

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: P196458

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196458  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
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-5WQ-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 36245.7 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G4

Input Watts (W): 333  
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

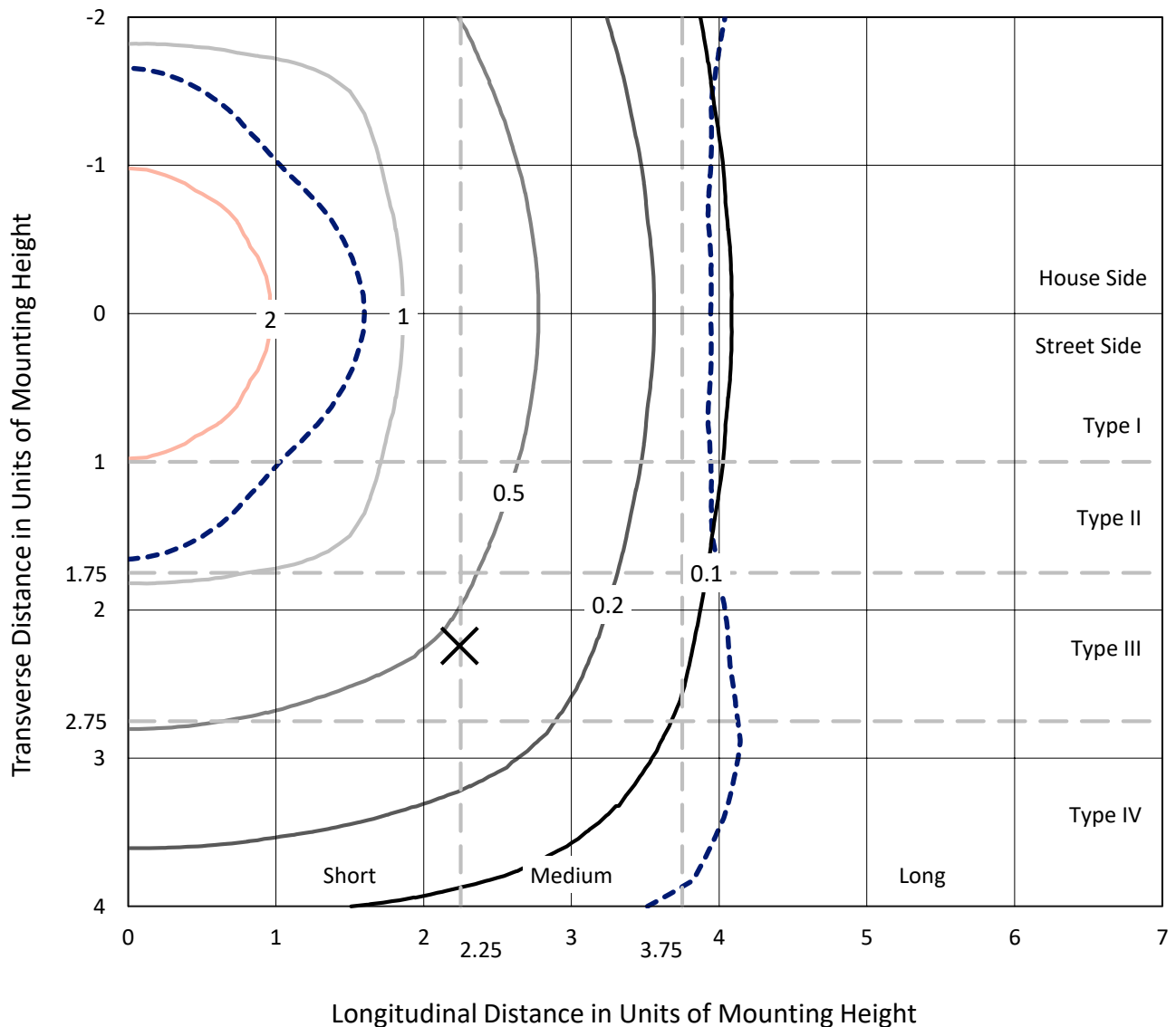


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

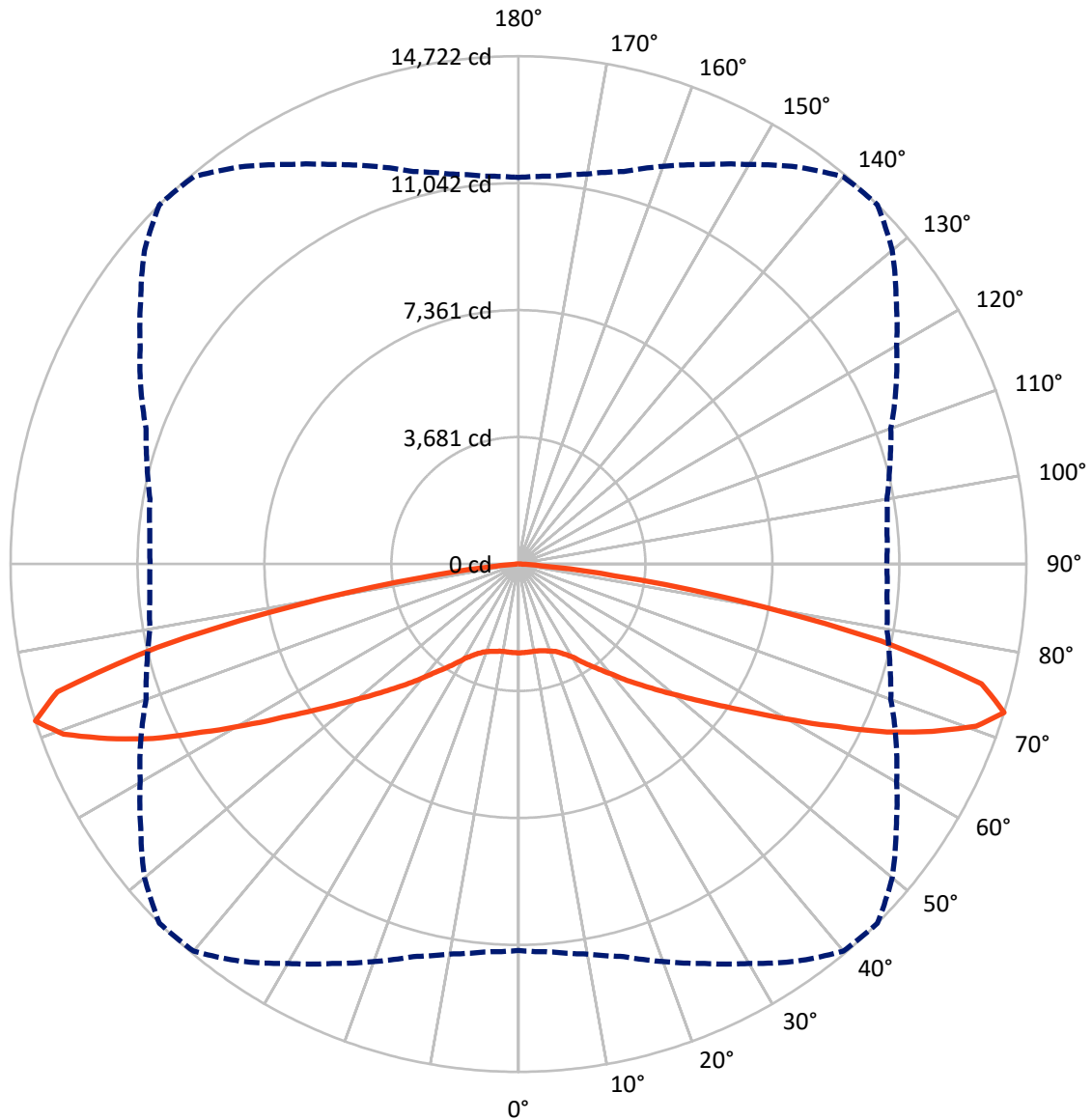


Based on 30 foot mounting height. Maximum calculated value = 2.9 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18122.8	0.0	18122.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	18122.8	0.0	18122.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	36245.7	0.0	36245.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.0	0.7
10°-20°	744.3	2.1
20°-30°	1343.8	3.7
30°-40°	2292.1	6.3
40°-50°	3902.3	10.8
50°-60°	6280.2	17.3
60°-70°	10444.2	28.8
70°-80°	10103.5	27.9
80°-90°	889.2	2.5
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°	36245.7	100.0
0°-180°	36245.7	100.0



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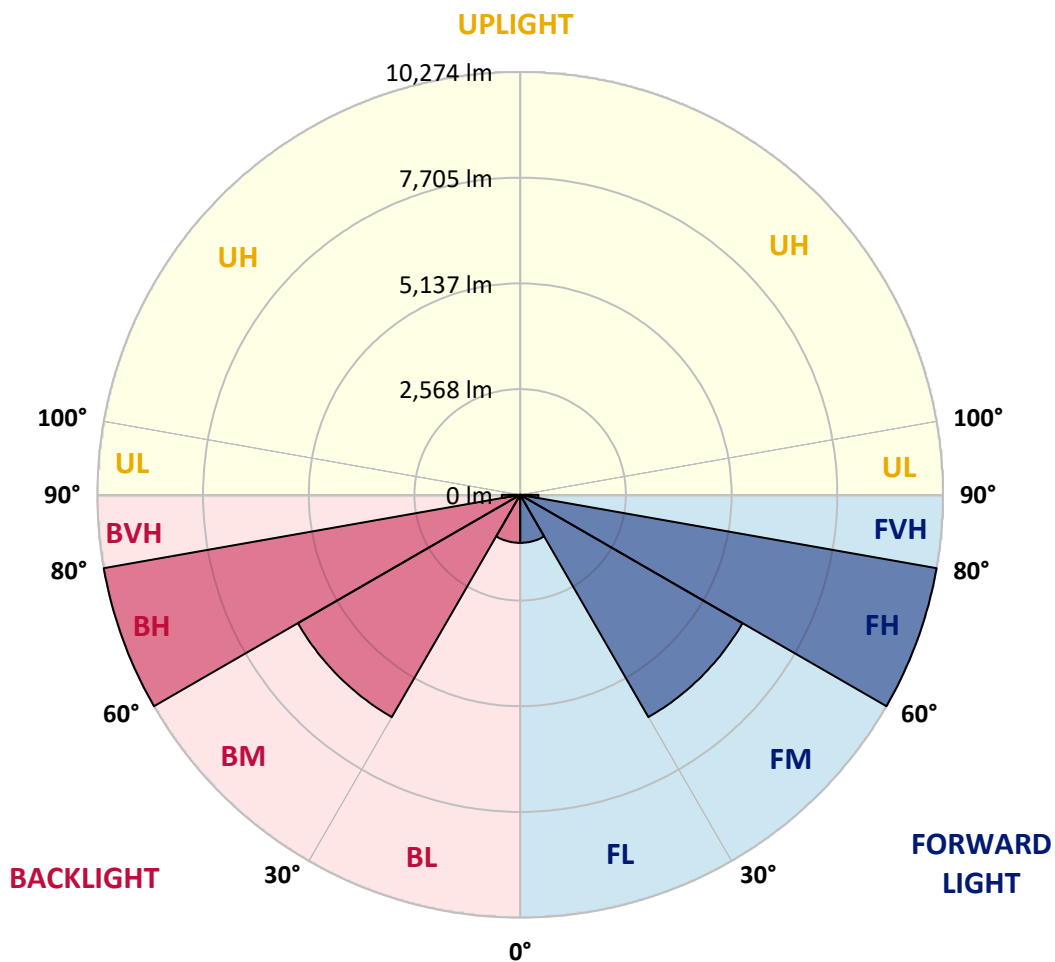
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1167.0	3.2			
FM	(30°-60°)	6237.3	17.2			
FH	(60°-80°)	10273.8	28.3			G4/12000
