

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: P299869

Luminaire Tested: **GLNA-AF-10-LED-E1-5WQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299869
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K 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: 53730 lumens
Efficiency: N/A
Efficacy: 96.3 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

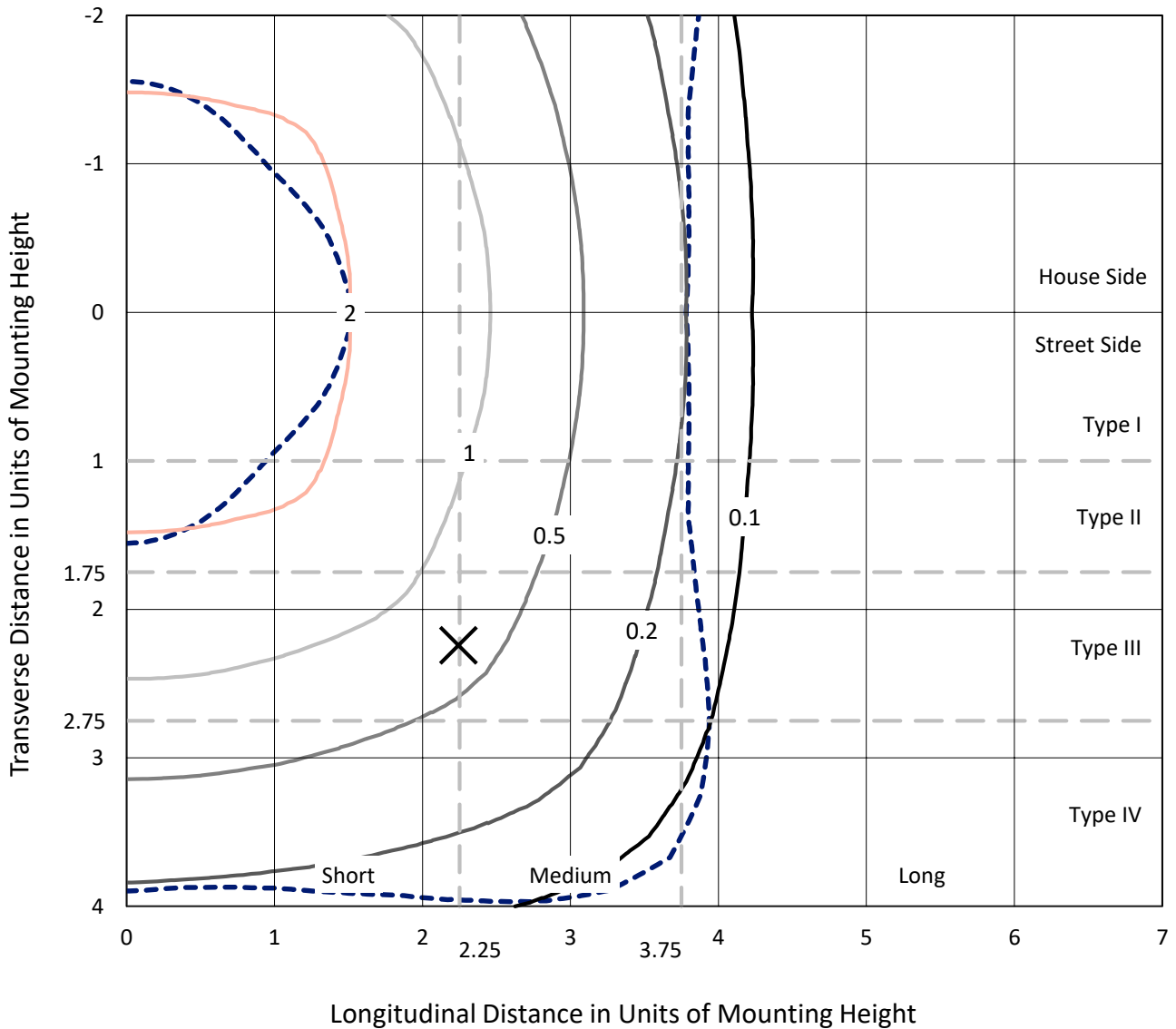
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

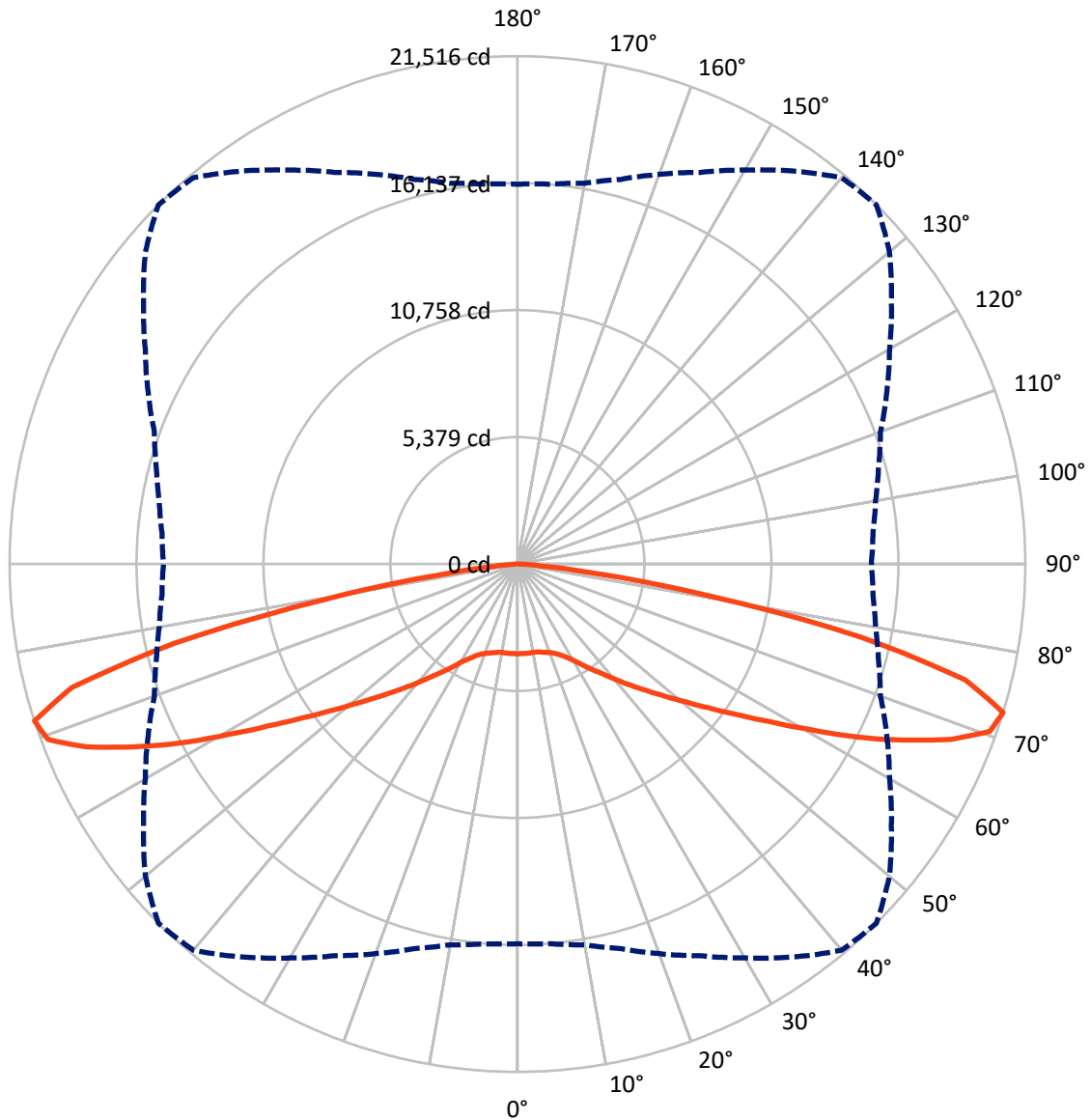
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.2 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	26865.0	0.0	26865.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	26865.0	0.0	26865.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	53730.0	0.0	53730.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.3	0.7
10°-20°	1103.5	2.1
20°-30°	2016.5	3.8
30°-40°	3476.8	6.5
40°-50°	5943.5	11.1
50°-60°	9633.6	17.9
60°-70°	15981.8	29.7
70°-80°	14076.2	26.2
80°-90°	1134.9	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°	53730.0	100.0
0°-180°	53730.0	100.0



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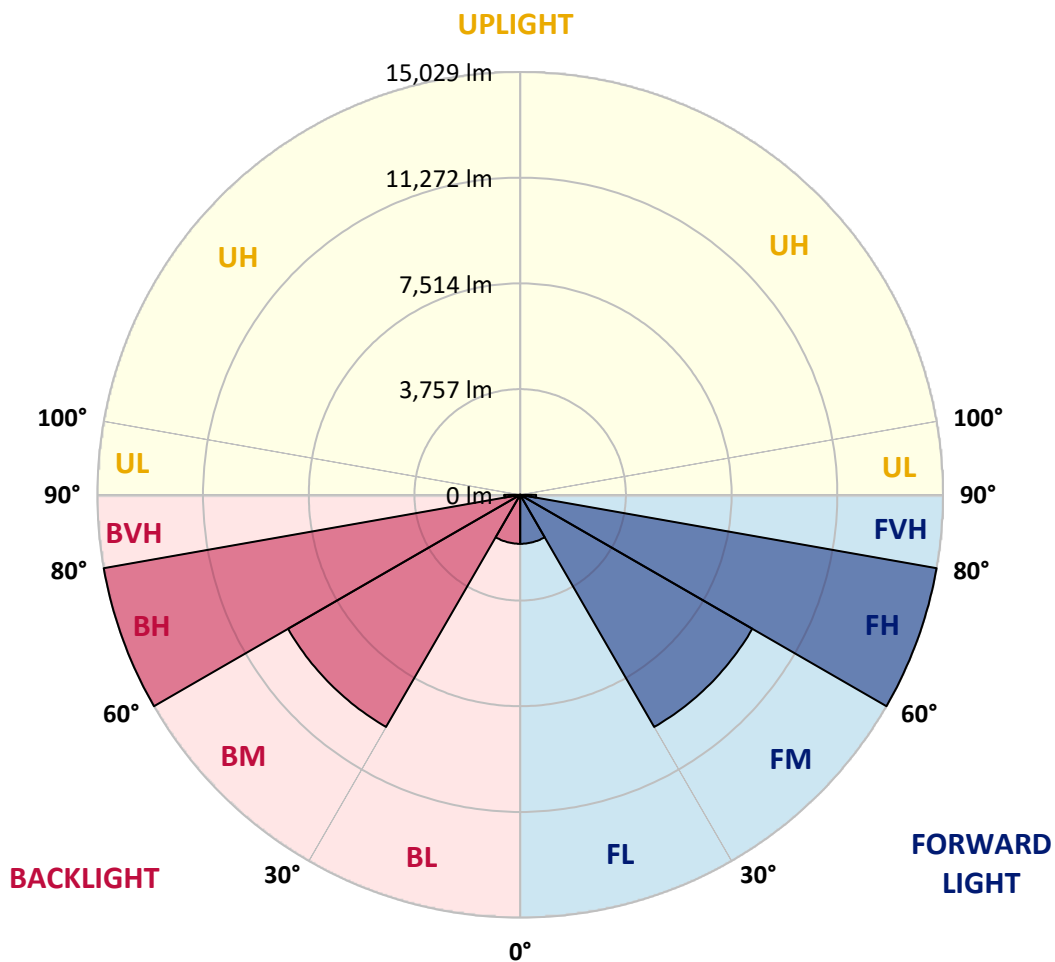
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1741.6	3.2			
FM	(30°-60°)	9526.9	17.7			
FH	(60°-80°)	15029.0	28.0			G5
FVH	(80°-90°)	567.5	1.1			G4/750
BL	(0°-30°)	1741.6	3.2	B3/2500		
