

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: P884124

Luminaire Tested: **NAV-SB4D-750-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884124
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-SB4D-750-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5000K, 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: 44073 lumens
Efficiency: N/A
Efficacy: 150.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

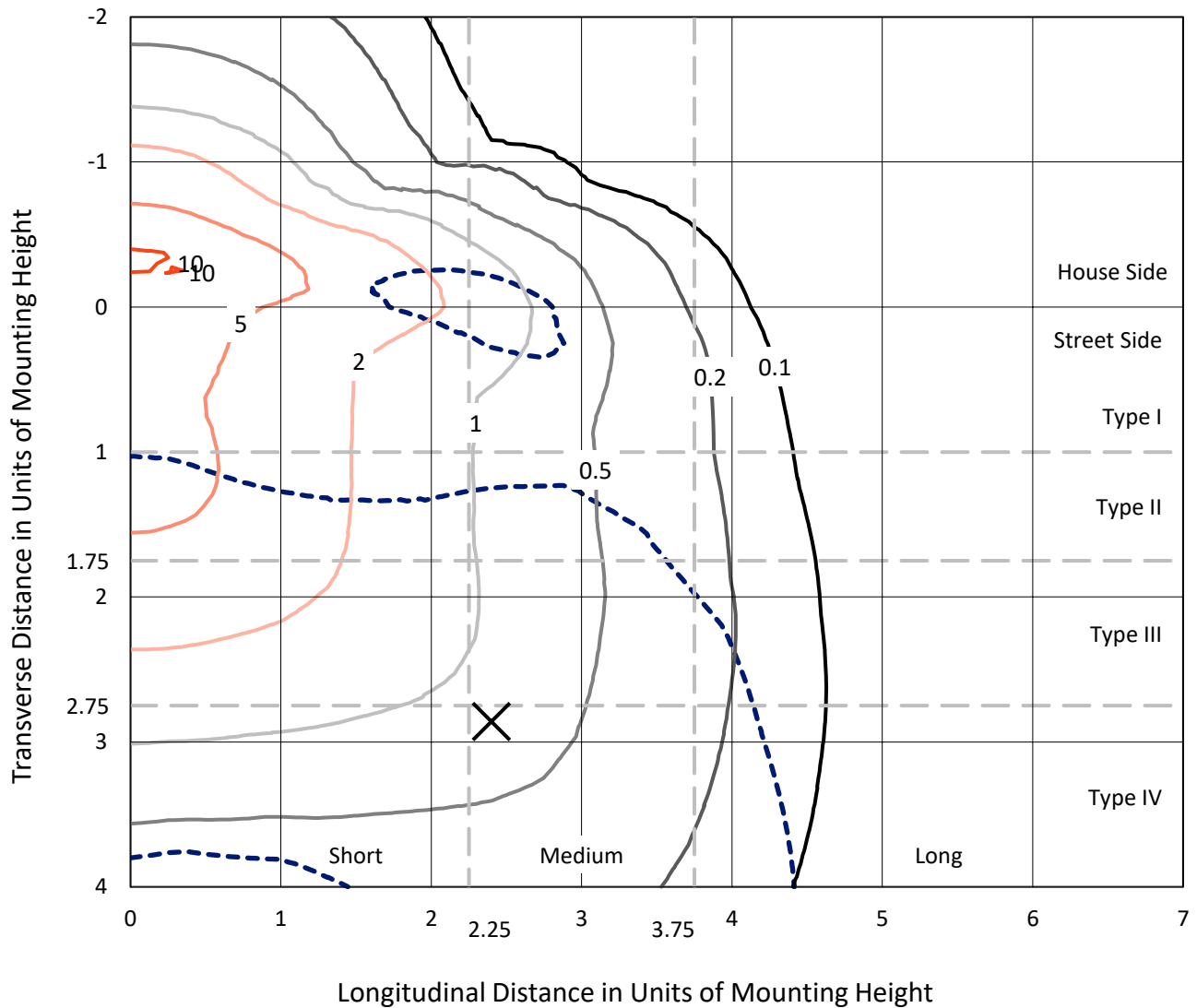
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

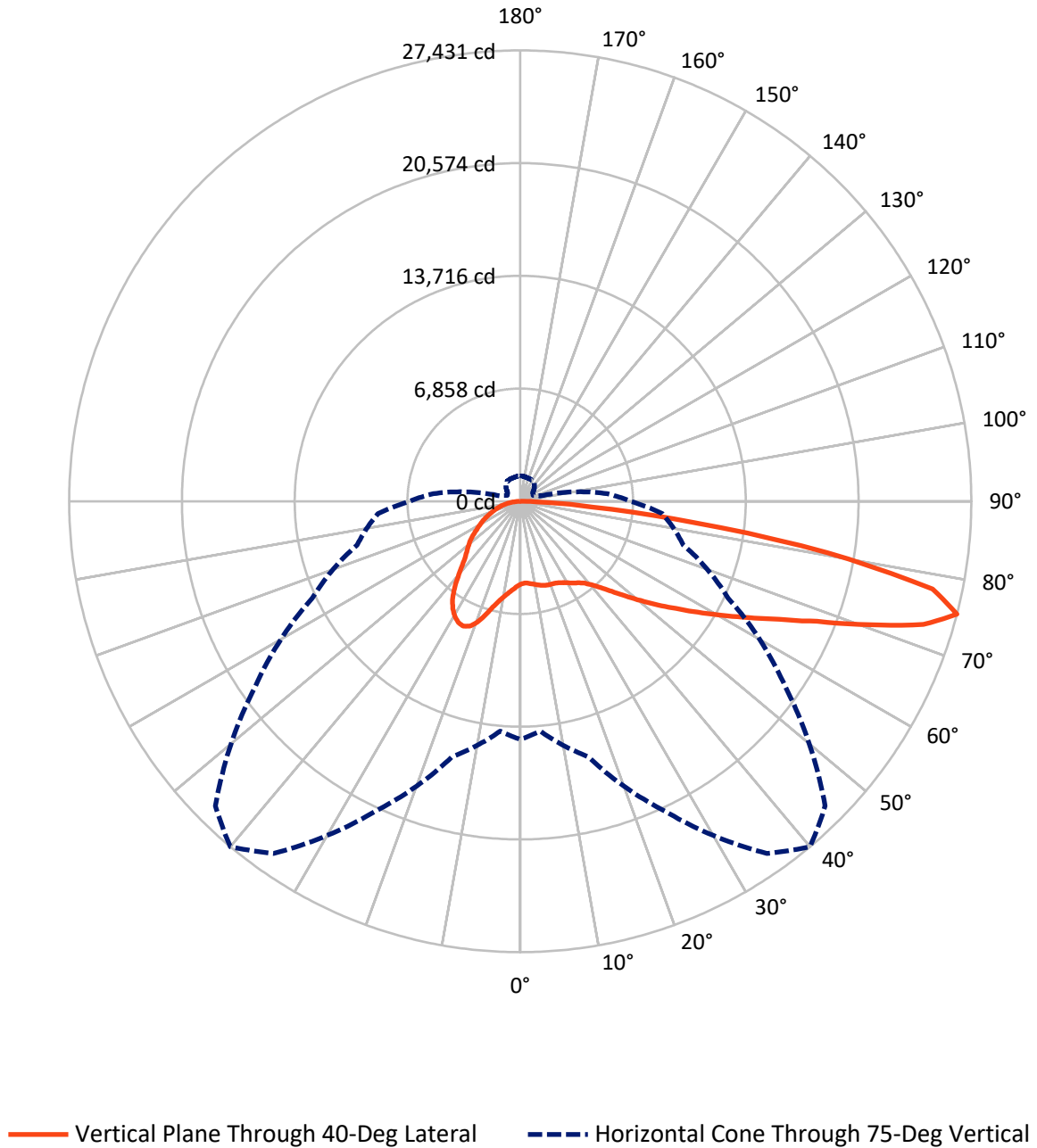
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13655.3	0.0	13655.3
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	30417.7	0.0	30417.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	44073.0	0.0	44073.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	503.1	1.1
10°-20°	1689.0	3.8
20°-30°	3084.0	7.0
30°-40°	4374.0	9.9
40°-50°	5906.2	13.4
50°-60°	7945.5	18.0
60°-70°	10084.6	22.9
70°-80°	9152.4	20.8
80°-90°	1334.1	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°	44073.0	100.0
0°-180°	44073.0	100.0

Coefficient of Utilization



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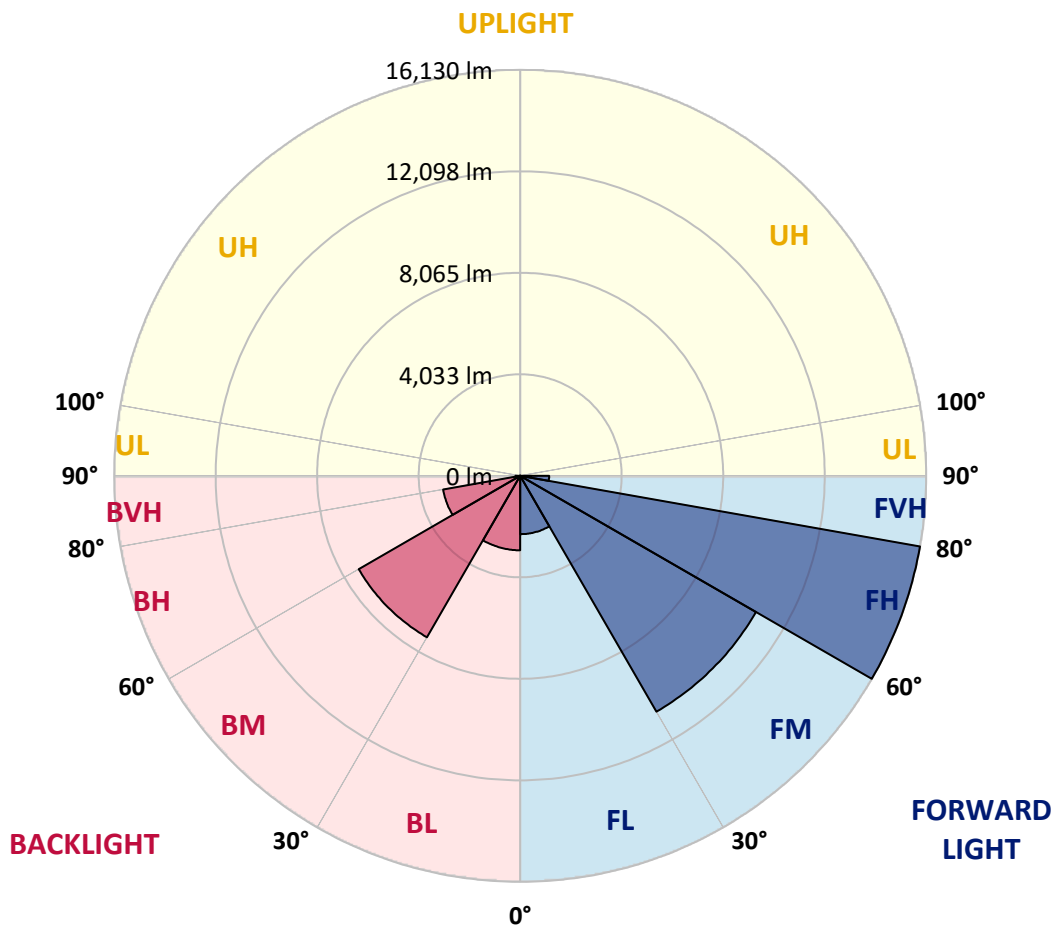
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2318.3	5.3			
FM (30°-60°)	10818.9	24.5			
FH (60°-80°)	16130.0	36.6			G5
FVH (80°-90°)	1150.4	2.6			G5
BL (0°-30°)	2957.9	6.7	B4/5000		
BM (30°-60°)	7406.8	16.8	B4/8500		
BH (60°-80°)	3107.0	7.0	B4/5000		G4/5000
