

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: P299599

Luminaire Tested: **GLNA-AF-05-LED-E1-5MQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299599  
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-05-LED-E1-5MQ-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

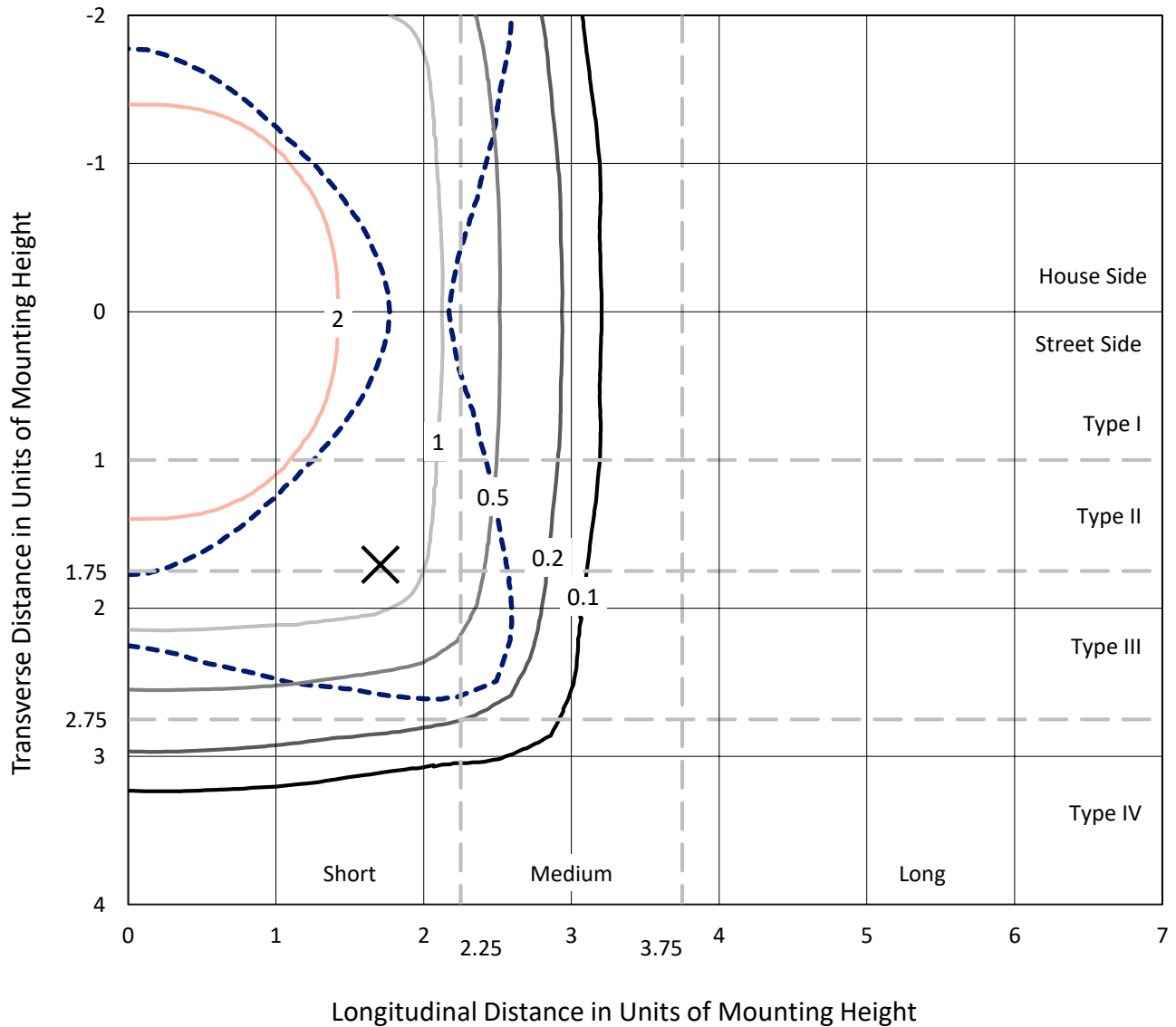
Lumens per Lamp: N/A  
Luminaire Lumens: 27061.3 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3  
  
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (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

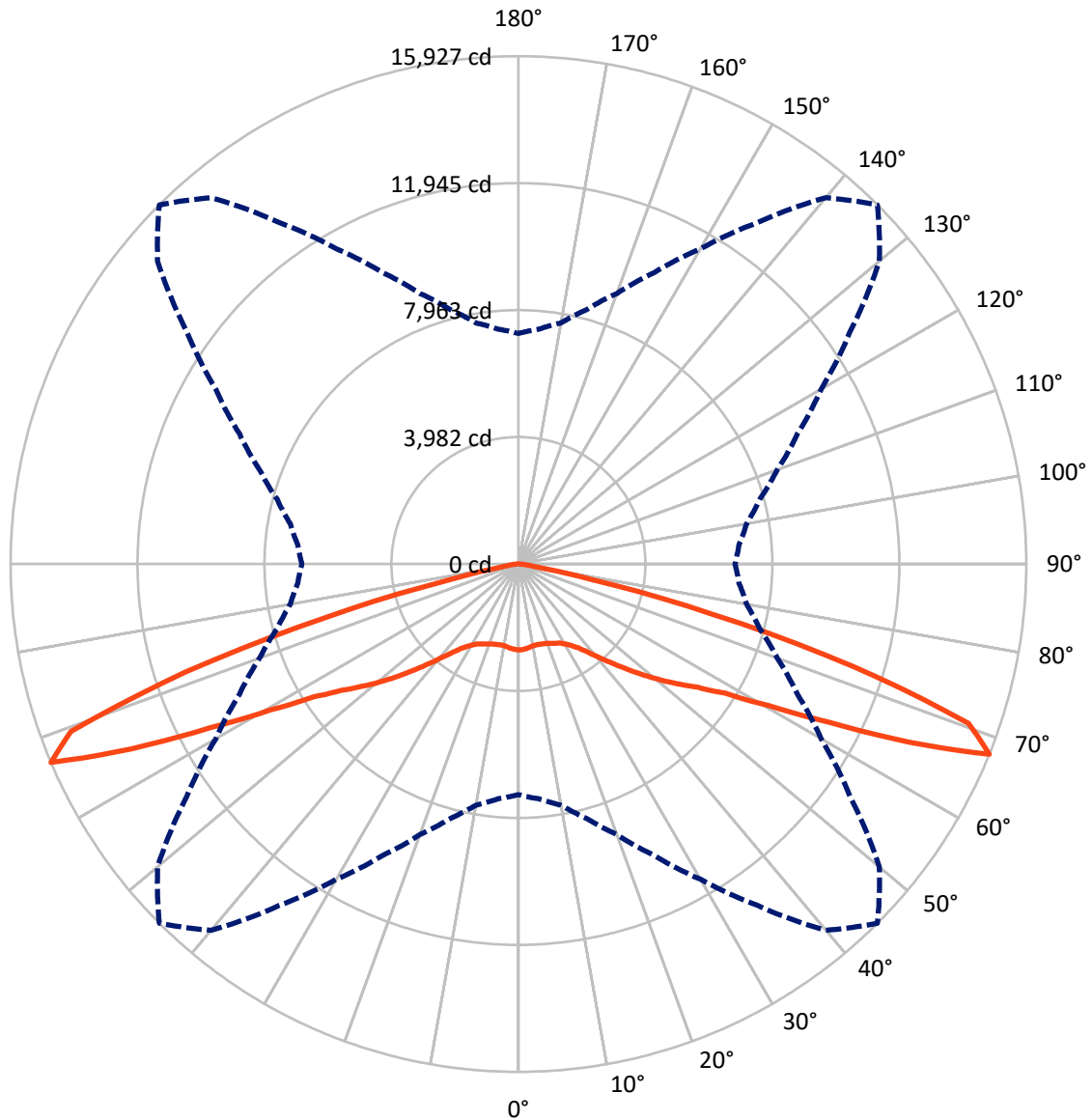
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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	13530.6	0.0	13530.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	13530.6	0.0	13530.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	27061.3	0.0	27061.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.4	0.9
10°-20°	732.4	2.7
20°-30°	1245.1	4.6
30°-40°	2035.4	7.5
40°-50°	3633.5	13.4
50°-60°	6126.2	22.6
60°-70°	9507.0	35.1
70°-80°	3340.3	12.3
80°-90°	188.8	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°	27061.3	100.0
0°-180°	27061.3	100.0



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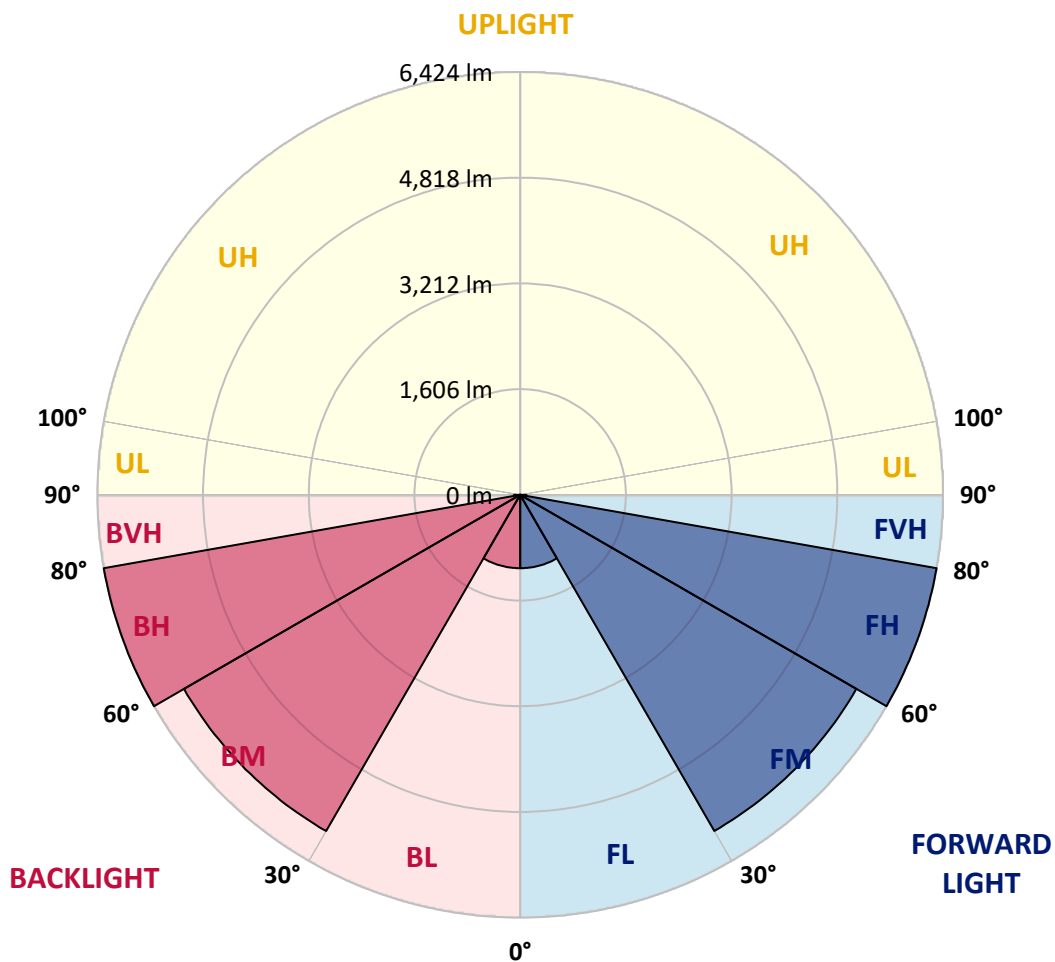
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1115.0	4.1			
FM	(30°-60°)	5897.6	21.8			