BM	(30°-60°)	9526.9	17.7	B5		
BH	(60°-80°)	15029.0	28.0	B5		G5
BVH	(80°-90°)	567.5	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°	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9
2.5°	3804.9	3807.4	3809.8	3807.4	3807.4	3804.9	3802.5	3804.9	3802.5	3797.5	3800.0
5°	3817.2	3822.2	3822.2	3817.2	3819.7	3817.2	3812.3	3814.8	3809.8	3802.5	3802.5
7.5°	3832.0	3834.5	3834.5	3829.6	3832.0	3827.1	3822.2	3819.7	3814.8	3804.9	3797.5
10°	3854.2	3856.7	3854.2	3849.3	3849.3	3841.9	3829.6	3824.6	3814.8	3800.0	3792.6
12.5°	3878.8	3881.3	3878.8	3873.9	3871.5	3859.1	3849.3	3841.9	3834.5	3822.2	3809.8
15°	3913.3	3918.3	3913.3	3903.5	3896.1	3886.2	3881.3	3883.8	3886.2	3876.4	3864.1
17.5°	3977.4	3979.9	3972.5	3950.3	3940.5	3930.6	3930.6	3935.5	3942.9	3938.0	3925.7
20°	4095.7	4088.3	4071.1	4044.0	4031.6	4014.4	4011.9	4014.4	4014.4	4011.9	4002.1
22.5°	4243.6	4238.6	4216.5	4182.0	4164.7	4154.9	4140.1	4127.7	4125.3	4117.9	4108.0
25°	4421.0	4418.5	4391.4	4361.9	4349.5	4337.2	4324.9	4307.6	4292.9	4275.6	4265.7
27.5°	4647.7	4637.9	4598.4	4583.6	4566.4	4559.0	4541.8	4522.0	4509.7	4487.5	4475.2
30°	4896.6	4896.6	4864.6	4859.6	4859.6	4842.4	4822.7	4788.2	4766.0	4743.8	4736.4
32.5°	5145.5	5148.0	5115.9	5125.8	5133.2	5145.5	5150.4	5138.1	5123.3	5120.9	5106.1
35°	5505.3	5495.4	5463.4	5470.8	5468.3	5465.9	5465.9	5493.0	5497.9	5502.8	5473.3
