

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: P299752

Luminaire Tested: **GLNA-AF-10-LED-E1-5MQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299752
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-10-LED-E1-5MQ-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40633.6 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 323
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

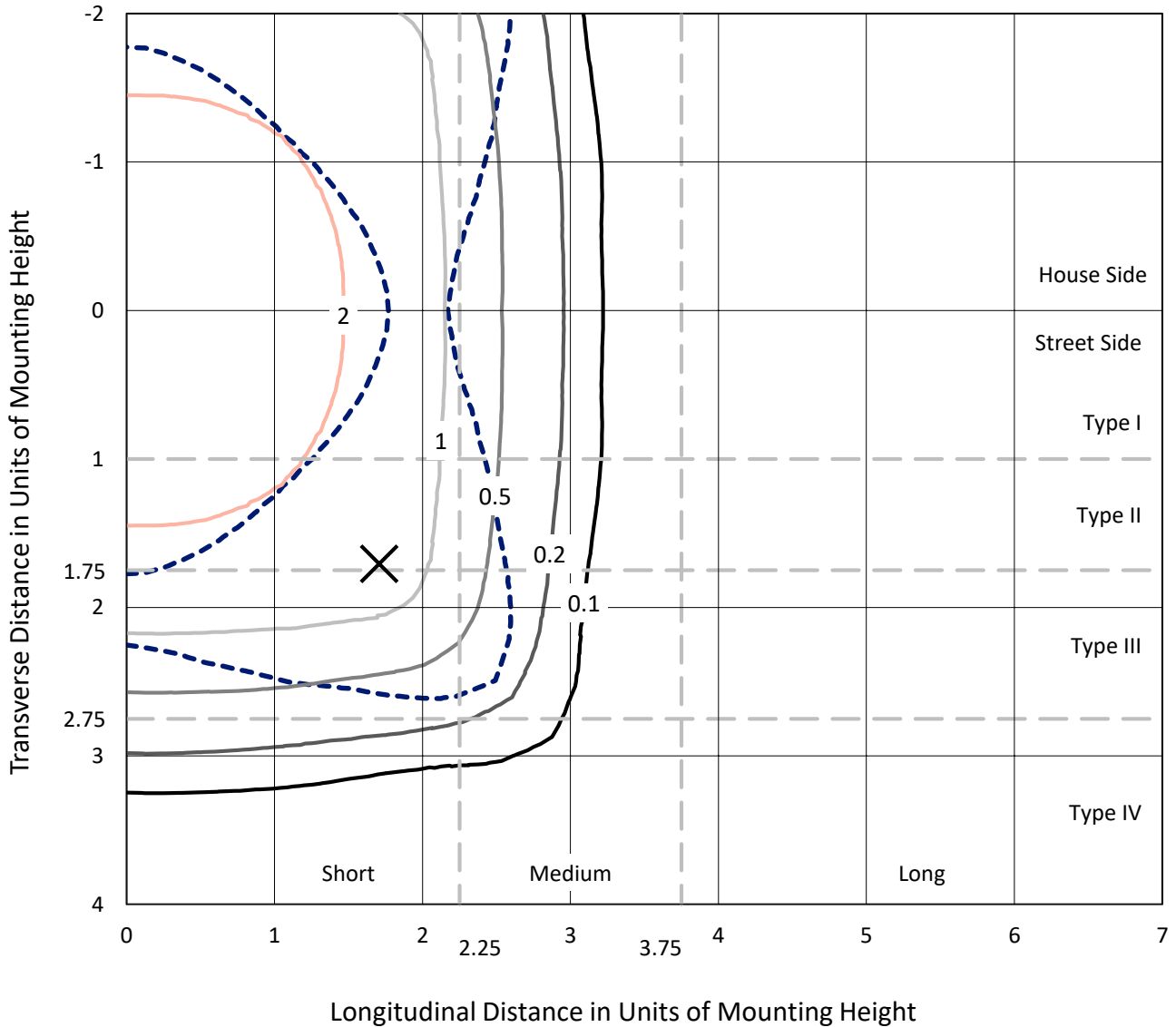


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

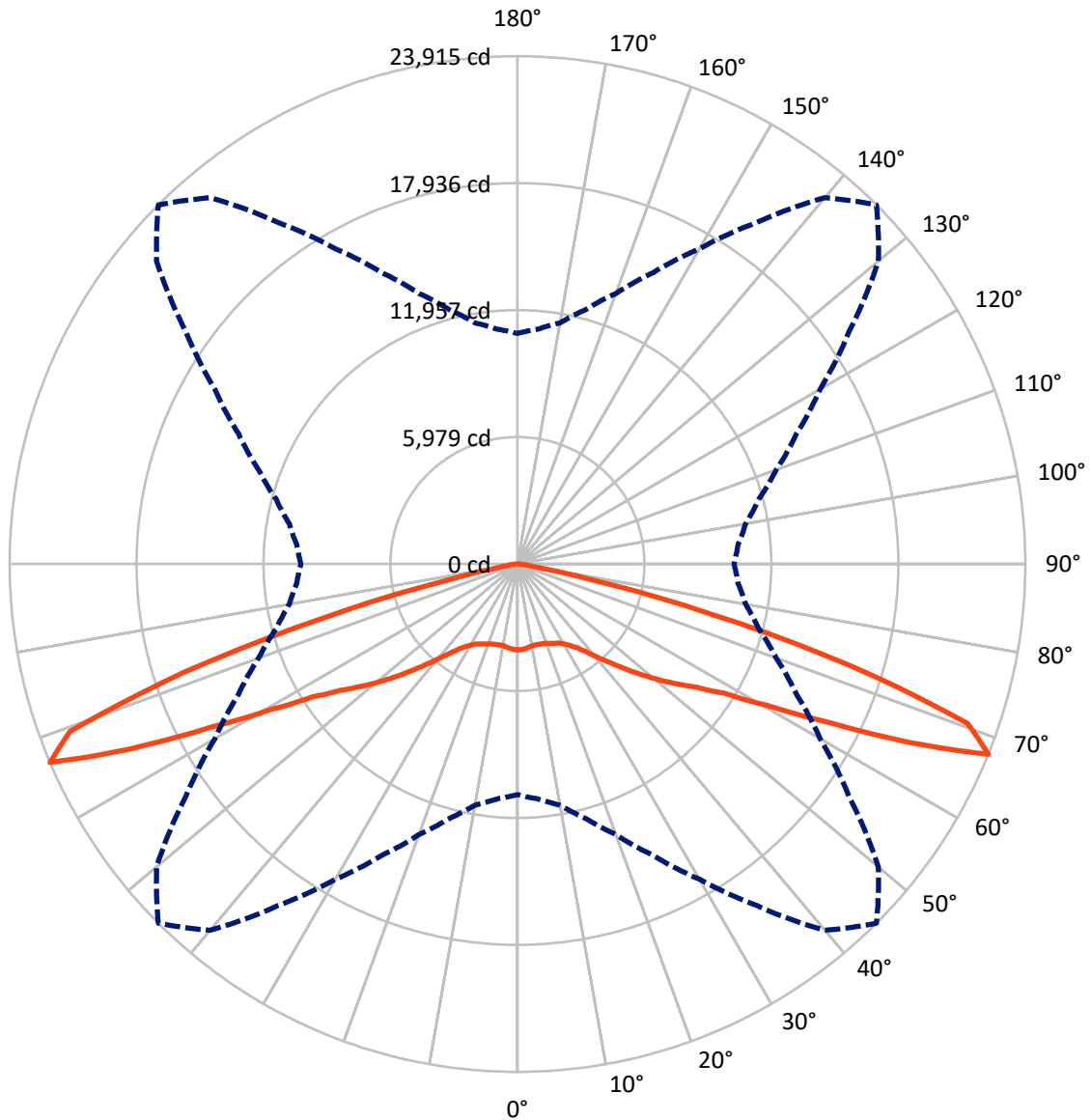


Based on 30 foot mounting height. Maximum calculated value = 4.5 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20316.8	0.0	20316.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	20316.8	0.0	20316.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	40633.6	0.0	40633.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	379.0	0.9
10°-20°	1099.8	2.7
20°-30°	1869.6	4.6
30°-40°	3056.2	7.5
40°-50°	5455.9	13.4
50°-60°	9198.8	22.6
60°-70°	14275.2	35.1
70°-80°	5015.7	12.3
80°-90°	283.5	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°	40633.6	100.0
0°-180°	40633.6	100.0



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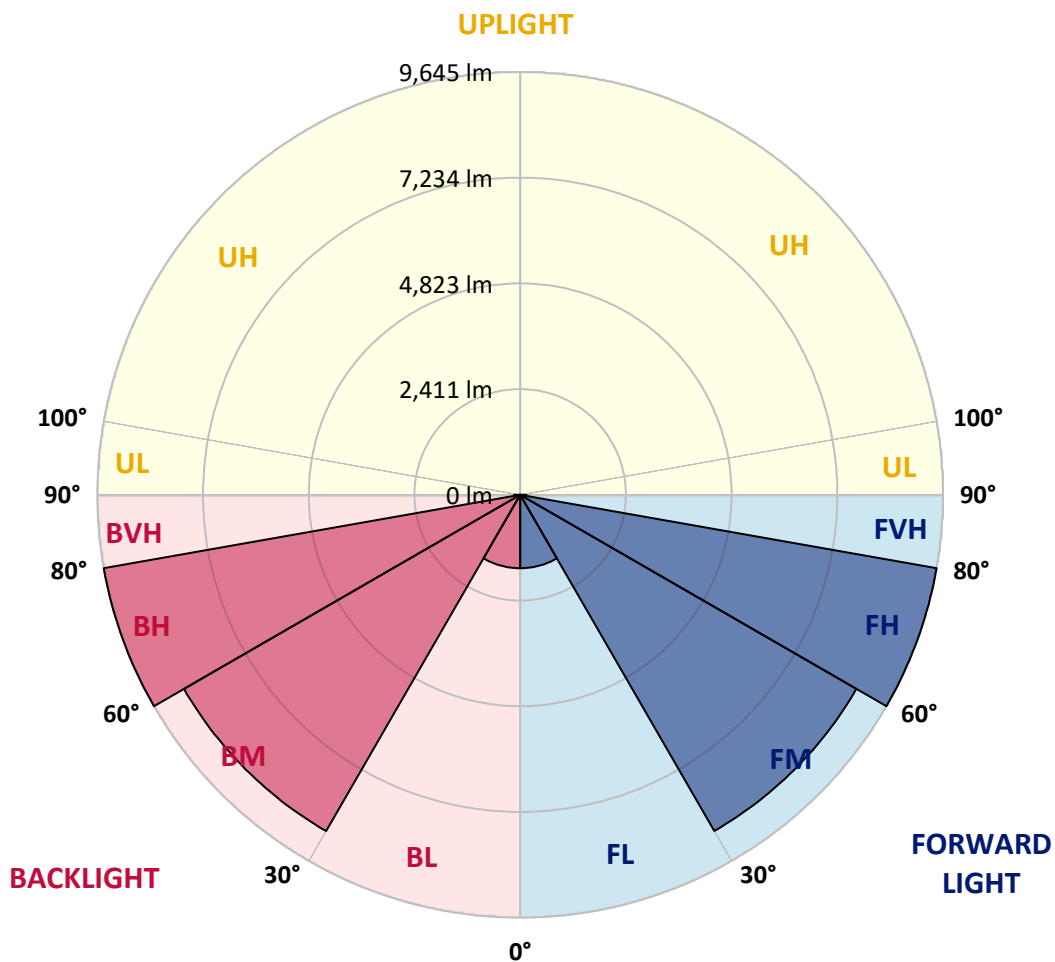
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1674.2	4.1			
FM	(30°-60°)	8855.5	21.8			
FH	(60°-80°)	9645.4	23.7			G4/12000
