

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: P884084

Luminaire Tested: **NAV-SB4D-727-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884084
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-727-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 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: 37047 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

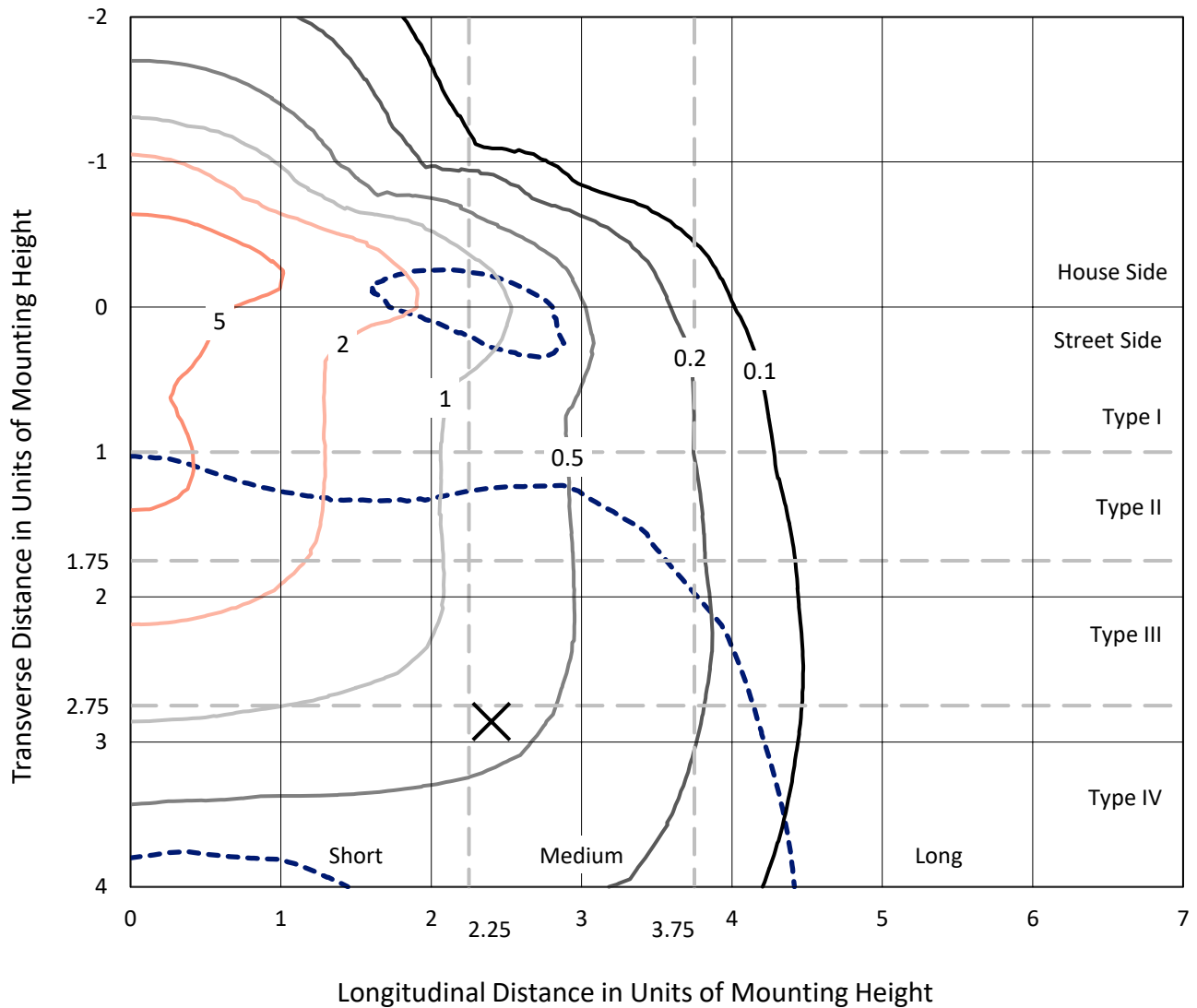
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

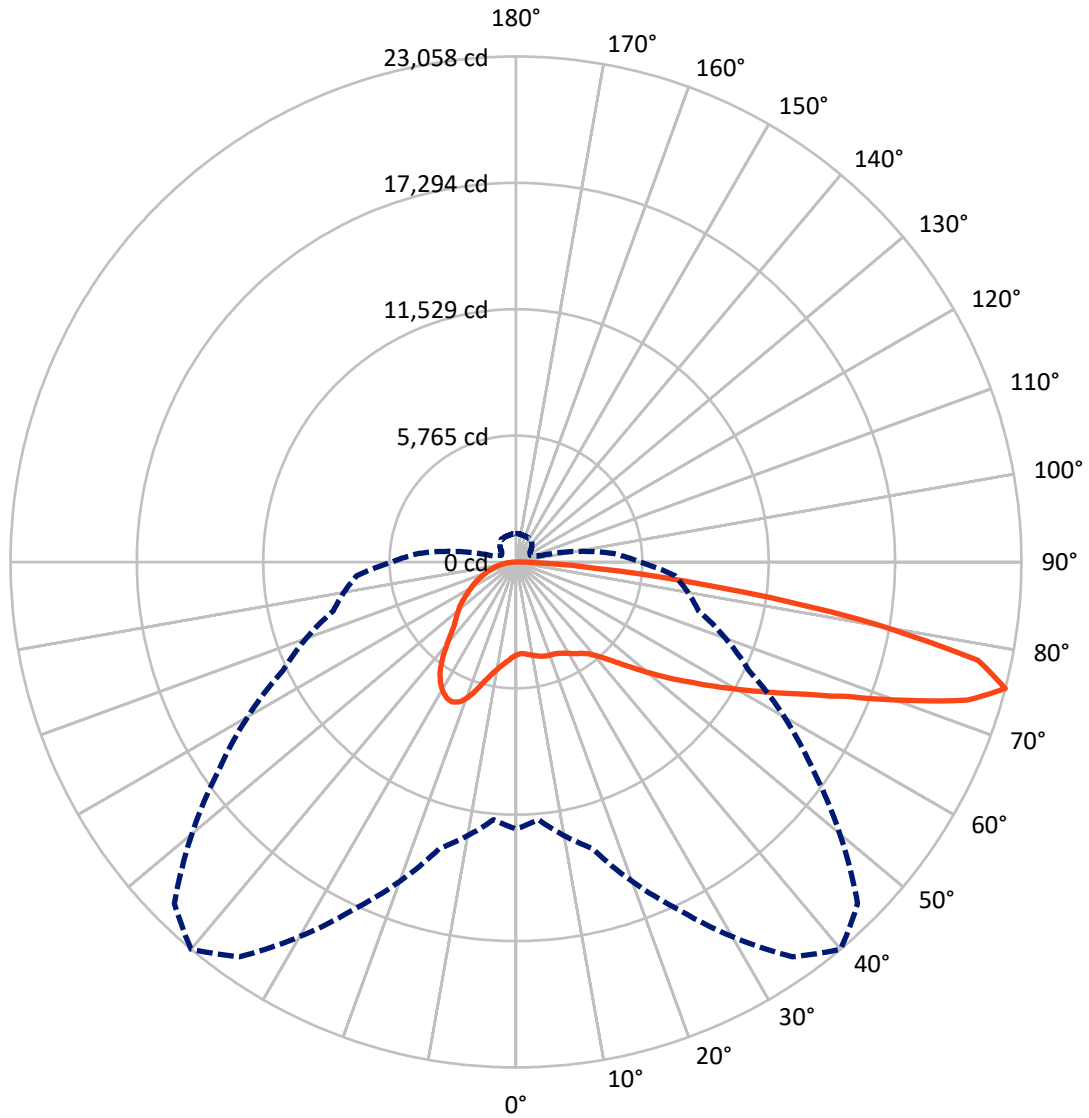
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 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	11478.4	0.0	11478.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	25568.6	0.0	25568.6
	% Fixture	69.0	0.0	69.0
Total	Lumens	37047.0	0.0	37047.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	422.9	1.1
10°-20°	1419.8	3.8
20°-30°	2592.4	7.0
30°-40°	3676.7	9.9
40°-50°	4964.7	13.4
50°-60°	6678.8	18.0
60°-70°	8477.0	22.9
70°-80°	7693.4	20.8
80°-90°	1121.4	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°	37047.0	100.0
0°-180°	37047.0	100.0

Coefficient of Utilization



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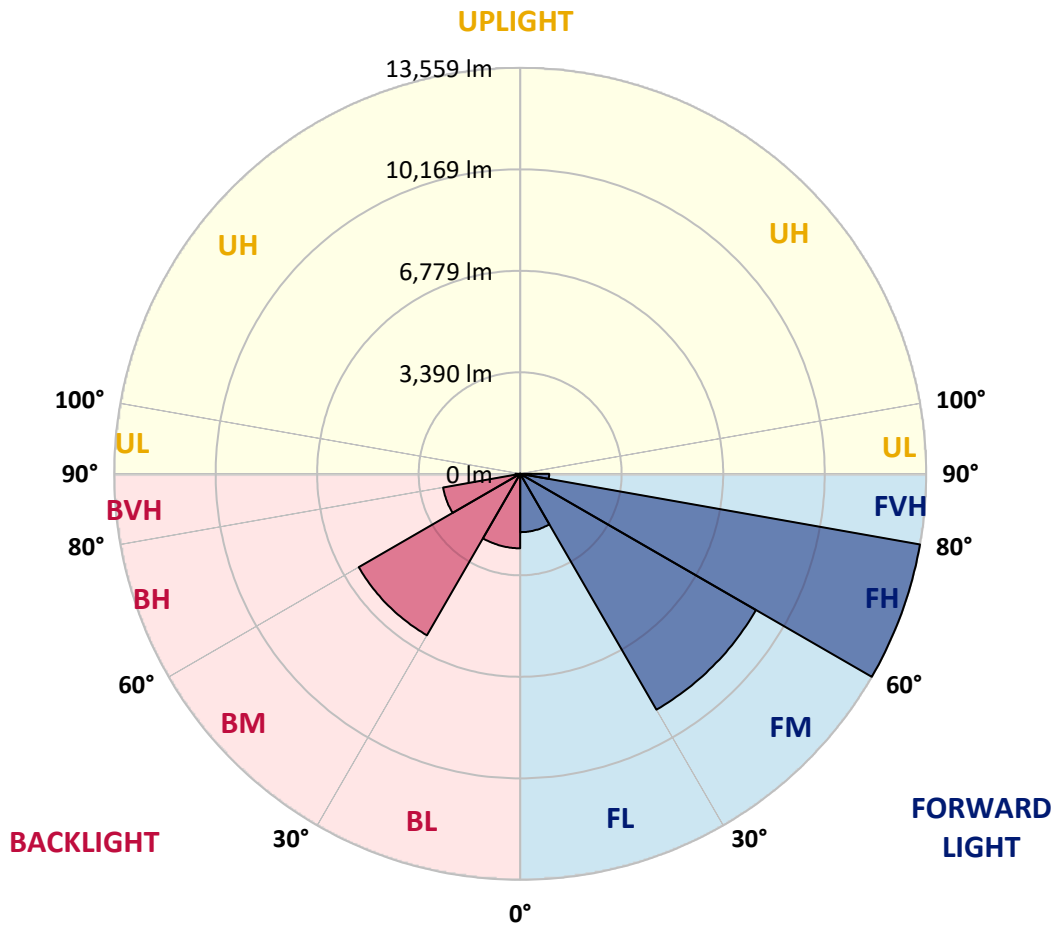
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1948.7	5.3			
FM (30°-60°)	9094.2	24.5			
FH (60°-80°)	13558.6	36.6			G5
FVH (80°-90°)	967.1	2.6			G5
BL (0°-30°)	2486.3	6.7	B3/2500		
BM (30°-60°)	6226.0	16.8	B4/8500		
BH (60°-80°)	2611.7	7.0	B4/5000		G4/5000
