

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: P884784

Luminaire Tested: **NAV-SB5D-735-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884784  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-735-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

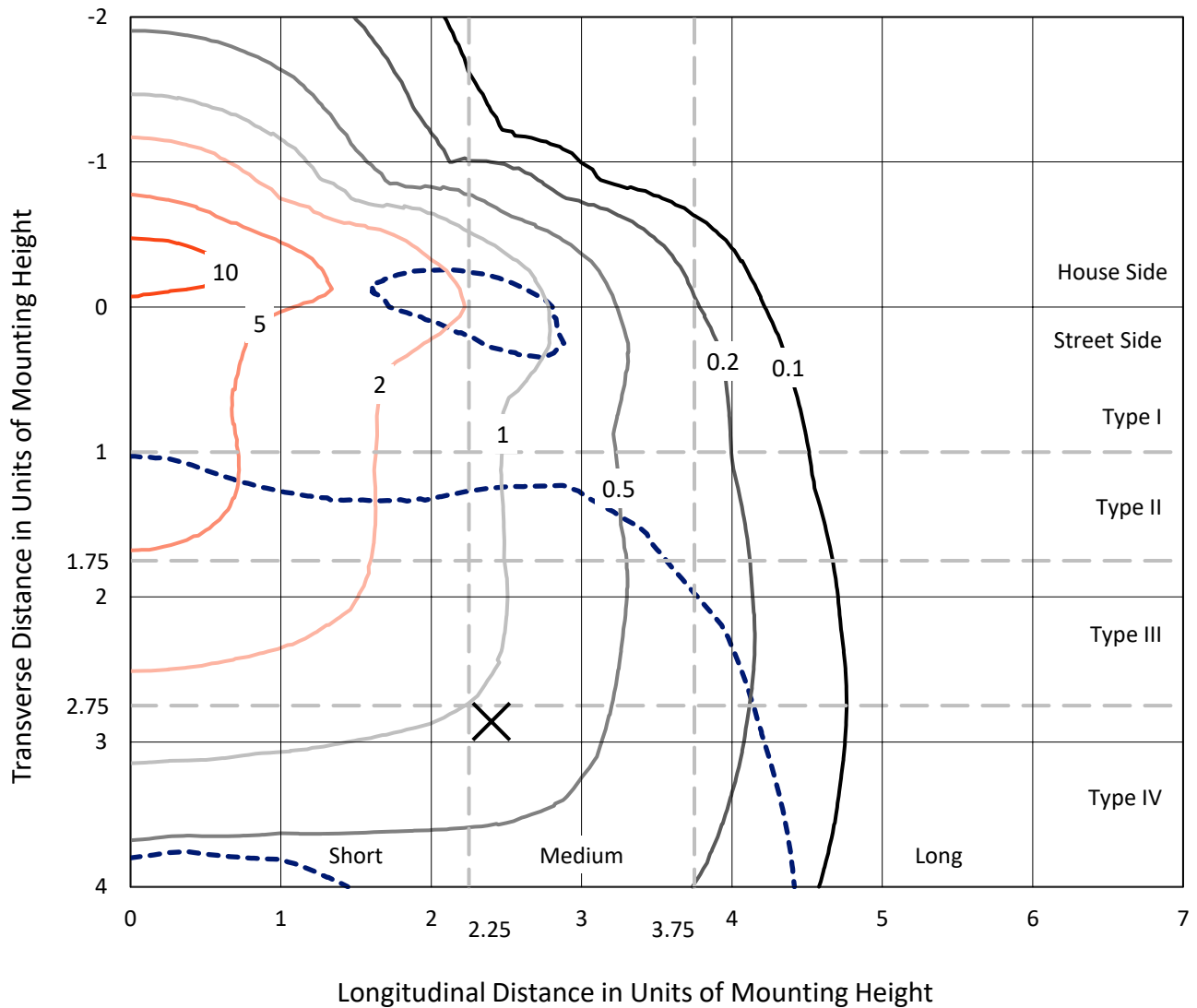
Lumens per Lamp: N/A  
Luminaire Lumens: 51186 lumens  
Efficiency: N/A  
Efficacy: 140.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B5 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

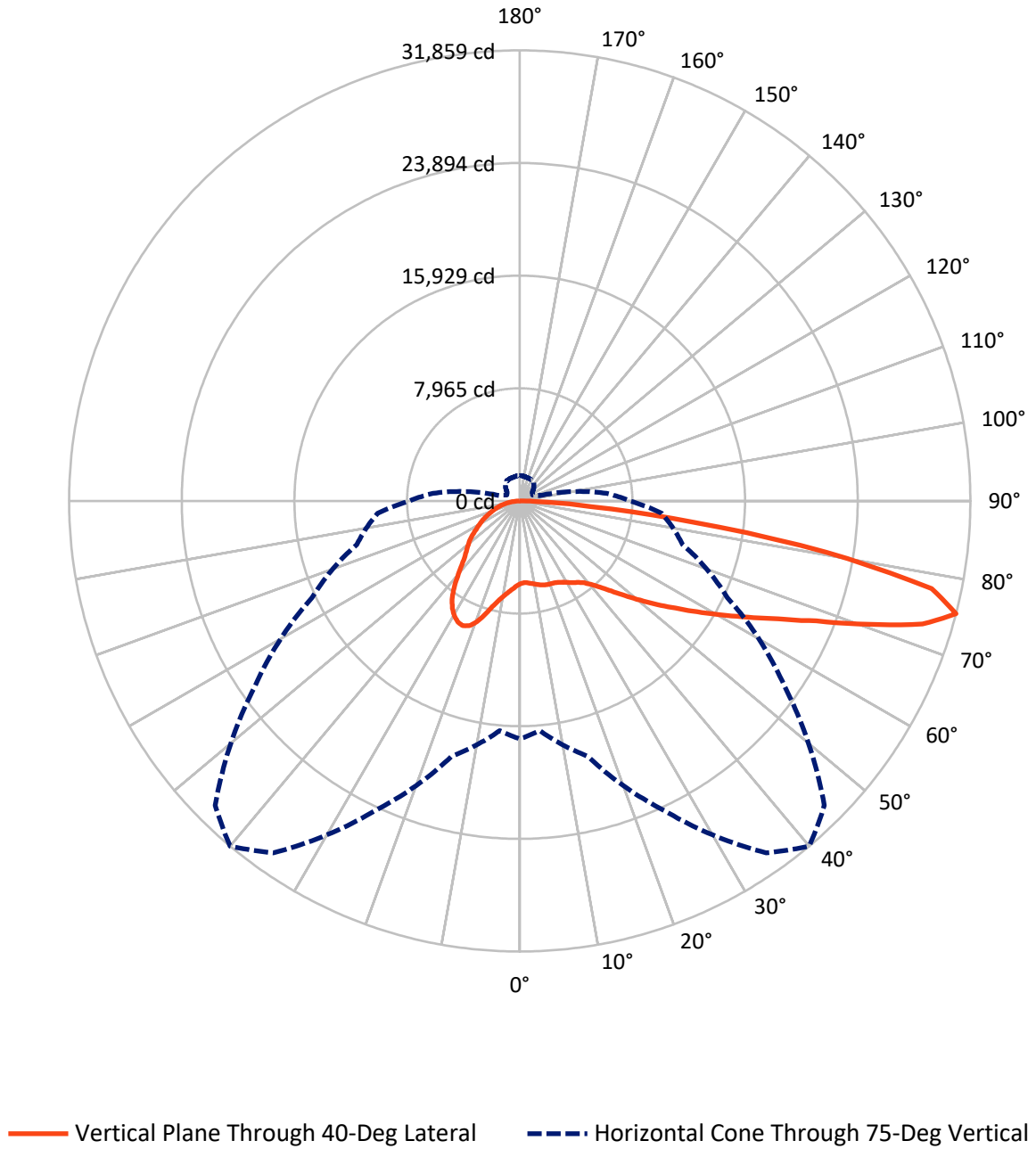
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15859.1	0.0	15859.1
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	35326.9	0.0	35326.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	51186.0	0.0	51186.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	584.3	1.1
10°-20°	1961.6	3.8
20°-30°	3581.8	7.0
30°-40°	5079.9	9.9
40°-50°	6859.4	13.4
50°-60°	9227.8	18.0
60°-70°	11712.2	22.9
70°-80°	10629.5	20.8
80°-90°	1549.4	3.0
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°	51186.0	100.0
0°-180°	51186.0	100.0

**Coefficient of Utilization**



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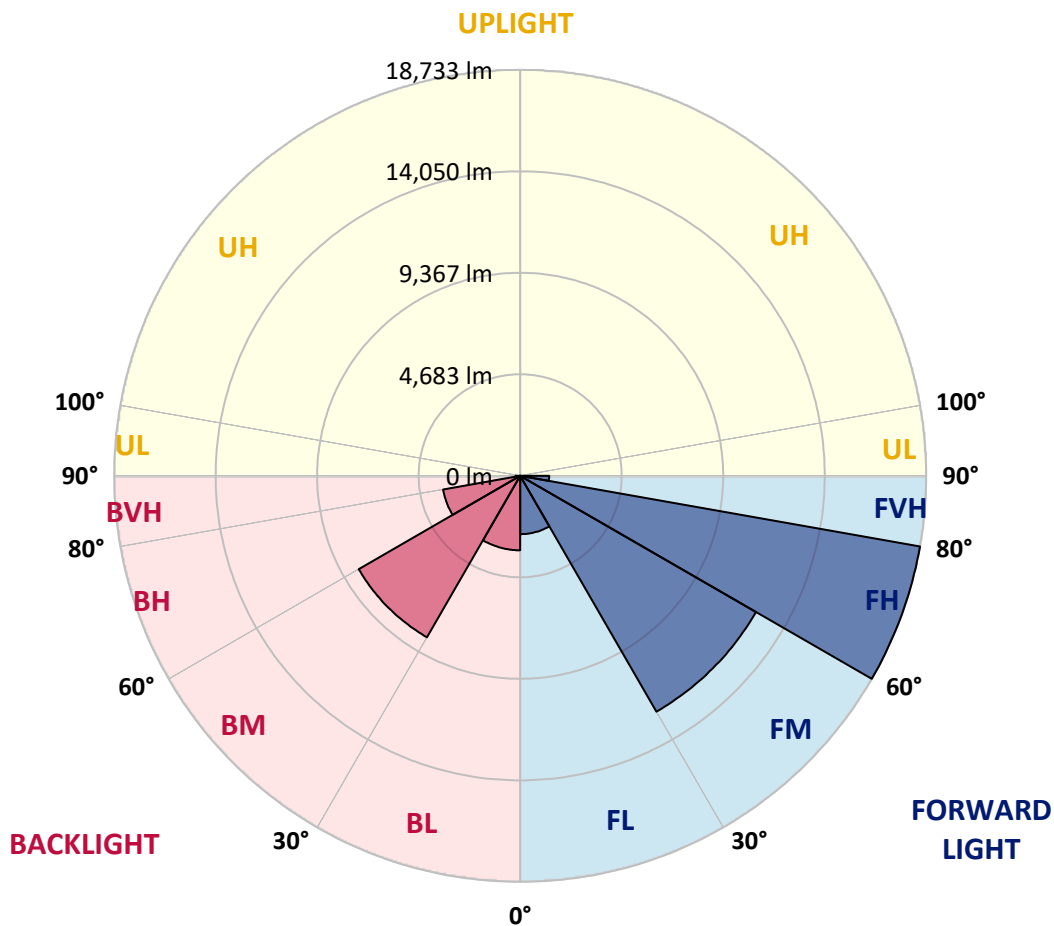
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2692.4	5.3			
FM (30°-60°)	12565.0	24.5			
FH (60°-80°)	18733.3	36.6			G5
FVH (80°-90°)	1336.1	2.6			G5
BL (0°-30°)	3435.2	6.7	B4/5000		
BM (30°-60°)	8602.2	16.8	B5		
BH (60°-80°)	3608.4	7.0	B4/5000		G4/5000
BVH (80°-90°)	213.3	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2