BVH (80°-90°)	183.7	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°	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8
2.5°	4962.7	4990.7	4983.7	4974.4	4974.4	4976.7	4974.4	4990.7	5007.1	5023.4	5049.2
5°	5014.1	5042.1	5028.1	5016.4	5007.1	5004.7	4997.7	4995.4	5004.7	5025.8	5060.8
7.5°	5114.6	5142.7	5121.6	5100.6	5081.9	5072.5	5063.2	5049.2	5042.1	5053.8	5102.9
10°	5226.8	5254.9	5229.1	5191.7	5161.4	5149.7	5140.3	5126.3	5116.9	5124.0	5177.7
12.5°	5339.0	5367.1	5332.0	5280.6	5240.8	5233.8	5222.1	5217.5	5215.1	5212.8	5266.6
15°	5444.2	5467.6	5423.2	5362.4	5320.3	5308.6	5296.9	5304.0	5315.6	5329.7	5390.4
17.5°	5526.0	5549.4	5483.9	5404.5	5364.7	5360.1	5353.0	5376.4	5409.1	5444.2	5519.0
20°	5600.8	5624.2	5540.0	5432.5	5385.8	5385.8	5388.1	5437.2	5483.9	5535.4	5638.2
22.5°	5706.0	5724.7	5621.9	5474.6	5406.8	5411.5	5430.2	5479.3	5537.7	5607.8	5750.4
25°	5862.6	5876.7	5750.4	5554.1	5476.9	5491.0	5507.3	5530.7	5586.8	5668.6	5860.3
27.5°	6115.1	6126.8	5960.8	5694.3	5577.4	5600.8	5624.2	5607.8	5633.5	5703.7	5949.1
30°	6470.4	6477.4	6267.0	5914.1	5748.1	5759.8	5764.5	5696.7	5647.6	5703.7	6012.2
32.5°	6891.2	6888.8	6638.7	6180.5	5942.1	5930.4	5890.7	5757.4	5642.9	5692.0	6068.3
35°	7543.3	7517.6	7195.0	6554.6	6161.8	6089.4	5995.9	5825.2	5666.3	5680.3	6117.4
37.5°	8623.3	8543.8	8097.4	7167.0	6489.1	6304.4	6166.5	5935.1	5717.7	5675.6	6175.9
40°	9841.2	9740.7	9249.8	8006.2	6980.0	6683.1	6461.1	6091.7	5801.9	5696.7	6262.4
42.5°	11285.8	11143.2	10614.9	8995.0	7601.8	7171.7	6837.4	6290.4	5925.7	5764.5	6379.2