BVH (80°-90°)	154.4	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°	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4
2.5°	4171.5	4195.1	4189.2	4181.4	4181.4	4183.3	4181.4	4195.1	4208.9	4222.6	4244.2
5°	4214.8	4238.3	4226.5	4216.7	4208.9	4206.9	4201.0	4199.0	4206.9	4224.6	4254.1
7.5°	4299.3	4322.8	4305.1	4287.5	4271.7	4263.9	4256.0	4244.2	4238.3	4248.2	4289.4
10°	4393.6	4417.1	4395.5	4364.1	4338.5	4328.7	4320.9	4309.1	4301.2	4307.1	4352.3
12.5°	4487.9	4511.5	4482.0	4438.8	4405.4	4399.5	4389.6	4385.7	4383.7	4381.8	4427.0
15°	4576.3	4596.0	4558.6	4507.5	4472.2	4462.3	4452.5	4458.4	4468.2	4480.0	4531.1
17.5°	4645.1	4664.7	4609.7	4542.9	4509.5	4505.6	4499.7	4519.3	4546.8	4576.3	4639.2
20°	4708.0	4727.6	4656.9	4566.5	4527.2	4527.2	4529.1	4570.4	4609.7	4652.9	4739.4
22.5°	4796.4	4812.1	4725.6	4601.8	4544.9	4548.8	4564.5	4605.8	4654.9	4713.9	4833.7
25°	4928.0	4939.8	4833.7	4668.7	4603.8	4615.6	4629.4	4649.0	4696.2	4764.9	4926.1
27.5°	5140.2	5150.1	5010.6	4786.6	4688.3	4708.0	4727.6	4713.9	4735.5	4794.4	5000.7
30°	5438.9	5444.8	5268.0	4971.3	4831.7	4841.6	4845.5	4788.5	4747.3	4794.4	5053.8
32.5°	5792.6	5790.6	5580.4	5195.3	4994.8	4985.0	4951.6	4839.6	4743.3	4784.6	5100.9
35°	6340.8	6319.2	6048.0	5509.6	5179.5	5118.6	5040.0	4896.6	4763.0	4774.8	5142.2
37.5°	7248.6	7181.8	6806.5	6024.5	5454.6	5299.4	5183.5	4988.9	4806.2	4770.8	5191.3
40°	8272.3	8187.8	7775.2	6729.9	5867.3	5617.7	5431.0	5120.6	4876.9	4788.5	5264.0
42.5°	9486.6	9366.8	8922.7	7561.0	6389.9	6028.4	5747.4	5287.6	4981.1	4845.5	5362.3
