

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: P299980

Luminaire Tested: **GLNA-AF-08-LED-E1-5WQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299980
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-08-LED-E1-5WQ-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32985.8 lumens
Efficiency: N/A
Efficacy: 128.3 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): 257
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

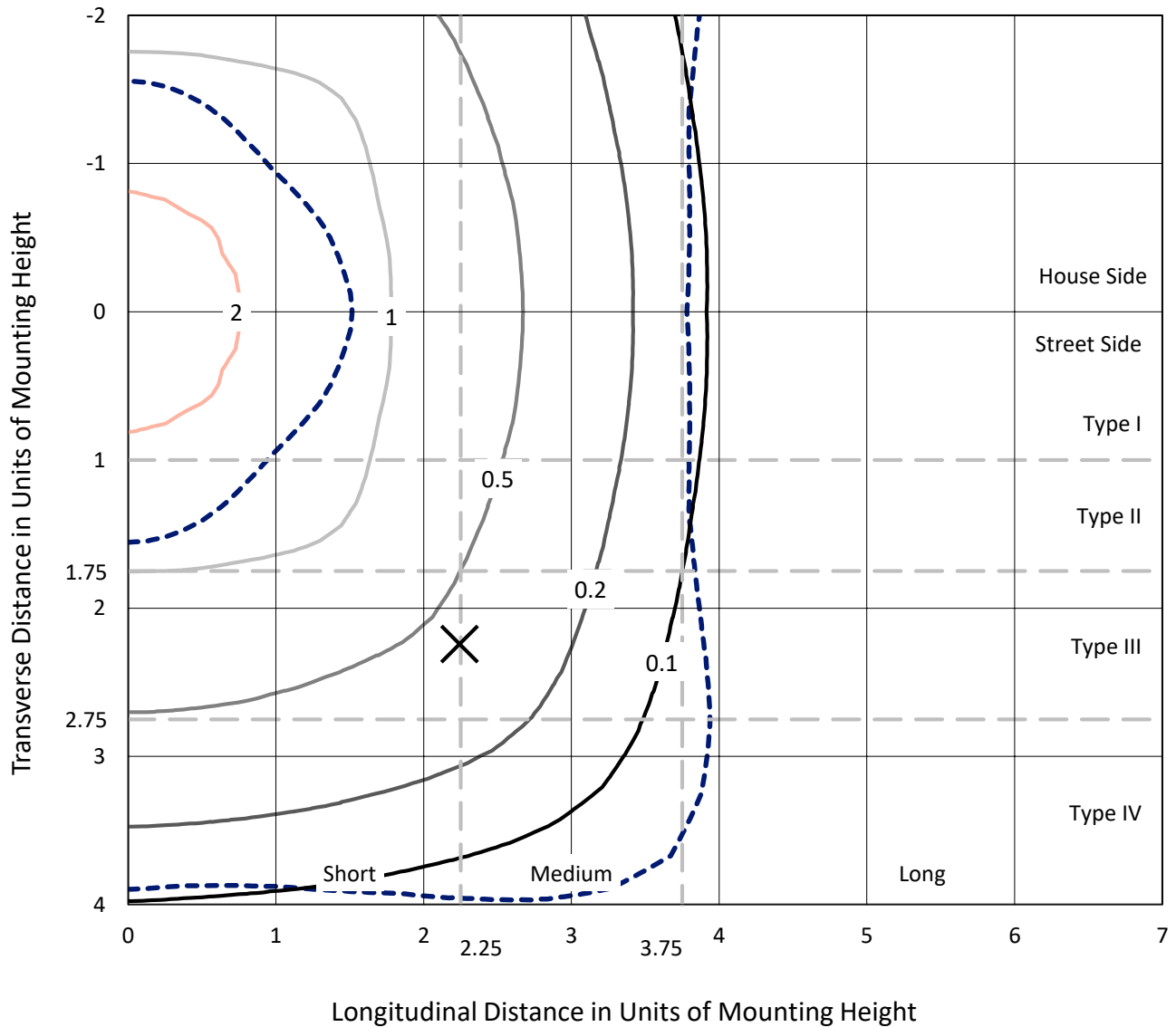


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

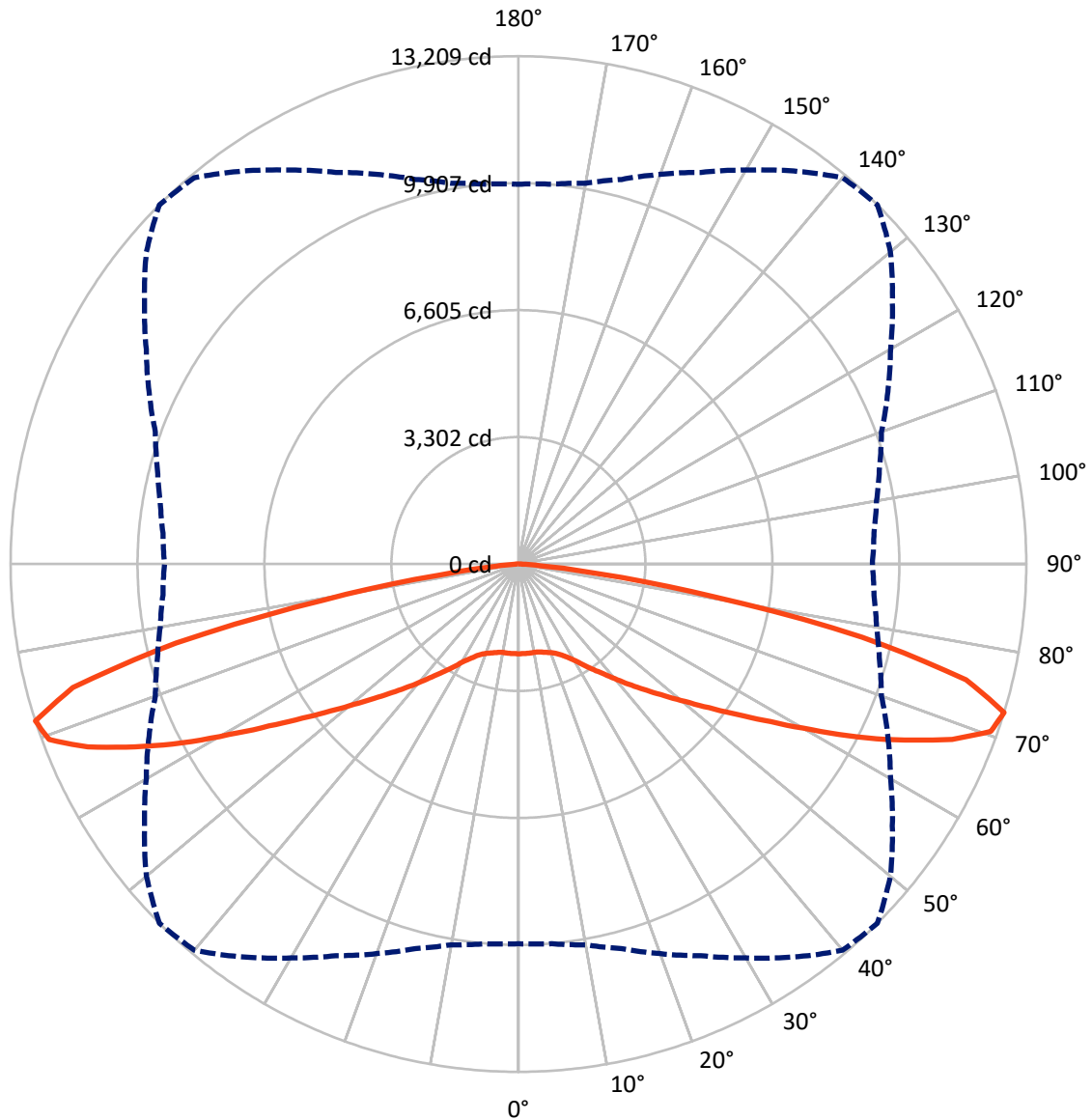


Based on 30 foot mounting height. Maximum calculated value = 2.6 fc
 Type V - Short - Semi-Cutoff

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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	16492.9	0.0	16492.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	16492.9	0.0	16492.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	32985.8	0.0	32985.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.1	0.7
10°-20°	677.4	2.1
20°-30°	1237.9	3.8
30°-40°	2134.4	6.5
40°-50°	3648.8	11.1
50°-60°	5914.2	17.9
60°-70°	9811.5	29.7
70°-80°	8641.6	26.2
80°-90°	696.8	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°	32985.8	100.0
0°-180°	32985.8	100.0



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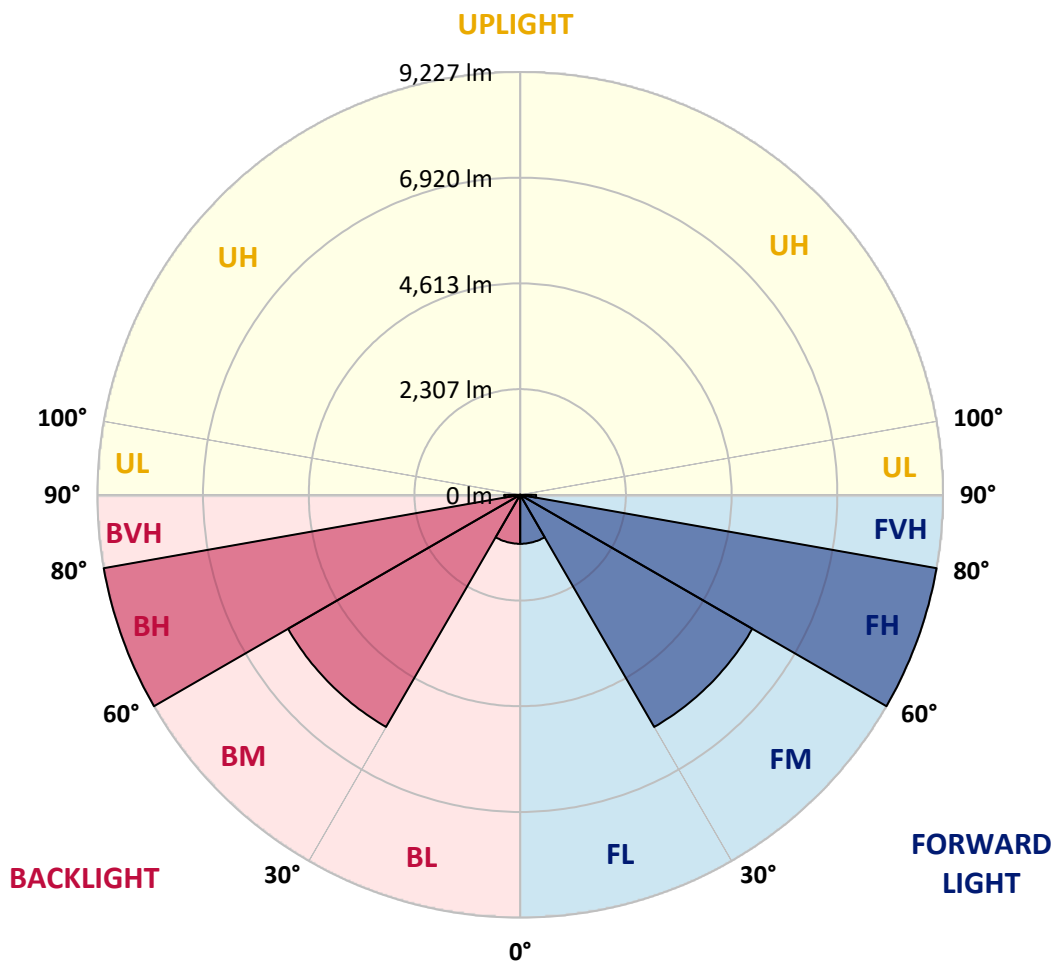
