

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: P299628

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7060-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299628
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-09-LED-E1-SL2-7060-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5700K 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: 40037.7 lumens
Efficiency: N/A
Efficacy: 79.9 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): 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

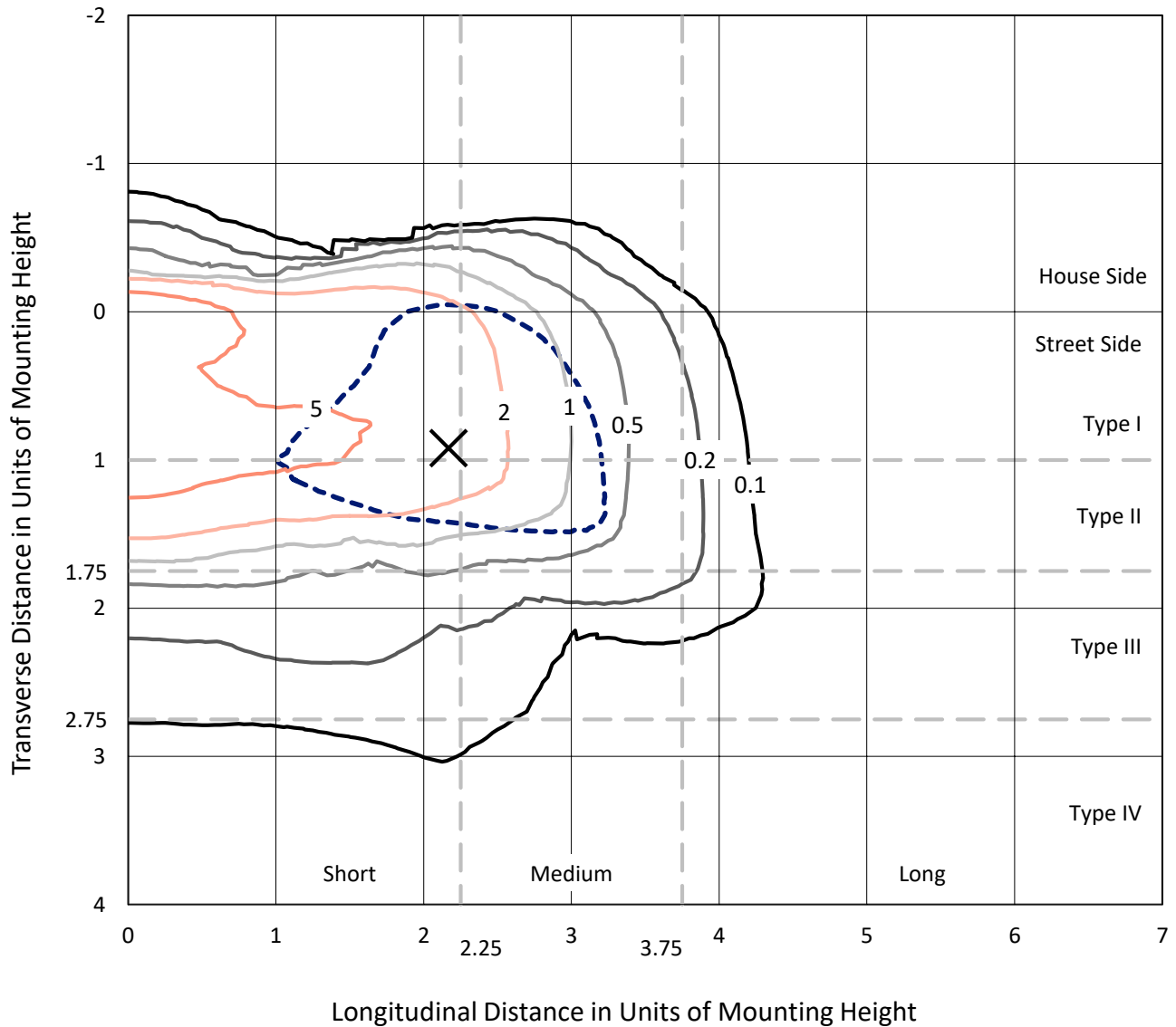


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Iso-Footcandle Lines of Horizontal Illumination

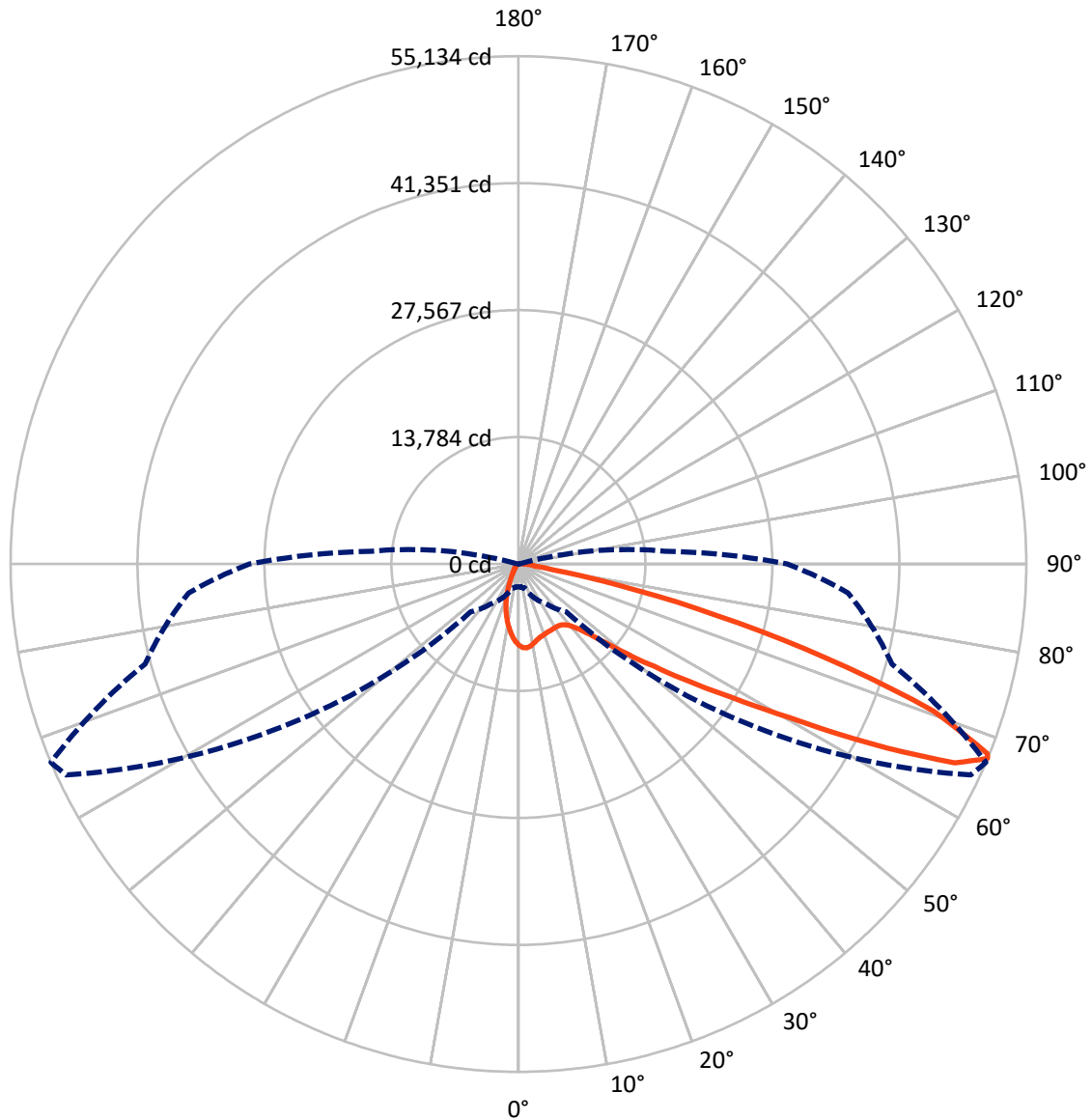
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.8 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
House Side	Lumens	4157.1	0.0	4157.1
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	35880.6	0.0	35880.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	40037.7	0.0	40037.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	718.5	1.8
10°-20°	1529.2	3.8
20°-30°	2223.3	5.6
30°-40°	3468.4	8.7
40°-50°	6144.1	15.3
50°-60°	9722.4	24.3
60°-70°	11135.7	27.8
70°-80°	4619.0	11.5
80°-90°	477.1	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°	40037.7	100.0
0°-180°	40037.7	100.0



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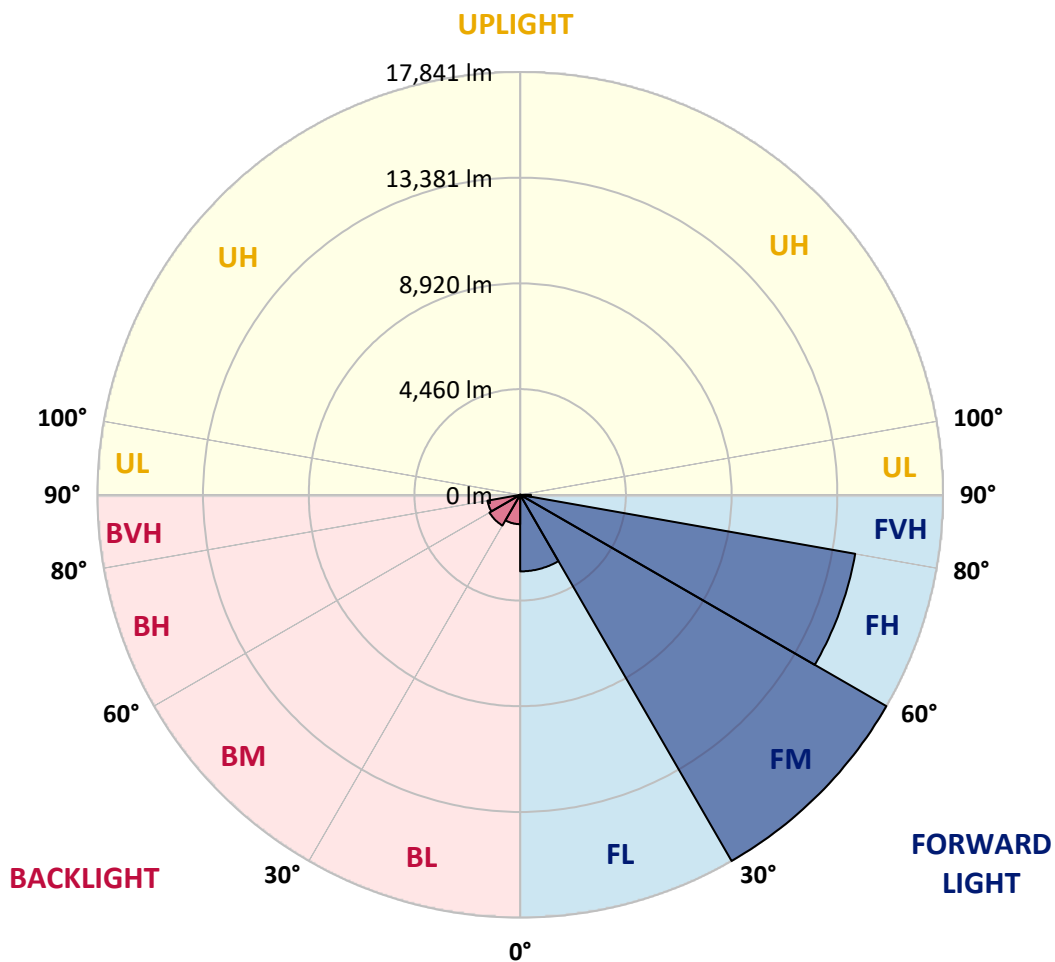
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3230.4	8.1			
FM	(30°-60°)	17840.9	44.6			