FH	(60°-80°)	6423.7	23.7			G3/7500
FVH	(80°-90°)	94.4	0.3			G1/100
BL	(0°-30°)	1115.0	4.1	B3/2500		
BM	(30°-60°)	5897.6	21.8	B4/8500		
BH	(60°-80°)	6423.7	23.7	B5		G3/7500
BVH	(80°-90°)	94.4	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°	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8
2.5°	2686.8	2689.3	2689.3	2689.3	2688.1	2688.1	2685.6	2688.1	2686.8	2683.1	2684.3
5°	2664.4	2666.9	2666.9	2665.7	2669.4	2668.1	2664.4	2666.9	2665.7	2663.2	2664.4
7.5°	2632.1	2635.8	2635.8	2634.5	2638.3	2637.0	2634.5	2635.8	2635.8	2632.1	2632.1
10°	2596.0	2598.5	2598.5	2597.2	2603.4	2603.4	2602.2	2605.9	2607.2	2603.4	2600.9
12.5°	2562.4	2566.1	2566.1	2571.1	2577.3	2579.8	2586.0	2591.0	2596.0	2594.7	2589.7
15°	2542.5	2544.9	2549.9	2556.1	2566.1	2574.8	2584.8	2596.0	2605.9	2608.4	2600.9
17.5°	2530.0	2533.7	2541.2	2549.9	2563.6	2578.5	2593.5	2608.4	2622.1	2627.1	2618.4
20°	2526.3	2528.8	2536.2	2551.2	2569.8	2592.2	2613.4	2630.8	2649.5	2655.7	2649.5
22.5°	2533.7	2538.7	2547.4	2564.9	2589.7	2618.4	2643.3	2666.9	2690.5	2701.7	2693.0
25°	2567.3	2572.3	2583.5	2605.9	2633.3	2663.2	2691.8	2719.2	2740.3	2751.5	2745.3
27.5°	2629.6	2635.8	2649.5	2671.9	2701.7	2734.1	2765.2	2787.6	2805.0	2808.8	2801.3
30°	2722.9	2736.6	2752.8	2777.7	2812.5	2839.9	2871.0	2890.9	2912.1	2912.1	2905.8
32.5°	2868.5	2882.2	2899.6	2923.3	2950.6	2980.5	3007.9	3025.3	3047.7	3049.0	3034.0
