

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: P299923

Luminaire Tested: **GLNA-AF-09-LED-E1-5WQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299923  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-5WQ-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 39206.1 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G4

Input Watts (W): 374  
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

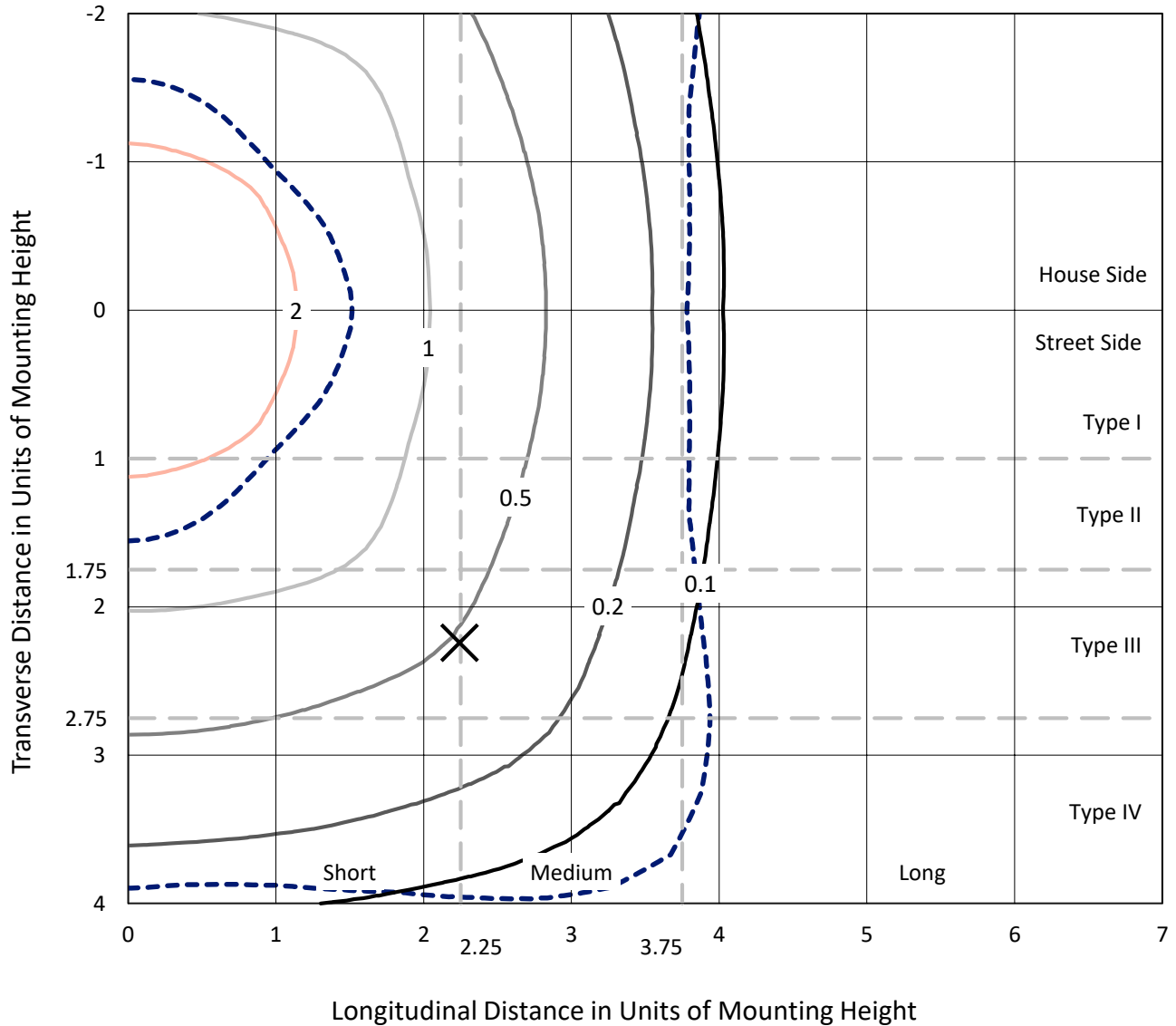


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

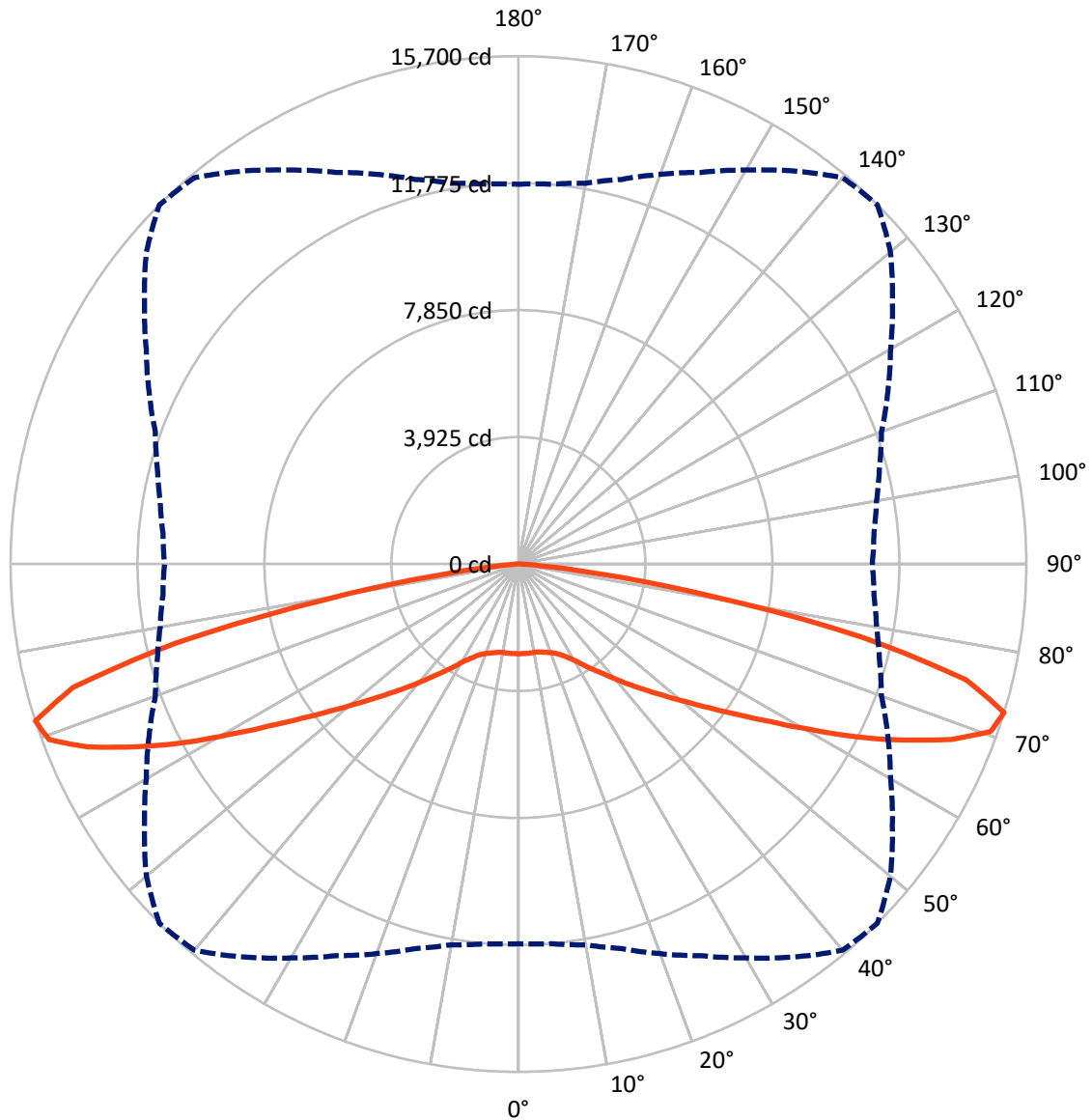


Based on 30 foot mounting height. Maximum calculated value = 3.1 fc  
 Type V - Short - Semi-Cutoff

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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	19603.1	0.0	19603.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	19603.1	0.0	19603.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	39206.1	0.0	39206.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	265.1	0.7
10°-20°	805.2	2.1
20°-30°	1471.4	3.8
30°-40°	2536.9	6.5
40°-50°	4336.9	11.1
50°-60°	7029.5	17.9
60°-70°	11661.7	29.7
70°-80°	10271.2	26.2
80°-90°	828.1	2.1
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°	39206.1	100.0
0°-180°	39206.1	100.0



