

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: P299623

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299623
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-09-LED-E1-5MQ-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 48404.4 lumens
Efficiency: N/A
Efficacy: 96.6 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

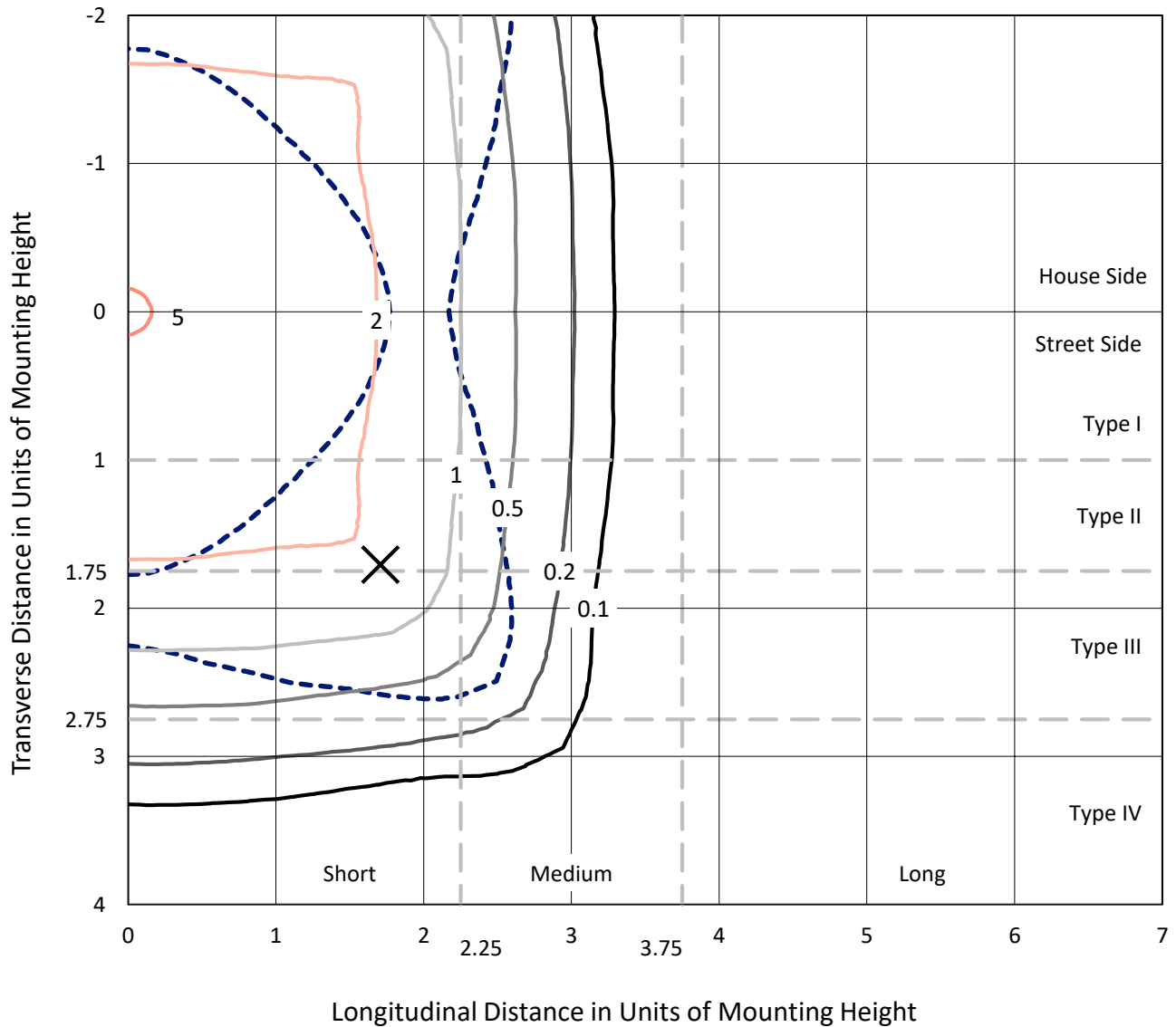
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

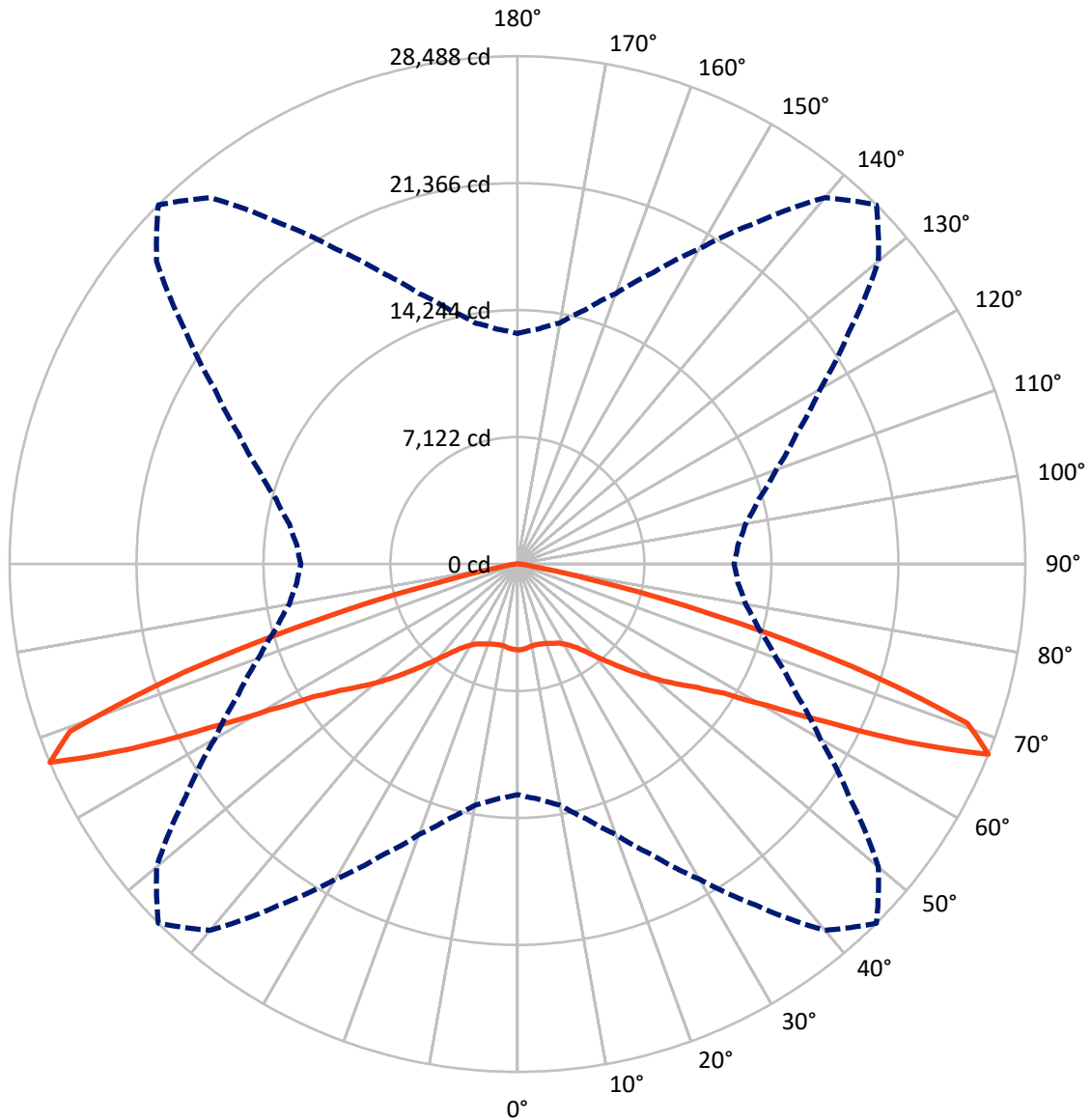
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.4 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	24202.2	0.0	24202.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	24202.2	0.0	24202.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	48404.4	0.0	48404.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	451.5	0.9
10°-20°	1310.1	2.7
20°-30°	2227.1	4.6
30°-40°	3640.7	7.5
40°-50°	6499.3	13.4
50°-60°	10958.0	22.6
60°-70°	17005.2	35.1
70°-80°	5974.9	12.3
80°-90°	337.7	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°	48404.4	100.0
0°-180°	48404.4	100.0



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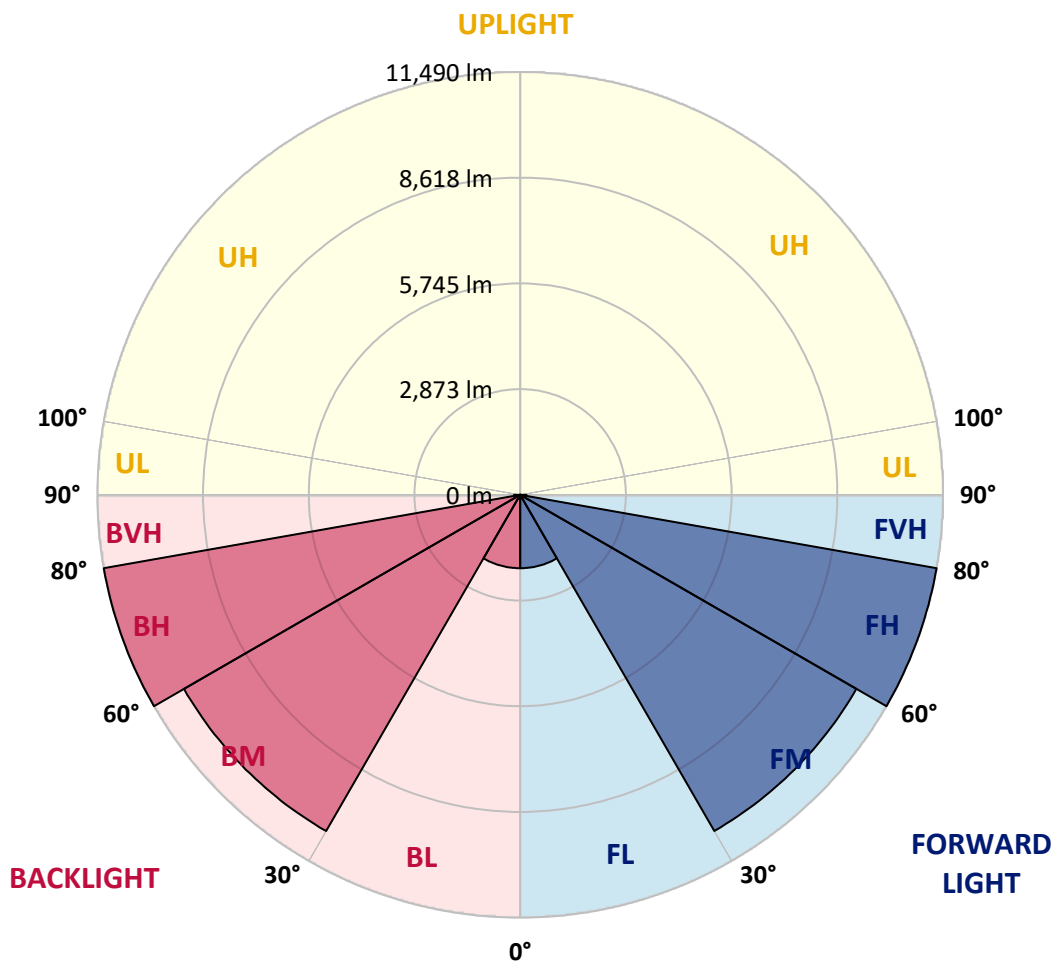
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1994.4	4.1			
FM	(30°-60°)	10549.0	21.8			
FH	(60°-80°)	11490.0	23.7			G4/12000
FVH	(80°-90°)	168.8	0.3			G2/225
BL	(0°-30°)	1994.4	4.1	B3/2500		