45°	13060.0	12870.7	12122.7	10110.0	8384.9	7812.2	7365.7	6592.0	6115.1	5895.4	6554.6
47.5°	14852.9	14899.7	13836.1	11386.3	9324.6	8602.3	8027.2	7045.4	6390.9	6105.7	6837.4
50°	16758.1	16790.8	15540.2	12800.5	10390.5	9495.2	8770.6	7552.7	6774.3	6404.9	7260.5
52.5°	18244.8	18249.4	17087.7	14280.2	11500.9	10477.0	9572.4	8132.4	7218.4	6802.3	7823.9
55°	19175.1	19163.4	18172.3	15680.4	12777.2	11507.9	10460.6	8791.6	7760.7	7269.9	8532.1
57.5°	19850.7	19815.6	18920.3	16884.3	14137.6	12725.7	11465.8	9539.6	8401.2	7826.2	9464.8
60°	20107.8	20086.8	19427.6	17924.5	15568.2	14072.2	12625.2	10376.5	9128.2	8483.1	10664.0
62.5°	20206.0	20245.7	19925.5	18932.0	17099.3	15563.6	13899.2	11377.0	9946.4	9226.4	11928.6
65°	20551.9	20624.4	20559.0	20250.4	18829.1	17309.7	15589.3	12566.8	10839.3	10023.5	13249.4
67.5°	21236.8	21309.3	21337.4	21828.3	20942.3	19486.0	17697.8	14048.8	11884.2	10851.0	14242.8
70°	21220.5	21199.4	21695.0	23083.5	23588.4	22499.1	20540.2	15872.1	13130.1	11538.3	14369.1
72.5°	19315.4	19147.1	20318.2	23069.5	25790.4	25645.5	24011.5	18223.7	14205.4	11622.4	12468.6
75°	14490.6	14041.8	16110.5	20790.4	26157.4	27431.4	26218.2	19682.4	13950.6	10269.0	8677.1
77.5°	6196.9	5745.8	8183.8	15390.6	23410.8	25643.2	24193.9	17171.8	11136.2	6790.6	4261.4
80°	1622.3	1619.9	2473.2	6977.7	15921.2	18936.7	16613.1	11089.4	6362.9	2426.4	1175.8
82.5°	670.9	654.5	909.3	2713.9	7779.4	10626.6	8672.4	4946.3	2297.8	656.9	390.4
85°	250.1	247.8	441.8	937.4	2744.3	4382.9	3172.1	1264.6	572.7	320.2	175.3
87.5°	70.1	67.8	95.8	324.9	668.5	1014.5	542.3	208.0	161.3	126.2	51.4
