

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: P884171

Luminaire Tested: **NAV-SB4D-835-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884171
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-835-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34392 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

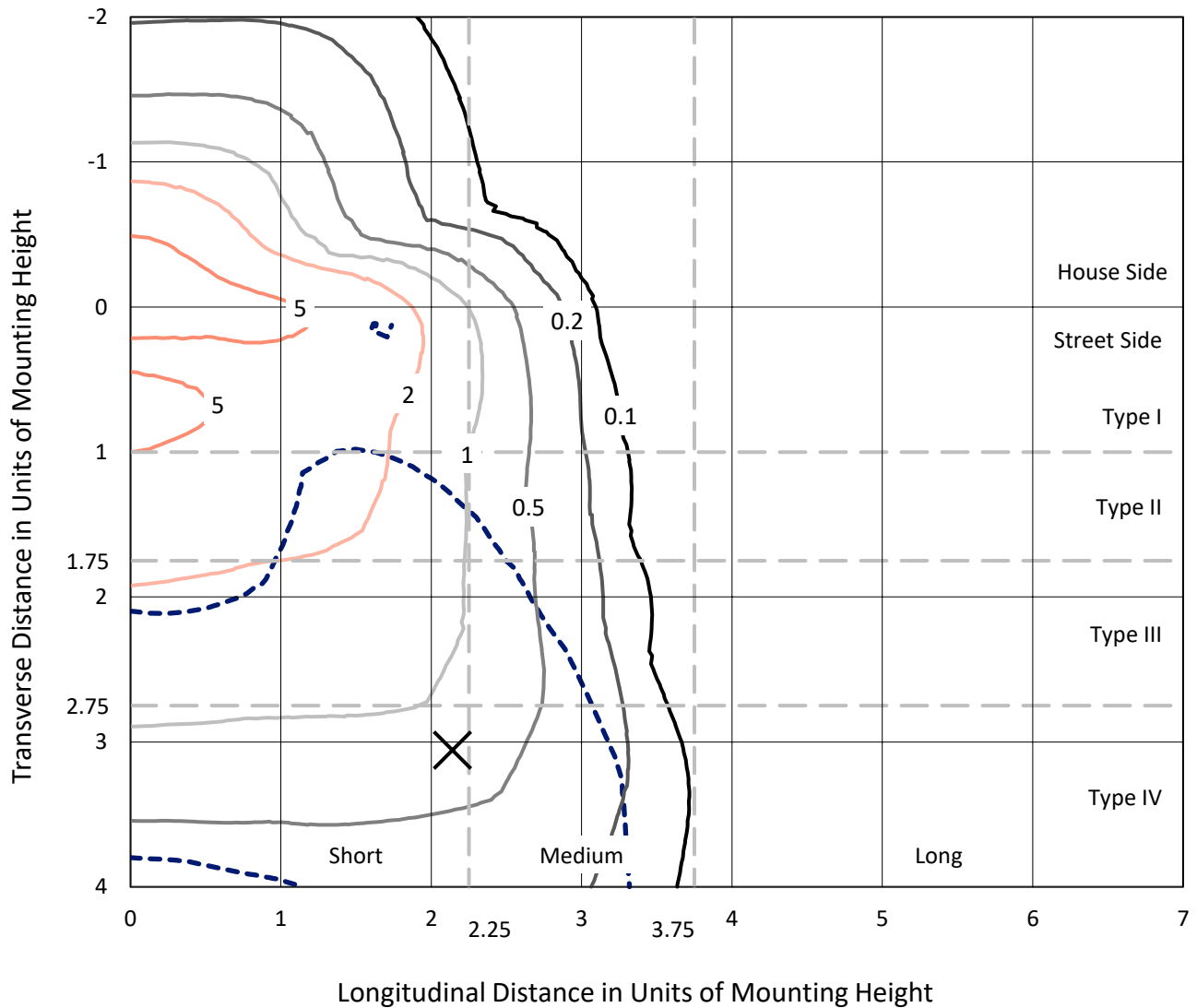
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

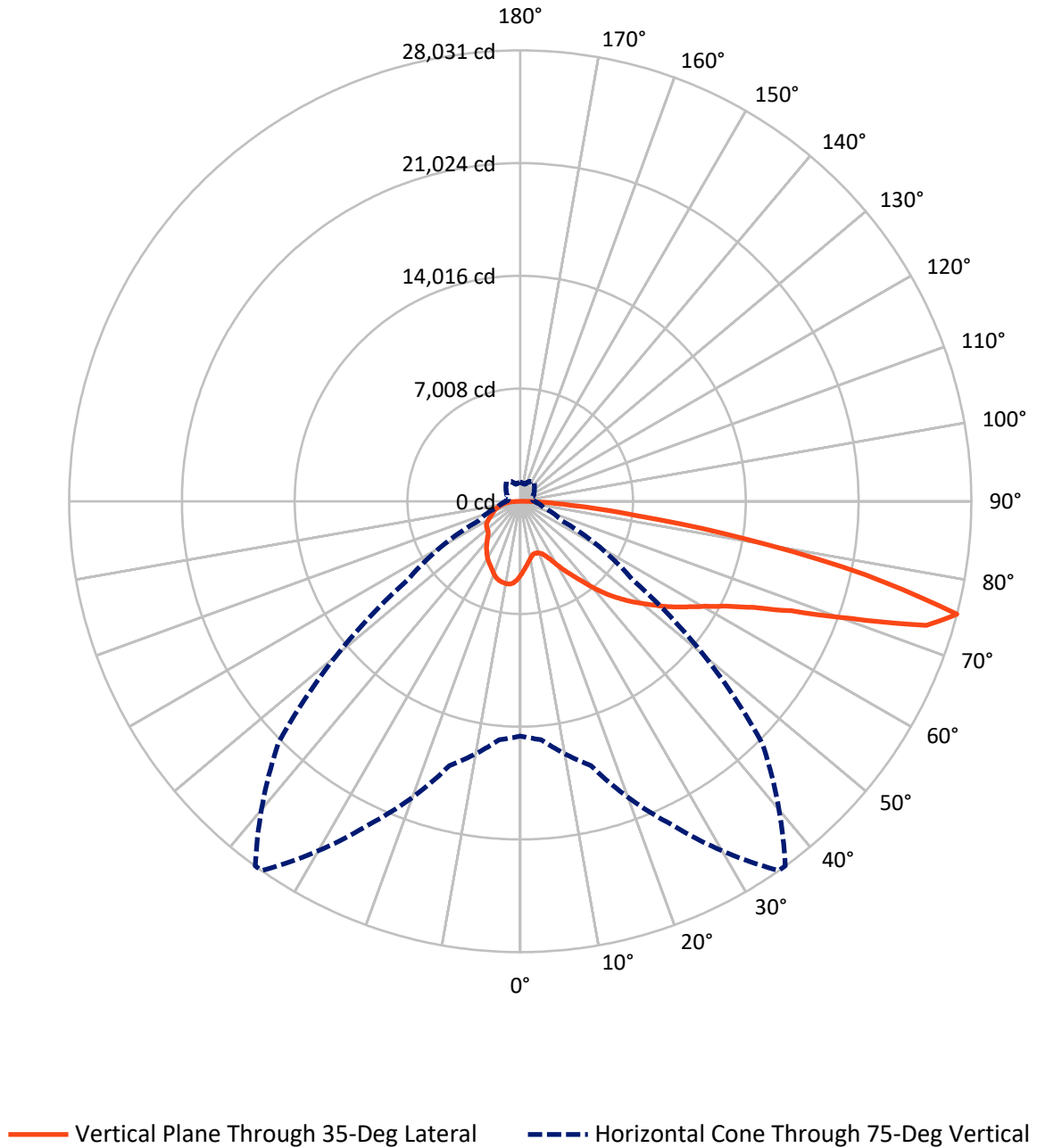
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8184.4	0.0	8184.4
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	26207.6	0.0	26207.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	34392.0	0.0	34392.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.9	1.3
10°-20°	1251.6	3.6
20°-30°	2101.8	6.1
30°-40°	3266.4	9.5
40°-50°	4848.3	14.1
50°-60°	6693.3	19.5
60°-70°	8120.5	23.6
70°-80°	6711.0	19.5
80°-90°	965.2	2.8
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°	34392.0	100.0
0°-180°	34392.0	100.0



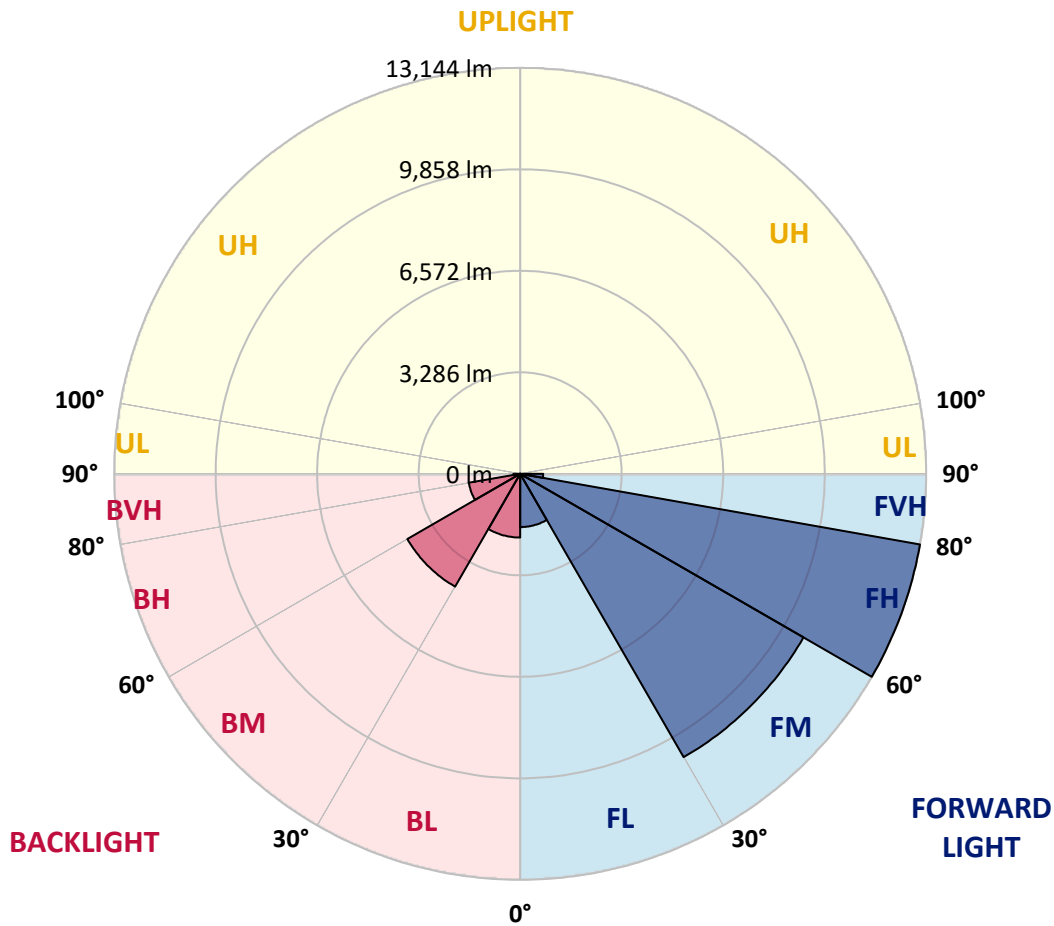
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1724.7	5.0			
FM (30°-60°)	10590.9	30.8			
FH (60°-80°)	13144.1	38.2			G5
FVH (80°-90°)	747.9	2.2			G4/750
BL (0°-30°)	2062.6	6.0	B3/2500		
BM (30°-60°)	4217.1	12.3	B3/5000		
BH (60°-80°)	1687.4	4.9	B3/2500		G3/2500
BVH (80°-90°)	217.3	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0
2.5°	4226.0	4252.0	4263.2	4257.6	4285.5	4281.8	4320.8	4369.2	4436.1	4501.2	4596.0
