

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: P299984

Luminaire Tested: **GLNA-AF-09-LED-E1-5WQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299984
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-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 35591.7 lumens
Efficiency: N/A
Efficacy: 122.7 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): 290
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

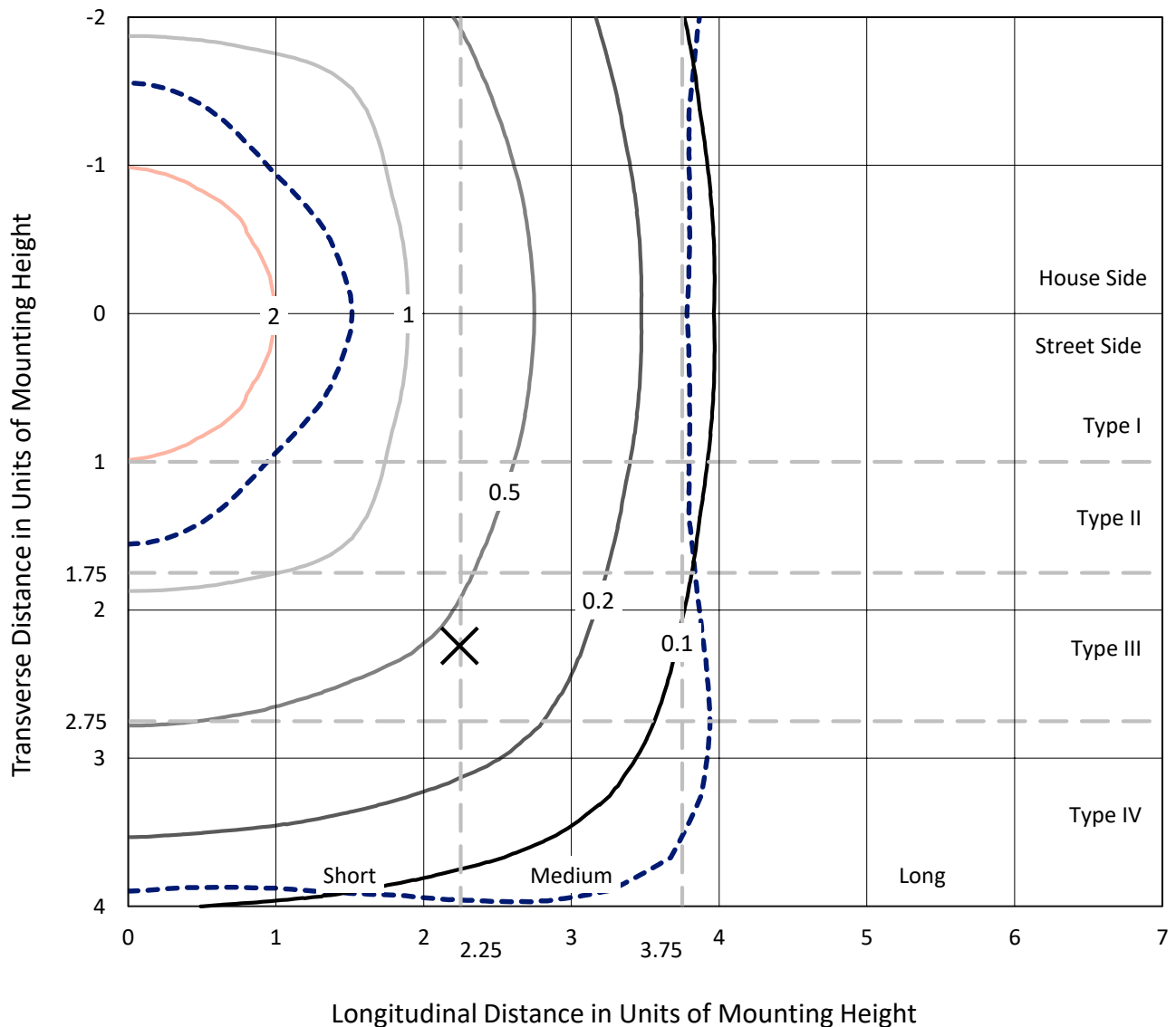


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

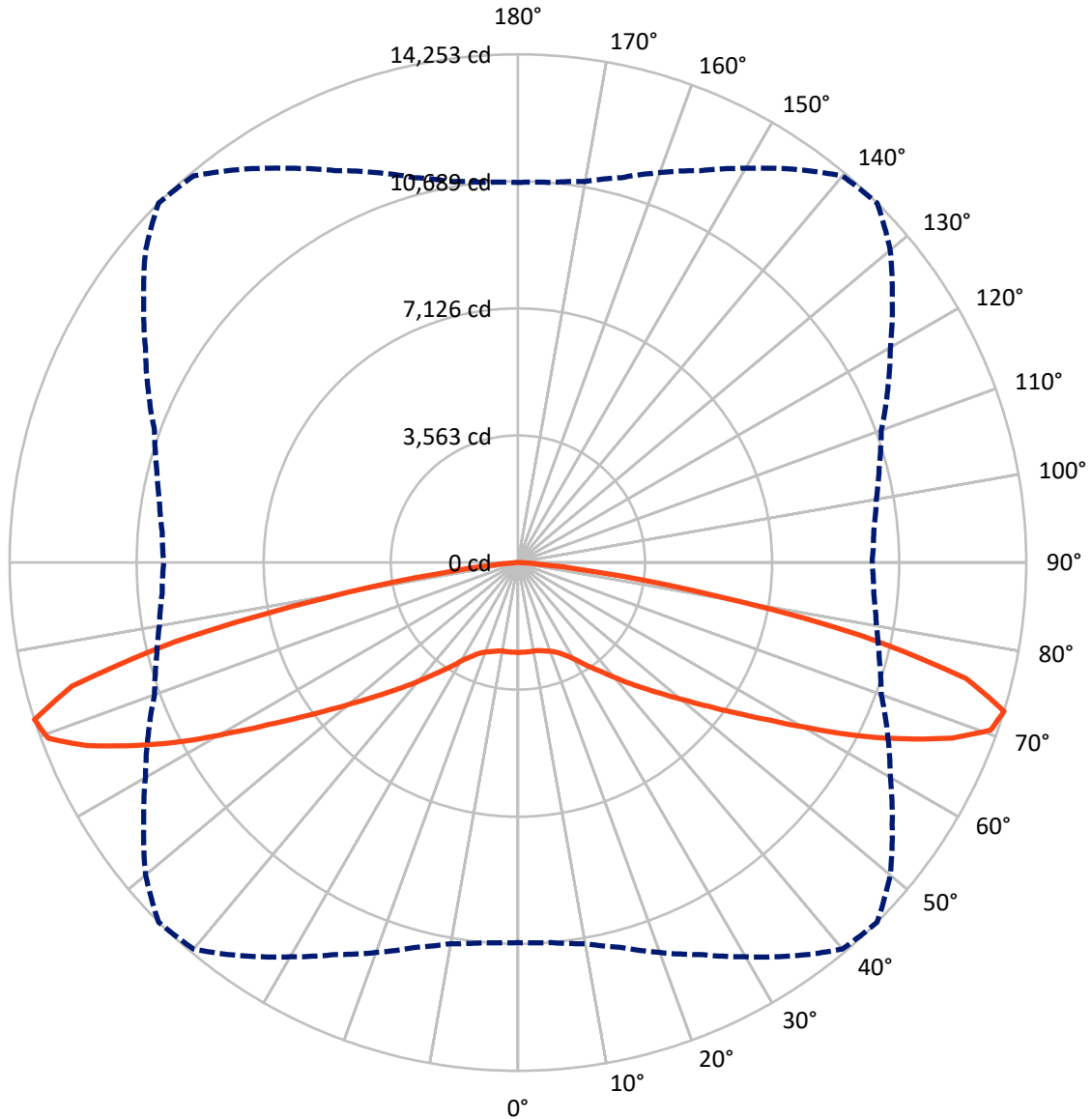


Based on 30 foot mounting height. Maximum calculated value = 2.8 fc
 Type V - Short - Semi-Cutoff

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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	17795.9	0.0	17795.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17795.9	0.0	17795.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	35591.7	0.0	35591.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.7	0.7
10°-20°	731.0	2.1
20°-30°	1335.7	3.8
30°-40°	2303.1	6.5
40°-50°	3937.1	11.1
50°-60°	6381.5	17.9
60°-70°	10586.6	29.7
70°-80°	9324.3	26.2
80°-90°	751.8	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°	35591.7	100.0
0°-180°	35591.7	100.0



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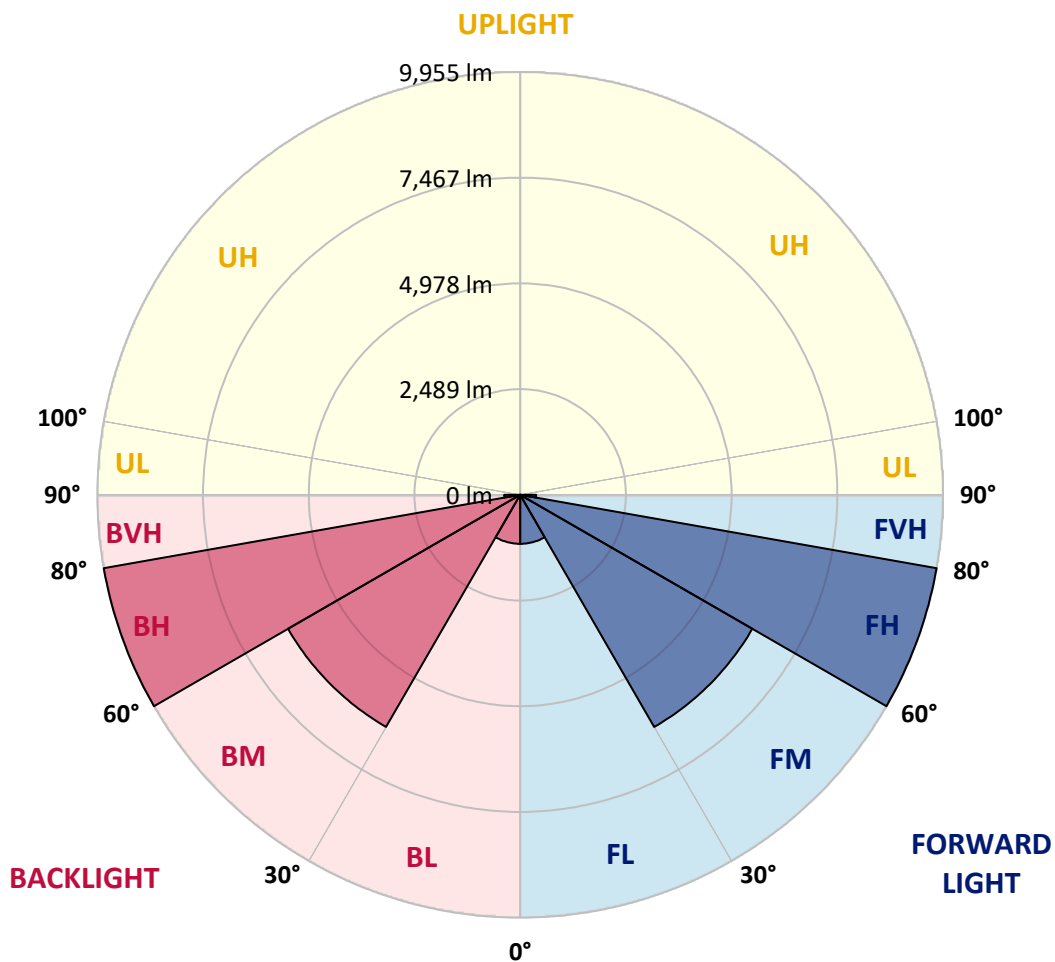
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1153.7	3.2			
