

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: P884449

Luminaire Tested: **NAV-SB5B-735-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884449
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-SB5B-735-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28593 lumens
Efficiency: N/A
Efficacy: 156.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

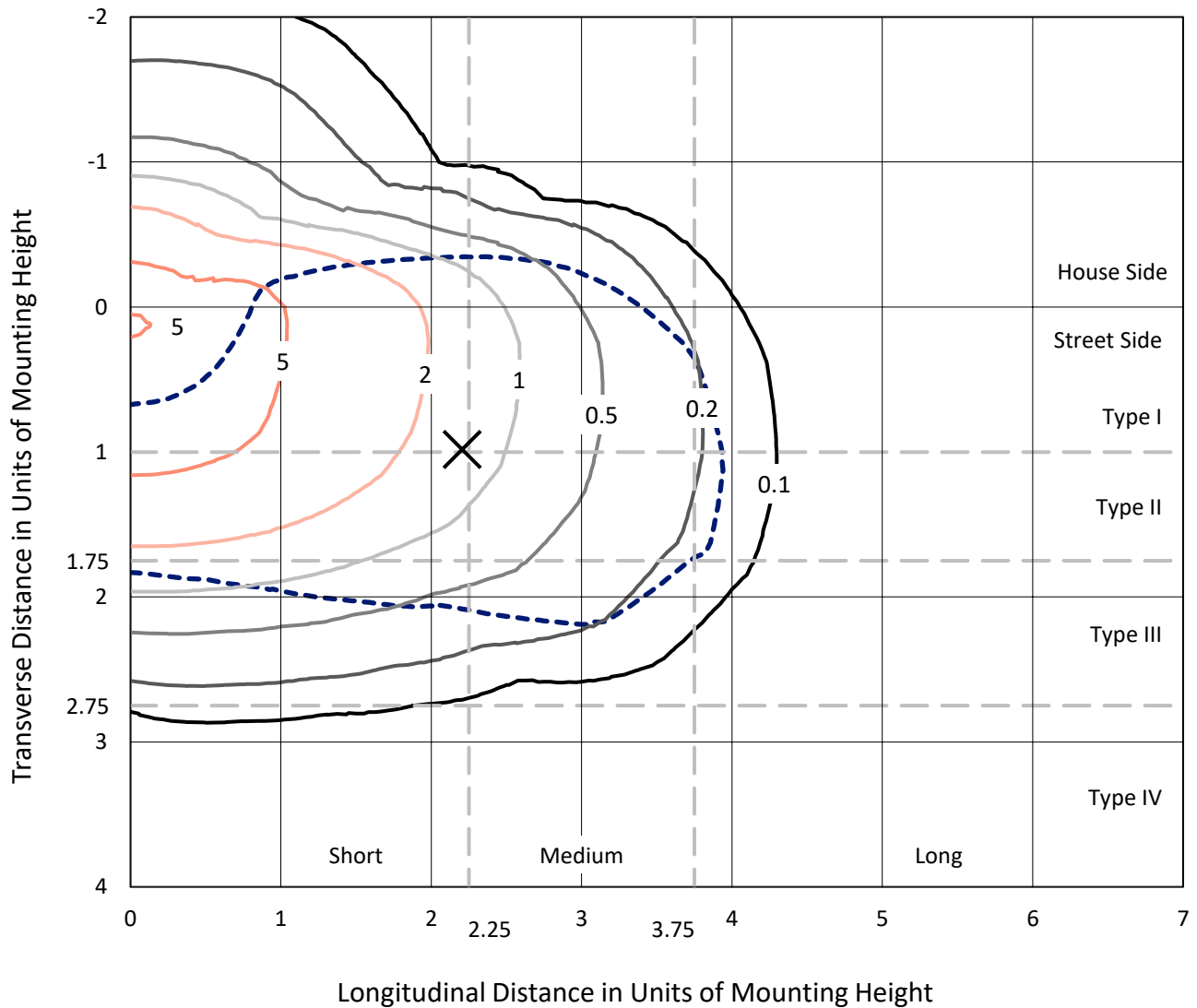
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

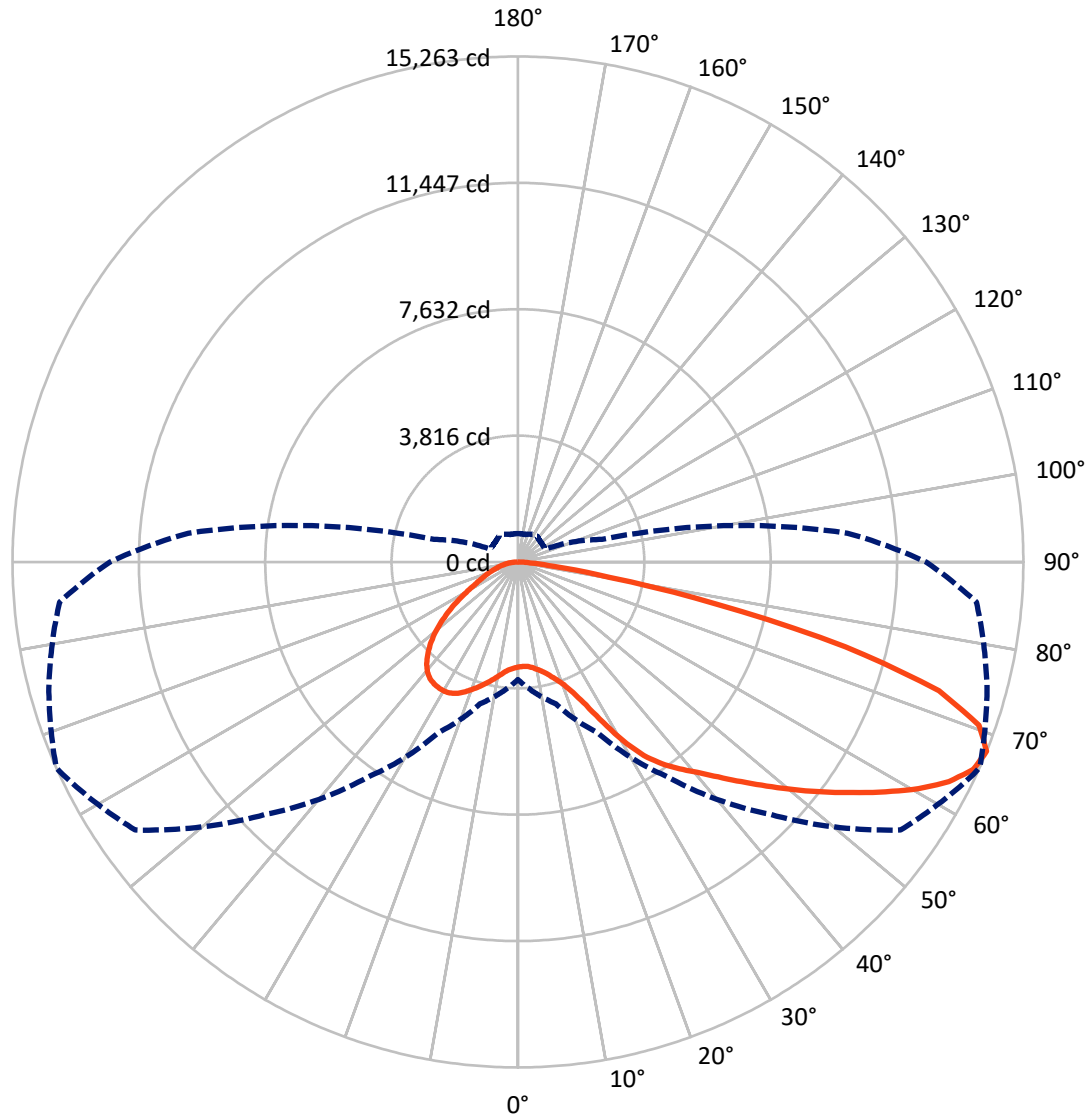
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7109.6	0.0	7109.6
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	21483.4	0.0	21483.4
	% Fixture	75.1	0.0	75.1
Total	Lumens	28593.0	0.0	28593.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.4	1.1
10°-20°	1038.8	3.6
20°-30°	2002.3	7.0
30°-40°	3510.7	12.3
40°-50°	5219.3	18.3
50°-60°	6616.0	23.1
60°-70°	6473.5	22.6
70°-80°	3087.9	10.8
80°-90°	330.0	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°	28593.0	100.0
0°-180°	28593.0	100.0

Coefficient of Utilization



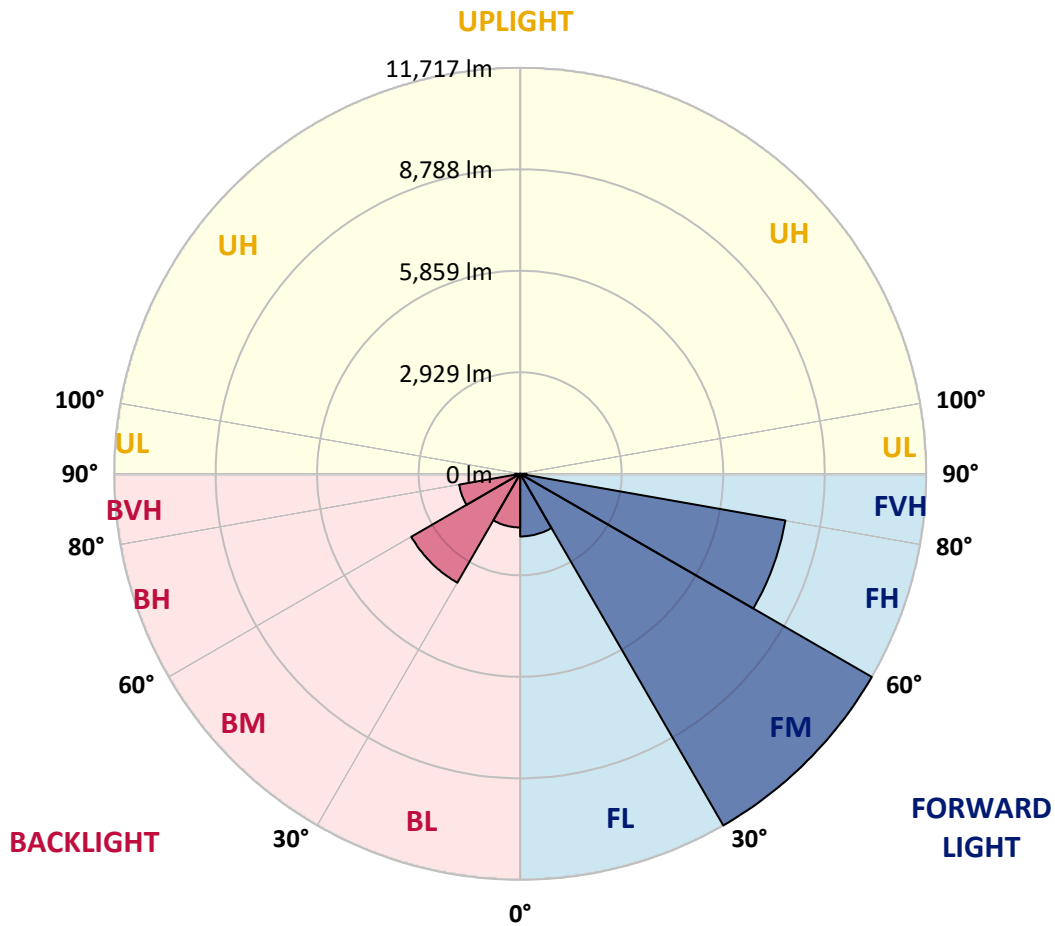
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1806.8	6.3			
FM (30°-60°)	11717.2	41.0			
FH (60°-80°)	7772.4	27.2			G4/12000
FVH (80°-90°)	187.1	0.7			G2/225
BL (0°-30°)	1548.7	5.4	B3/2500		
BM (30°-60°)	3628.8	12.7	B3/5000		
BH (60°-80°)	1789.1	6.3	B3/2500		G3/2500
BVH (80°-90°)	142.9	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3
