

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: P299694

Luminaire Tested: **GLNA-AF-10-LED-E1-5MQ-7060-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299694
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-10-LED-E1-5MQ-7060-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5700K 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: 49831.4 lumens
Efficiency: N/A
Efficacy: 118.9 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): 419
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

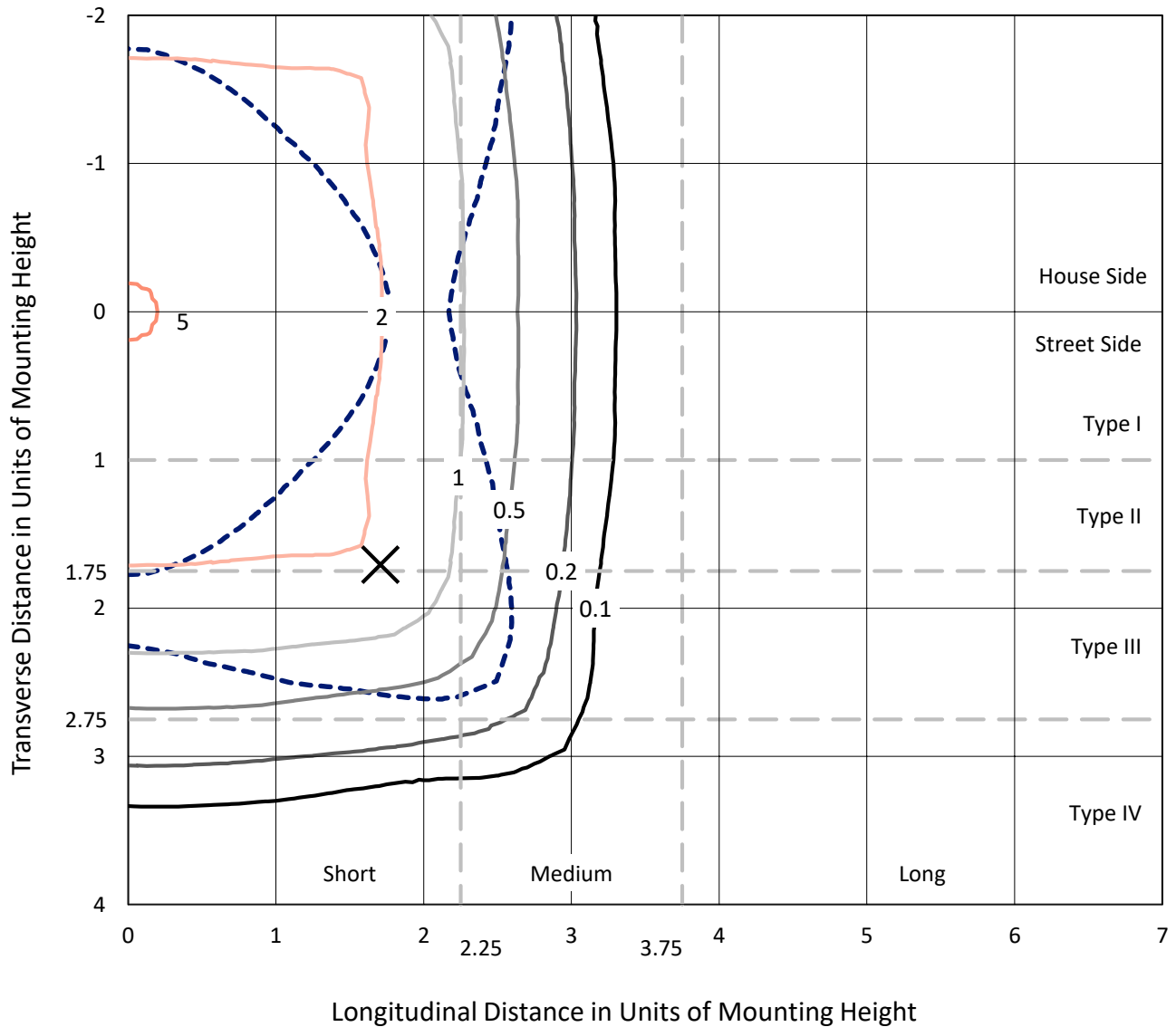


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

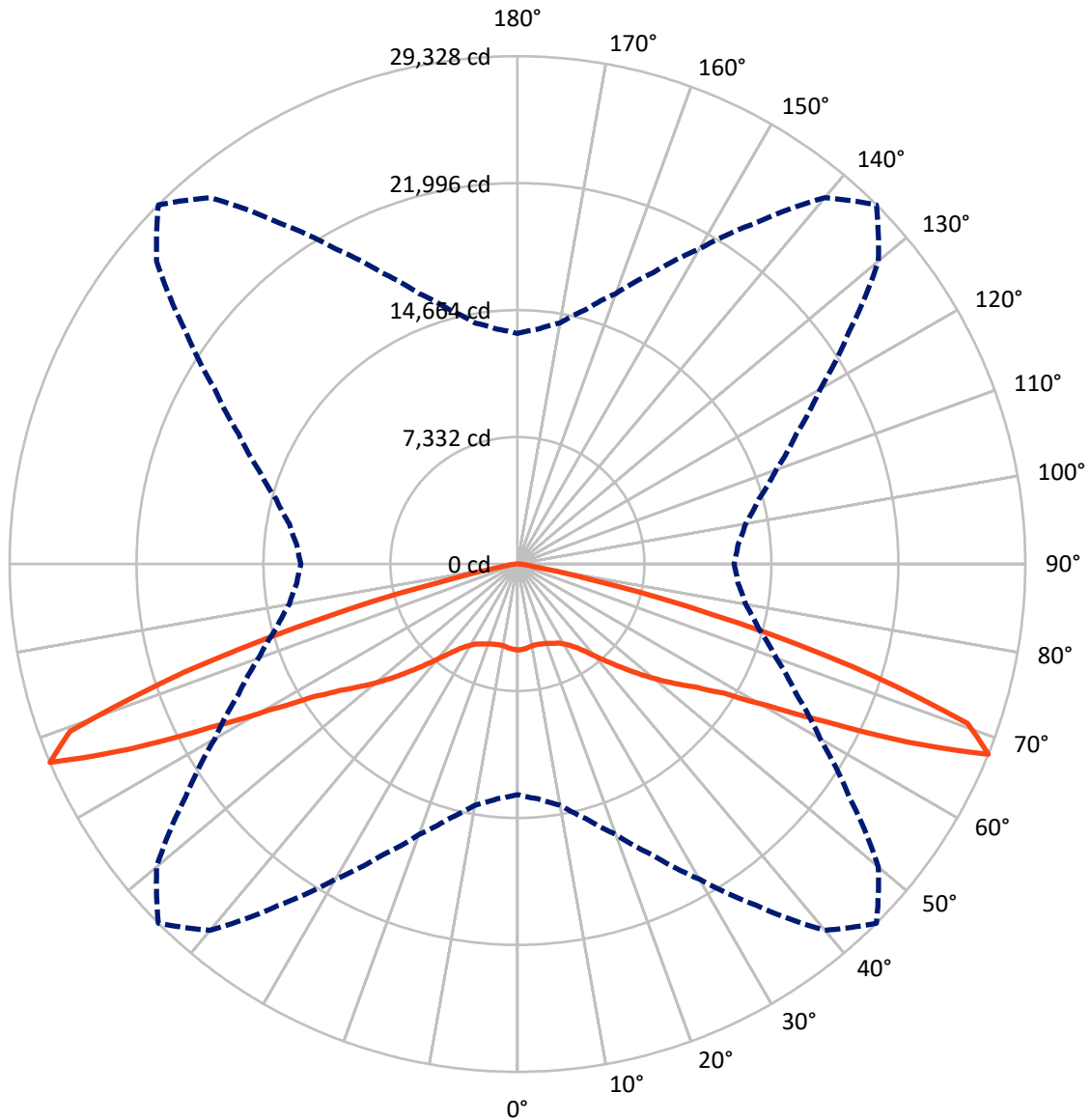


Based on 30 foot mounting height. Maximum calculated value = 5.5 fc
 Type V - Short - Full Cutoff

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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	24915.7	0.0	24915.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	24915.7	0.0	24915.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	49831.4	0.0	49831.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	464.8	0.9
10°-20°	1348.7	2.7
20°-30°	2292.8	4.6
30°-40°	3748.0	7.5
40°-50°	6690.9	13.4
50°-60°	11281.0	22.6
60°-70°	17506.5	35.1
70°-80°	6151.0	12.3
80°-90°	347.6	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°	49831.4	100.0
0°-180°	49831.4	100.0



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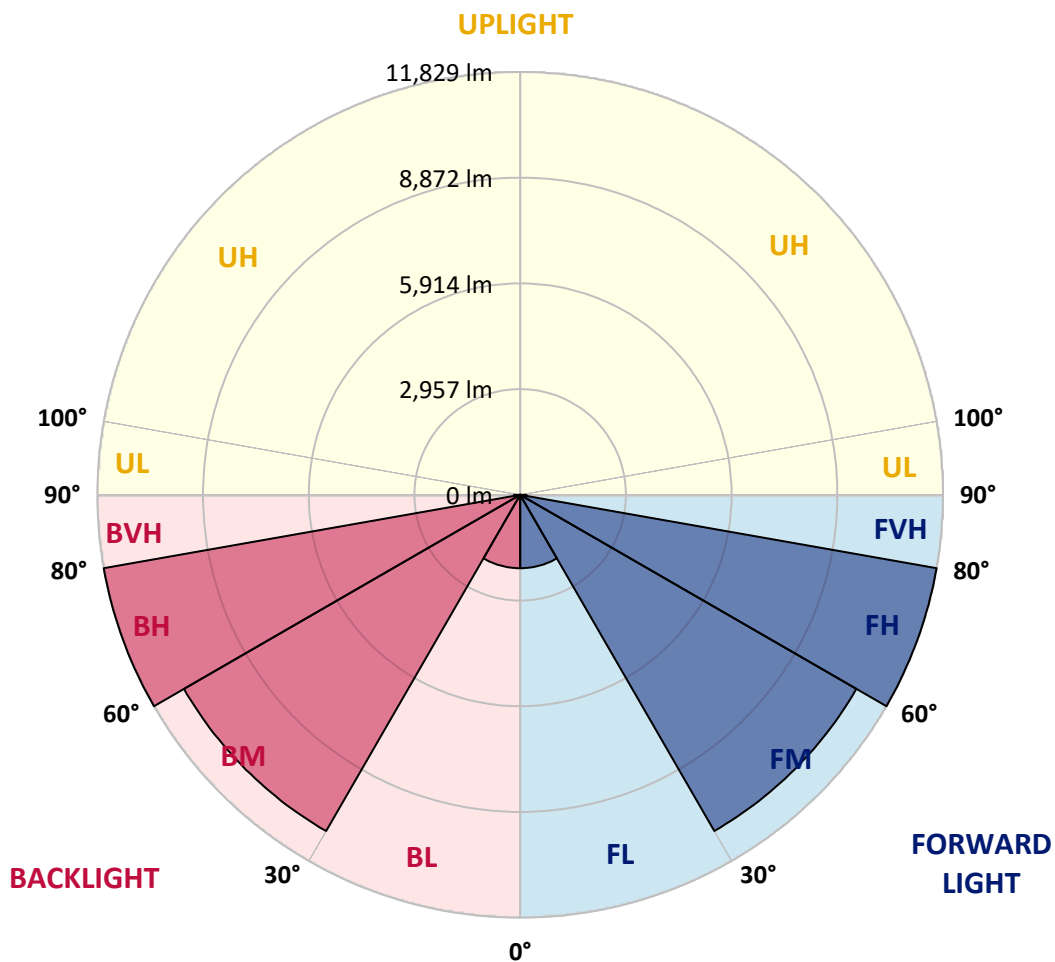