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°	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8	5039.8
2.5°	5056.2	5067.9	5088.9	5105.3	5126.3	5149.7	5182.4	5203.4	5224.5	5238.5	5229.1
5°	5077.2	5102.9	5156.7	5210.4	5273.6	5332.0	5399.8	5448.9	5488.6	5500.3	5505.0
7.5°	5124.0	5166.0	5257.2	5348.4	5448.9	5544.7	5642.9	5727.1	5794.8	5820.6	5822.9
10°	5205.8	5261.9	5390.4	5519.0	5652.3	5799.5	5925.7	6047.3	6143.1	6182.9	6185.2
12.5°	5308.6	5378.8	5547.1	5724.7	5909.4	6112.8	6276.4	6426.0	6545.2	6599.0	6599.0
15°	5441.9	5533.0	5748.1	5986.5	6257.7	6540.5	6748.6	6914.5	7047.8	7113.2	7108.6
17.5°	5586.8	5708.4	5979.5	6339.5	6727.5	7099.2	7342.3	7463.9	7601.8	7664.9	7662.6
20°	5727.1	5876.7	6264.7	6788.3	7304.9	7700.0	7896.3	7929.0	7938.4	7945.4	7964.1
22.5°	5872.0	6073.0	6622.3	7354.0	7908.0	8181.5	8209.6	8069.3	7872.9	7781.8	7807.5
25°	6030.9	6297.4	7089.9	7978.1	8426.9	8459.7	8244.6	7903.3	7531.7	7361.0	7386.7
27.5°	6185.2	6556.9	7650.9	8574.2	8801.0	8513.4	8050.6	7566.7	7117.9	6937.9	6959.0
30°	6339.5	6853.8	8270.3	9095.5	8971.6	8380.2	7744.4	7204.4	6753.2	6563.9	6584.9
32.5°	6496.1	7199.7	8983.3	9471.8	8941.2	8097.4	7363.4	6797.7	6400.3	6201.6	6227.3
35°	6673.8	7625.2	9658.8	9677.6	8737.8	7681.3	6860.8	6311.4	5965.5	5806.5	5841.6
37.5°	6905.2	8165.1	10254.9	9729.0	8382.5	7071.2	6236.6	5736.4	5451.2	5378.8	5430.2
40°	7192.7	8815.0	10710.8	9647.2	7856.6	6330.1	5554.1	5154.3	4993.1	5009.4	5065.5
42.5°	7566.7	9542.0	11031.0	9436.8	7124.9	5565.8	4955.7	4778.0	4855.1	4920.6	4981.4
