

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: P883404

Luminaire Tested: **NAV-SB3D-727-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883404  
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-SB3D-727-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

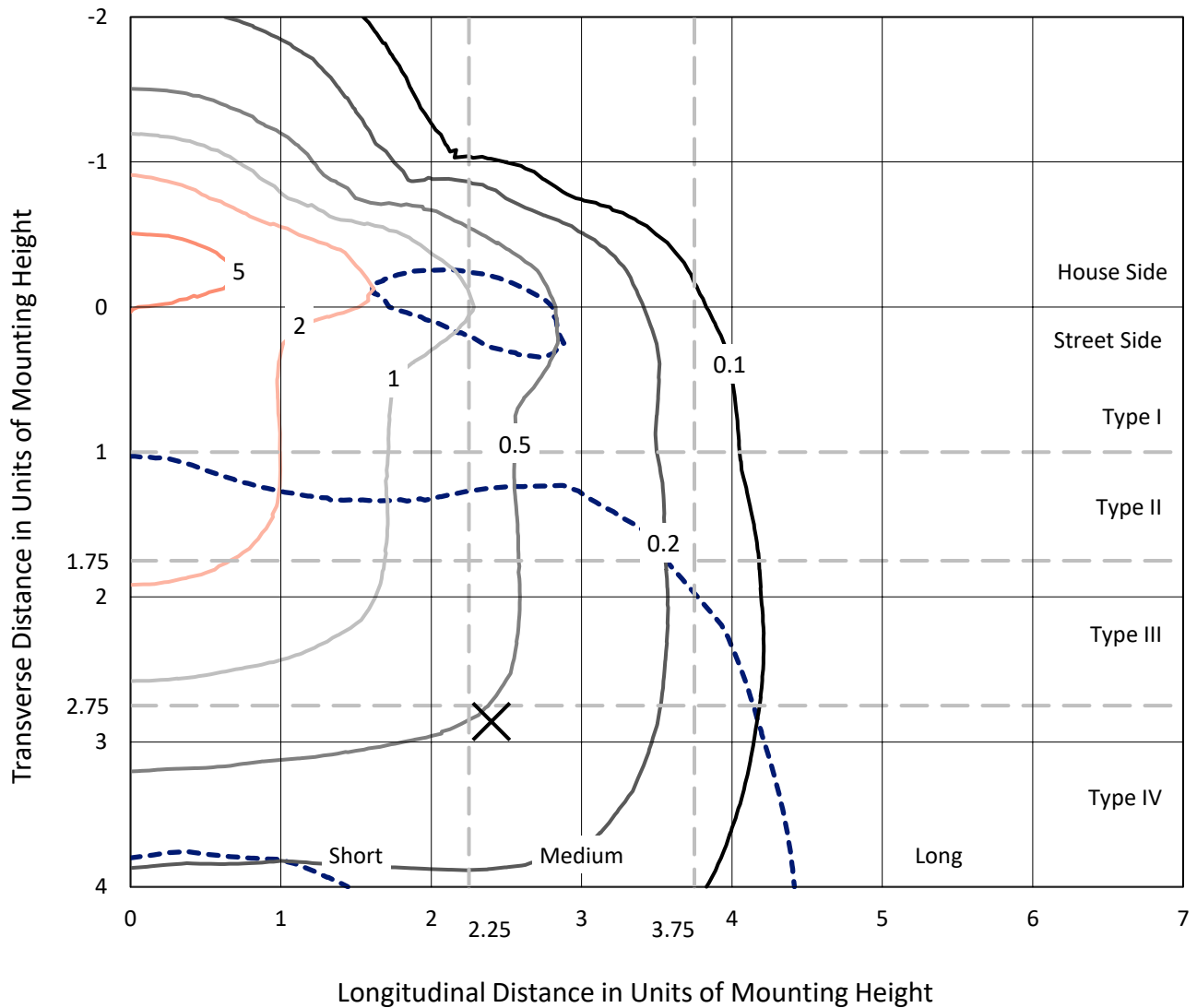
Lumens per Lamp: N/A  
Luminaire Lumens: 27420 lumens  
Efficiency: N/A  
Efficacy: 125.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P883404  
 CATALOG NUMBER: NAV-SB3D-727-U-SL4