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1069.2	3.2			
FM	(30°-60°)	5848.7	17.7			
FH	(60°-80°)	9226.6	28.0			G4/12000
FVH	(80°-90°)	348.4	1.1			G3/500
BL	(0°-30°)	1069.2	3.2	B3/2500		
BM	(30°-60°)	5848.7	17.7	B4/8500		
BH	(60°-80°)	9226.6	28.0	B5		G4/12000
BVH	(80°-90°)	348.4	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°	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9
2.5°	2335.9	2337.4	2338.9	2337.4	2337.4	2335.9	2334.4	2335.9	2334.4	2331.4	2332.9
5°	2343.5	2346.5	2346.5	2343.5	2345.0	2343.5	2340.4	2342.0	2338.9	2334.4	2334.4
7.5°	2352.6	2354.1	2354.1	2351.0	2352.6	2349.5	2346.5	2345.0	2342.0	2335.9	2331.4
10°	2366.2	2367.7	2366.2	2363.1	2363.1	2358.6	2351.0	2348.0	2342.0	2332.9	2328.3
12.5°	2381.3	2382.8	2381.3	2378.3	2376.8	2369.2	2363.1	2358.6	2354.1	2346.5	2338.9
15°	2402.5	2405.5	2402.5	2396.4	2391.9	2385.8	2382.8	2384.3	2385.8	2379.8	2372.2
17.5°	2441.8	2443.3	2438.8	2425.2	2419.1	2413.1	2413.1	2416.1	2420.6	2417.6	2410.0
20°	2514.4	2509.9	2499.3	2482.7	2475.1	2464.5	2463.0	2464.5	2464.5	2463.0	2456.9
22.5°	2605.2	2602.2	2588.6	2567.4	2556.8	2550.7	2541.7	2534.1	2532.6	2528.0	2522.0
25°	2714.1	2712.6	2696.0	2677.8	2670.3	2662.7	2655.1	2644.5	2635.5	2624.9	2618.8
27.5°	2853.3	2847.3	2823.1	2814.0	2803.4	2798.9	2788.3	2776.2	2768.6	2755.0	2747.4
30°	3006.1	3006.1	2986.5	2983.4	2983.4	2972.8	2960.7	2939.6	2925.9	2912.3	2907.8