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2053.2	4.1			
FM	(30°-60°)	10860.0	21.8			
FH	(60°-80°)	11828.8	23.7			G4/12000
FVH	(80°-90°)	173.8	0.3			G2/225
BL	(0°-30°)	2053.2	4.1	B3/2500		
BM	(30°-60°)	10860.0	21.8	B5		
BH	(60°-80°)	11828.8	23.7	B5		G4/12000
BVH	(80°-90°)	173.8	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°	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9
2.5°	4947.6	4952.2	4952.2	4952.2	4949.9	4949.9	4945.3	4949.9	4947.6	4940.7	4943.0
5°	4906.3	4910.9	4910.9	4908.6	4915.5	4913.2	4906.3	4910.9	4908.6	4904.0	4906.3
7.5°	4846.7	4853.6	4853.6	4851.3	4858.2	4855.9	4851.3	4853.6	4853.6	4846.7	4846.7
10°	4780.3	4784.9	4784.9	4782.6	4794.0	4794.0	4791.7	4798.6	4800.9	4794.0	4789.5
12.5°	4718.4	4725.3	4725.3	4734.5	4745.9	4750.5	4762.0	4771.1	4780.3	4778.0	4768.8
15°	4681.8	4686.3	4695.5	4707.0	4725.3	4741.3	4759.7	4780.3	4798.6	4803.2	4789.5
17.5°	4658.8	4665.7	4679.5	4695.5	4720.7	4748.2	4775.7	4803.2	4828.4	4837.6	4821.5
20°	4652.0	4656.5	4670.3	4697.8	4732.2	4773.4	4812.4	4844.5	4878.8	4890.3	4878.8
22.5°	4665.7	4674.9	4690.9	4723.0	4768.8	4821.5	4867.4	4910.9	4954.5	4975.1	4959.0
25°	4727.6	4736.8	4757.4	4798.6	4849.0	4904.0	4956.7	5007.2	5046.1	5066.7	5055.3
27.5°	4842.2	4853.6	4878.8	4920.1	4975.1	5034.7	5092.0	5133.2	5165.3	5172.2	5158.4
30°	5014.0	5039.2	5069.0	5114.9	5179.0	5229.4	5286.7	5323.4	5362.4	5362.4	5350.9
