

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: P299933

Luminaire Tested: **GLNA-AF-10-LED-E1-5WQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299933
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-10-LED-E1-5WQ-7050-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49960.3 lumens
Efficiency: N/A
Efficacy: 119.2 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): 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

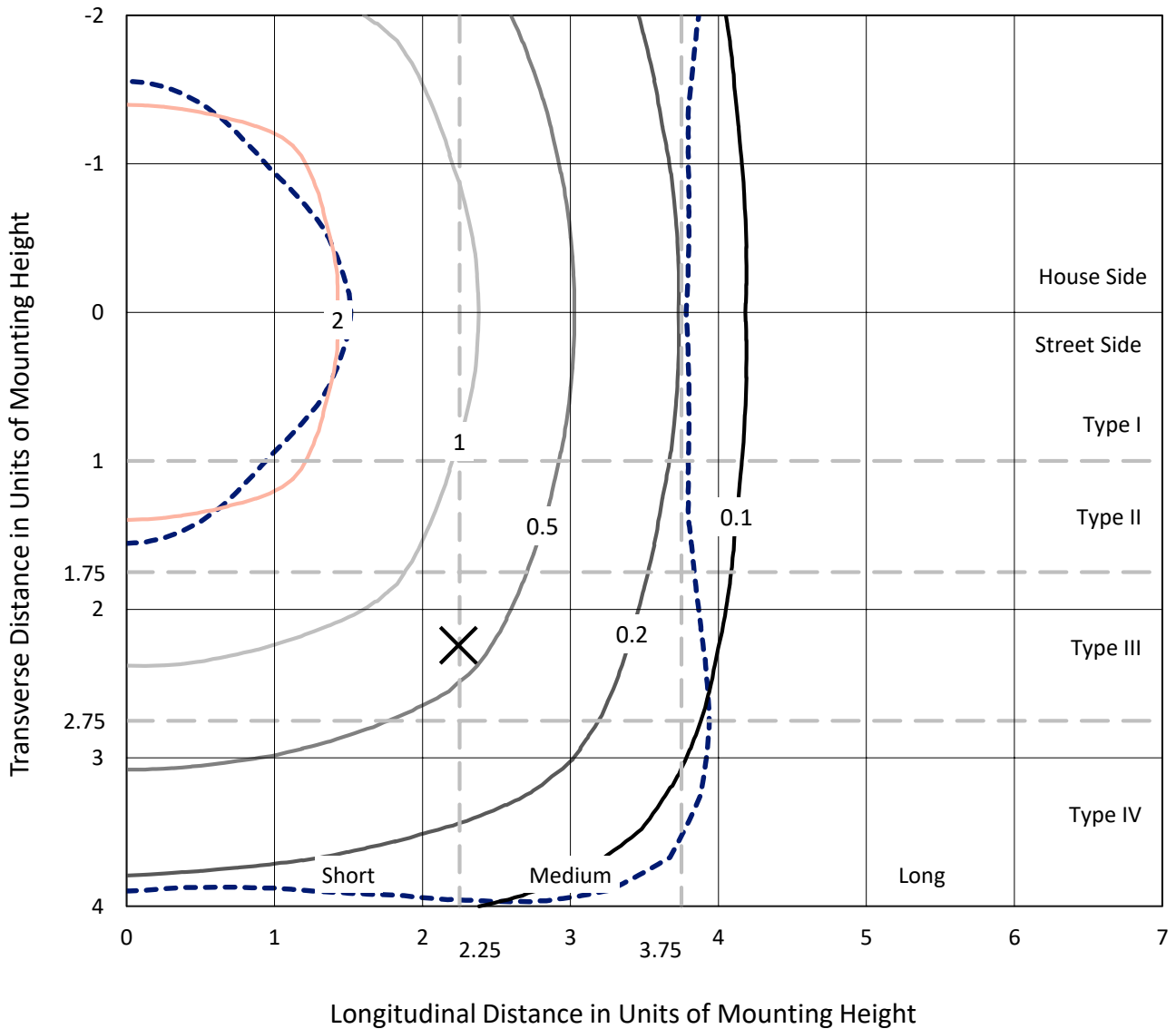


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

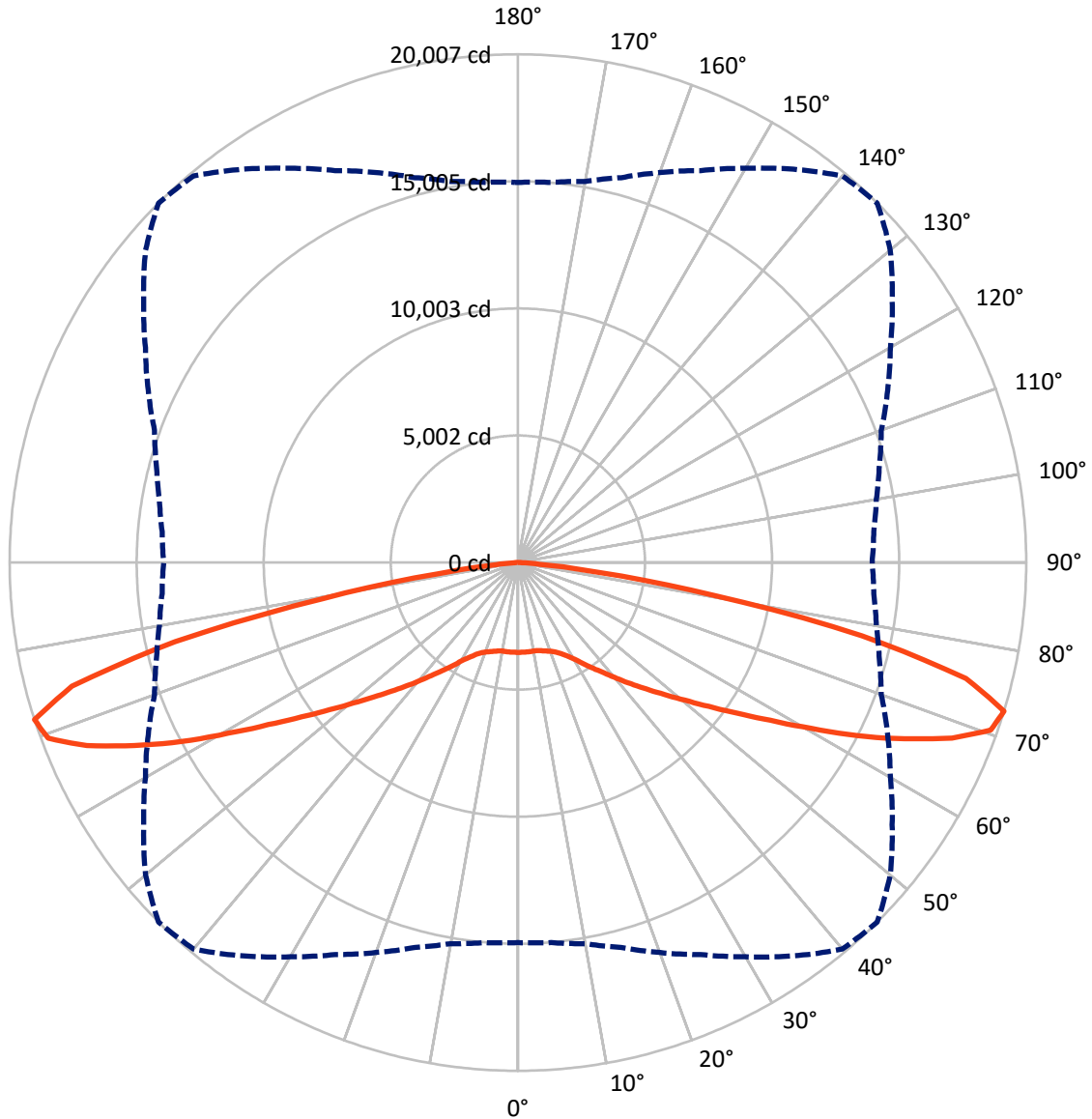


Based on 30 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Semi-Cutoff

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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	24980.1	0.0	24980.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	24980.1	0.0	24980.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	49960.3	0.0	49960.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.8	0.7
10°-20°	1026.0	2.1
20°-30°	1875.0	3.8
30°-40°	3232.8	6.5
40°-50°	5526.5	11.1
50°-60°	8957.7	17.9
60°-70°	14860.5	29.7
70°-80°	13088.6	26.2
80°-90°	1055.3	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°	49960.3	100.0
0°-180°	49960.3	100.0



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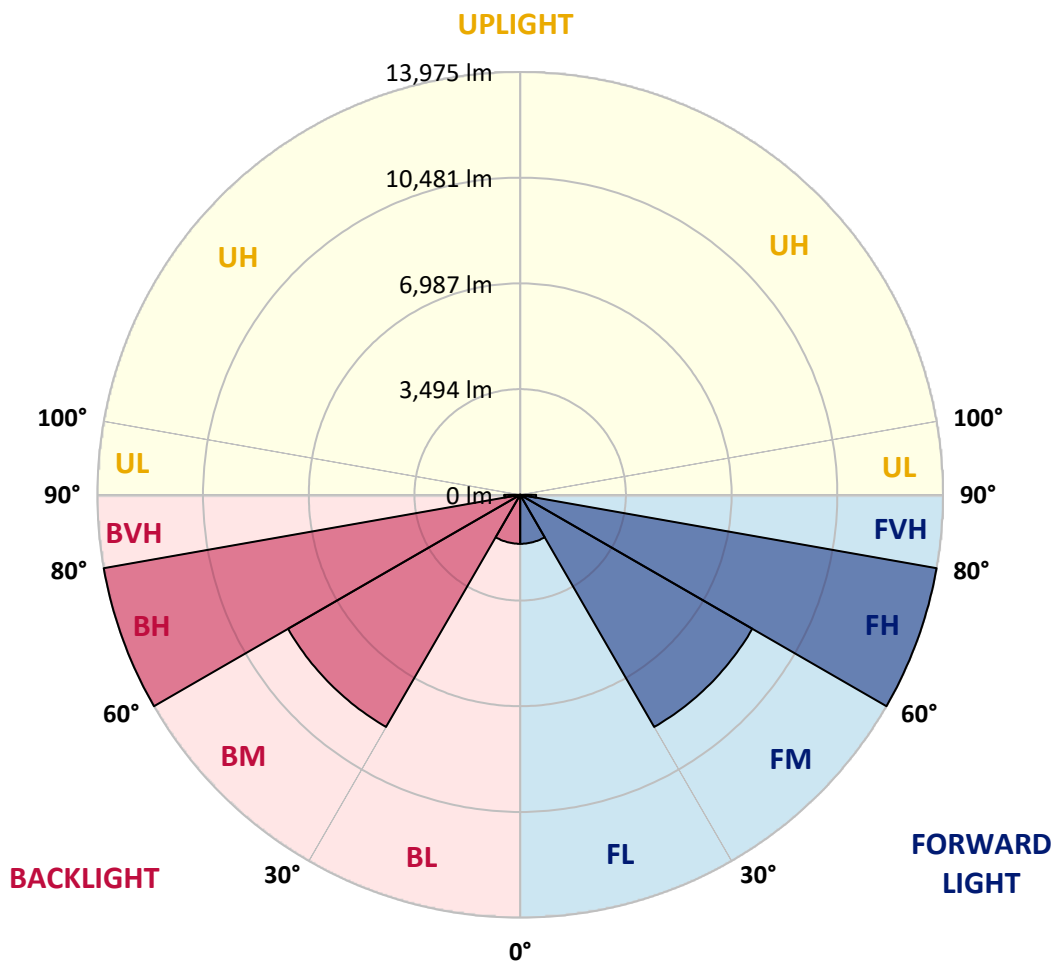
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1619.4	3.2			
