

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: P299911

Luminaire Tested: **GLNA-AF-07-LED-E1-5WQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299911
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-07-LED-E1-5WQ-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 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: 31019.7 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 295
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

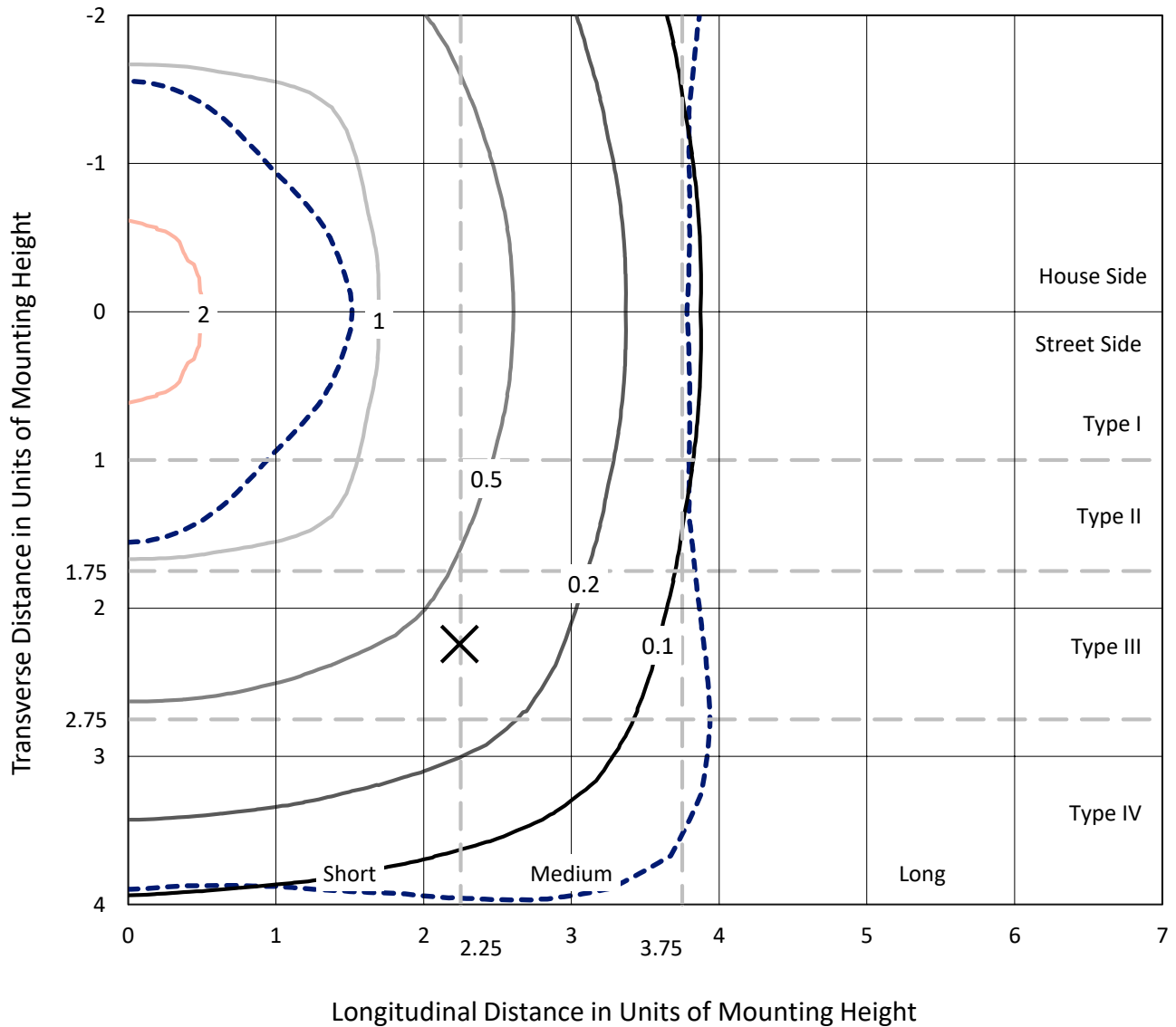


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

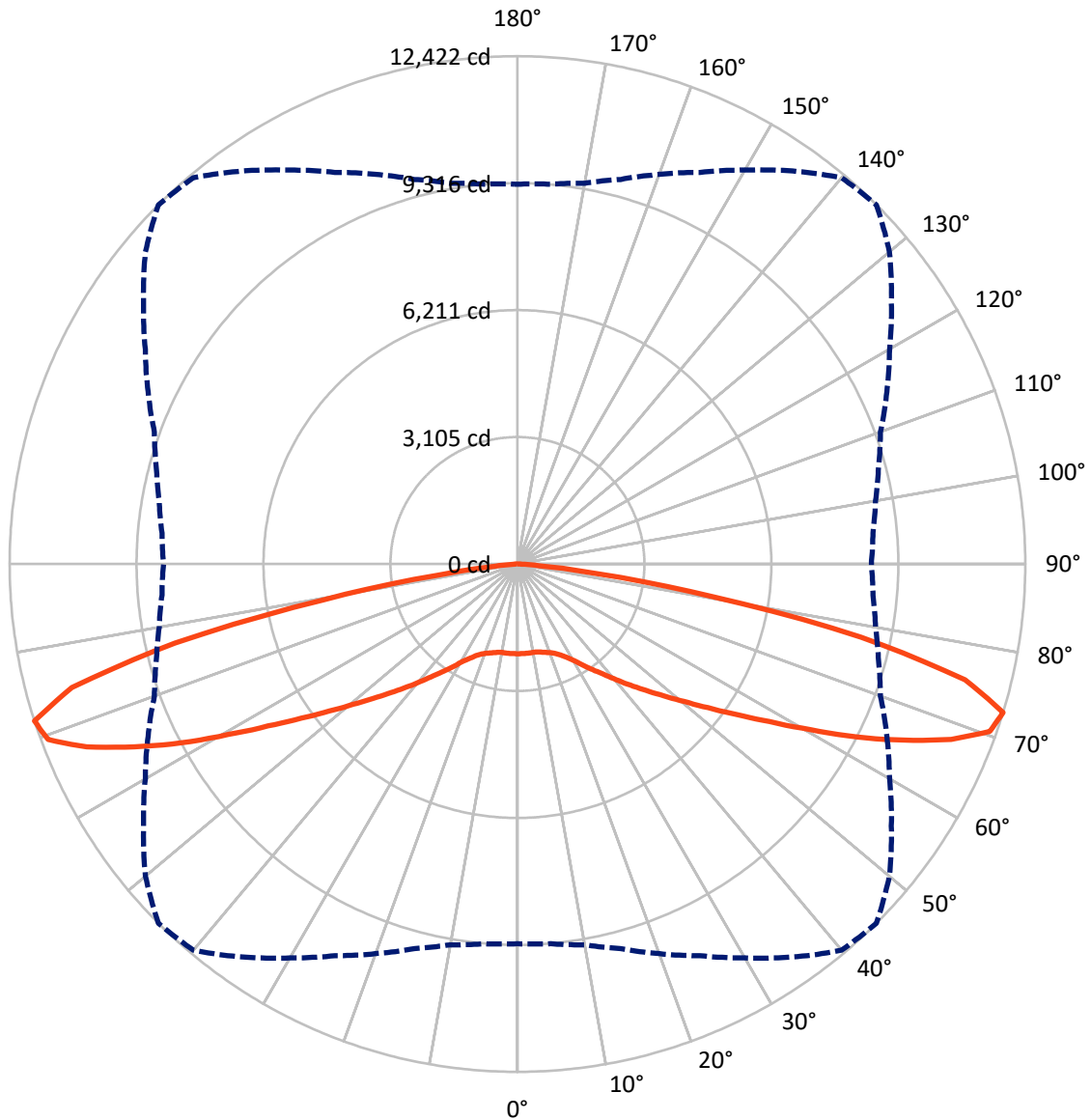


Based on 30 foot mounting height. Maximum calculated value = 2.4 fc
 Type V - Short - Semi-Cutoff

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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
House Side	Lumens	15509.8	0.0	15509.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15509.8	0.0	15509.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	31019.7	0.0	31019.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.8	0.7
10°-20°	637.1	2.1
20°-30°	1164.2	3.8
30°-40°	2007.2	6.5
40°-50°	3431.3	11.1
50°-60°	5561.7	17.9
60°-70°	9226.7	29.7
70°-80°	8126.6	26.2
80°-90°	655.2	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°	31019.7	100.0
0°-180°	31019.7	100.0



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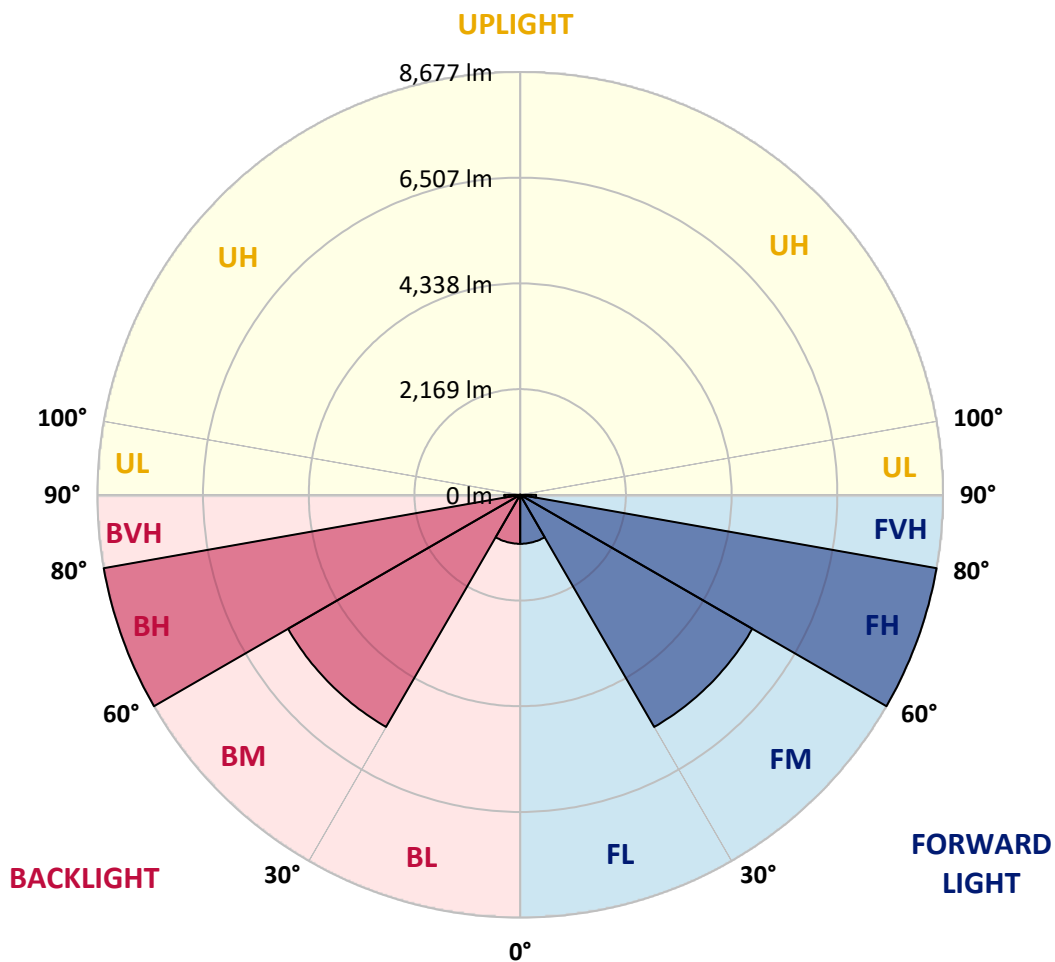
