

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: P299443

Luminaire Tested: **GLNA-AF-09-LED-E1-5NQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299443  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
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-E1-5NQ-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 38397.1 lumens  
Efficiency: N/A  
Efficacy: 102.7 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 - G3

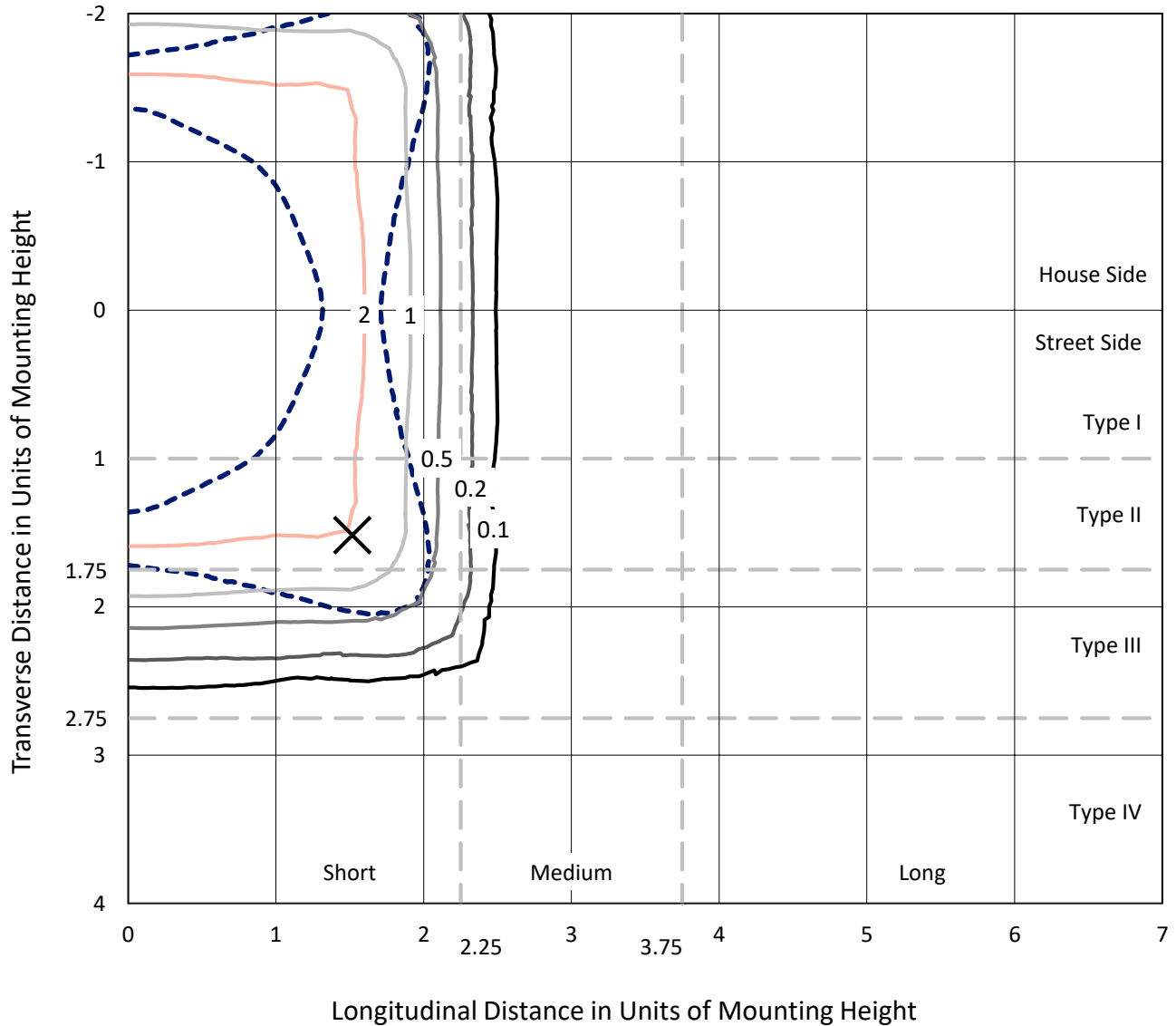
Input Watts (W): 374  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

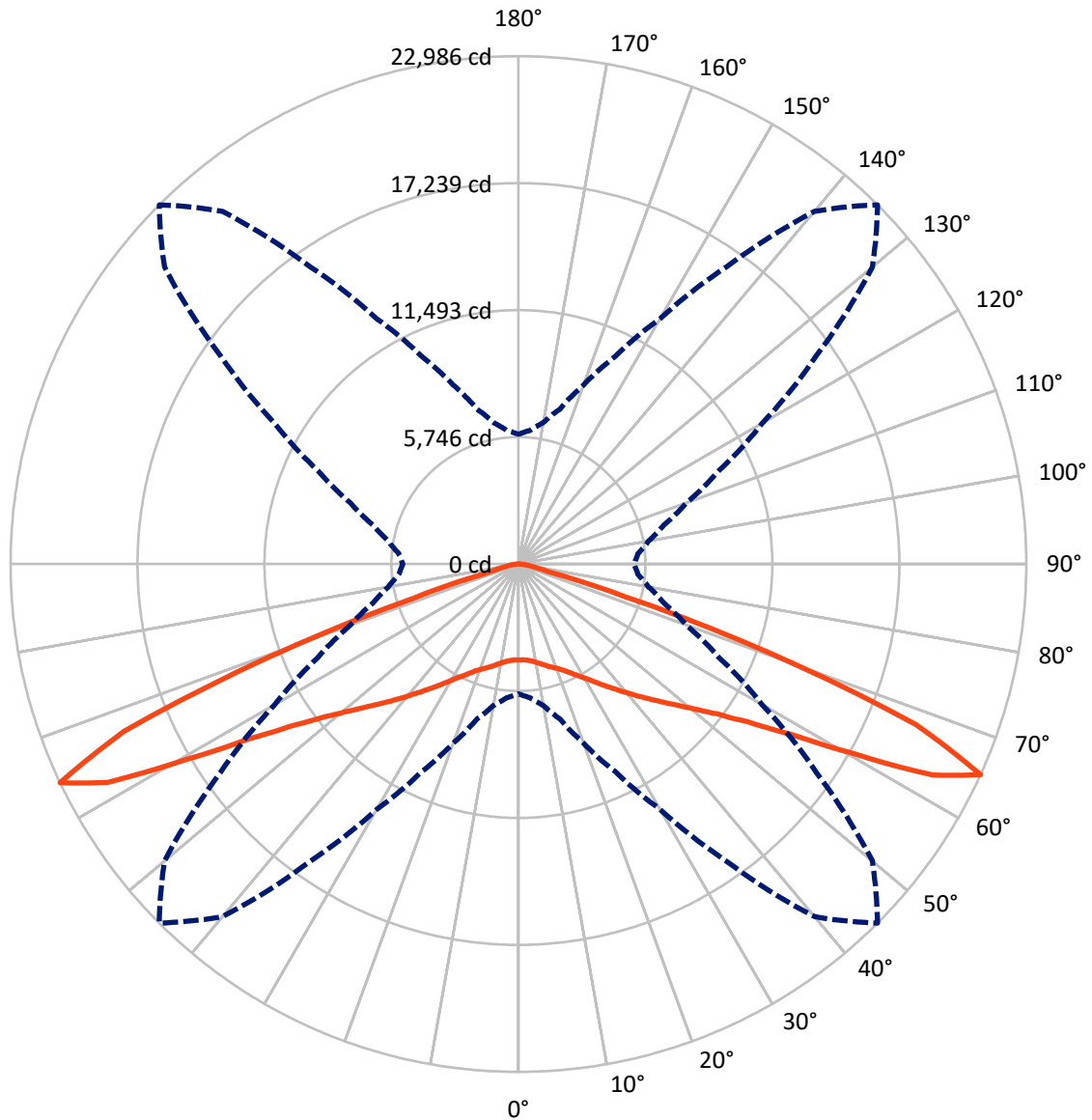
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	19198.5	0.0	19198.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	19198.5	0.0	19198.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	38397.1	0.0	38397.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	423.5	1.1
10°-20°	1358.1	3.5
20°-30°	2539.4	6.6
30°-40°	4294.9	11.2
40°-50°	7022.6	18.3
50°-60°	11167.0	29.1
60°-70°	10094.3	26.3
70°-80°	1277.5	3.3
80°-90°	219.7	0.6
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°	38397.1	100.0
0°-180°	38397.1	100.0



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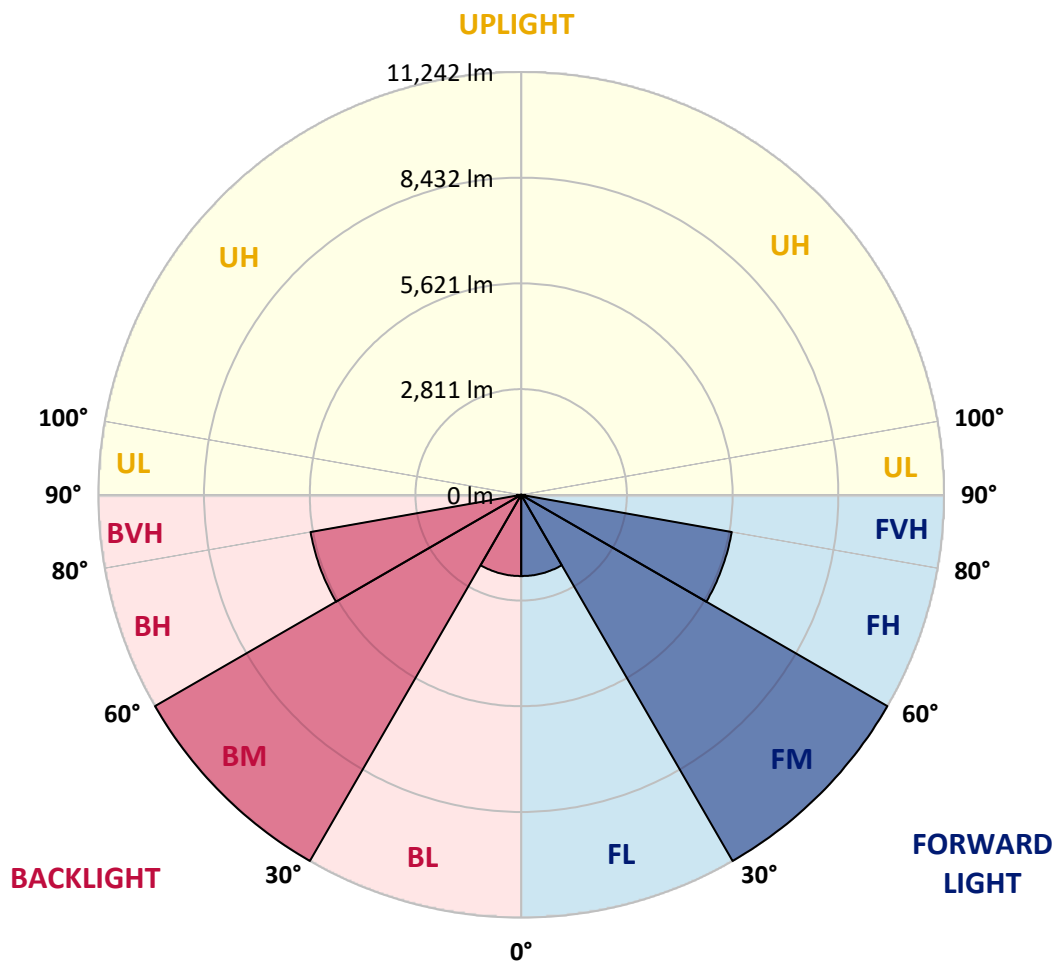
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2160.5	5.6			
FM	(30°-60°)	11242.3	29.3			
FH	(60°-80°)	5685.9	14.8			G3/7500