FM	(30°-60°)	8858.5	17.7			
FH	(60°-80°)	13974.6	28.0			G5
FVH	(80°-90°)	527.7	1.1			G4/750
BL	(0°-30°)	1619.4	3.2	B3/2500		
BM	(30°-60°)	8858.5	17.7	B5		
BH	(60°-80°)	13974.6	28.0	B5		G5
BVH	(80°-90°)	527.7	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°	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0
2.5°	3538.0	3540.3	3542.5	3540.3	3540.3	3538.0	3535.7	3538.0	3535.7	3531.1	3533.4
5°	3549.4	3554.0	3554.0	3549.4	3551.7	3549.4	3544.8	3547.1	3542.5	3535.7	3535.7
7.5°	3563.2	3565.5	3565.5	3560.9	3563.2	3558.6	3554.0	3551.7	3547.1	3538.0	3531.1
10°	3583.8	3586.1	3583.8	3579.2	3579.2	3572.3	3560.9	3556.3	3547.1	3533.4	3526.5
12.5°	3606.7	3609.0	3606.7	3602.1	3599.8	3588.4	3579.2	3572.3	3565.5	3554.0	3542.5
15°	3638.8	3643.4	3638.8	3629.6	3622.7	3613.6	3609.0	3611.3	3613.6	3604.4	3593.0
17.5°	3698.4	3700.7	3693.8	3673.2	3664.0	3654.8	3654.8	3659.4	3666.3	3661.7	3650.2
20°	3808.4	3801.5	3785.4	3760.2	3748.8	3732.7	3730.4	3732.7	3732.7	3730.4	3721.3
22.5°	3945.8	3941.3	3920.6	3888.6	3872.5	3863.3	3849.6	3838.1	3835.9	3829.0	3819.8
25°	4110.8	4108.5	4083.3	4055.8	4044.4	4032.9	4021.5	4005.4	3991.7	3975.6	3966.5
27.5°	4321.6	4312.5	4275.8	4262.1	4246.0	4239.1	4223.1	4204.8	4193.3	4172.7	4161.2
30°	4553.1	4553.1	4523.3	4518.7	4518.7	4502.7	4484.3	4452.2	4431.6	4411.0	4404.1
32.5°	4784.5	4786.8	4757.0	4766.2	4773.0	4784.5	4789.1	4777.6	4763.9	4761.6	4747.8