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1005.5	3.2			
FM	(30°-60°)	5500.1	17.7			
FH	(60°-80°)	8676.6	28.0			G4/12000
FVH	(80°-90°)	327.6	1.1			G3/500
BL	(0°-30°)	1005.5	3.2	B3/2500		
BM	(30°-60°)	5500.1	17.7	B4/8500		
BH	(60°-80°)	8676.6	28.0	B5		G4/12000
BVH	(80°-90°)	327.6	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°	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7
2.5°	2196.7	2198.1	2199.5	2198.1	2198.1	2196.7	2195.3	2196.7	2195.3	2192.4	2193.8
5°	2203.8	2206.6	2206.6	2203.8	2205.2	2203.8	2200.9	2202.4	2199.5	2195.3	2195.3
7.5°	2212.3	2213.7	2213.7	2210.9	2212.3	2209.5	2206.6	2205.2	2202.4	2196.7	2192.4
10°	2225.1	2226.6	2225.1	2222.3	2222.3	2218.0	2210.9	2208.1	2202.4	2193.8	2189.6
12.5°	2239.4	2240.8	2239.4	2236.5	2235.1	2228.0	2222.3	2218.0	2213.7	2206.6	2199.5
15°	2259.3	2262.1	2259.3	2253.6	2249.3	2243.6	2240.8	2242.2	2243.6	2237.9	2230.8
17.5°	2296.3	2297.7	2293.4	2280.6	2274.9	2269.2	2269.2	2272.1	2276.3	2273.5	2266.4
20°	2364.6	2360.3	2350.3	2334.7	2327.6	2317.6	2316.2	2317.6	2317.6	2316.2	2310.5
22.5°	2449.9	2447.1	2434.3	2414.4	2404.4	2398.7	2390.2	2383.1	2381.6	2377.4	2371.7
25°	2552.4	2550.9	2535.3	2518.2	2511.1	2504.0	2496.9	2486.9	2478.4	2468.4	2462.7
27.5°	2683.2	2677.6	2654.8	2646.3	2636.3	2632.0	2622.1	2610.7	2603.6	2590.8	2583.7
30°	2826.9	2826.9	2808.4	2805.6	2805.6	2795.6	2784.3	2764.3	2751.5	2738.7	2734.5
