

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: P884789

Luminaire Tested: **NAV-SB5D-735-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884789
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51672 lumens
Efficiency: N/A
Efficacy: 141.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

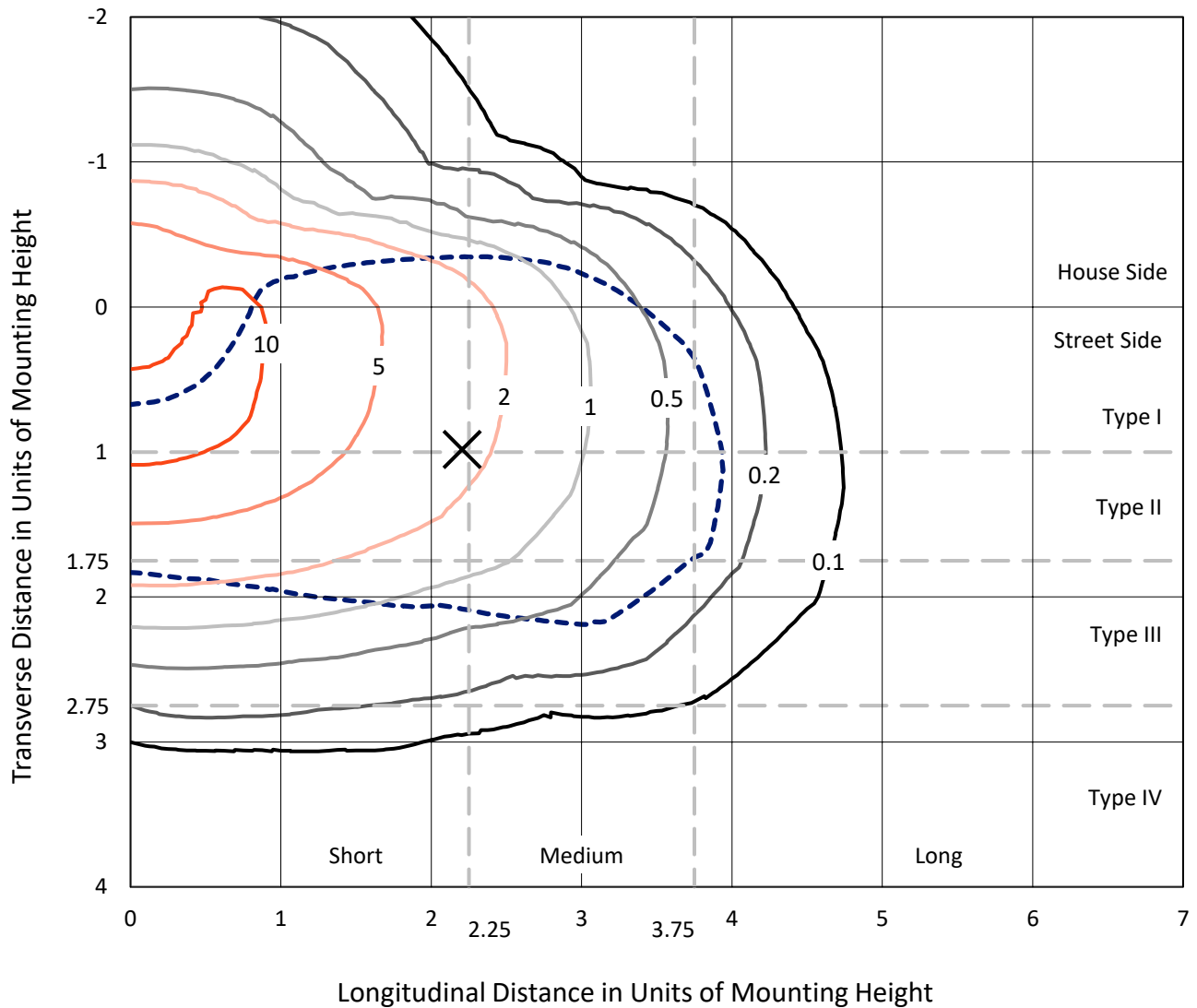
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

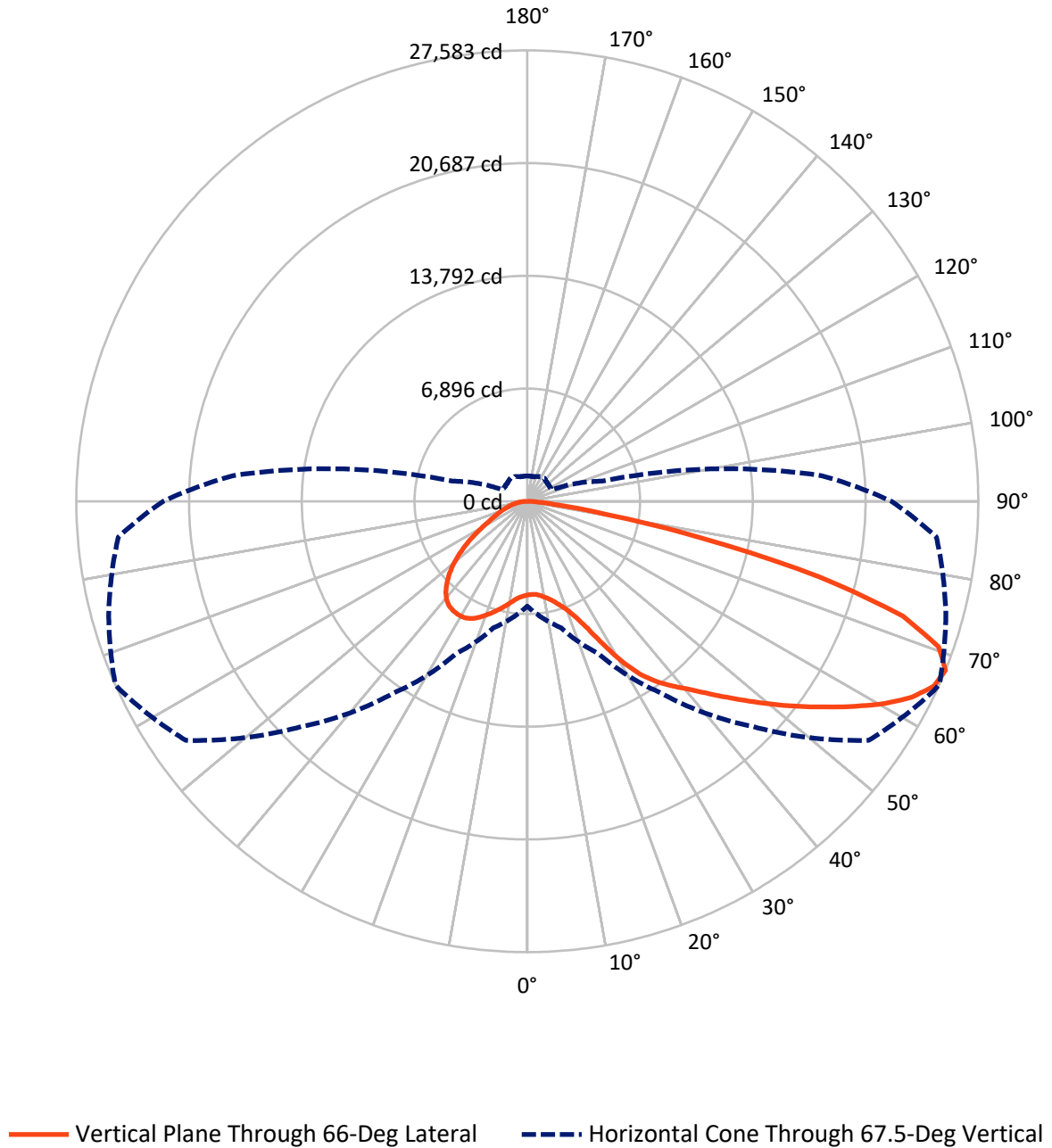
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12848.1	0.0	12848.1
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	38823.9	0.0	38823.9
	% Fixture	75.1	0.0	75.1
Total	Lumens	51672.0	0.0	51672.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	568.2	1.1
10°-20°	1877.3	3.6
20°-30°	3618.4	7.0
30°-40°	6344.4	12.3
40°-50°	9432.1	18.3
50°-60°	11956.1	23.1
60°-70°	11698.7	22.6
70°-80°	5580.4	10.8
80°-90°	596.4	1.2
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°	51672.0	100.0
0°-180°	51672.0	100.0

Coefficient of Utilization



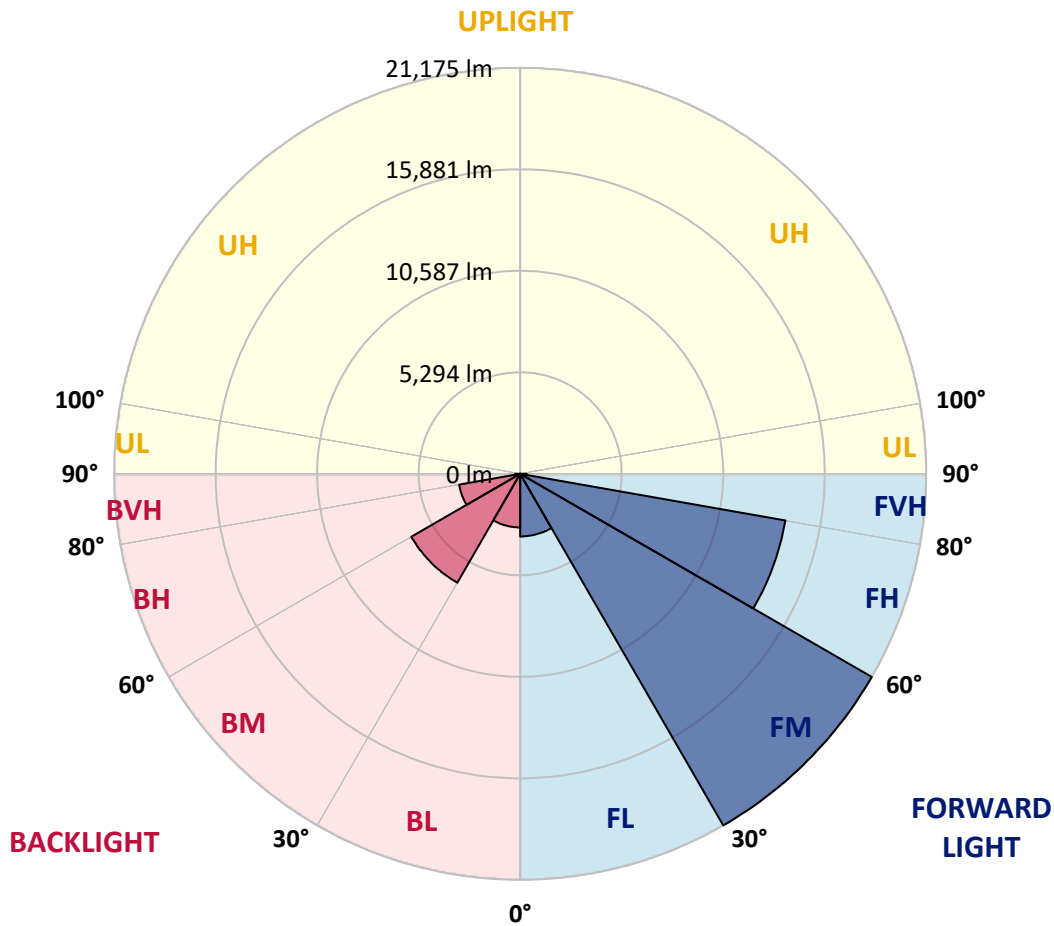
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3265.2	6.3			
FM (30°-60°)	21174.8	41.0			
FH (60°-80°)	14045.9	27.2			G5
FVH (80°-90°)	338.1	0.7			G3/500
BL (0°-30°)	2798.8	5.4	B4/5000		
BM (30°-60°)	6557.8	12.7	B4/8500		
BH (60°-80°)	3233.2	6.3	B4/5000		G4/5000
BVH (80°-90°)	258.3	0.5			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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1
2.5°	5671.4	5704.0	5695.8	5682.2	5679.5	5685.0	5693.1	5701.2	5698.5	5712.1	5733.8
