

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: P883424

Luminaire Tested: **NAV-SB3D-735-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883424  
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-735-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

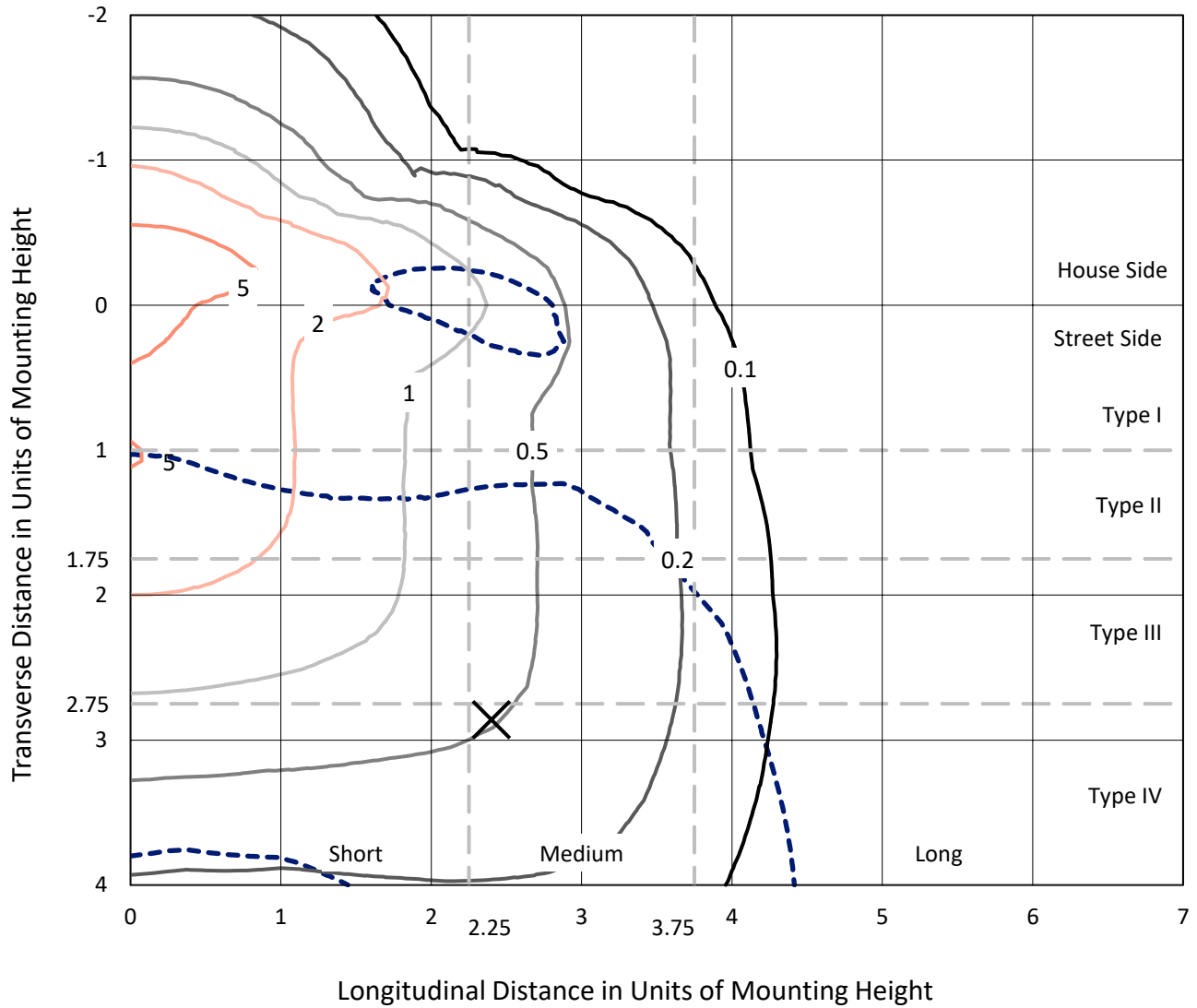
Lumens per Lamp: N/A  
Luminaire Lumens: 30256 lumens  
Efficiency: N/A  
Efficacy: 138.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 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: P883424  
 CATALOG NUMBER: NAV-SB3D-735-U-SL4

