

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: P300706

Luminaire Tested: **GLNA-AF-09-LED-E1-RW-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300706  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24166)  
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-RW-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Rectangular  
Wide Type I OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35711.7 lumens  
Efficiency: N/A  
Efficacy: 123.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B5 - U0 - G5

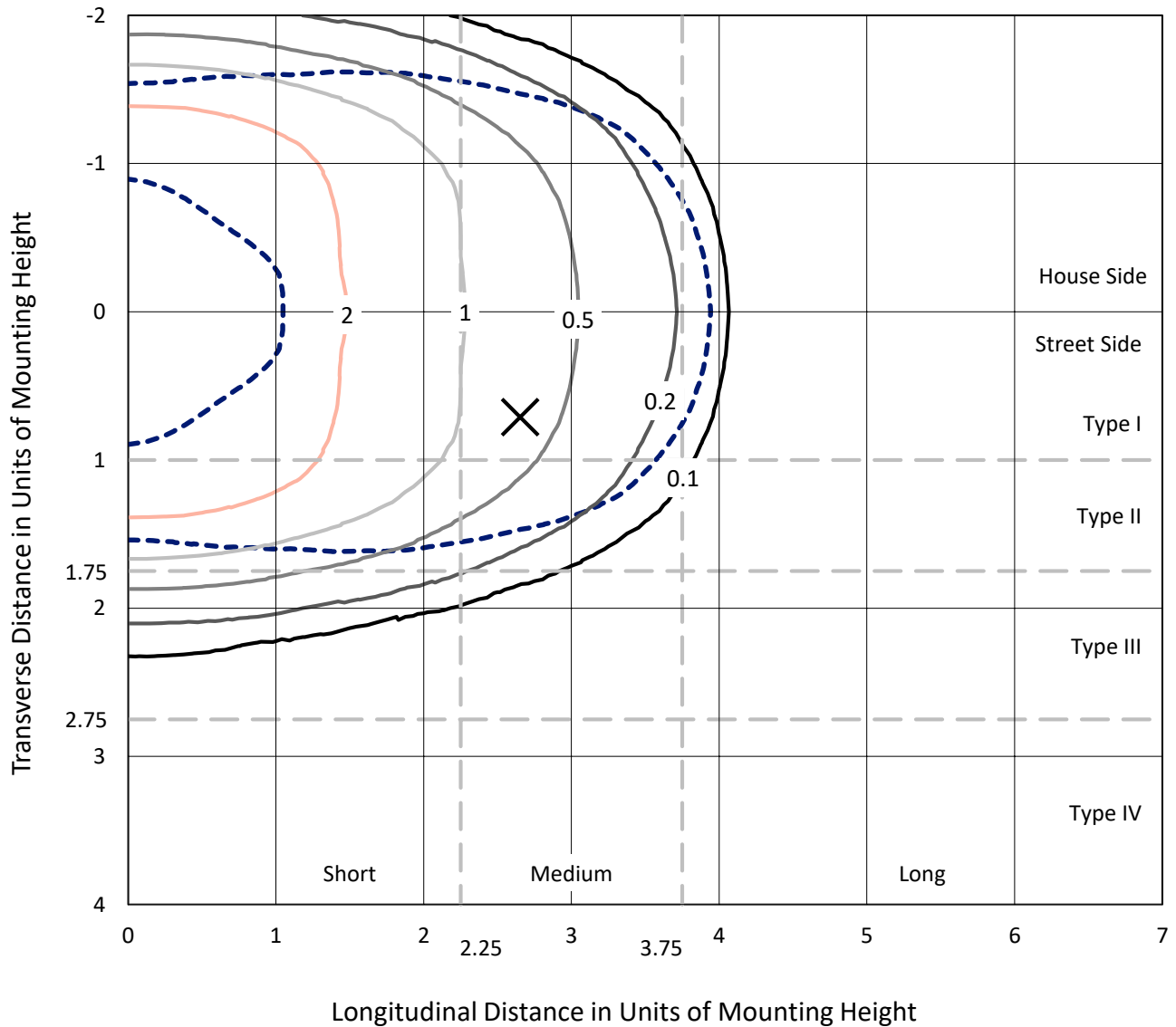
Input Watts (W): 290  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P300706  
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### Iso-Footcandle Lines of Horizontal Illumination

