

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: P299633

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299633  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
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-SL2-7050-HSS  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

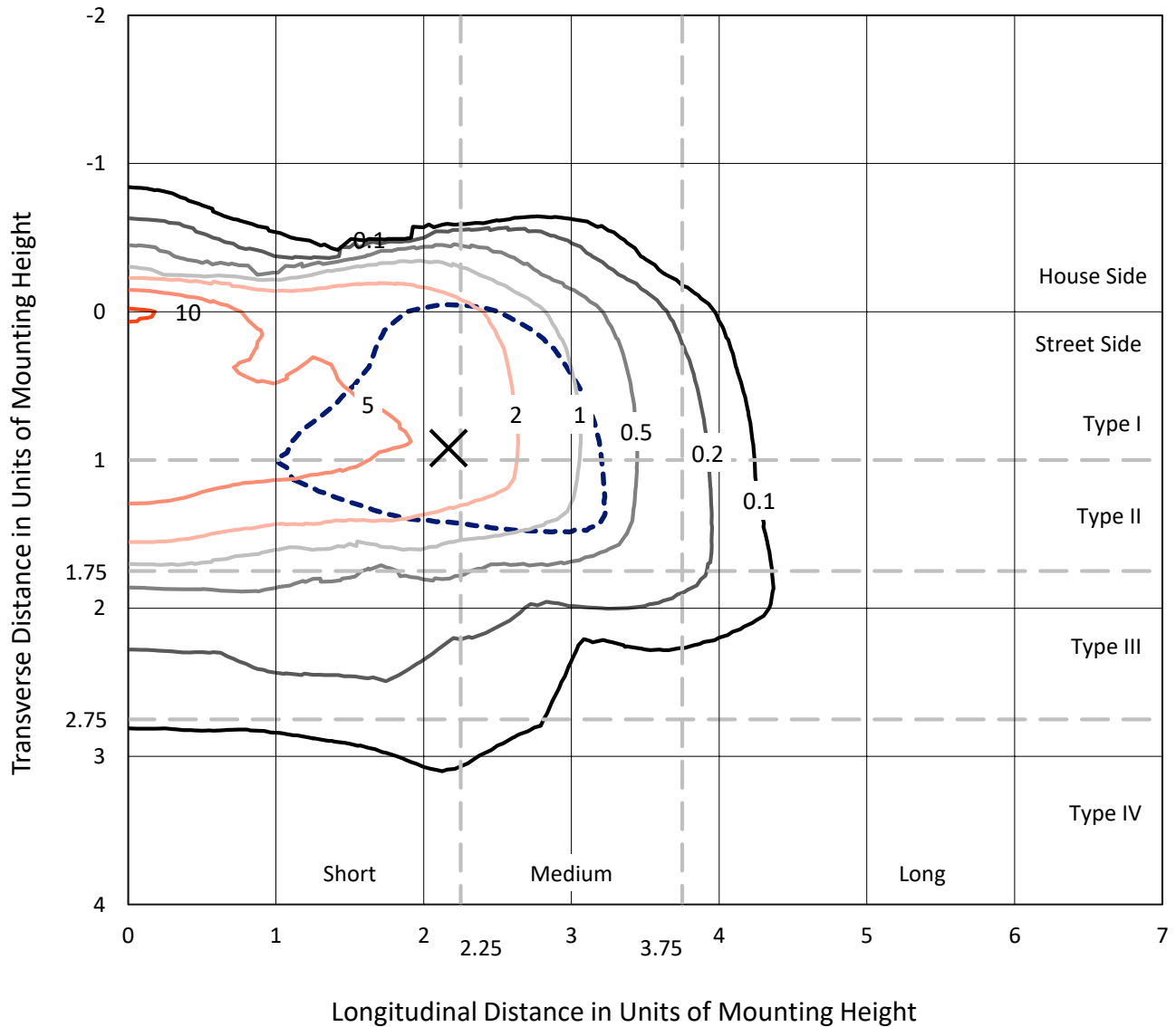
Lumens per Lamp: N/A  
Luminaire Lumens: 44328.2 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (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

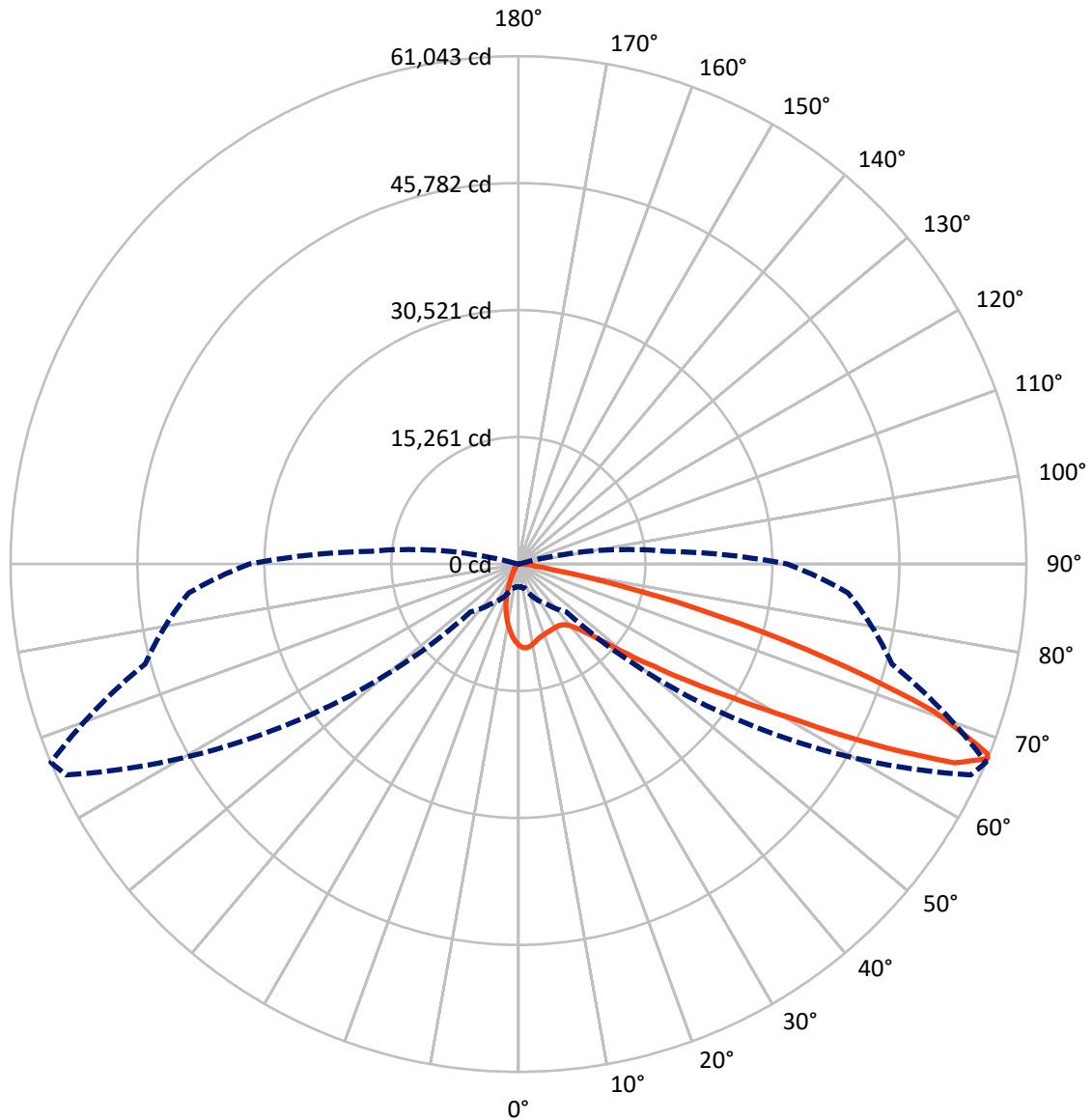
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.9 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4602.6	0.0	4602.6
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	39725.6	0.0	39725.6
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	44328.2	0.0	44328.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	795.5	1.8
10°-20°	1693.0	3.8
20°-30°	2461.5	5.6
30°-40°	3840.1	8.7
40°-50°	6802.5	15.3
50°-60°	10764.3	24.3
60°-70°	12329.0	27.8
70°-80°	5114.0	11.5
80°-90°	528.3	1.2
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°	44328.2	100.0
0°-180°	44328.2	100.0

**Coefficient of Utilization**



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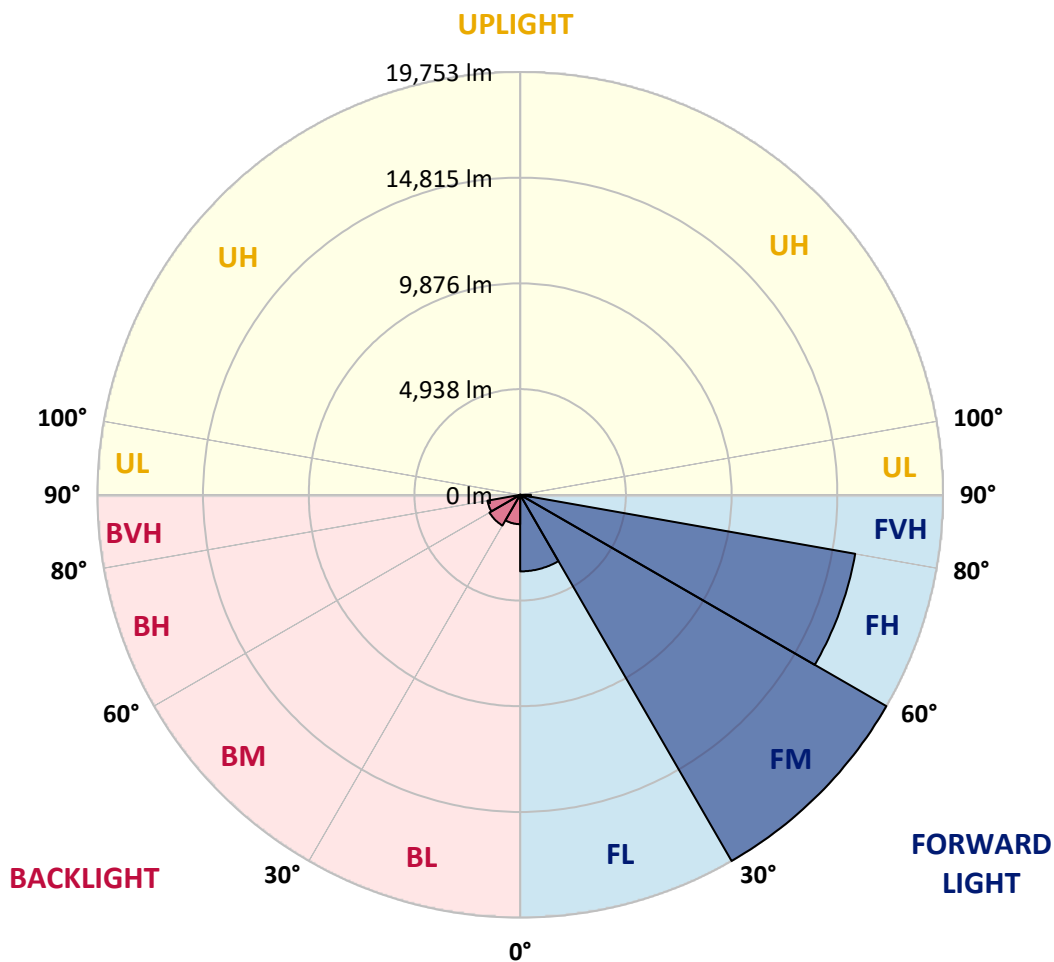
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3576.6	8.1			
FM (30°-60°)	19752.7	44.6			
FH (60°-80°)	15891.8	35.9			G5
FVH (80°-90°)	504.5	1.1			G4/750
BL (0°-30°)	1373.4	3.1	B3/2500		
BM (30°-60°)	1654.1	3.7	B2/2500		
