

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: P884824

Luminaire Tested: **NAV-SB5D-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884824
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-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 41588 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

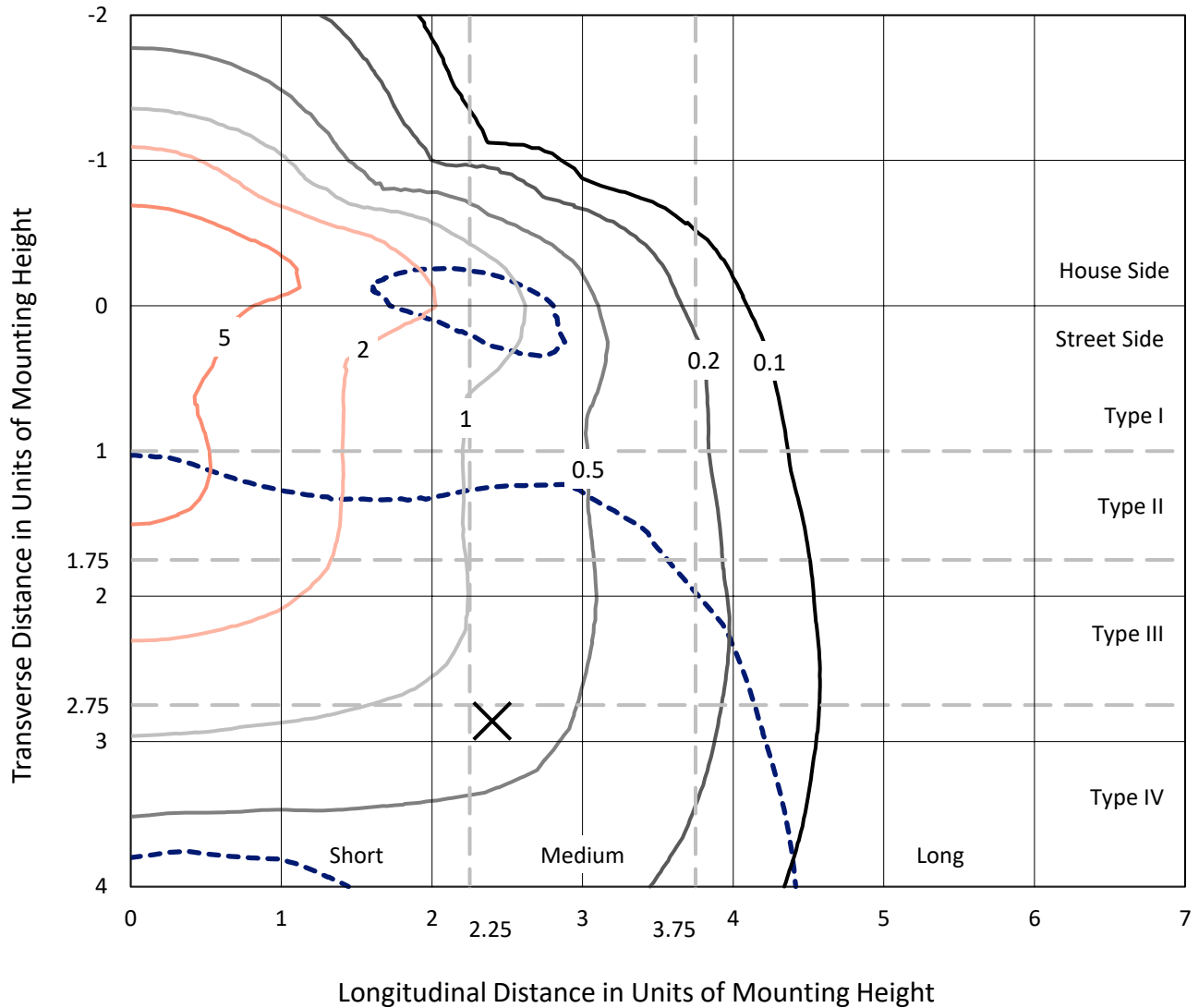
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

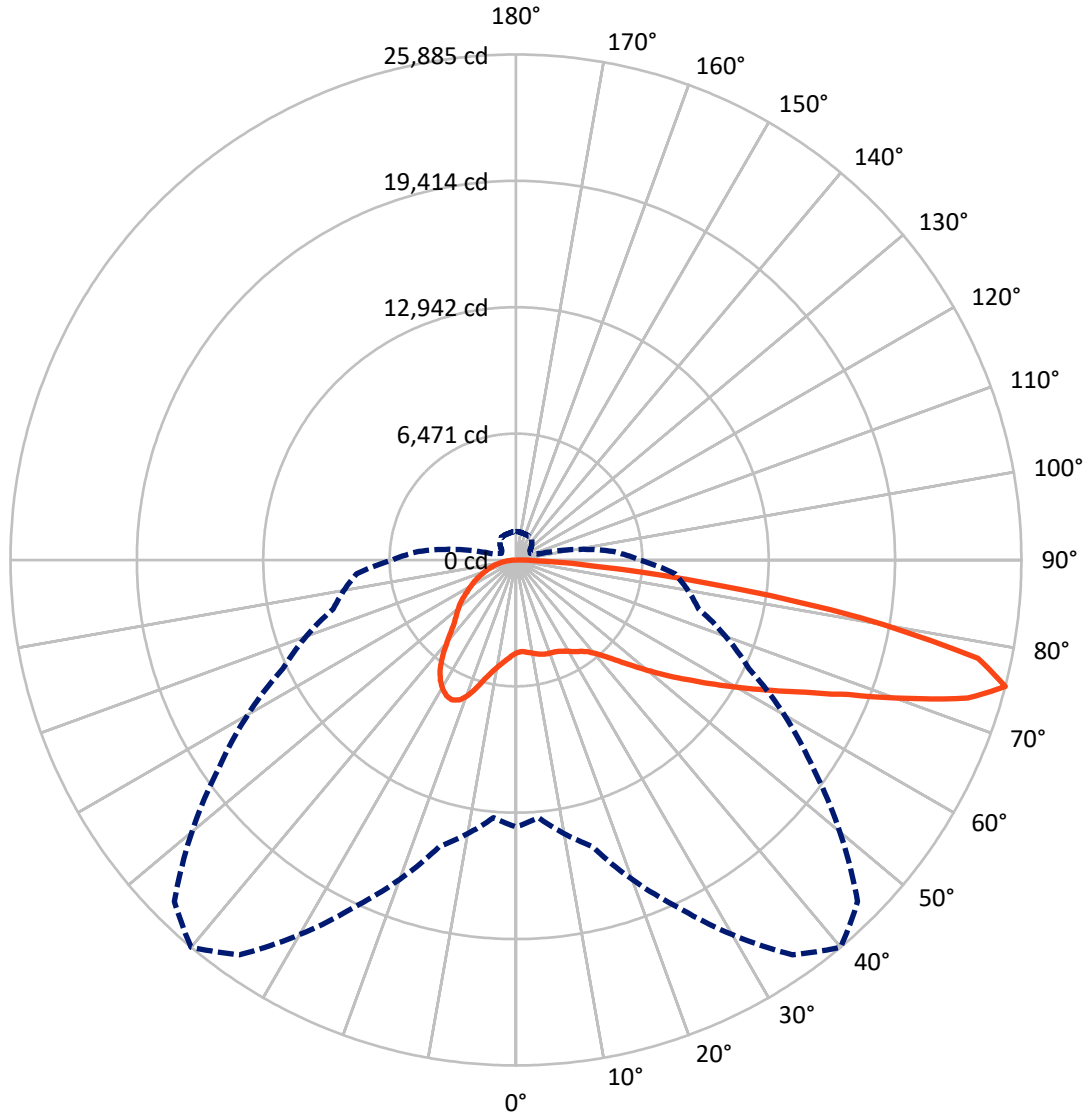
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12885.4	0.0	12885.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	28702.6	0.0	28702.6
	% Fixture	69.0	0.0	69.0
Total	Lumens	41588.0	0.0	41588.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	474.7	1.1
10°-20°	1593.8	3.8
20°-30°	2910.1	7.0
30°-40°	4127.4	9.9
40°-50°	5573.2	13.4
50°-60°	7497.5	18.0
60°-70°	9516.0	22.9
70°-80°	8636.4	20.8
80°-90°	1258.9	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°	41588.0	100.0
0°-180°	41588.0	100.0

Coefficient of Utilization



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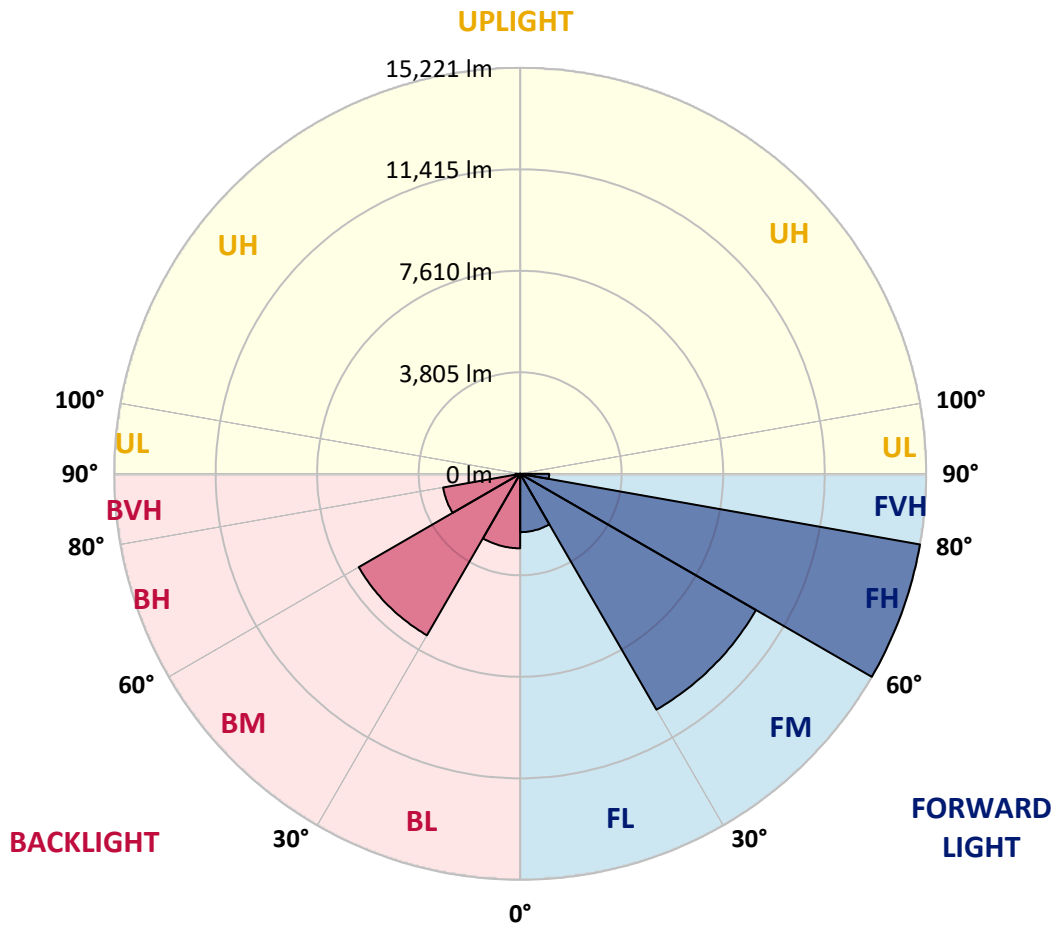
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2187.6	5.3			
FM (30°-60°)	10208.9	24.5			
FH (60°-80°)	15220.6	36.6			G5
FVH (80°-90°)	1085.6	2.6			G5
BL (0°-30°)	2791.1	6.7	B4/5000		
BM (30°-60°)	6989.1	16.8	B4/8500		
BH (60°-80°)	2931.8	7.0	B4/5000		G4/5000
BVH (80°-90°)	173.3	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6
2.5°	4682.9	4709.3	4702.7	4693.9	4693.9	4696.1	4693.9	4709.3	4724.8	4740.2	4764.5