5°	5655.1	5687.7	5685.0	5685.0	5695.8	5717.5	5731.1	5744.7	5731.1	5747.4	5777.3
7.5°	5666.0	5690.4	5701.2	5712.1	5739.3	5780.0	5812.6	5842.4	5826.1	5845.1	5883.1
10°	5804.4	5823.4	5834.3	5834.3	5853.3	5899.4	5932.0	5986.3	5972.7	6002.6	6051.5
12.5°	6056.9	6075.9	6075.9	6065.0	6078.6	6108.5	6119.3	6179.1	6154.6	6203.5	6252.4
15°	6366.4	6404.4	6374.5	6355.5	6361.0	6390.8	6388.1	6434.3	6409.8	6450.6	6494.0
17.5°	6708.5	6757.3	6708.5	6705.7	6694.9	6727.5	6730.2	6770.9	6727.5	6757.3	6787.2
20°	7113.0	7180.9	7140.1	7153.7	7129.3	7142.8	7156.4	7216.1	7148.3	7170.0	7161.8
22.5°	7683.1	7764.6	7721.1	7772.7	7756.4	7745.5	7742.8	7848.7	7742.8	7751.0	7672.2
25°	8513.9	8611.6	8535.6	8606.2	8606.2	8641.5	8682.2	8817.9	8641.5	8589.9	8386.3
27.5°	9741.0	9838.7	9689.4	9732.8	9719.3	9806.1	9762.7	10099.3	9909.3	9825.1	9415.2
30°	11217.9	11391.6	11109.3	11098.4	11084.8	11223.3	11285.7	11508.4	11315.6	11231.5	10737.3
32.5°	12814.2	12996.1	12659.5	12561.7	12510.2	12594.3	12542.7	12721.9	12588.9	12458.6	11847.7
35°	14502.9	14682.1	14361.7	14171.7	13965.3	13788.9	13604.3	13650.4	13525.5	13327.3	12694.8
37.5°	16099.2	16427.7	16088.4	15884.8	15504.7	15159.9	14644.1	14429.6	14312.8	14130.9	13492.9
40°	17725.4	17912.8	17654.9	17481.1	17068.4	16528.2	15702.9	15249.5	15092.0	14915.5	14375.3
42.5°	18922.7	19101.9	18963.4	18844.0	18520.9	17893.8	16826.8	16259.4	16031.4	15833.2	15374.4
45°	19872.9	20005.9	19919.1	19962.5	19824.0	19215.9	17991.5	17342.6	17106.4	16864.8	16503.7
