

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: P195562

Luminaire Tested: **NAV-AF-04-D-UNV-RW-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195562  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-04-D-UNV-RW-7050-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 5000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20143 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G4

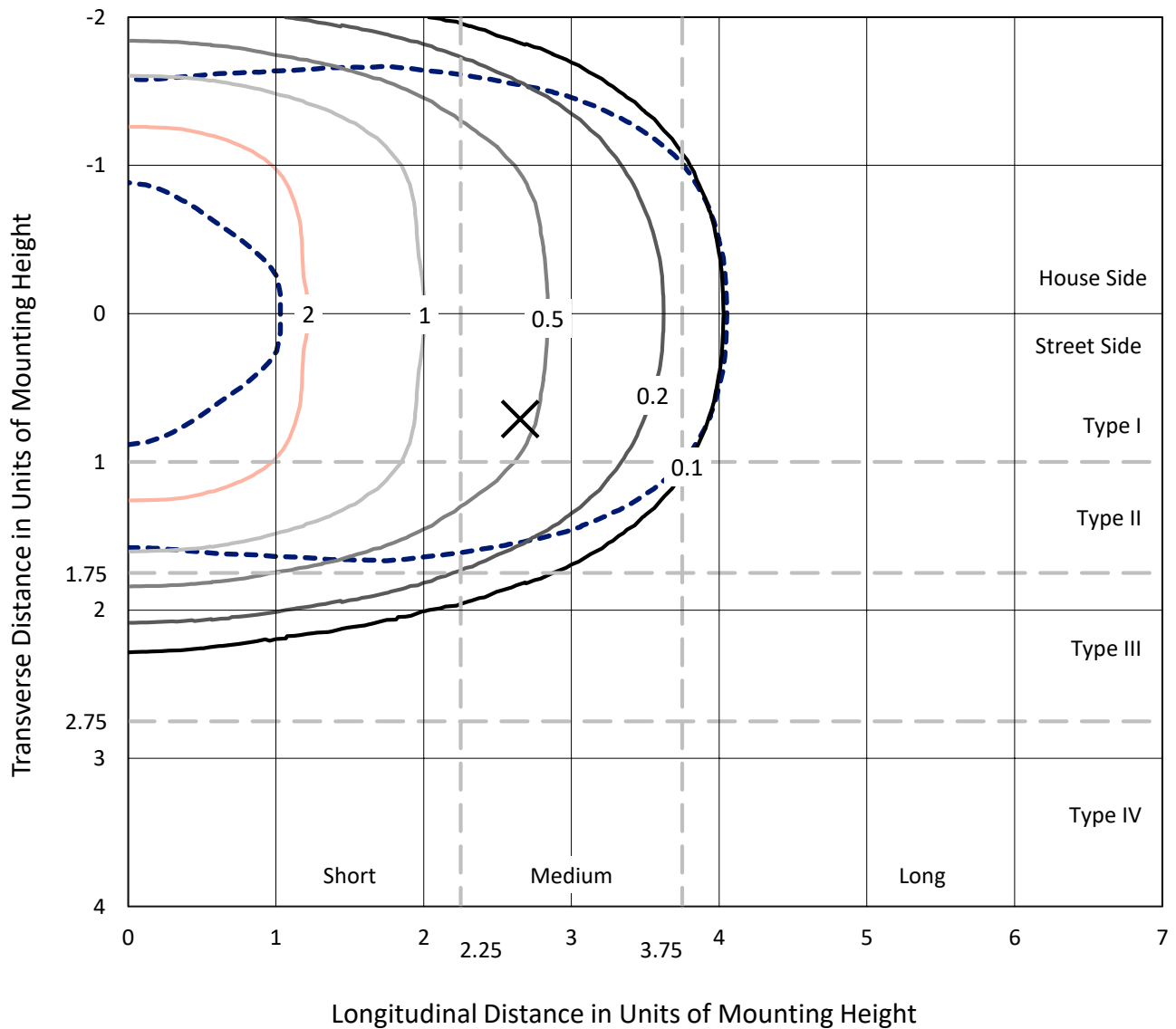
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

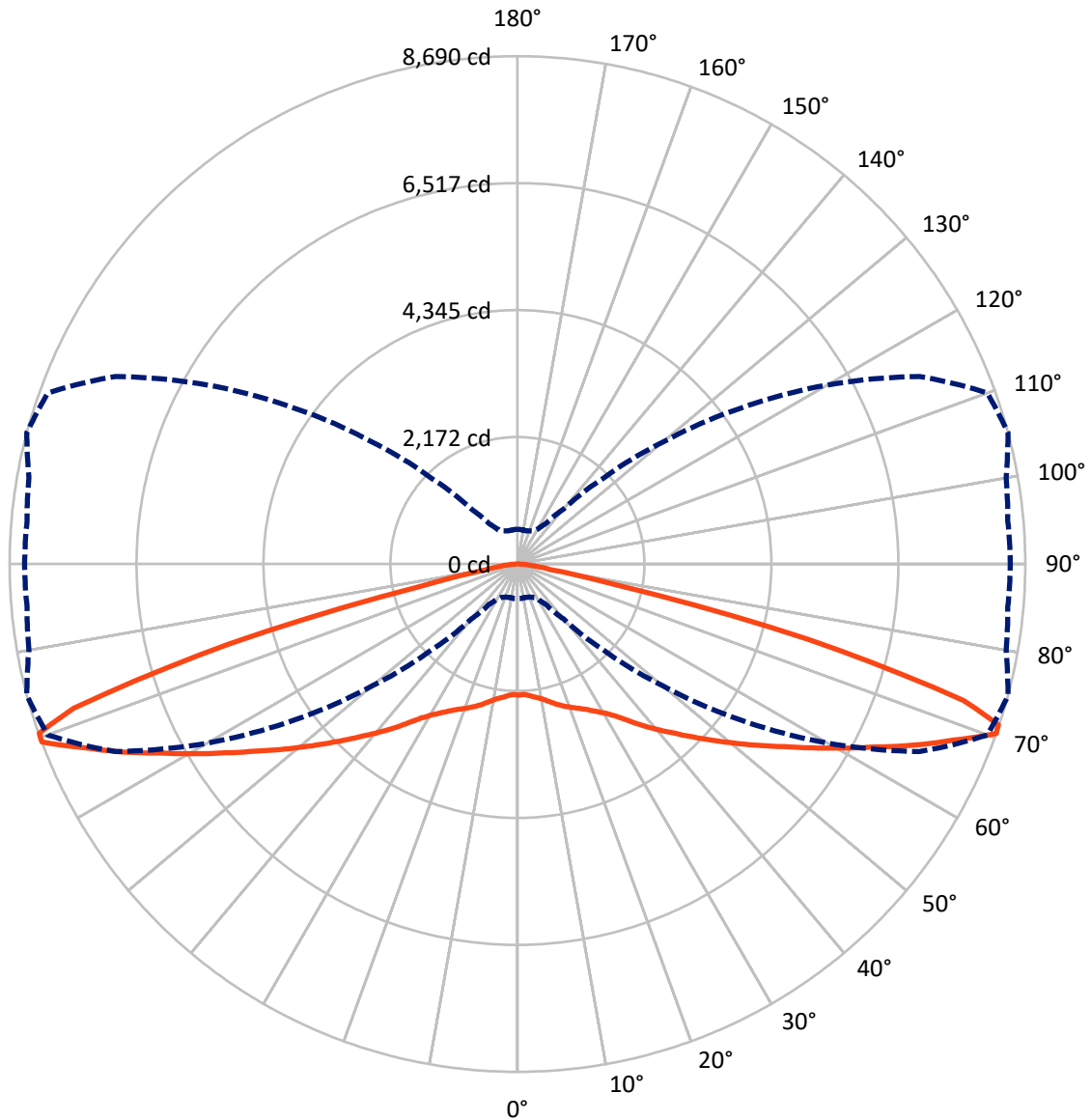
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10071.5	0.0	10071.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10071.5	0.0	10071.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	20143.0	0.0	20143.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	215.2	1.1
10°-20°	667.3	3.3
20°-30°	1253.2	6.2
30°-40°	2207.6	11.0
40°-50°	3658.8	18.2
50°-60°	5089.9	25.3
60°-70°	4804.9	23.9
70°-80°	2052.2	10.2
80°-90°	193.9	1.0
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°	20143.0	100.0
0°-180°	20143.0	100.0

**Coefficient of Utilization**



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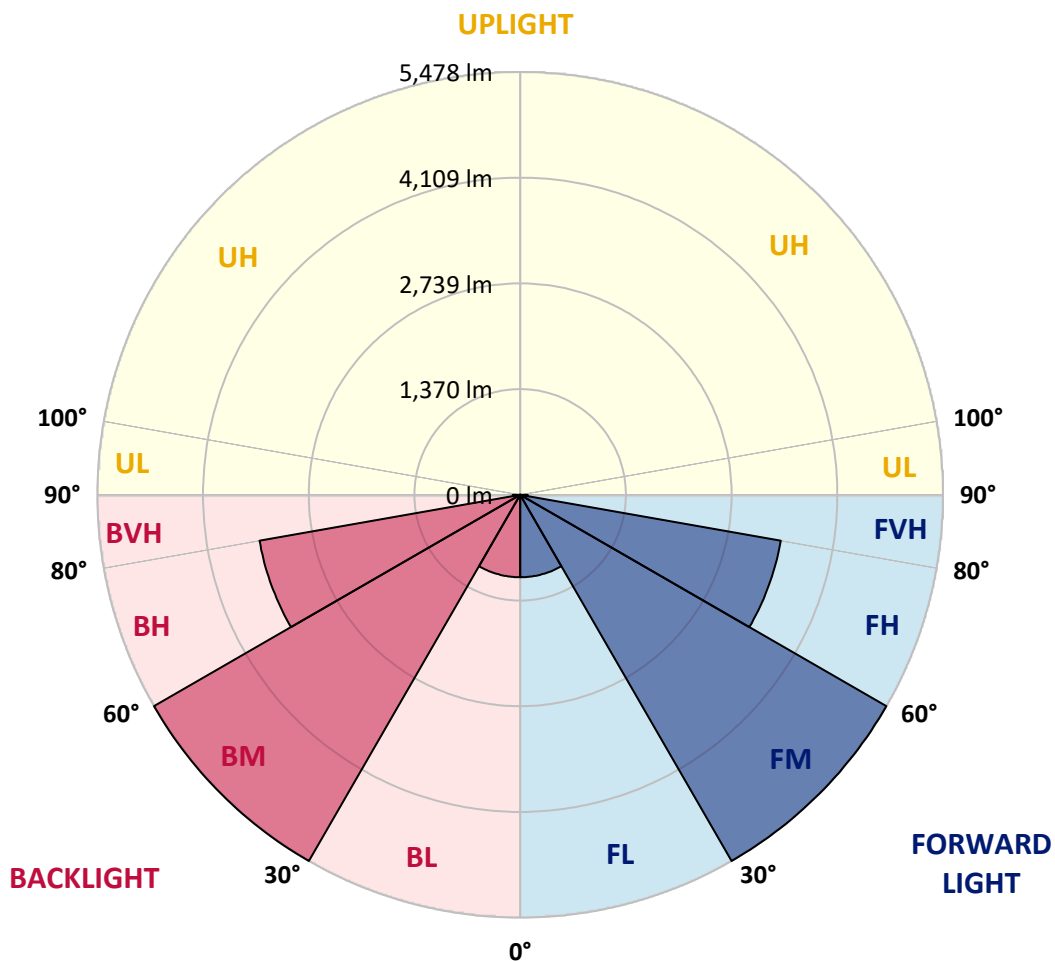
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1067.8	5.3			
FM	(30°-60°)	5478.1	27.2			
FH	(60°-80°)	3428.6	17.0			G2/5000