BM	(30°-60°)	10549.0	21.8	B5		
BH	(60°-80°)	11490.0	23.7	B5		G4/12000
BVH	(80°-90°)	168.8	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°	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7
2.5°	4805.9	4810.3	4810.3	4810.3	4808.1	4808.1	4803.7	4808.1	4805.9	4799.2	4801.4
5°	4765.8	4770.3	4770.3	4768.1	4774.7	4772.5	4765.8	4770.3	4768.1	4763.6	4765.8
7.5°	4708.0	4714.6	4714.6	4712.4	4719.1	4716.9	4712.4	4714.6	4714.6	4708.0	4708.0
10°	4643.4	4647.8	4647.8	4645.6	4656.8	4656.8	4654.5	4661.2	4663.4	4656.8	4652.3
12.5°	4583.3	4590.0	4590.0	4598.9	4610.0	4614.5	4625.6	4634.5	4643.4	4641.2	4632.3
15°	4547.7	4552.1	4561.0	4572.2	4590.0	4605.6	4623.4	4643.4	4661.2	4665.7	4652.3
17.5°	4525.4	4532.1	4545.5	4561.0	4585.5	4612.2	4638.9	4665.7	4690.1	4699.0	4683.5
20°	4518.7	4523.2	4536.5	4563.3	4596.7	4636.7	4674.6	4705.7	4739.1	4750.2	4739.1
22.5°	4532.1	4541.0	4556.6	4587.7	4632.3	4683.5	4728.0	4770.3	4812.6	4832.6	4817.0
25°	4592.2	4601.1	4621.1	4661.2	4710.2	4763.6	4814.8	4863.8	4901.6	4921.6	4910.5
27.5°	4703.5	4714.6	4739.1	4779.2	4832.6	4890.5	4946.1	4986.2	5017.4	5024.0	5010.7
30°	4870.4	4894.9	4923.9	4968.4	5030.7	5079.7	5135.3	5171.0	5208.8	5208.8	5197.7
32.5°	5130.9	5155.4	5186.5	5228.8	5277.8	5331.2	5380.2	5411.4	5451.4	5453.7	5426.9
35°	5520.4	5531.6	5558.3	5585.0	5629.5	5676.3	5718.5	5738.6	5772.0	5774.2	5749.7
