

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: P299371

Luminaire Tested: **GLNA-AF-07-LED-E1-5NQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299371  
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-07-LED-E1-5NQ-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

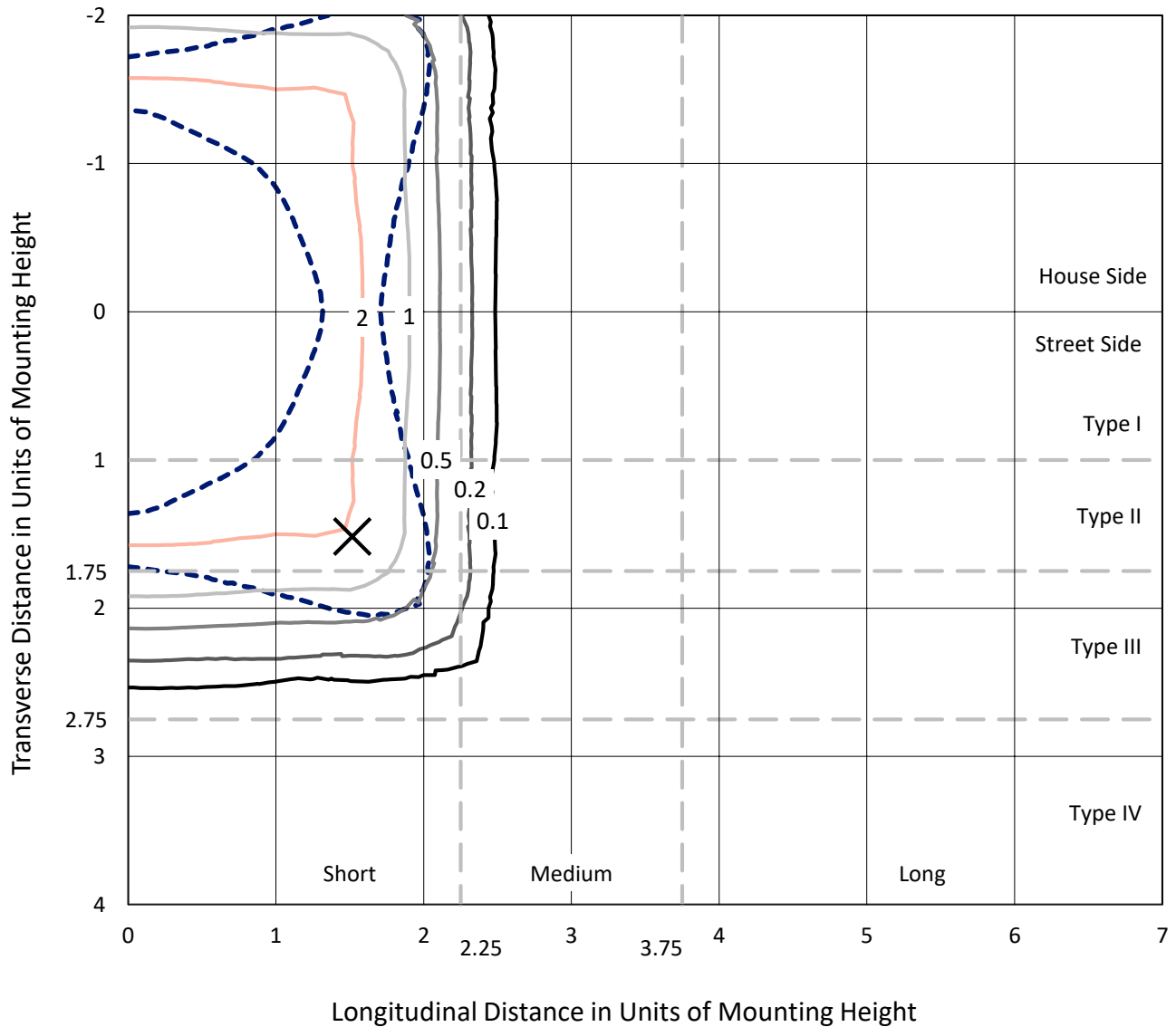
Lumens per Lamp: N/A  
Luminaire Lumens: 37604 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3  
  
Input Watts (W): 391  
Input Voltage (V): NR  
Input Current (Ain): 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

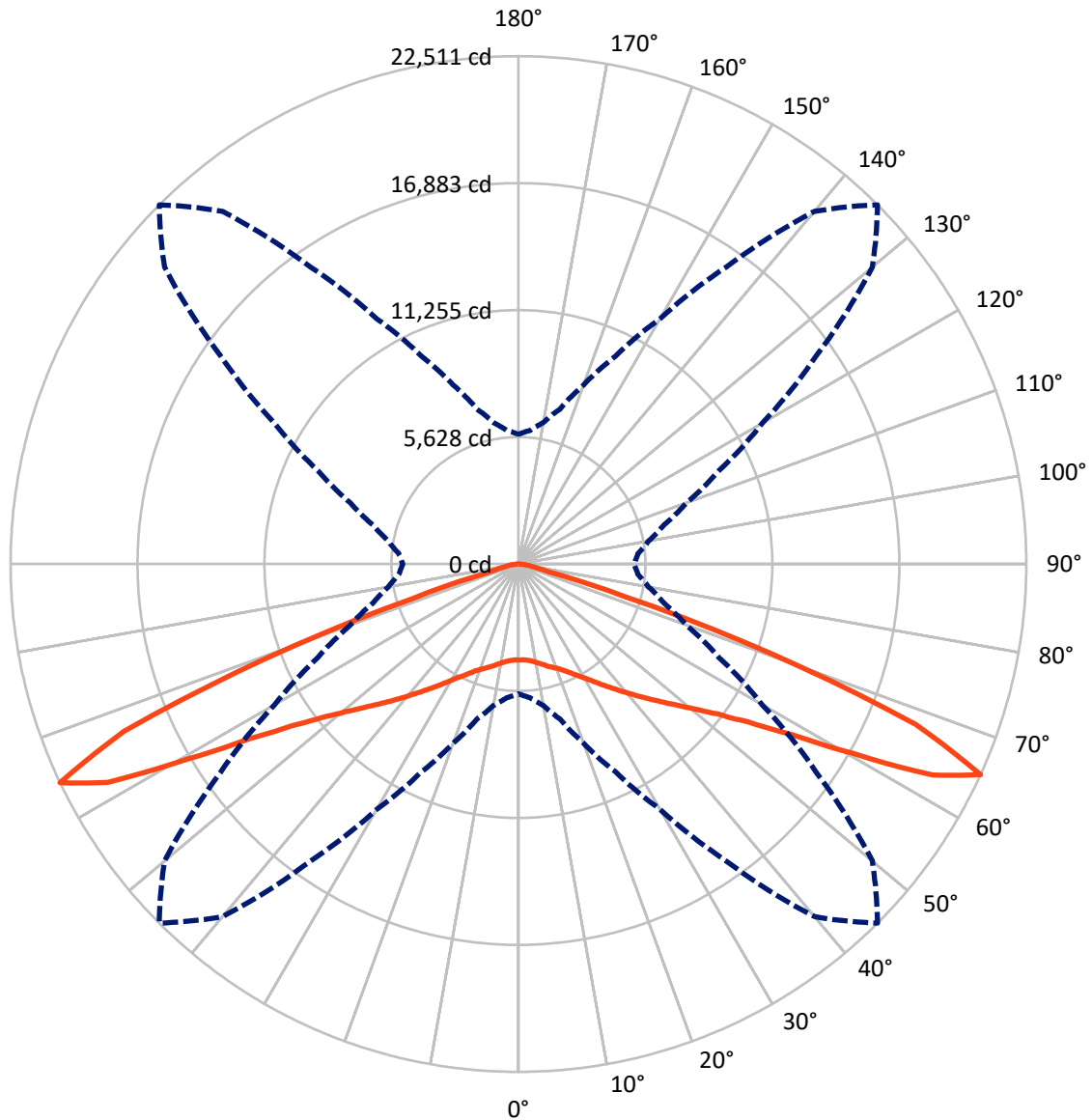
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.7 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	18802.0	0.0	18802.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	18802.0	0.0	18802.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	37604.0	0.0	37604.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	414.7	1.1
10°-20°	1330.1	3.5
20°-30°	2487.0	6.6
30°-40°	4206.2	11.2
40°-50°	6877.6	18.3
50°-60°	10936.4	29.1
60°-70°	9885.8	26.3
70°-80°	1251.1	3.3
80°-90°	215.2	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°	37604.0	100.0
0°-180°	37604.0	100.0

**Coefficient of Utilization**



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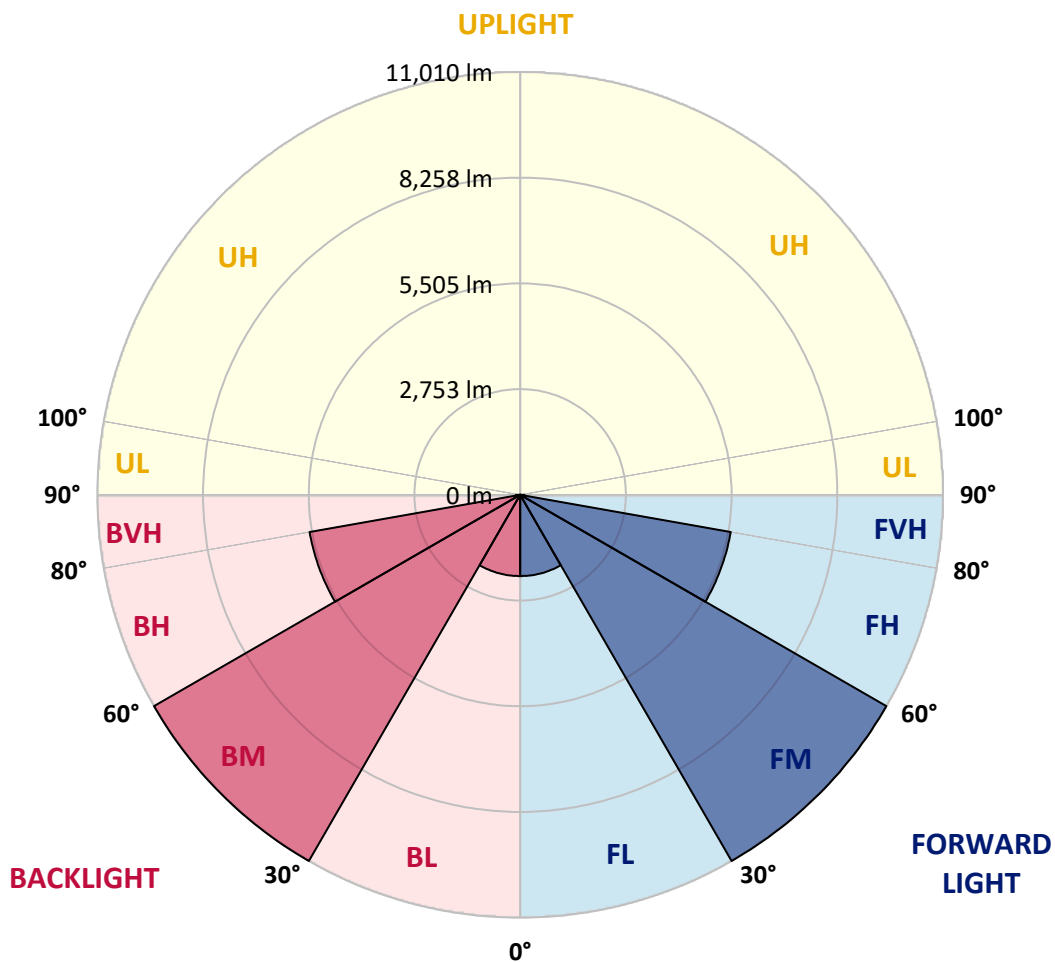
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2115.9	5.6			
