

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: P299596

Luminaire Tested: **GLNA-AF-04-LED-E1-5MQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299596  
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-04-LED-E1-5MQ  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K 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: 25138 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 225  
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

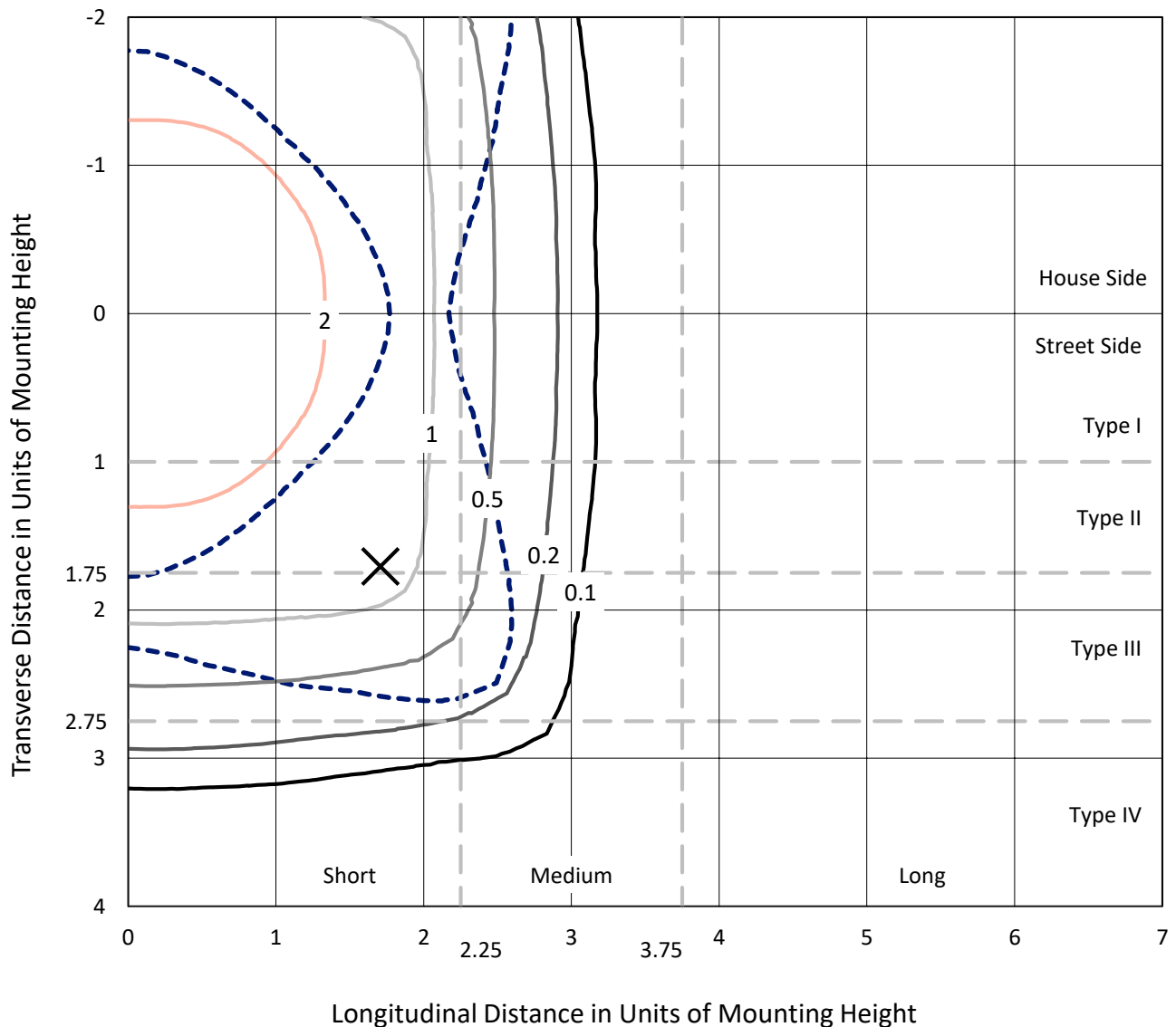


REPORT NUMBER: P299596

CATALOG NUMBER: GLNA-AF-04-LED-E1-5MQ

### Iso-Footcandle Lines of Horizontal Illumination

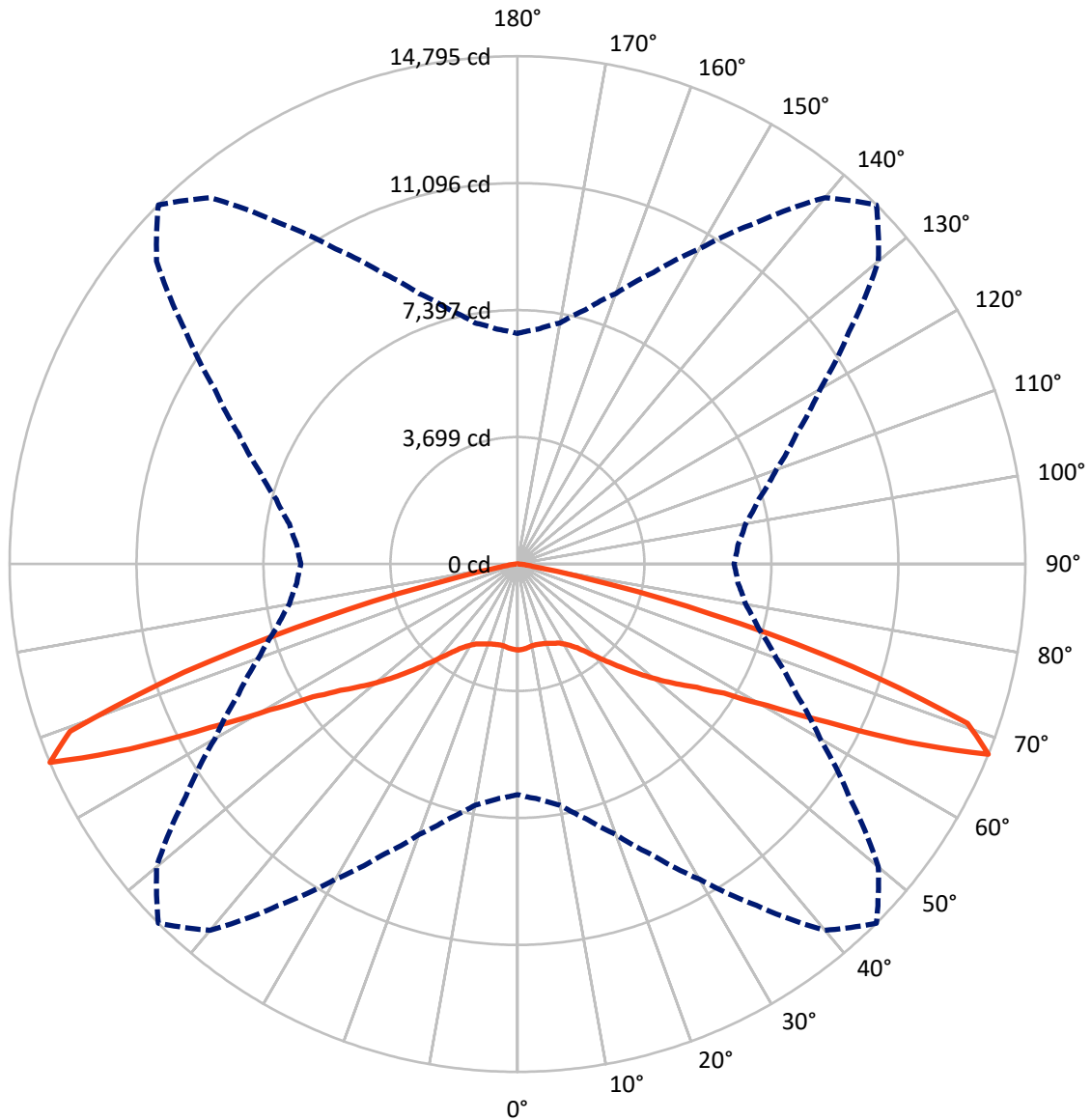
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P299596  
CATALOG NUMBER: GLNA-AF-04-LED-E1-5MQ

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P299596

CATALOG NUMBER: GLNA-AF-04-LED-E1-5MQ

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12569.0	0.0	12569.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12569.0	0.0	12569.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25138.0	0.0	25138.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.5	0.9
10°-20°	680.4	2.7
20°-30°	1156.6	4.6
30°-40°	1890.7	7.5
40°-50°	3375.3	13.4
50°-60°	5690.8	22.6
60°-70°	8831.4	35.1
70°-80°	3102.9	12.3
80°-90°	175.4	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°	25138.0	100.0
0°-180°	25138.0	100.0