FM	(30°-60°)	6310.8	17.7			
FH	(60°-80°)	9955.5	28.0			G4/12000
FVH	(80°-90°)	375.9	1.1			G3/500
BL	(0°-30°)	1153.7	3.2	B3/2500		
BM	(30°-60°)	6310.8	17.7	B4/8500		
BH	(60°-80°)	9955.5	28.0	B5		G4/12000
BVH	(80°-90°)	375.9	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°	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4
2.5°	2520.4	2522.1	2523.7	2522.1	2522.1	2520.4	2518.8	2520.4	2518.8	2515.5	2517.2
5°	2528.6	2531.9	2531.9	2528.6	2530.2	2528.6	2525.3	2527.0	2523.7	2518.8	2518.8
7.5°	2538.4	2540.0	2540.0	2536.8	2538.4	2535.1	2531.9	2530.2	2527.0	2520.4	2515.5
10°	2553.1	2554.7	2553.1	2549.8	2549.8	2544.9	2536.8	2533.5	2527.0	2517.2	2512.3
12.5°	2569.4	2571.1	2569.4	2566.2	2564.5	2556.4	2549.8	2544.9	2540.0	2531.9	2523.7
15°	2592.3	2595.5	2592.3	2585.7	2580.8	2574.3	2571.1	2572.7	2574.3	2567.8	2559.6
17.5°	2634.7	2636.3	2631.5	2616.8	2610.2	2603.7	2603.7	2607.0	2611.9	2608.6	2600.4
20°	2713.1	2708.2	2696.7	2678.8	2670.6	2659.2	2657.6	2659.2	2659.2	2657.6	2651.0
22.5°	2811.0	2807.8	2793.1	2770.2	2758.8	2752.2	2742.5	2734.3	2732.7	2727.8	2721.2
25°	2928.5	2926.9	2909.0	2889.4	2881.2	2873.0	2864.9	2853.5	2843.7	2832.2	2825.7
27.5°	3078.7	3072.2	3046.1	3036.3	3024.9	3020.0	3008.5	2995.5	2987.3	2972.6	2964.5
30°	3243.6	3243.6	3222.4	3219.1	3219.1	3207.7	3194.6	3171.8	3157.1	3142.4	3137.5
32.5°	3408.5	3410.1	3388.9	3395.4	3400.3	3408.5	3411.7	3403.6	3393.8	3392.2	3382.4
