

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: P195918

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195918  
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-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25856.1 lumens  
Efficiency: N/A  
Efficacy: 134.0 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 - G3

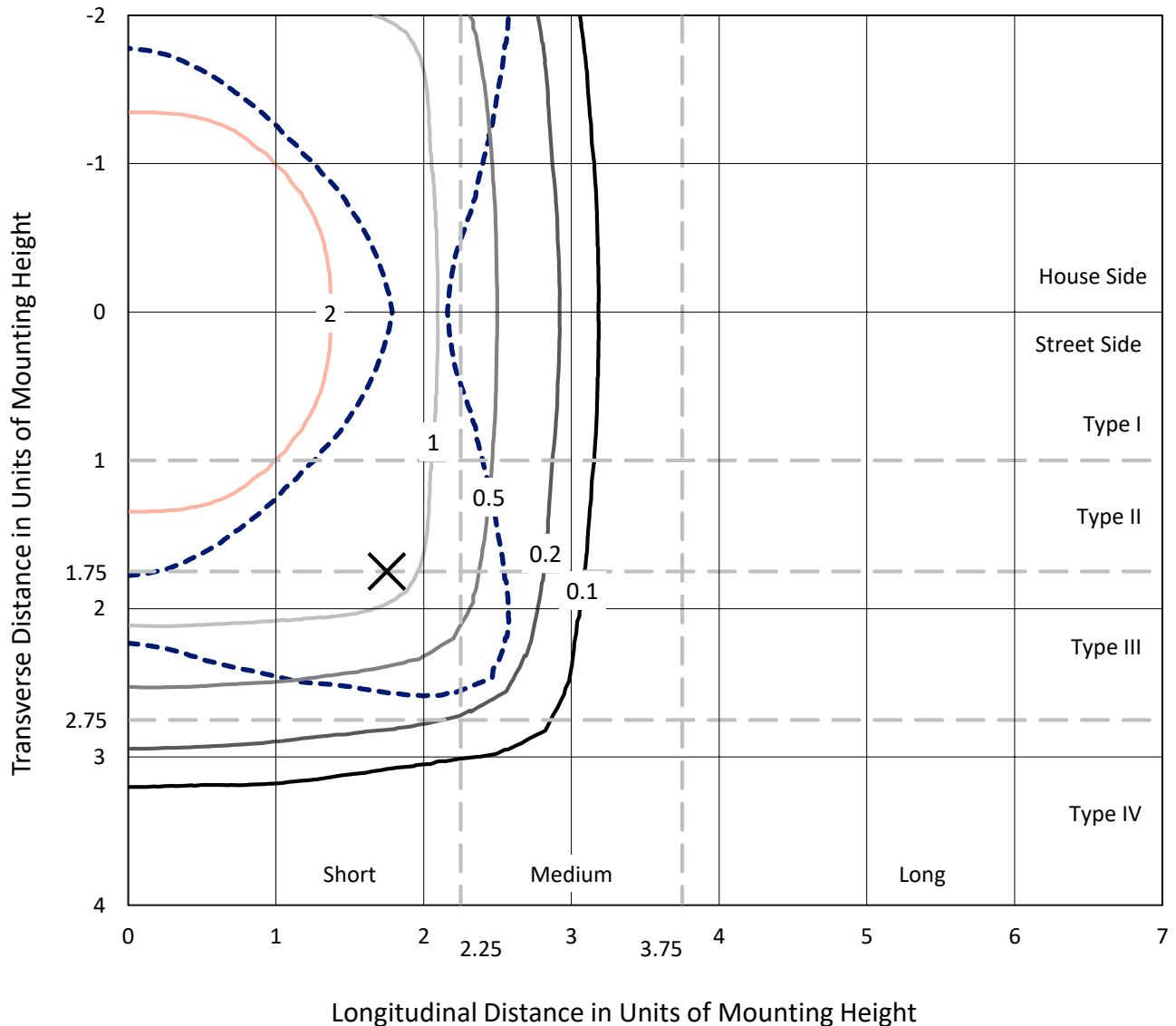
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P195918  
 CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-600

