

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: P196998

Luminaire Tested: **NAV-AF-06-D-UNV-RW-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196998  
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-06-D-UNV-RW-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19790 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G4

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

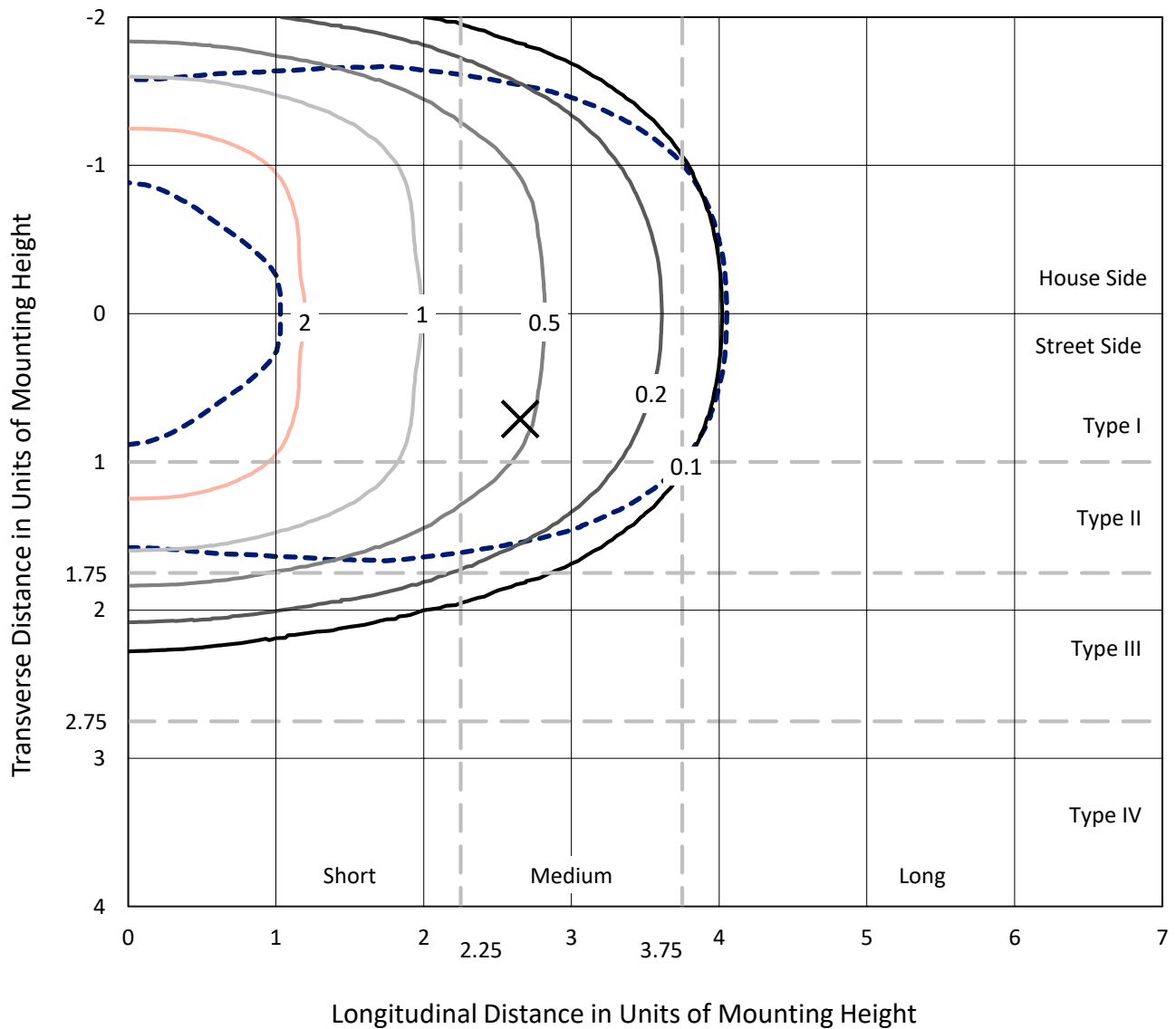


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### Iso-Footcandle Lines of Horizontal Illumination

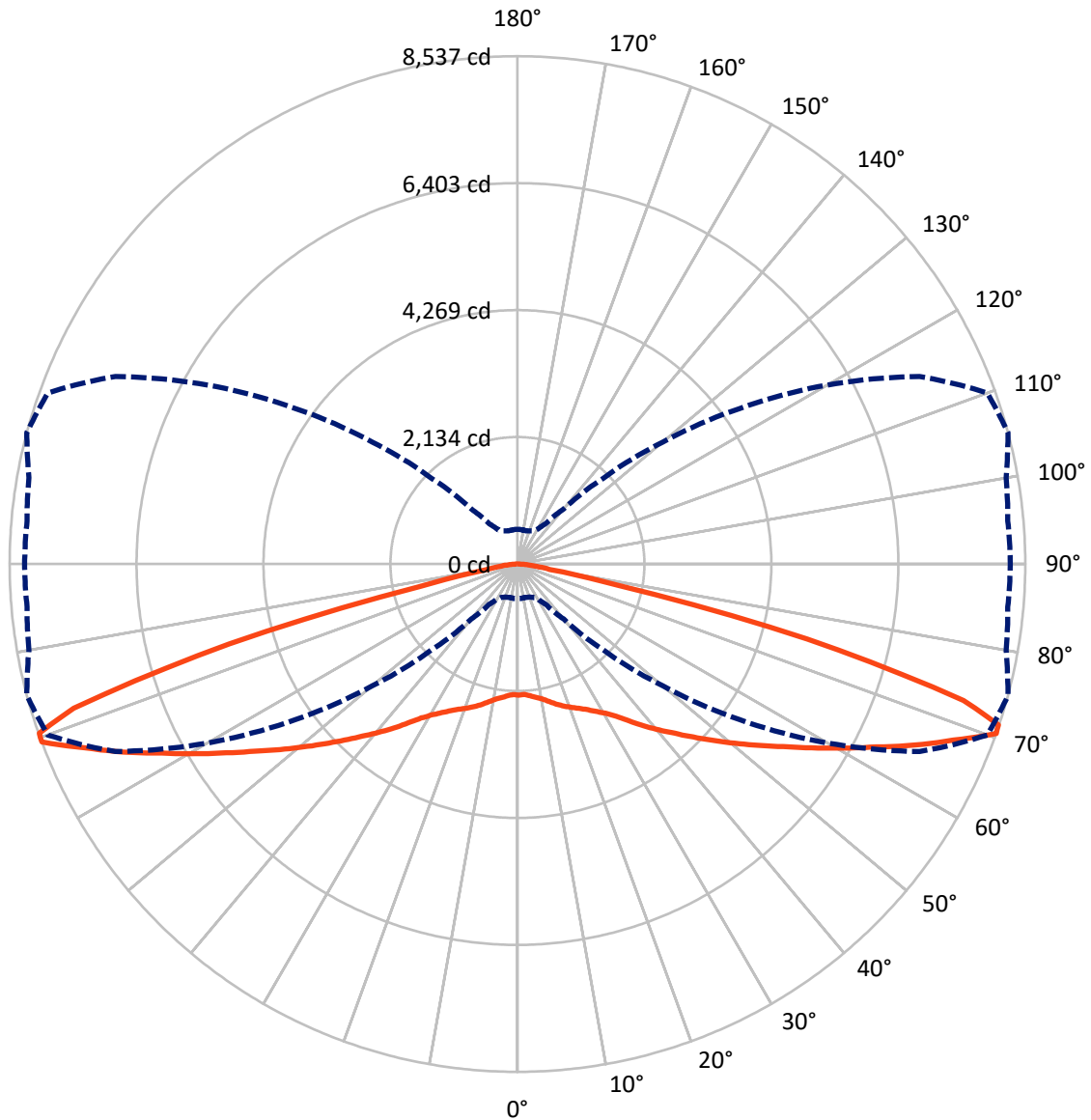
× Max cd  
 - - - 1/2 Max cd



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	9895.0	0.0	9895.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	9895.0	0.0	9895.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	19790.0	0.0	19790.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	211.4	1.1
10°-20°	655.6	3.3
20°-30°	1231.3	6.2
30°-40°	2168.9	11.0
40°-50°	3594.6	18.2
50°-60°	5000.7	25.3
60°-70°	4720.7	23.9
70°-80°	2016.3	10.2
80°-90°	190.5	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°	19790.0	100.0
0°-180°	19790.0	100.0



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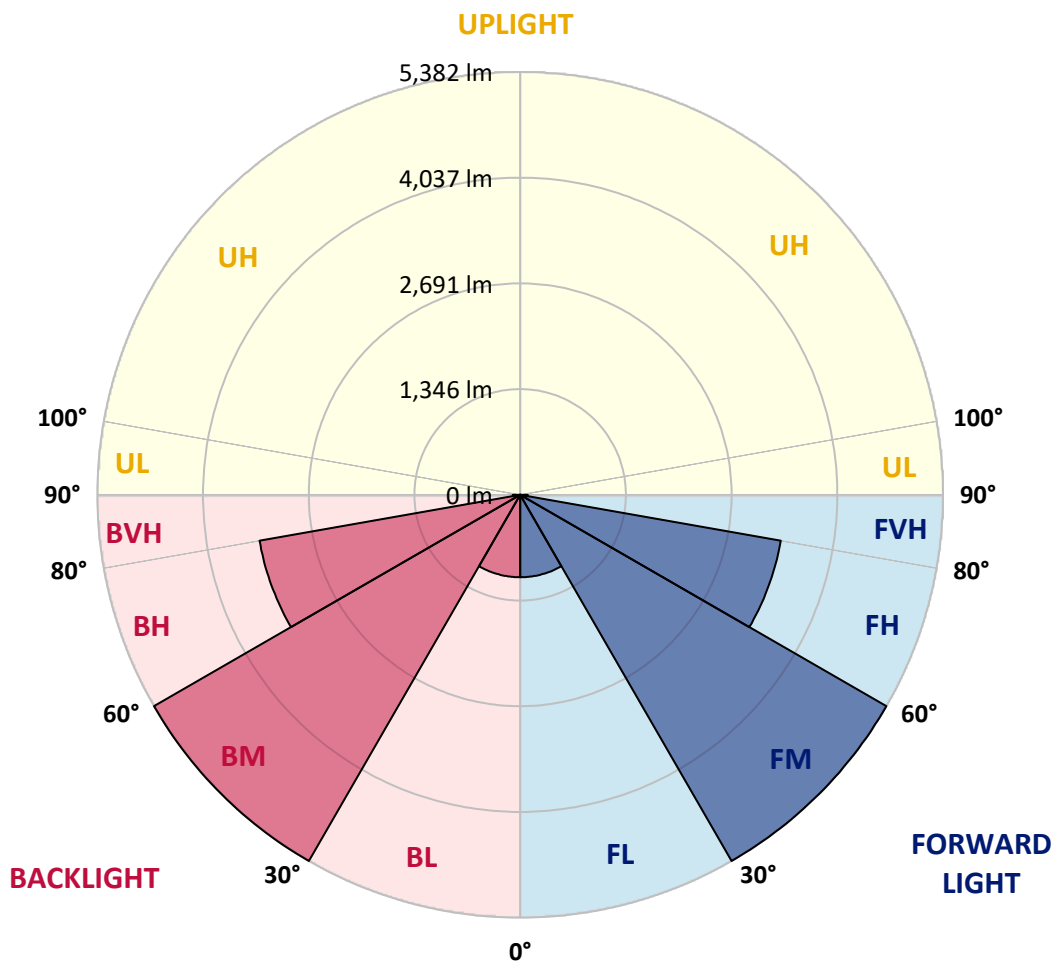
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1049.1	5.3			
FM	(30°-60°)	5382.1	27.2			
FH	(60°-80°)	3368.5	17.0			G2/5000