47.5°	20255.7	20396.9	20535.3	20793.3	21029.4	20581.5	19243.1	18515.5	18265.7	18018.6	17663.0
50°	20212.3	20356.2	20758.0	21306.4	22039.4	21890.1	20562.5	19764.3	19533.5	19251.2	18922.7
52.5°	19864.8	20027.7	20543.5	21455.7	22623.1	22870.1	21906.4	21053.9	20836.7	20500.0	20171.5
55°	18952.6	19050.3	19824.0	21116.3	22761.5	23554.3	23223.1	22427.6	22210.4	21740.7	21382.4
57.5°	17261.2	17402.4	18529.0	20201.4	22414.0	24018.5	24379.6	23871.9	23662.9	22986.9	22612.2
60°	15054.0	15279.3	16568.9	18664.8	21529.0	24015.8	25430.3	25291.8	25118.1	24214.0	23823.1
62.5°	12556.3	12816.9	14057.6	16492.9	19981.5	23334.4	26087.3	26480.9	26391.3	25346.1	24846.6
65°	9643.2	9822.4	11057.7	13683.0	17573.4	21871.1	26163.3	27292.7	27309.0	26206.7	25381.4
67.5°	6420.7	6936.5	8008.9	10267.7	14348.1	19479.3	25495.4	27425.7	27583.2	26502.6	25112.6
70°	3133.0	3811.7	4862.3	6673.2	10267.7	15811.5	23749.8	26334.3	26684.5	25639.3	23510.8
72.5°	1300.4	1520.3	2093.2	3293.1	5894.0	10669.5	20242.1	23375.1	24024.0	22718.1	19767.0
75°	876.9	950.2	1197.3	1688.7	2685.0	5261.4	14597.9	17429.5	18474.7	17158.0	14025.1
77.5°	676.0	722.2	871.5	1181.0	1596.3	1990.0	7813.4	10503.9	11044.1	10224.2	7297.6
80°	532.1	567.4	651.6	860.6	1132.1	1064.2	2663.3	4759.2	5071.4	4254.2	2345.7
82.5°	461.5	475.1	467.0	583.7	752.0	621.7	874.2	1756.5	1938.4	1406.3	765.6
85°	333.9	371.9	388.2	361.1	399.1	314.9	358.4	621.7	684.1	610.8	431.7
87.5°	135.7	200.9	247.1	233.5	146.6	89.6	111.3	181.9	209.0	228.0	141.2
