

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: P299995

Luminaire Tested: **GLNA-AF-09-LED-E1-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
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-SL3-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41296.5 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

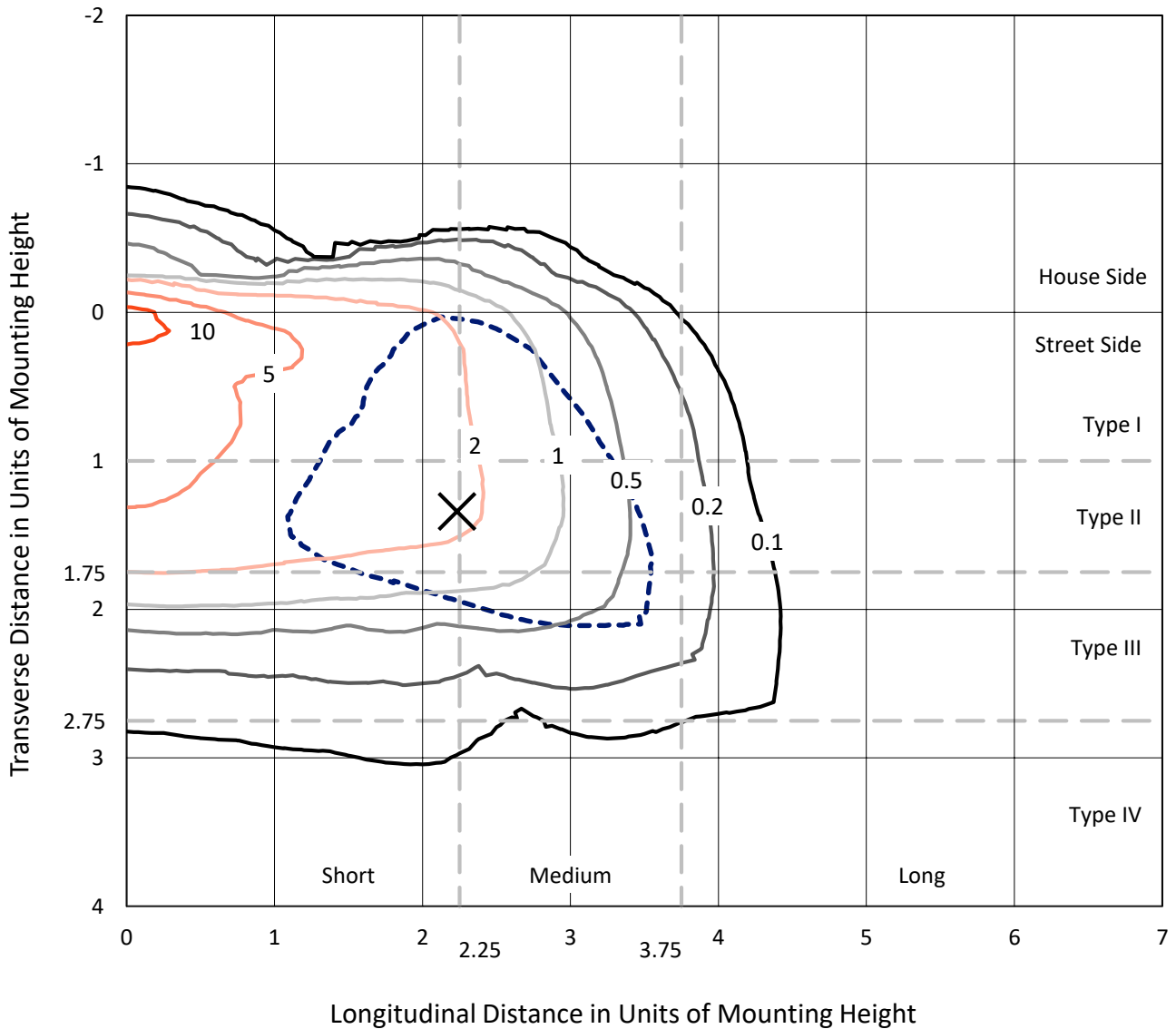
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

