

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: P299864

Luminaire Tested: **GLNA-AF-09-LED-E1-5WQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
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-E1-5WQ-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54028 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G5

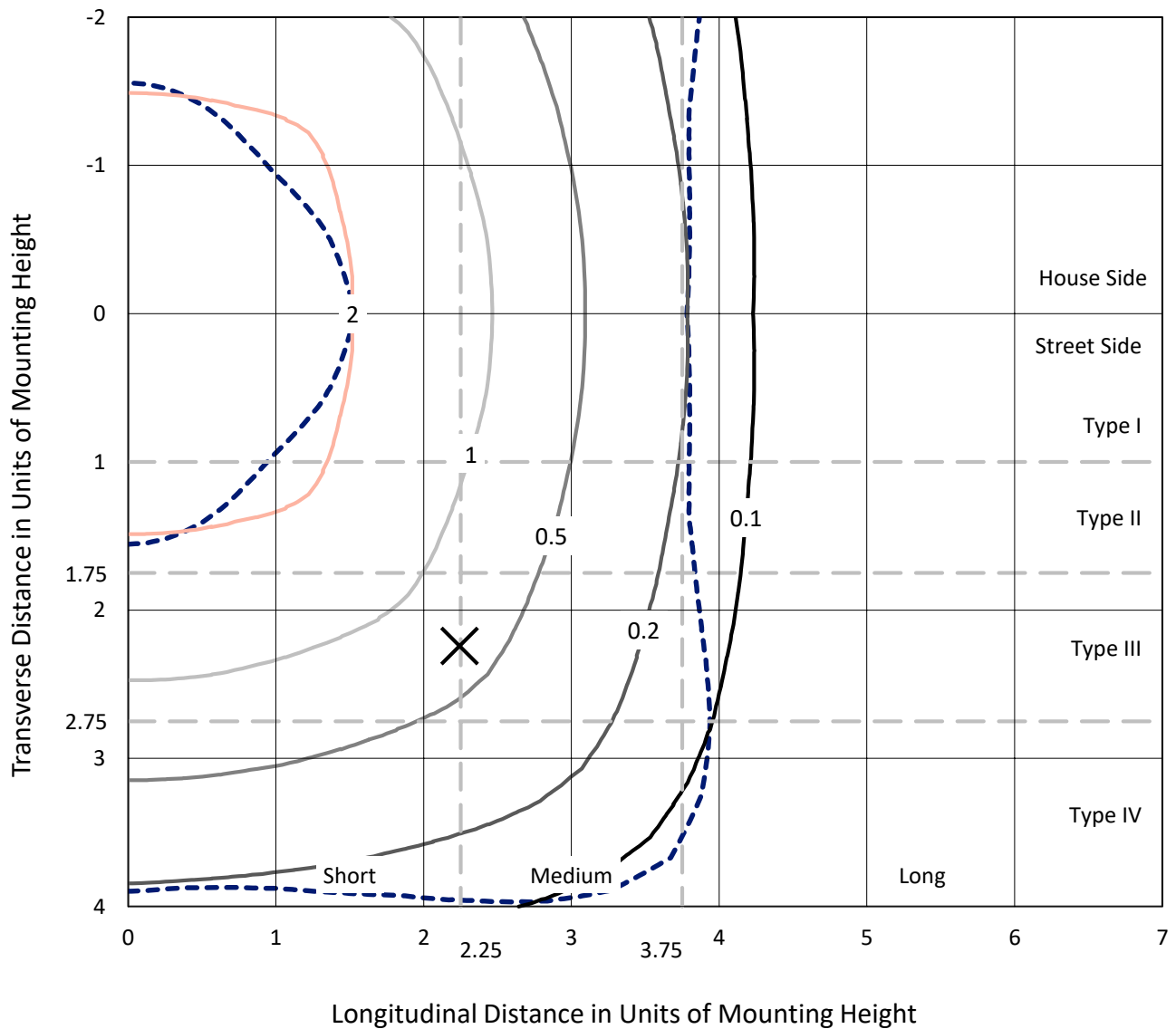
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

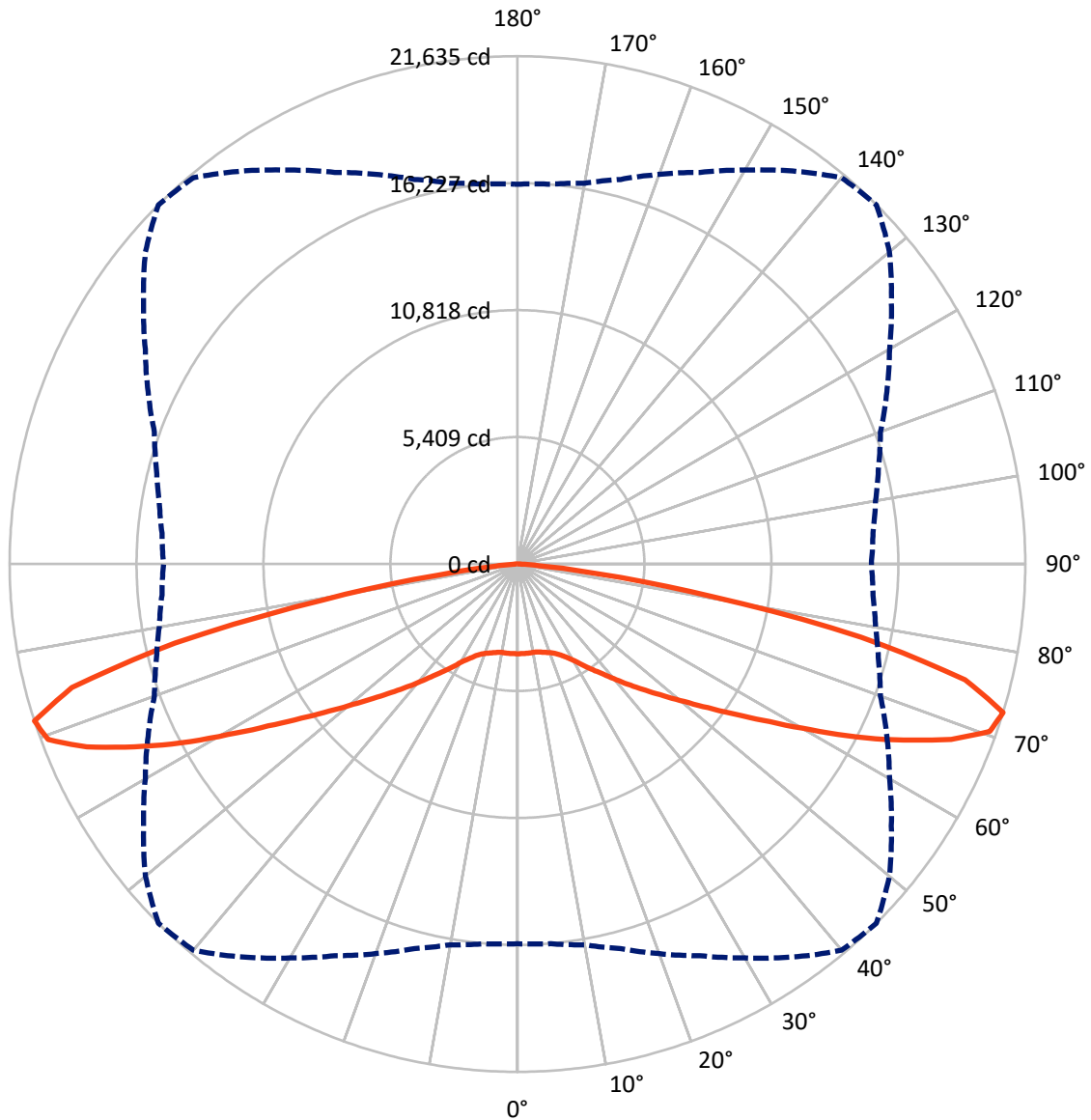
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	27014.0	0.0	27014.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	27014.0	0.0	27014.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	54028.0	0.0	54028.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.3	0.7
10°-20°	1109.6	2.1
20°-30°	2027.7	3.8
30°-40°	3496.0	6.5
40°-50°	5976.4	11.1
50°-60°	9687.0	17.9
60°-70°	16070.4	29.7
70°-80°	14154.3	26.2
80°-90°	1141.2	2.1
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°	54028.0	100.0
0°-180°	54028.0	100.0



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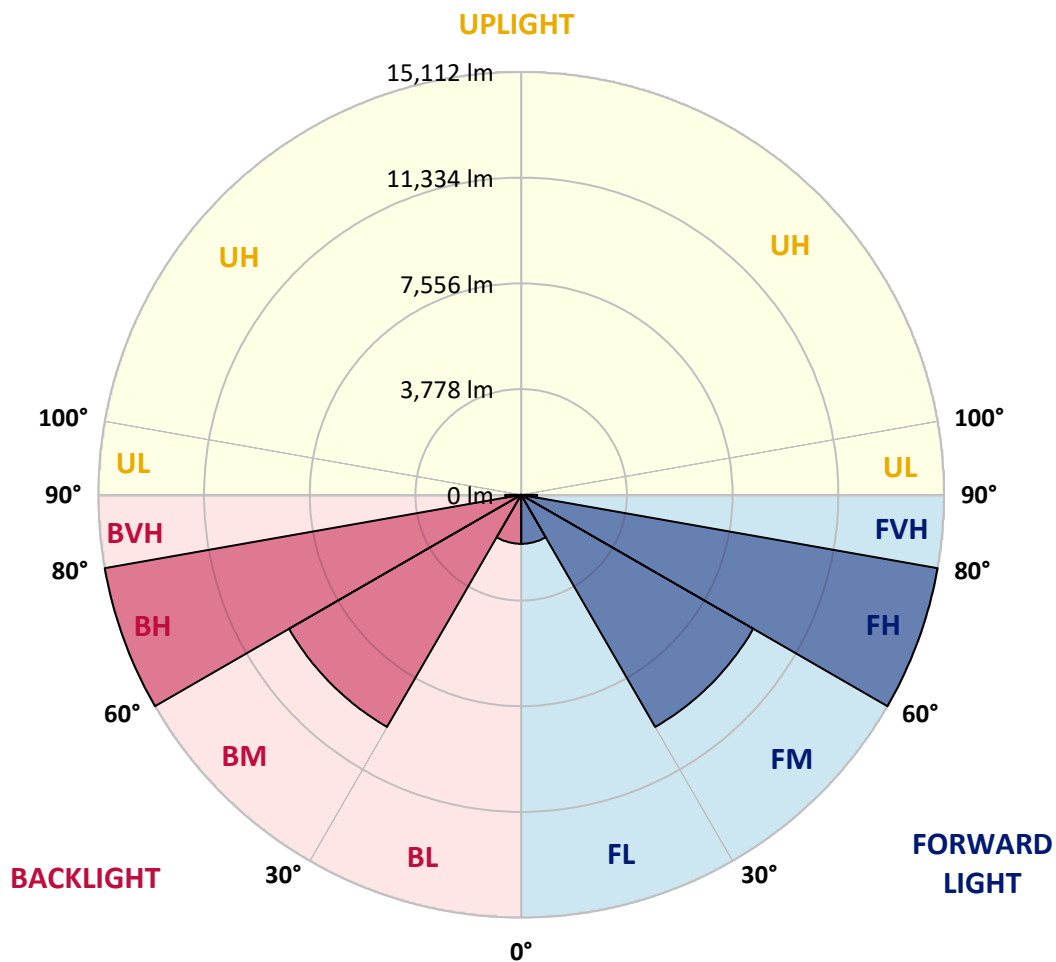
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1751.3	3.2			
FM	(30°-60°)	9579.8	17.7			
FH	(60°-80°)	15112.4	28.0			G5
FVH	(80°-90°)	570.6	1.1			G4/750
BL	(0°-30°)	1751.3	3.2	B3/2500		
BM	(30°-60°)	9579.8	17.7	B5		
BH	(60°-80°)	15112.4	28.0	B5		G5