FVH	(80°-90°)	109.9	0.3			G2/225
BL	(0°-30°)	2160.5	5.6	B3/2500		
BM	(30°-60°)	11242.3	29.3	B5		
BH	(60°-80°)	5685.9	14.8	B5		G3/7500
BVH	(80°-90°)	109.9	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-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7
2.5°	4348.2	4351.8	4355.4	4351.8	4355.4	4350.0	4346.4	4351.8	4346.4	4341.1	4344.7
5°	4386.0	4387.8	4387.8	4382.4	4387.8	4384.2	4378.8	4386.0	4380.6	4375.2	4378.8
7.5°	4449.0	4456.1	4450.7	4445.4	4449.0	4445.4	4441.8	4443.6	4441.8	4436.4	4438.2
10°	4533.5	4538.9	4535.3	4533.5	4537.1	4535.3	4531.7	4529.9	4531.7	4526.3	4526.3
12.5°	4636.0	4634.2	4632.4	4634.2	4639.6	4639.6	4637.8	4639.6	4643.2	4645.0	4641.4
15°	4736.7	4740.3	4740.3	4740.3	4751.1	4760.1	4765.4	4769.0	4776.2	4778.0	4770.8
17.5°	4862.6	4862.6	4860.8	4862.6	4873.3	4887.7	4893.1	4900.3	4907.5	4912.9	4903.9
20°	5002.8	5006.4	5006.4	5010.0	5024.4	5040.6	5040.6	5044.2	5040.6	5044.2	5038.8
22.5°	5173.7	5184.4	5184.4	5186.2	5200.6	5220.4	5215.0	5220.4	5211.4	5218.6	5211.4
25°	5396.6	5412.8	5409.2	5409.2	5420.0	5432.6	5434.4	5445.2	5443.4	5452.4	5447.0
27.5°	5648.4	5673.6	5680.8	5679.0	5686.2	5698.8	5702.4	5714.9	5707.7	5714.9	5711.3
30°	5950.5	5961.3	5975.7	5981.1	5990.1	6002.7	6002.7	6004.5	5995.5	6006.3	6011.7
32.5°	6263.4	6283.2	6297.6	6330.0	6346.1	6355.1	6353.3	6356.9	6347.9	6362.3	6373.1
