

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: McGRAW-EDISON

Report Number: P299732

Luminaire Tested: **GLNA-AF-07-LED-E1-5MQ-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299732  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-07-LED-E1-5MQ-7030-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28087.4 lumens  
Efficiency: N/A  
Efficacy: 124.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 226  
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

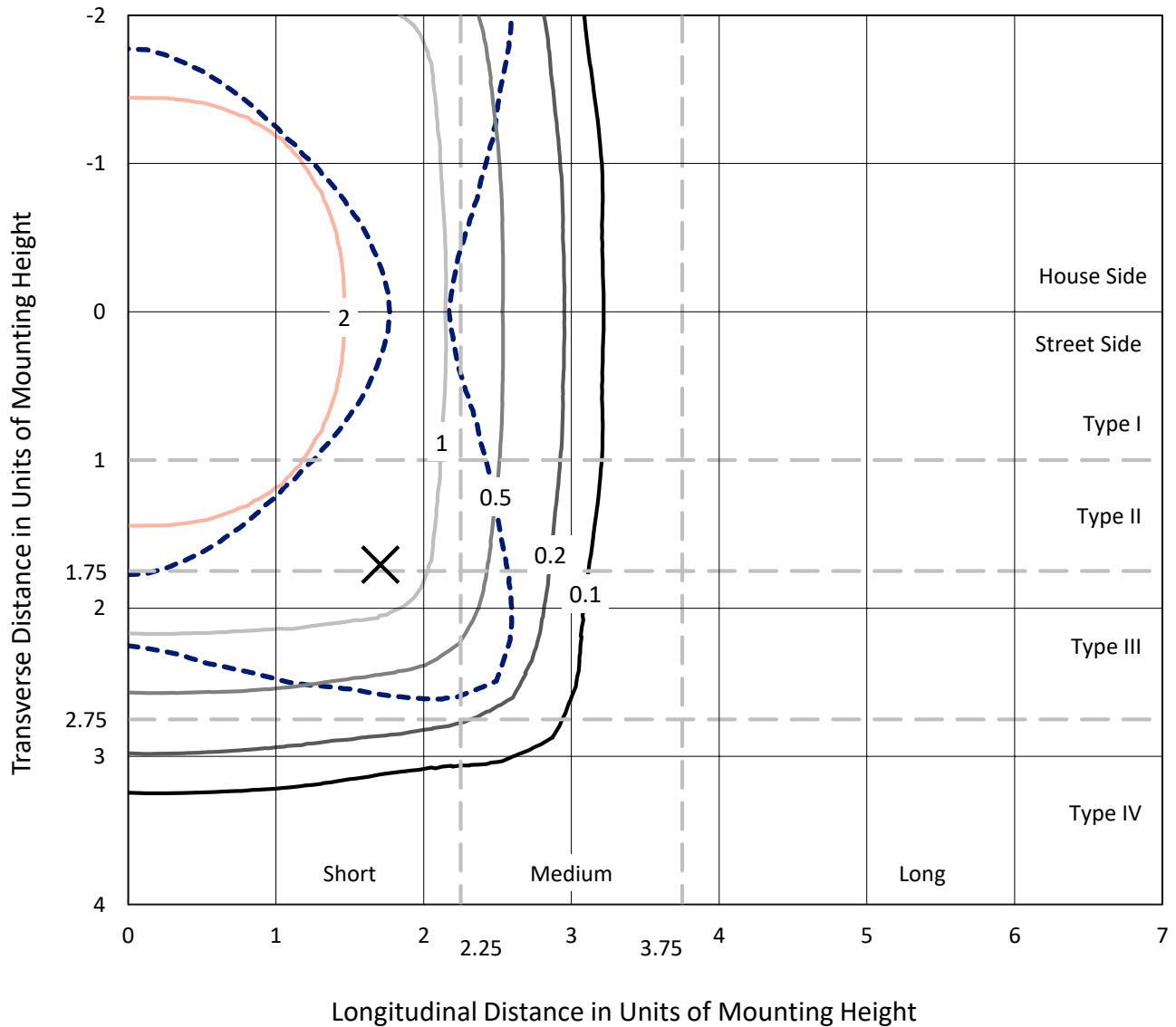


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

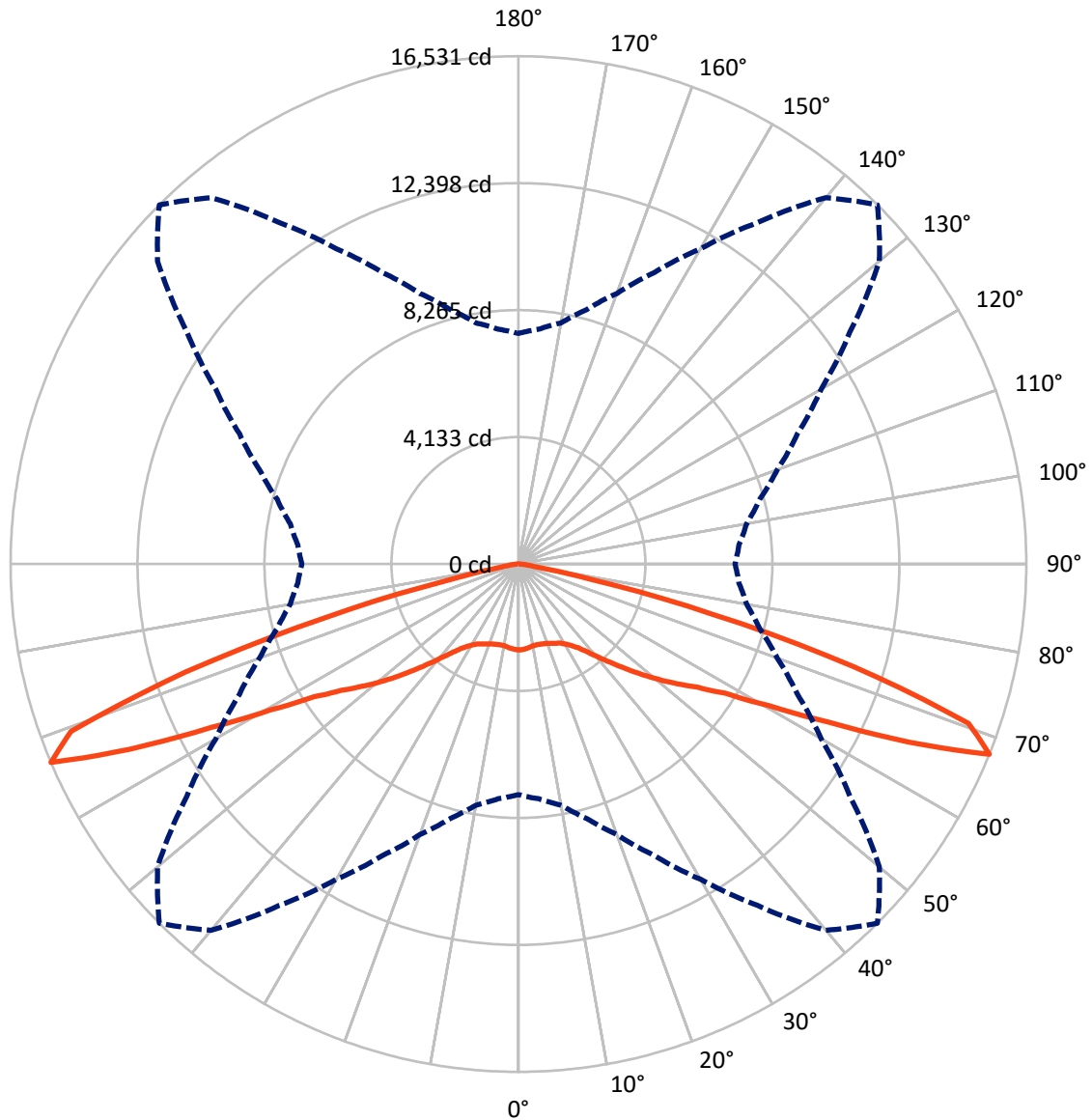


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14043.7	0.0	14043.7
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	14043.7	0.0	14043.7
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	28087.4	0.0	28087.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.0	0.9
10°-20°	760.2	2.7
20°-30°	1292.3	4.6
30°-40°	2112.6	7.5
40°-50°	3771.3	13.4
50°-60°	6358.5	22.6
60°-70°	9867.5	35.1
70°-80°	3467.0	12.3
80°-90°	195.9	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°	28087.4	100.0
0°-180°	28087.4	100.0



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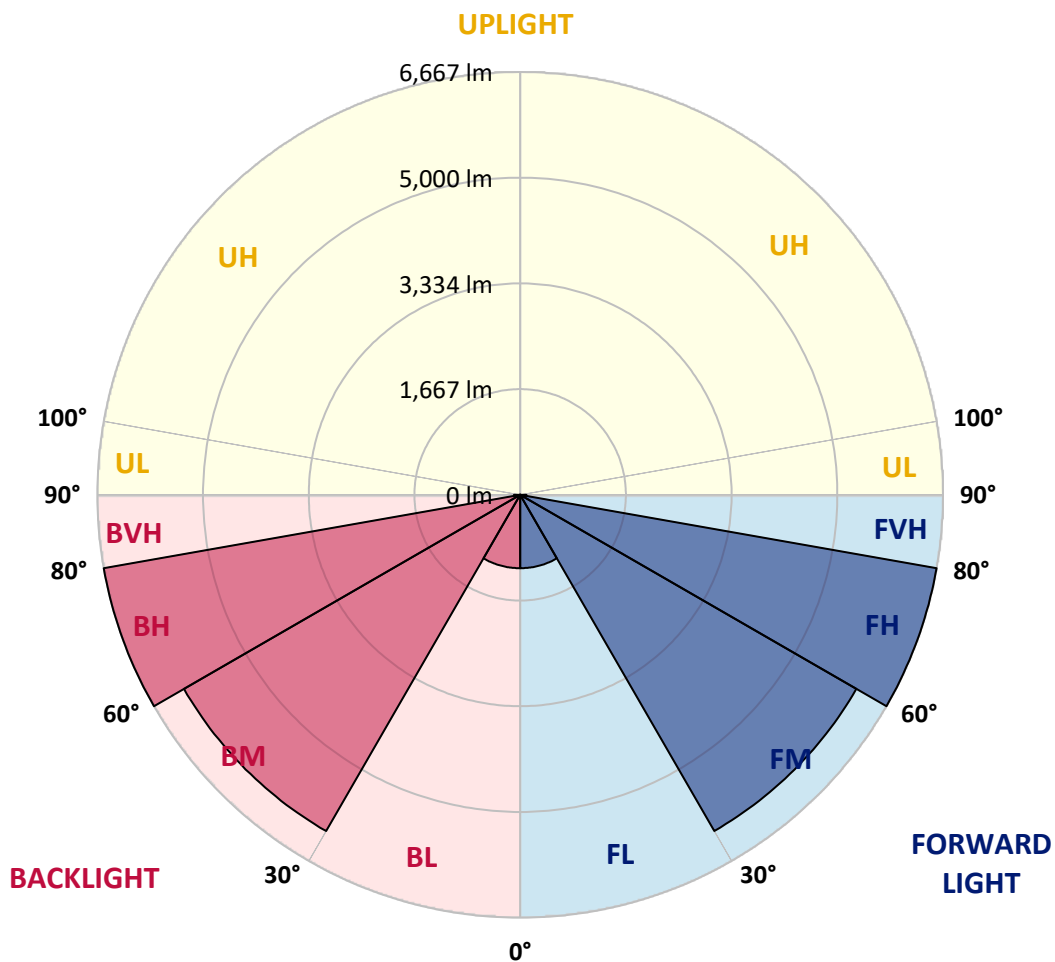
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1157.3	4.1			
FM	(30°-60°)	6121.2	21.8			