FH	(60°-80°)	14353.6	35.9			G5
FVH	(80°-90°)	455.6	1.1			G3/500
BL	(0°-30°)	1240.5	3.1	B3/2500		
BM	(30°-60°)	1494.0	3.7	B2/2500		
BH	(60°-80°)	1401.1	3.5	B3/2500		G3/2500
BVH	(80°-90°)	21.5	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°	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8
2.5°	9128.7	9147.4	9145.1	9159.1	9191.8	9194.1	9161.4	9098.4	9084.3	9002.6	8860.2
5°	8418.8	8472.5	8505.2	8638.3	8787.8	8967.6	9103.0	9152.1	9145.1	9086.7	8871.8
7.5°	7608.4	7662.1	7699.5	7856.0	8054.5	8362.7	8715.4	9004.9	9030.6	9093.7	8862.5
10°	7069.0	7078.3	7129.7	7279.2	7487.0	7802.3	8222.6	8729.4	8806.4	9037.6	8839.1
12.5°	6625.3	6632.3	6700.0	6861.1	7083.0	7400.6	7842.0	8428.1	8547.2	8967.6	8834.5
15°	6310.0	6335.7	6396.4	6564.5	6800.4	7115.7	7568.7	8206.3	8348.7	8941.9	8876.5
17.5°	6204.9	6232.9	6251.6	6373.1	6587.9	6896.2	7360.9	8061.5	8222.6	8955.9	8958.2
20°	6314.7	6335.7	6293.7	6324.0	6457.1	6732.7	7185.7	7937.7	8129.2	8972.3	9063.3
22.5°	6723.4	6732.7	6618.3	6485.1	6461.8	6613.6	7048.0	7839.6	8045.1	9016.6	9187.1
25°	7423.9	7407.6	7220.8	6933.5	6662.6	6592.6	6966.2	7778.9	8003.1	9063.3	9315.5
27.5°	8269.3	8292.7	8035.8	7617.8	7101.7	6732.7	6954.5	7753.2	7984.4	9096.0	9427.6
30°	9296.9	9329.6	9035.3	8509.9	7769.6	7078.3	7062.0	7748.6	7972.7	9075.0	9437.0
32.5°	10345.4	10385.1	10153.9	9612.1	8661.7	7657.5	7304.8	7799.9	7996.1	9002.6	9383.3
35°	11443.0	11499.1	11344.9	10880.2	9871.3	8493.5	7732.2	7956.4	8105.9	8995.6	9329.6
37.5°	12958.6	13010.0	12720.4	12227.7	11335.6	9614.5	8418.8	8250.6	8365.1	9107.7	9343.6