32.5°	5282.2	5307.4	5339.4	5383.0	5433.4	5488.4	5538.8	5570.9	5612.1	5614.4	5586.9
35°	5683.2	5694.6	5722.1	5749.6	5795.5	5843.6	5887.1	5907.8	5942.1	5944.4	5919.2
37.5°	6212.5	6214.8	6233.2	6242.3	6283.6	6336.3	6377.5	6391.3	6423.4	6418.8	6393.6
40°	6829.0	6840.4	6847.3	6861.1	6904.6	6955.0	6998.6	7005.4	7039.8	7032.9	7000.9
42.5°	7541.7	7546.3	7585.2	7605.8	7647.1	7672.3	7727.3	7734.2	7775.4	7757.1	7720.4
45°	8341.4	8382.7	8419.4	8460.6	8504.2	8533.9	8577.5	8568.3	8595.8	8568.3	8547.7
47.5°	9182.5	9212.3	9294.8	9358.9	9430.0	9455.2	9517.0	9489.5	9517.0	9478.1	9471.2
50°	10108.3	10161.0	10232.0	10305.4	10381.0	10422.2	10502.4	10468.1	10504.7	10468.1	10447.4
52.5°	11020.3	11034.1	11189.9	11297.6	11403.0	11451.2	11499.3	11483.2	11485.5	11483.2	11462.6
55°	11886.6	11918.6	12074.5	12221.1	12404.5	12539.7	12622.2	12613.0	12592.4	12571.8	12537.4
57.5°	12862.8	12894.9	13073.6	13254.7	13463.2	13655.7	13823.0	13994.8	14061.3	14079.6	14004.0
60°	14182.8	14180.5	14418.8	14638.8	14936.7	15223.1	15589.8	15963.3	16391.9	16591.2	16327.7
62.5°	15525.6	15580.6	15924.4	16313.9	16928.1	17526.2	18202.2	18866.8	19545.1	20097.4	19510.7
65°	15365.2	15576.1	16087.1	16969.3	18103.7	19451.2	20908.6	22450.9	23844.2	24802.1	23727.3
67.5°	13316.5	13616.7	14136.9	15209.4	16627.9	18571.2	21018.6	24068.7	27613.9	29328.0	27203.7
70°	9652.2	9991.4	10536.8	11584.1	12988.8	14835.9	17494.1	21156.1	25849.3	27577.2	25237.5