FM	(30°-60°)	11010.1	29.3			
FH	(60°-80°)	5568.4	14.8			G3/7500
FVH	(80°-90°)	107.6	0.3			G2/225
BL	(0°-30°)	2115.9	5.6	B3/2500		
BM	(30°-60°)	11010.1	29.3	B5		
BH	(60°-80°)	5568.4	14.8	B5		G3/7500
BVH	(80°-90°)	107.6	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°	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9
2.5°	4258.4	4262.0	4265.5	4262.0	4265.5	4260.2	4256.7	4262.0	4256.7	4251.4	4254.9
5°	4295.4	4297.2	4297.2	4291.9	4297.2	4293.7	4288.4	4295.4	4290.1	4284.9	4288.4
7.5°	4357.1	4364.1	4358.8	4353.5	4357.1	4353.5	4350.0	4351.8	4350.0	4344.7	4346.5
10°	4439.8	4445.1	4441.6	4439.8	4443.4	4441.6	4438.1	4436.3	4438.1	4432.8	4432.8
12.5°	4540.2	4538.5	4536.7	4538.5	4543.7	4543.7	4542.0	4543.7	4547.3	4549.0	4545.5
15°	4638.8	4642.4	4642.4	4642.4	4652.9	4661.7	4667.0	4670.5	4677.6	4679.4	4672.3
17.5°	4762.1	4762.1	4760.4	4762.1	4772.7	4786.8	4792.1	4799.1	4806.2	4811.4	4802.6
20°	4899.5	4903.0	4903.0	4906.5	4920.6	4936.5	4936.5	4940.0	4936.5	4940.0	4934.7
22.5°	5066.8	5077.4	5077.4	5079.1	5093.2	5112.6	5107.3	5112.6	5103.8	5110.8	5103.8
25°	5285.2	5301.0	5297.5	5297.5	5308.1	5320.4	5322.2	5332.7	5331.0	5339.8	5334.5
27.5°	5531.7	5556.4	5563.4	5561.7	5568.7	5581.1	5584.6	5596.9	5589.9	5596.9	5593.4
30°	5827.6	5838.2	5852.3	5857.6	5866.4	5878.7	5878.7	5880.4	5871.6	5882.2	5887.5
32.5°	6134.1	6153.4	6167.5	6199.2	6215.1	6223.9	6222.1	6225.6	6216.8	6230.9	6241.5