FH	(60°-80°)	6667.3	23.7			G3/7500
FVH	(80°-90°)	98.0	0.3			G1/100
BL	(0°-30°)	1157.3	4.1	B3/2500		
BM	(30°-60°)	6121.2	21.8	B4/8500		
BH	(60°-80°)	6667.3	23.7	B5		G3/7500
BVH	(80°-90°)	98.0	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0
2.5°	2788.7	2791.3	2791.3	2791.3	2790.0	2790.0	2787.4	2790.0	2788.7	2784.8	2786.1
5°	2765.4	2768.0	2768.0	2766.7	2770.6	2769.3	2765.4	2768.0	2766.7	2764.1	2765.4
7.5°	2731.9	2735.7	2735.7	2734.4	2738.3	2737.0	2734.4	2735.7	2735.7	2731.9	2731.9
10°	2694.4	2697.0	2697.0	2695.7	2702.1	2702.1	2700.9	2704.7	2706.0	2702.1	2699.6
12.5°	2659.5	2663.4	2663.4	2668.6	2675.0	2677.6	2684.1	2689.2	2694.4	2693.1	2687.9
15°	2638.9	2641.4	2646.6	2653.1	2663.4	2672.4	2682.8	2694.4	2704.7	2707.3	2699.6
17.5°	2625.9	2629.8	2637.6	2646.6	2660.8	2676.3	2691.8	2707.3	2721.5	2726.7	2717.6
20°	2622.1	2624.6	2632.4	2647.9	2667.3	2690.5	2712.5	2730.6	2749.9	2756.4	2749.9
22.5°	2629.8	2635.0	2644.0	2662.1	2687.9	2717.6	2743.5	2768.0	2792.6	2804.2	2795.1
25°	2664.7	2669.9	2681.5	2704.7	2733.1	2764.1	2793.9	2822.3	2844.2	2855.9	2849.4
27.5°	2729.3	2735.7	2749.9	2773.2	2804.2	2837.8	2870.1	2893.3	2911.4	2915.3	2907.5
30°	2826.1	2840.4	2857.1	2883.0	2919.1	2947.6	2979.9	3000.5	3022.5	3022.5	3016.0
32.5°	2977.3	2991.5	3009.6	3034.1	3062.5	3093.5	3121.9	3140.0	3163.3	3164.6	3149.1