37.5°	6034.6	6036.9	6054.7	6063.6	6103.6	6154.8	6194.9	6208.3	6239.4	6235.0	6210.5
40°	6633.4	6644.6	6651.2	6664.6	6706.9	6755.9	6798.1	6804.8	6838.2	6831.5	6800.4
42.5°	7325.7	7330.2	7368.0	7388.0	7428.1	7452.6	7506.0	7512.7	7552.8	7534.9	7499.3
45°	8102.6	8142.6	8178.3	8218.3	8260.6	8289.6	8331.8	8322.9	8349.7	8322.9	8302.9
47.5°	8919.5	8948.4	9028.6	9090.9	9159.9	9184.4	9244.5	9217.8	9244.5	9206.7	9200.0
50°	9818.8	9870.0	9939.0	10010.2	10083.7	10123.8	10201.7	10168.3	10203.9	10168.3	10148.2
52.5°	10704.7	10718.1	10869.5	10974.1	11076.5	11123.2	11170.0	11154.4	11156.6	11154.4	11134.4
55°	11546.2	11577.3	11728.7	11871.2	12049.2	12180.6	12260.7	12251.8	12231.8	12211.7	12178.3
57.5°	12494.4	12525.6	12699.2	12875.1	13077.6	13264.6	13427.1	13594.1	13658.6	13676.4	13603.0
60°	13776.6	13774.4	14005.9	14219.6	14508.9	14787.2	15143.4	15506.2	15922.4	16116.1	15860.1
62.5°	15081.0	15134.4	15468.3	15846.8	16443.3	17024.3	17681.0	18326.5	18985.4	19521.9	18952.0
65°	14925.2	15130.0	15626.4	16483.4	17585.3	18894.1	20309.9	21807.9	23161.3	24091.8	23047.8
67.5°	12935.2	13226.8	13732.1	14773.8	16151.7	18039.4	20416.7	23379.5	26823.1	28488.1	26424.6
70°	9375.8	9705.3	10235.1	11252.3	12616.9	14411.0	16993.1	20550.3	25109.1	26787.5	24514.7
72.5°	4665.7	4843.7	5171.0	5818.7	6851.6	8307.4	10649.1	14068.2	18101.7	19642.1	17565.2
75°	1584.9	1667.3	1722.9	1934.4	2261.6	2833.7	3997.9	6150.4	9382.5	11247.9	9249.0