FVH	(80°-90°)	444.6	1.2			G3/500
BL	(0°-30°)	1167.0	3.2	B3/2500		
BM	(30°-60°)	6237.3	17.2	B4/8500		
BH	(60°-80°)	10273.8	28.3	B5		G4/12000
BVH	(80°-90°)	444.6	1.2			G3/500
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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8
2.5°	2596.9	2596.9	2599.1	2596.9	2592.4	2590.2	2583.4	2579.1	2574.5	2572.3	2567.9
5°	2599.1	2599.1	2601.4	2599.1	2594.7	2590.2	2585.7	2579.1	2574.5	2570.1	2567.9
7.5°	2608.0	2610.3	2612.5	2610.3	2601.4	2596.9	2590.2	2583.4	2574.5	2570.1	2565.6
10°	2625.8	2625.8	2625.8	2623.7	2617.0	2608.0	2599.1	2592.4	2581.2	2570.1	2563.4
12.5°	2639.2	2641.5	2641.5	2637.1	2628.1	2617.0	2608.0	2601.4	2592.4	2583.4	2576.8
15°	2659.4	2659.4	2657.0	2648.2	2634.8	2625.8	2621.4	2619.2	2617.0	2612.5	2605.9
17.5°	2699.5	2697.3	2690.6	2677.2	2661.5	2654.9	2650.4	2650.4	2650.4	2648.2	2643.7
20°	2757.4	2757.4	2748.6	2726.2	2712.9	2706.3	2699.5	2699.5	2699.5	2692.8	2686.1
22.5°	2851.2	2853.5	2840.0	2813.3	2795.4	2782.1	2773.1	2766.5	2759.8	2755.3	2744.1
25°	2978.4	2976.1	2960.5	2927.0	2913.7	2900.3	2882.5	2871.4	2862.4	2855.7	2842.3
27.5°	3112.2	3109.9	3092.1	3063.2	3054.3	3034.1	3020.8	3005.1	2994.0	2982.9	2969.4
30°	3284.0	3272.9	3259.5	3237.2	3232.7	3217.1	3199.2	3176.9	3159.1	3141.2	3125.6
32.5°	3438.0	3438.0	3417.8	3406.7	3415.7	3409.0	3411.2	3397.9	3386.6	3379.9	3364.3