### Iso-Footcandle Lines of Horizontal Illumination

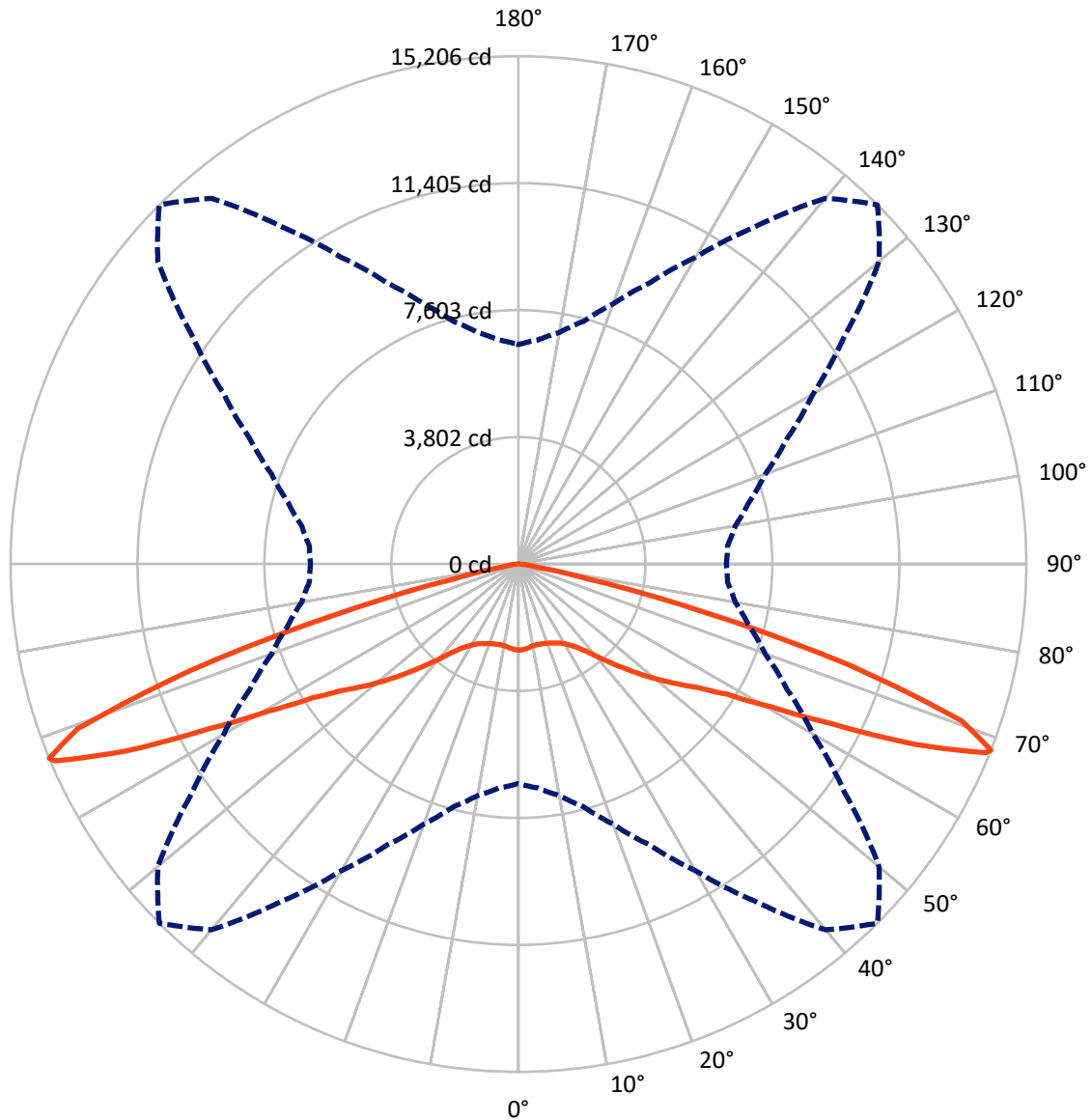
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P195918  
CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-600

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P195918

CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-600

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12928.1	0.0	12928.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12928.1	0.0	12928.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25856.1	0.0	25856.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.3	0.9
10°-20°	700.0	2.7
20°-30°	1190.0	4.6
30°-40°	1947.4	7.5
40°-50°	3480.2	13.5
50°-60°	5877.5	22.7
60°-70°	9113.9	35.2
70°-80°	3133.6	12.1
80°-90°	172.2	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°	25856.1	100.0
0°-180°	25856.1	100.0