35°	3086.3	3092.5	3107.4	3122.4	3147.3	3173.4	3197.0	3208.2	3226.9	3228.2	3214.5
37.5°	3373.8	3375.0	3385.0	3389.9	3412.3	3441.0	3463.4	3470.8	3488.3	3485.8	3472.1
40°	3708.5	3714.7	3718.5	3725.9	3749.6	3777.0	3800.6	3804.3	3823.0	3819.3	3801.9
42.5°	4095.6	4098.0	4119.2	4130.4	4152.8	4166.5	4196.4	4200.1	4222.5	4212.5	4192.6
45°	4529.9	4552.3	4572.2	4594.6	4618.2	4634.4	4658.1	4653.1	4668.0	4653.1	4641.9
47.5°	4986.6	5002.8	5047.6	5082.4	5121.0	5134.7	5168.3	5153.4	5168.3	5147.1	5143.4
50°	5489.4	5518.0	5556.6	5596.4	5637.5	5659.9	5703.4	5684.7	5704.7	5684.7	5673.5
52.5°	5984.7	5992.1	6076.8	6135.2	6192.5	6218.6	6244.8	6236.0	6237.3	6236.0	6224.8
55°	6455.1	6472.5	6557.1	6636.8	6736.3	6809.7	6854.5	6849.6	6838.4	6827.2	6808.5
57.5°	6985.2	7002.6	7099.7	7198.0	7311.3	7415.8	7506.6	7600.0	7636.1	7646.0	7605.0
60°	7702.0	7700.8	7830.2	7949.7	8111.5	8267.0	8466.1	8669.0	8901.7	9010.0	8866.9
62.5°	8431.3	8461.2	8647.8	8859.4	9192.9	9517.7	9884.8	10245.7	10614.1	10914.0	10595.4
65°	8344.2	8458.7	8736.2	9215.3	9831.3	10563.1	11354.6	12192.1	12948.7	13468.9	12885.3
67.5°	7231.6	7394.6	7677.1	8259.6	9029.9	10085.2	11414.3	13070.7	14995.9	15926.7	14773.1
70°	5241.7	5425.9	5722.1	6290.8	7053.7	8056.7	9500.3	11489.0	14037.6	14976.0	13705.4
72.5°	2608.4	2708.0	2890.9	3253.0	3830.5	4644.4	5953.5	7865.1	10120.0	10981.2	9820.1