### Iso-Footcandle Lines of Horizontal Illumination

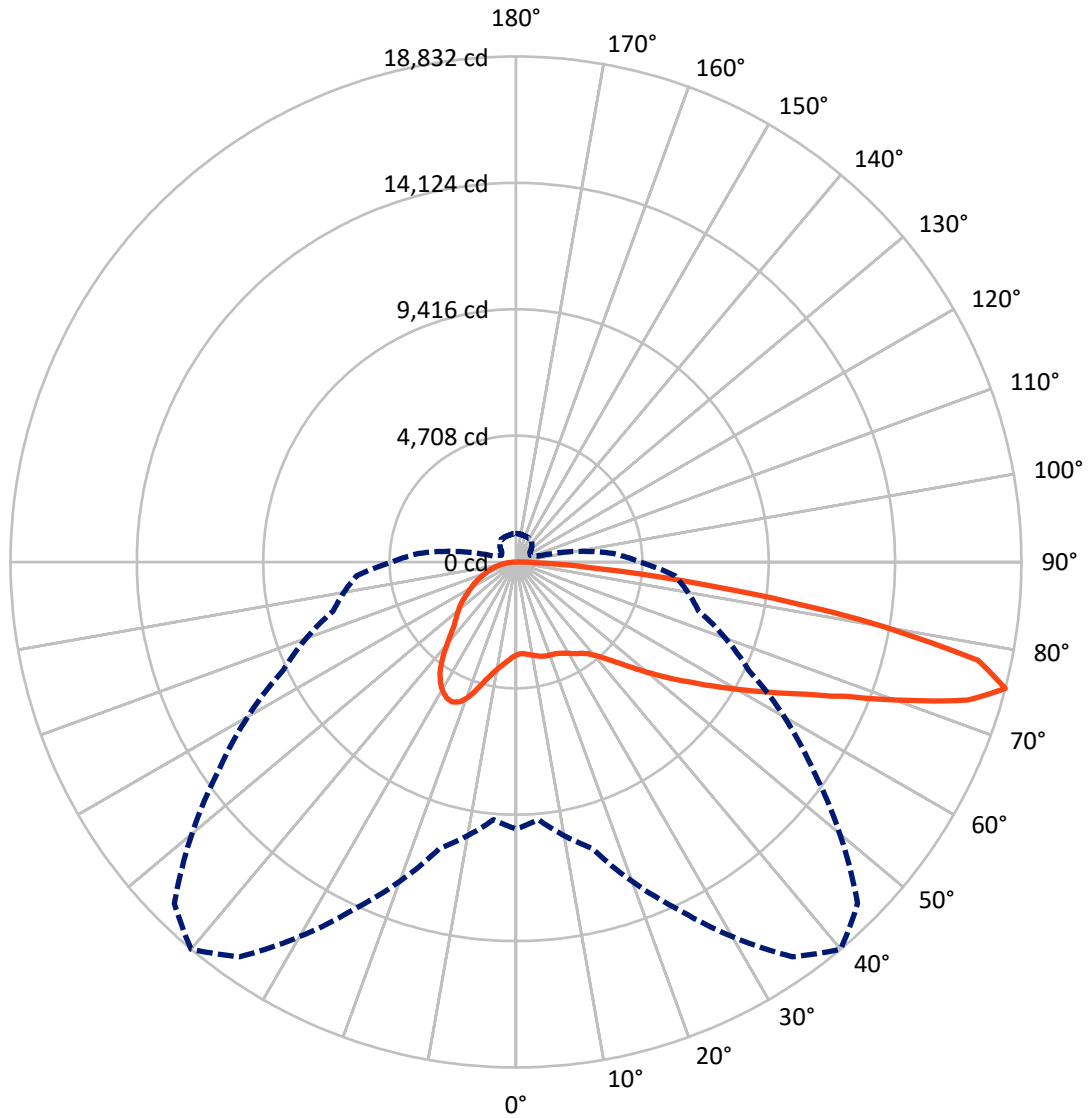
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc  
 Type IV - Medium - N/A

REPORT NUMBER: P883424  
CATALOG NUMBER: NAV-SB3D-735-U-SL4

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P883424

CATALOG NUMBER: NAV-SB3D-735-U-SL4

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9374.3	0.0	9374.3
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	20881.7	0.0	20881.7
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	30256.0	0.0	30256.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	345.4	1.1
10°-20°	1159.5	3.8
20°-30°	2117.2	7.0
30°-40°	3002.7	9.9
40°-50°	4054.6	13.4
50°-60°	5454.5	18.0
60°-70°	6923.1	22.9
70°-80°	6283.1	20.8
80°-90°	915.9	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°	30256.0	100.0
0°-180°	30256.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P883424