37.5°	5951.3	5951.3	5919.3	5919.3	5904.5	5889.7	5870.0	5887.3	5914.4	5921.8	5902.1
40°	6461.5	6478.7	6439.3	6436.8	6441.7	6394.9	6372.7	6399.9	6417.1	6446.7	6424.5
42.5°	7062.8	7050.4	7011.0	7006.1	6979.0	6964.2	6944.5	6966.6	6993.8	7013.5	7020.9
45°	7639.4	7629.6	7585.2	7585.2	7558.1	7545.8	7555.6	7592.6	7604.9	7632.0	7659.1
47.5°	8208.7	8196.3	8166.8	8179.1	8181.6	8203.7	8235.8	8270.3	8304.8	8341.7	8354.1
50°	8790.2	8792.7	8760.7	8790.2	8827.2	8888.8	8975.1	9031.8	9103.2	9150.0	9164.8
52.5°	9320.1	9329.9	9364.4	9433.4	9507.4	9628.1	9776.0	9914.0	10032.3	10111.1	10106.2
55°	9955.9	9970.7	10054.4	10172.7	10293.5	10475.8	10695.2	10939.1	11136.3	11249.6	11178.2
57.5°	10769.1	10801.1	10894.8	11055.0	11234.9	11471.4	11772.1	12139.3	12444.8	12597.6	12481.8
60°	11885.4	11905.2	12018.5	12195.9	12412.8	12706.1	13107.7	13600.6	14031.9	14233.9	14100.9
62.5°	13356.6	13393.6	13484.8	13664.7	13886.5	14219.2	14709.6	15325.6	15862.9	16143.8	15843.1
65°	15113.7	15232.0	15308.4	15490.7	15697.8	16050.2	16562.7	17223.2	17799.8	17984.6	17637.2
67.5°	16853.5	16957.0	17090.1	17299.6	17509.0	17905.8	18381.4	19022.1	19655.5	19823.0	19283.3
70°	17615.0	17674.1	17881.1	18167.0	18568.7	19036.9	19586.5	20306.0	21089.7	21227.7	20542.6
72.5°	16089.6	16148.7	16380.4	16865.8	17565.7	18309.9	19268.6	20325.8	21360.8	21516.0	20572.2
75°	12168.8	12072.7	12415.3	13058.5	14002.3	15039.8	16380.4	17895.9	19391.8	19586.5	18460.3