40°	15221.5	15214.5	14467.2	13712.9	12944.6	11039.0	9383.3	8783.1	8841.5	9446.3	9516.4
42.5°	17687.6	17675.9	16571.3	15424.7	14731.1	12792.8	10651.3	9703.2	9663.5	10069.8	9964.8
45°	19588.6	19586.2	18684.8	17393.4	16881.9	14805.8	12290.7	10983.0	10922.2	11083.4	10791.5
47.5°	20398.9	20412.9	19959.9	19051.4	19266.3	17528.8	14357.5	12837.2	12746.1	12680.7	12237.0
50°	19768.4	19796.4	19833.8	19656.3	21015.4	21188.2	17129.5	15450.4	15406.0	15114.1	14420.5
52.5°	17708.6	17851.1	18290.1	18852.9	21622.6	24700.5	21475.5	18696.5	18458.3	18147.7	17384.0
55°	14238.4	14394.8	15228.5	16594.7	20718.8	27007.8	27566.0	22881.3	22484.3	21557.2	20455.0
57.5°	9423.0	9665.8	10875.5	12613.0	18094.0	27379.1	33642.4	28689.3	27306.8	24768.3	23525.9
60°	5191.4	5424.9	6737.4	8311.4	13068.4	25543.6	37729.2	36251.0	33808.2	28357.6	27255.4
62.5°	3197.0	3323.1	4292.3	5756.5	7837.3	20160.7	38574.6	45753.3	42925.3	32979.2	31760.2
65°	2545.5	2599.2	3073.3	4705.6	5618.8	11991.8	35844.6	52997.5	52054.0	38574.6	35793.3
67°	2470.8	2491.8	2716.0	4040.1	5296.5	7351.5	30029.7	54176.8	55134.3	41960.8	35919.4
67.5°	2487.1	2510.5	2723.0	3855.6	5287.1	6756.0	28026.0	53712.1	54921.8	42229.4	35361.2
70°	2398.4	2470.8	3117.6	3853.3	5027.9	5614.1	16783.9	46538.0	47796.7	39237.8	30004.0
72.5°	850.1	854.7	1347.5	3117.6	5467.0	5674.8	8428.1	34116.5	35048.3	30015.7	21632.0
75°	504.4	429.7	448.4	887.4	5224.1	5511.3	4862.1	21800.1	22148.1	17199.5	10954.9
77.5°	348.0	303.6	312.9	392.3	1989.7	5434.3	3862.6	11368.3	10997.0	6032.1	2333.0