BVH	(80°-90°)	570.6	1.1			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0
2.5°	3826.0	3828.5	3831.0	3828.5	3828.5	3826.0	3823.5	3826.0	3823.5	3818.6	3821.1
5°	3838.4	3843.4	3843.4	3838.4	3840.9	3838.4	3833.5	3835.9	3831.0	3823.5	3823.5
7.5°	3853.3	3855.8	3855.8	3850.8	3853.3	3848.3	3843.4	3840.9	3835.9	3826.0	3818.6
10°	3875.6	3878.1	3875.6	3870.6	3870.6	3863.2	3850.8	3845.8	3835.9	3821.1	3813.6
12.5°	3900.4	3902.8	3900.4	3895.4	3892.9	3880.5	3870.6	3863.2	3855.8	3843.4	3831.0
15°	3935.1	3940.0	3935.1	3925.1	3917.7	3907.8	3902.8	3905.3	3907.8	3897.9	3885.5
17.5°	3999.5	4002.0	3994.5	3972.2	3962.3	3952.4	3952.4	3957.4	3964.8	3959.8	3947.4
20°	4118.4	4111.0	4093.6	4066.4	4054.0	4036.7	4034.2	4036.7	4036.7	4034.2	4024.3
22.5°	4267.1	4262.2	4239.8	4205.2	4187.8	4177.9	4163.0	4150.6	4148.2	4140.7	4130.8
25°	4445.5	4443.0	4415.8	4386.1	4373.7	4361.3	4348.9	4331.5	4316.7	4299.3	4289.4
27.5°	4673.5	4663.6	4623.9	4609.1	4591.7	4584.3	4566.9	4547.1	4534.7	4512.4	4500.0
30°	4923.8	4923.8	4891.6	4886.6	4886.6	4869.3	4849.4	4814.7	4792.4	4770.1	4762.7
32.5°	5174.1	5176.5	5144.3	5154.2	5161.7	5174.1	5179.0	5166.6	5151.8	5149.3	5134.4
35°	5535.8	5525.9	5493.7	5501.1	5498.7	5496.2	5496.2	5523.5	5528.4	5533.4	5503.6
37.5°	5984.4	5984.4	5952.1	5952.1	5937.3	5922.4	5902.6	5919.9	5947.2	5954.6	5934.8