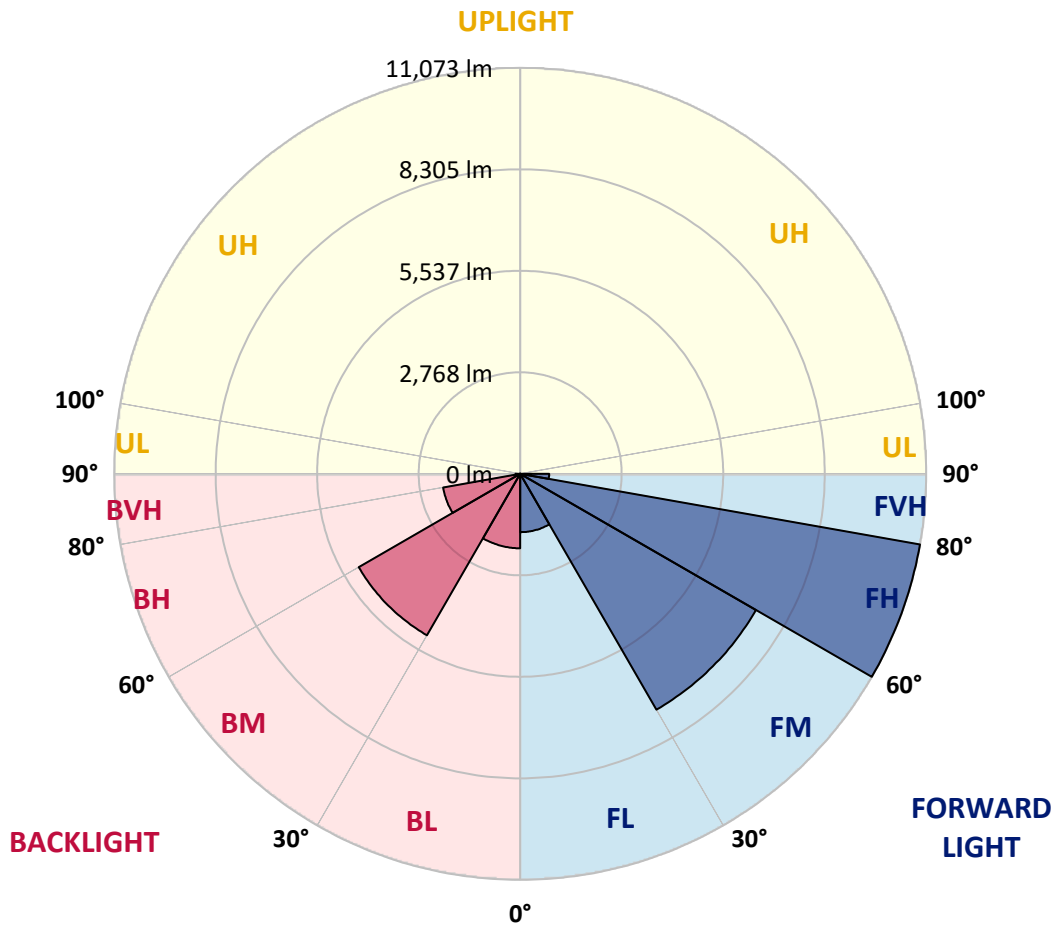
CATALOG NUMBER: NAV-SB3D-735-U-SL4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1591.5	5.3			
FM (30°-60°)	7427.2	24.5			
FH (60°-80°)	11073.2	36.6			G4/12000
FVH (80°-90°)	789.8	2.6			G5
BL (0°-30°)	2030.6	6.7	B3/2500		
BM (30°-60°)	5084.7	16.8	B4/8500		
BH (60°-80°)	2132.9	7.0	B3/2500		G3/2500
BVH (80°-90°)	126.1	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