5°	4731.4	4757.8	4744.6	4733.6	4724.8	4722.6	4715.9	4713.7	4722.6	4742.4	4775.5
7.5°	4826.2	4852.7	4832.8	4813.0	4795.3	4786.5	4777.7	4764.5	4757.8	4768.9	4815.2
10°	4932.1	4958.6	4934.3	4899.0	4870.3	4859.3	4850.5	4837.3	4828.4	4835.1	4885.8
12.5°	5038.0	5064.5	5031.4	4982.8	4945.3	4938.7	4927.7	4923.3	4921.1	4918.9	4969.6
15°	5137.2	5159.3	5117.4	5060.0	5020.3	5009.3	4998.3	5004.9	5015.9	5029.2	5086.5
17.5°	5214.4	5236.5	5174.7	5099.7	5062.2	5057.8	5051.2	5073.3	5104.2	5137.2	5207.8
20°	5285.0	5307.1	5227.7	5126.2	5082.1	5082.1	5084.3	5130.6	5174.7	5223.3	5320.3
22.5°	5384.3	5401.9	5304.9	5165.9	5101.9	5106.4	5124.0	5170.3	5225.5	5291.6	5426.2
25°	5532.1	5545.3	5426.2	5240.9	5168.1	5181.4	5196.8	5218.9	5271.8	5349.0	5529.9
27.5°	5770.3	5781.3	5624.7	5373.3	5263.0	5285.0	5307.1	5291.6	5315.9	5382.1	5613.7
30°	6105.6	6112.2	5913.7	5580.6	5424.0	5435.0	5439.4	5375.5	5329.1	5382.1	5673.2
32.5°	6502.6	6500.4	6264.4	5832.1	5607.1	5596.0	5558.5	5432.8	5324.7	5371.1	5726.2
35°	7118.0	7093.8	6789.4	6185.0	5814.4	5746.0	5657.8	5496.8	5346.8	5360.0	5772.5
37.5°	8137.1	8062.1	7640.8	6762.9	6123.2	5949.0	5818.8	5600.5	5395.3	5355.6	5827.6
40°	9286.3	9191.4	8728.2	7554.8	6586.4	6306.3	6096.8	5748.2	5474.7	5375.5	5909.3
42.5°	10649.5	10514.9	10016.4	8487.8	7173.2	6767.3	6451.9	5935.7	5591.6	5439.4	6019.6
45°	12323.6	12145.0	11439.1	9540.0	7912.1	7371.7	6950.4	6220.3	5770.3	5563.0	6185.0
47.5°	14015.5	14059.6	13056.0	10744.3	8798.8	8117.2	7574.6	6648.2	6030.6	5761.5	6451.9
