

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: P884664

Luminaire Tested: **NAV-SB5C-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884664
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-SB5C-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 615mA 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: 32962 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

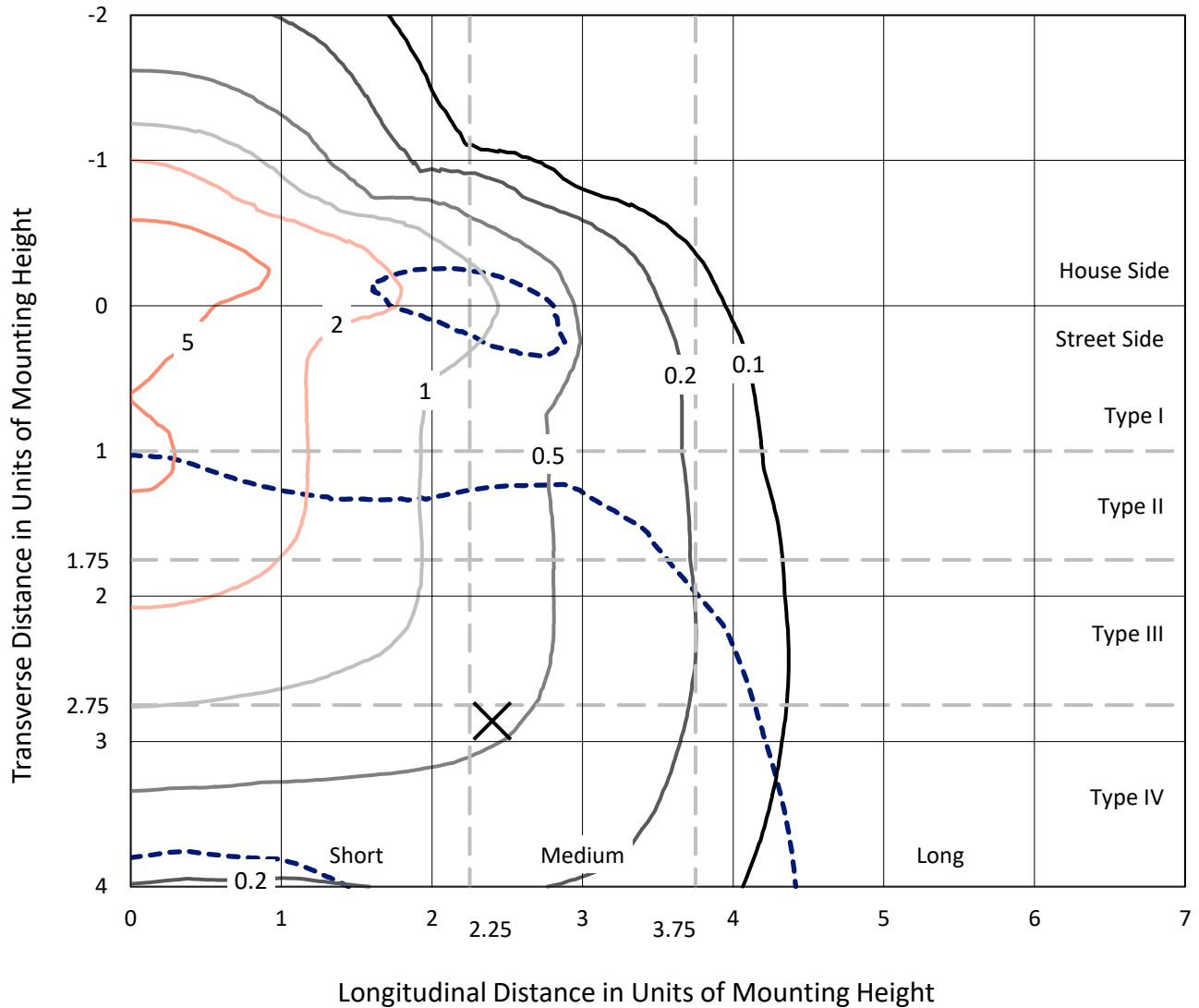
Input Watts (W): 249.5
Input Voltage (V): 120.0
Input Current (Ain): 2.116
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 7.885
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

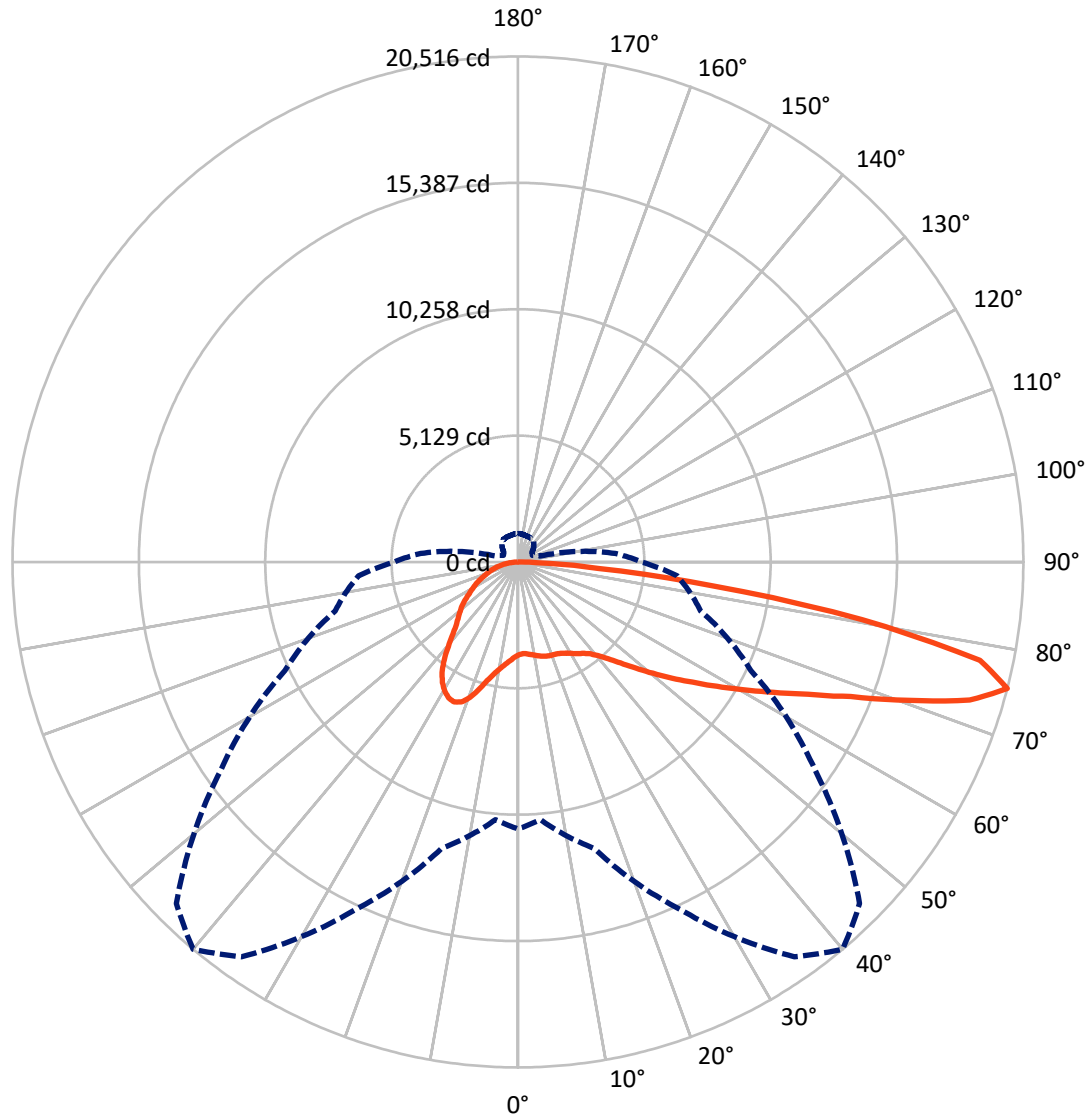
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 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	10212.7	0.0	10212.7
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	22749.3	0.0	22749.3
	% Fixture	69.0	0.0	69.0
Total	Lumens	32962.0	0.0	32962.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.2	1.1
10°-20°	1263.2	3.8
20°-30°	2306.5	7.0
30°-40°	3271.3	9.9
40°-50°	4417.2	13.4
50°-60°	5942.4	18.0
60°-70°	7542.2	22.9
70°-80°	6845.0	20.8
80°-90°	997.8	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°	32962.0	100.0
0°-180°	32962.0	100.0



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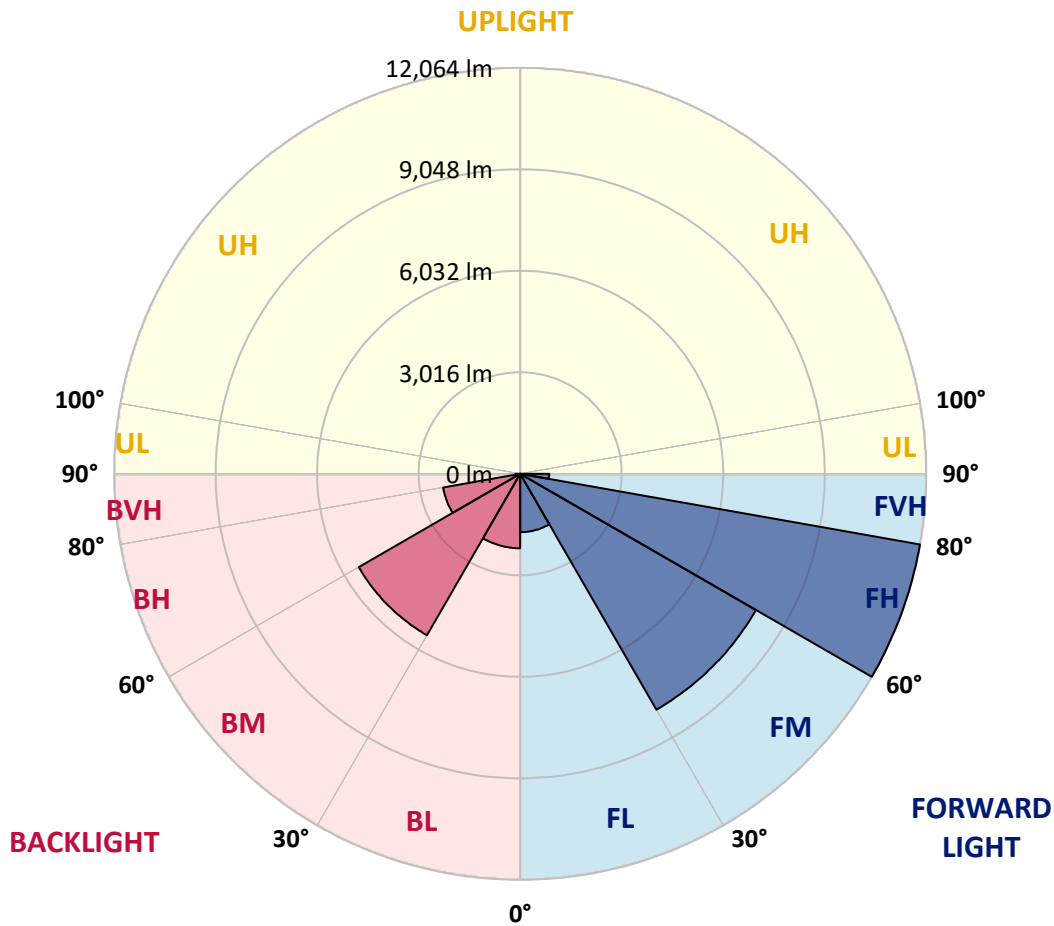
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1733.8	5.3			
FM (30°-60°)	8091.4	24.5			
FH (60°-80°)	12063.6	36.6			G5
FVH (80°-90°)	860.4	2.6			G5
BL (0°-30°)	2212.2	6.7	B3/2500		
