

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: P196416

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-7030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196416  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-5MQ-7030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40701.2 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4

Input Watts (W): 382  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

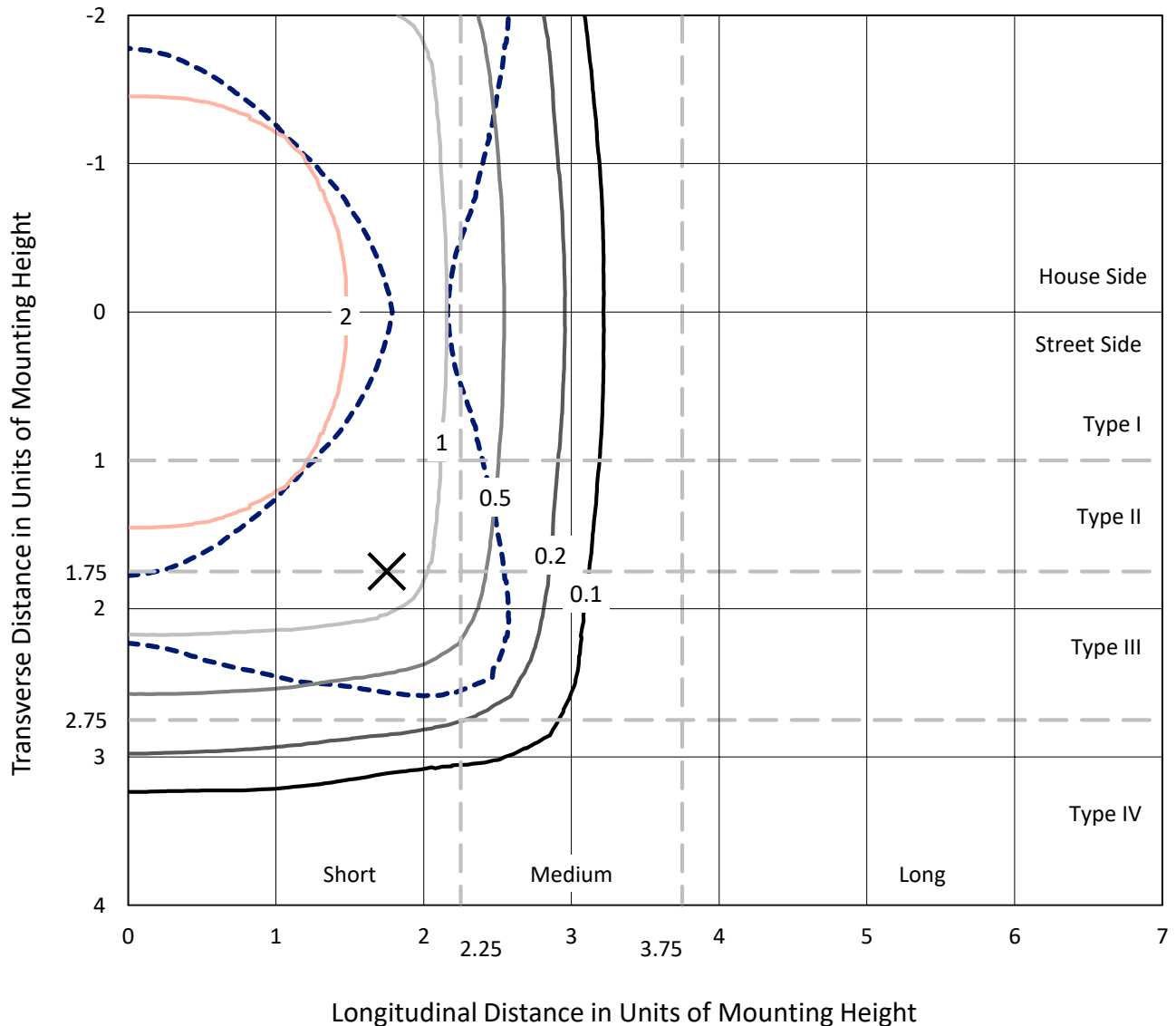


REPORT NUMBER: P196416

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7030-1200

### Iso-Footcandle Lines of Horizontal Illumination

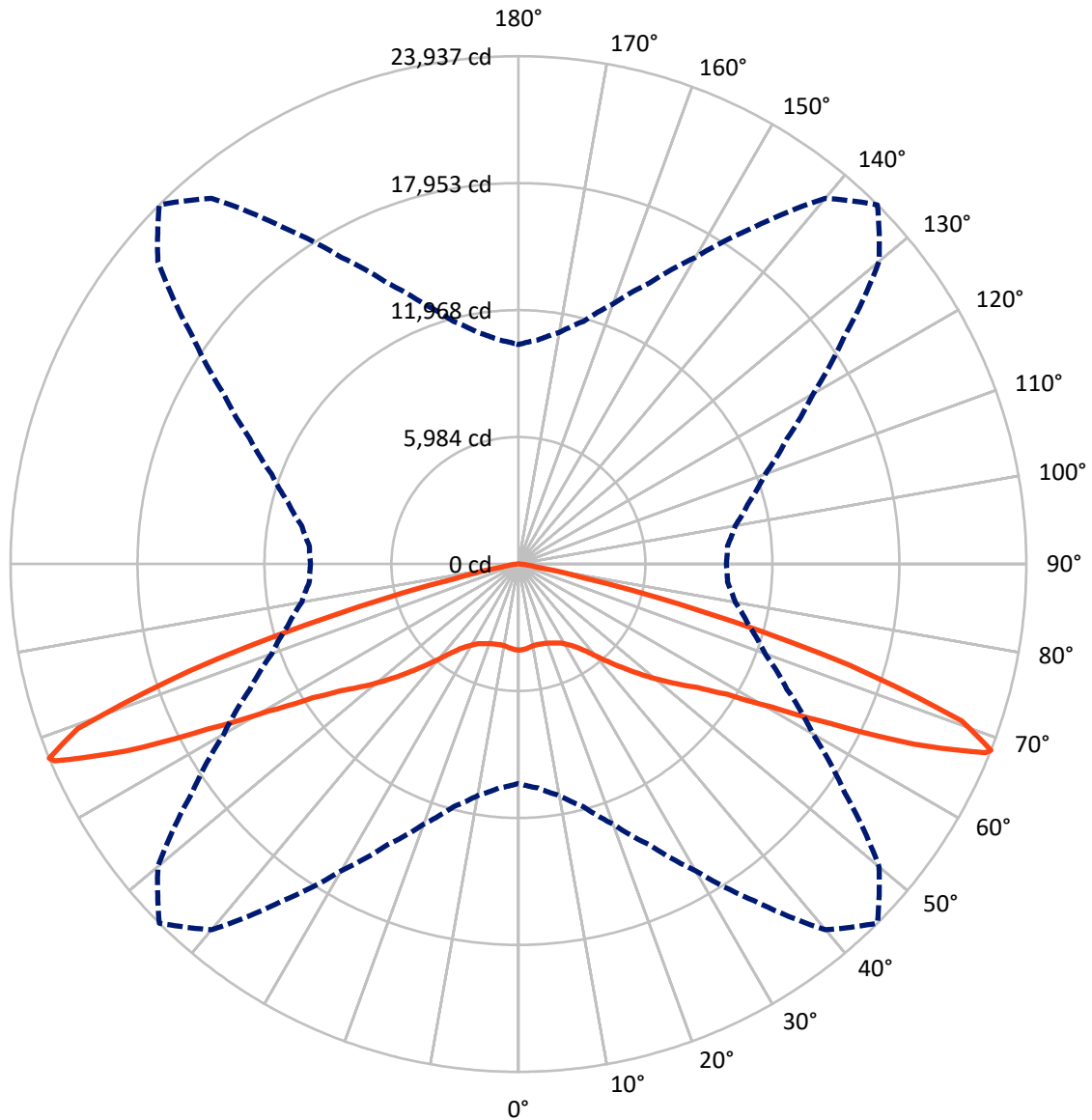
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.5 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P196416  
CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7030-1200

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P196416

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7030-1200

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20350.6	0.0	20350.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	20350.6	0.0	20350.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	40701.2	0.0	40701.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	379.9	0.9
10°-20°	1101.8	2.7
20°-30°	1873.2	4.6
30°-40°	3065.5	7.5
40°-50°	5478.4	13.5
50°-60°	9252.1	22.7
60°-70°	14346.6	35.2
70°-80°	4932.7	12.1
80°-90°	271.1	0.7
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°	40701.2	100.0
0°-180°	40701.2	100.0