2.5°	5763.6	5796.2	5788.0	5777.2	5777.2	5779.9	5777.2	5796.2	5815.2	5834.2	5864.0
5°	5823.3	5855.9	5839.6	5826.0	5815.2	5812.5	5804.3	5801.6	5812.5	5836.9	5877.6
7.5°	5940.1	5972.6	5948.2	5923.8	5902.1	5891.2	5880.3	5864.0	5855.9	5869.5	5926.5
10°	6070.4	6103.0	6073.1	6029.7	5994.4	5980.8	5969.9	5953.6	5942.8	5950.9	6013.4
12.5°	6200.7	6233.3	6192.5	6132.8	6086.7	6078.5	6064.9	6059.5	6056.8	6054.1	6116.5
15°	6322.9	6350.0	6298.4	6227.8	6179.0	6165.4	6151.8	6160.0	6173.5	6189.8	6260.4
17.5°	6417.9	6445.0	6369.0	6276.7	6230.5	6225.1	6217.0	6244.1	6282.1	6322.9	6409.7
20°	6504.7	6531.9	6434.2	6309.3	6255.0	6255.0	6257.7	6314.7	6369.0	6428.7	6548.2
22.5°	6626.9	6648.6	6529.2	6358.1	6279.4	6284.8	6306.6	6363.6	6431.4	6512.9	6678.5
25°	6808.8	6825.1	6678.5	6450.5	6360.9	6377.2	6396.2	6423.3	6488.5	6583.5	6806.1
27.5°	7102.0	7115.6	6922.8	6613.3	6477.6	6504.7	6531.9	6512.9	6542.8	6624.2	6909.3
30°	7514.7	7522.8	7278.5	6868.5	6675.8	6689.4	6694.8	6616.1	6559.0	6624.2	6982.6
32.5°	8003.3	8000.6	7710.1	7178.0	6901.1	6887.5	6841.4	6686.6	6553.6	6610.6	7047.7
35°	8760.8	8730.9	8356.3	7612.4	7156.3	7072.1	6963.6	6765.4	6580.8	6597.1	7104.7
37.5°	10015.0	9922.7	9404.2	8323.7	7536.4	7321.9	7161.7	6893.0	6640.5	6591.6	7172.6
40°	11429.5	11312.7	10742.6	9298.3	8106.5	7761.7	7503.8	7074.9	6738.2	6616.1	7273.0
42.5°	13107.2	12941.6	12328.1	10446.7	8828.6	8329.1	7940.9	7305.6	6882.1	6694.8	7408.8
45°	15167.8	14947.9	14079.1	11741.7	9738.1	9073.0	8554.4	7655.8	7102.0	6846.8	7612.4