2.5°	3138.3	3156.3	3151.8	3144.3	3142.8	3145.8	3150.3	3154.8	3153.3	3160.8	3172.8
5°	3129.3	3147.3	3145.8	3145.8	3151.8	3163.8	3171.3	3178.9	3171.3	3180.4	3196.9
7.5°	3135.3	3148.8	3154.8	3160.8	3175.8	3198.4	3216.4	3232.9	3223.9	3234.4	3255.5
10°	3211.9	3222.4	3228.4	3228.4	3238.9	3264.5	3282.5	3312.6	3305.0	3321.6	3348.6
12.5°	3351.6	3362.1	3362.1	3356.1	3363.6	3380.2	3386.2	3419.2	3405.7	3432.7	3459.8
15°	3522.9	3543.9	3527.4	3516.9	3519.9	3536.4	3534.9	3560.4	3546.9	3569.4	3593.5
17.5°	3712.2	3739.2	3712.2	3710.7	3704.7	3722.7	3724.2	3746.7	3722.7	3739.2	3755.7
20°	3936.0	3973.6	3951.0	3958.5	3945.0	3952.5	3960.0	3993.1	3955.5	3967.6	3963.1
22.5°	4251.5	4296.6	4272.5	4301.1	4292.1	4286.0	4284.5	4343.1	4284.5	4289.0	4245.5
25°	4711.2	4765.3	4723.2	4762.3	4762.3	4781.8	4804.3	4879.4	4781.8	4753.3	4640.6
27.5°	5390.2	5444.3	5361.7	5385.7	5378.2	5426.3	5402.2	5588.5	5483.4	5436.8	5210.0
30°	6207.5	6303.6	6147.4	6141.4	6133.9	6210.5	6245.0	6368.2	6261.6	6215.0	5941.6
32.5°	7090.8	7191.5	7005.2	6951.1	6922.6	6969.1	6940.6	7039.7	6966.1	6894.0	6556.0
35°	8025.3	8124.4	7947.1	7842.0	7727.8	7630.1	7528.0	7553.5	7484.4	7374.8	7024.7
37.5°	8908.6	9090.4	8902.6	8789.9	8579.6	8388.8	8103.4	7984.7	7920.1	7819.4	7466.4
40°	9808.5	9912.1	9769.4	9673.3	9444.9	9146.0	8689.3	8438.4	8351.2	8253.6	7954.6
42.5°	10471.0	10570.1	10493.5	10427.4	10248.6	9901.6	9311.2	8997.2	8871.0	8761.4	8507.5
45°	10996.8	11070.4	11022.3	11046.4	10969.7	10633.2	9955.7	9596.7	9466.0	9332.2	9132.4