35°	6677.0	6691.4	6714.8	6740.0	6761.5	6759.7	6754.3	6756.1	6756.1	6768.7	6779.5
37.5°	7175.1	7178.7	7209.3	7245.3	7256.1	7245.3	7212.9	7205.7	7189.5	7205.7	7223.7
40°	7702.0	7714.6	7775.8	7799.2	7804.5	7784.8	7738.0	7711.0	7675.1	7694.9	7720.0
42.5°	8254.1	8279.3	8335.0	8376.4	8394.4	8381.8	8317.1	8275.7	8228.9	8239.7	8264.9
45°	8865.5	8896.1	8975.2	9014.8	9049.0	9029.2	8966.2	8903.3	8829.6	8835.0	8874.5
47.5°	9548.9	9579.5	9682.0	9748.5	9766.5	9762.9	9692.7	9606.4	9505.7	9502.1	9536.3
50°	10314.9	10345.5	10473.2	10575.7	10627.8	10622.5	10539.7	10417.5	10295.2	10297.0	10340.1
52.5°	11063.0	11100.8	11233.9	11410.1	11512.6	11586.3	11536.0	11420.9	11271.6	11275.2	11314.8
55°	11764.4	11827.3	11980.2	12219.3	12409.9	12616.7	12676.1	12672.5	12582.6	12607.8	12647.3
57.5°	12104.2	12197.7	12433.3	12811.0	13199.4	13620.2	13976.3	14242.4	14355.7	14526.5	14487.0
60°	11460.5	11609.7	11956.8	12512.4	13280.3	14157.9	15098.4	16017.3	16801.4	17393.0	17053.1
62.5°	9383.4	9577.7	9998.5	10710.6	11872.3	13276.7	15076.8	17249.1	19615.7	21043.5	20023.9
65°	5871.4	6072.8	6500.8	7263.3	8622.8	10368.9	12811.0	16411.1	20833.1	22985.6	20910.4
67.5°	2289.2	2398.9	2630.9	3118.2	4139.6	5693.4	8144.4	12230.1	17518.9	19405.3	17193.4
70°	1147.3	1158.1	1201.3	1291.2	1510.6	1961.9	2985.1	5670.0	10047.0	12134.8	9685.5
72.5°	829.0	830.8	852.4	891.9	962.1	1062.8	1257.0	1735.3	3267.5	4993.8	3062.5