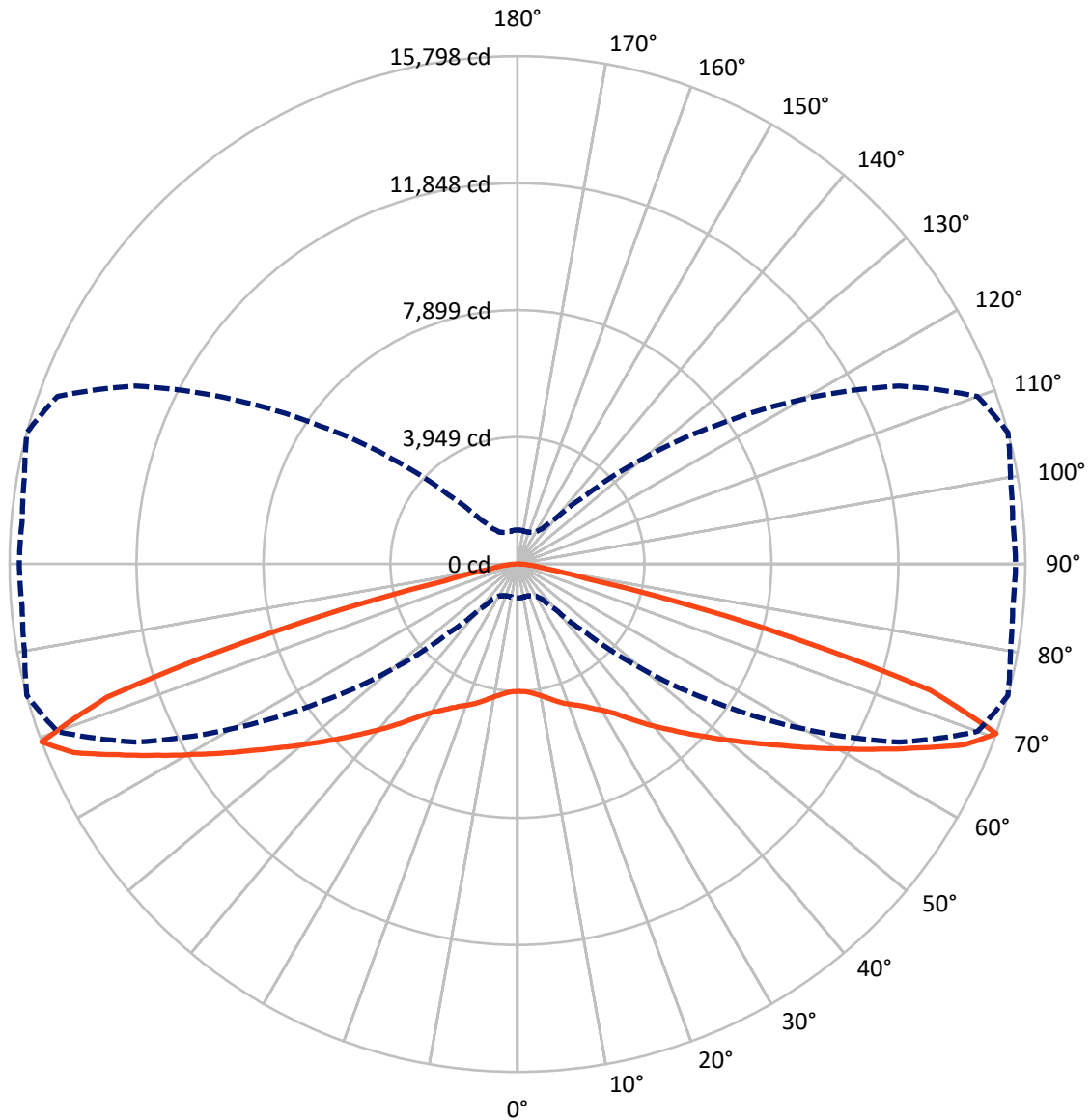
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P300706  
CATALOG NUMBER: GLNA-AF-09-LED-E1-RW-600

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	17855.9	0.0	17855.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	17855.9	0.0	17855.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	35711.7	0.0	35711.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	379.9	1.1
10°-20°	1180.5	3.3
20°-30°	2221.8	6.2
30°-40°	3934.4	11.0
40°-50°	6579.5	18.4
50°-60°	9168.6	25.7
60°-70°	8502.4	23.8
70°-80°	3388.5	9.5
80°-90°	356.2	1.0
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°	35711.7	100.0
0°-180°	35711.7	100.0