35°	3652.1	3652.1	3643.2	3629.8	3632.1	3616.5	3614.2	3616.5	3625.3	3625.3	3607.5
37.5°	3937.7	3942.2	3913.1	3908.7	3897.5	3875.2	3864.1	3868.6	3888.6	3899.8	3875.2
40°	4292.5	4301.3	4292.5	4263.4	4250.0	4212.2	4189.8	4189.8	4205.4	4216.6	4207.7
42.5°	4642.7	4658.3	4642.7	4620.3	4609.2	4580.2	4569.1	4578.0	4598.0	4611.5	4598.0
45°	5033.1	5044.3	5024.2	4997.4	4984.1	4968.4	4961.7	4968.4	4990.8	5004.1	4999.7
47.5°	5416.8	5432.5	5407.9	5396.8	5396.8	5381.1	5399.0	5416.8	5437.0	5468.2	5454.8
50°	5791.7	5811.7	5796.1	5798.4	5816.2	5845.2	5878.7	5914.3	5950.0	5983.5	5988.0
52.5°	6126.2	6157.6	6159.8	6199.9	6255.7	6300.3	6394.1	6472.1	6556.8	6585.9	6572.5
55°	6478.7	6521.1	6577.0	6639.4	6728.6	6820.2	6978.5	7119.2	7230.7	7299.8	7288.6
57.5°	6983.0	7025.4	7083.4	7186.0	7320.0	7444.8	7661.3	7879.9	8049.4	8154.2	8103.0
60°	7636.6	7681.3	7757.2	7866.4	8040.5	8210.1	8506.8	8821.4	9084.6	9205.1	9111.3
62.5°	8502.3	8544.7	8593.8	8738.8	8932.9	9151.5	9524.1	9928.0	10262.6	10378.5	10247.0
65°	9736.1	9787.3	9803.0	9921.2	10110.9	10313.8	10715.5	11170.5	11552.1	11741.6	11478.4
67.5°	11126.0	11146.1	11208.5	11346.8	11540.9	11723.8	12040.7	12471.3	12837.1	12942.0	12660.9
70°	11940.3	11980.4	12089.7	12281.7	12513.7	12801.5	13147.2	13611.3	14026.2	14075.4	13718.4
72.5°	11204.0	11286.6	11480.6	11779.7	12266.0	12776.9	13372.6	14057.6	14653.2	14722.3	14149.0
