.4	6380.0	6472.3	6781.8	7240.7	7859.6	8456.9	8932.0	9146.5	9122.1	9013.5
17.5°	6314.9	6336.6	6393.6	6540.2	6893.1	7566.4	8408.1	9203.5	9613.5	9610.8	9475.0
20°	6553.8	6561.9	6594.5	6624.4	6825.3	7343.8	8283.2	9428.9	10137.5	10137.5	9990.8
22.5°	6885.0	6879.6	6912.1	6885.0	6982.7	7324.8	8204.4	9627.1	10721.2	10764.6	10580.0
25°	7381.8	7354.7	7346.5	7284.1	7303.1	7501.3	8291.3	9852.4	11413.5	11503.1	11272.3
27.5°	8044.3	8000.8	7971.0	7827.1	7778.2	7865.1	8557.4	10123.9	12184.5	12339.2	12046.0
30°	8907.6	8828.9	8785.4	8535.7	8359.2	8372.8	8959.2	10485.0	12990.8	13240.6	12868.6
32.5°	10085.9	9963.7	9847.0	9437.0	9113.9	9008.1	9477.7	10984.5	13865.0	14264.1	13786.3
35°	11405.3	11307.6	11182.7	10550.1	10053.3	9809.0	10178.2	11682.2	14888.5	15521.1	14899.4
37.5°	12675.9	12591.7	12651.5	11799.0	11158.3	10802.6	11095.8	12618.9	16151.0	17084.9	16294.9
40°	13989.9	13924.7	13932.9	13118.4	12371.8	11972.7	12208.9	13794.4	17598.0	18944.6	17972.7
42.5°	15417.9	15369.1	15206.2	14484.0	13645.1	13273.2	13490.4	15151.9	19150.9	21062.2	19813.4
45°	17017.0	16987.2	16835.1	16007.1	15046.0	14627.9	14921.1	16650.5	20712.0	23055.0	21662.2
47.5°	18398.9	18423.3	18404.3	17706.6	16710.2	16096.7	16446.9	18214.3	22164.5	24928.3	23435.1
50°	19064.1	19191.7	19379.0	19161.8	18542.8	17918.4	17986.2	19723.8	23549.1	26684.8	25134.6
52.5°	18716.6	18958.2	19468.6	19816.1	20055.0	19924.7	19742.8	21222.4	24852.2	28270.3	26741.8
55°	17421.5	17760.9	18608.0	19446.9	20665.9	21613.4	21852.3	22883.9	26122.8	29665.8	28262.2
57.5°	15062.3	15613.4	16373.6	18070.4	20122.9	22430.5	24312.0	25188.9	27469.4	31156.2	29853.1
60°	11017.1	11755.5	12700.3	15225.2	18222.4	21993.4	26405.2	28729.1	29383.4	33086.5	31924.6
62.5°	7050.6	7506.7	8375.5	10753.7	14199.0	19753.6	27045.9	33154.4	32627.7	36252.1	35030.4
65°	4827.1	5120.3	5915.8	7251.5	9179.1	14703.9	25330.1	36472.0	37780.6	41269.3	40340.8
67.5°	3507.7	3730.3	4409.0	5579.1	5980.9	8701.3	19655.9	36320.0	42789.6	46438.4	44994.1
70°	2557.4	2714.9	3285.0	4409.0	4601.8	4840.7	11907.6	30873.9	42681.0	47812.2	46082.8
72.5°	1895.0	2003.6	2386.4	3420.8	3724.8	3268.7	5894.1	22438.7	36675.7	43245.7	41858.4
75°	1371.0	1452.5	1734.8	2617.2	2981.0	2489.6	2940.2	13113.0	25582.5	30420.5	30664.9
77.5°	1048.0	1110.4	1295.0	1916.7	2386.4	1867.9	1824.4	6032.5	12130.2	12189.9	12874.1
80°	841.6	882.3	982.8	1349.3	1829.8	1398.2	1189.1	2435.3	3833.4	3244.3	3404.5
82.5°	619.0	686.9	830.8	947.5	1308.6	963.8	724.9	1229.9	1457.9	1254.3	1265.1
85°	352.9	399.1	502.3	678.7	836.2	589.1	415.4	545.7	678.7	556.6	496.8
87.5°	124.9	162.9	176.5	266.1	363.8	244.3	160.2	157.5	222.6	165.6	138.5
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°	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3	7501.3
2.5°	7555.6	7542.0	7487.7	7414.4	7338.4	7265.1	7240.7	7189.1	7153.8	7134.8	7156.5