REPORT NUMBER: P196416

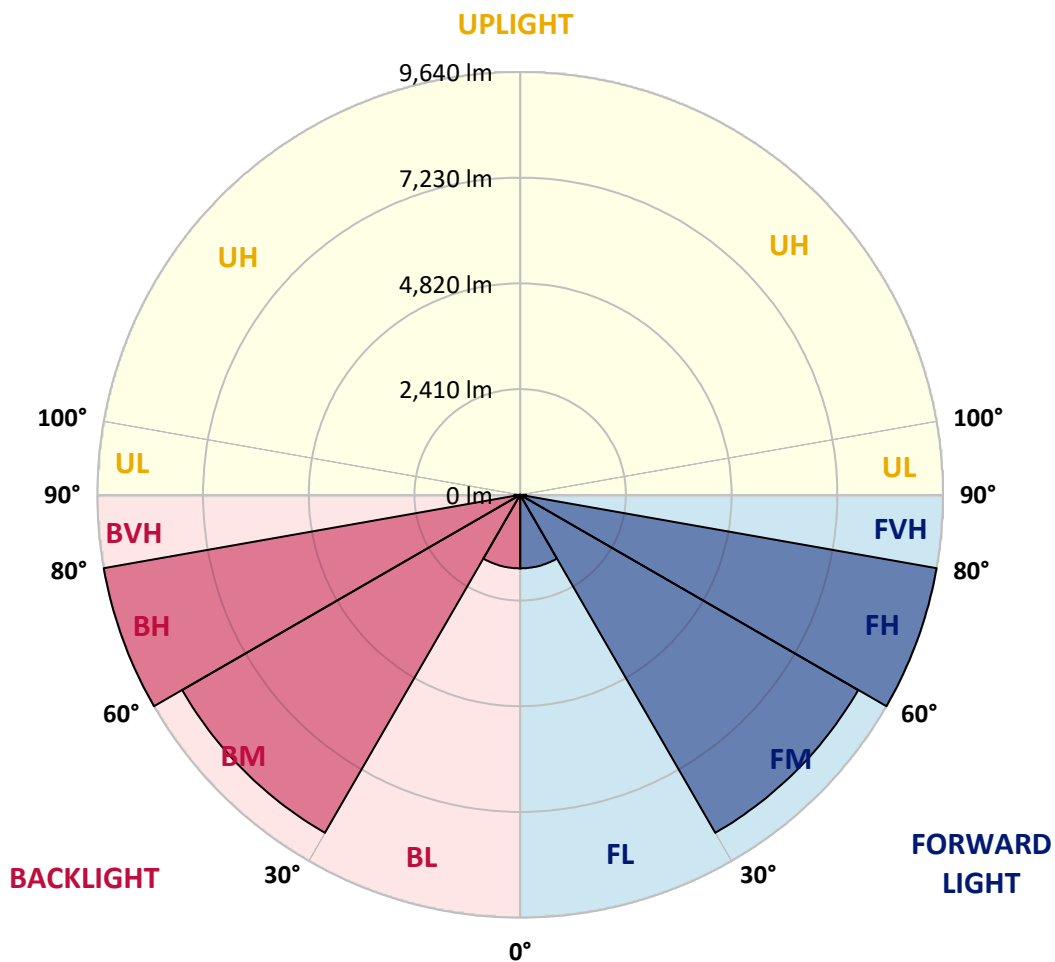
CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7030-1200

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1677.5	4.1			
FM	(30°-60°)	8898.0	21.9			
FH	(60°-80°)	9639.7	23.7			G4/12000
FVH	(80°-90°)	135.5	0.3			G2/225
BL	(0°-30°)	1677.5	4.1	B3/2500		
BM	(30°-60°)	8898.0	21.9	B5		
BH	(60°-80°)	9639.7	23.7	B5		G4/12000
BVH	(80°-90°)	135.5	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





REPORT NUMBER: P196416  
 CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7030-1200