50°	15813.2	15844.1	14664.0	12078.8	9804.7	8959.8	8276.1	7126.8	6392.3	6043.8	6851.1
52.5°	17216.0	17220.5	16124.2	13475.1	10852.4	9886.3	9032.6	7673.9	6811.4	6418.8	7382.7
55°	18093.9	18082.9	17147.7	14796.3	12056.7	10859.0	9870.8	8295.9	7323.2	6859.9	8051.1
57.5°	18731.4	18698.3	17853.5	15932.3	13340.5	12008.2	10819.3	9001.8	7927.5	7384.9	8931.2
60°	18974.0	18954.2	18332.2	16913.9	14690.4	13278.7	11913.4	9791.4	8613.5	8004.7	10062.7
62.5°	19066.7	19104.2	18802.0	17864.5	16135.2	14686.0	13115.5	10735.5	9385.6	8706.2	11256.1
65°	19393.1	19461.5	19399.8	19108.6	17767.5	16333.7	14710.3	11858.2	10228.2	9458.3	12502.3
67.5°	20039.4	20107.8	20134.3	20597.5	19761.5	18387.3	16699.9	13256.7	11214.1	10239.2	13439.8
70°	20024.0	20004.1	20471.8	21782.0	22258.4	21230.6	19382.1	14977.2	12389.8	10887.7	13558.9
72.5°	18226.3	18067.5	19172.6	21768.8	24336.3	24199.5	22657.7	17196.2	13404.5	10967.1	11765.6
75°	13673.6	13250.1	15202.2	19618.1	24682.6	25884.7	24739.9	18572.6	13164.0	9690.0	8187.8
77.5°	5847.5	5421.8	7722.4	14522.8	22090.8	24197.3	22829.7	16203.6	10508.3	6407.8	4021.1
80°	1530.8	1528.6	2333.7	6584.2	15023.5	17869.0	15676.4	10464.2	6004.1	2289.6	1109.5
82.5°	633.1	617.6	858.0	2560.9	7340.8	10027.4	8183.4	4667.4	2168.3	619.8	368.4
85°	236.0	233.8	416.9	884.5	2589.6	4135.8	2993.2	1193.3	540.4	302.2	165.4
87.5°	66.2	64.0	90.4	306.6	630.9	957.3	511.7	196.3	152.2	119.1	48.5