BH (60°-80°)	1551.2	3.5	B3/2500		G3/2500
BVH (80°-90°)	23.8	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0
2.5°	10107.0	10127.6	10125.0	10140.6	10176.8	10179.3	10143.1	10073.3	10057.8	9967.3	9809.6
5°	9320.9	9380.4	9416.6	9564.0	9729.5	9928.5	10078.5	10132.8	10125.0	10060.4	9822.5
7.5°	8423.8	8483.2	8524.6	8697.8	8917.6	9258.9	9649.3	9969.9	9998.4	10068.2	9812.2
10°	7826.5	7836.8	7893.7	8059.2	8289.3	8638.4	9103.8	9664.8	9750.1	10006.1	9786.3
12.5°	7335.2	7343.0	7418.0	7596.4	7842.0	8193.6	8682.3	9331.3	9463.1	9928.5	9781.2
15°	6986.2	7014.6	7081.8	7268.0	7529.1	7878.2	8379.8	9085.7	9243.4	9900.1	9827.7
17.5°	6869.8	6900.9	6921.5	7056.0	7293.9	7635.2	8149.7	8925.3	9103.8	9915.6	9918.2
20°	6991.4	7014.6	6968.1	7001.7	7149.1	7454.2	7955.8	8788.3	9000.3	9933.7	10034.6
22.5°	7443.8	7454.2	7327.5	7180.1	7154.2	7322.3	7803.2	8679.7	8907.3	9982.8	10171.6
25°	8219.5	8201.4	7994.5	7676.5	7376.6	7299.0	7712.7	8612.5	8860.7	10034.6	10313.8
27.5°	9155.5	9181.3	8896.9	8434.1	7862.7	7454.2	7699.8	8584.1	8840.0	10070.8	10437.9
30°	10293.1	10329.3	10003.5	9421.8	8602.2	7836.8	7818.7	8578.9	8827.1	10047.5	10448.2
32.5°	11454.0	11498.0	11242.0	10642.2	9589.8	8478.0	8087.6	8635.8	8853.0	9967.3	10388.8
35°	12669.2	12731.3	12560.6	12046.1	10929.2	9403.7	8560.8	8809.0	8974.5	9959.6	10329.3
37.5°	14347.3	14404.1	14083.5	13538.0	12550.3	10644.7	9320.9	9134.8	9261.5	10083.7	10344.8
40°	16852.7	16844.9	16017.5	15182.4	14331.8	12221.9	10388.8	9724.3	9788.9	10458.6	10536.2