REPORT NUMBER: P299596

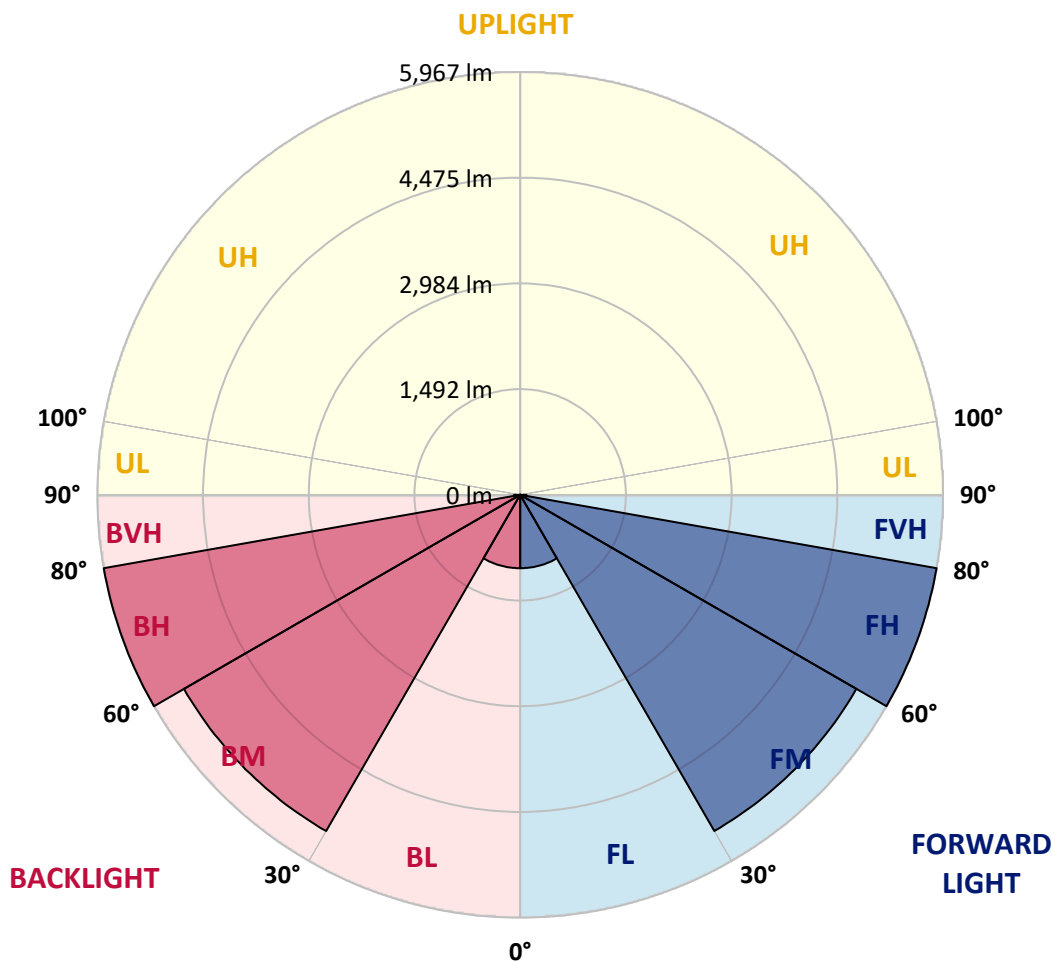
CATALOG NUMBER: GLNA-AF-04-LED-E1-5MQ

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1035.7	4.1			
FM	(30°-60°)	5478.4	21.8			
FH	(60°-80°)	5967.2	23.7			G3/7500
FVH	(80°-90°)	87.7	0.3			G1/100
BL	(0°-30°)	1035.7	4.1	B3/2500		
BM	(30°-60°)	5478.4	21.8	B4/8500		
BH	(60°-80°)	5967.2	23.7	B5		G3/7500
BVH	(80°-90°)	87.7	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