77.5°	914.9	917.1	954.9	992.8	1048.4	1110.8	1266.6	1662.8	2876.0	4084.7	2976.1
80°	592.1	589.9	621.0	650.0	687.8	719.0	727.9	770.2	888.2	1052.9	941.6
82.5°	307.2	345.0	414.0	451.9	523.1	536.5	518.7	503.1	532.0	552.0	565.4
85°	169.2	146.9	220.4	284.9	316.1	320.5	320.5	302.7	313.9	307.2	333.9
87.5°	77.9	71.2	86.8	140.2	149.1	126.9	133.6	118.0	84.6	82.4	93.5
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°	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7	4823.7
2.5°	4801.4	4803.7	4803.7	4810.3	4812.6	4817.0	4821.5	4823.7
5°	4763.6	4770.3	4765.8	4772.5	4772.5	4777.0	4777.0	4779.2
7.5°	4708.0	4714.6	4714.6	4714.6	4712.4	4719.1	4719.1	4719.1
10°	4650.1	4654.5	4652.3	4647.8	4643.4	4650.1	4647.8	4645.6
12.5°	4632.3	4621.1	4612.2	4607.8	4598.9	4601.1	4594.4	4594.4
15°	4643.4	4623.4	4607.8	4601.1	4592.2	4587.7	4583.3	4585.5
17.5°	4672.3	4647.8	4627.8	4616.7	4605.6	4598.9	4590.0	4592.2
20°	4723.5	4694.6	4665.7	4643.4	4623.4	4612.2	4605.6	4603.3
22.5°	4799.2	4756.9	4714.6	4681.2	4654.5	4638.9	4632.3	4627.8
25°	4886.0	4839.3	4790.3	4752.5	4725.8	4705.7	4692.4	4692.4
27.5°	4995.1	4957.3	4912.7	4868.2	4843.7	4823.7	4814.8	4810.3
30°	5177.6	5142.0	5106.4	5064.1	5032.9	5012.9	4997.3	4984.0
32.5°	5411.4	5382.4	5353.5	5322.3	5293.4	5266.7	5242.2	5231.1
35°	5740.8	5718.5	5698.5	5662.9	5651.8	5636.2	5622.8	5611.7