BM (30°-60°)	5539.5	16.8	B4/8500		
BH (60°-80°)	2323.7	7.0	B3/2500		G3/2500
BVH (80°-90°)	137.4	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°	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2
2.5°	3711.6	3732.5	3727.3	3720.3	3720.3	3722.0	3720.3	3732.5	3744.8	3757.0	3776.2
5°	3750.0	3771.0	3760.5	3751.8	3744.8	3743.0	3737.8	3736.0	3743.0	3758.8	3785.0
7.5°	3825.2	3846.2	3830.4	3814.7	3800.7	3793.7	3786.7	3776.2	3771.0	3779.7	3816.5
10°	3909.1	3930.1	3910.9	3882.9	3860.2	3851.4	3844.4	3833.9	3826.9	3832.2	3872.4
12.5°	3993.0	4014.0	3987.8	3949.3	3919.6	3914.4	3905.6	3902.1	3900.4	3898.6	3938.8
15°	4071.7	4089.2	4056.0	4010.5	3979.0	3970.3	3961.6	3966.8	3975.5	3986.0	4031.5
17.5°	4132.9	4150.4	4101.4	4042.0	4012.3	4008.8	4003.5	4021.0	4045.5	4071.7	4127.6
20°	4188.8	4206.3	4143.4	4063.0	4028.0	4028.0	4029.7	4066.5	4101.4	4139.9	4216.8
22.5°	4267.5	4281.5	4204.6	4094.4	4043.7	4047.2	4061.2	4097.9	4141.6	4194.1	4300.7
25°	4384.6	4395.1	4300.7	4153.9	4096.2	4106.7	4118.9	4136.4	4178.3	4239.5	4382.9
27.5°	4573.4	4582.2	4458.1	4258.8	4171.3	4188.8	4206.3	4194.1	4213.3	4265.8	4449.3
30°	4839.2	4844.4	4687.1	4423.1	4299.0	4307.7	4311.2	4260.5	4223.8	4265.8	4496.5
32.5°	5153.9	5152.1	4965.1	4622.4	4444.1	4435.3	4405.6	4306.0	4220.3	4257.0	4538.5
35°	5641.6	5622.4	5381.1	4902.1	4608.4	4554.2	4484.3	4356.7	4237.8	4248.3	4575.2
37.5°	6449.3	6389.9	6056.0	5360.2	4853.2	4715.1	4611.9	4438.8	4276.2	4244.8	4618.9
40°	7360.2	7285.0	6917.9	5987.8	5220.3	4998.3	4832.2	4556.0	4339.2	4260.5	4683.6
