

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: P299687

Luminaire Tested: **GLNA-AF-09-LED-E1-5MQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299687
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-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45008.3 lumens
Efficiency: N/A
Efficacy: 120.3 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): 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

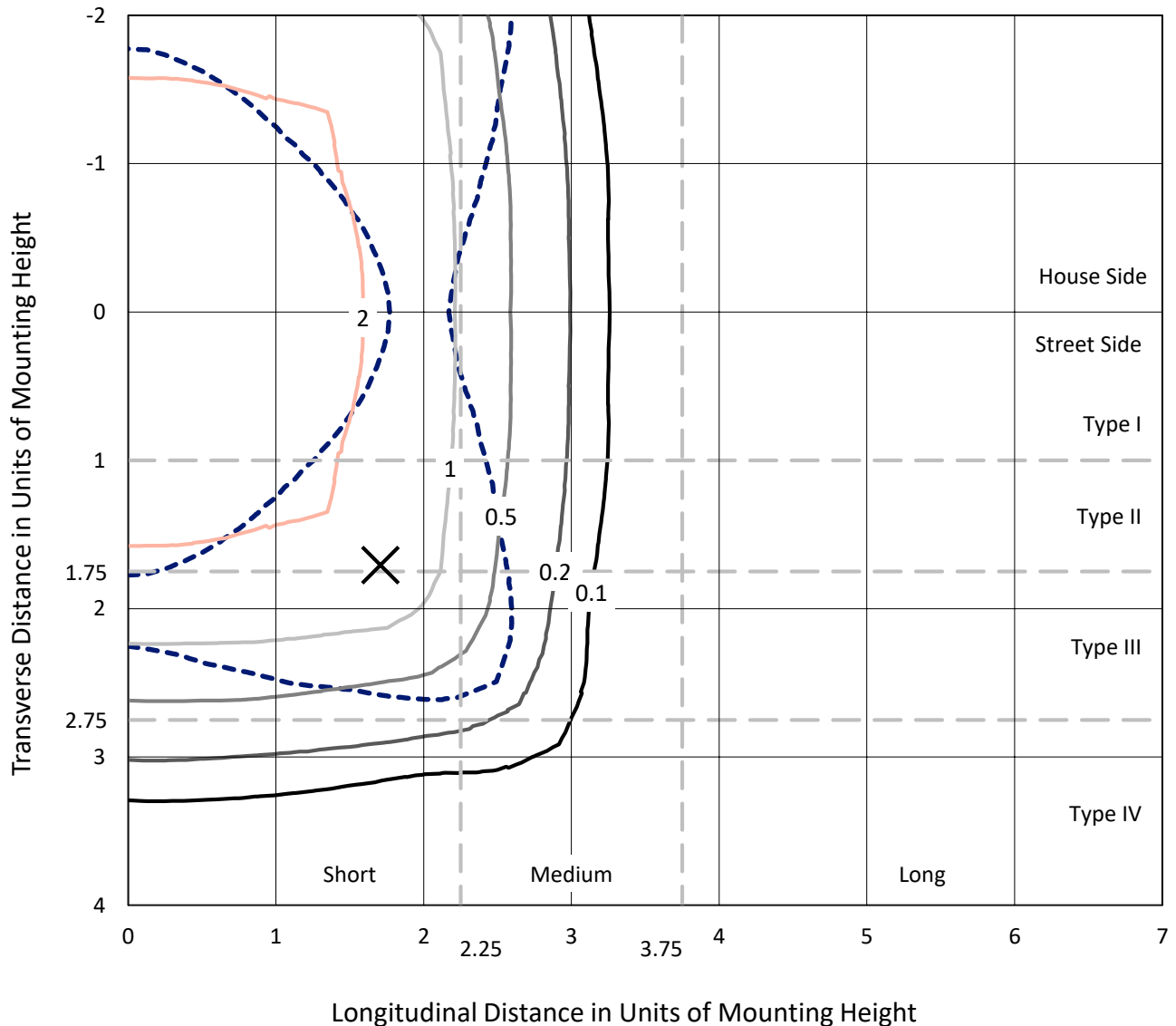


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

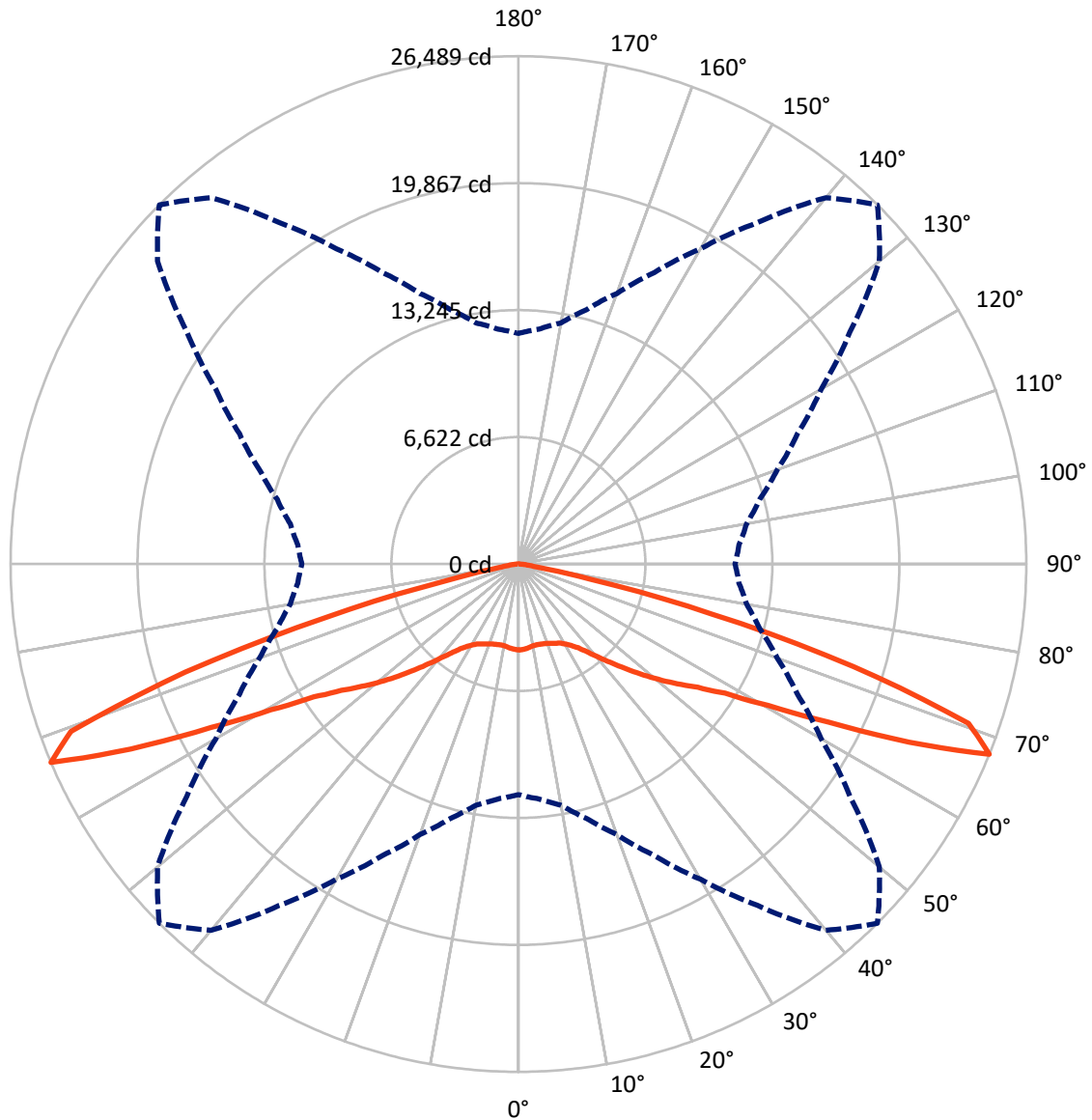


Based on 30 foot mounting height. Maximum calculated value = 5 fc
 Type V - Short - Full Cutoff

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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	22504.2	0.0	22504.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	22504.2	0.0	22504.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	45008.3	0.0	45008.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.8	0.9
10°-20°	1218.2	2.7
20°-30°	2070.9	4.6
30°-40°	3385.3	7.5
40°-50°	6043.3	13.4
50°-60°	10189.2	22.6
60°-70°	15812.1	35.1
70°-80°	5555.7	12.3
80°-90°	314.0	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°	45008.3	100.0
0°-180°	45008.3	100.0



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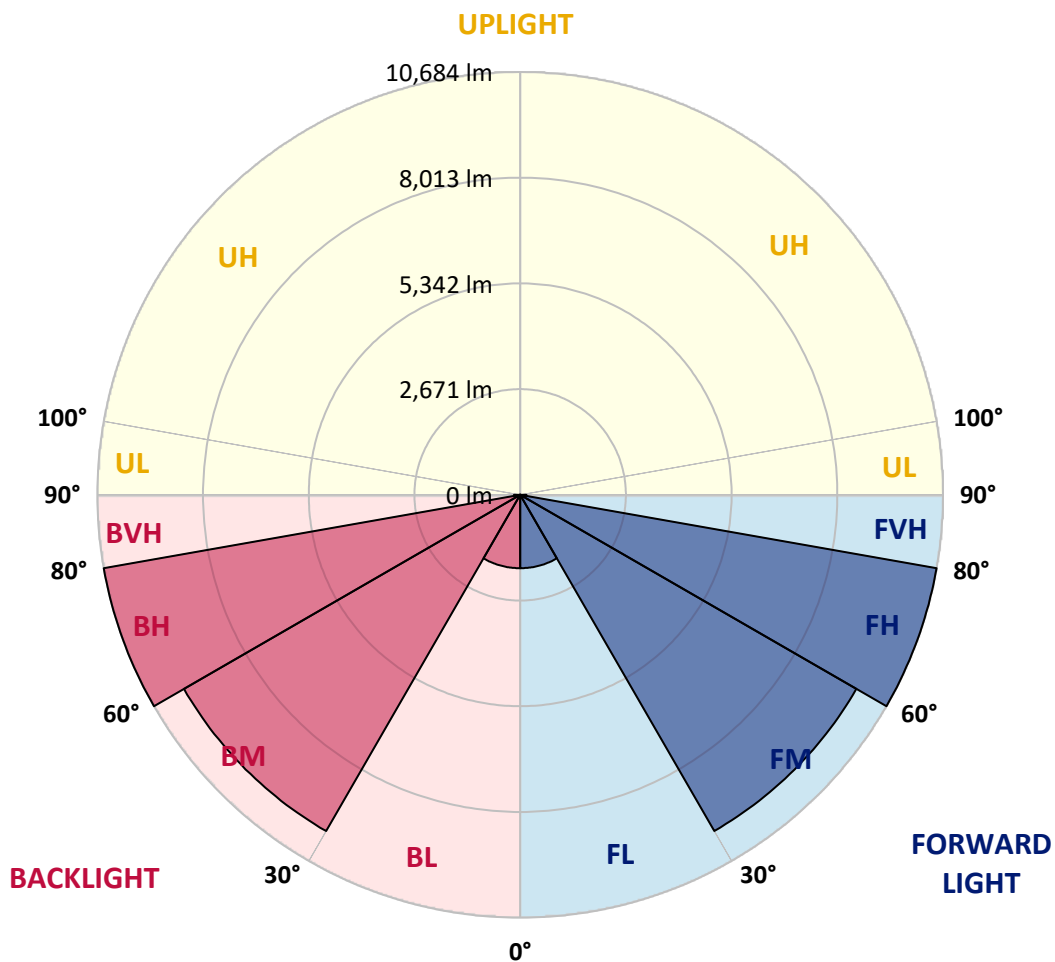
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1854.4	4.1			