80°	198.5	175.1	186.8	343.3	723.9	5070.0	3643.1	4609.9	3930.3	1022.9	644.5
82.5°	105.1	88.7	107.4	282.6	504.4	3159.7	3650.1	2227.9	1765.5	345.6	439.0
85°	37.4	30.4	51.4	193.8	336.3	969.2	3383.9	1872.9	1471.2	168.1	333.9
87.5°	7.0	7.0	21.0	79.4	135.4	296.6	2001.4	1111.6	745.0	100.4	228.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8	8829.8
2.5°	8801.8	8701.4	8565.9	8400.1	8203.9	8031.1	7902.7	7769.6	7741.5	7694.8	7687.8
5°	8743.4	8570.6	8234.3	7849.0	7438.0	7066.6	6765.4	6496.8	6377.7	6275.0	6263.3
7.5°	8657.0	8397.8	7825.6	7204.4	6562.2	5978.4	5483.3	5133.0	4810.7	4656.6	4633.3
10°	8556.6	8185.3	7365.6	6503.8	5616.4	4792.1	4056.4	3439.9	3066.3	2844.4	2816.4
12.5°	8463.2	7977.4	6896.2	5777.6	4598.2	3496.0	2550.2	1961.7	1569.3	1410.5	1391.8
15°	8418.8	7809.3	6457.1	5034.9	3533.3	2225.5	1394.2	1078.9	950.5	913.1	910.8
17.5°	8414.1	7666.8	6027.4	4266.6	2475.4	1293.8	908.4	829.0	803.3	794.0	794.0
20°	8411.8	7531.4	5597.7	3470.3	1571.7	861.7	756.6	738.0	719.3	707.6	707.6
22.5°	8437.5	7409.9	5149.4	2657.6	990.2	698.3	665.6	646.9	623.5	607.2	604.8
25°	8463.2	7316.5	4691.6	1891.6	716.9	607.2	574.5	548.8	516.1	495.1	492.7
27.5°	8467.8	7199.8	4201.2	1265.7	600.2	530.1	488.1	448.4	411.0	390.0	387.7
30°	8397.8	7003.6	3657.1	854.7	530.1	460.1	404.0	362.0	326.9	310.6	310.6
32.5°	8260.0	6760.7	3059.3	644.5	471.7	394.7	333.9	294.2	270.9	263.9	261.6
35°	8136.2	6499.2	2445.1	546.5	422.7	333.9	273.2	247.5	233.5	231.2	228.9
37.5°	8063.8	6289.0	1868.2	495.1	376.0	280.2	231.2	212.5	205.5	200.8	203.2