42.5°	8440.6	8334.0	7938.8	6727.3	5685.3	5363.7	5113.7	4704.6	4431.8	4311.2	4771.0
45°	9767.5	9625.9	9066.5	7561.2	6271.0	5842.7	5508.8	4930.1	4573.4	4409.1	4902.1
47.5°	11108.4	11143.4	10348.0	8515.8	6973.8	6433.6	6003.5	5269.3	4779.7	4566.5	5113.7
50°	12533.3	12557.8	11622.4	9573.5	7771.0	7101.4	6559.5	5648.6	5066.5	4790.2	5430.1
52.5°	13645.2	13648.7	12779.8	10680.1	8601.4	7835.7	7159.1	6082.2	5398.6	5087.4	5851.4
55°	14341.0	14332.2	13591.0	11727.3	9556.0	8606.7	7823.5	6575.2	5804.2	5437.1	6381.1
57.5°	14846.2	14820.0	14150.4	12627.7	10573.5	9517.5	8575.2	7134.6	6283.2	5853.2	7078.7
60°	15038.5	15022.8	14529.8	13405.7	11643.4	10524.5	9442.4	7760.5	6827.0	6344.4	7975.6
62.5°	15112.0	15141.7	14902.2	14159.2	12788.5	11639.9	10395.2	8508.8	7438.8	6900.4	8921.4
65°	15370.7	15424.9	15375.9	15145.2	14082.2	12945.9	11659.1	9398.6	8106.7	7496.5	9909.1
67.5°	15882.9	15937.1	15958.1	16325.3	15662.7	14573.5	13236.1	10507.0	8888.2	8115.4	10652.1
70°	15870.7	15855.0	16225.6	17264.1	17641.7	16827.0	15362.0	11870.7	9820.0	8629.4	10746.6
72.5°	14445.9	14320.0	15195.9	17253.6	19288.6	19180.2	17958.1	13629.4	10624.2	8692.3	9325.2
75°	10837.5	10501.8	12049.0	15549.0	19563.0	20515.8	19608.5	14720.3	10433.6	7680.1	6489.5
77.5°	4634.6	4297.2	6120.7	11510.5	17508.8	19178.4	18094.5	12842.7	8328.7	5078.7	3187.1
80°	1213.3	1211.5	1849.7	5218.6	11907.4	14162.7	12424.9	8293.7	4758.8	1814.7	879.4
82.5°	501.8	489.5	680.1	2029.7	5818.2	7947.6	6486.0	3699.3	1718.5	491.3	292.0
85°	187.1	185.3	330.4	701.1	2052.5	3278.0	2372.4	945.8	428.3	239.5	131.1