32.5°	2970.6	2972.1	2953.6	2959.3	2963.5	2970.6	2973.5	2966.4	2957.8	2956.4	2947.9
35°	3178.4	3172.7	3154.2	3158.4	3157.0	3155.6	3155.6	3171.2	3174.1	3176.9	3159.9
37.5°	3435.9	3435.9	3417.4	3417.4	3408.8	3400.3	3388.9	3398.9	3414.5	3418.8	3407.4
40°	3730.4	3740.3	3717.6	3716.1	3719.0	3692.0	3679.1	3694.8	3704.8	3721.8	3709.0
42.5°	4077.5	4070.4	4047.6	4044.8	4029.1	4020.6	4009.2	4022.0	4037.7	4049.1	4053.3
45°	4410.4	4404.7	4379.1	4379.1	4363.5	4356.4	4362.1	4383.4	4390.5	4406.2	4421.8
47.5°	4739.1	4732.0	4714.9	4722.0	4723.4	4736.2	4754.7	4774.6	4794.6	4815.9	4823.0
50°	5074.8	5076.3	5057.8	5074.8	5096.2	5131.7	5181.5	5214.3	5255.5	5282.5	5291.1
52.5°	5380.7	5386.4	5406.3	5446.2	5488.8	5558.6	5643.9	5723.6	5791.9	5837.4	5834.6
55°	5747.8	5756.3	5804.7	5873.0	5942.7	6048.0	6174.6	6315.4	6429.3	6494.7	6453.4
57.5°	6217.3	6235.8	6289.8	6382.3	6486.2	6622.7	6796.3	7008.3	7184.7	7272.9	7206.1
60°	6861.8	6873.1	6938.6	7041.0	7166.2	7335.5	7567.4	7852.0	8101.0	8217.6	8140.8
62.5°	7711.1	7732.5	7785.1	7889.0	8017.0	8209.1	8492.2	8847.9	9158.0	9320.2	9146.6
65°	8725.5	8793.8	8837.9	8943.2	9062.7	9266.2	9562.1	9943.4	10276.3	10383.0	10182.4
67.5°	9730.0	9789.7	9866.5	9987.5	10108.4	10337.5	10612.0	10982.0	11347.6	11444.3	11132.8
70°	10169.6	10203.7	10323.2	10488.3	10720.2	10990.5	11307.8	11723.2	12175.6	12255.3	11859.8
72.5°	9288.9	9323.1	9456.8	9737.1	10141.1	10570.8	11124.2	11734.6	12332.1	12421.7	11876.8