35°	5119.1	5109.9	5080.1	5087.0	5084.7	5082.4	5082.4	5107.6	5112.2	5116.8	5089.3
37.5°	5533.8	5533.8	5504.0	5504.0	5490.3	5476.5	5458.2	5474.2	5499.4	5506.3	5488.0
40°	6008.1	6024.2	5987.5	5985.2	5989.8	5946.3	5925.6	5950.8	5966.9	5994.4	5973.8
42.5°	6567.2	6555.8	6519.1	6514.5	6489.3	6475.6	6457.2	6477.9	6503.1	6521.4	6528.3
45°	7103.4	7094.3	7053.0	7053.0	7027.8	7016.4	7025.5	7059.9	7071.3	7096.6	7121.8
47.5°	7632.7	7621.3	7593.8	7605.2	7607.5	7628.2	7658.0	7690.0	7722.1	7756.5	7767.9
50°	8173.5	8175.8	8146.0	8173.5	8207.9	8265.2	8345.4	8398.1	8464.5	8508.1	8521.8
52.5°	8666.2	8675.3	8707.4	8771.6	8840.3	8952.6	9090.1	9218.4	9328.4	9401.7	9397.1
55°	9257.4	9271.1	9349.0	9459.0	9571.3	9740.9	9944.8	10171.6	10355.0	10460.4	10393.9
57.5°	10013.5	10043.3	10130.4	10279.3	10446.6	10666.6	10946.2	11287.6	11571.7	11713.8	11606.1
60°	11051.6	11069.9	11175.3	11340.3	11541.9	11814.6	12188.1	12646.4	13047.4	13235.3	13111.6
62.5°	12419.5	12453.9	12538.7	12706.0	12912.2	13221.5	13677.5	14250.4	14749.9	15011.1	14731.6
65°	14053.3	14163.3	14234.4	14403.9	14596.4	14924.1	15400.7	16014.8	16551.0	16722.8	16399.8
67.5°	15671.1	15767.3	15891.1	16085.8	16280.6	16649.5	17091.8	17687.5	18276.4	18432.2	17930.4
70°	16379.1	16434.1	16626.6	16892.4	17265.9	17701.3	18212.3	18881.4	19610.0	19738.4	19101.3
72.5°	14960.7	15015.7	15231.1	15682.5	16333.3	17025.3	17916.7	18899.7	19862.1	20006.5	19128.8
