

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: P299681

Luminaire Tested: **GLNA-AF-08-LED-E1-5MQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299681
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-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 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: 40348.1 lumens
Efficiency: N/A
Efficacy: 120.8 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): 334
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

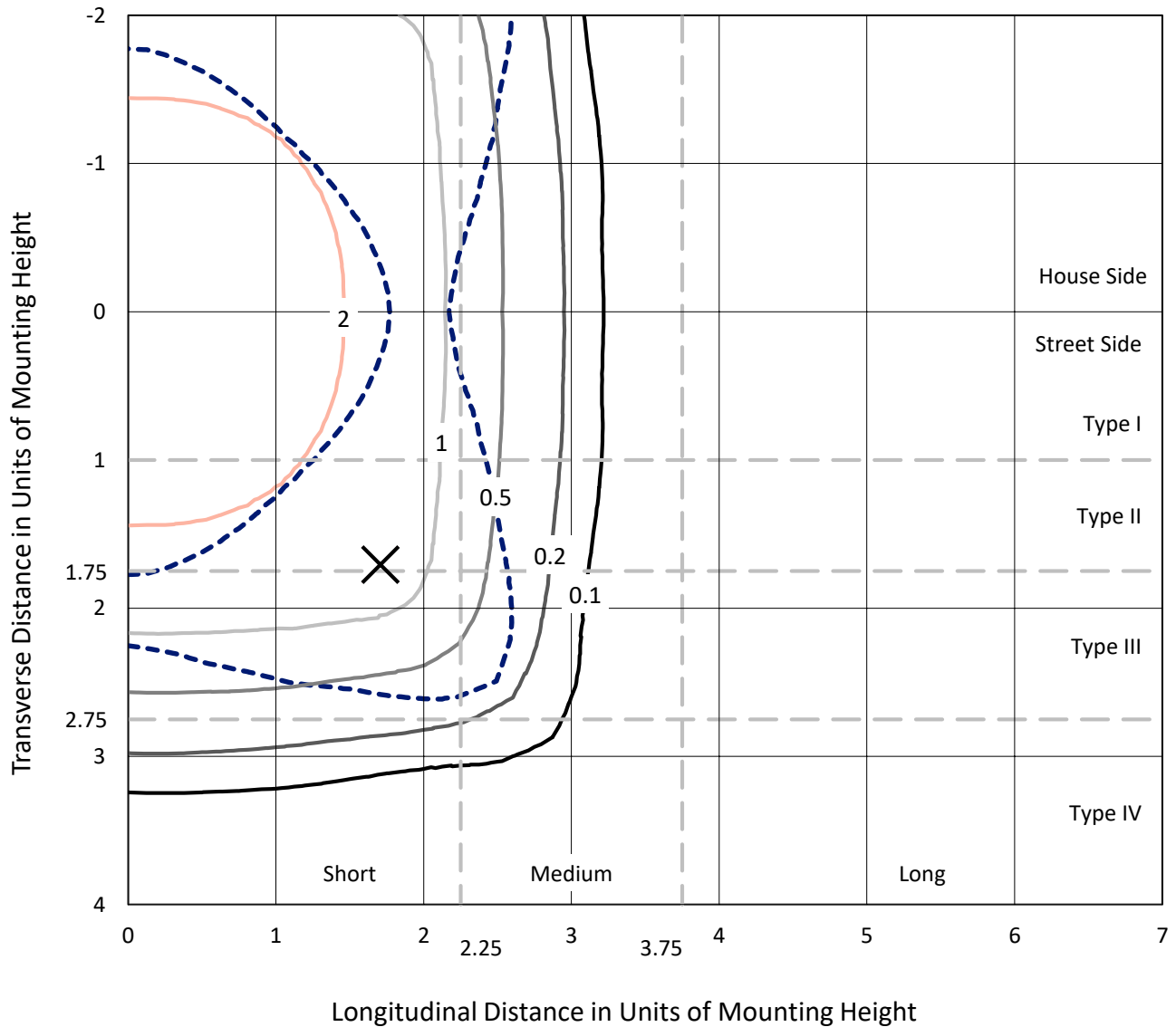


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

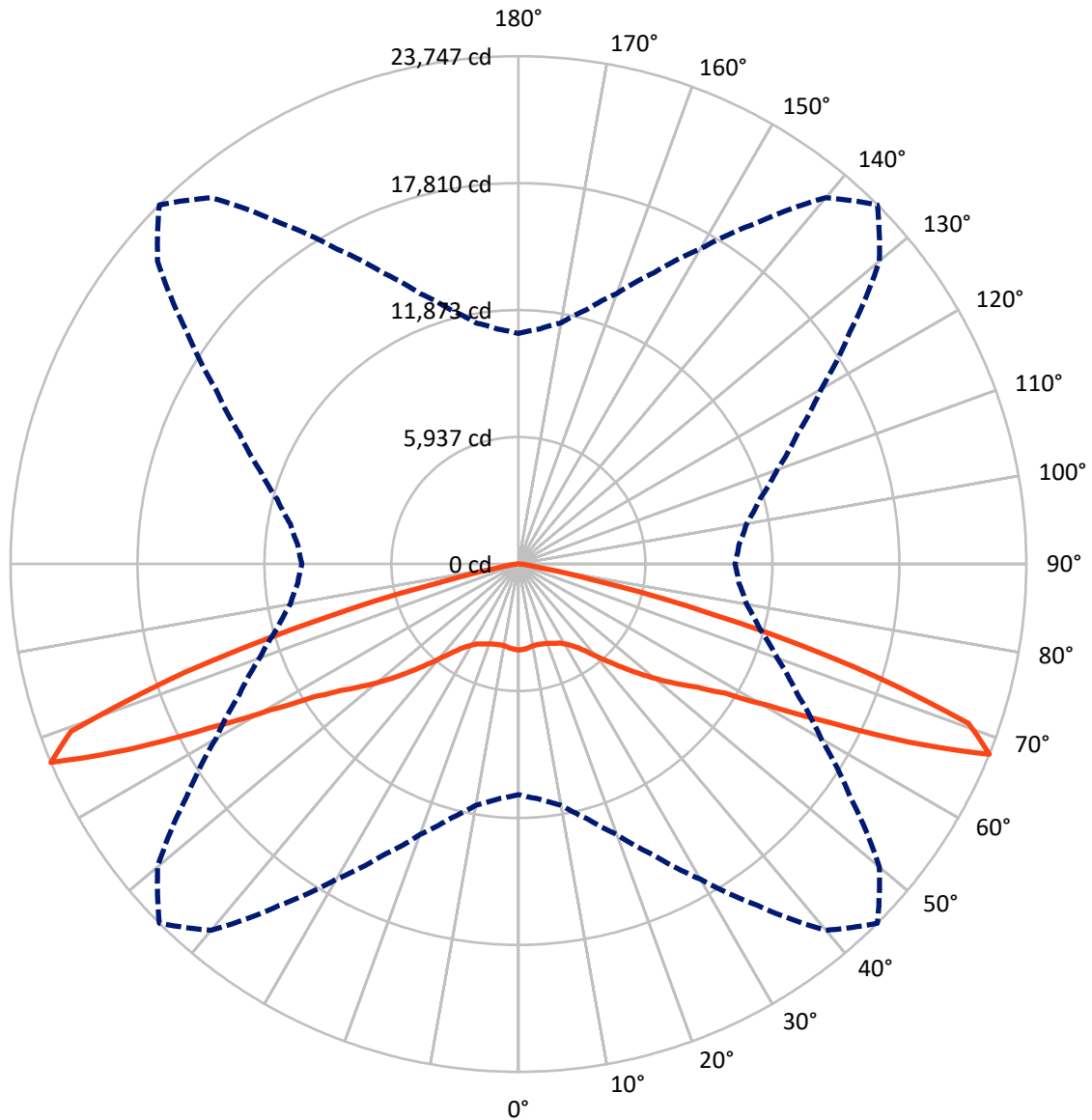


Based on 30 foot mounting height. Maximum calculated value = 4.5 fc
 Type V - Short - Full Cutoff

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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	20174.1	0.0	20174.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	20174.1	0.0	20174.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	40348.1	0.0	40348.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	376.3	0.9
10°-20°	1092.1	2.7
20°-30°	1856.5	4.6
30°-40°	3034.7	7.5
40°-50°	5417.6	13.4
50°-60°	9134.2	22.6
60°-70°	14174.9	35.1
70°-80°	4980.4	12.3
80°-90°	281.5	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°	40348.1	100.0
0°-180°	40348.1	100.0



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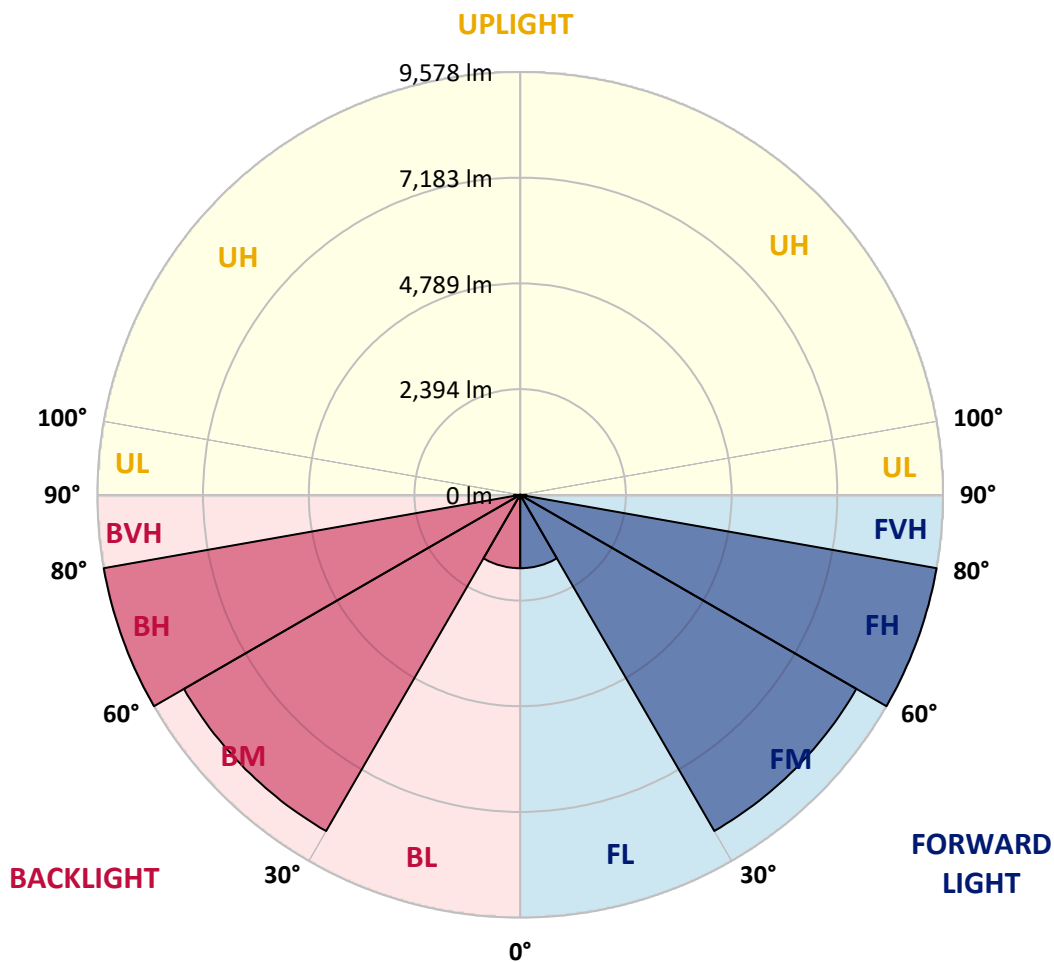