FM	(30°-60°)	9808.9	21.8			
FH	(60°-80°)	10683.9	23.7			G4/12000
FVH	(80°-90°)	157.0	0.3			G2/225
BL	(0°-30°)	1854.4	4.1	B3/2500		
BM	(30°-60°)	9808.9	21.8	B5		
BH	(60°-80°)	10683.9	23.7	B5		G4/12000
BVH	(80°-90°)	157.0	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°	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3
2.5°	4468.7	4472.9	4472.9	4472.9	4470.8	4470.8	4466.6	4470.8	4468.7	4462.5	4464.6
5°	4431.5	4435.6	4435.6	4433.5	4439.7	4437.7	4431.5	4435.6	4433.5	4429.4	4431.5
7.5°	4377.6	4383.8	4383.8	4381.8	4388.0	4385.9	4381.8	4383.8	4383.8	4377.6	4377.6
10°	4317.6	4321.8	4321.8	4319.7	4330.0	4330.0	4328.0	4334.2	4336.2	4330.0	4325.9
12.5°	4261.7	4267.9	4267.9	4276.2	4286.6	4290.7	4301.1	4309.3	4317.6	4315.5	4307.3
15°	4228.6	4232.8	4241.0	4251.4	4267.9	4282.4	4299.0	4317.6	4334.2	4338.3	4325.9
17.5°	4207.9	4214.1	4226.5	4241.0	4263.8	4288.6	4313.5	4338.3	4361.1	4369.4	4354.9
20°	4201.7	4205.8	4218.3	4243.1	4274.2	4311.4	4346.6	4375.6	4406.6	4417.0	4406.6
22.5°	4214.1	4222.4	4236.9	4265.9	4307.3	4354.9	4396.3	4435.6	4474.9	4493.5	4479.1
25°	4270.0	4278.3	4296.9	4334.2	4379.7	4429.4	4477.0	4522.5	4557.7	4576.3	4566.0
27.5°	4373.5	4383.8	4406.6	4443.9	4493.5	4547.4	4599.1	4636.4	4665.3	4671.6	4659.1
30°	4528.7	4551.5	4578.4	4619.8	4677.8	4723.3	4775.0	4808.2	4843.3	4843.3	4833.0
32.5°	4770.9	4793.7	4822.6	4862.0	4907.5	4957.2	5002.7	5031.7	5069.0	5071.0	5046.2