75°	7025.4	6969.9	7167.7	7539.0	8083.9	8682.8	9456.8	10331.8	11195.4	11307.8	10657.6
77.5°	3630.8	3623.7	3773.0	4234.0	4884.2	5565.7	6417.9	7406.7	8251.8	8593.2	8064.0
80°	1022.9	1034.3	1105.5	1334.5	1714.4	2206.6	2872.5	3798.7	4490.1	4842.9	4547.0
82.5°	401.2	432.5	459.5	502.2	552.0	624.6	833.7	1240.6	1664.6	1989.0	1629.0
85°	143.7	153.7	217.7	257.5	261.8	276.0	314.4	367.1	442.5	527.8	433.9
87.5°	54.1	59.8	69.7	115.2	113.8	103.9	126.6	132.3	99.6	91.1	112.4
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°	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7	2196.7
2.5°	2191.0	2192.4	2192.4	2193.8	2195.3	2195.3	2198.1	2198.1
5°	2192.4	2192.4	2189.6	2191.0	2189.6	2189.6	2191.0	2191.0
7.5°	2189.6	2188.1	2185.3	2183.9	2181.0	2181.0	2181.0	2181.0
10°	2185.3	2183.9	2181.0	2179.6	2178.2	2178.2	2178.2	2178.2
12.5°	2196.7	2192.4	2189.6	2188.1	2188.1	2188.1	2188.1	2188.1
15°	2226.6	2216.6	2209.5	2209.5	2210.9	2213.7	2213.7	2216.6
17.5°	2263.5	2252.2	2245.0	2239.4	2242.2	2246.5	2249.3	2252.2
20°	2307.6	2302.0	2292.0	2286.3	2286.3	2292.0	2294.8	2296.3
22.5°	2368.8	2364.6	2360.3	2353.2	2353.2	2356.0	2361.7	2361.7
25°	2459.9	2457.0	2454.2	2448.5	2447.1	2447.1	2449.9	2452.8
27.5°	2573.7	2575.1	2572.3	2570.9	2566.6	2565.2	2569.4	2568.0
30°	2725.9	2733.0	2740.2	2734.5	2727.3	2723.1	2718.8	2713.1
32.5°	2932.2	2923.7	2918.0	2908.0	2895.2	2883.8	2875.3	2865.4