45°	10978.0	10818.9	10190.1	8498.3	7048.2	6566.8	6191.5	5541.1	5140.2	4955.5	5509.6
47.5°	12485.1	12524.4	11630.4	9571.1	7838.1	7230.9	6747.5	5922.3	5372.1	5132.4	5747.4
50°	14086.5	14114.0	13062.8	10759.9	8734.1	7981.5	7372.4	6348.7	5694.3	5383.9	6103.1
52.5°	15336.2	15340.2	14363.6	12003.7	9667.4	8806.8	8046.4	6836.0	6067.7	5717.9	6576.6
55°	16118.3	16108.4	15275.3	13180.7	10740.3	9673.3	8793.0	7390.1	6523.5	6110.9	7172.0
57.5°	16686.1	16656.7	15904.1	14192.6	11883.9	10697.0	9637.9	8018.9	7061.9	6578.6	7956.0
60°	16902.3	16884.6	16330.5	15067.0	13086.4	11828.8	10612.5	8722.3	7673.0	7130.7	8964.0
62.5°	16984.8	17018.2	16749.0	15913.9	14373.4	13082.5	11683.4	9563.3	8360.7	7755.6	10027.0
65°	17275.6	17336.5	17281.5	17022.1	15827.5	14550.3	13104.1	10563.4	9111.3	8425.6	11137.2
67.5°	17851.3	17912.2	17935.8	18348.5	17603.7	16379.6	14876.4	11809.2	9989.7	9121.2	11972.3
70°	17837.6	17819.9	18236.4	19403.6	19828.0	18912.4	17265.8	13341.8	11037.0	9698.9	12078.4
72.5°	16236.2	16094.7	17079.1	19391.8	21679.0	21557.2	20183.7	15318.5	11940.8	9769.6	10480.9
75°	12180.6	11803.3	13542.2	17476.0	21987.5	23058.4	22038.6	16544.7	11726.7	8631.9	7293.8
77.5°	5209.0	4829.8	6879.2	12937.1	19678.7	21555.2	20337.0	14434.3	9360.9	5708.1	3582.1
80°	1363.7	1361.7	2078.9	5865.3	13383.1	15917.8	13964.7	9321.6	5348.5	2039.6	988.4
82.5°	563.9	550.2	764.4	2281.3	6539.3	8932.5	7289.9	4157.8	1931.5	552.1	328.1
85°	210.2	208.3	371.4	787.9	2306.8	3684.2	2666.4	1063.0	481.4	269.2	147.4
87.5°	58.9	57.0	80.6	273.1	562.0	852.8	455.9	174.9	135.6	106.1	43.2