75°	8986.5	9080.1	9312.1	9640.2	10215.7	10974.2	11835.4	12863.8	13756.3	13870.0	13111.5
77.5°	4789.9	4906.0	5242.8	5684.5	6505.7	7509.5	8547.0	9720.5	10478.9	10735.5	10189.0
80°	1207.0	1269.5	1432.3	1691.2	2246.6	3056.4	3951.1	5213.9	6155.3	6554.7	6155.3
82.5°	468.5	515.3	560.0	591.2	644.7	756.3	1044.1	1702.3	2293.5	2824.5	2445.1
85°	180.8	191.9	276.7	314.5	314.5	345.8	397.1	468.5	580.0	633.6	531.0
87.5°	71.3	78.1	95.9	147.3	151.8	133.9	142.8	160.6	122.7	102.6	116.1
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°	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8	2576.8
2.5°	2565.6	2563.4	2559.0	2561.1	2559.0	2559.0	2559.0	2559.0
5°	2563.4	2563.4	2559.0	2559.0	2559.0	2561.1	2559.0	2559.0
7.5°	2561.1	2559.0	2554.5	2552.3	2552.3	2550.0	2550.0	2550.0
10°	2556.6	2552.3	2547.8	2545.5	2545.5	2541.2	2541.2	2541.2
12.5°	2567.9	2561.1	2556.6	2554.5	2554.5	2554.5	2556.6	2556.6
15°	2599.1	2585.7	2579.1	2576.8	2579.1	2583.4	2585.7	2588.0
17.5°	2632.6	2619.2	2608.0	2603.5	2605.9	2612.5	2619.2	2623.7
20°	2675.0	2663.8	2650.4	2645.9	2645.9	2654.9	2659.4	2666.0
22.5°	2735.2	2726.2	2715.1	2708.4	2703.9	2715.1	2721.7	2726.2
25°	2831.1	2822.1	2813.3	2806.6	2804.3	2815.5	2820.0	2822.1
27.5°	2958.3	2949.4	2944.9	2942.7	2936.1	2940.5	2947.2	2944.9
30°	3123.4	3130.1	3123.4	3123.4	3112.2	3116.7	3112.2	3107.8
32.5°	3344.2	3337.6	3317.4	3304.1	3288.4	3288.4	3281.8	3275.0