### Iso-Footcandle Lines of Horizontal Illumination

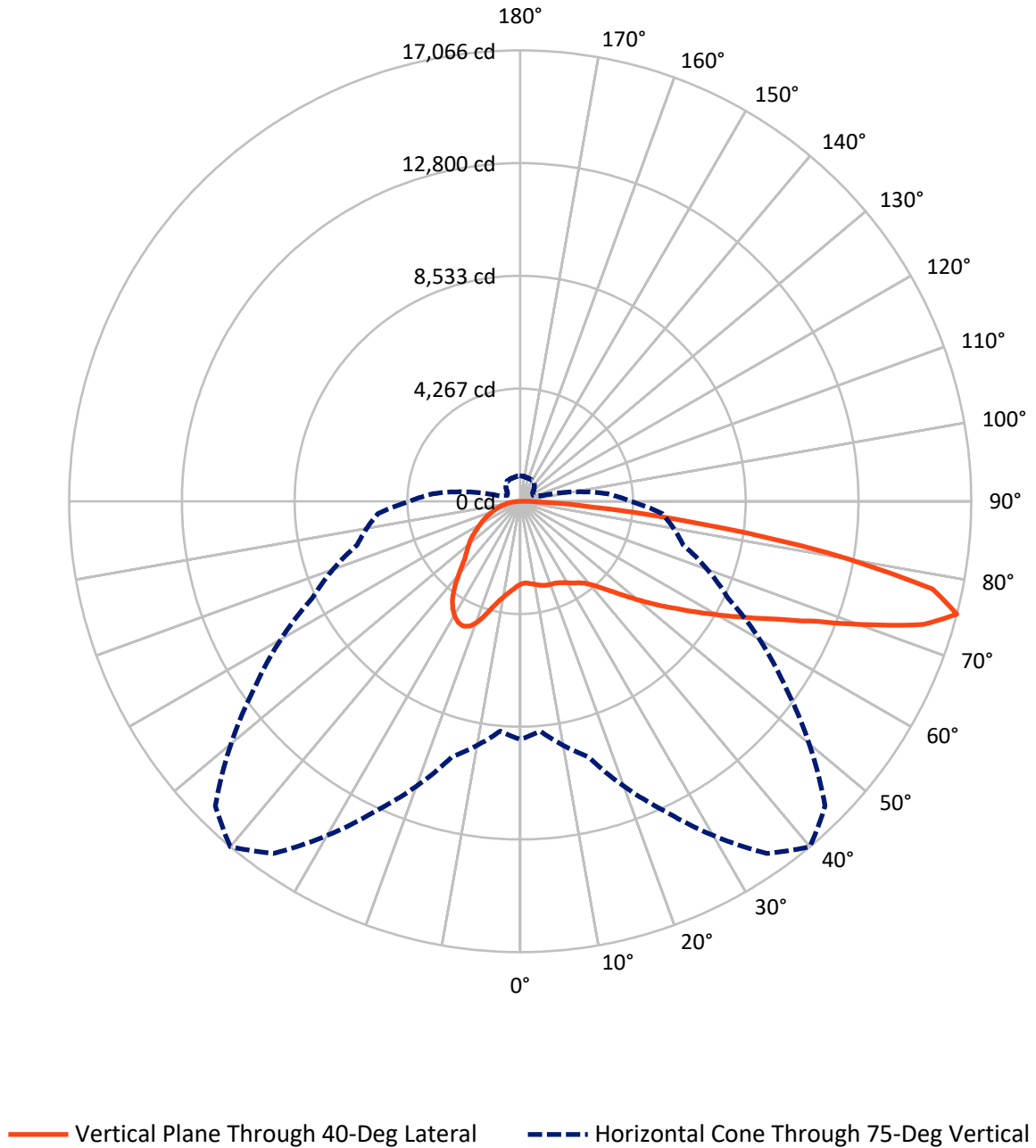
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P883404  
CATALOG NUMBER: NAV-SB3D-727-U-SL4

### Luminous Intensity Polar Plot



REPORT NUMBER: P883404

CATALOG NUMBER: NAV-SB3D-727-U-SL4

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8495.6	0.0	8495.6
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	18924.4	0.0	18924.4
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	27420.0	0.0	27420.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	313.0	1.1
10°-20°	1050.8	3.8
20°-30°	1918.7	7.0
30°-40°	2721.3	9.9
40°-50°	3674.6	13.4
50°-60°	4943.3	18.0
60°-70°	6274.1	22.9
70°-80°	5694.2	20.8
80°-90°	830.0	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°	27420.0	100.0
0°-180°	27420.0	100.0