FVH	(80°-90°)	141.7	0.3			G2/225
BL	(0°-30°)	1674.2	4.1	B3/2500		
BM	(30°-60°)	8855.5	21.8	B5		
BH	(60°-80°)	9645.4	23.7	B5		G4/12000
BVH	(80°-90°)	141.7	0.3			G2/225
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°	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3
2.5°	4034.4	4038.1	4038.1	4038.1	4036.2	4036.2	4032.5	4036.2	4034.4	4028.8	4030.6
5°	4000.7	4004.5	4004.5	4002.6	4008.2	4006.3	4000.7	4004.5	4002.6	3998.9	4000.7
7.5°	3952.1	3957.8	3957.8	3955.9	3961.5	3959.6	3955.9	3957.8	3957.8	3952.1	3952.1
10°	3898.0	3901.7	3901.7	3899.8	3909.2	3909.2	3907.3	3912.9	3914.8	3909.2	3905.4
12.5°	3847.5	3853.1	3853.1	3860.6	3869.9	3873.7	3883.0	3890.5	3898.0	3896.1	3888.6
15°	3817.6	3821.3	3828.8	3838.2	3853.1	3866.2	3881.1	3898.0	3912.9	3916.6	3905.4
17.5°	3798.9	3804.5	3815.7	3828.8	3849.4	3871.8	3894.2	3916.6	3937.2	3944.7	3931.6
20°	3793.3	3797.0	3808.3	3830.7	3858.7	3892.3	3924.1	3950.3	3978.3	3987.6	3978.3
22.5°	3804.5	3812.0	3825.1	3851.2	3888.6	3931.6	3969.0	4004.5	4040.0	4056.8	4043.7
25°	3855.0	3862.5	3879.3	3912.9	3954.0	3998.9	4041.8	4082.9	4114.7	4131.5	4122.2
27.5°	3948.4	3957.8	3978.3	4011.9	4056.8	4105.4	4152.1	4185.7	4211.9	4217.5	4206.3
30°	4088.6	4109.1	4133.4	4170.8	4223.1	4264.2	4310.9	4340.8	4372.6	4372.6	4363.2
32.5°	4307.2	4327.7	4353.9	4389.4	4430.5	4475.4	4516.5	4542.6	4576.3	4578.1	4555.7