75°	11315.1	11225.7	11544.2	12142.3	13019.9	13984.6	15231.1	16640.4	18031.2	18212.3	17165.1
77.5°	5847.7	5836.3	6076.9	6819.3	7866.5	8964.1	10336.6	11929.2	13290.3	13840.2	12987.8
80°	1647.5	1665.9	1780.4	2149.4	2761.2	3554.0	4626.4	6118.1	7231.7	7800.0	7323.4
82.5°	646.2	696.6	740.1	808.9	889.1	1005.9	1342.8	1998.1	2681.0	3203.4	2623.7
85°	231.4	247.5	350.6	414.7	421.6	444.5	506.4	591.2	712.6	850.1	698.9
87.5°	87.1	96.2	112.3	185.6	183.3	167.3	203.9	213.1	160.4	146.7	181.0
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°	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0	3538.0
2.5°	3528.8	3531.1	3531.1	3533.4	3535.7	3535.7	3540.3	3540.3
5°	3531.1	3531.1	3526.5	3528.8	3526.5	3526.5	3528.8	3528.8
7.5°	3526.5	3524.2	3519.6	3517.3	3512.8	3512.8	3512.8	3512.8
10°	3519.6	3517.3	3512.8	3510.5	3508.2	3508.2	3508.2	3508.2
12.5°	3538.0	3531.1	3526.5	3524.2	3524.2	3524.2	3524.2	3524.2
15°	3586.1	3570.0	3558.6	3558.6	3560.9	3565.5	3565.5	3570.0
17.5°	3645.7	3627.3	3615.9	3606.7	3611.3	3618.2	3622.7	3627.3
20°	3716.7	3707.5	3691.5	3682.3	3682.3	3691.5	3696.1	3698.4
22.5°	3815.2	3808.4	3801.5	3790.0	3790.0	3794.6	3803.8	3803.8
25°	3961.9	3957.3	3952.7	3943.5	3941.3	3941.3	3945.8	3950.4
27.5°	4145.2	4147.5	4142.9	4140.6	4133.7	4131.4	4138.3	4136.0
30°	4390.4	4401.8	4413.3	4404.1	4392.7	4385.8	4378.9	4369.8
32.5°	4722.6	4708.9	4699.7	4683.7	4663.1	4644.7	4631.0	4614.9
35°	5036.6	5013.6	5004.5	5018.2	5015.9	5004.5	4988.4	4974.7