FVH	(80°-90°)	95.3	0.5			G1/100
BL	(0°-30°)	1049.1	5.3	B3/2500		
BM	(30°-60°)	5382.1	27.2	B4/8500		
BH	(60°-80°)	3368.5	17.0	B4/5000		G4/5000
BVH	(80°-90°)	95.3	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°	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8
2.5°	2217.5	2216.2	2217.5	2213.7	2215.0	2213.7	2213.7	2208.8	2208.8	2206.3	2202.6
5°	2192.6	2195.1	2195.1	2195.1	2198.8	2198.8	2203.8	2205.0	2208.8	2212.5	2215.0
7.5°	2151.7	2153.0	2156.7	2159.2	2166.6	2176.5	2186.4	2197.6	2207.5	2219.9	2233.6
10°	2117.0	2119.5	2125.7	2131.9	2145.5	2157.9	2175.3	2192.6	2210.0	2231.1	2252.2
12.5°	2098.4	2102.1	2112.0	2122.0	2143.0	2159.2	2182.7	2210.0	2233.6	2253.4	2277.0
15°	2100.9	2102.1	2115.8	2129.4	2159.2	2181.5	2215.0	2247.2	2275.7	2298.1	2325.3
17.5°	2136.8	2139.3	2153.0	2172.8	2201.3	2229.9	2265.8	2299.3	2337.7	2363.8	2396.0
20°	2207.5	2211.3	2226.1	2247.2	2278.2	2308.0	2345.2	2379.9	2419.6	2450.6	2482.9
22.5°	2299.3	2305.5	2321.6	2347.7	2378.7	2414.6	2453.1	2489.1	2526.3	2557.3	2584.5
25°	2422.1	2429.5	2446.9	2472.9	2503.9	2542.4	2582.1	2619.3	2657.7	2681.3	2703.6
27.5°	2587.0	2599.4	2618.0	2639.1	2666.4	2707.3	2744.5	2775.5	2812.7	2838.8	2853.7
30°	2809.0	2826.4	2841.3	2863.6	2883.4	2926.8	2956.6	2981.4	3009.9	3024.8	3028.5
32.5°	3080.6	3096.7	3111.6	3127.7	3155.0	3194.7	3223.2	3236.9	3251.8	3249.3	3235.6
