

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: P299617

Luminaire Tested: **GLNA-AF-08-LED-E1-5MQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299617  
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-08-LED-E1-5MQ-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

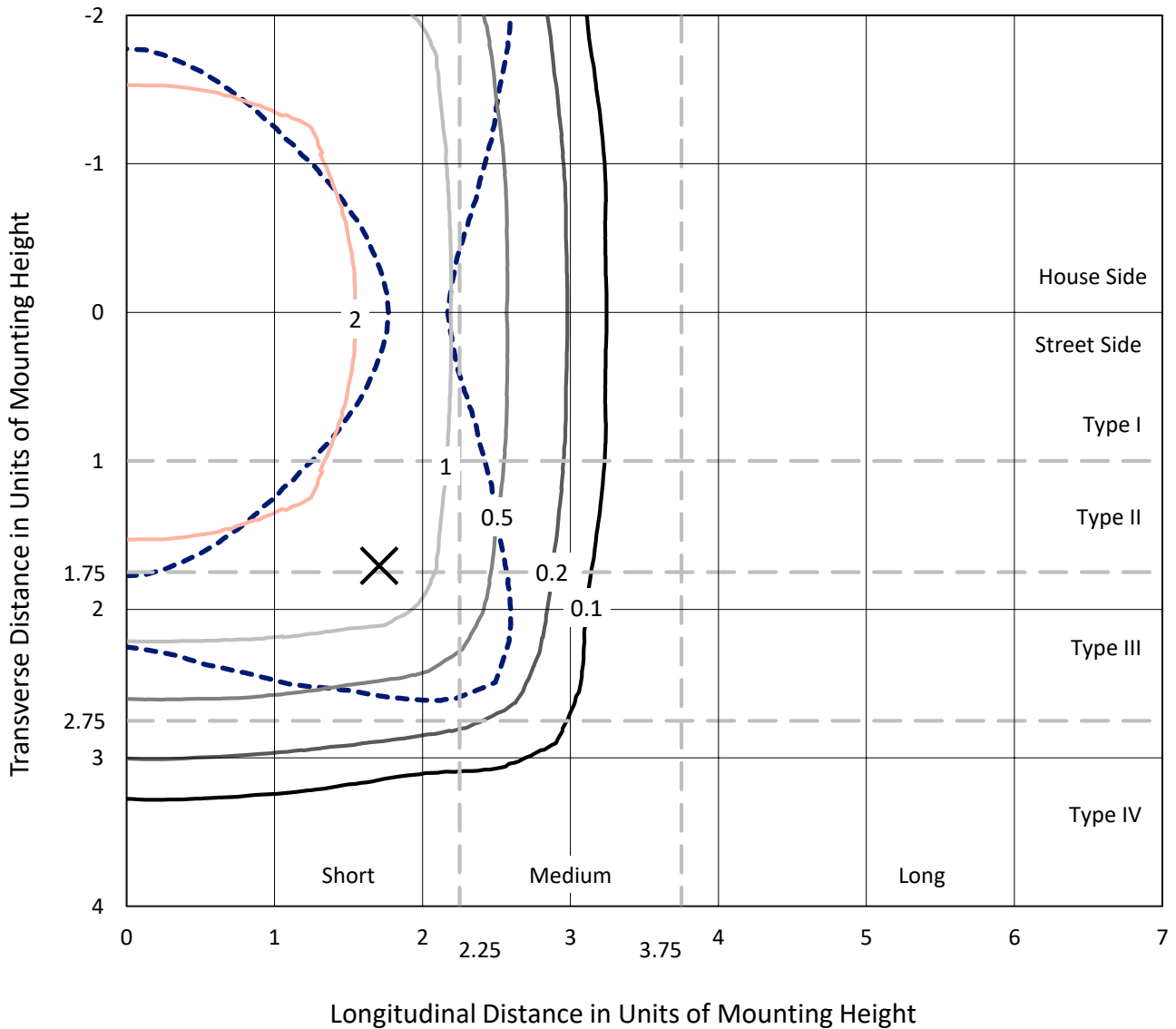
Lumens per Lamp: N/A  
Luminaire Lumens: 43392.6 lumens  
Efficiency: N/A  
Efficacy: 97.5 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4  
  
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (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