35°	4634.2	4643.5	4666.0	4688.4	4725.8	4765.0	4800.5	4817.3	4845.3	4847.2	4826.7
37.5°	5065.8	5067.7	5082.7	5090.1	5123.8	5166.8	5200.4	5211.6	5237.8	5234.0	5213.5
40°	5568.5	5577.8	5583.5	5594.7	5630.2	5671.3	5706.8	5712.4	5740.4	5734.8	5708.7
42.5°	6149.6	6153.4	6185.2	6202.0	6235.6	6256.2	6301.0	6306.6	6340.2	6325.3	6295.4
45°	6801.8	6835.4	6865.3	6899.0	6934.5	6958.8	6994.3	6986.8	7009.2	6986.8	6970.0
47.5°	7487.6	7511.9	7579.1	7631.5	7689.4	7710.0	7760.4	7738.0	7760.4	7728.6	7723.0
50°	8242.5	8285.5	8343.4	8403.2	8464.9	8498.5	8563.9	8535.9	8565.8	8535.9	8519.1
52.5°	8986.2	8997.4	9124.5	9212.3	9298.3	9337.5	9376.8	9363.7	9365.6	9363.7	9346.9
55°	9692.6	9718.7	9845.8	9965.4	10114.9	10225.1	10292.4	10284.9	10268.1	10251.3	10223.3
57.5°	10488.6	10514.8	10660.5	10808.1	10978.2	11135.1	11271.6	11411.7	11465.9	11480.8	11419.2
60°	11564.9	11563.1	11757.4	11936.8	12179.7	12413.3	12712.3	13016.9	13366.3	13528.9	13314.0
62.5°	12659.9	12704.8	12985.1	13302.8	13803.5	14291.3	14842.5	15384.4	15937.5	16387.9	15909.5
65°	12529.1	12701.1	13117.8	13837.2	14762.1	15860.9	17049.3	18306.9	19443.1	20224.1	19347.8
67.5°	10858.6	11103.4	11527.6	12402.1	13558.8	15143.3	17139.0	19626.2	22516.9	23914.7	22182.5
70°	7870.7	8147.2	8591.9	9445.9	10591.4	12097.5	14265.1	17251.2	21078.1	22487.1	20579.2
72.5°	3916.6	4066.1	4340.8	4884.6	5751.6	6973.7	8939.5	11809.7	15195.7	16488.8	14745.3