5°	3900.6	3928.5	3952.7	3975.0	4028.9	4045.7	4107.0	4200.0	4322.7	4447.2	4603.4
7.5°	3597.6	3621.8	3658.9	3699.8	3790.9	3807.7	3909.9	4054.9	4226.0	4408.2	4623.9
10°	3350.3	3374.5	3413.5	3460.0	3573.4	3593.9	3724.0	3917.4	4140.5	4371.0	4646.2
12.5°	3244.3	3251.8	3274.1	3320.6	3419.1	3432.1	3575.3	3796.5	4056.8	4343.1	4679.6
15°	3238.8	3253.6	3255.5	3279.7	3361.5	3367.0	3499.0	3718.4	4004.8	4337.6	4729.8
17.5°	3294.5	3305.7	3289.0	3303.8	3372.6	3381.9	3486.0	3681.2	3988.0	4361.7	4815.4
20°	3443.3	3452.6	3402.4	3381.9	3432.1	3439.5	3541.8	3705.4	4004.8	4411.9	4932.5
22.5°	3759.3	3764.9	3642.2	3558.5	3562.3	3566.0	3655.2	3804.0	4069.8	4503.0	5081.2
25°	4252.0	4248.3	4053.1	3891.3	3798.4	3777.9	3837.4	3963.8	4179.5	4623.9	5272.7
27.5°	4828.4	4800.5	4605.3	4363.6	4160.9	4131.2	4118.2	4172.1	4335.7	4783.8	5507.0
30°	5479.1	5453.1	5243.0	4926.9	4646.2	4597.8	4475.1	4447.2	4568.1	5001.3	5832.4
32.5°	6193.0	6176.3	5925.3	5542.3	5166.8	5111.0	4904.6	4830.2	4925.1	5330.4	6286.0
35°	6791.7	6776.8	6568.6	6174.5	5715.2	5646.4	5436.3	5352.7	5401.0	5752.4	6879.1
37.5°	7332.7	7325.3	7146.8	6836.3	6362.2	6278.6	6042.5	6014.6	6005.3	6308.3	7598.6
40°	7834.7	7816.1	7630.2	7466.6	7115.2	7039.0	6830.8	6806.6	6735.9	6992.5	8413.0
42.5°	8390.6	8342.3	8072.7	7996.5	7901.7	7838.5	7713.9	7717.6	7561.4	7764.1	9275.6
45°	8844.3	8816.4	8539.4	8494.8	8597.0	8571.0	8678.8	8706.7	8403.7	8572.8	10171.8
47.5°	9331.4	9305.4	9071.1	9039.5	9316.5	9324.0	9705.1	9714.4	9225.4	9413.2	11069.8