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°	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1	5731.1
2.5°	5736.5	5755.5	5769.1	5785.4	5796.3	5812.6	5845.1	5864.1	5866.9	5880.4	5877.7
5°	5788.1	5815.3	5845.1	5888.6	5937.4	5978.2	6040.6	6084.0	6100.3	6113.9	6111.2
7.5°	5899.4	5937.4	5991.7	6067.8	6138.3	6192.6	6268.7	6320.2	6371.8	6390.8	6393.5
10°	6065.0	6119.3	6198.1	6301.2	6377.2	6447.8	6526.6	6570.0	6621.6	6643.3	6654.2
12.5°	6271.4	6328.4	6431.5	6575.4	6646.0	6694.9	6722.0	6711.2	6722.0	6741.0	6746.5
15°	6507.6	6570.0	6686.7	6841.5	6890.4	6846.9	6787.2	6732.9	6724.8	6730.2	6749.2
17.5°	6787.2	6833.3	6969.1	7099.4	7064.1	6884.9	6754.6	6667.7	6624.3	6610.7	6629.7
20°	7178.1	7178.1	7289.4	7370.9	7134.7	6830.6	6627.0	6485.8	6396.3	6358.2	6350.1
22.5°	7653.2	7609.8	7680.4	7623.4	7121.1	6678.6	6396.3	6151.9	6016.2	5961.9	5953.7
25°	8255.9	8204.4	8185.4	7832.4	7023.4	6437.0	5978.2	5682.2	5562.8	5532.9	5538.4
27.5°	9165.4	9035.1	8788.1	7946.4	6844.2	6056.9	5489.5	5215.3	5147.4	5150.1	5158.3
30°	10376.3	10115.6	9510.2	7965.5	6551.0	5519.3	4989.9	4794.5	4761.9	4775.5	4821.6
32.5°	11497.5	11250.5	10248.7	7878.6	6100.3	4992.7	4542.0	4411.7	4362.8	4379.1	4400.8
35°	12377.1	12309.3	10932.8	7756.4	5546.5	4498.6	4140.2	4028.9	3933.9	3912.1	3928.4
37.5°	13207.9	13180.7	11445.9	7585.4	4998.1	4148.3	3817.1	3670.5	3532.1	3456.0	3458.8
40°	14120.1	14092.9	11782.6	7322.0	4512.1	3844.3	3526.6	3333.9	3162.8	3024.4	3037.9
42.5°	15146.3	14986.1	11942.7	6944.7	4099.5	3586.4	3290.4	3029.8	2804.5	2676.9	2685.0