REPORT NUMBER: P883404

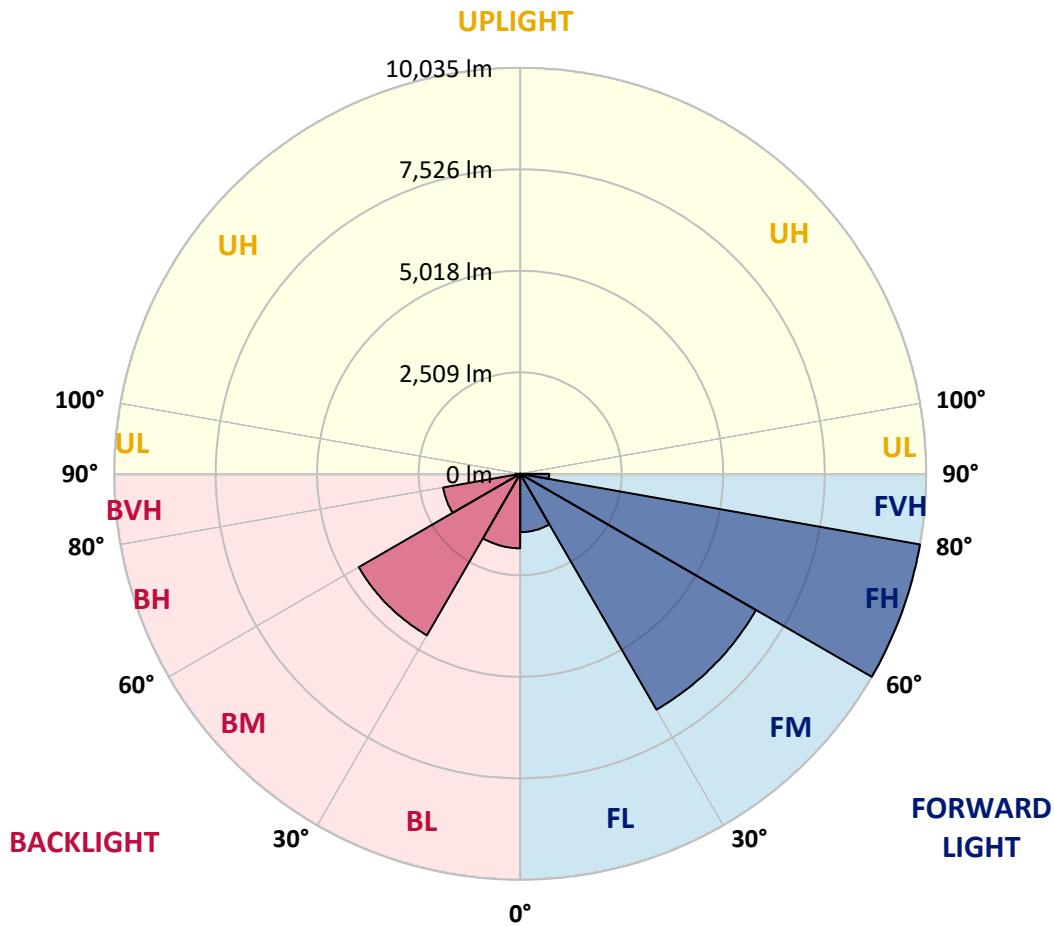
CATALOG NUMBER: NAV-SB3D-727-U-SL4

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1442.3	5.3			
FM (30°-60°)	6731.0	24.5			
FH (60°-80°)	10035.3	36.6			G4/12000
FVH (80°-90°)	715.8	2.6			G4/750
BL (0°-30°)	1840.2	6.7	B3/2500		
BM (30°-60°)	4608.1	16.8	B3/5000		
BH (60°-80°)	1933.0	7.0	B3/2500		G3/2500
BVH (80°-90°)	114.3	0.4			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 IV Medium