47.5°	17250.1	17304.4	16069.1	13224.0	10829.5	9990.6	9322.7	8182.5	7422.4	7091.2	7940.9
50°	19462.7	19500.7	18048.2	14866.4	12067.4	11027.7	10186.1	8771.6	7867.6	7438.7	8432.3
52.5°	21189.3	21194.7	19845.5	16584.9	13357.0	12167.9	11117.3	9444.9	8383.4	7900.2	9086.6
55°	22269.8	22256.2	21105.1	18211.1	14839.3	13365.1	12148.9	10210.5	9013.3	8443.1	9909.2
57.5°	23054.4	23013.7	21973.9	19609.3	16419.3	14779.6	13316.3	11079.2	9757.1	9089.3	10992.4
60°	23353.0	23328.6	22563.0	20817.4	18080.8	16343.3	14662.8	12051.2	10601.4	9852.1	12385.1
62.5°	23467.0	23513.2	23141.3	21987.5	19859.0	18075.4	16142.4	13213.1	11551.6	10715.5	13853.8
65°	23868.8	23953.0	23877.0	23518.6	21868.0	20103.4	18105.2	14595.0	12588.7	11641.2	15387.7
67.5°	24664.3	24748.4	24781.0	25351.1	24322.2	22630.9	20554.0	16316.2	13802.2	12602.3	16541.5
70°	24645.3	24620.9	25196.4	26809.0	27395.4	26130.3	23855.3	18433.7	15249.2	13400.4	16688.1
72.5°	22432.7	22237.2	23597.4	26792.7	29952.8	29784.5	27886.8	21164.9	16498.1	13498.2	14480.9
75°	16829.3	16308.0	18710.7	24145.8	30379.0	31858.6	30449.6	22858.9	16202.1	11926.3	10077.5
77.5°	7197.0	6673.1	9504.6	17874.5	27189.1	29781.8	28098.6	19943.2	12933.5	7886.6	4949.1
80°	1884.1	1881.4	2872.3	8103.8	18490.8	21992.9	19294.3	12879.2	7389.8	2818.0	1365.6
82.5°	779.2	760.2	1056.1	3151.9	9035.0	12341.6	10072.0	5744.6	2668.7	762.9	453.4
85°	290.5	287.8	513.1	1088.6	3187.2	5090.3	3684.0	1468.7	665.1	371.9	203.6
87.5°	81.4	78.7	111.3	377.4	776.4	1178.2	629.8	241.6	187.3	146.6	59.7