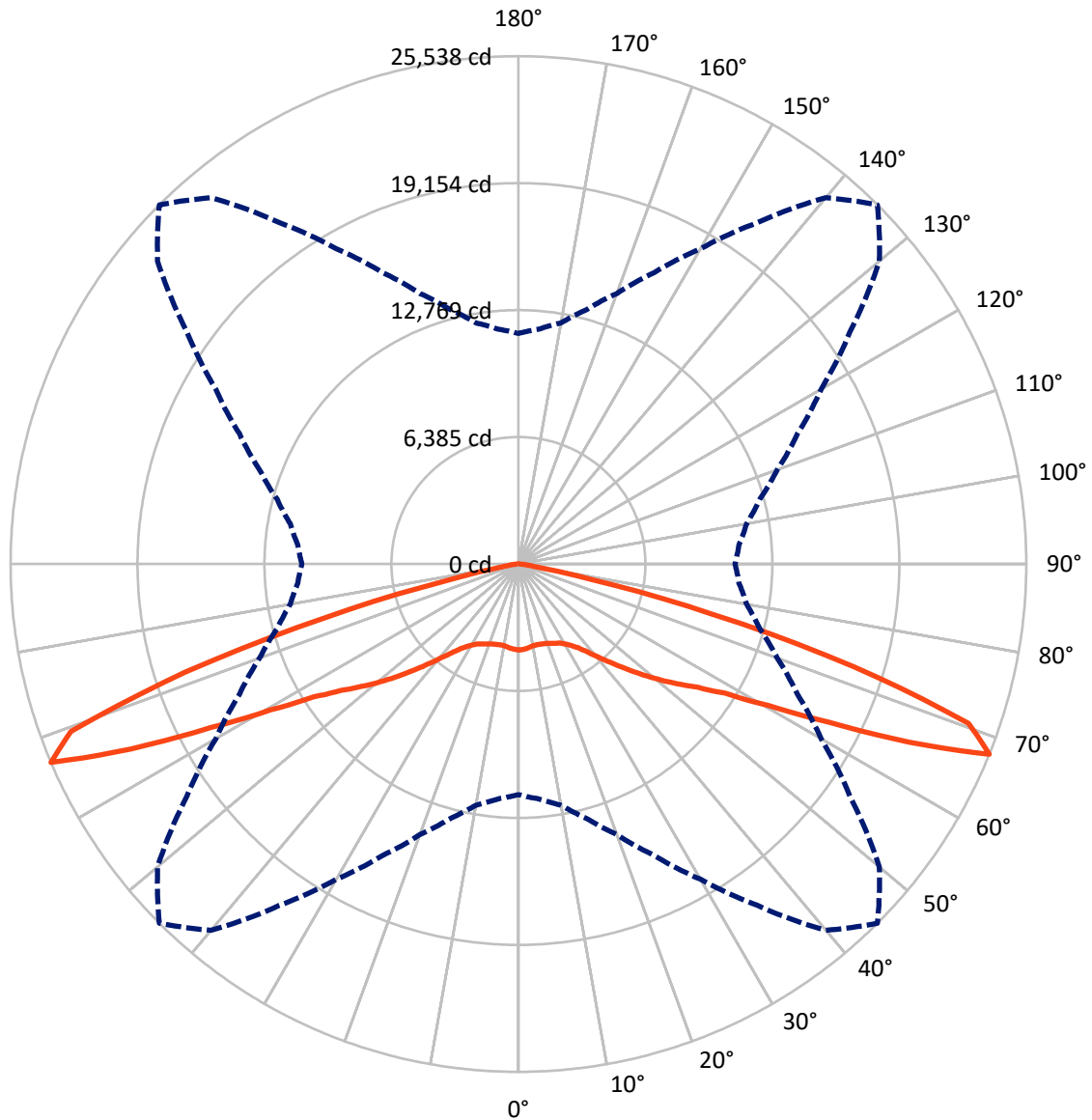
× Max cd  
 - - - 1/2 Max cd



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 67.5-Deg Vertical

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CATALOG NUMBER: GLNA-AF-08-LED-E1-5MQ-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	21696.3	0.0	21696.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	21696.3	0.0	21696.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	43392.6	0.0	43392.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	404.7	0.9
10°-20°	1174.4	2.7
20°-30°	1996.5	4.6
30°-40°	3263.7	7.5
40°-50°	5826.4	13.4
50°-60°	9823.4	22.6
60°-70°	15244.4	35.1
70°-80°	5356.2	12.3
80°-90°	302.7	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°	43392.6	100.0
0°-180°	43392.6	100.0