40°	6497.3	6514.6	6475.0	6472.5	6477.5	6430.4	6408.1	6435.4	6452.7	6482.4	6460.1
42.5°	7101.9	7089.5	7049.9	7044.9	7017.7	7002.8	6983.0	7005.3	7032.5	7052.4	7059.8
45°	7681.8	7671.9	7627.3	7627.3	7600.0	7587.6	7597.5	7634.7	7647.1	7674.3	7701.6
47.5°	8254.2	8241.8	8212.1	8224.5	8226.9	8249.2	8281.5	8316.2	8350.8	8388.0	8400.4
50°	8839.0	8841.5	8809.3	8839.0	8876.2	8938.1	9024.9	9081.9	9153.7	9200.8	9215.7
52.5°	9371.8	9381.7	9416.4	9485.8	9560.1	9681.5	9830.2	9969.0	10087.9	10167.2	10162.3
55°	10011.1	10026.0	10110.2	10229.2	10350.6	10534.0	10754.5	10999.8	11198.1	11312.0	11240.2
57.5°	10828.8	10861.1	10955.2	11116.3	11297.2	11535.1	11837.4	12206.6	12513.9	12667.5	12551.0
60°	11951.4	11971.2	12085.2	12263.6	12481.7	12776.5	13180.5	13676.1	14109.7	14312.9	14179.1
62.5°	13430.7	13467.9	13559.6	13740.5	13963.5	14298.0	14791.2	15410.6	15950.9	16233.3	15931.0
65°	15197.5	15316.5	15393.3	15576.7	15784.8	16139.2	16654.6	17318.7	17898.6	18084.4	17735.0
67.5°	16947.0	17051.1	17184.9	17395.5	17606.2	18005.1	18483.4	19127.6	19764.5	19933.0	19390.3
70°	17712.7	17772.2	17980.3	18267.8	18671.7	19142.5	19695.1	20418.7	21206.7	21345.4	20656.6
72.5°	16178.8	16238.3	16471.2	16959.4	17663.1	18411.5	19375.4	20438.5	21479.3	21635.4	20686.3
75°	12236.3	12139.7	12484.1	13130.9	14080.0	15123.2	16471.2	17995.2	19499.3	19695.1	18562.7
77.5°	6323.8	6311.5	6571.6	7374.5	8507.0	9693.9	11178.2	12900.4	14372.4	14967.1	14045.3