REPORT NUMBER: P195918

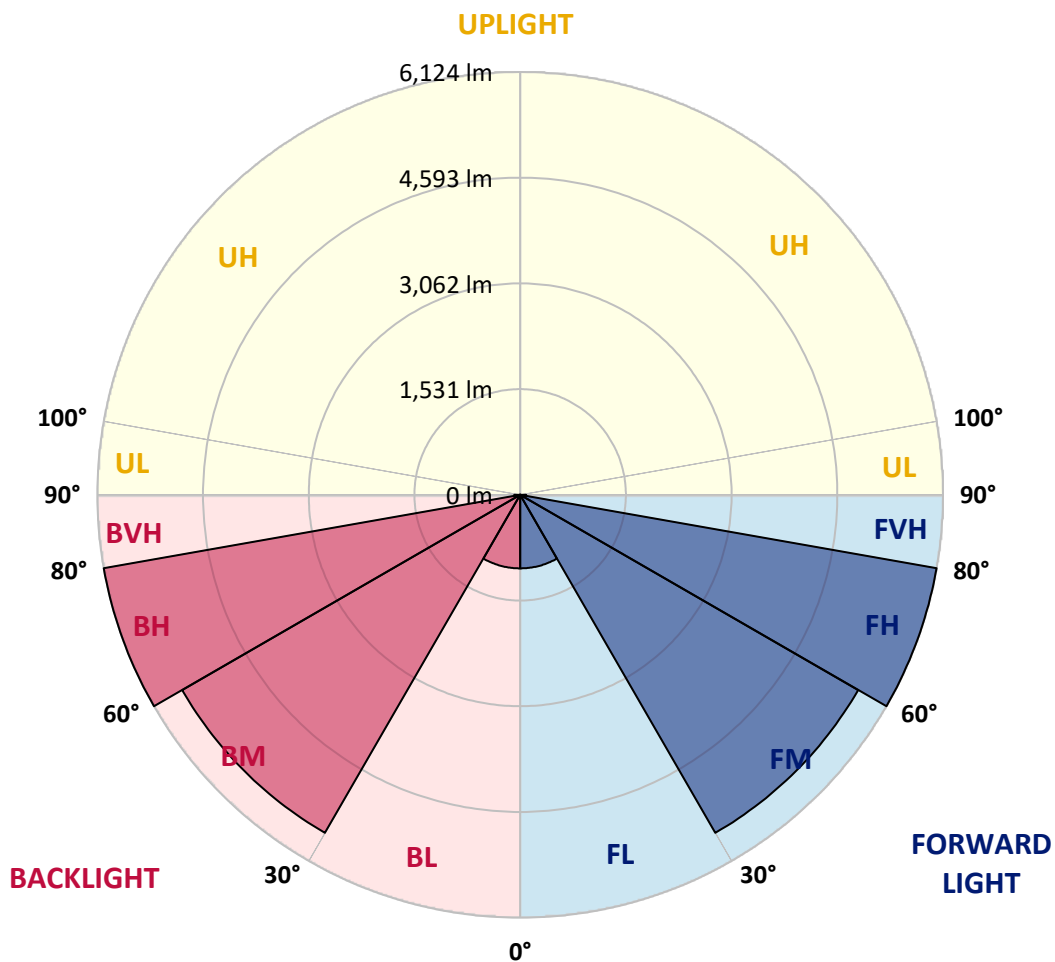
CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1065.6	4.1			
FM	(30°-60°)	5652.6	21.9			
FH	(60°-80°)	6123.7	23.7			G3/7500
FVH	(80°-90°)	86.1	0.3			G1/100
BL	(0°-30°)	1065.6	4.1	B3/2500		
BM	(30°-60°)	5652.6	21.9	B4/8500		
BH	(60°-80°)	6123.7	23.7	B5		G3/7500
BVH	(80°-90°)	86.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