REPORT NUMBER: P883404

CATALOG NUMBER: NAV-SB3D-727-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5
2.5°	3087.5	3105.0	3100.6	3094.8	3094.8	3096.2	3094.8	3105.0	3115.2	3125.3	3141.3
5°	3119.5	3137.0	3128.2	3121.0	3115.2	3113.7	3109.3	3107.9	3113.7	3126.8	3148.6
7.5°	3182.1	3199.5	3186.4	3173.3	3161.7	3155.9	3150.1	3141.3	3137.0	3144.2	3174.8
10°	3251.9	3269.3	3253.3	3230.0	3211.1	3203.9	3198.0	3189.3	3183.5	3187.9	3221.3
12.5°	3321.7	3339.1	3317.3	3285.3	3260.6	3256.2	3249.0	3246.0	3244.6	3243.1	3276.6
15°	3387.1	3401.7	3374.0	3336.2	3310.0	3302.8	3295.5	3299.9	3307.1	3315.8	3353.7
17.5°	3438.0	3452.6	3411.8	3362.4	3337.7	3334.8	3330.4	3344.9	3365.3	3387.1	3433.6
20°	3484.6	3499.1	3446.7	3379.8	3350.8	3350.8	3352.2	3382.7	3411.8	3443.8	3507.8
22.5°	3550.0	3561.6	3497.6	3406.0	3363.8	3366.8	3378.4	3408.9	3445.3	3488.9	3577.6
25°	3647.4	3656.2	3577.6	3455.5	3407.5	3416.2	3426.4	3440.9	3475.8	3526.7	3646.0
27.5°	3804.5	3811.8	3708.5	3542.7	3470.0	3484.6	3499.1	3488.9	3504.9	3548.5	3701.2
30°	4025.6	4029.9	3899.0	3679.4	3576.2	3583.4	3586.4	3544.2	3513.6	3548.5	3740.5
32.5°	4287.3	4285.9	4130.3	3845.2	3696.9	3689.6	3664.9	3582.0	3510.7	3541.3	3775.4
35°	4693.1	4677.1	4476.4	4077.9	3833.6	3788.5	3730.3	3624.2	3525.3	3534.0	3806.0
37.5°	5365.0	5315.5	5037.8	4458.9	4037.2	3922.3	3836.5	3692.5	3557.3	3531.1	3842.3
40°	6122.7	6060.2	5754.7	4981.0	4342.6	4157.9	4019.7	3790.0	3609.6	3544.2	3896.1
42.5°	7021.5	6932.7	6604.1	5596.2	4729.4	4461.9	4253.9	3913.6	3686.7	3586.4	3968.8
45°	8125.3	8007.5	7542.1	6289.9	5216.6	4860.3	4582.6	4101.2	3804.5	3667.8	4077.9
47.5°	9240.7	9269.8	8608.1	7084.0	5801.3	5351.9	4994.1	4383.3	3976.1	3798.7	4253.9
50°	10426.0	10446.4	9668.3	7963.9	6464.5	5907.4	5456.6	4698.9	4214.6	3984.8	4517.1
52.5°	11351.0	11353.9	10631.1	8884.4	7155.3	6518.3	5955.4	5059.6	4490.9	4232.1	4867.6
55°	11929.8	11922.5	11305.9	9755.6	7949.3	7159.6	6508.1	5469.7	4828.3	4522.9	5308.3
57.5°	12350.1	12328.3	11771.3	10504.6	8795.7	7917.3	7133.4	5935.1	5226.8	4869.1	5888.5
60°	12510.1	12497.0	12086.9	11151.7	9685.8	8755.0	7854.8	6455.7	5679.1	5277.7	6634.6
62.5°	12571.1	12595.9	12396.6	11778.5	10638.3	9682.9	8647.4	7078.2	6188.1	5740.2	7421.4
65°	12786.4	12831.5	12790.7	12598.8	11714.5	10769.2	9698.9	7818.4	6743.7	6236.1	8243.1
67.5°	13212.5	13257.6	13275.0	13580.4	13029.3	12123.2	11010.7	8740.5	7393.8	6751.0	8861.2
70°	13202.3	13189.2	13497.5	14361.4	14675.5	13997.8	12779.1	9874.8	8168.9	7178.5	8939.7
72.5°	12017.0	11912.3	12640.9	14352.7	16045.5	15955.3	14938.8	11337.9	8837.9	7230.9	7757.3
75°	9015.3	8736.1	10023.2	12934.7	16273.8	17066.4	16311.7	12245.4	8679.4	6388.8	5398.4
77.5°	3855.4	3574.7	5091.6	9575.2	14565.0	15953.9	15052.2	10683.4	6928.4	4224.8	2651.2
80°	1009.3	1007.8	1538.7	4341.1	9905.4	11781.4	10335.9	6899.3	3958.7	1509.6	731.5
82.5°	417.4	407.2	565.7	1688.5	4840.0	6611.3	5395.5	3077.3	1429.6	408.7	242.9
85°	155.6	154.2	274.9	583.2	1707.4	2726.8	1973.5	786.8	356.3	199.2	109.1
87.5°	43.6	42.2	59.6	202.2	415.9	631.2	337.4	129.4	100.3	78.5	32.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P883404