REPORT NUMBER: P299596

CATALOG NUMBER: GLNA-AF-04-LED-E1-5MQ

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1
2.5°	2495.9	2498.2	2498.2	2498.2	2497.0	2497.0	2494.7	2497.0	2495.9	2492.4	2493.5
5°	2475.1	2477.4	2477.4	2476.2	2479.7	2478.5	2475.1	2477.4	2476.2	2473.9	2475.1
7.5°	2445.0	2448.5	2448.5	2447.3	2450.8	2449.6	2447.3	2448.5	2448.5	2445.0	2445.0
10°	2411.5	2413.8	2413.8	2412.6	2418.4	2418.4	2417.3	2420.7	2421.9	2418.4	2416.1
12.5°	2380.3	2383.7	2383.7	2388.4	2394.1	2396.4	2402.2	2406.8	2411.5	2410.3	2405.7
15°	2361.8	2364.1	2368.7	2374.5	2383.7	2391.8	2401.1	2411.5	2420.7	2423.0	2416.1
17.5°	2350.2	2353.7	2360.6	2368.7	2381.4	2395.3	2409.2	2423.0	2435.7	2440.4	2432.3
20°	2346.7	2349.0	2356.0	2369.9	2387.2	2408.0	2427.7	2443.8	2461.2	2467.0	2461.2
22.5°	2353.7	2358.3	2366.4	2382.6	2405.7	2432.3	2455.4	2477.4	2499.3	2509.7	2501.6
25°	2384.9	2389.5	2399.9	2420.7	2446.2	2473.9	2500.5	2525.9	2545.6	2556.0	2550.2
27.5°	2442.7	2448.5	2461.2	2482.0	2509.7	2539.8	2568.7	2589.5	2605.7	2609.2	2602.2
30°	2529.4	2542.1	2557.1	2580.3	2612.6	2638.1	2667.0	2685.4	2705.1	2705.1	2699.3
32.5°	2664.6	2677.4	2693.5	2715.5	2740.9	2768.7	2794.1	2810.3	2831.1	2832.3	2818.4
35°	2866.9	2872.7	2886.6	2900.5	2923.6	2947.9	2969.8	2980.2	2997.6	2998.7	2986.0
37.5°	3134.0	3135.1	3144.4	3149.0	3169.8	3196.4	3217.2	3224.2	3240.3	3238.0	3225.3
40°	3445.0	3450.7	3454.2	3461.1	3483.1	3508.5	3530.5	3534.0	3551.3	3547.8	3531.7
42.5°	3804.5	3806.8	3826.4	3836.9	3857.7	3870.4	3898.1	3901.6	3922.4	3913.1	3894.7
45°	4207.9	4228.7	4247.2	4268.0	4290.0	4305.0	4327.0	4322.4	4336.3	4322.4	4312.0
47.5°	4632.2	4647.2	4688.8	4721.2	4757.0	4769.8	4801.0	4787.1	4801.0	4781.3	4777.9
50°	5099.2	5125.8	5161.7	5198.7	5236.8	5257.6	5298.1	5280.7	5299.2	5280.7	5270.3
52.5°	5559.3	5566.3	5644.9	5699.2	5752.4	5776.7	5800.9	5792.8	5794.0	5792.8	5782.4
55°	5996.3	6012.5	6091.1	6165.1	6257.6	6325.8	6367.4	6362.8	6352.4	6342.0	6324.6
57.5°	6488.8	6505.0	6595.1	6686.5	6791.7	6888.8	6973.2	7059.9	7093.4	7102.6	7064.5
60°	7154.6	7153.5	7273.7	7384.7	7535.0	7679.5	7864.4	8052.9	8269.1	8369.6	8236.7
62.5°	7832.1	7859.8	8033.2	8229.8	8539.6	8841.3	9182.3	9517.6	9859.7	10138.4	9842.4
65°	7751.2	7857.5	8115.3	8560.4	9132.6	9812.4	10547.6	11325.6	12028.5	12511.7	11969.5
67.5°	6717.7	6869.1	7131.5	7672.5	8388.1	9368.4	10603.1	12141.7	13930.1	14794.8	13723.2
70°	4869.2	5040.3	5315.4	5843.7	6552.4	7484.1	8825.1	10672.4	13040.0	13911.6	12731.3
72.5°	2423.0	2515.5	2685.4	3021.9	3558.2	4314.3	5530.4	7306.1	9400.8	10200.8	9122.2
75°	823.1	865.9	894.8	1004.6	1174.5	1471.6	2076.2	3194.1	4872.7	5841.4	4803.3
77.5°	475.1	476.3	495.9	515.6	544.5	576.9	657.8	863.6	1493.6	2121.3	1545.6
80°	307.5	306.3	322.5	337.6	357.2	373.4	378.0	400.0	461.3	546.8	489.0
82.5°	159.5	179.2	215.0	234.7	271.7	278.6	269.4	261.3	276.3	286.7	293.6
85°	87.9	76.3	114.4	148.0	164.2	166.5	166.5	157.2	163.0	159.5	173.4
87.5°	40.5	37.0	45.1	72.8	77.5	65.9	69.4	61.3	43.9	42.8	48.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299596