77.5°	6289.0	6276.6	6535.4	7333.8	8460.0	9640.4	11116.6	12829.3	14293.1	14884.5	13967.8
80°	1771.8	1791.6	1914.8	2311.5	2969.5	3822.2	4975.5	6579.7	7777.4	8388.6	7876.0
82.5°	694.9	749.2	796.0	869.9	956.2	1081.8	1444.1	2148.9	2883.3	3445.1	2821.7
85°	248.9	266.1	377.0	446.0	453.4	478.1	544.6	635.8	766.4	914.3	751.6
87.5°	93.6	103.5	120.8	199.6	197.1	179.9	219.3	229.2	172.5	157.7	194.7
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°	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9	3804.9
2.5°	3795.1	3797.5	3797.5	3800.0	3802.5	3802.5	3807.4	3807.4
5°	3797.5	3797.5	3792.6	3795.1	3792.6	3792.6	3795.1	3795.1
7.5°	3792.6	3790.1	3785.2	3782.7	3777.8	3777.8	3777.8	3777.8
10°	3785.2	3782.7	3777.8	3775.3	3772.9	3772.9	3772.9	3772.9
12.5°	3804.9	3797.5	3792.6	3790.1	3790.1	3790.1	3790.1	3790.1
15°	3856.7	3839.4	3827.1	3827.1	3829.6	3834.5	3834.5	3839.4
17.5°	3920.7	3901.0	3888.7	3878.8	3883.8	3891.2	3896.1	3901.0
20°	3997.1	3987.3	3970.0	3960.2	3960.2	3970.0	3975.0	3977.4
22.5°	4103.1	4095.7	4088.3	4076.0	4076.0	4080.9	4090.8	4090.8
25°	4260.8	4255.9	4251.0	4241.1	4238.6	4238.6	4243.6	4248.5
27.5°	4458.0	4460.4	4455.5	4453.0	4445.6	4443.2	4450.6	4448.1
30°	4721.6	4734.0	4746.3	4736.4	4724.1	4716.7	4709.3	4699.5
32.5°	5079.0	5064.2	5054.3	5037.1	5014.9	4995.2	4980.4	4963.2
35°	5416.6	5391.9	5382.1	5396.9	5394.4	5382.1	5364.8	5350.1