REPORT NUMBER: P195918  
 CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3
2.5°	2590.3	2590.3	2593.5	2591.9	2587.1	2582.4	2577.6	2572.9	2569.8	2566.6	2563.4
5°	2563.4	2563.4	2568.1	2564.9	2561.8	2557.1	2553.9	2549.1	2546.0	2542.9	2544.4
7.5°	2528.5	2531.7	2534.9	2533.3	2527.0	2525.4	2520.7	2519.0	2515.8	2511.1	2512.7
10°	2498.5	2500.1	2503.3	2501.6	2500.1	2495.3	2493.7	2492.1	2490.6	2484.2	2482.6
12.5°	2468.4	2471.6	2474.7	2476.3	2474.7	2476.3	2477.9	2479.4	2477.9	2474.7	2474.7
15°	2444.6	2447.8	2452.5	2457.3	2458.9	2468.4	2474.7	2481.1	2485.8	2487.4	2482.6
17.5°	2432.0	2436.8	2443.0	2452.5	2460.5	2471.6	2482.6	2492.1	2500.1	2501.6	2496.9
20°	2430.4	2435.1	2444.6	2455.7	2470.0	2484.2	2501.6	2515.8	2523.8	2528.5	2523.8
22.5°	2441.5	2447.8	2460.5	2474.7	2492.1	2511.1	2533.3	2549.1	2564.9	2571.3	2566.6
25°	2473.2	2479.4	2493.7	2511.1	2530.2	2553.9	2576.1	2596.7	2612.5	2620.4	2614.0
27.5°	2539.7	2541.2	2557.1	2576.1	2598.2	2618.9	2647.3	2656.8	2669.5	2677.4	2669.5
30°	2633.1	2636.2	2650.5	2680.5	2701.1	2728.0	2743.9	2753.4	2767.6	2775.6	2766.1
32.5°	2775.6	2778.7	2791.4	2819.9	2838.9	2859.5	2878.5	2884.8	2899.0	2908.6	2897.5
35°	2976.7	2982.9	2994.1	3013.1	3028.9	3044.7	3058.9	3054.2	3063.7	3076.4	3065.3
37.5°	3252.2	3250.5	3253.7	3267.9	3283.8	3293.3	3315.5	3304.3	3313.8	3325.0	3318.7
40°	3573.6	3573.6	3571.9	3597.3	3603.7	3613.2	3636.9	3622.7	3635.3	3647.9	3636.9
42.5°	3939.3	3945.6	3953.5	3974.2	3991.6	3994.7	4005.8	3999.4	4015.3	4026.3	4015.3
45°	4360.4	4369.9	4379.5	4426.9	4434.9	4441.2	4449.1	4428.6	4445.9	4455.5	4452.3
47.5°	4797.4	4814.8	4835.5	4884.5	4916.2	4930.4	4936.8	4913.0	4914.7	4928.9	4930.4
50°	5291.4	5310.4	5331.0	5386.4	5416.5	5441.9	5449.8	5422.9	5426.0	5437.1	5440.3
52.5°	5747.4	5769.6	5813.9	5888.3	5931.1	5975.5	5978.6	5945.4	5959.6	5967.5	5961.1
55°	6176.5	6205.0	6263.6	6363.4	6440.9	6528.1	6567.5	6531.1	6531.1	6524.9	6521.7
57.5°	6676.8	6708.5	6768.7	6884.3	6992.0	7117.0	7224.7	7261.1	7327.6	7349.8	7314.9
60°	7430.5	7463.8	7525.5	7677.6	7813.7	7995.8	8173.1	8317.2	8551.5	8678.2	8564.1
62.5°	8119.3	8169.9	8315.6	8581.5	8876.0	9213.3	9604.4	9883.0	10309.0	10521.2	10234.5
65°	7962.5	8065.5	8350.4	8768.4	9376.4	10107.9	10904.3	11669.0	12549.4	13000.6	12417.9
67.5°	6955.6	7042.6	7349.8	7835.8	8594.2	9602.8	10840.9	12424.2	14240.4	15085.9	14055.1
68°	6570.7	6733.9	7039.4	7522.4	8287.1	9278.3	10600.3	12310.3	14292.6	15206.2	14093.1
70°	5038.1	5096.6	5389.6	5823.5	6648.4	7620.5	8955.2	10904.3	13144.7	14085.2	12940.4
72.5°	2394.0	2428.8	2618.9	3046.3	3570.4	4362.1	5540.0	7378.2	9397.0	10375.5	9233.9
75°	877.2	885.1	929.5	1030.7	1227.0	1524.7	2090.0	3233.1	4786.4	5707.9	4805.4
77.5°	473.4	475.0	492.4	517.7	552.6	592.2	677.7	908.8	1466.2	1995.0	1548.4
80°	297.7	296.0	313.5	334.1	357.8	376.9	384.7	411.6	463.9	543.1	498.8
82.5°	152.0	166.2	205.8	228.0	262.8	269.1	261.3	259.6	275.5	297.7	307.2
85°	83.9	74.4	109.3	145.7	158.4	163.1	164.7	155.2	152.0	148.8	156.7
87.5°	42.8	39.6	47.5	72.8	77.5	63.3	65.0	55.4	38.0	38.0	39.6
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: P195918  
 CATALOG NUMBER: NAV-AF-06-D-UNV-5MQ-600