CATALOG NUMBER: NAV-SB3D-727-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5	3135.5
2.5°	3145.7	3153.0	3166.1	3176.2	3189.3	3203.9	3224.2	3237.3	3250.4	3259.1	3253.3
5°	3158.8	3174.8	3208.2	3241.7	3280.9	3317.3	3359.5	3390.0	3414.7	3422.0	3424.9
7.5°	3187.9	3214.0	3270.8	3327.5	3390.0	3449.6	3510.7	3563.1	3605.3	3621.3	3622.7
10°	3238.8	3273.7	3353.7	3433.6	3516.5	3608.2	3686.7	3762.3	3822.0	3846.7	3848.1
12.5°	3302.8	3346.4	3451.1	3561.6	3676.5	3803.0	3904.8	3997.9	4072.1	4105.5	4105.5
15°	3385.7	3442.4	3576.2	3724.5	3893.2	4069.2	4198.6	4301.9	4384.8	4425.5	4422.6
17.5°	3475.8	3551.4	3720.2	3944.1	4185.5	4416.8	4568.0	4643.6	4729.4	4768.7	4767.3
20°	3563.1	3656.2	3897.6	4223.3	4544.7	4790.5	4912.7	4933.1	4938.9	4943.2	4954.9
22.5°	3653.3	3778.3	4120.1	4575.3	4920.0	5090.1	5107.6	5020.3	4898.1	4841.4	4857.4
25°	3752.1	3917.9	4411.0	4963.6	5242.8	5263.2	5129.4	4917.1	4685.8	4579.7	4595.7
27.5°	3848.1	4079.4	4760.0	5334.4	5475.5	5296.6	5008.7	4707.6	4428.4	4316.4	4329.5
30°	3944.1	4264.1	5145.4	5658.8	5581.7	5213.7	4818.2	4482.2	4201.5	4083.7	4096.8
32.5°	4041.6	4479.3	5589.0	5892.9	5562.8	5037.8	4581.1	4229.2	3981.9	3858.3	3874.3
35°	4152.1	4744.0	6009.2	6020.9	5436.2	4778.9	4268.4	3926.7	3711.4	3612.5	3634.3
37.5°	4296.1	5079.9	6380.1	6052.9	5215.2	4399.3	3880.1	3568.9	3391.5	3346.4	3378.4
40°	4474.9	5484.2	6663.7	6002.0	4888.0	3938.3	3455.5	3206.8	3106.4	3116.6	3151.5
42.5°	4707.6	5936.5	6862.9	5871.1	4432.8	3462.7	3083.2	2972.6	3020.6	3061.3	3099.2
45°	5010.1	6406.3	6986.6	5648.6	3917.9	3059.9	2863.6	2889.7	2926.1	2930.5	2959.5
47.5°	5397.0	6881.8	7068.0	5312.6	3392.9	2776.3	2723.9	2729.8	2722.5	2691.9	2715.2
50°	5879.8	7344.3	7140.7	4867.6	2946.5	2598.9	2529.1	2508.7	2408.4	2309.5	2322.5
52.5°	6429.5	7769.0	7171.3	4315.0	2598.9	2450.5	2337.1	2209.1	2021.5	1991.0	2001.1
55°	7040.4	8161.6	7092.7	3635.8	2306.6	2260.0	2088.4	1934.2	1913.9	1887.7	1892.1
57.5°	7770.4	8584.8	6932.7	2878.1	2007.0	2037.5	1870.3	1887.7	1851.3	1810.6	1803.4
60°	8568.9	9022.6	6652.1	2187.3	1697.2	1759.7	1813.5	1812.1	1801.9	1768.5	1756.8
62.5°	9287.3	9310.6	6099.4	1675.4	1425.2	1544.5	1691.4	1689.9	1681.2	1662.3	1655.0
65°	9714.9	9266.9	5177.4	1319.1	1201.3	1367.1	1525.6	1537.2	1538.7	1537.2	1537.2
67.5°	9639.2	8756.5	3912.1	1050.0	1016.6	1186.7	1361.2	1377.2	1388.9	1391.8	1394.7
70°	8784.1	7635.2	2550.9	837.7	852.2	1028.2	1205.6	1221.6	1231.8	1243.4	1249.3
72.5°	6846.9	5613.7	1460.1	677.7	708.3	891.5	1051.5	1070.4	1076.2	1098.0	1106.7
75°	4172.4	3301.3	788.2	533.7	581.7	762.1	898.8	920.6	930.8	956.9	959.9
77.5°	1983.7	1429.6	449.4	415.9	468.3	622.4	759.2	783.9	756.2	770.8	759.2
80°	670.4	530.8	283.6	317.0	357.8	485.7	607.9	632.6	574.5	571.5	565.7
82.5°	234.1	215.2	180.3	210.9	231.2	347.6	459.6	491.6	427.6	426.1	405.8
85°	91.6	87.3	100.3	114.9	138.2	213.8	302.5	318.5	263.2	212.3	209.4
87.5°	18.9	20.4	24.7	26.2	42.2	74.2	109.1	133.8	106.2	90.2	82.9
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)