72.5°	4803.2	4986.5	5323.4	5990.3	7053.6	8552.3	10963.0	14483.0	18635.3	20221.1	18083.1
75°	1631.6	1716.4	1773.7	1991.4	2328.3	2917.2	4115.7	6331.7	9659.1	11579.5	9521.6
77.5°	941.9	944.1	983.1	1022.1	1079.3	1143.5	1303.9	1711.8	2960.8	4205.1	3063.9
80°	609.6	607.3	639.4	669.1	708.1	740.2	749.4	792.9	914.4	1083.9	969.3
82.5°	316.2	355.2	426.2	465.2	538.5	552.3	533.9	517.9	547.7	568.3	582.1
85°	174.2	151.2	226.9	293.3	325.4	330.0	330.0	311.7	323.1	316.2	343.7
87.5°	80.2	73.3	89.4	144.4	153.5	130.6	137.5	121.5	87.1	84.8	96.2
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°	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9	4965.9
2.5°	4943.0	4945.3	4945.3	4952.2	4954.5	4959.0	4963.6	4965.9
5°	4904.0	4910.9	4906.3	4913.2	4913.2	4917.8	4917.8	4920.1
7.5°	4846.7	4853.6	4853.6	4853.6	4851.3	4858.2	4858.2	4858.2
10°	4787.2	4791.7	4789.5	4784.9	4780.3	4787.2	4784.9	4782.6
12.5°	4768.8	4757.4	4748.2	4743.6	4734.5	4736.8	4729.9	4729.9
15°	4780.3	4759.7	4743.6	4736.8	4727.6	4723.0	4718.4	4720.7
17.5°	4810.1	4784.9	4764.3	4752.8	4741.3	4734.5	4725.3	4727.6
20°	4862.8	4833.0	4803.2	4780.3	4759.7	4748.2	4741.3	4739.0
22.5°	4940.7	4897.2	4853.6	4819.2	4791.7	4775.7	4768.8	4764.3
25°	5030.1	4982.0	4931.5	4892.6	4865.1	4844.5	4830.7	4830.7
27.5°	5142.4	5103.4	5057.6	5011.7	4986.5	4965.9	4956.7	4952.2
30°	5330.3	5293.6	5256.9	5213.4	5181.3	5160.7	5144.7	5130.9
32.5°	5570.9	5541.1	5511.3	5479.2	5449.4	5421.9	5396.7	5385.3