32.5°	3158.9	3160.4	3140.8	3146.8	3151.4	3158.9	3162.0	3154.4	3145.3	3143.8	3134.7
35°	3379.8	3373.8	3354.1	3358.6	3357.1	3355.6	3355.6	3372.2	3375.3	3378.3	3360.1
37.5°	3653.6	3653.6	3634.0	3634.0	3624.9	3615.8	3603.7	3614.3	3630.9	3635.5	3623.4
40°	3966.8	3977.4	3953.2	3951.7	3954.7	3926.0	3912.3	3929.0	3939.6	3957.7	3944.1
42.5°	4336.0	4328.4	4304.2	4301.2	4284.5	4275.4	4263.3	4277.0	4293.6	4305.7	4310.2
45°	4690.0	4683.9	4656.7	4656.7	4640.0	4632.5	4638.5	4661.2	4668.8	4685.4	4702.1
47.5°	5039.5	5031.9	5013.7	5021.3	5022.8	5036.4	5056.1	5077.3	5098.5	5121.2	5128.7
50°	5396.5	5398.0	5378.3	5396.5	5419.2	5457.0	5510.0	5544.8	5588.6	5617.4	5626.5
52.5°	5721.8	5727.8	5749.0	5791.4	5836.7	5910.9	6001.7	6086.4	6159.0	6207.4	6204.4
55°	6112.1	6121.2	6172.6	6245.2	6319.4	6431.3	6566.0	6715.7	6836.8	6906.4	6862.5
57.5°	6611.4	6631.0	6688.5	6786.8	6897.3	7042.5	7227.1	7452.5	7640.1	7733.9	7662.8
60°	7296.7	7308.8	7378.4	7487.3	7620.5	7800.5	8047.1	8349.7	8614.4	8738.5	8656.8
62.5°	8199.9	8222.6	8278.6	8389.0	8525.2	8729.4	9030.5	9408.7	9738.5	9911.0	9726.4
65°	9278.6	9351.2	9398.1	9510.1	9637.1	9853.5	10168.2	10573.6	10927.6	11041.1	10827.8
67.5°	10346.7	10410.2	10491.9	10620.5	10749.1	10992.7	11284.7	11678.0	12066.9	12169.7	11838.4
70°	10814.2	10850.5	10977.6	11153.1	11399.7	11687.1	12024.5	12466.3	12947.4	13032.1	12611.5
72.5°	9877.7	9914.0	10056.2	10354.3	10783.9	11240.8	11829.3	12478.4	13113.8	13209.1	12629.6