FVH	(80°-90°)	97.0	0.5			G1/100
BL	(0°-30°)	1067.8	5.3	B3/2500		
BM	(30°-60°)	5478.1	27.2	B4/8500		
BH	(60°-80°)	3428.6	17.0	B4/5000		G4/5000
BVH	(80°-90°)	97.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1
2.5°	2257.0	2255.7	2257.0	2253.2	2254.5	2253.2	2253.2	2248.2	2248.2	2245.6	2241.9
5°	2231.8	2234.3	2234.3	2234.3	2238.1	2238.1	2243.1	2244.4	2248.2	2252.0	2254.5
7.5°	2190.1	2191.4	2195.2	2197.7	2205.3	2215.3	2225.4	2236.8	2246.9	2259.5	2273.4
10°	2154.8	2157.3	2163.6	2169.9	2183.8	2196.4	2214.1	2231.8	2249.4	2270.9	2292.3
12.5°	2135.8	2139.6	2149.7	2159.8	2181.3	2197.7	2221.7	2249.4	2273.4	2293.6	2317.6
15°	2138.3	2139.6	2153.5	2167.4	2197.7	2220.4	2254.5	2287.3	2316.3	2339.1	2366.8
17.5°	2175.0	2177.5	2191.4	2211.6	2240.6	2269.6	2306.2	2340.3	2379.4	2406.0	2438.8
20°	2246.9	2250.7	2265.8	2287.3	2318.9	2349.2	2387.0	2422.4	2462.8	2494.3	2527.1
22.5°	2340.3	2346.6	2363.0	2389.5	2421.1	2457.7	2496.8	2533.5	2571.3	2602.9	2630.6
25°	2465.3	2472.9	2490.5	2517.0	2548.6	2587.7	2628.1	2666.0	2705.1	2729.1	2751.8
27.5°	2633.2	2645.8	2664.7	2686.2	2714.0	2755.6	2793.5	2825.0	2862.9	2889.4	2904.6
30°	2859.1	2876.8	2891.9	2914.7	2934.9	2979.0	3009.3	3034.6	3063.6	3078.8	3082.6
32.5°	3135.6	3152.0	3167.1	3183.5	3211.3	3251.7	3280.7	3294.6	3309.8	3307.2	3293.4
35°	3447.4	3460.0	3468.8	3497.9	3543.3	3569.8	3591.3	3596.3	3598.8	3572.3	3545.8