35°	3203.3	3209.8	3225.3	3240.8	3266.6	3293.7	3318.3	3329.9	3349.3	3350.6	3336.4
37.5°	3501.7	3503.0	3513.3	3518.5	3541.7	3571.4	3594.7	3602.4	3620.5	3617.9	3603.7
40°	3849.1	3855.6	3859.5	3867.2	3891.8	3920.2	3944.7	3948.6	3968.0	3964.1	3946.0
42.5°	4250.8	4253.4	4275.4	4287.0	4310.3	4324.5	4355.5	4359.3	4382.6	4372.3	4351.6
45°	4701.6	4724.9	4745.6	4768.8	4793.3	4810.1	4834.7	4829.5	4845.0	4829.5	4817.9
47.5°	5175.7	5192.5	5239.0	5275.1	5315.2	5329.4	5364.3	5348.8	5364.3	5342.3	5338.4
50°	5697.5	5727.2	5767.3	5808.6	5851.2	5874.5	5919.7	5900.3	5921.0	5900.3	5888.7
52.5°	6211.6	6219.3	6307.2	6367.9	6427.3	6454.4	6481.5	6472.5	6473.8	6472.5	6460.9
55°	6699.8	6717.9	6805.7	6888.4	6991.7	7068.0	7114.5	7109.3	7097.7	7086.0	7066.7
57.5°	7250.1	7268.2	7368.9	7471.0	7588.5	7697.0	7791.3	7888.2	7925.6	7935.9	7893.3
60°	7994.1	7992.8	8127.1	8251.1	8419.0	8580.5	8787.2	8997.7	9239.2	9351.6	9203.1
62.5°	8751.0	8782.0	8975.7	9195.3	9541.5	9878.6	10259.6	10634.2	11016.6	11327.8	10997.2
65°	8660.6	8779.4	9067.4	9564.7	10204.1	10963.6	11785.1	12654.4	13439.7	13979.6	13373.8
67.5°	7505.8	7675.0	7968.2	8572.7	9372.3	10467.6	11847.1	13566.3	15564.5	16530.6	15333.3
70°	5440.5	5631.6	5939.0	6529.3	7321.1	8362.2	9860.5	11924.6	14569.9	15543.8	14225.0
72.5°	2707.3	2810.6	3000.5	3376.4	3975.7	4820.5	6179.3	8163.3	10503.8	11397.6	10192.5