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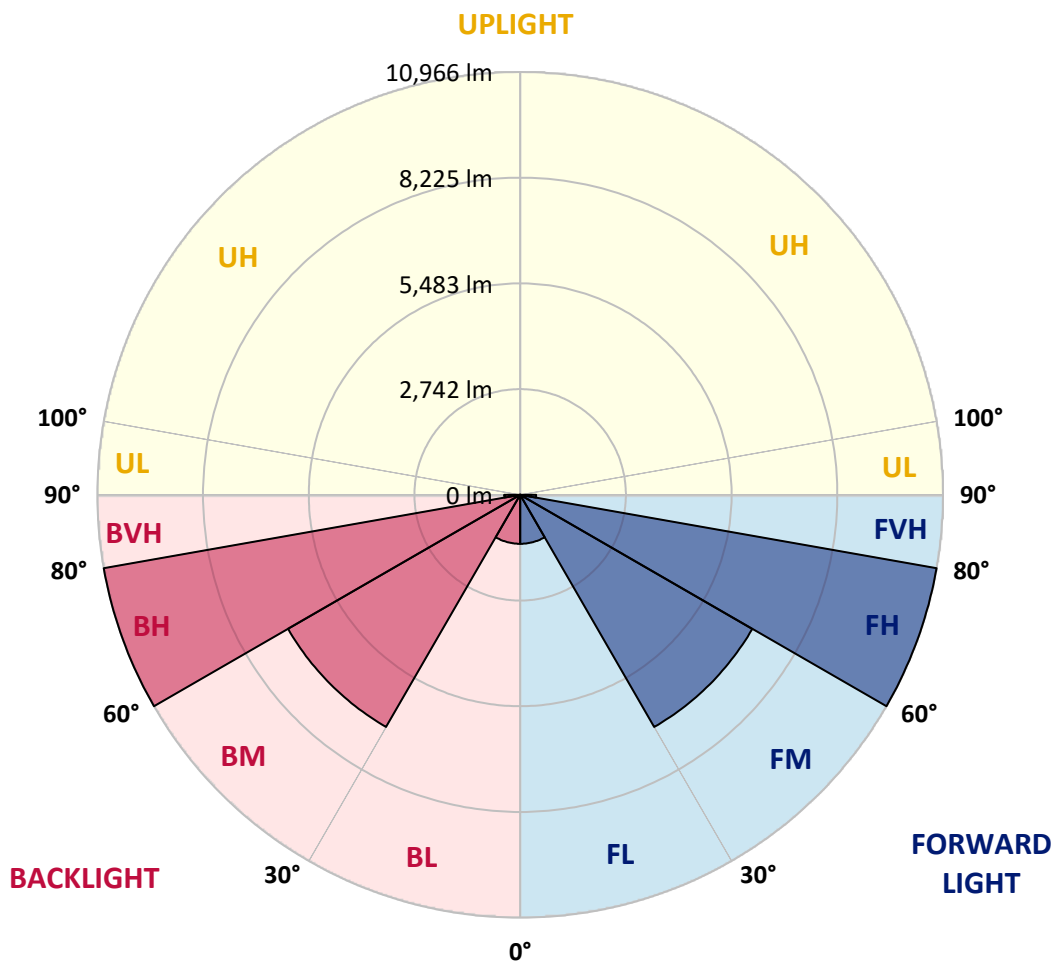
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1270.8	3.2			
FM	(30°-60°)	6951.7	17.7			
FH	(60°-80°)	10966.5	28.0			G4/12000
FVH	(80°-90°)	414.1	1.1			G3/500
BL	(0°-30°)	1270.8	3.2	B3/2500		
BM	(30°-60°)	6951.7	17.7	B4/8500		
BH	(60°-80°)	10966.5	28.0	B5		G4/12000
BVH	(80°-90°)	414.1	1.1			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°	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4
2.5°	2776.4	2778.2	2780.0	2778.2	2778.2	2776.4	2774.6	2776.4	2774.6	2771.0	2772.8
5°	2785.4	2789.0	2789.0	2785.4	2787.2	2785.4	2781.8	2783.6	2780.0	2774.6	2774.6
7.5°	2796.2	2798.0	2798.0	2794.4	2796.2	2792.6	2789.0	2787.2	2783.6	2776.4	2771.0
10°	2812.4	2814.2	2812.4	2808.8	2808.8	2803.4	2794.4	2790.8	2783.6	2772.8	2767.4
12.5°	2830.3	2832.1	2830.3	2826.8	2825.0	2816.0	2808.8	2803.4	2798.0	2789.0	2780.0
15°	2855.5	2859.1	2855.5	2848.3	2842.9	2835.7	2832.1	2833.9	2835.7	2828.5	2819.6
17.5°	2902.3	2904.1	2898.7	2882.5	2875.3	2868.1	2868.1	2871.7	2877.1	2873.5	2864.5
20°	2988.6	2983.2	2970.6	2950.8	2941.8	2929.2	2927.4	2929.2	2929.2	2927.4	2920.3
22.5°	3096.5	3092.9	3076.7	3051.5	3038.9	3031.7	3021.0	3012.0	3010.2	3004.8	2997.6
25°	3225.9	3224.2	3204.4	3182.8	3173.8	3164.8	3155.8	3143.2	3132.4	3119.9	3112.7
27.5°	3391.4	3384.2	3355.4	3344.6	3332.0	3326.6	3314.1	3299.7	3290.7	3274.5	3265.5
30°	3573.0	3573.0	3549.6	3546.0	3546.0	3533.4	3519.1	3493.9	3477.7	3461.5	3456.1
32.5°	3754.6	3756.4	3733.0	3740.2	3745.6	3754.6	3758.2	3749.2	3738.4	3736.6	3725.8
35°	4017.2	4010.0	3986.6	3992.0	3990.2	3988.4	3988.4	4008.2	4011.8	4015.4	3993.8
37.5°	4342.6	4342.6	4319.2	4319.2	4308.5	4297.7	4283.3	4295.9	4315.7	4321.0	4306.7
40°	4714.8	4727.4	4698.7	4696.9	4700.5	4666.3	4650.1	4669.9	4682.5	4704.1	4687.9
42.5°	5153.6	5144.6	5115.8	5112.2	5092.5	5081.7	5067.3	5083.5	5103.3	5117.6	5123.0