35°	3386.9	3399.3	3408.0	3436.6	3481.2	3507.2	3528.3	3533.3	3535.8	3509.7	3483.7
37.5°	3709.4	3724.3	3731.7	3776.4	3818.5	3848.3	3858.2	3869.4	3861.9	3818.5	3771.4
40°	4057.9	4074.0	4096.3	4134.8	4184.4	4212.9	4225.3	4224.1	4217.9	4167.0	4090.1
42.5°	4400.2	4420.0	4438.6	4505.6	4546.5	4594.9	4601.1	4599.8	4586.2	4527.9	4438.6
45°	4690.4	4713.9	4752.4	4826.8	4892.5	4950.8	4974.4	4983.1	4969.4	4907.4	4805.7
47.5°	4929.7	4945.9	4994.2	5084.8	5169.1	5254.7	5301.8	5335.3	5334.0	5289.4	5181.5
50°	5093.4	5112.0	5171.6	5273.3	5378.7	5479.1	5572.2	5647.8	5683.8	5651.5	5551.1
52.5°	5140.6	5164.1	5242.3	5363.8	5486.6	5621.8	5760.7	5894.6	5975.2	5995.1	5916.9
55°	4942.1	4968.2	5082.3	5250.9	5453.1	5652.8	5863.6	6054.6	6220.8	6297.7	6266.7
57.5°	4364.2	4382.8	4527.9	4746.2	5035.2	5386.1	5740.8	6090.6	6375.8	6575.5	6610.2
60°	3451.4	3475.0	3633.7	3864.4	4193.1	4637.1	5133.1	5706.1	6265.4	6723.0	6950.0
62.5°	2329.1	2345.2	2497.7	2708.6	3068.2	3496.1	4049.2	4774.7	5572.2	6389.4	7029.4
65°	1222.8	1222.8	1325.8	1473.3	1759.8	2143.0	2709.8	3453.9	4402.7	5423.3	6493.6
67.5°	709.4	708.1	731.7	765.2	855.7	1010.8	1323.3	1870.2	2768.1	3956.2	5174.1
70°	585.4	581.6	577.9	577.9	591.6	615.1	674.7	824.7	1206.7	2040.1	3183.6
71°	559.3	556.8	546.9	543.2	549.4	561.8	587.8	657.3	857.0	1391.5	2377.4
72.5°	528.3	522.1	507.2	501.0	502.3	507.2	514.7	542.0	602.7	791.2	1355.5