75°	919.7	967.5	999.7	1122.5	1312.3	1644.3	2319.8	3568.9	5444.3	6526.7	5366.8
77.5°	530.9	532.2	554.1	576.1	608.4	644.5	735.0	964.9	1668.8	2370.2	1726.9
80°	343.6	342.3	360.4	377.2	399.1	417.2	422.4	446.9	515.4	611.0	546.4
82.5°	178.2	200.2	240.2	262.2	303.5	311.3	301.0	291.9	308.7	320.3	328.1
85°	98.2	85.2	127.9	165.3	183.4	186.0	186.0	175.7	182.1	178.2	193.7
87.5°	45.2	41.3	50.4	81.4	86.5	73.6	77.5	68.5	49.1	47.8	54.2
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°	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0	2799.0
2.5°	2786.1	2787.4	2787.4	2791.3	2792.6	2795.1	2797.7	2799.0
5°	2764.1	2768.0	2765.4	2769.3	2769.3	2771.9	2771.9	2773.2
7.5°	2731.9	2735.7	2735.7	2735.7	2734.4	2738.3	2738.3	2738.3
10°	2698.3	2700.9	2699.6	2697.0	2694.4	2698.3	2697.0	2695.7
12.5°	2687.9	2681.5	2676.3	2673.7	2668.6	2669.9	2666.0	2666.0
15°	2694.4	2682.8	2673.7	2669.9	2664.7	2662.1	2659.5	2660.8
17.5°	2711.2	2697.0	2685.4	2678.9	2672.4	2668.6	2663.4	2664.7
20°	2740.9	2724.1	2707.3	2694.4	2682.8	2676.3	2672.4	2671.1
22.5°	2784.8	2760.3	2735.7	2716.4	2700.9	2691.8	2687.9	2685.4
25°	2835.2	2808.1	2779.6	2757.7	2742.2	2730.6	2722.8	2722.8
27.5°	2898.5	2876.5	2850.7	2824.9	2810.6	2799.0	2793.9	2791.3
30°	3004.4	2983.7	2963.1	2938.5	2920.4	2908.8	2899.8	2892.0
32.5°	3140.0	3123.2	3106.4	3088.4	3071.6	3056.1	3041.9	3035.4