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3	2579.3
2.5°	2560.2	2561.8	2558.6	2558.6	2558.6	2560.2	2558.6	2557.1
5°	2539.7	2542.9	2542.9	2544.4	2546.0	2546.0	2546.0	2546.0
7.5°	2509.6	2511.1	2514.3	2514.3	2514.3	2514.3	2514.3	2514.3
10°	2481.1	2477.9	2476.3	2473.2	2473.2	2468.4	2470.0	2471.6
12.5°	2466.8	2460.5	2457.3	2452.5	2449.4	2444.6	2444.6	2446.2
15°	2473.2	2463.7	2454.2	2451.0	2447.8	2444.6	2441.5	2443.0
17.5°	2485.8	2474.7	2463.7	2457.3	2451.0	2446.2	2444.6	2446.2
20°	2512.7	2496.9	2479.4	2468.4	2455.7	2452.5	2447.8	2452.5
22.5°	2549.1	2530.2	2508.0	2487.4	2473.2	2466.8	2460.5	2465.2
25°	2593.5	2572.9	2550.7	2527.0	2511.1	2506.4	2498.5	2498.5
27.5°	2655.3	2637.8	2618.9	2596.7	2580.8	2576.1	2563.4	2563.4
30°	2753.4	2736.0	2718.6	2699.6	2683.7	2679.0	2663.2	2663.2
32.5°	2883.2	2864.3	2853.1	2837.3	2824.7	2816.7	2797.8	2796.1
35°	3057.4	3040.0	3038.4	3027.3	3014.6	3016.2	2997.2	2994.1
37.5°	3307.5	3293.3	3298.1	3288.6	3277.4	3286.9	3275.9	3275.9
40°	3627.4	3622.7	3627.4	3621.0	3622.7	3624.2	3614.7	3617.9
42.5°	4013.8	4001.1	4029.5	4026.3	4021.6	4034.3	4012.1	3996.3
45°	4458.6	4453.8	4482.4	4487.1	4477.7	4485.5	4445.9	4444.4
47.5°	4941.6	4941.6	4966.8	4963.7	4954.2	4955.8	4908.3	4878.2
50°	5445.1	5441.9	5467.2	5460.8	5448.2	5446.6	5397.5	5367.4
52.5°	5969.1	5969.1	6005.5	5988.1	5958.0	5943.8	5883.6	5844.0
55°	6548.6	6540.6	6551.8	6494.8	6436.2	6393.4	6319.0	6288.9
57.5°	7281.7	7189.8	7110.6	7037.8	6955.6	6904.8	6817.8	6786.1
60°	8321.9	8076.5	7970.4	7824.8	7688.6	7620.5	7504.9	7443.2
62.5°	9762.7	9355.8	9067.6	8746.2	8435.9	8217.5	8041.6	7964.1
65°	11428.4	10541.7	9808.7	9119.9	8535.7	8071.8	7813.7	7732.9
67.5°	12061.7	10434.1	9169.0	8181.0	7471.6	6919.1	6610.3	6545.5
68°	11927.1	10187.1	8872.9	7861.2	7148.7	6591.4	6284.2	6225.6
70°	10521.2	8594.2	7207.3	6200.3	5535.3	5004.9	4787.9	4694.5
72.5°	7172.4	5519.4	4233.8	3386.7	2889.5	2553.9	2354.4	2286.3
75°	3301.3	2230.9	1489.9	1113.1	945.2	864.5	802.7	787.0
77.5°	962.7	699.8	601.7	557.3	524.1	495.6	475.0	473.4
80°	457.6	429.1	416.4	387.9	357.8	330.9	311.9	315.1
82.5°	307.2	299.2	299.2	270.8	223.2	191.6	158.4	142.5
85°	163.1	169.4	178.9	169.4	147.2	109.3	71.3	77.5
87.5°	55.4	63.3	66.5	65.0	58.6	44.3	33.2	33.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)