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1
2.5°	4077.5	4077.5	4082.5	4080.0	4072.5	4065.1	4057.6	4050.1	4045.1	4040.1	4035.2
5°	4035.2	4035.2	4042.6	4037.6	4032.6	4025.2	4020.2	4012.8	4007.7	4002.7	4005.2
7.5°	3980.4	3985.3	3990.2	3987.8	3977.8	3975.3	3967.9	3965.3	3960.4	3952.9	3955.4
10°	3933.0	3935.4	3940.4	3937.9	3935.4	3928.0	3925.4	3923.0	3920.6	3910.5	3907.9
12.5°	3885.6	3890.6	3895.5	3898.1	3895.5	3898.1	3900.5	3903.1	3900.5	3895.5	3895.5
15°	3848.2	3853.2	3860.6	3868.1	3870.6	3885.6	3895.5	3905.6	3913.0	3915.6	3907.9
17.5°	3828.3	3835.8	3845.7	3860.6	3873.1	3890.6	3907.9	3923.0	3935.4	3937.9	3930.5
20°	3825.8	3833.3	3848.2	3865.7	3888.1	3910.5	3937.9	3960.4	3972.8	3980.4	3972.8
22.5°	3843.2	3853.2	3873.1	3895.5	3923.0	3952.9	3987.8	4012.8	4037.6	4047.6	4040.1
25°	3893.1	3903.1	3925.4	3952.9	3982.8	4020.2	4055.0	4087.5	4112.4	4124.9	4114.9
27.5°	3997.8	4000.3	4025.2	4055.0	4090.0	4122.4	4167.2	4182.2	4202.1	4214.5	4202.1
30°	4144.9	4149.7	4172.2	4219.6	4252.0	4294.3	4319.2	4334.2	4356.7	4369.2	4354.2
32.5°	4369.2	4374.0	4394.1	4438.8	4468.8	4501.3	4531.1	4541.2	4563.5	4578.5	4561.0
35°	4685.7	4695.6	4713.1	4743.0	4767.8	4792.8	4815.3	4807.7	4822.7	4842.7	4825.2
37.5°	5119.4	5116.8	5121.8	5144.3	5169.2	5184.2	5219.0	5201.7	5216.6	5233.9	5224.0
40°	5625.3	5625.3	5622.8	5662.7	5672.6	5687.6	5724.9	5702.6	5722.5	5742.4	5724.9
42.5°	6201.0	6211.0	6223.4	6255.8	6283.3	6288.2	6305.7	6295.7	6320.6	6338.1	6320.6
45°	6864.0	6879.0	6893.9	6968.7	6981.1	6991.1	7003.5	6971.2	6998.6	7013.6	7008.6
47.5°	7551.9	7579.4	7611.6	7689.0	7738.9	7761.2	7771.2	7733.8	7736.3	7758.7	7761.2
50°	8329.5	8359.4	8391.7	8479.1	8526.4	8566.3	8578.7	8536.3	8541.4	8558.9	8563.7
52.5°	9047.3	9082.1	9152.0	9269.1	9336.4	9406.2	9411.1	9358.8	9381.3	9393.8	9383.7
55°	9722.8	9767.6	9859.8	10016.9	10138.9	10276.1	10338.3	10281.1	10281.1	10271.0	10266.1
57.5°	10510.3	10560.1	10654.9	10836.9	11006.3	11203.2	11372.7	11430.0	11534.7	11569.6	11514.8
60°	11696.8	11749.0	11846.2	12085.5	12299.9	12586.4	12865.6	13092.4	13461.3	13660.6	13481.3
62.5°	12780.9	12860.6	13090.0	13508.6	13972.2	14503.1	15118.7	15557.4	16227.8	16561.8	16110.8
65°	12534.1	12696.2	13144.8	13802.7	14759.9	15911.3	17164.9	18368.7	19754.5	20464.8	19547.7
67.5°	10949.0	11086.1	11569.6	12334.8	13528.6	15116.2	17065.3	19557.6	22416.4	23747.3	22124.8
68°	10343.3	10600.0	11081.1	11841.3	13045.1	14605.3	16686.4	19378.2	22498.6	23936.7	22184.5
70°	7930.7	8022.9	8484.0	9167.0	10465.5	11995.8	14096.8	17164.9	20691.6	22172.1	20370.2
72.5°	3768.5	3823.3	4122.4	4795.3	5620.3	6866.5	8720.8	11614.5	14792.2	16332.5	14535.6
75°	1380.8	1393.3	1463.0	1622.5	1931.6	2400.2	3289.9	5089.4	7534.4	8985.1	7564.3
77.5°	745.2	747.7	775.0	815.0	869.8	932.2	1066.7	1430.6	2307.9	3140.4	2437.6
80°	468.6	466.1	493.6	525.9	563.2	593.2	605.7	648.0	730.3	854.9	785.1
82.5°	239.3	261.6	324.0	358.9	413.8	423.7	411.3	408.7	433.6	468.6	483.5
85°	132.1	117.1	172.0	229.3	249.2	256.8	259.2	244.3	239.3	234.3	246.7
87.5°	67.3	62.3	74.8	114.6	122.2	99.7	102.1	87.2	59.8	59.8	62.3
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: P196416