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°	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2	5853.2
2.5°	5872.2	5885.8	5910.2	5929.2	5953.6	5980.8	6018.8	6043.2	6067.7	6083.9	6073.1
5°	5896.6	5926.5	5988.9	6051.4	6124.7	6192.5	6271.3	6328.3	6374.4	6388.0	6393.4
7.5°	5950.9	5999.8	6105.7	6211.5	6328.3	6439.6	6553.6	6651.3	6730.1	6759.9	6762.7
10°	6045.9	6111.1	6260.4	6409.7	6564.5	6735.5	6882.1	7023.3	7134.6	7180.7	7183.5
12.5°	6165.4	6246.8	6442.3	6648.6	6863.1	7099.3	7289.3	7463.1	7601.5	7664.0	7664.0
15°	6320.1	6426.0	6675.8	6952.7	7267.6	7596.1	7837.7	8030.5	8185.2	8261.2	8255.8
17.5°	6488.5	6629.6	6944.6	7362.6	7813.3	8245.0	8527.3	8668.5	8828.6	8901.9	8899.2
20°	6651.3	6825.1	7275.8	7883.9	8483.9	8942.7	9170.7	9208.7	9219.6	9227.7	9249.4
22.5°	6819.7	7053.1	7691.1	8540.9	9184.3	9501.9	9534.5	9371.6	9143.6	9037.7	9067.6
25°	7004.3	7313.8	8234.1	9265.7	9787.0	9825.0	9575.2	9178.9	8747.2	8549.0	8578.9
27.5°	7183.5	7615.1	8885.7	9958.0	10221.4	9887.4	9349.9	8787.9	8266.7	8057.6	8082.1
30°	7362.6	7959.9	9605.1	10563.4	10419.5	9732.7	8994.3	8367.1	7843.2	7623.3	7647.7
32.5°	7544.5	8361.7	10433.1	11000.5	10384.2	9404.2	8551.7	7894.7	7433.2	7202.5	7232.3
35°	7750.9	8855.8	11217.7	11239.4	10148.1	8921.0	7968.0	7330.1	6928.3	6743.7	6784.4
37.5°	8019.6	9482.9	11910.0	11299.1	9735.4	8212.4	7243.2	6662.2	6331.0	6246.8	6306.6
40°	8353.6	10237.6	12439.4	11204.1	9124.6	7351.8	6450.5	5986.2	5798.9	5817.9	5883.1
42.5°	8787.9	11082.0	12811.3	10959.8	8274.8	6464.0	5755.5	5549.1	5638.7	5714.7	5785.3