42.5°	19583.0	19570.1	18347.1	17077.6	16309.7	14163.7	11792.7	10743.0	10699.0	11148.9	11032.6
45°	21687.7	21685.1	20687.1	19257.2	18691.0	16392.4	13607.8	12159.9	12092.7	12271.1	11947.9
47.5°	22584.9	22600.4	22098.8	21093.0	21330.9	19407.2	15896.0	14212.8	14112.0	14039.6	13548.3
50°	21886.8	21917.8	21959.2	21762.7	23267.4	23458.8	18965.1	17106.1	17056.9	16733.7	15965.8
52.5°	19606.3	19764.0	20250.1	20873.2	23939.7	27347.5	23776.8	20700.0	20436.3	20092.4	19246.9
55°	15764.2	15937.4	16860.4	18373.0	22939.1	29902.0	30519.9	25333.3	24893.8	23867.3	22646.9
57.5°	10432.7	10701.6	12040.9	13964.6	20032.9	30313.1	37247.6	31763.6	30232.9	27422.4	26046.9
60°	5747.7	6006.3	7459.3	9202.0	14468.8	28280.8	41772.3	40135.6	37431.1	31396.4	30176.1
62.5°	3539.6	3679.3	4752.3	6373.4	8677.1	22321.1	42708.3	50656.3	47525.2	36513.3	35163.6
65°	2818.3	2877.7	3402.6	5209.9	6220.9	13276.8	39685.7	58676.7	57632.1	42708.3	39628.9
67°	2735.5	2758.8	3007.0	4473.0	5864.0	8139.3	33247.7	59982.4	61042.5	46457.3	39768.5
67.5°	2753.6	2779.5	3014.8	4268.8	5853.7	7480.0	31029.3	59467.9	60807.2	46754.7	39150.5
70°	2655.4	2735.5	3451.7	4266.2	5566.7	6215.7	18582.4	51525.0	52918.6	43442.6	33219.3
72.5°	941.1	946.3	1491.9	3451.7	6052.8	6282.9	9331.3	37772.4	38804.1	33232.2	23950.0
75°	558.5	475.7	496.4	982.5	5783.9	6101.9	5383.1	24136.2	24521.4	19042.6	12128.9
77.5°	385.2	336.1	346.5	434.4	2202.9	6016.6	4276.5	12586.5	12175.4	6678.5	2583.0
80°	219.8	193.9	206.8	380.1	801.5	5613.2	4033.5	5103.9	4351.5	1132.5	713.6