75°	481.2	466.3	447.7	439.0	435.3	434.1	434.1	441.5	455.1	477.5	555.6
77.5°	426.6	405.5	385.7	377.0	370.8	367.1	364.6	359.7	357.2	367.1	395.6
80°	360.9	338.6	322.4	317.5	313.8	306.3	296.4	286.5	280.3	285.2	302.6
82.5°	279.0	256.7	259.2	260.4	254.2	241.8	231.9	220.8	209.6	207.1	215.8
85°	222.0	210.8	203.4	219.5	205.9	191.0	177.3	158.7	132.7	109.1	119.1
87.5°	95.5	96.7	138.9	209.6	183.5	147.6	122.8	99.2	63.2	47.1	48.4
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°	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8	2203.8
2.5°	2201.3	2201.3	2197.6	2195.1	2195.1	2195.1	2192.6	2193.9
5°	2216.2	2218.7	2221.2	2219.9	2223.7	2227.4	2226.1	2224.9
7.5°	2241.0	2248.5	2255.9	2259.6	2264.6	2269.5	2270.8	2267.1
10°	2265.8	2280.7	2291.9	2301.8	2308.0	2312.9	2316.7	2315.4
12.5°	2296.8	2317.9	2337.7	2357.6	2371.2	2378.7	2386.1	2383.6
15°	2347.7	2371.2	2396.0	2422.1	2443.2	2454.3	2465.5	2463.0
17.5°	2417.1	2438.2	2458.0	2484.1	2510.1	2522.5	2534.9	2533.7
20°	2503.9	2520.1	2531.2	2546.1	2570.9	2584.5	2595.7	2592.0
22.5°	2603.1	2608.1	2609.4	2614.3	2634.2	2650.3	2665.2	2668.9
25°	2711.0	2707.3	2699.9	2696.2	2709.8	2727.2	2745.8	2750.7
27.5°	2845.0	2832.6	2814.0	2799.1	2802.8	2825.1	2846.2	2851.2
30°	3013.7	2985.1	2945.4	2916.9	2912.0	2935.5	2957.8	2965.3
32.5°	3205.9	3167.4	3112.9	3069.5	3050.9	3071.9	3091.8	3102.9
35°	3434.1	3391.9	3326.2	3270.4	3240.6	3254.2	3289.0	3301.4