75°	634.8	642.0	654.6	676.2	713.9	764.3	834.4	999.8	1239.0	1436.8	1208.4
77.5°	489.1	503.5	512.5	532.3	555.7	589.8	609.6	672.6	782.3	823.6	811.0
80°	372.2	384.8	404.6	420.8	437.0	453.2	446.0	474.7	532.3	566.5	548.5
82.5°	237.4	251.8	309.3	323.7	330.9	341.7	329.1	330.9	356.1	377.6	356.1
85°	152.9	161.8	196.0	214.0	215.8	223.0	217.6	205.0	205.0	187.0	210.4
87.5°	70.1	71.9	88.1	104.3	107.9	97.1	95.3	91.7	73.7	70.1	75.5
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°	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7	4344.7
2.5°	4342.9	4346.4	4348.2	4353.6	4355.4	4355.4	4357.2	4360.8
5°	4377.0	4382.4	4384.2	4391.4	4393.2	4391.4	4395.0	4396.8
7.5°	4438.2	4447.2	4450.7	4457.9	4452.5	4459.7	4461.5	4461.5
10°	4528.1	4537.1	4538.9	4546.1	4542.5	4546.1	4546.1	4542.5
12.5°	4646.8	4648.6	4643.2	4648.6	4641.4	4645.0	4639.6	4636.0
15°	4778.0	4772.6	4760.1	4760.1	4749.3	4751.1	4749.3	4747.5
17.5°	4905.7	4894.9	4885.9	4882.3	4873.3	4871.5	4866.2	4866.2
20°	5046.0	5040.6	5035.2	5028.0	5019.0	5010.0	5008.2	5011.8
22.5°	5215.0	5213.2	5213.2	5209.6	5197.0	5188.0	5182.7	5182.7
25°	5441.6	5425.4	5425.4	5423.6	5418.2	5412.8	5402.0	5407.4
27.5°	5697.0	5688.0	5695.2	5693.4	5688.0	5688.0	5680.8	5680.8
30°	6011.7	6008.1	6018.9	6009.9	5991.9	5990.1	5982.9	5973.9
32.5°	6374.9	6371.3	6387.5	6376.7	6347.9	6331.8	6317.4	6310.2