47.5°	11208.6	11286.7	11363.3	11506.1	11636.8	11388.9	10648.3	10245.6	10107.4	9970.7	9773.9
50°	11184.6	11264.2	11486.5	11790.0	12195.6	12113.0	11378.4	10936.7	10809.0	10652.8	10471.0
52.5°	10992.3	11082.4	11367.9	11872.6	12518.6	12655.3	12122.0	11650.3	11530.1	11343.8	11162.0
55°	10487.5	10541.6	10969.7	11684.8	12595.2	13033.9	12850.6	12410.4	12290.3	12030.4	11832.1
57.5°	9551.6	9629.7	10253.2	11178.6	12402.9	13290.8	13490.6	13209.7	13094.0	12719.9	12512.6
60°	8330.2	8454.9	9168.5	10328.3	11913.2	13289.3	14072.0	13995.4	13899.2	13399.0	13182.6
62.5°	6948.1	7092.3	7778.9	9126.4	11056.9	12912.2	14435.5	14653.4	14603.8	14025.4	13749.0
65°	5336.1	5435.3	6118.8	7571.6	9724.3	12102.5	14477.6	15102.6	15111.6	14501.6	14044.9
67.5°	3552.9	3838.4	4431.8	5681.7	7939.6	10779.0	14108.0	15176.2	15263.3	14665.4	13896.2
70°	1733.6	2109.2	2690.6	3692.6	5681.7	8749.4	13142.1	14572.2	14766.0	14187.7	13009.9
72.5°	719.6	841.3	1158.3	1822.3	3261.5	5904.0	11201.1	12934.7	13293.8	12571.2	10938.2
75°	485.2	525.8	662.5	934.4	1485.8	2911.4	8077.8	9644.7	10223.1	9494.5	7760.8
77.5°	374.1	399.6	482.2	653.5	883.3	1101.2	4323.6	5812.4	6111.3	5657.6	4038.2
80°	294.4	314.0	360.6	476.2	626.5	588.9	1473.7	2633.5	2806.3	2354.1	1298.0
82.5°	255.4	262.9	258.4	323.0	416.1	344.0	483.7	972.0	1072.6	778.2	423.6
85°	184.8	205.8	214.8	199.8	220.8	174.3	198.3	344.0	378.6	338.0	238.9
87.5°	75.1	111.2	136.7	129.2	81.1	49.6	61.6	100.7	115.7	126.2	78.1