50°	9931.9	9894.7	9662.3	9701.4	10011.9	10039.8	10737.0	10673.8	9982.1	10266.6	11960.3
52.5°	10327.9	10350.3	10300.1	10363.3	10787.2	10813.2	11752.1	11590.4	10731.4	11108.8	12834.2
55°	10619.8	10664.5	10820.6	10965.7	11605.2	11631.3	12709.6	12462.3	11352.4	11889.7	13655.9
57.5°	10995.4	10932.2	11224.1	11506.7	12382.4	12451.2	13641.1	13302.7	11902.7	12562.7	14219.3
60°	11534.6	11490.0	11716.8	12135.1	13252.5	13362.2	14626.4	14059.4	12306.1	13096.3	14329.0
62.5°	12627.8	12516.2	12551.6	12921.5	14349.4	14494.4	15738.3	14719.4	12506.9	13304.5	13741.5
65°	14262.0	14070.5	13892.1	14148.6	15894.4	16037.6	16993.2	15238.1	12432.6	12901.1	12181.6
67.5°	16320.2	16130.6	15911.2	16152.9	18170.1	18283.5	18542.0	15530.0	11846.9	11346.8	9424.4
70°	18017.7	17947.0	18209.2	19203.8	21804.9	21808.6	20527.6	15288.3	10242.4	8044.8	5453.1
72.5°	17792.7	17749.9	19131.3	22206.5	26386.0	26287.5	22407.3	13458.9	6899.5	3629.2	2043.3
75°	14596.7	14873.7	17013.7	22152.6	28031.4	28018.4	21256.4	8556.1	2853.9	1504.1	1056.0
77.5°	7827.3	8266.1	11045.6	16355.5	21883.0	22212.0	14944.4	2993.3	1225.2	963.1	730.7
80°	2552.7	2935.7	4402.6	8327.4	14219.3	14157.9	6405.0	1175.0	838.5	682.3	505.7
82.5°	1083.9	1128.5	1967.1	3932.2	7297.4	7184.0	2039.6	674.9	589.4	466.7	312.3
85°	423.9	474.1	868.3	1818.3	3160.7	3091.9	736.2	334.7	377.4	304.9	185.9
87.5°	139.4	169.2	310.5	622.8	983.5	948.2	180.3	115.3	163.6	139.4	66.9
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°	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0	4583.0