**Coefficient of Utilization**



REPORT NUMBER: P300706

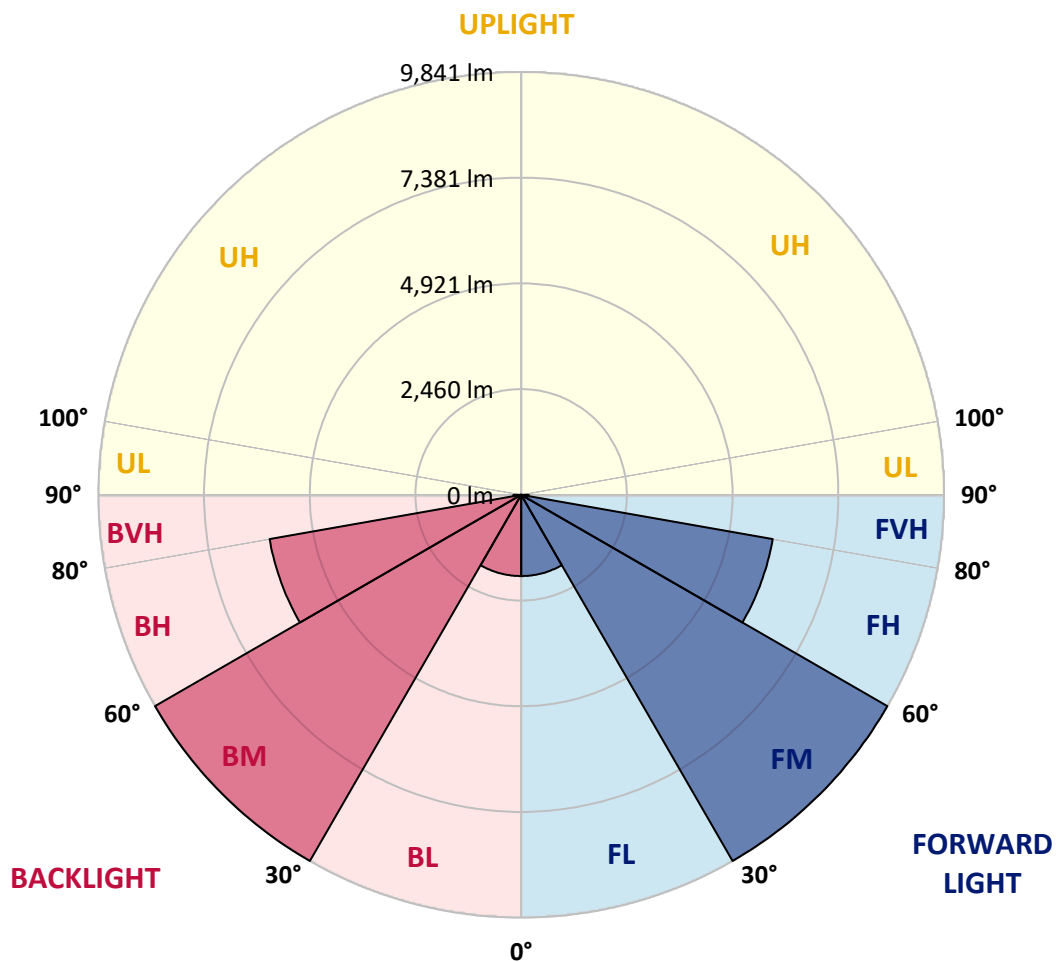
CATALOG NUMBER: GLNA-AF-09-LED-E1-RW-600

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1891.1	5.3			
FM	(30°-60°)	9841.3	27.6			
FH	(60°-80°)	5945.4	16.6			G3/7500
FVH	(80°-90°)	178.1	0.5			G2/225
BL	(0°-30°)	1891.1	5.3	B3/2500		
BM	(30°-60°)	9841.3	27.6	B5		
BH	(60°-80°)	5945.4	16.6	B5		G5
BVH	(80°-90°)	178.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**