37.5°	3775.6	3790.7	3798.3	3843.7	3886.6	3916.9	3927.0	3938.4	3930.8	3886.6	3838.7
40°	4130.3	4146.7	4169.4	4208.5	4259.0	4288.1	4300.7	4299.4	4293.1	4241.4	4163.1
42.5°	4478.7	4498.9	4517.8	4586.0	4627.6	4676.8	4683.2	4681.9	4668.0	4608.7	4517.8
45°	4774.0	4798.0	4837.2	4912.9	4979.8	5039.1	5063.1	5071.9	5058.1	4994.9	4891.4
47.5°	5017.7	5034.1	5083.3	5175.5	5261.3	5348.4	5396.4	5430.4	5429.2	5383.7	5273.9
50°	5184.3	5203.2	5263.8	5367.3	5474.6	5576.9	5671.5	5748.5	5785.2	5752.3	5650.1
52.5°	5232.3	5256.2	5335.8	5459.5	5584.4	5722.0	5863.4	5999.7	6081.8	6102.0	6022.5
55°	5030.3	5056.8	5172.9	5344.6	5550.4	5753.6	5968.2	6162.6	6331.7	6410.0	6378.4
57.5°	4442.1	4461.0	4608.7	4830.8	5125.0	5482.2	5843.2	6199.2	6489.5	6692.8	6728.1
60°	3513.0	3537.0	3698.6	3933.3	4267.9	4719.8	5224.7	5807.9	6377.2	6843.0	7074.0
62.5°	2370.6	2387.0	2542.3	2756.9	3122.9	3558.4	4121.4	4859.9	5671.5	6503.4	7154.8
65°	1244.6	1244.6	1349.4	1499.6	1791.2	2181.3	2758.1	3515.5	4481.2	5520.1	6609.4
67.5°	722.0	720.8	744.8	778.8	871.0	1028.8	1346.9	1903.6	2817.5	4026.8	5266.3
70°	595.8	592.0	588.2	588.2	602.1	626.1	686.7	839.4	1228.2	2076.5	3240.3
71°	569.3	566.8	556.7	552.9	559.2	571.8	598.3	669.0	872.3	1416.3	2419.8
72.5°	537.7	531.4	516.3	510.0	511.2	516.3	523.9	551.6	613.5	805.4	1379.7