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-7030-1200

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1	4060.1
2.5°	4030.1	4032.6	4027.7	4027.7	4027.7	4030.1	4027.7	4025.2
5°	3997.8	4002.7	4002.7	4005.2	4007.7	4007.7	4007.7	4007.7
7.5°	3950.4	3952.9	3957.9	3957.9	3957.9	3957.9	3957.9	3957.9
10°	3905.6	3900.5	3898.1	3893.1	3893.1	3885.6	3888.1	3890.6
12.5°	3883.1	3873.1	3868.1	3860.6	3855.6	3848.2	3848.2	3850.8
15°	3893.1	3878.1	3863.2	3858.2	3853.2	3848.2	3843.2	3845.7
17.5°	3913.0	3895.5	3878.1	3868.1	3858.2	3850.8	3848.2	3850.8
20°	3955.4	3930.5	3903.1	3885.6	3865.7	3860.6	3853.2	3860.6
22.5°	4012.8	3982.8	3947.9	3915.6	3893.1	3883.1	3873.1	3880.7
25°	4082.5	4050.1	4015.2	3977.8	3952.9	3945.5	3933.0	3933.0
27.5°	4179.7	4152.3	4122.4	4087.5	4062.6	4055.0	4035.2	4035.2
30°	4334.2	4306.8	4279.3	4249.5	4224.6	4217.1	4192.2	4192.2
32.5°	4538.6	4508.7	4491.2	4466.3	4446.5	4434.0	4404.0	4401.5
35°	4812.8	4785.3	4782.9	4765.5	4745.4	4748.0	4718.1	4713.1
37.5°	5206.5	5184.2	5191.6	5176.7	5159.2	5174.2	5156.7	5156.7
40°	5710.0	5702.6	5710.0	5700.0	5702.6	5705.1	5690.1	5695.0
42.5°	6318.1	6298.2	6343.0	6338.1	6330.6	6350.5	6315.6	6290.7
45°	7018.5	7011.0	7055.9	7063.4	7048.5	7060.9	6998.6	6996.1
47.5°	7778.7	7778.7	7818.6	7813.5	7798.6	7801.1	7726.4	7679.0
50°	8571.3	8566.3	8606.2	8596.2	8576.2	8573.8	8496.4	8449.1
52.5°	9396.2	9396.2	9453.5	9426.2	9378.9	9356.3	9261.7	9199.3
55°	10308.4	10295.9	10313.4	10223.7	10131.5	10064.2	9947.1	9899.7
57.5°	11462.4	11317.8	11193.3	11078.6	10949.0	10869.2	10732.1	10682.3
60°	13099.8	12713.6	12546.6	12317.4	12102.9	11995.8	11813.8	11716.6
62.5°	15368.0	14727.4	14273.8	13767.9	13279.4	12935.4	12658.8	12536.6
65°	17990.0	16594.2	15440.2	14356.0	13436.3	12706.1	12299.9	12172.8
67.5°	18986.8	16424.7	14433.3	12878.1	11761.5	10891.6	10405.7	10303.4
68°	18775.0	16035.9	13967.2	12374.6	11253.0	10375.7	9892.3	9800.0
70°	16561.8	13528.6	11345.3	9760.1	8713.3	7878.3	7536.9	7389.9
72.5°	11290.5	8688.4	6664.6	5331.2	4548.6	4020.2	3706.2	3599.0
75°	5196.6	3511.7	2345.4	1752.2	1487.9	1360.9	1263.6	1238.7
77.5°	1515.3	1101.7	947.1	877.4	825.0	780.1	747.7	745.2
80°	720.3	675.4	655.4	610.6	563.2	520.9	491.0	495.9
82.5°	483.5	471.0	471.0	426.2	351.4	301.5	249.2	224.3
85°	256.8	266.7	281.7	266.7	231.7	172.0	112.2	122.2
87.5°	87.2	99.7	104.7	102.1	92.3	69.8	52.3	52.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)