5°	7707.6	7664.2	7536.6	7373.7	7202.6	7018.0	6887.7	6768.3	6681.4	6599.9	6632.5
7.5°	7924.8	7848.8	7628.9	7343.8	7039.7	6733.0	6504.9	6331.2	6214.4	6138.4	6154.7
10°	8177.3	8060.6	7723.9	7297.7	6828.0	6388.2	6119.4	5970.1	5896.8	5856.0	5866.9
12.5°	8467.8	8302.2	7821.6	7191.8	6504.9	6002.7	5818.0	5774.6	5777.3	5780.0	5785.5
15°	8826.2	8595.4	7900.4	6961.0	6084.1	5706.7	5674.2	5744.7	5818.0	5853.3	5850.6
17.5°	9230.7	8904.9	7913.9	6580.9	5671.4	5516.7	5619.9	5771.9	5883.2	5932.1	5942.9
20°	9665.1	9219.8	7816.2	6043.4	5332.1	5361.9	5546.6	5742.0	5864.2	5926.6	5942.9
22.5°	10161.9	9556.5	7582.7	5478.7	5055.2	5193.6	5410.8	5600.8	5728.4	5790.9	5807.2
25°	10729.3	9933.8	7216.2	5003.6	4816.2	5003.6	5220.8	5378.2	5481.4	5538.4	5554.7
27.5°	11359.2	10327.5	6727.5	4626.2	4607.2	4808.1	4987.3	5109.5	5163.7	5207.2	5223.5
30°	11991.7	10685.9	6135.7	4341.1	4425.3	4615.3	4742.9	4797.2	4813.5	4821.7	4840.7
32.5°	12675.9	10995.4	5514.0	4104.9	4251.5	4428.0	4504.0	4528.5	4452.4	4400.9	4417.2
35°	13503.9	11326.6	4905.8	3917.6	4080.5	4232.5	4257.0	4235.3	4145.7	4039.8	4045.2
37.5°	14527.5	11739.2	4419.9	3784.6	3920.3	4020.8	3990.9	3985.5	3993.6	3868.7	3876.9
40°	15781.7	12276.8	4064.2	3681.4	3790.0	3811.7	3727.6	3773.7	3814.4	3624.4	3629.8
42.5°	17174.5	12925.7	3838.9	3610.8	3681.4	3629.8	3499.5	3551.1	3545.7	3295.9	3293.2
45°	18594.4	13631.5	3760.1	3559.2	3581.0	3477.8	3333.9	3347.5	3233.5	3008.1	3016.3
47.5°	20006.1	14389.0	3809.0	3515.8	3456.1	3339.3	3228.0	3168.3	3000.0	2831.6	2831.6
50°	21390.7	15184.5	3988.2	3428.9	3285.0	3217.2	3135.7	3029.8	2850.7	2706.8	2695.9
52.5°	22674.9	15985.4	4189.1	3285.0	3070.6	3111.3	3059.7	2937.5	2761.1	2614.5	2617.2
55°	23891.2	16786.3	4267.8	3086.8	2869.7	3019.0	2989.1	2763.8	2552.0	2432.6	2421.7
57.5°	25216.0	17750.0	4181.0	2834.4	2706.8	2913.1	2799.1	2549.3	2427.1	2337.5	2329.4
60°	27051.3	19262.3	3993.6	2522.1	2552.0	2755.6	2560.2	2457.0	2324.0	2223.5	2218.1
62.5°	30100.2	22083.0	3692.3	2212.6	2370.1	2522.1	2446.1	2343.0	2207.2	2109.5	2109.5
65°	34606.9	26003.4	3124.9	1971.0	2166.5	2294.1	2324.0	2220.8	2079.6	1976.5	1981.9
67.5°	38407.8	28463.1	2364.7	1770.1	1957.4	2109.5	2193.6	2093.2	1943.9	1843.4	1846.1
70°	38198.7	26676.7	1805.4	1571.9	1772.8	1927.6	2036.2	1957.4	1797.3	1702.2	1710.4
72.5°	33928.2	22316.5	1460.6	1371.0	1585.5	1737.5	1867.9	1808.1	1645.2	1552.9	1552.9
75°	24925.5	15841.5	1167.4	1167.4	1352.0	1539.4	1683.2	1645.2	1495.9	1430.8	1411.8
77.5°	10506.7	6646.1	914.9	969.2	1124.0	1322.2	1501.3	1514.9	1384.6	1466.0	1330.3
80°	2793.6	1832.6	697.7	762.9	882.3	1091.4	1305.9	1300.4	1159.3	1083.2	1007.2
82.5°	1064.2	722.2	496.8	537.6	638.0	836.2	1034.4	1067.0	925.8	800.9	800.9
85°	410.0	309.5	306.8	323.1	371.9	553.8	781.9	809.0	697.7	591.8	610.9
87.5°	105.9	92.3	114.0	108.6	171.0	295.9	448.0	464.2	426.2	247.1	352.9
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)