35°	3646.8	3640.3	3619.1	3624.0	3622.3	3620.7	3620.7	3638.6	3641.9	3645.2	3625.6
37.5°	3942.3	3942.3	3921.1	3921.1	3911.3	3901.5	3888.4	3899.8	3917.8	3922.7	3909.6
40°	4280.2	4291.6	4265.5	4263.9	4267.1	4236.1	4221.4	4239.4	4250.8	4270.4	4255.7
42.5°	4678.5	4670.3	4644.2	4641.0	4623.0	4613.2	4600.1	4614.8	4632.8	4645.8	4650.7
45°	5060.5	5054.0	5024.6	5024.6	5006.6	4998.4	5005.0	5029.5	5037.6	5055.6	5073.5
47.5°	5437.6	5429.4	5409.8	5418.0	5419.6	5434.3	5455.5	5478.4	5501.2	5525.7	5533.9
50°	5822.8	5824.5	5803.2	5822.8	5847.3	5888.1	5945.2	5982.8	6030.1	6061.2	6070.9
52.5°	6173.8	6180.3	6203.2	6248.9	6297.9	6377.8	6475.8	6567.2	6645.6	6697.8	6694.5
55°	6595.0	6604.7	6660.2	6738.6	6818.6	6939.4	7084.7	7246.3	7376.9	7452.0	7404.6
57.5°	7133.6	7154.9	7216.9	7323.0	7442.2	7598.9	7798.0	8041.3	8243.7	8344.9	8268.2
60°	7873.1	7886.2	7961.3	8078.8	8222.5	8416.7	8682.8	9009.3	9295.0	9428.8	9340.7
62.5°	8847.7	8872.2	8932.6	9051.7	9198.6	9419.0	9743.9	10152.0	10507.8	10693.9	10494.8
65°	10011.6	10089.9	10140.6	10261.4	10398.5	10631.9	10971.5	11408.9	11790.9	11913.4	11683.2
67.5°	11164.1	11232.6	11320.8	11459.5	11598.3	11861.1	12176.2	12600.6	13020.1	13131.1	12773.6
70°	11668.5	11707.7	11844.8	12034.2	12300.2	12610.4	12974.4	13451.1	13970.2	14061.6	13607.8
72.5°	10658.0	10697.2	10850.7	11172.2	11635.8	12128.8	12763.8	13464.1	14149.8	14252.6	13627.4