35°	5910.1	5887.1	5866.5	5829.8	5818.4	5802.3	5788.6	5777.1
37.5°	6377.5	6368.4	6368.4	6329.4	6320.3	6313.4	6299.6	6301.9
40°	6991.7	7000.9	6989.4	6975.7	6968.8	6950.4	6950.4	6966.5
42.5°	7718.1	7725.0	7750.2	7727.3	7752.5	7729.6	7715.8	7727.3
45°	8561.4	8586.7	8637.1	8614.1	8630.2	8591.2	8543.1	8545.4
47.5°	9507.9	9530.8	9551.4	9535.4	9537.7	9473.5	9409.3	9393.3
50°	10491.0	10500.1	10511.6	10488.7	10493.3	10422.2	10348.9	10351.2
52.5°	11462.6	11506.2	11552.0	11490.1	11476.4	11396.2	11293.0	11251.8
55°	12574.0	12635.9	12583.2	12475.5	12367.8	12260.1	12124.9	12102.0
57.5°	13944.4	13839.0	13674.0	13470.1	13321.1	13169.9	13032.4	12975.1
60°	15851.0	15454.6	15156.7	14854.2	14664.0	14478.4	14297.3	14269.8
62.5°	18546.0	17860.8	17267.3	16641.6	16130.6	15731.9	15413.3	15324.0
65°	21923.8	20303.6	18898.9	17588.1	16449.2	15589.8	15049.0	14810.7
67.5°	23376.7	20177.6	17769.1	15908.3	14418.8	13378.4	12794.0	12503.0
70°	20542.0	16733.3	14114.0	12250.9	10894.3	9785.2	9255.8	8944.1
72.5°	14132.3	10644.5	8417.1	6870.2	5786.3	4858.2	4491.5	4464.0
75°	6345.5	4202.8	2896.6	2232.0	1879.1	1633.9	1558.3	1501.0
77.5°	1776.0	1313.1	1171.0	1095.4	1022.1	937.3	905.2	912.1
80°	863.9	815.8	783.7	735.6	669.1	598.1	566.0	579.8
82.5°	572.9	566.0	586.7	552.3	456.0	387.3	325.4	297.9
85°	348.3	352.9	359.8	362.1	307.1	215.4	146.7	165.0
87.5°	137.5	158.1	171.9	178.7	167.3	103.1	82.5	84.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)