80°	1781.7	1801.5	1925.4	2324.4	2986.0	3843.4	5003.1	6616.2	7820.6	8435.1	7919.7
82.5°	698.8	753.3	800.4	874.7	961.5	1087.8	1452.1	2160.8	2899.3	3464.2	2837.3
85°	250.3	267.6	379.1	448.5	456.0	480.7	547.6	639.3	770.7	919.3	755.8
87.5°	94.2	104.1	121.4	200.7	198.2	180.9	220.5	230.5	173.5	158.6	195.8
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°	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0	3826.0
2.5°	3816.1	3818.6	3818.6	3821.1	3823.5	3823.5	3828.5	3828.5
5°	3818.6	3818.6	3813.6	3816.1	3813.6	3813.6	3816.1	3816.1
7.5°	3813.6	3811.2	3806.2	3803.7	3798.8	3798.8	3798.8	3798.8
10°	3806.2	3803.7	3798.8	3796.3	3793.8	3793.8	3793.8	3793.8
12.5°	3826.0	3818.6	3813.6	3811.2	3811.2	3811.2	3811.2	3811.2
15°	3878.1	3860.7	3848.3	3848.3	3850.8	3855.8	3855.8	3860.7
17.5°	3942.5	3922.7	3910.3	3900.4	3905.3	3912.8	3917.7	3922.7
20°	4019.3	4009.4	3992.0	3982.1	3982.1	3992.0	3997.0	3999.5
22.5°	4125.9	4118.4	4111.0	4098.6	4098.6	4103.6	4113.5	4113.5
25°	4284.5	4279.5	4274.5	4264.6	4262.2	4262.2	4267.1	4272.1
27.5°	4482.7	4485.2	4480.2	4477.7	4470.3	4467.8	4475.3	4472.8
30°	4747.8	4760.2	4772.6	4762.7	4750.3	4742.9	4735.4	4725.5
32.5°	5107.1	5092.3	5082.4	5065.0	5042.7	5022.9	5008.0	4990.7
35°	5446.6	5421.9	5411.9	5426.8	5424.3	5411.9	5394.6	5379.7
37.5°	5862.9	5858.0	5862.9	5890.2	5885.2	5897.6	5862.9	5860.5