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°	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4	4236.4
2.5°	4250.1	4260.0	4277.6	4291.4	4309.1	4328.7	4356.2	4373.9	4391.6	4403.4	4395.5
5°	4267.8	4289.4	4334.6	4379.8	4432.9	4482.0	4539.0	4580.2	4613.6	4623.5	4627.4
7.5°	4307.1	4342.5	4419.1	4495.7	4580.2	4660.8	4743.3	4814.1	4871.0	4892.7	4894.6
10°	4375.9	4423.0	4531.1	4639.2	4751.2	4875.0	4981.1	5083.3	5163.8	5197.2	5199.2
12.5°	4462.3	4521.3	4662.8	4812.1	4967.3	5138.3	5275.8	5401.6	5501.8	5547.0	5547.0
15°	4574.3	4651.0	4831.7	5032.2	5260.1	5497.9	5672.7	5812.2	5924.2	5979.3	5975.3
17.5°	4696.2	4798.3	5026.3	5328.9	5655.0	5967.5	6171.8	6274.0	6389.9	6443.0	6441.0
20°	4814.1	4939.8	5266.0	5706.1	6140.4	6472.5	6637.5	6665.0	6672.9	6678.8	6694.5
22.5°	4935.9	5104.9	5566.6	6181.6	6647.3	6877.2	6900.8	6782.9	6617.9	6541.2	6562.8
25°	5069.5	5293.5	5959.6	6706.3	7083.5	7111.1	6930.3	6643.4	6331.0	6187.5	6209.2
27.5°	5199.2	5511.6	6431.2	7207.3	7397.9	7156.2	6767.2	6360.5	5983.2	5831.9	5849.6
30°	5328.9	5761.2	6951.9	7645.5	7541.4	7044.2	6509.8	6055.9	5676.7	5517.5	5535.2
32.5°	5460.5	6052.0	7551.2	7961.9	7515.8	6806.5	6189.5	5714.0	5380.0	5212.9	5234.6
35°	5609.9	6409.6	8119.1	8134.8	7344.9	6456.7	5767.0	5305.3	5014.5	4880.9	4910.3
37.5°	5804.4	6863.5	8620.1	8178.0	7046.2	5943.9	5242.4	4821.9	4582.2	4521.3	4564.5
40°	6046.1	7409.7	9003.3	8109.2	6604.1	5321.0	4668.7	4332.7	4197.1	4210.8	4258.0
42.5°	6360.5	8020.8	9272.5	7932.4	5989.1	4678.5	4165.6	4016.3	4081.1	4136.2	4187.3