REPORT NUMBER: P299617

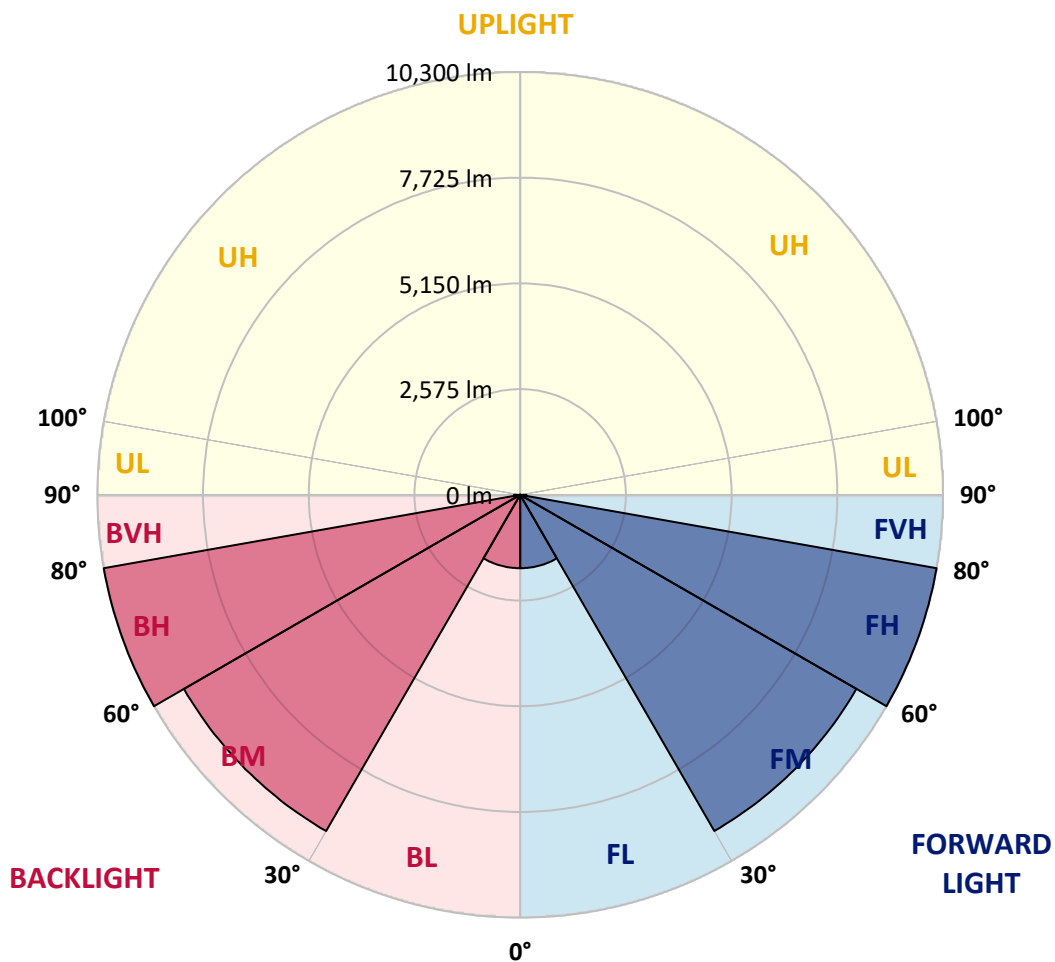
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1787.9	4.1			
FM	(30°-60°)	9456.7	21.8			
FH	(60°-80°)	10300.3	23.7			G4/12000
FVH	(80°-90°)	151.4	0.3			G2/225
BL	(0°-30°)	1787.9	4.1	B3/2500		
BM	(30°-60°)	9456.7	21.8	B5		
BH	(60°-80°)	10300.3	23.7	B5		G4/12000
BVH	(80°-90°)	151.4	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°	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3
2.5°	4308.3	4312.3	4312.3	4312.3	4310.3	4310.3	4306.3	4310.3	4308.3	4302.3	4304.3
5°	4272.4	4276.4	4276.4	4274.4	4280.4	4278.4	4272.4	4276.4	4274.4	4270.4	4272.4
7.5°	4220.5	4226.5	4226.5	4224.5	4230.5	4228.5	4224.5	4226.5	4226.5	4220.5	4220.5
10°	4162.6	4166.6	4166.6	4164.6	4174.6	4174.6	4172.6	4178.6	4180.6	4174.6	4170.6
12.5°	4108.7	4114.7	4114.7	4122.7	4132.7	4136.7	4146.7	4154.6	4162.6	4160.6	4152.6
15°	4076.8	4080.8	4088.8	4098.8	4114.7	4128.7	4144.7	4162.6	4178.6	4182.6	4170.6
17.5°	4056.9	4062.8	4074.8	4088.8	4110.7	4134.7	4158.6	4182.6	4204.5	4212.5	4198.5
20°	4050.9	4054.9	4066.8	4090.8	4120.7	4156.6	4190.6	4218.5	4248.4	4258.4	4248.4
22.5°	4062.8	4070.8	4084.8	4112.7	4152.6	4198.5	4238.4	4276.4	4314.3	4332.2	4318.3
25°	4116.7	4124.7	4142.7	4178.6	4222.5	4270.4	4316.3	4360.2	4394.1	4412.1	4402.1
27.5°	4216.5	4226.5	4248.4	4284.3	4332.2	4384.1	4434.0	4469.9	4497.9	4503.8	4491.9
30°	4366.2	4388.1	4414.0	4454.0	4509.8	4553.7	4603.6	4635.6	4669.5	4669.5	4659.5
32.5°	4599.6	4621.6	4649.5	4687.4	4731.3	4779.2	4823.1	4851.1	4887.0	4889.0	4865.0
35°	4948.8	4958.8	4982.8	5006.7	5046.6	5088.5	5126.4	5144.4	5174.3	5176.3	5154.4
37.5°	5409.8	5411.8	5427.8	5435.7	5471.7	5517.6	5553.5	5565.5	5593.4	5589.4	5567.4
40°	5946.6	5956.6	5962.6	5974.5	6012.4	6056.3	6094.3	6100.2	6130.2	6124.2	6096.3
42.5°	6567.2	6571.2	6605.1	6623.1	6659.0	6680.9	6728.8	6734.8	6770.7	6754.8	6722.8