35°	3127.1	3112.9	3107.2	3115.8	3114.3	3107.2	3097.3	3088.7
37.5°	3366.1	3363.3	3366.1	3381.8	3379.0	3386.1	3366.1	3364.7
40°	3667.8	3670.6	3690.5	3709.0	3719.0	3728.9	3717.6	3706.2
42.5°	4017.8	4016.3	4023.4	4049.1	4066.1	4077.5	4053.3	4050.5
45°	4387.7	4377.7	4383.4	4404.7	4421.8	4434.6	4407.6	4407.6
47.5°	4794.6	4777.5	4759.0	4783.2	4793.1	4801.7	4780.3	4773.2
50°	5248.4	5212.8	5173.0	5183.0	5183.0	5180.1	5153.1	5151.7
52.5°	5769.1	5703.7	5631.1	5604.1	5588.4	5571.4	5524.4	5501.6
55°	6368.1	6269.9	6156.1	6086.4	6049.4	6002.4	5924.2	5902.9
57.5°	7068.1	6914.4	6718.1	6632.7	6550.2	6473.4	6386.6	6362.4
60°	7897.5	7671.3	7410.9	7253.0	7163.4	7089.4	6999.8	6995.5
62.5°	8822.3	8465.2	8170.7	8028.4	7962.9	7897.5	7812.1	7823.5
65°	9762.7	9389.9	9113.9	8998.7	8937.5	8883.4	8798.1	8810.9
67.5°	10690.3	10347.4	10044.4	9926.3	9858.0	9789.7	9712.9	9725.7
70°	11356.1	10930.7	10589.3	10327.5	10163.9	9978.9	9859.4	9829.6
72.5°	11165.5	10509.6	9967.6	9448.3	9143.8	8896.3	8728.4	8655.8
75°	9663.1	8766.8	8069.7	7432.3	7073.8	6782.1	6570.1	6437.8
77.5°	7176.2	6168.9	5345.1	4611.0	4030.6	3640.7	3366.1	3188.3
80°	3928.1	2987.7	2183.9	1535.1	1128.2	937.6	828.0	775.4
82.5°	1223.5	789.6	581.9	502.2	466.7	446.7	414.0	361.4
85°	389.8	341.5	317.3	303.0	288.8	251.8	173.6	157.9
87.5°	150.8	155.1	153.7	145.1	148.0	106.7	85.4	75.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)