2.5°	4622.0	4651.8	4687.1	4739.1	4783.8	4820.9	4860.0	4884.2	4893.5	4921.3	4919.5
5°	4655.5	4720.5	4807.9	4893.5	4977.1	5027.3	5071.9	5094.3	5114.7	5129.6	5133.3
7.5°	4711.3	4794.9	4932.5	5044.1	5114.7	5155.6	5185.4	5177.9	5185.4	5189.1	5194.6
10°	4759.6	4876.7	5040.3	5146.3	5200.2	5202.1	5194.6	5168.6	5155.6	5157.5	5161.2
12.5°	4817.2	4947.4	5124.0	5213.2	5228.1	5187.2	5155.6	5111.0	5094.3	5086.8	5083.1
15°	4895.3	5044.1	5215.1	5248.6	5211.4	5159.3	5105.4	5032.9	4995.7	4966.0	4975.3
17.5°	4990.1	5153.7	5285.8	5261.6	5181.6	5096.1	5008.7	4899.0	4822.8	4791.2	4793.1
20°	5122.1	5269.0	5339.7	5233.7	5112.8	4982.7	4834.0	4700.1	4629.4	4597.8	4594.1
22.5°	5282.0	5423.3	5391.7	5185.4	5014.3	4806.1	4620.2	4521.6	4486.3	4464.0	4467.7
25°	5473.5	5594.4	5428.9	5114.7	4852.6	4571.8	4428.7	4397.0	4380.3	4363.6	4363.6
27.5°	5722.7	5787.7	5456.8	5010.6	4599.7	4322.7	4270.6	4276.2	4270.6	4242.7	4248.3
30°	6051.7	6038.7	5482.8	4841.4	4309.7	4097.7	4101.4	4125.6	4129.3	4110.7	4120.0
32.5°	6484.9	6352.9	5495.8	4622.0	4032.6	3900.6	3904.4	3930.4	3949.0	3917.4	3932.2
35°	7009.2	6719.2	5475.4	4346.8	3818.8	3712.9	3685.0	3692.4	3698.0	3668.2	3688.7
37.5°	7620.9	7130.1	5384.3	4041.9	3642.2	3528.8	3469.3	3419.1	3389.4	3361.5	3380.1
40°	8292.1	7578.2	5217.0	3744.5	3445.1	3333.6	3244.3	3149.5	3049.1	3011.9	3028.7
42.5°	8994.9	8039.2	5014.3	3460.0	3218.3	3127.2	3032.4	2894.8	2744.2	2668.0	2677.3