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1662.4	4.1			
FM	(30°-60°)	8793.3	21.8			
FH	(60°-80°)	9577.7	23.7			G4/12000
FVH	(80°-90°)	140.7	0.3			G2/225
BL	(0°-30°)	1662.4	4.1	B3/2500		
BM	(30°-60°)	8793.3	21.8	B5		
BH	(60°-80°)	9577.7	23.7	B5		G4/12000
BVH	(80°-90°)	140.7	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°	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9
2.5°	4006.0	4009.7	4009.7	4009.7	4007.9	4007.9	4004.2	4007.9	4006.0	4000.5	4002.3
5°	3972.6	3976.3	3976.3	3974.5	3980.0	3978.2	3972.6	3976.3	3974.5	3970.8	3972.6
7.5°	3924.4	3929.9	3929.9	3928.1	3933.7	3931.8	3928.1	3929.9	3929.9	3924.4	3924.4
10°	3870.6	3874.3	3874.3	3872.4	3881.7	3881.7	3879.8	3885.4	3887.3	3881.7	3878.0
12.5°	3820.5	3826.0	3826.0	3833.5	3842.7	3846.4	3855.7	3863.1	3870.6	3868.7	3861.3
15°	3790.8	3794.5	3801.9	3811.2	3826.0	3839.0	3853.9	3870.6	3885.4	3889.1	3878.0
17.5°	3772.2	3777.8	3788.9	3801.9	3822.3	3844.6	3866.9	3889.1	3909.5	3917.0	3904.0
20°	3766.7	3770.4	3781.5	3803.8	3831.6	3865.0	3896.5	3922.5	3950.4	3959.6	3950.4
22.5°	3777.8	3785.2	3798.2	3824.2	3861.3	3904.0	3941.1	3976.3	4011.6	4028.3	4015.3
25°	3827.9	3835.3	3852.0	3885.4	3926.2	3970.8	4013.4	4054.3	4085.8	4102.5	4093.2
27.5°	3920.7	3929.9	3950.4	3983.8	4028.3	4076.5	4122.9	4156.3	4182.3	4187.9	4176.7
30°	4059.8	4080.2	4104.4	4141.5	4193.4	4234.2	4280.6	4310.3	4341.9	4341.9	4332.6