35°	6779.5	6781.3	6801.1	6793.9	6761.5	6750.8	6725.6	6722.0
37.5°	7221.9	7250.7	7284.8	7292.0	7265.1	7257.9	7230.9	7216.5
40°	7741.6	7779.4	7831.5	7844.1	7815.3	7809.9	7772.2	7752.4
42.5°	8295.5	8360.2	8425.0	8435.7	8407.0	8378.2	8342.2	8327.8
45°	8914.1	8991.4	9075.9	9097.5	9054.4	9020.2	8973.4	8973.4
47.5°	9608.2	9705.3	9800.6	9860.0	9820.4	9784.5	9728.7	9692.7
50°	10428.2	10561.3	10685.4	10746.5	10683.6	10615.3	10518.2	10485.8
52.5°	11456.9	11600.7	11708.6	11676.2	11579.1	11483.8	11377.7	11334.6
55°	12769.6	12818.2	12818.2	12695.9	12501.7	12341.6	12174.4	12118.6
57.5°	14411.4	14224.4	13936.7	13571.6	13113.1	12713.9	12444.1	12316.4
60°	16341.0	15441.9	14425.8	13427.8	12607.8	11931.6	11530.6	11347.2
62.5°	17626.8	15274.6	13239.0	11636.7	10457.0	9642.4	9088.5	8872.7
65°	16474.1	12739.0	10012.8	8095.9	6810.1	5981.1	5432.6	5231.2
67.5°	12066.5	7982.6	5331.9	3821.4	2799.9	2233.5	2008.7	1915.2
70°	5416.4	2810.7	1722.8	1345.1	1159.9	1064.6	1023.2	1008.8
72.5°	1632.8	1181.5	996.2	899.1	825.4	778.7	744.5	740.9
75°	985.5	820.0	728.3	670.8	624.0	586.2	568.3	562.9
77.5°	688.7	602.4	559.3	517.9	481.9	453.2	437.0	424.4
80°	483.7	442.4	422.6	399.2	375.8	348.9	325.5	314.7
82.5°	323.7	314.7	314.7	300.3	280.5	255.4	208.6	197.8
85°	208.6	206.8	210.4	205.0	190.6	163.6	134.9	127.7
87.5°	97.1	98.9	109.7	107.9	104.3	86.3	68.3	64.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)