75°	8060.9	7997.2	8224.1	8650.2	9275.4	9962.6	10850.7	11854.6	12845.5	12974.4	12228.4
77.5°	4165.9	4157.8	4329.2	4858.1	5604.1	6386.0	7363.8	8498.3	9468.0	9859.8	9252.5
80°	1173.7	1186.8	1268.4	1531.2	1967.1	2531.9	3295.8	4358.5	5151.9	5556.7	5217.2
82.5°	460.3	496.3	527.3	576.2	633.4	716.6	956.6	1423.5	1909.9	2282.1	1869.1
85°	164.9	176.3	249.8	295.5	300.4	316.7	360.8	421.2	507.7	605.6	497.9
87.5°	62.0	68.6	80.0	132.2	130.6	119.2	145.3	151.8	114.3	104.5	129.0
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°	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4	2520.4
2.5°	2513.9	2515.5	2515.5	2517.2	2518.8	2518.8	2522.1	2522.1
5°	2515.5	2515.5	2512.3	2513.9	2512.3	2512.3	2513.9	2513.9
7.5°	2512.3	2510.7	2507.4	2505.8	2502.5	2502.5	2502.5	2502.5
10°	2507.4	2505.8	2502.5	2500.9	2499.2	2499.2	2499.2	2499.2
12.5°	2520.4	2515.5	2512.3	2510.7	2510.7	2510.7	2510.7	2510.7
15°	2554.7	2543.3	2535.1	2535.1	2536.8	2540.0	2540.0	2543.3
17.5°	2597.2	2584.1	2575.9	2569.4	2572.7	2577.6	2580.8	2584.1
20°	2647.8	2641.2	2629.8	2623.3	2623.3	2629.8	2633.1	2634.7
22.5°	2718.0	2713.1	2708.2	2700.0	2700.0	2703.3	2709.8	2709.8
25°	2822.4	2819.2	2815.9	2809.4	2807.8	2807.8	2811.0	2814.3
27.5°	2953.0	2954.7	2951.4	2949.8	2944.9	2943.2	2948.1	2946.5
30°	3127.7	3135.9	3144.0	3137.5	3129.3	3124.4	3119.5	3113.0
32.5°	3364.4	3354.6	3348.1	3336.7	3322.0	3308.9	3299.1	3287.7