75°	7470.7	7411.7	7622.0	8016.8	8596.3	9233.2	10056.2	10986.6	11905.0	12024.5	11333.1
77.5°	3860.9	3853.3	4012.2	4502.4	5193.8	5918.4	6824.7	7876.1	8774.8	9137.9	8575.1
80°	1087.8	1099.9	1175.5	1419.1	1823.0	2346.5	3054.5	4039.4	4774.7	5149.9	4835.2
82.5°	426.6	459.9	488.7	534.1	587.0	664.2	886.6	1319.2	1770.1	2115.0	1732.3
85°	152.8	163.4	231.5	273.8	278.4	293.5	334.3	390.3	470.5	561.3	461.4
87.5°	57.5	63.5	74.1	122.5	121.0	110.4	134.6	140.7	105.9	96.8	119.5
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°	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9	2335.9
2.5°	2329.9	2331.4	2331.4	2332.9	2334.4	2334.4	2337.4	2337.4
5°	2331.4	2331.4	2328.3	2329.9	2328.3	2328.3	2329.9	2329.9
7.5°	2328.3	2326.8	2323.8	2322.3	2319.3	2319.3	2319.3	2319.3
10°	2323.8	2322.3	2319.3	2317.8	2316.2	2316.2	2316.2	2316.2
12.5°	2335.9	2331.4	2328.3	2326.8	2326.8	2326.8	2326.8	2326.8
15°	2367.7	2357.1	2349.5	2349.5	2351.0	2354.1	2354.1	2357.1
17.5°	2407.0	2394.9	2387.3	2381.3	2384.3	2388.9	2391.9	2394.9
20°	2453.9	2447.9	2437.3	2431.2	2431.2	2437.3	2440.3	2441.8
22.5°	2519.0	2514.4	2509.9	2502.3	2502.3	2505.4	2511.4	2511.4
25°	2615.8	2612.8	2609.7	2603.7	2602.2	2602.2	2605.2	2608.2
27.5°	2736.8	2738.3	2735.3	2733.8	2729.3	2727.7	2732.3	2730.8
30°	2898.7	2906.3	2913.8	2907.8	2900.2	2895.7	2891.1	2885.1
32.5°	3118.1	3109.0	3102.9	3092.4	3078.7	3066.6	3057.6	3047.0