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°	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6	4755.6
2.5°	4771.1	4782.1	4802.0	4817.4	4837.3	4859.3	4890.2	4910.0	4929.9	4943.1	4934.3
5°	4790.9	4815.2	4865.9	4916.7	4976.2	5031.4	5095.3	5141.7	5179.2	5190.2	5194.6
7.5°	4835.1	4874.8	4960.8	5046.8	5141.7	5232.1	5324.7	5404.1	5468.1	5492.4	5494.6
10°	4912.3	4965.2	5086.5	5207.8	5333.6	5472.5	5591.6	5706.3	5796.8	5834.3	5836.5
12.5°	5009.3	5075.5	5234.3	5401.9	5576.2	5768.1	5922.5	6063.7	6176.2	6226.9	6226.9
15°	5135.0	5221.1	5424.0	5649.0	5904.9	6171.7	6368.1	6524.7	6650.4	6712.2	6707.8
17.5°	5271.8	5386.5	5642.4	5982.1	6348.2	6698.9	6928.3	7043.0	7173.2	7232.7	7230.5
20°	5404.1	5545.3	5911.5	6405.6	6893.0	7265.8	7451.1	7482.0	7490.8	7497.4	7515.1
22.5°	5540.9	5730.6	6249.0	6939.4	7462.1	7720.2	7746.7	7614.3	7429.0	7343.0	7367.3
25°	5690.9	5942.3	6690.1	7528.3	7951.8	7982.7	7779.8	7457.7	7107.0	6946.0	6970.2
27.5°	5836.5	6187.2	7219.5	8090.8	8304.7	8033.4	7596.7	7140.1	6716.6	6546.7	6566.6
30°	5982.1	6467.3	7804.0	8582.7	8465.8	7907.7	7307.7	6798.2	6372.5	6193.8	6213.7
32.5°	6129.8	6793.8	8476.8	8937.8	8437.1	7640.8	6948.2	6414.4	6039.4	5851.9	5876.2
35°	6297.5	7195.2	9114.2	9131.9	8245.2	7248.2	6473.9	5955.6	5629.1	5479.1	5512.2
37.5°	6515.8	7704.8	9676.7	9180.4	7909.9	6672.5	5885.0	5413.0	5143.9	5075.5	5124.0
40°	6787.2	8318.0	10106.8	9103.2	7413.6	5973.2	5240.9	4863.7	4711.5	4727.0	4779.9
42.5°	7140.1	9004.0	10409.0	8904.7	6723.2	5251.9	4676.2	4508.6	4581.4	4643.1	4700.5