75°	489.8	474.6	455.7	446.9	443.1	441.8	441.8	449.4	463.3	486.0	565.5
77.5°	434.2	412.8	392.6	383.7	377.4	373.6	371.1	366.1	363.5	373.6	402.7
80°	367.3	344.6	328.2	323.2	319.4	311.8	301.7	291.6	285.3	290.3	308.0
82.5°	284.0	261.3	263.8	265.1	258.8	246.1	236.1	224.7	213.3	210.8	219.6
85°	226.0	214.6	207.0	223.4	209.5	194.4	180.5	161.6	135.1	111.1	121.2
87.5°	97.2	98.5	141.4	213.3	186.8	150.2	125.0	101.0	64.4	48.0	49.2
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1	2243.1
2.5°	2240.6	2240.6	2236.8	2234.3	2234.3	2234.3	2231.8	2233.0
5°	2255.7	2258.3	2260.8	2259.5	2263.3	2267.1	2265.8	2264.6
7.5°	2281.0	2288.6	2296.1	2299.9	2305.0	2310.0	2311.3	2307.5
10°	2306.2	2321.4	2332.7	2342.8	2349.2	2354.2	2358.0	2356.7
12.5°	2337.8	2359.3	2379.4	2399.6	2413.5	2421.1	2428.7	2426.2
15°	2389.5	2413.5	2438.8	2465.3	2486.7	2498.1	2509.5	2506.9
17.5°	2460.2	2481.7	2501.9	2528.4	2554.9	2567.5	2580.2	2578.9
20°	2548.6	2565.0	2576.4	2591.5	2616.8	2630.6	2642.0	2638.2
22.5°	2649.6	2654.6	2655.9	2660.9	2681.1	2697.6	2712.7	2716.5
25°	2759.4	2755.6	2748.0	2744.3	2758.1	2775.8	2794.7	2799.8
27.5°	2895.7	2883.1	2864.2	2849.0	2852.8	2875.5	2897.0	2902.0
30°	3067.4	3038.4	2998.0	2968.9	2963.9	2987.9	3010.6	3018.2
32.5°	3263.1	3223.9	3168.4	3124.2	3105.3	3126.7	3146.9	3158.3
35°	3495.3	3452.4	3385.5	3328.7	3298.4	3312.3	3347.6	3360.3