35°	6539.1	6553.2	6576.1	6600.8	6621.9	6620.1	6614.8	6616.6	6616.6	6628.9	6639.5
37.5°	7027.0	7030.5	7060.4	7095.6	7106.2	7095.6	7063.9	7056.9	7041.0	7056.9	7074.5
40°	7543.0	7555.3	7615.2	7638.1	7643.4	7624.0	7578.2	7551.8	7516.5	7535.9	7560.6
42.5°	8083.6	8108.3	8162.9	8203.4	8221.0	8208.7	8145.3	8104.8	8059.0	8069.5	8094.2
45°	8682.4	8712.4	8789.9	8828.6	8862.1	8842.7	8781.0	8719.4	8647.2	8652.5	8691.2
47.5°	9351.7	9381.6	9482.0	9547.1	9564.8	9561.2	9492.5	9408.0	9309.4	9305.9	9339.3
50°	10101.9	10131.8	10256.9	10357.3	10408.3	10403.1	10322.0	10202.3	10082.5	10084.3	10126.6
52.5°	10834.5	10871.5	11001.8	11174.4	11274.8	11347.0	11297.7	11185.0	11038.8	11042.4	11081.1
55°	11521.4	11583.0	11732.7	11967.0	12153.6	12356.2	12414.3	12410.8	12322.7	12347.4	12386.1
57.5°	11854.2	11945.8	12176.5	12546.4	12926.8	13338.9	13687.6	13948.2	14059.2	14226.5	14187.8
60°	11223.8	11369.9	11709.8	12254.0	13006.0	13865.5	14786.5	15686.5	16454.3	17033.8	16700.9
62.5°	9189.6	9379.8	9791.9	10489.4	11627.1	13002.5	14765.4	16892.9	19210.5	20608.9	19610.3
65°	5750.1	5947.4	6366.5	7113.2	8444.7	10154.7	12546.4	16072.2	20402.8	22510.9	20478.5
67.5°	2241.9	2349.4	2576.5	3053.8	4054.1	5575.8	7976.2	11977.5	17157.0	19004.5	16838.3
70°	1123.6	1134.2	1176.4	1264.5	1479.4	1921.4	2923.5	5552.9	9839.5	11884.2	9485.5
72.5°	811.9	813.6	834.8	873.5	942.2	1040.8	1231.0	1699.5	3200.0	4890.7	2999.2