37.5°	5830.6	5825.7	5830.6	5857.7	5852.8	5865.1	5830.6	5828.1
40°	6353.0	6358.0	6392.5	6424.5	6441.7	6459.0	6439.3	6419.6
42.5°	6959.3	6956.8	6969.1	7013.5	7043.0	7062.8	7020.9	7015.9
45°	7600.0	7582.7	7592.6	7629.6	7659.1	7681.3	7634.5	7634.5
47.5°	8304.8	8275.2	8243.2	8285.1	8302.3	8317.1	8280.1	8267.8
50°	9090.9	9029.3	8960.3	8977.5	8977.5	8972.6	8925.8	8923.3
52.5°	9992.8	9879.5	9753.8	9707.0	9679.9	9650.3	9569.0	9529.5
55°	11030.3	10860.3	10663.1	10542.4	10478.3	10397.0	10261.5	10224.5
57.5°	12242.8	11976.6	11636.5	11488.7	11345.8	11212.7	11062.4	11020.5
60°	13679.5	13287.6	12836.7	12563.1	12407.9	12279.7	12124.5	12117.1
62.5°	15281.3	14662.7	14152.6	13906.2	13792.8	13679.5	13531.6	13551.3
65°	16910.2	16264.5	15786.5	15586.9	15480.9	15387.2	15239.4	15261.6
67.5°	18516.9	17923.0	17398.1	17193.6	17075.3	16957.0	16823.9	16846.1
70°	19670.2	18933.4	18342.0	17888.5	17605.1	17284.8	17077.8	17026.0
72.5°	19340.0	18204.0	17265.1	16365.6	15838.2	15409.4	15118.6	14993.0
75°	16737.7	15185.2	13977.7	12873.6	12252.6	11747.4	11380.3	11151.1
77.5°	12430.1	10685.3	9258.5	7986.9	6981.4	6306.2	5830.6	5522.6
80°	6804.0	5175.1	3782.7	2659.0	1954.2	1624.0	1434.2	1343.1
82.5°	2119.3	1367.7	1007.9	869.9	808.3	773.8	717.1	625.9
85°	675.2	591.4	549.5	524.9	500.3	436.2	300.6	273.5
87.5°	261.2	268.6	266.1	251.4	256.3	184.8	147.9	130.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)