Type II Medium





REPORT NUMBER: P300706

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3
2.5°	3954.5	3951.1	3954.5	3952.8	3956.2	3956.2	3959.6	3966.3	3966.3	3971.4	3969.7
5°	3915.7	3914.0	3919.1	3924.1	3929.2	3939.3	3949.4	3964.6	3976.5	3984.9	3993.3
7.5°	3839.7	3839.7	3846.5	3858.3	3870.1	3892.1	3915.7	3946.1	3976.5	4001.8	4023.7
10°	3777.3	3780.7	3789.1	3809.4	3829.6	3863.4	3895.4	3939.3	3981.5	4023.7	4057.5
12.5°	3740.2	3745.2	3760.4	3790.8	3824.5	3870.1	3919.1	3974.8	4022.0	4072.7	4106.4
15°	3752.0	3755.3	3777.3	3814.4	3858.3	3915.7	3981.5	4047.3	4103.0	4157.0	4202.6
17.5°	3817.8	3822.9	3848.2	3890.4	3935.9	4003.5	4074.3	4148.6	4217.8	4278.6	4334.3
20°	3935.9	3941.0	3973.1	4018.6	4072.7	4141.9	4212.7	4290.4	4368.0	4432.2	4494.6
22.5°	4103.0	4111.5	4141.9	4187.4	4248.2	4322.4	4406.8	4489.5	4563.8	4622.9	4678.6
25°	4322.4	4341.0	4369.7	4420.3	4484.5	4552.0	4643.1	4727.5	4798.4	4854.1	4894.6
27.5°	4633.0	4658.3	4680.3	4729.2	4791.7	4855.8	4946.9	5021.2	5088.7	5142.7	5173.1
30°	5044.8	5070.1	5092.1	5139.3	5196.7	5257.5	5343.6	5409.4	5451.6	5493.8	5492.1
32.5°	5544.4	5571.4	5579.9	5630.5	5689.6	5755.4	5833.0	5870.2	5903.9	5909.0	5878.6
35°	6103.1	6116.6	6150.3	6217.8	6285.4	6339.4	6413.6	6432.2	6432.2	6406.9	6339.4
37.5°	6715.7	6724.2	6771.4	6847.4	6916.6	6972.3	7022.9	7060.1	7041.5	6987.5	6874.4
40°	7387.5	7402.7	7470.2	7537.7	7615.3	7667.7	7721.7	7728.4	7709.9	7630.5	7476.9
42.5°	8028.9	8042.4	8109.9	8216.2	8317.5	8390.0	8440.7	8450.8	8391.7	8319.2	8128.4
45°	8580.8	8616.2	8704.0	8828.9	8975.7	9078.7	9147.9	9176.6	9124.2	9029.7	8808.6
47.5°	9017.9	9053.3	9178.2	9326.8	9509.1	9676.1	9790.9	9851.7	9838.2	9767.3	9525.9
50°	9338.6	9372.3	9507.4	9689.6	9902.3	10109.9	10305.7	10450.8	10501.5	10469.4	10248.3
52.5°	9375.7	9431.4	9590.1	9834.8	10111.6	10395.1	10673.6	10920.0	11087.1	11112.5	10948.7
55°	8857.6	8913.3	9132.7	9495.5	9907.4	10369.8	10815.4	11230.6	11559.7	11728.5	11642.4
57.5°	7635.6	7735.2	7966.4	8391.7	8997.6	9689.6	10400.2	11137.8	11807.8	12255.1	12341.2
60°	5851.6	5969.7	6202.7	6655.0	7330.1	8155.4	9104.0	10194.3	11377.4	12383.4	12984.2
62.5°	3753.7	3865.1	4109.8	4503.0	5053.3	5947.8	6965.5	8260.1	9850.0	11438.2	12869.5
65°	1929.2	1989.9	2118.2	2356.2	2784.9	3453.2	4366.3	5657.5	7475.3	9434.8	11504.0
67.5°	1222.0	1233.8	1262.5	1296.2	1405.9	1637.2	2062.5	2867.6	4363.0	6406.9	8828.9
70°	1056.6	1056.6	1043.1	1038.0	1051.5	1083.6	1149.4	1336.7	1841.4	3041.4	5092.1
72.5°	967.1	957.0	933.4	914.8	911.4	911.4	924.9	953.6	1034.6	1238.8	1993.3
75°	891.2	862.5	830.4	808.5	800.0	791.6	789.9	795.0	811.8	843.9	951.9
77.5°	798.3	761.2	724.1	702.1	692.0	680.2	670.1	658.2	649.8	659.9	707.2
80°	686.9	644.7	616.0	602.5	592.4	575.5	553.6	533.3	514.8	511.4	540.1
82.5°	553.6	504.7	506.3	511.4	492.8	469.2	445.6	423.6	391.6	374.7	391.6
85°	447.3	421.9	410.1	442.2	415.2	379.8	342.6	303.8	253.2	212.7	231.2
87.5°	173.8	173.8	259.9	400.0	359.5	293.7	251.5	214.4	133.3	103.0	104.6
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: P300706