35°	3331.2	3318.3	3306.6	3286.0	3279.5	3270.5	3262.7	3256.3
37.5°	3594.7	3589.5	3589.5	3567.6	3562.4	3558.5	3550.8	3552.1
40°	3940.8	3946.0	3939.6	3931.8	3927.9	3917.6	3917.6	3926.6
42.5°	4350.3	4354.2	4368.4	4355.5	4369.7	4356.8	4349.0	4355.5
45°	4825.6	4839.8	4868.3	4855.3	4864.4	4842.4	4815.3	4816.6
47.5°	5359.1	5372.0	5383.6	5374.6	5375.9	5339.7	5303.5	5294.5
50°	5913.2	5918.4	5924.8	5911.9	5914.5	5874.5	5833.1	5834.4
52.5°	6460.9	6485.4	6511.2	6476.4	6468.6	6423.4	6365.3	6342.0
55°	7087.3	7122.2	7092.5	7031.8	6971.1	6910.4	6834.2	6821.2
57.5°	7859.7	7800.3	7707.3	7592.4	7508.4	7423.2	7345.7	7313.4
60°	8934.4	8710.9	8543.0	8372.5	8265.3	8160.7	8058.7	8043.2
62.5°	10453.4	10067.2	9732.6	9380.0	9092.0	8867.2	8687.7	8637.3
65°	12357.3	11444.1	10652.3	9913.5	9271.5	8787.2	8482.3	8348.0
67.5°	13176.2	11373.1	10015.5	8966.7	8127.1	7540.7	7211.3	7047.3
70°	11578.4	9431.7	7955.3	6905.2	6140.5	5515.4	5217.0	5041.3
72.5°	7965.7	5999.8	4744.3	3872.4	3261.4	2738.3	2531.7	2516.2
75°	3576.6	2368.9	1632.7	1258.1	1059.2	921.0	878.3	846.0
77.5°	1001.0	740.1	660.0	617.4	576.1	528.3	510.2	514.1
80°	487.0	459.8	441.7	414.6	377.2	337.1	319.0	326.8
82.5°	322.9	319.0	330.7	311.3	257.0	218.3	183.4	167.9
85°	196.3	198.9	202.8	204.1	173.1	121.4	82.7	93.0
87.5°	77.5	89.1	96.9	100.7	94.3	58.1	46.5	47.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)