45°	9352.6	11958.9	13042.1	10544.4	7313.8	5712.0	5345.5	5394.4	5462.3	5470.4	5524.7
47.5°	10074.8	12846.6	13194.1	9917.3	6333.7	5182.6	5084.9	5095.7	5082.2	5025.2	5068.6
50°	10976.1	13709.9	13329.8	9086.6	5500.3	4851.4	4721.1	4683.1	4495.8	4311.2	4335.6
52.5°	12002.3	14502.7	13386.9	8054.9	4851.4	4574.5	4362.7	4123.8	3773.6	3716.6	3735.6
55°	13142.5	15235.7	13240.3	6787.1	4305.7	4218.9	3898.5	3610.7	3572.7	3523.9	3532.0
57.5°	14505.4	16025.7	12941.6	5372.7	3746.5	3803.5	3491.3	3523.9	3456.0	3380.0	3366.4
60°	15995.8	16842.8	12417.7	4083.1	3168.2	3285.0	3385.4	3382.7	3363.7	3301.2	3279.5
62.5°	17336.9	17380.4	11386.0	3127.5	2660.5	2883.2	3157.4	3154.6	3138.4	3103.1	3089.5
65°	18135.1	17298.9	9664.8	2462.4	2242.5	2551.9	2847.9	2869.6	2872.3	2869.6	2869.6
67.5°	17993.9	16346.0	7302.9	1960.1	1897.7	2215.3	2541.1	2571.0	2592.7	2598.1	2603.5
70°	16397.6	14252.9	4761.8	1563.7	1590.9	1919.4	2250.6	2280.5	2299.5	2321.2	2332.0
72.5°	12781.4	10479.3	2725.7	1265.1	1322.1	1664.2	1962.8	1998.1	2009.0	2049.7	2066.0
75°	7788.9	6162.7	1471.4	996.3	1085.9	1422.6	1677.8	1718.5	1737.5	1786.4	1791.8
77.5°	3703.0	2668.7	838.9	776.4	874.2	1161.9	1417.1	1463.3	1411.7	1438.9	1417.1
80°	1251.5	990.9	529.4	591.8	667.8	906.8	1134.8	1181.0	1072.4	1066.9	1056.1
82.5°	437.1	401.8	336.6	393.7	431.7	648.8	857.9	917.6	798.2	795.4	757.4
85°	171.0	162.9	187.3	214.5	257.9	399.1	564.7	594.5	491.4	396.4	390.9
87.5°	35.3	38.0	46.2	48.9	78.7	138.5	203.6	249.8	198.2	168.3	154.7
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)