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3	3961.3
2.5°	3968.0	3971.4	3969.7	3968.0	3968.0	3966.3	3968.0	3968.0
5°	3998.4	4006.8	4006.8	4010.2	4010.2	4011.9	4013.6	4011.9
7.5°	4044.0	4059.2	4069.3	4081.1	4082.8	4084.5	4087.8	4084.5
10°	4089.5	4119.9	4141.9	4163.8	4173.9	4177.3	4180.7	4180.7
12.5°	4146.9	4189.1	4227.9	4266.8	4285.3	4295.4	4295.4	4302.2
15°	4241.4	4283.6	4329.2	4381.5	4413.6	4430.5	4435.5	4435.5
17.5°	4374.8	4411.9	4450.7	4501.4	4541.9	4563.8	4568.9	4567.2
20°	4530.0	4565.5	4587.4	4619.5	4654.9	4680.3	4687.0	4687.0
22.5°	4707.3	4727.5	4730.9	4741.0	4769.7	4803.5	4818.7	4822.0
25°	4903.1	4908.1	4894.6	4894.6	4913.2	4945.2	4960.4	4962.1
27.5°	5156.2	5130.9	5097.1	5085.3	5097.1	5134.3	5152.8	5159.6
30°	5471.8	5411.1	5333.4	5291.2	5284.5	5333.4	5367.2	5372.3
32.5°	5833.0	5745.3	5642.3	5556.2	5534.3	5564.7	5605.2	5603.5
35°	6261.7	6157.1	6032.2	5922.5	5871.8	5902.2	5959.6	5966.4
37.5°	6756.3	6619.5	6476.1	6337.7	6258.4	6266.8	6327.6	6347.8
40°	7308.2	7130.9	6950.3	6764.7	6651.6	6629.7	6703.9	6715.7
42.5°	7898.9	7671.0	7443.2	7213.6	7068.5	7034.7	7120.8	7115.8
45°	8528.4	8238.1	7971.5	7718.3	7546.1	7495.5	7566.4	7566.4
47.5°	9205.2	8847.4	8530.1	8243.2	8055.9	7983.3	8050.8	8055.9
50°	9922.6	9542.8	9169.8	8850.8	8626.3	8533.5	8621.3	8634.8
52.5°	10636.5	10266.9	9890.5	9525.9	9254.2	9141.1	9242.4	9286.3
55°	11360.6	10997.7	10638.2	10282.1	9959.7	9826.4	9934.4	9990.1
57.5°	12125.1	11789.3	11446.6	11087.1	10776.6	10569.0	10683.8	10758.0
60°	13021.4	12734.4	12378.3	11981.7	11667.7	11456.8	11522.6	11588.4
62.5°	13730.2	13841.6	13539.5	13080.4	12677.0	12407.0	12471.1	12540.3
65°	13387.6	14530.2	14798.6	14334.5	13775.8	13355.5	13328.5	13364.0
67.5°	11190.1	13409.6	15028.1	15470.4	15002.8	14418.9	14310.8	14363.2
70°	7485.4	10250.0	13105.7	15232.4	15797.8	15571.6	15465.3	15497.4
72.5°	3595.0	5969.7	8891.3	11718.4	13439.9	14229.8	14483.0	14606.2
75°	1314.8	2369.7	4285.3	6457.5	7795.9	9024.7	9826.4	10153.8
77.5°	793.3	957.0	1368.8	2060.8	2334.2	2612.7	2504.7	2558.7
80°	587.4	663.3	751.1	843.9	874.3	874.3	840.5	813.5
82.5°	411.8	460.8	503.0	553.6	567.1	541.8	445.6	354.4
85°	265.0	286.9	305.5	337.6	329.1	313.9	211.0	187.3
87.5°	121.5	138.4	145.2	160.3	153.6	146.8	104.6	87.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)