45°	7598.9	9716.4	10596.5	8567.2	5942.3	4640.9	4343.2	4382.9	4438.0	4444.6	4488.7
47.5°	8185.6	10437.7	10720.0	8057.7	5146.1	4210.8	4131.4	4140.2	4129.2	4082.9	4118.2
50°	8917.9	11139.1	10830.3	7382.7	4468.9	3941.7	3835.8	3805.0	3652.8	3502.8	3522.6
52.5°	9751.7	11783.2	10876.7	6544.5	3941.7	3716.7	3544.7	3350.6	3066.0	3019.7	3035.1
55°	10678.1	12378.8	10757.5	5514.4	3498.4	3427.8	3167.5	2933.7	2902.8	2863.1	2869.7
57.5°	11785.4	13020.7	10514.9	4365.2	3044.0	3090.3	2836.6	2863.1	2807.9	2746.2	2735.2
60°	12996.4	13684.6	10089.2	3317.5	2574.1	2669.0	2750.6	2748.4	2733.0	2682.2	2664.6
62.5°	14086.1	14121.3	9251.0	2541.0	2161.7	2342.5	2565.3	2563.1	2549.9	2521.2	2510.2
65°	14734.6	14055.2	7852.5	2000.6	1822.0	2073.4	2313.9	2331.5	2333.7	2331.5	2331.5
67.5°	14619.9	13280.9	5933.5	1592.6	1541.8	1799.9	2064.6	2088.9	2106.5	2110.9	2115.3
70°	13322.9	11580.3	3868.9	1270.5	1292.6	1559.5	1828.6	1852.8	1868.3	1885.9	1894.8
72.5°	10384.8	8514.3	2214.6	1027.9	1074.2	1352.1	1594.8	1623.4	1632.3	1665.4	1678.6
75°	6328.4	5007.1	1195.5	809.5	882.3	1155.8	1363.2	1396.3	1411.7	1451.4	1455.8
77.5°	3008.7	2168.3	681.6	630.9	710.3	944.1	1151.4	1188.9	1147.0	1169.1	1151.4
80°	1016.9	805.1	430.1	480.9	542.6	736.7	922.0	959.5	871.3	866.9	858.0
82.5°	355.1	326.5	273.5	319.8	350.7	527.2	697.0	745.6	648.5	646.3	615.4
85°	139.0	132.3	152.2	174.3	209.5	324.2	458.8	483.1	399.2	322.0	317.6
87.5°	28.7	30.9	37.5	39.7	64.0	112.5	165.4	202.9	161.0	136.8	125.7
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)