35°	5133.1	5143.5	5168.3	5193.1	5234.5	5278.0	5317.3	5336.0	5367.0	5369.1	5346.3
37.5°	5611.2	5613.3	5629.9	5638.2	5675.4	5723.0	5760.3	5772.7	5801.7	5797.5	5774.8
40°	6168.0	6178.4	6184.6	6197.0	6236.3	6281.9	6321.2	6327.4	6358.4	6352.2	6323.3
42.5°	6811.7	6815.9	6851.1	6869.7	6906.9	6929.7	6979.4	6985.6	7022.9	7006.3	6973.2
45°	7534.1	7571.4	7604.5	7641.7	7681.1	7708.0	7747.3	7739.0	7763.8	7739.0	7720.4
47.5°	8293.7	8320.6	8395.1	8453.1	8517.3	8540.0	8595.9	8571.1	8595.9	8560.7	8554.5
50°	9129.9	9177.5	9241.7	9307.9	9376.2	9413.5	9485.9	9454.9	9488.0	9454.9	9436.2
52.5°	9953.7	9966.1	10106.9	10204.1	10299.4	10342.8	10386.3	10371.8	10373.9	10371.8	10353.2
55°	10736.1	10765.1	10905.8	11038.3	11203.9	11326.0	11400.5	11392.2	11373.6	11355.0	11323.9
57.5°	11617.8	11646.8	11808.2	11971.8	12160.1	12334.0	12485.1	12640.3	12700.3	12716.9	12648.6
60°	12810.0	12808.0	13023.2	13221.9	13491.0	13749.7	14080.9	14418.3	14805.3	14985.4	14747.4
62.5°	14022.9	14072.6	14383.1	14735.0	15289.7	15829.9	16440.5	17040.7	17653.4	18152.2	17622.3
65°	13878.1	14068.5	14530.0	15326.9	16351.5	17568.5	18884.9	20277.9	21536.3	22401.5	21430.8
67.5°	12027.6	12298.8	12768.6	13737.3	15018.5	16773.7	18984.3	21739.2	24941.2	26489.4	24570.7
70°	8718.0	9024.4	9517.0	10462.9	11731.7	13399.9	15800.9	19108.5	23347.4	24908.0	22794.8
72.5°	4338.3	4503.9	4808.2	5410.5	6370.9	7724.5	9902.0	13081.2	16831.7	18264.0	16332.8