35°	3325.3	3310.2	3304.2	3313.2	3311.7	3304.2	3293.6	3284.5
37.5°	3579.5	3576.5	3579.5	3596.2	3593.1	3600.7	3579.5	3578.0
40°	3900.2	3903.3	3924.5	3944.1	3954.7	3965.3	3953.2	3941.1
42.5°	4272.4	4270.9	4278.5	4305.7	4323.9	4336.0	4310.2	4307.2
45°	4665.8	4655.2	4661.2	4683.9	4702.1	4715.7	4686.9	4686.9
47.5°	5098.5	5080.3	5060.6	5086.4	5096.9	5106.0	5083.3	5075.8
50°	5581.1	5543.2	5500.9	5511.5	5511.5	5508.5	5479.7	5478.2
52.5°	6134.8	6065.2	5988.0	5959.3	5942.7	5924.5	5874.6	5850.4
55°	6771.7	6667.3	6546.3	6472.2	6432.8	6382.9	6299.7	6277.0
57.5°	7516.1	7352.7	7143.9	7053.1	6965.4	6883.7	6791.4	6765.7
60°	8398.1	8157.5	7880.7	7712.7	7617.4	7538.8	7443.4	7438.9
62.5°	9381.5	9001.7	8688.6	8537.3	8467.7	8398.1	8307.3	8319.4
65°	10381.5	9985.1	9691.6	9569.1	9504.0	9446.5	9355.7	9369.4
67.5°	11367.9	11003.3	10681.0	10555.5	10482.9	10410.2	10328.5	10342.2
70°	12075.9	11623.6	11260.5	10982.1	10808.1	10611.4	10484.4	10452.6
72.5°	11873.2	11175.8	10599.3	10047.1	9723.4	9460.1	9281.6	9204.5
75°	10275.6	9322.5	8581.1	7903.4	7522.1	7212.0	6986.5	6845.9
77.5°	7631.0	6559.9	5683.9	4903.3	4286.0	3871.5	3579.5	3390.4
80°	4177.1	3177.1	2322.3	1632.4	1199.7	997.0	880.5	824.5
82.5°	1301.1	839.7	618.8	534.1	496.2	475.0	440.3	384.3
85°	414.5	363.1	337.4	322.2	307.1	267.8	184.6	167.9
87.5°	160.4	164.9	163.4	154.3	157.3	113.5	90.8	80.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)