87.5°	52.4	50.7	71.7	243.0	500.0	758.7	405.6	155.6	120.6	94.4	38.5
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°	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2	3769.2
2.5°	3781.5	3790.2	3806.0	3818.2	3833.9	3851.4	3875.9	3891.6	3907.4	3917.9	3910.9
5°	3797.2	3816.5	3856.7	3896.9	3944.1	3987.8	4038.5	4075.2	4104.9	4113.7	4117.2
7.5°	3832.2	3863.7	3931.8	4000.0	4075.2	4146.9	4220.3	4283.2	4333.9	4353.2	4354.9
10°	3893.4	3935.3	4031.5	4127.6	4227.3	4337.4	4431.8	4522.7	4594.4	4624.1	4625.9
12.5°	3970.3	4022.7	4148.6	4281.5	4419.6	4571.7	4694.1	4806.0	4895.1	4935.3	4935.3
15°	4069.9	4138.1	4299.0	4477.3	4680.1	4891.6	5047.2	5171.4	5271.0	5320.0	5316.5
17.5°	4178.3	4269.3	4472.0	4741.3	5031.5	5309.5	5491.3	5582.2	5685.3	5732.5	5730.8
20°	4283.2	4395.1	4685.3	5076.9	5463.3	5758.8	5905.6	5930.1	5937.1	5942.3	5956.3
22.5°	4391.6	4542.0	4952.8	5500.0	5914.4	6118.9	6139.9	6035.0	5888.1	5820.0	5839.2
25°	4510.5	4709.8	5302.5	5966.8	6302.5	6327.0	6166.1	5910.9	5632.9	5505.3	5524.5
27.5°	4625.9	4903.9	5722.1	6412.6	6582.2	6367.2	6021.0	5659.1	5323.5	5188.8	5204.6
30°	4741.3	5125.9	6185.3	6802.5	6709.8	6267.5	5792.0	5388.1	5050.7	4909.1	4924.8
32.5°	4858.4	5384.6	6718.6	7083.9	6687.1	6056.0	5507.0	5083.9	4786.7	4638.1	4657.4
35°	4991.3	5702.8	7223.8	7237.8	6535.0	5744.8	5131.1	4720.3	4461.6	4342.7	4368.9
37.5°	5164.4	6106.7	7669.6	7276.3	6269.3	5288.5	4664.4	4290.2	4076.9	4022.7	4061.2
40°	5379.4	6592.7	8010.5	7215.1	5875.9	4734.3	4153.9	3854.9	3734.3	3746.5	3788.5