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°	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3	3171.3
2.5°	3174.3	3184.9	3192.4	3201.4	3207.4	3216.4	3234.4	3245.0	3246.5	3254.0	3252.5
5°	3202.9	3217.9	3234.4	3258.5	3285.5	3308.1	3342.6	3366.6	3375.7	3383.2	3381.7
7.5°	3264.5	3285.5	3315.6	3357.6	3396.7	3426.7	3468.8	3497.3	3525.9	3536.4	3537.9
10°	3356.1	3386.2	3429.7	3486.8	3528.9	3567.9	3611.5	3635.6	3664.1	3676.1	3682.1
12.5°	3470.3	3501.8	3558.9	3638.6	3677.6	3704.7	3719.7	3713.7	3719.7	3730.2	3733.2
15°	3601.0	3635.6	3700.1	3785.8	3812.8	3788.8	3755.7	3725.7	3721.2	3724.2	3734.7
17.5°	3755.7	3781.3	3856.4	3928.5	3909.0	3809.8	3737.7	3689.6	3665.6	3658.1	3668.6
20°	3972.1	3972.1	4033.7	4078.7	3948.0	3779.8	3667.1	3589.0	3539.4	3518.4	3513.9
22.5°	4235.0	4210.9	4250.0	4218.4	3940.5	3695.6	3539.4	3404.2	3329.1	3299.0	3294.5
25°	4568.5	4539.9	4529.4	4334.1	3886.4	3561.9	3308.1	3144.3	3078.2	3061.7	3064.7
27.5°	5071.7	4999.6	4862.9	4397.2	3787.3	3351.6	3037.6	2885.9	2848.3	2849.9	2854.4
30°	5741.8	5597.5	5262.5	4407.7	3625.0	3054.2	2761.2	2653.1	2635.0	2642.5	2668.1
32.5°	6362.2	6225.5	5671.2	4359.7	3375.7	2762.7	2513.3	2441.2	2414.2	2423.2	2435.2
35°	6849.0	6811.4	6049.7	4292.1	3069.2	2489.3	2291.0	2229.4	2176.8	2164.8	2173.8
37.5°	7308.7	7293.6	6333.7	4197.4	2765.7	2295.5	2112.2	2031.1	1954.5	1912.4	1913.9
40°	7813.4	7798.4	6520.0	4051.7	2496.8	2127.2	1951.5	1844.8	1750.2	1673.6	1681.1
42.5°	8381.3	8292.7	6608.6	3842.9	2268.5	1984.5	1820.8	1676.6	1551.9	1481.3	1485.8