75°	621.7	628.7	641.1	662.2	699.2	748.5	817.2	979.2	1213.4	1407.2	1183.5
77.5°	479.0	493.1	501.9	521.3	544.2	577.7	597.0	658.7	766.1	806.6	794.3
80°	364.6	376.9	396.3	412.1	428.0	443.8	436.8	464.9	521.3	554.8	537.1
82.5°	232.5	246.6	302.9	317.0	324.0	334.6	322.3	324.0	348.7	369.8	348.7
85°	149.7	158.5	192.0	209.6	211.3	218.4	213.1	200.8	200.8	183.2	206.1
87.5°	68.7	70.4	86.3	102.1	105.7	95.1	93.3	89.8	72.2	68.7	74.0
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°	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9	4254.9
2.5°	4253.2	4256.7	4258.4	4263.7	4265.5	4265.5	4267.2	4270.8
5°	4286.6	4291.9	4293.7	4300.7	4302.5	4300.7	4304.2	4306.0
7.5°	4346.5	4355.3	4358.8	4365.9	4360.6	4367.6	4369.4	4369.4
10°	4434.6	4443.4	4445.1	4452.2	4448.6	4452.2	4452.2	4448.6
12.5°	4550.8	4552.5	4547.3	4552.5	4545.5	4549.0	4543.7	4540.2
15°	4679.4	4674.1	4661.7	4661.7	4651.2	4652.9	4651.2	4649.4
17.5°	4804.4	4793.8	4785.0	4781.5	4772.7	4770.9	4765.6	4765.6
20°	4941.8	4936.5	4931.2	4924.2	4915.3	4906.5	4904.8	4908.3
22.5°	5107.3	5105.5	5105.5	5102.0	5089.7	5080.9	5075.6	5075.6
25°	5329.2	5313.4	5313.4	5311.6	5306.3	5301.0	5290.5	5295.8
27.5°	5579.3	5570.5	5577.5	5575.8	5570.5	5570.5	5563.4	5563.4
30°	5887.5	5884.0	5894.5	5885.7	5868.1	5866.4	5859.3	5850.5
32.5°	6243.2	6239.7	6255.6	6245.0	6216.8	6201.0	6186.9	6179.8