REPORT NUMBER: P883424

CATALOG NUMBER: NAV-SB3D-735-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8
2.5°	3406.9	3426.1	3421.3	3414.9	3414.9	3416.5	3414.9	3426.1	3437.3	3448.6	3466.2
5°	3442.2	3461.4	3451.8	3443.8	3437.3	3435.7	3430.9	3429.3	3435.7	3450.2	3474.3
7.5°	3511.2	3530.4	3516.0	3501.5	3488.7	3482.3	3475.9	3466.2	3461.4	3469.4	3503.1
10°	3588.2	3607.4	3589.8	3564.1	3543.3	3535.2	3528.8	3519.2	3512.8	3517.6	3554.5
12.5°	3665.2	3684.5	3660.4	3625.1	3597.8	3593.0	3585.0	3581.8	3580.2	3578.6	3615.5
15°	3737.4	3753.5	3723.0	3681.3	3652.4	3644.4	3636.3	3641.1	3649.2	3658.8	3700.5
17.5°	3793.6	3809.6	3764.7	3710.2	3682.9	3679.7	3674.8	3690.9	3713.4	3737.4	3788.8
20°	3845.0	3861.0	3803.2	3729.4	3697.3	3697.3	3698.9	3732.6	3764.7	3800.0	3870.6
22.5°	3917.2	3930.0	3859.4	3758.3	3711.8	3715.0	3727.8	3761.5	3801.6	3849.8	3947.7
25°	4024.7	4034.3	3947.7	3812.9	3759.9	3769.5	3780.8	3796.8	3835.3	3891.5	4023.1
27.5°	4198.0	4206.0	4092.1	3909.1	3828.9	3845.0	3861.0	3849.8	3867.4	3915.6	4084.1
30°	4441.9	4446.7	4302.3	4060.0	3946.0	3954.1	3957.3	3910.7	3877.0	3915.6	4127.4
32.5°	4730.8	4729.2	4557.5	4242.9	4079.2	4071.2	4043.9	3952.5	3873.8	3907.5	4165.9
35°	5178.5	5160.8	4939.4	4499.7	4230.1	4180.3	4116.2	3999.0	3889.9	3899.5	4199.6
37.5°	5919.9	5865.3	5558.8	4920.1	4454.8	4328.0	4233.3	4074.4	3925.2	3896.3	4239.7
40°	6755.9	6686.9	6349.9	5496.2	4791.7	4587.9	4435.5	4181.9	3983.0	3910.7	4299.1
42.5°	7747.7	7649.8	7287.1	6175.0	5218.6	4923.3	4693.9	4318.3	4068.0	3957.3	4379.3
45°	8965.7	8835.7	8322.2	6940.5	5756.2	5363.0	5056.5	4525.4	4198.0	4047.1	4499.7
47.5°	10196.5	10228.6	9498.4	7816.7	6401.3	5905.4	5510.7	4836.7	4387.4	4191.6	4693.9
50°	11504.4	11526.8	10668.3	8787.5	7133.1	6518.4	6021.0	5184.9	4650.5	4397.0	4984.3
52.5°	12525.0	12528.2	11730.6	9803.3	7895.3	7192.4	6571.4	5582.9	4955.4	4669.8	5371.1
55°	13163.7	13155.6	12475.2	10764.6	8771.5	7900.1	7181.2	6035.4	5327.7	4990.7	5857.3
57.5°	13627.4	13603.4	12988.7	11591.0	9705.5	8736.2	7871.2	6548.9	5767.4	5372.7	6497.6
60°	13804.0	13789.5	13337.0	12305.1	10687.6	9660.5	8667.2	7123.4	6266.5	5823.6	7320.8
62.5°	13871.4	13898.6	13678.8	12996.8	11738.7	10684.3	9541.8	7810.3	6828.2	6333.9	8189.0
65°	14108.9	14158.6	14113.7	13901.8	12926.2	11883.1	10702.0	8627.1	7441.2	6881.1	9095.7
67.5°	14579.0	14628.8	14648.0	14985.0	14376.8	13377.1	12149.5	9644.5	8158.5	7449.2	9777.7
70°	14567.8	14553.4	14893.6	15846.8	16193.4	15445.6	14100.8	10896.2	9013.8	7921.0	9864.3
72.5°	13259.9	13144.4	13948.4	15837.2	17705.1	17605.6	16483.9	12510.5	9752.0	7978.8	8559.7
75°	9947.8	9639.7	11059.9	14272.5	17957.0	18831.6	17998.7	13511.9	9577.1	7049.6	5956.8
77.5°	4254.2	3944.4	5618.2	10565.6	16071.4	17604.0	16609.0	11788.4	7645.0	4661.8	2925.4
80°	1113.7	1112.1	1697.8	4790.1	10929.9	13000.0	11404.9	7612.9	4368.1	1665.7	807.2
82.5°	460.6	449.3	624.2	1863.1	5340.6	7295.1	5953.6	3395.6	1577.5	450.9	268.0
85°	171.7	170.1	303.3	643.5	1884.0	3008.9	2177.6	868.2	393.2	219.8	120.4
87.5°	48.1	46.5	65.8	223.1	459.0	696.5	372.3	142.8	110.7	86.7	35.3
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: P883424