45°	8052.9	10297.0	11229.7	9079.1	6297.4	4918.3	4602.7	4644.8	4703.2	4710.2	4757.0
47.5°	8674.7	11061.4	11360.6	8539.2	5453.6	4462.4	4378.3	4387.6	4375.9	4326.8	4364.2
50°	9450.8	11804.7	11477.5	7823.9	4735.9	4177.2	4065.0	4032.3	3871.0	3712.1	3733.1
52.5°	10334.4	12487.3	11526.6	6935.6	4177.2	3938.8	3756.5	3550.8	3249.2	3200.1	3216.5
55°	11316.2	13118.5	11400.3	5843.9	3707.4	3632.6	3356.8	3109.0	3076.2	3034.2	3041.2
57.5°	12489.6	13798.7	11143.2	4626.1	3225.9	3274.9	3006.1	3034.2	2975.7	2910.3	2898.6
60°	13773.0	14502.3	10692.1	3515.7	2727.9	2828.5	2915.0	2912.6	2896.3	2842.5	2823.8
62.5°	14927.7	14965.1	9803.8	2692.9	2290.8	2482.5	2718.6	2716.3	2702.2	2671.8	2660.2
65°	15615.0	14895.0	8321.8	2120.2	1930.8	2197.3	2452.1	2470.8	2473.2	2470.8	2470.8
67.5°	15493.4	14074.5	6288.1	1687.7	1634.0	1907.5	2188.0	2213.7	2232.4	2237.1	2241.7
70°	14118.9	12272.3	4100.1	1346.4	1369.8	1652.7	1937.8	1963.6	1979.9	1998.6	2008.0
72.5°	11005.3	9023.0	2346.9	1089.3	1138.4	1432.9	1690.1	1720.5	1729.8	1764.9	1778.9
75°	6706.5	5306.3	1267.0	857.9	935.0	1224.9	1444.6	1479.7	1496.0	1538.1	1542.8
77.5°	3188.4	2297.8	722.3	668.5	752.7	1000.5	1220.2	1260.0	1215.5	1238.9	1220.2
80°	1077.6	853.2	455.8	509.6	575.0	780.7	977.1	1016.8	923.3	918.7	909.3
82.5°	376.3	346.0	289.9	338.9	371.7	558.7	738.7	790.1	687.2	684.9	652.2
85°	147.3	140.3	161.3	184.7	222.1	343.6	486.2	511.9	423.1	341.3	336.6
87.5°	30.4	32.7	39.7	42.1	67.8	119.2	175.3	215.1	170.6	144.9	133.2
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)