37.5°	3704.4	3646.1	3573.0	3502.3	3452.7	3455.2	3492.4	3507.2
40°	4003.3	3919.0	3826.0	3737.9	3666.0	3661.0	3694.5	3705.7
42.5°	4314.6	4206.7	4097.6	3982.2	3892.9	3876.8	3920.2	3921.5
45°	4649.5	4510.6	4375.4	4241.4	4148.4	4119.9	4162.1	4167.0
47.5°	5006.6	4833.0	4673.0	4527.9	4427.5	4382.8	4423.7	4431.2
50°	5378.7	5198.9	5012.8	4851.6	4733.8	4679.2	4727.6	4732.5
52.5°	5747.0	5577.1	5392.3	5207.5	5064.9	5002.9	5060.0	5077.3
55°	6117.8	5954.1	5780.5	5595.7	5415.9	5361.3	5423.3	5441.9
57.5°	6503.5	6346.0	6188.5	6002.5	5827.6	5744.5	5811.5	5837.6
60°	6928.9	6790.0	6641.2	6453.9	6281.5	6184.8	6241.9	6271.6
62.5°	7346.9	7318.3	7183.2	6988.4	6770.2	6673.4	6721.8	6742.9
65°	7381.6	7844.2	7838.0	7644.5	7339.4	7177.0	7190.6	7200.5
67.5°	6442.8	7504.4	8182.7	8243.5	7903.7	7649.5	7619.7	7625.9
70°	4561.4	6018.6	7458.5	8403.5	8537.4	8340.2	8275.8	8285.7
71°	3654.8	5164.1	6749.1	8020.3	8527.5	8470.5	8434.5	8460.5
72.5°	2332.8	3804.9	5347.7	6868.1	7841.7	8120.7	8161.7	8177.8
75°	847.0	1637.0	2770.6	3969.8	5031.4	5761.9	6163.7	6196.0
77.5°	455.1	586.6	906.6	1354.3	1701.5	1887.6	1909.9	1918.6
80°	334.9	388.2	444.0	507.2	546.9	554.4	540.7	512.2
82.5°	236.9	267.9	290.2	312.5	328.6	315.0	261.7	199.7
85°	137.7	151.3	163.7	174.9	177.3	167.4	110.4	90.5
87.5°	54.6	59.5	58.3	65.7	63.2	58.3	43.4	37.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)