82.5°	116.4	98.3	118.9	312.9	558.5	3498.3	4041.2	2466.6	1954.7	382.7	486.1
85°	41.4	33.6	56.9	214.6	372.3	1073.0	3746.5	2073.6	1628.9	186.2	369.7
87.5°	7.8	7.8	23.3	87.9	150.0	328.4	2215.8	1230.7	824.8	111.2	253.4
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0	9776.0
2.5°	9745.0	9633.8	9483.8	9300.3	9083.1	8891.7	8749.5	8602.2	8571.1	8519.4	8511.7
5°	9680.3	9489.0	9116.7	8690.1	8235.0	7823.9	7490.4	7193.0	7061.2	6947.4	6934.5
7.5°	9584.7	9297.7	8664.2	7976.4	7265.4	6619.0	6070.9	5683.1	5326.3	5155.6	5129.7
10°	9473.5	9062.4	8154.9	7200.8	6218.3	5305.6	4491.1	3808.5	3394.8	3149.2	3118.2
12.5°	9370.1	8832.3	7635.2	6396.7	5091.0	3870.6	2823.4	2171.9	1737.5	1561.7	1541.0
15°	9320.9	8646.1	7149.1	5574.5	3912.0	2464.0	1543.6	1194.5	1052.3	1011.0	1008.4
17.5°	9315.8	8488.4	6673.3	4723.8	2740.7	1432.4	1005.8	917.9	889.4	879.1	879.1
20°	9313.2	8338.4	6197.6	3842.1	1740.1	954.1	837.7	817.0	796.4	783.4	783.4
22.5°	9341.6	8204.0	5701.2	2942.4	1096.3	773.1	736.9	716.2	690.3	672.2	669.7
25°	9370.1	8100.6	5194.4	2094.3	793.8	672.2	636.0	607.6	571.4	548.1	545.6
27.5°	9375.2	7971.3	4651.4	1401.4	664.5	586.9	540.4	496.4	455.1	431.8	429.2
30°	9297.7	7754.1	4049.0	946.3	586.9	509.4	447.3	400.8	362.0	343.9	343.9
32.5°	9145.1	7485.2	3387.1	713.6	522.3	437.0	369.7	325.8	299.9	292.2	289.6
35°	9008.1	7195.6	2707.1	605.0	468.0	369.7	302.5	274.1	258.6	256.0	253.4
37.5°	8927.9	6962.9	2068.4	548.1	416.3	310.3	256.0	235.3	227.5	222.4	224.9