75°	886.1	932.1	963.2	1081.4	1264.4	1584.2	2235.1	3438.5	5245.4	6288.3	5170.8
77.5°	511.5	512.7	533.9	555.0	586.1	621.0	708.1	929.6	1607.9	2283.6	1663.9
80°	331.0	329.8	347.2	363.4	384.5	402.0	406.9	430.6	496.5	588.6	526.4
82.5°	171.7	192.9	231.5	252.6	292.5	299.9	290.0	281.3	297.4	308.6	316.1
85°	94.6	82.1	123.2	159.3	176.7	179.2	179.2	169.2	175.5	171.7	186.7
87.5°	43.6	39.8	48.5	78.4	83.4	70.9	74.7	66.0	47.3	46.0	52.3
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°	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8	2696.8
2.5°	2684.3	2685.6	2685.6	2689.3	2690.5	2693.0	2695.5	2696.8
5°	2663.2	2666.9	2664.4	2668.1	2668.1	2670.6	2670.6	2671.9
7.5°	2632.1	2635.8	2635.8	2635.8	2634.5	2638.3	2638.3	2638.3
10°	2599.7	2602.2	2600.9	2598.5	2596.0	2599.7	2598.5	2597.2
12.5°	2589.7	2583.5	2578.5	2576.1	2571.1	2572.3	2568.6	2568.6
15°	2596.0	2584.8	2576.1	2572.3	2567.3	2564.9	2562.4	2563.6
17.5°	2612.1	2598.5	2587.3	2581.0	2574.8	2571.1	2566.1	2567.3
20°	2640.8	2624.6	2608.4	2596.0	2584.8	2578.5	2574.8	2573.6
22.5°	2683.1	2659.4	2635.8	2617.1	2602.2	2593.5	2589.7	2587.3
25°	2731.6	2705.5	2678.1	2656.9	2642.0	2630.8	2623.3	2623.3
27.5°	2792.6	2771.4	2746.5	2721.7	2708.0	2696.8	2691.8	2689.3
30°	2894.6	2874.7	2854.8	2831.2	2813.7	2802.5	2793.8	2786.4
32.5°	3025.3	3009.1	2993.0	2975.5	2959.4	2944.4	2930.7	2924.5