45°	6769.2	8655.5	9439.5	7631.8	5293.5	4134.2	3868.9	3904.3	3953.4	3959.3	3998.6
47.5°	7291.8	9298.0	9549.5	7177.9	4584.2	3751.0	3680.3	3688.2	3678.3	3637.1	3668.5
50°	7944.2	9922.9	9647.8	6576.6	3980.9	3511.3	3417.0	3389.5	3253.9	3120.3	3138.0
52.5°	8686.9	10496.6	9689.0	5829.9	3511.3	3310.9	3157.6	2984.7	2731.2	2690.0	2703.7
55°	9512.2	11027.1	9582.9	4912.3	3116.4	3053.5	2821.6	2613.3	2585.8	2550.5	2556.4
57.5°	10498.6	11598.9	9366.8	3888.6	2711.6	2752.9	2526.9	2550.5	2501.3	2446.3	2436.5
60°	11577.3	12190.4	8987.6	2955.2	2293.1	2377.6	2450.3	2448.3	2434.5	2389.3	2373.6
62.5°	12548.0	12579.4	8240.9	2263.6	1925.6	2086.7	2285.2	2283.2	2271.5	2245.9	2236.1
65°	13125.7	12520.5	6995.1	1782.2	1623.0	1847.0	2061.2	2076.9	2078.9	2076.9	2076.9
67.5°	13023.5	11830.8	5285.6	1418.7	1373.5	1603.4	1839.2	1860.8	1876.5	1880.4	1884.4
70°	11868.1	10315.8	3446.5	1131.8	1151.4	1389.2	1628.9	1650.5	1664.3	1680.0	1687.9
72.5°	9250.9	7584.6	1972.8	915.7	956.9	1204.5	1420.6	1446.2	1454.0	1483.5	1495.3
75°	5637.4	4460.4	1065.0	721.1	786.0	1029.6	1214.3	1243.8	1257.6	1292.9	1296.8
77.5°	2680.2	1931.5	607.2	562.0	632.7	841.0	1025.7	1059.1	1021.8	1041.4	1025.7
80°	905.8	717.2	383.2	428.4	483.4	656.3	821.3	854.7	776.1	772.2	764.4
82.5°	316.4	290.8	243.7	284.9	312.4	469.6	620.9	664.1	577.7	575.7	548.2
85°	123.8	117.9	135.6	155.2	186.7	288.8	408.7	430.3	355.7	286.9	282.9
87.5°	25.5	27.5	33.4	35.4	57.0	100.2	147.4	180.8	143.4	121.8	112.0
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)