CATALOG NUMBER: NAV-SB3D-735-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8	3459.8
2.5°	3471.0	3479.1	3493.5	3504.7	3519.2	3535.2	3557.7	3572.1	3586.6	3596.2	3589.8
5°	3485.5	3503.1	3540.1	3577.0	3620.3	3660.4	3706.9	3740.6	3767.9	3775.9	3779.2
7.5°	3517.6	3546.5	3609.1	3671.6	3740.6	3806.4	3873.8	3931.6	3978.1	3995.8	3997.4
10°	3573.8	3612.3	3700.5	3788.8	3880.3	3981.4	4068.0	4151.5	4217.2	4244.5	4246.1
12.5°	3644.4	3692.5	3808.0	3930.0	4056.8	4196.4	4308.7	4411.4	4493.3	4530.2	4530.2
15°	3735.8	3798.4	3946.0	4109.7	4295.9	4490.1	4632.9	4746.8	4838.3	4883.2	4880.0
17.5°	3835.3	3918.8	4104.9	4352.0	4618.4	4873.6	5040.5	5123.9	5218.6	5261.9	5260.3
20°	3931.6	4034.3	4300.7	4660.2	5014.8	5286.0	5420.8	5443.3	5449.7	5454.5	5467.3
22.5°	4031.1	4169.1	4546.2	5048.5	5428.8	5616.6	5635.8	5539.6	5404.8	5342.2	5359.8
25°	4140.2	4323.2	4867.2	5477.0	5785.1	5807.5	5659.9	5425.6	5170.5	5053.3	5071.0
27.5°	4246.1	4501.3	5252.3	5886.2	6041.8	5844.5	5526.7	5194.5	4886.4	4762.9	4777.3
30°	4352.0	4705.1	5677.6	6244.0	6159.0	5753.0	5316.5	4945.8	4636.1	4506.1	4520.5
32.5°	4459.6	4942.6	6167.0	6502.4	6138.1	5558.8	5054.9	4666.6	4393.8	4257.4	4275.0
35°	4581.5	5234.7	6630.8	6643.6	5998.5	5273.2	4709.9	4332.8	4095.3	3986.2	4010.2
37.5°	4740.4	5605.3	7040.0	6678.9	5754.6	4854.3	4281.4	3938.0	3742.2	3692.5	3727.8
40°	4937.8	6051.5	7352.9	6622.8	5393.5	4345.6	3812.9	3538.4	3427.7	3439.0	3477.5
42.5°	5194.5	6550.5	7572.8	6478.3	4891.2	3820.9	3402.0	3280.1	3333.0	3378.0	3419.7
45°	5528.3	7068.9	7709.2	6232.8	4323.2	3376.4	3159.7	3188.6	3228.7	3233.5	3265.6
47.5°	5955.2	7593.6	7799.0	5862.1	3743.9	3063.4	3005.7	3012.1	3004.1	2970.4	2996.0
50°	6488.0	8103.9	7879.3	5371.1	3251.2	2867.7	2790.6	2768.2	2657.4	2548.3	2562.8
52.5°	7094.5	8572.5	7913.0	4761.3	2867.7	2704.0	2578.8	2437.6	2230.6	2196.9	2208.1
55°	7768.5	9005.8	7826.3	4011.8	2545.1	2493.8	2304.4	2134.3	2111.8	2082.9	2087.8
57.5°	8574.1	9472.8	7649.8	3175.8	2214.5	2248.2	2063.7	2082.9	2042.8	1997.9	1989.9
60°	9455.1	9955.8	7340.1	2413.5	1872.7	1941.7	2001.1	1999.5	1988.3	1951.4	1938.5
62.5°	10247.9	10273.5	6730.3	1848.7	1572.6	1704.2	1866.3	1864.7	1855.1	1834.2	1826.2
65°	10719.6	10225.4	5712.9	1455.5	1325.5	1508.5	1683.4	1696.2	1697.8	1696.2	1696.2
67.5°	10636.2	9662.1	4316.7	1158.6	1121.7	1309.5	1502.0	1519.7	1532.5	1535.7	1538.9
70°	9692.6	8424.9	2814.7	924.3	940.4	1134.5	1330.3	1348.0	1359.2	1372.1	1378.5
72.5°	7555.1	6194.3	1611.2	747.8	781.5	983.7	1160.2	1181.1	1187.5	1211.6	1221.2
75°	4604.0	3642.8	869.8	588.9	641.9	840.9	991.7	1015.8	1027.0	1055.9	1059.1
77.5°	2188.9	1577.5	495.9	459.0	516.7	686.8	837.7	865.0	834.5	850.5	837.7
80°	739.8	585.7	312.9	349.8	394.8	536.0	670.8	698.1	633.9	630.7	624.2
82.5°	258.4	237.5	199.0	232.7	255.2	383.5	507.1	542.4	471.8	470.2	447.7
85°	101.1	96.3	110.7	126.8	152.5	235.9	333.8	351.4	290.5	234.3	231.1
87.5°	20.9	22.5	27.3	28.9	46.5	81.8	120.4	147.6	117.1	99.5	91.5
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)