CATALOG NUMBER: GLNA-AF-04-LED-E1-5MQ

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1	2505.1
2.5°	2493.5	2494.7	2494.7	2498.2	2499.3	2501.6	2504.0	2505.1
5°	2473.9	2477.4	2475.1	2478.5	2478.5	2480.8	2480.8	2482.0
7.5°	2445.0	2448.5	2448.5	2448.5	2447.3	2450.8	2450.8	2450.8
10°	2414.9	2417.3	2416.1	2413.8	2411.5	2414.9	2413.8	2412.6
12.5°	2405.7	2399.9	2395.3	2393.0	2388.4	2389.5	2386.0	2386.0
15°	2411.5	2401.1	2393.0	2389.5	2384.9	2382.6	2380.3	2381.4
17.5°	2426.5	2413.8	2403.4	2397.6	2391.8	2388.4	2383.7	2384.9
20°	2453.1	2438.1	2423.0	2411.5	2401.1	2395.3	2391.8	2390.7
22.5°	2492.4	2470.4	2448.5	2431.1	2417.3	2409.2	2405.7	2403.4
25°	2537.5	2513.2	2487.8	2468.1	2454.2	2443.8	2436.9	2436.9
27.5°	2594.1	2574.5	2551.4	2528.2	2515.5	2505.1	2500.5	2498.2
30°	2688.9	2670.4	2651.9	2630.0	2613.8	2603.4	2595.3	2588.3
32.5°	2810.3	2795.3	2780.2	2764.1	2749.0	2735.2	2722.4	2716.7
35°	2981.4	2969.8	2959.4	2940.9	2935.2	2927.1	2920.1	2914.3
37.5°	3217.2	3212.6	3212.6	3192.9	3188.3	3184.9	3177.9	3179.1
40°	3527.0	3531.7	3525.9	3518.9	3515.5	3506.2	3506.2	3514.3
42.5°	3893.5	3897.0	3909.7	3898.1	3910.8	3899.3	3892.3	3898.1
45°	4318.9	4331.6	4357.1	4345.5	4353.6	4333.9	4309.7	4310.8
47.5°	4796.4	4807.9	4818.3	4810.2	4811.4	4779.0	4746.6	4738.6
50°	5292.3	5296.9	5302.7	5291.1	5293.4	5257.6	5220.6	5221.8
52.5°	5782.4	5804.4	5827.5	5796.3	5789.4	5748.9	5696.9	5676.1
55°	6343.1	6374.3	6347.7	6293.4	6239.1	6184.7	6116.5	6105.0
57.5°	7034.4	6981.2	6898.0	6795.1	6720.0	6643.7	6574.3	6545.4
60°	7996.2	7796.2	7646.0	7493.4	7397.4	7303.8	7212.4	7198.6
62.5°	9355.7	9010.1	8710.7	8395.1	8137.3	7936.1	7775.4	7730.3
65°	11059.7	10242.4	9533.7	8872.5	8298.0	7864.4	7591.6	7471.4
67.5°	11792.6	10178.8	8963.8	8025.1	7273.7	6748.9	6454.1	6307.3
70°	10362.6	8441.3	7120.0	6180.1	5495.7	4936.2	4669.2	4512.0
72.5°	7129.2	5369.7	4246.1	3465.8	2919.0	2450.8	2265.8	2251.9
75°	3201.0	2120.2	1461.2	1126.0	947.9	824.2	786.1	757.2
77.5°	895.9	662.4	590.7	552.6	515.6	472.8	456.6	460.1
80°	435.8	411.5	395.4	371.1	337.6	301.7	285.5	292.5
82.5°	289.0	285.5	295.9	278.6	230.0	195.4	164.2	150.3
85°	175.7	178.0	181.5	182.7	154.9	108.7	74.0	83.2
87.5°	69.4	79.8	86.7	90.2	84.4	52.0	41.6	42.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)