45°	7263.6	7299.5	7331.5	7367.4	7405.3	7431.2	7469.2	7461.2	7485.1	7461.2	7443.2
47.5°	7996.0	8021.9	8093.8	8149.6	8211.5	8233.4	8287.3	8263.4	8287.3	8253.4	8247.4
50°	8802.2	8848.1	8909.9	8973.8	9039.6	9075.5	9145.4	9115.5	9147.4	9115.5	9097.5
52.5°	9596.4	9608.3	9744.0	9837.8	9929.6	9971.5	10013.4	9999.5	10001.5	9999.5	9981.5
55°	10350.7	10378.6	10514.3	10642.0	10801.7	10919.4	10991.2	10983.2	10965.3	10947.3	10917.4
57.5°	11200.8	11228.7	11384.3	11542.0	11723.6	11891.2	12036.9	12186.5	12244.4	12260.4	12194.5
60°	12350.2	12348.2	12555.7	12747.3	13006.7	13256.1	13575.4	13900.7	14273.8	14447.4	14217.9
62.5°	13519.5	13567.4	13866.7	14206.0	14740.8	15261.6	15850.3	16429.0	17019.6	17500.5	16989.7
65°	13379.8	13563.4	14008.4	14776.7	15764.5	16937.8	18207.0	19549.9	20763.2	21597.3	20661.4
67.5°	11595.9	11857.3	12310.2	13244.1	14479.4	16171.5	18302.7	20958.8	24045.8	25538.4	23688.6
70°	8405.1	8700.4	9175.3	10087.3	11310.5	12918.9	15233.7	18422.5	22509.3	24013.9	21976.5
72.5°	4182.6	4342.2	4635.6	5216.2	6142.2	7447.2	9546.5	12611.6	16227.4	17608.3	15746.5
75°	1420.8	1494.6	1544.5	1734.1	2027.4	2540.3	3583.9	5513.6	8411.0	10083.3	8291.3
77.5°	820.2	822.1	856.1	890.0	939.9	995.8	1135.4	1490.6	2578.2	3661.7	2668.0
80°	530.8	528.8	556.7	582.7	616.6	644.5	652.5	690.4	796.2	943.9	844.1
82.5°	275.4	309.3	371.2	405.1	468.9	480.9	465.0	451.0	476.9	494.9	506.9
85°	151.7	131.7	197.6	255.4	283.4	287.4	287.4	271.4	281.4	275.4	299.3
87.5°	69.8	63.9	77.8	125.7	133.7	113.7	119.7	105.8	75.8	73.8	83.8
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°	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3	4324.3
2.5°	4304.3	4306.3	4306.3	4312.3	4314.3	4318.3	4322.3	4324.3
5°	4270.4	4276.4	4272.4	4278.4	4278.4	4282.3	4282.3	4284.3
7.5°	4220.5	4226.5	4226.5	4226.5	4224.5	4230.5	4230.5	4230.5
10°	4168.6	4172.6	4170.6	4166.6	4162.6	4168.6	4166.6	4164.6
12.5°	4152.6	4142.7	4134.7	4130.7	4122.7	4124.7	4118.7	4118.7