35°	3209.5	3197.0	3185.8	3165.9	3159.7	3151.0	3143.5	3137.3
37.5°	3463.4	3458.4	3458.4	3437.2	3432.3	3428.5	3421.1	3422.3
40°	3796.9	3801.9	3795.6	3788.2	3784.4	3774.5	3774.5	3783.2
42.5°	4191.4	4195.1	4208.8	4196.4	4210.0	4197.6	4190.1	4196.4
45°	4649.3	4663.0	4690.4	4678.0	4686.7	4665.5	4639.4	4640.6
47.5°	5163.3	5175.8	5187.0	5178.2	5179.5	5144.6	5109.8	5101.1
50°	5697.2	5702.2	5708.4	5695.9	5698.4	5659.9	5620.0	5621.3
52.5°	6224.8	6248.5	6273.4	6239.8	6232.3	6188.8	6132.8	6110.4
55°	6828.4	6862.0	6833.4	6774.9	6716.4	6657.9	6584.5	6572.1
57.5°	7572.6	7515.4	7425.8	7315.0	7234.1	7152.0	7077.3	7046.2
60°	8608.0	8392.7	8230.9	8066.7	7963.4	7862.6	7764.3	7749.3
62.5°	10071.5	9699.4	9377.1	9037.3	8759.8	8543.3	8370.3	8321.8
65°	11905.9	11026.0	10263.2	9551.3	8932.8	8466.1	8172.4	8043.0
67.5°	12694.8	10957.6	9649.6	8639.1	7830.2	7265.2	6947.9	6789.8
70°	11155.4	9087.1	7664.7	6652.9	5916.2	5313.9	5026.4	4857.2
72.5°	7674.7	5780.6	4570.9	3730.9	3142.3	2638.3	2439.2	2424.2
75°	3445.9	2282.4	1573.0	1212.1	1020.5	887.3	846.2	815.1
77.5°	964.5	713.1	635.9	594.9	555.0	509.0	491.6	495.3
80°	469.2	443.0	425.6	399.5	363.4	324.8	307.4	314.9
82.5°	311.1	307.4	318.6	299.9	247.6	210.3	176.7	161.8
85°	189.2	191.6	195.4	196.6	166.8	117.0	79.6	89.6
87.5°	74.7	85.9	93.3	97.1	90.8	56.0	44.8	46.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)