35°	3565.1	3542.8	3531.7	3538.4	3531.7	3536.0	3524.9	3513.8
37.5°	3826.2	3812.7	3810.5	3830.6	3826.2	3830.6	3830.6	3815.0
40°	4171.9	4163.0	4178.6	4212.2	4225.5	4223.3	4227.7	4207.7
42.5°	4569.1	4553.5	4560.2	4589.1	4604.7	4609.2	4607.0	4589.1
45°	4966.2	4970.6	4970.6	5001.9	5017.5	5026.5	5010.8	5004.1
47.5°	5414.6	5421.3	5405.7	5425.9	5430.1	5445.8	5432.5	5421.3
50°	5932.2	5907.6	5871.9	5878.7	5878.7	5874.3	5858.6	5845.2
52.5°	6510.0	6454.3	6387.3	6365.0	6340.5	6315.9	6284.7	6260.1
55°	7168.2	7072.3	6951.7	6896.0	6849.1	6793.4	6721.9	6697.5
57.5°	7931.1	7766.0	7605.4	7505.0	7384.7	7311.0	7219.6	7215.1
60°	8837.0	8613.9	8330.5	8181.0	8060.6	7973.5	7904.4	7877.6
62.5°	9883.3	9499.5	9193.9	9033.3	8892.7	8839.2	8752.2	8763.3
65°	10956.4	10566.0	10269.3	10139.8	10008.2	9972.5	9892.3	9921.2
67.5°	12118.7	11797.5	11471.7	11351.3	11230.8	11195.1	11112.5	11137.2
70°	13160.6	12752.3	12382.1	12145.5	11940.3	11775.2	11670.3	11627.9
72.5°	13368.1	12660.9	12078.6	11487.4	11146.1	10847.0	10724.4	10677.5
75°	12011.6	10914.0	10084.1	9390.3	9006.5	8571.5	8524.6	8460.0
77.5°	9343.5	8094.0	7090.1	6197.7	5682.3	5151.3	4968.4	4830.2
80°	5573.0	4283.5	3319.8	2326.9	1898.6	1528.2	1436.8	1340.8
82.5°	1994.5	1278.4	861.2	671.5	600.2	553.3	517.6	470.7
85°	482.0	406.0	383.7	348.0	343.6	292.3	207.5	185.2
87.5°	153.9	140.5	142.8	136.1	142.8	107.1	87.0	78.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)