40°	8119.9	6113.8	1380.2	453.0	329.3	233.5	196.2	186.8	179.8	177.5	177.5
42.5°	8365.1	6083.5	1025.2	415.7	284.9	193.8	170.5	163.5	158.8	156.5	158.8
45°	9009.6	6270.3	796.3	380.7	240.5	163.5	144.8	142.5	140.1	140.1	140.1
47.5°	9978.8	6655.6	663.2	341.0	200.8	140.1	126.1	123.8	121.4	123.8	123.8
50°	11620.5	7360.9	593.2	301.3	165.8	119.1	107.4	107.4	107.4	107.4	109.8
52.5°	14116.9	8748.1	546.5	261.6	135.4	100.4	91.1	91.1	93.4	93.4	95.7
55°	16898.3	10588.3	504.4	221.9	114.4	84.1	74.7	77.1	79.4	81.7	81.7
57.5°	19915.5	12627.0	469.4	182.2	98.1	67.7	63.1	65.4	67.7	72.4	72.4
60°	23556.2	14833.9	418.0	142.5	81.7	53.7	49.0	53.7	60.7	65.4	67.7
62.5°	27554.3	16968.3	352.6	112.1	67.7	42.0	39.7	49.0	58.4	63.1	65.4
65°	30286.6	17638.6	270.9	91.1	51.4	30.4	32.7	44.4	56.0	63.1	63.1
67°	29179.7	15992.2	221.9	77.1	42.0	23.4	30.4	44.4	56.0	60.7	63.1
67.5°	28411.4	15347.6	212.5	74.7	39.7	23.4	30.4	44.4	56.0	63.1	63.1
70°	23117.2	11529.4	177.5	56.0	32.7	21.0	25.7	42.0	53.7	60.7	60.7
72.5°	16062.2	7108.7	158.8	39.7	28.0	18.7	23.4	39.7	51.4	58.4	60.7
75°	7636.5	2573.5	135.4	30.4	25.7	16.3	21.0	39.7	51.4	58.4	58.4
77.5°	1557.7	597.8	109.8	25.7	21.0	16.3	18.7	37.4	49.0	56.0	56.0
80°	511.4	231.2	81.7	23.4	21.0	16.3	18.7	35.0	49.0	53.7	56.0
82.5°	369.0	116.8	53.7	23.4	21.0	16.3	16.3	35.0	46.7	53.7	53.7
85°	282.6	81.7	35.0	23.4	21.0	16.3	16.3	32.7	44.4	51.4	51.4
87.5°	186.8	32.7	28.0	23.4	21.0	16.3	16.3	32.7	42.0	49.0	51.4
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)