40°	8990.0	6769.0	1528.1	501.6	364.6	258.6	217.2	206.8	199.1	196.5	196.5
42.5°	9261.5	6735.4	1135.1	460.2	315.4	214.6	188.7	181.0	175.8	173.2	175.8
45°	9975.1	6942.2	881.7	421.4	266.3	181.0	160.3	157.7	155.1	155.1	155.1
47.5°	11048.1	7368.8	734.3	377.5	222.4	155.1	139.6	137.0	134.4	137.0	137.0
50°	12865.7	8149.7	656.7	333.5	183.6	131.9	118.9	118.9	118.9	118.9	121.5
52.5°	15629.7	9685.5	605.0	289.6	150.0	111.2	100.8	100.8	103.4	103.4	106.0
55°	18709.1	11722.9	558.5	245.6	126.7	93.1	82.7	85.3	87.9	90.5	90.5
57.5°	22049.6	13980.1	519.7	201.7	108.6	75.0	69.8	72.4	75.0	80.2	80.2
60°	26080.5	16423.5	462.8	157.7	90.5	59.5	54.3	59.5	67.2	72.4	75.0
62.5°	30507.0	18786.7	390.4	124.1	75.0	46.5	44.0	54.3	64.6	69.8	72.4
65°	33532.1	19528.7	299.9	100.8	56.9	33.6	36.2	49.1	62.1	69.8	69.8
67°	32306.6	17705.9	245.6	85.3	46.5	25.9	33.6	49.1	62.1	67.2	69.8
67.5°	31455.9	16992.3	235.3	82.7	44.0	25.9	33.6	49.1	62.1	69.8	69.8
70°	25594.4	12764.9	196.5	62.1	36.2	23.3	28.4	46.5	59.5	67.2	67.2
72.5°	17783.5	7870.4	175.8	44.0	31.0	20.7	25.9	44.0	56.9	64.6	67.2
75°	8454.8	2849.3	150.0	33.6	28.4	18.1	23.3	44.0	56.9	64.6	64.6
77.5°	1724.6	661.9	121.5	28.4	23.3	18.1	20.7	41.4	54.3	62.1	62.1
80°	566.2	256.0	90.5	25.9	23.3	18.1	20.7	38.8	54.3	59.5	62.1
82.5°	408.5	129.3	59.5	25.9	23.3	18.1	18.1	38.8	51.7	59.5	59.5
85°	312.9	90.5	38.8	25.9	23.3	18.1	18.1	36.2	49.1	56.9	56.9
87.5°	206.8	36.2	31.0	25.9	23.3	18.1	18.1	36.2	46.5	54.3	56.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)