45°	5574.4	5567.2	5534.8	5534.8	5515.0	5506.1	5513.2	5540.2	5549.2	5569.0	5588.8
47.5°	5989.8	5980.8	5959.2	5968.2	5970.0	5986.2	6009.5	6034.7	6059.9	6086.9	6095.9
50°	6414.1	6415.9	6392.6	6414.1	6441.1	6486.1	6549.0	6590.4	6642.5	6676.7	6687.5
52.5°	6800.7	6807.9	6833.1	6883.5	6937.4	7025.5	7133.4	7234.1	7320.4	7378.0	7374.4
55°	7264.7	7275.5	7336.6	7422.9	7511.0	7644.1	7804.1	7982.2	8126.0	8208.7	8156.6
57.5°	7858.1	7881.5	7949.8	8066.7	8197.9	8370.6	8589.9	8857.9	9080.8	9192.3	9107.8
60°	8672.7	8687.0	8769.8	8899.2	9057.5	9271.5	9564.6	9924.2	10238.9	10386.3	10289.2
62.5°	9746.2	9773.2	9839.7	9971.0	10132.8	10375.5	10733.4	11182.9	11574.9	11779.9	11560.5
65°	11028.3	11114.6	11170.3	11303.4	11454.5	11711.6	12085.6	12567.5	12988.3	13123.2	12869.6
67.5°	12297.8	12373.3	12470.4	12623.3	12776.1	13065.6	13412.7	13880.2	14342.3	14464.6	14070.8
70°	12853.4	12896.6	13047.7	13256.2	13549.3	13891.0	14292.0	14817.1	15388.9	15489.6	14989.7
72.5°	11740.4	11783.5	11952.6	12306.8	12817.5	13360.5	14060.0	14831.5	15586.7	15700.0	15011.3
75°	8879.5	8809.3	9059.3	9528.6	10217.3	10974.3	11952.6	13058.4	14149.9	14292.0	13470.2
77.5°	4589.0	4580.0	4768.8	5351.4	6173.2	7034.5	8111.6	9361.4	10429.5	10861.1	10192.1
80°	1292.9	1307.3	1397.2	1686.7	2166.8	2789.0	3630.5	4801.2	5675.1	6121.0	5747.0
82.5°	507.1	546.6	580.8	634.8	697.7	789.4	1053.7	1568.0	2103.9	2513.9	2058.9
85°	181.6	194.2	275.1	325.5	330.9	348.8	397.4	463.9	559.2	667.1	548.4
87.5°	68.3	75.5	88.1	145.7	143.9	131.3	160.0	167.2	125.9	115.1	142.1
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°	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4
2.5°	2769.2	2771.0	2771.0	2772.8	2774.6	2774.6	2778.2	2778.2
5°	2771.0	2771.0	2767.4	2769.2	2767.4	2767.4	2769.2	2769.2
7.5°	2767.4	2765.6	2762.0	2760.2	2756.6	2756.6	2756.6	2756.6
10°	2762.0	2760.2	2756.6	2754.8	2753.0	2753.0	2753.0	2753.0
12.5°	2776.4	2771.0	2767.4	2765.6	2765.6	2765.6	2765.6	2765.6