42.5°	5659.1	7136.4	8250.0	7057.7	5328.7	4162.6	3706.3	3573.4	3631.1	3680.1	3725.5
45°	6022.8	7701.1	8398.6	6790.2	4709.8	3678.3	3442.3	3473.8	3517.5	3522.7	3557.7
47.5°	6487.8	8272.8	8496.5	6386.4	4078.7	3337.4	3274.5	3281.5	3272.7	3236.0	3264.0
50°	7068.2	8828.7	8584.0	5851.4	3542.0	3124.1	3040.2	3015.7	2895.1	2776.2	2792.0
52.5°	7729.1	9339.2	8620.7	5187.1	3124.1	2945.8	2809.5	2655.6	2430.1	2393.4	2405.6
55°	8463.3	9811.2	8526.3	4370.7	2772.7	2716.8	2510.5	2325.2	2300.7	2269.2	2274.5
57.5°	9341.0	10320.0	8334.0	3459.8	2412.6	2449.3	2248.3	2269.2	2225.5	2176.6	2167.8
60°	10300.7	10846.2	7996.5	2629.4	2040.2	2115.4	2180.1	2178.3	2166.1	2125.9	2111.9
62.5°	11164.4	11192.4	7332.2	2014.0	1713.3	1856.7	2033.2	2031.5	2021.0	1998.3	1989.5
65°	11678.4	11139.9	6223.8	1585.7	1444.1	1643.4	1833.9	1847.9	1849.7	1847.9	1847.9
67.5°	11587.5	10526.3	4702.8	1262.2	1222.0	1426.6	1636.4	1655.6	1669.6	1673.1	1676.6
70°	10559.5	9178.4	3066.4	1007.0	1024.5	1236.0	1449.3	1468.5	1480.8	1494.8	1501.8
72.5°	8230.8	6748.3	1755.3	814.7	851.4	1071.7	1264.0	1286.7	1293.7	1319.9	1330.4
75°	5015.8	3968.6	947.6	641.6	699.3	916.1	1080.4	1106.6	1118.9	1150.4	1153.9
77.5°	2384.6	1718.5	540.2	500.0	562.9	748.3	912.6	942.3	909.1	926.6	912.6
80°	805.9	638.1	340.9	381.1	430.1	583.9	730.8	760.5	690.6	687.1	680.1
82.5°	281.5	258.7	216.8	253.5	278.0	417.8	552.5	590.9	514.0	512.2	487.8
85°	110.1	104.9	120.6	138.1	166.1	257.0	363.6	382.9	316.4	255.2	251.7
87.5°	22.7	24.5	29.7	31.5	50.7	89.2	131.1	160.8	127.6	108.4	99.7
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)