37.5°	3770.5	3711.2	3636.7	3564.8	3514.3	3516.8	3554.7	3569.8
40°	4074.7	3988.9	3894.2	3804.6	3731.4	3726.3	3760.4	3771.8
42.5°	4391.6	4281.7	4170.7	4053.3	3962.4	3946.0	3990.2	3991.4
45°	4732.4	4591.0	4453.4	4317.1	4222.4	4193.4	4236.3	4241.4
47.5°	5095.9	4919.2	4756.4	4608.7	4506.4	4461.0	4502.6	4510.2
50°	5474.6	5291.6	5102.2	4938.1	4818.2	4762.7	4811.9	4817.0
52.5°	5849.5	5676.6	5488.5	5300.4	5155.3	5092.1	5150.2	5167.9
55°	6227.0	6060.3	5883.6	5695.5	5512.5	5457.0	5520.1	5539.0
57.5°	6619.5	6459.2	6298.9	6109.6	5931.6	5847.0	5915.2	5941.7
60°	7052.5	6911.1	6759.7	6569.0	6393.6	6295.1	6353.2	6383.5
62.5°	7477.9	7448.9	7311.3	7113.1	6890.9	6792.5	6841.7	6863.2
65°	7513.3	7984.1	7977.8	7780.9	7470.3	7305.0	7318.9	7329.0
67.5°	6557.7	7638.2	8328.7	8390.6	8044.7	7785.9	7755.6	7761.9
70°	4642.8	6126.0	7591.5	8553.4	8689.7	8489.0	8423.4	8433.5
71°	3720.0	5256.2	6869.5	8163.3	8679.6	8621.6	8584.9	8611.5
72.5°	2374.4	3872.8	5443.1	6990.7	7981.6	8265.6	8307.2	8323.7
75°	862.2	1666.2	2820.0	4040.6	5121.2	5864.7	6273.7	6306.5
77.5°	463.3	597.1	922.7	1378.4	1731.9	1921.2	1944.0	1952.8
80°	340.8	395.1	451.9	516.3	556.7	564.3	550.4	521.3
82.5°	241.1	272.7	295.4	318.1	334.5	320.6	266.3	203.2
85°	140.1	154.0	166.6	178.0	180.5	170.4	112.3	92.1
87.5°	55.5	60.6	59.3	66.9	64.4	59.3	44.2	37.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)