15°	2814.2	2801.6	2792.6	2792.6	2794.4	2798.0	2798.0	2801.6
17.5°	2860.9	2846.5	2837.5	2830.3	2833.9	2839.3	2842.9	2846.5
20°	2916.7	2909.5	2896.9	2889.7	2889.7	2896.9	2900.5	2902.3
22.5°	2994.0	2988.6	2983.2	2974.2	2974.2	2977.8	2985.0	2985.0
25°	3109.1	3105.5	3101.9	3094.7	3092.9	3092.9	3096.5	3100.1
27.5°	3252.9	3254.7	3251.1	3249.3	3243.9	3242.1	3247.5	3245.7
30°	3445.3	3454.3	3463.3	3456.1	3447.1	3441.7	3436.3	3429.1
32.5°	3706.1	3695.3	3688.1	3675.5	3659.3	3644.9	3634.1	3621.6
35°	3952.4	3934.4	3927.2	3938.0	3936.2	3927.2	3914.7	3903.9
37.5°	4254.5	4250.9	4254.5	4274.3	4270.7	4279.7	4254.5	4252.7
40°	4635.7	4639.3	4664.5	4687.9	4700.5	4713.1	4698.7	4684.3
42.5°	5078.1	5076.3	5085.3	5117.6	5139.2	5153.6	5123.0	5119.4
45°	5545.6	5533.0	5540.2	5567.2	5588.8	5605.0	5570.8	5570.8
47.5°	6059.9	6038.3	6014.9	6045.5	6058.1	6068.9	6041.9	6032.9
50°	6633.5	6588.6	6538.2	6550.8	6550.8	6547.2	6513.0	6511.2
52.5°	7291.7	7208.9	7117.2	7083.1	7063.3	7041.7	6982.4	6953.6
55°	8048.7	7924.6	7780.8	7692.6	7645.9	7586.6	7487.7	7460.7
57.5°	8933.4	8739.2	8491.0	8383.2	8278.9	8181.8	8072.1	8041.5
60°	9981.7	9695.8	9366.8	9167.2	9053.9	8960.4	8847.1	8841.7
62.5°	11150.6	10699.2	10327.0	10147.2	10064.5	9981.7	9873.8	9888.2
65°	12339.2	11868.0	11519.2	11373.5	11296.2	11227.9	11120.0	11136.2
67.5°	13511.6	13078.2	12695.2	12546.0	12459.6	12373.3	12276.2	12292.4
70°	14353.1	13815.5	13383.9	13053.0	12846.3	12612.5	12461.4	12423.7
72.5°	14112.2	13283.2	12598.1	11941.8	11557.0	11244.1	11031.9	10940.2
75°	12213.3	11080.4	10199.3	9393.7	8940.6	8572.0	8304.0	8136.8
77.5°	9070.1	7796.9	6755.8	5827.9	5094.3	4601.6	4254.5	4029.7
80°	4964.8	3776.2	2760.2	1940.2	1426.0	1185.0	1046.5	980.0
82.5°	1546.4	998.0	735.5	634.8	589.8	564.6	523.3	456.7
85°	492.7	431.6	401.0	383.0	365.0	318.3	219.4	199.6
87.5°	190.6	196.0	194.2	183.4	187.0	134.9	107.9	95.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)