37.5°	5421.5	5416.9	5421.5	5446.7	5442.1	5453.6	5421.5	5419.2
40°	5907.3	5911.9	5944.0	5973.8	5989.8	6005.8	5987.5	5969.2
42.5°	6471.0	6468.7	6480.2	6521.4	6548.9	6567.2	6528.3	6523.7
45°	7066.8	7050.7	7059.9	7094.3	7121.8	7142.4	7098.8	7098.8
47.5°	7722.1	7694.6	7664.8	7703.8	7719.8	7733.6	7699.2	7687.7
50°	8453.1	8395.8	8331.6	8347.7	8347.7	8343.1	8299.6	8297.3
52.5°	9291.7	9186.3	9069.5	9025.9	9000.7	8973.2	8897.6	8861.0
55°	10256.4	10098.3	9915.0	9802.7	9743.2	9667.5	9541.5	9507.1
57.5°	11383.8	11136.3	10820.1	10682.6	10549.7	10426.0	10286.2	10247.3
60°	12719.7	12355.4	11936.0	11681.7	11537.3	11418.2	11273.8	11267.0
62.5°	14209.1	13634.0	13159.7	12930.5	12825.1	12719.7	12582.2	12600.6
65°	15723.8	15123.4	14678.9	14493.3	14394.8	14307.7	14170.2	14190.8
67.5°	17217.8	16665.6	16177.5	15987.3	15877.3	15767.3	15643.6	15664.2
70°	18290.2	17605.0	17055.1	16633.5	16370.0	16072.1	15879.6	15831.5
72.5°	17983.1	16926.8	16053.7	15217.4	14727.0	14328.3	14057.9	13941.0
75°	15563.4	14119.8	12997.0	11970.4	11393.0	10923.2	10581.8	10368.7
77.5°	11558.0	9935.6	8608.9	7426.5	6491.6	5863.8	5421.5	5135.1
80°	6326.6	4812.0	3517.3	2472.5	1817.1	1510.1	1333.6	1248.8
82.5°	1970.6	1271.7	937.2	808.9	751.6	719.5	666.8	582.0
85°	627.9	549.9	511.0	488.1	465.2	405.6	279.6	254.3
87.5°	242.9	249.8	247.5	233.7	238.3	171.9	137.5	121.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)