37.5°	6194.9	6186.0	6186.0	6148.2	6139.3	6132.6	6119.2	6121.4
40°	6791.5	6800.4	6789.2	6775.9	6769.2	6751.4	6751.4	6767.0
42.5°	7497.1	7503.8	7528.3	7506.0	7530.5	7508.2	7494.9	7506.0
45°	8316.3	8340.8	8389.7	8367.5	8383.0	8345.2	8298.5	8300.7
47.5°	9235.6	9257.9	9277.9	9262.3	9264.5	9202.2	9139.9	9124.3
50°	10190.5	10199.4	10210.6	10188.3	10192.8	10123.8	10052.5	10054.8
52.5°	11134.4	11176.7	11221.2	11161.1	11147.7	11069.8	10969.6	10929.6
55°	12214.0	12274.1	12222.9	12118.2	12013.6	11909.0	11777.7	11755.4
57.5°	13545.1	13442.7	13282.4	13084.3	12939.6	12792.7	12659.2	12603.5
60°	15397.1	15012.0	14722.6	14428.8	14244.1	14063.8	13887.9	13861.2
62.5°	18014.9	17349.3	16772.8	16165.1	15668.7	15281.4	14972.0	14885.1
65°	21296.0	19722.2	18357.7	17084.4	15978.1	15143.4	14618.0	14386.5
67.5°	22707.2	19599.8	17260.3	15452.8	14005.9	12995.3	12427.7	12145.0
70°	19953.7	16254.1	13709.8	11900.1	10582.3	9504.9	8990.7	8688.0
72.5°	13727.6	10339.7	8176.0	6673.5	5620.6	4719.1	4362.9	4336.2
75°	6163.7	4082.4	2813.6	2168.1	1825.3	1587.1	1513.7	1458.0
77.5°	1725.1	1275.5	1137.5	1064.0	992.8	910.4	879.3	885.9
80°	839.2	792.4	761.3	714.5	650.0	581.0	549.8	563.2
82.5°	556.5	549.8	569.9	536.5	443.0	376.2	316.1	289.4
85°	338.3	342.8	349.5	351.7	298.3	209.2	142.5	160.3
87.5°	133.6	153.6	166.9	173.6	162.5	100.2	80.1	82.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)