35°	3588.0	3571.7	3565.2	3575.0	3573.4	3565.2	3553.8	3544.0
37.5°	3862.3	3859.0	3862.3	3880.2	3877.0	3885.1	3862.3	3860.7
40°	4208.4	4211.6	4234.5	4255.7	4267.1	4278.6	4265.5	4252.4
42.5°	4609.9	4608.3	4616.5	4645.8	4665.4	4678.5	4650.7	4647.5
45°	5034.4	5022.9	5029.5	5054.0	5073.5	5088.2	5057.2	5057.2
47.5°	5501.2	5481.6	5460.4	5488.2	5499.6	5509.4	5484.9	5476.7
50°	6022.0	5981.2	5935.5	5946.9	5946.9	5943.6	5912.6	5911.0
52.5°	6619.4	6544.3	6461.1	6430.1	6412.1	6392.5	6338.7	6312.5
55°	7306.7	7194.0	7063.5	6983.5	6941.0	6887.2	6797.4	6772.9
57.5°	8109.8	7933.5	7708.3	7610.3	7515.6	7427.5	7327.9	7300.2
60°	9061.5	8802.0	8503.2	8322.0	8219.2	8134.3	8031.5	8026.6
62.5°	10122.6	9712.9	9375.0	9211.7	9136.6	9061.5	8963.6	8976.6
65°	11201.6	10773.9	10457.2	10325.0	10254.8	10192.8	10094.8	10109.5
67.5°	12266.0	11872.5	11524.8	11389.3	11311.0	11232.6	11144.5	11159.2
70°	13029.9	12541.8	12150.1	11849.7	11662.0	11449.7	11312.6	11278.3
72.5°	12811.2	12058.6	11436.7	10840.9	10491.5	10207.5	10014.9	9931.6
75°	11087.4	10058.9	9259.0	8527.7	8116.4	7781.7	7538.5	7386.7
77.5°	8233.9	7078.1	6133.0	5290.7	4624.6	4177.3	3862.3	3658.2
80°	4507.1	3428.1	2505.8	1761.4	1294.5	1075.8	950.1	889.7
82.5°	1403.9	906.0	667.7	576.2	535.4	512.6	475.0	414.6
85°	447.3	391.8	364.0	347.7	331.4	288.9	199.2	181.2
87.5°	173.0	177.9	176.3	166.5	169.8	122.4	97.9	86.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)