32.5°	4276.9	4297.3	4323.3	4358.6	4399.4	4443.9	4484.7	4510.7	4544.1	4546.0	4523.7
35°	4601.6	4610.9	4633.2	4655.4	4692.6	4731.5	4766.8	4783.5	4811.3	4813.2	4792.7
37.5°	5030.3	5032.1	5047.0	5054.4	5087.8	5130.4	5163.8	5175.0	5201.0	5197.2	5176.8
40°	5529.4	5538.7	5544.2	5555.4	5590.6	5631.4	5666.7	5672.3	5700.1	5694.5	5668.5
42.5°	6106.4	6110.2	6141.7	6158.4	6191.8	6212.2	6256.7	6262.3	6295.7	6280.9	6251.2
45°	6754.0	6787.4	6817.1	6850.5	6885.7	6909.9	6945.1	6937.7	6960.0	6937.7	6921.0
47.5°	7435.0	7459.1	7525.9	7577.9	7635.4	7655.8	7705.9	7683.6	7705.9	7674.3	7668.8
50°	8184.6	8227.3	8284.8	8344.2	8405.4	8438.8	8503.7	8475.9	8505.6	8475.9	8459.2
52.5°	8923.1	8934.2	9060.4	9147.6	9233.0	9271.9	9310.9	9297.9	9299.8	9297.9	9281.2
55°	9624.5	9650.4	9776.6	9895.4	10043.8	10153.3	10220.1	10212.7	10196.0	10179.3	10151.4
57.5°	10414.9	10440.9	10585.6	10732.2	10901.0	11056.9	11192.4	11331.5	11385.3	11400.2	11338.9
60°	11483.7	11481.8	11674.8	11852.9	12094.1	12326.1	12622.9	12925.4	13272.4	13433.8	13220.4
62.5°	12571.0	12615.5	12893.8	13209.3	13706.6	14190.8	14738.2	15276.3	15825.5	16272.7	15797.7
65°	12441.1	12611.8	13025.6	13740.0	14658.4	15749.5	16929.6	18178.3	19306.4	20082.0	19211.8
67.5°	10782.3	11025.4	11446.6	12314.9	13463.5	15036.9	17018.6	19488.3	22358.7	23746.7	22026.6
70°	7815.4	8090.0	8531.6	9379.5	10517.0	12012.5	14164.9	17129.9	20930.0	22329.1	20434.6