15°	4162.6	4144.7	4130.7	4124.7	4116.7	4112.7	4108.7	4110.7
17.5°	4188.6	4166.6	4148.6	4138.7	4128.7	4122.7	4114.7	4116.7
20°	4234.5	4208.5	4182.6	4162.6	4144.7	4134.7	4128.7	4126.7
22.5°	4302.3	4264.4	4226.5	4196.5	4172.6	4158.6	4152.6	4148.6
25°	4380.1	4338.2	4294.3	4260.4	4236.4	4218.5	4206.5	4206.5
27.5°	4477.9	4444.0	4404.1	4364.2	4342.2	4324.3	4316.3	4312.3
30°	4641.5	4609.6	4577.7	4539.8	4511.8	4493.9	4479.9	4467.9
32.5°	4851.1	4825.1	4799.2	4771.2	4745.3	4721.4	4699.4	4689.4
35°	5146.4	5126.4	5108.5	5076.6	5066.6	5052.6	5040.6	5030.7
37.5°	5553.5	5545.5	5545.5	5511.6	5503.6	5497.6	5485.6	5487.6
40°	6088.3	6096.3	6086.3	6074.3	6068.3	6052.4	6052.4	6066.3
42.5°	6720.8	6726.8	6748.8	6728.8	6750.8	6730.8	6718.9	6728.8
45°	7455.2	7477.1	7521.0	7501.1	7515.1	7481.1	7439.2	7441.2
47.5°	8279.3	8299.3	8317.3	8303.3	8305.3	8249.4	8193.5	8179.6
50°	9135.4	9143.4	9153.4	9133.4	9137.4	9075.5	9011.7	9013.7
52.5°	9981.5	10019.4	10059.3	10005.4	9993.5	9923.6	9833.8	9797.9
55°	10949.3	11003.2	10957.3	10863.5	10769.7	10675.9	10558.2	10538.2
57.5°	12142.6	12050.8	11907.2	11729.6	11599.9	11468.1	11348.4	11298.5
60°	13802.9	13457.7	13198.2	12934.8	12769.2	12607.6	12449.9	12426.0
62.5°	16149.6	15552.9	15036.1	14491.3	14046.3	13699.1	13421.7	13343.9
65°	19091.0	17680.1	16456.9	15315.5	14323.7	13575.4	13104.5	12896.9
67.5°	20356.1	17570.4	15473.1	13852.8	12555.7	11649.7	11140.9	10887.5
70°	17887.7	14571.2	12290.3	10668.0	9486.6	8520.8	8059.8	7788.4
72.5°	12306.3	9269.1	7329.5	5982.5	5038.6	4230.5	3911.2	3887.2
75°	5525.5	3659.7	2522.3	1943.6	1636.3	1422.8	1356.9	1307.1
77.5°	1546.5	1143.4	1019.7	953.8	890.0	816.2	788.2	794.2
80°	752.3	710.4	682.5	640.6	582.7	520.8	492.9	504.9
82.5°	498.9	492.9	510.8	480.9	397.1	337.2	283.4	259.4
85°	303.3	307.3	313.3	315.3	267.4	187.6	127.7	143.7
87.5°	119.7	137.7	149.7	155.6	145.7	89.8	71.8	73.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)