45°	9001.7	8801.9	6607.1	3577.0	2076.2	1853.8	1681.1	1476.8	1361.1	1295.0	1292.0
47.5°	9659.7	9288.7	6526.0	3282.5	1889.9	1709.6	1464.7	1308.5	1231.9	1191.3	1182.3
50°	10338.8	9743.9	6387.8	2944.5	1699.1	1545.9	1329.5	1222.9	1164.3	1126.7	1113.2
52.5°	10977.3	10157.0	6221.0	2561.4	1505.3	1386.6	1269.4	1186.8	1125.2	1083.2	1065.1
55°	11570.7	10513.0	5985.1	2169.3	1347.6	1280.0	1240.9	1171.8	1101.2	1051.6	1032.1
57.5°	12098.0	10744.4	5578.0	1801.2	1234.9	1206.3	1210.8	1146.2	1065.1	1023.1	996.0
60°	12536.6	10914.2	4975.6	1460.2	1143.2	1134.2	1164.3	1098.2	1003.5	955.5	934.4
62.5°	12799.5	10911.2	4236.5	1195.8	1065.1	1068.1	1102.7	1038.1	941.9	896.9	883.3
65°	12777.0	10643.7	3425.2	1023.1	990.0	993.0	1038.1	972.0	890.9	863.8	862.3
67.5°	12324.8	9991.8	2627.5	910.4	907.4	920.9	973.5	926.9	859.3	856.3	860.8
70°	11100.4	8638.2	1892.9	820.3	821.8	841.3	910.4	898.4	842.8	848.8	847.3
72.5°	8901.1	6586.1	1270.9	725.6	727.1	758.7	850.3	875.8	826.3	905.9	917.9
75°	5928.1	4107.3	817.2	625.0	626.5	667.0	797.7	832.3	781.2	902.9	910.4
77.5°	2848.3	1846.3	591.9	525.8	525.8	563.4	689.6	745.1	665.5	701.6	643.0
80°	984.0	694.1	465.7	423.6	414.6	440.2	581.4	646.0	573.9	528.8	495.8
82.5°	387.6	360.6	374.1	329.0	299.0	315.5	452.2	533.3	422.1	381.6	380.1
85°	222.3	234.4	264.4	217.8	172.8	193.8	332.0	383.1	318.5	280.9	286.9
87.5°	60.1	82.6	121.7	112.7	78.1	82.6	157.7	211.8	183.3	141.2	145.7
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)