75°	1330.5	1399.6	1446.3	1623.8	1898.5	2378.8	3356.1	5163.0	7876.3	9442.2	7764.1
77.5°	768.0	769.9	801.6	833.4	880.1	932.4	1063.2	1395.9	2414.3	3428.9	2498.4
80°	497.1	495.2	521.3	545.6	577.4	603.6	611.0	646.5	745.6	883.9	790.4
82.5°	257.9	289.6	347.6	379.3	439.1	450.3	435.4	422.3	446.6	463.4	474.6
85°	142.0	123.3	185.0	239.2	265.3	269.1	269.1	254.1	263.5	257.9	280.3
87.5°	65.4	59.8	72.9	117.7	125.2	106.5	112.1	99.0	71.0	69.1	78.5
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°	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3	4049.3
2.5°	4030.6	4032.5	4032.5	4038.1	4040.0	4043.7	4047.4	4049.3
5°	3998.9	4004.5	4000.7	4006.3	4006.3	4010.1	4010.1	4011.9
7.5°	3952.1	3957.8	3957.8	3957.8	3955.9	3961.5	3961.5	3961.5
10°	3903.6	3907.3	3905.4	3901.7	3898.0	3903.6	3901.7	3899.8
12.5°	3888.6	3879.3	3871.8	3868.1	3860.6	3862.5	3856.8	3856.8
15°	3898.0	3881.1	3868.1	3862.5	3855.0	3851.2	3847.5	3849.4
17.5°	3922.2	3901.7	3884.9	3875.5	3866.2	3860.6	3853.1	3855.0
20°	3965.2	3940.9	3916.6	3898.0	3881.1	3871.8	3866.2	3864.3
22.5°	4028.8	3993.3	3957.8	3929.7	3907.3	3894.2	3888.6	3884.9
25°	4101.6	4062.4	4021.3	3989.5	3967.1	3950.3	3939.1	3939.1
27.5°	4193.2	4161.4	4124.1	4086.7	4066.1	4049.3	4041.8	4038.1
30°	4346.4	4316.5	4286.6	4251.1	4225.0	4208.1	4195.1	4183.9
32.5°	4542.6	4518.3	4494.0	4467.9	4443.6	4421.2	4400.6	4391.3
35°	4819.2	4800.5	4783.7	4753.8	4744.4	4731.4	4720.2	4710.8