72.5°	3889.1	4037.6	4310.3	4850.3	5711.2	6924.7	8876.7	11726.7	15088.9	16372.9	14641.7
75°	1321.1	1389.8	1436.2	1612.4	1885.2	2362.0	3332.5	5126.7	7820.9	9375.8	7709.6
77.5°	762.6	764.5	796.0	827.6	873.9	925.9	1055.8	1386.1	2397.3	3404.8	2480.8
80°	493.6	491.7	517.7	541.8	573.3	599.3	606.7	642.0	740.3	877.7	784.9
82.5°	256.1	287.6	345.1	376.7	436.0	447.2	432.3	419.3	443.5	460.2	471.3
85°	141.0	122.5	183.7	237.5	263.5	267.2	267.2	252.3	261.6	256.1	278.3
87.5°	64.9	59.4	72.4	116.9	124.3	105.8	111.3	98.3	70.5	68.7	77.9
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°	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9	4020.9
2.5°	4002.3	4004.2	4004.2	4009.7	4011.6	4015.3	4019.0	4020.9
5°	3970.8	3976.3	3972.6	3978.2	3978.2	3981.9	3981.9	3983.8
7.5°	3924.4	3929.9	3929.9	3929.9	3928.1	3933.7	3933.7	3933.7
10°	3876.1	3879.8	3878.0	3874.3	3870.6	3876.1	3874.3	3872.4
12.5°	3861.3	3852.0	3844.6	3840.9	3833.5	3835.3	3829.7	3829.7
15°	3870.6	3853.9	3840.9	3835.3	3827.9	3824.2	3820.5	3822.3
17.5°	3894.7	3874.3	3857.6	3848.3	3839.0	3833.5	3826.0	3827.9
20°	3937.4	3913.2	3889.1	3870.6	3853.9	3844.6	3839.0	3837.2
22.5°	4000.5	3965.2	3929.9	3902.1	3879.8	3866.9	3861.3	3857.6
25°	4072.8	4033.9	3993.0	3961.5	3939.2	3922.5	3911.4	3911.4
27.5°	4163.7	4132.2	4095.1	4058.0	4037.6	4020.9	4013.4	4009.7
30°	4315.9	4286.2	4256.5	4221.3	4195.3	4178.6	4165.6	4154.5
32.5°	4510.7	4486.6	4462.5	4436.5	4412.4	4390.1	4369.7	4360.4