40°	6388.3	6393.2	6427.9	6460.1	6477.5	6494.8	6475.0	6455.2
42.5°	6997.9	6995.4	7007.8	7052.4	7082.1	7101.9	7059.8	7054.9
45°	7642.1	7624.8	7634.7	7671.9	7701.6	7723.9	7676.8	7676.8
47.5°	8350.8	8321.1	8288.9	8331.0	8348.4	8363.2	8326.1	8313.7
50°	9141.3	9079.4	9010.0	9027.3	9027.3	9022.4	8975.3	8972.8
52.5°	10048.3	9934.3	9807.9	9760.8	9733.6	9703.8	9622.1	9582.4
55°	11091.5	10920.5	10722.3	10600.9	10536.4	10454.7	10318.4	10281.2
57.5°	12310.7	12043.1	11701.1	11552.4	11408.7	11274.9	11123.7	11081.6
60°	13755.3	13361.3	12907.9	12632.8	12476.7	12347.8	12191.7	12184.3
62.5°	15366.0	14744.1	14231.1	13983.3	13869.3	13755.3	13606.7	13626.5
65°	17004.0	16354.8	15874.0	15673.3	15566.8	15472.6	15323.9	15346.2
67.5°	18619.7	18022.5	17494.6	17289.0	17170.0	17051.1	16917.3	16939.6
70°	19779.4	19038.4	18443.7	17987.8	17702.8	17380.7	17172.5	17120.5
72.5°	19447.3	18304.9	17360.8	16456.4	15926.1	15494.9	15202.5	15076.1
75°	16830.5	15269.4	14055.2	12945.0	12320.6	11812.6	11443.4	11212.9
77.5°	12499.0	10744.6	9309.8	8031.2	7020.2	6341.2	5862.9	5553.2
80°	6841.7	5203.8	3803.7	2673.8	1965.0	1633.0	1442.2	1350.5
82.5°	2131.1	1375.3	1013.5	874.7	812.8	778.1	721.1	629.4
85°	679.0	594.7	552.6	527.8	503.0	438.6	302.3	275.1
87.5°	262.7	270.1	267.6	252.8	257.7	185.8	148.7	131.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)