75°	1473.7	1550.3	1602.0	1798.7	2102.9	2634.9	3717.4	5718.9	8724.2	10458.7	8600.0
77.5°	850.7	852.8	887.9	923.1	974.9	1032.8	1177.7	1546.1	2674.2	3798.1	2767.3
80°	550.6	548.5	577.5	604.4	639.6	668.5	676.8	716.2	825.9	979.0	875.5
82.5°	285.6	320.8	385.0	420.2	486.4	498.8	482.3	467.8	494.7	513.3	525.7
85°	157.3	136.6	204.9	264.9	293.9	298.1	298.1	281.5	291.8	285.6	310.5
87.5°	72.4	66.2	80.7	130.4	138.7	118.0	124.2	109.7	78.7	76.6	86.9
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°	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3	4485.3
2.5°	4464.6	4466.6	4466.6	4472.9	4474.9	4479.1	4483.2	4485.3
5°	4429.4	4435.6	4431.5	4437.7	4437.7	4441.8	4441.8	4443.9
7.5°	4377.6	4383.8	4383.8	4383.8	4381.8	4388.0	4388.0	4388.0
10°	4323.8	4328.0	4325.9	4321.8	4317.6	4323.8	4321.8	4319.7
12.5°	4307.3	4296.9	4288.6	4284.5	4276.2	4278.3	4272.1	4272.1
15°	4317.6	4299.0	4284.5	4278.3	4270.0	4265.9	4261.7	4263.8
17.5°	4344.5	4321.8	4303.1	4292.8	4282.4	4276.2	4267.9	4270.0
20°	4392.1	4365.2	4338.3	4317.6	4299.0	4288.6	4282.4	4280.4
22.5°	4462.5	4423.2	4383.8	4352.8	4328.0	4313.5	4307.3	4303.1
25°	4543.2	4499.8	4454.2	4419.0	4394.2	4375.6	4363.2	4363.2
27.5°	4644.6	4609.5	4568.1	4526.7	4503.9	4485.3	4477.0	4472.9
30°	4814.4	4781.3	4748.1	4708.8	4679.8	4661.2	4646.7	4634.3
32.5°	5031.7	5004.8	4977.9	4948.9	4922.0	4897.2	4874.4	4864.0