45°	16267.5	15906.5	11940.0	6464.1	3752.0	3350.2	3037.9	2668.7	2459.7	2340.2	2334.8
47.5°	17456.7	16786.1	11793.4	5932.0	3415.3	3089.5	2647.0	2364.7	2226.2	2152.9	2136.6
50°	18683.8	17608.7	11543.7	5321.2	3070.5	2793.6	2402.7	2209.9	2104.0	2036.2	2011.7
52.5°	19837.6	18355.3	11242.3	4628.9	2720.3	2505.8	2294.1	2144.8	2033.4	1957.4	1924.8
55°	20910.0	18998.7	10816.1	3920.3	2435.2	2313.1	2242.5	2117.6	1990.0	1900.4	1865.1
57.5°	21862.9	19416.8	10080.3	3255.1	2231.6	2180.0	2188.2	2071.5	1924.8	1848.8	1800.0
60°	22655.7	19723.6	8991.7	2638.9	2066.0	2049.7	2104.0	1984.6	1813.5	1726.7	1688.7
62.5°	23130.8	19718.2	7656.0	2161.0	1924.8	1930.3	1992.7	1876.0	1702.2	1620.8	1596.3
65°	23090.0	19234.9	6189.9	1848.8	1789.1	1794.5	1876.0	1756.5	1609.9	1561.1	1558.3
67.5°	22272.9	18056.7	4748.3	1645.2	1639.8	1664.2	1759.2	1675.1	1552.9	1547.5	1555.6
70°	20060.2	15610.5	3420.7	1482.3	1485.0	1520.3	1645.2	1623.5	1523.0	1533.9	1531.2
72.5°	16085.7	11902.0	2296.8	1311.3	1314.0	1371.0	1536.6	1582.8	1493.2	1637.1	1658.8
75°	10712.9	7422.5	1476.9	1129.4	1132.1	1205.4	1441.6	1504.0	1411.7	1631.6	1645.2
77.5°	5147.4	3336.6	1069.7	950.2	950.2	1018.1	1246.1	1346.6	1202.7	1267.8	1162.0
80°	1778.2	1254.3	841.6	765.6	749.3	795.5	1050.7	1167.4	1037.1	955.6	895.9
82.5°	700.4	651.6	676.0	594.6	540.3	570.1	817.2	963.8	762.9	689.6	686.9
85°	401.8	423.5	477.8	393.7	312.2	350.2	600.0	692.3	575.6	507.7	518.5
87.5°	108.6	149.3	219.9	203.6	141.2	149.3	285.1	382.8	331.2	255.2	263.3
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)