45°	9723.7	8511.5	4815.4	3179.3	2985.9	2946.9	2837.2	2671.7	2508.1	2411.4	2404.0
47.5°	10437.6	8957.7	4523.5	2896.7	2768.4	2811.1	2725.6	2573.2	2391.0	2238.5	2221.8
50°	11120.0	9376.0	4045.7	2610.3	2591.7	2770.2	2688.4	2469.0	2260.8	2065.6	2048.9
52.5°	11796.7	9714.4	3434.0	2350.0	2496.9	2759.1	2640.1	2398.4	2143.7	1939.2	1916.9
55°	12371.2	9889.2	2844.6	2126.9	2359.3	2664.3	2582.5	2314.7	1978.2	1760.7	1742.1
57.5°	12698.4	9747.9	2353.8	1907.6	2169.7	2508.1	2483.9	2136.2	1781.1	1613.8	1591.5
60°	12557.1	9175.2	1952.2	1716.1	1989.4	2338.9	2312.9	1959.6	1630.5	1472.5	1450.2
62.5°	11778.1	8083.9	1634.3	1548.7	1825.7	2166.0	2141.8	1823.9	1515.3	1362.8	1338.6
65°	10209.0	6576.0	1387.0	1409.3	1660.3	1957.8	1993.1	1710.5	1424.2	1275.4	1251.3
67.5°	7786.4	4763.3	1193.6	1288.4	1498.5	1753.2	1855.5	1628.7	1347.9	1206.6	1184.3
70°	4437.9	2705.2	1030.0	1171.3	1355.4	1563.6	1749.5	1563.6	1266.1	1149.0	1134.1
72.5°	1682.6	1242.0	890.6	1054.2	1217.8	1403.7	1632.4	1461.3	1171.3	1083.9	1069.0
75°	898.0	756.7	749.3	916.6	1059.8	1247.5	1485.5	1360.9	1100.7	1145.3	1182.5
77.5°	611.7	535.5	626.6	784.6	886.8	1074.6	1329.3	1208.5	953.8	950.1	875.7
80°	423.9	379.3	509.4	632.1	686.1	903.6	1160.2	1037.4	777.2	725.1	693.5
82.5°	254.7	247.3	381.1	472.2	485.3	697.2	961.2	870.1	635.9	554.0	557.8
85°	139.4	146.9	243.6	277.0	282.6	487.1	753.0	673.0	489.0	410.9	414.6
87.5°	39.0	50.2	89.2	109.7	135.7	252.9	448.1	399.7	245.4	171.0	171.0
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)