37.5°	5200.4	5192.9	5192.9	5161.1	5153.7	5148.1	5136.9	5138.7
40°	5701.2	5708.7	5699.3	5688.1	5682.5	5667.5	5667.5	5680.6
42.5°	6293.5	6299.1	6319.7	6301.0	6321.6	6302.9	6291.7	6301.0
45°	6981.2	7001.7	7042.9	7024.2	7037.2	7005.5	6966.2	6968.1
47.5°	7752.9	7771.6	7788.4	7775.4	7777.2	7724.9	7672.6	7659.5
50°	8554.6	8562.0	8571.4	8552.7	8556.4	8498.5	8438.7	8440.6
52.5°	9346.9	9382.4	9419.7	9369.3	9358.1	9292.7	9208.6	9175.0
55°	10253.2	10303.6	10260.6	10172.8	10085.0	9997.2	9886.9	9868.2
57.5°	11370.6	11284.6	11150.1	10983.8	10862.3	10739.0	10626.9	10580.2
60°	12925.3	12602.0	12359.1	12112.4	11957.3	11806.0	11658.4	11635.9
62.5°	15122.8	14564.1	14080.1	13570.0	13153.3	12828.1	12568.4	12495.5
65°	17877.1	16556.0	15410.6	14341.7	13413.0	12712.3	12271.3	12076.9
67.5°	19061.9	16453.3	14489.3	12972.0	11757.4	10909.0	10432.5	10195.2
70°	16750.4	13644.7	11508.9	9989.7	8883.5	7979.0	7547.4	7293.2
72.5°	11523.8	8679.8	6863.5	5602.1	4718.3	3961.5	3662.5	3640.1
75°	5174.2	3427.1	2361.9	1820.0	1532.3	1332.3	1270.7	1224.0
77.5°	1448.2	1070.7	954.9	893.2	833.4	764.3	738.1	743.7
80°	704.5	665.2	639.1	599.8	545.6	487.7	461.6	472.8
82.5°	467.2	461.6	478.4	450.3	371.9	315.8	265.3	242.9
85°	284.0	287.8	293.4	295.2	250.4	175.7	119.6	134.5
87.5°	112.1	128.9	140.1	145.8	136.4	84.1	67.3	69.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)