35°	6639.5	6641.3	6660.6	6653.6	6621.9	6611.3	6586.7	6583.1
37.5°	7072.7	7100.9	7134.4	7141.4	7115.0	7108.0	7081.5	7067.5
40°	7581.7	7618.7	7669.8	7682.1	7653.9	7648.6	7611.7	7592.3
42.5°	8124.1	8187.5	8250.9	8261.5	8233.3	8205.2	8169.9	8155.8
45°	8730.0	8805.7	8888.5	8909.6	8867.3	8833.9	8788.1	8788.1
47.5°	9409.8	9504.9	9598.2	9656.3	9617.6	9582.4	9527.8	9492.5
50°	10212.9	10343.2	10464.7	10524.6	10462.9	10396.0	10300.9	10269.2
52.5°	11220.2	11361.1	11466.8	11435.1	11340.0	11246.6	11142.7	11100.5
55°	12505.9	12553.4	12553.4	12433.7	12243.5	12086.7	11922.9	11868.3
57.5°	14113.8	13930.6	13648.8	13291.3	12842.2	12451.3	12187.1	12062.1
60°	16003.5	15122.9	14127.9	13150.4	12347.4	11685.2	11292.4	11112.8
62.5°	17262.7	14959.1	12965.5	11396.3	10241.0	9443.2	8900.8	8689.5
65°	16133.8	12475.9	9806.0	7928.7	6669.4	5857.6	5320.4	5123.2
67.5°	11817.3	7817.7	5221.8	3742.4	2742.1	2187.3	1967.2	1875.6
70°	5304.6	2752.7	1687.2	1317.3	1135.9	1042.6	1002.1	988.0
72.5°	1599.1	1157.1	975.7	880.6	808.4	762.6	729.1	725.6
75°	965.1	803.1	713.3	656.9	611.1	574.1	556.5	551.2
77.5°	674.5	590.0	547.7	507.2	472.0	443.8	428.0	415.6
80°	473.7	433.2	413.9	391.0	368.1	341.7	318.8	308.2
82.5°	317.0	308.2	308.2	294.1	274.7	250.1	204.3	193.7
85°	204.3	202.5	206.1	200.8	186.7	160.3	132.1	125.0
87.5°	95.1	96.9	107.4	105.7	102.1	84.5	66.9	63.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)