35°	5338.0	5317.3	5298.7	5265.6	5255.2	5240.7	5228.3	5218.0
37.5°	5760.3	5752.0	5752.0	5716.8	5708.5	5702.3	5689.9	5692.0
40°	6315.0	6323.3	6312.9	6300.5	6294.3	6277.7	6277.7	6292.2
42.5°	6971.1	6977.3	7000.1	6979.4	7002.2	6981.5	6969.0	6979.4
45°	7732.8	7755.6	7801.1	7780.4	7794.9	7759.7	7716.2	7718.3
47.5°	8587.6	8608.3	8627.0	8612.5	8614.5	8556.6	8498.6	8484.1
50°	9475.6	9483.9	9494.2	9473.5	9477.6	9413.5	9347.2	9349.3
52.5°	10353.2	10392.5	10433.9	10378.0	10365.6	10293.1	10200.0	10162.7
55°	11357.0	11412.9	11365.3	11268.0	11170.7	11073.5	10951.3	10930.6
57.5°	12594.8	12499.6	12350.5	12166.3	12031.8	11895.2	11771.0	11719.2
60°	14316.9	13958.8	13689.7	13416.5	13244.7	13077.0	12913.5	12888.7
62.5°	16750.9	16132.1	15596.0	15030.9	14569.4	14209.2	13921.5	13840.8
65°	19801.8	18338.5	17069.7	15885.8	14857.1	14080.9	13592.4	13377.2
67.5°	21114.1	18224.6	16049.3	14368.6	13023.2	12083.5	11555.7	11292.9
70°	18553.7	15113.7	12747.9	11065.2	9839.9	8838.1	8359.9	8078.5
72.5°	12764.5	9614.3	7602.4	6205.3	5226.3	4388.0	4056.8	4032.0
75°	5731.3	3796.0	2616.2	2016.0	1697.2	1475.8	1407.5	1355.7
77.5°	1604.1	1186.0	1057.7	989.4	923.1	846.6	817.6	823.8
80°	780.3	736.9	707.9	664.4	604.4	540.2	511.2	523.7
82.5°	517.5	511.2	529.9	498.8	411.9	349.8	293.9	269.1
85°	314.6	318.8	325.0	327.0	277.4	194.6	132.5	149.0
87.5°	124.2	142.8	155.2	161.4	151.1	93.1	74.5	76.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)