35°	4785.3	4766.8	4750.1	4720.4	4711.1	4698.1	4687.0	4677.7
37.5°	5163.8	5156.4	5156.4	5124.9	5117.5	5111.9	5100.8	5102.6
40°	5661.1	5668.5	5659.3	5648.1	5642.6	5627.7	5627.7	5640.7
42.5°	6249.3	6254.9	6275.3	6256.7	6277.1	6258.6	6247.5	6256.7
45°	6932.1	6952.5	6993.4	6974.8	6987.8	6956.3	6917.3	6919.1
47.5°	7698.5	7717.0	7733.7	7720.7	7722.6	7670.6	7618.7	7605.7
50°	8494.5	8501.9	8511.2	8492.6	8496.3	8438.8	8379.4	8381.3
52.5°	9281.2	9316.5	9353.6	9303.5	9292.3	9227.4	9143.9	9110.5
55°	10181.1	10231.2	10188.5	10101.3	10014.1	9926.9	9817.4	9798.9
57.5°	11290.7	11205.3	11071.8	10906.6	10786.0	10663.5	10552.2	10505.8
60°	12834.5	12513.5	12272.3	12027.3	11873.3	11723.0	11576.4	11554.2
62.5°	15016.5	14461.7	13981.2	13474.6	13060.8	12738.0	12480.1	12407.7
65°	17751.5	16439.7	15302.3	14240.9	13318.8	12622.9	12185.0	11992.1
67.5°	18927.9	16337.7	14387.5	12880.9	11674.8	10832.4	10359.2	10123.6
70°	16632.7	13548.8	11428.0	9919.5	8821.0	7923.0	7494.4	7242.0
72.5°	11442.9	8618.8	6815.2	5562.8	4685.1	3933.7	3636.8	3614.5
75°	5137.9	3403.0	2345.3	1807.3	1521.5	1323.0	1261.7	1215.4
77.5°	1438.0	1063.2	948.2	886.9	827.6	758.9	732.9	738.5
80°	699.5	660.6	634.6	595.6	541.8	484.3	458.3	469.4
82.5°	463.9	458.3	475.0	447.2	369.2	313.6	263.5	241.2
85°	282.0	285.7	291.3	293.2	248.6	174.4	118.8	133.6
87.5°	111.3	128.0	139.2	144.7	135.5	83.5	66.8	68.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)