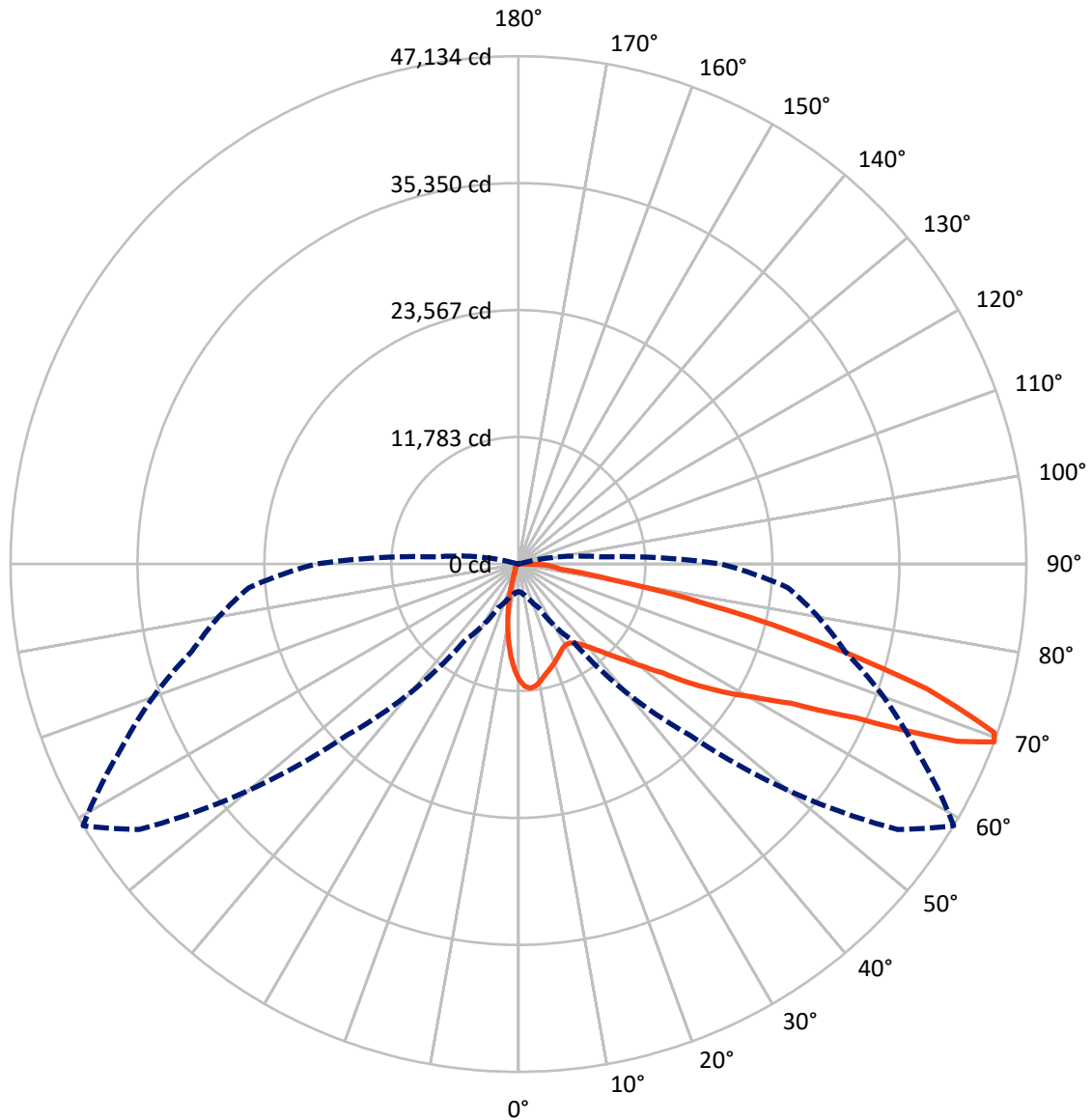
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3363.0	0.0	3363.0
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	37933.5	0.0	37933.5
	% Fixture	91.9	0.0	91.9
Total	Lumens	41296.5	0.0	41296.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	872.5	2.1
10°-20°	1802.8	4.4
20°-30°	2425.9	5.9
30°-40°	3522.3	8.5
40°-50°	5864.8	14.2
50°-60°	9149.1	22.2
60°-70°	11321.3	27.4
70°-80°	5737.5	13.9
80°-90°	600.3	1.5
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°	41296.5	100.0
0°-180°	41296.5	100.0

Coefficient of Utilization



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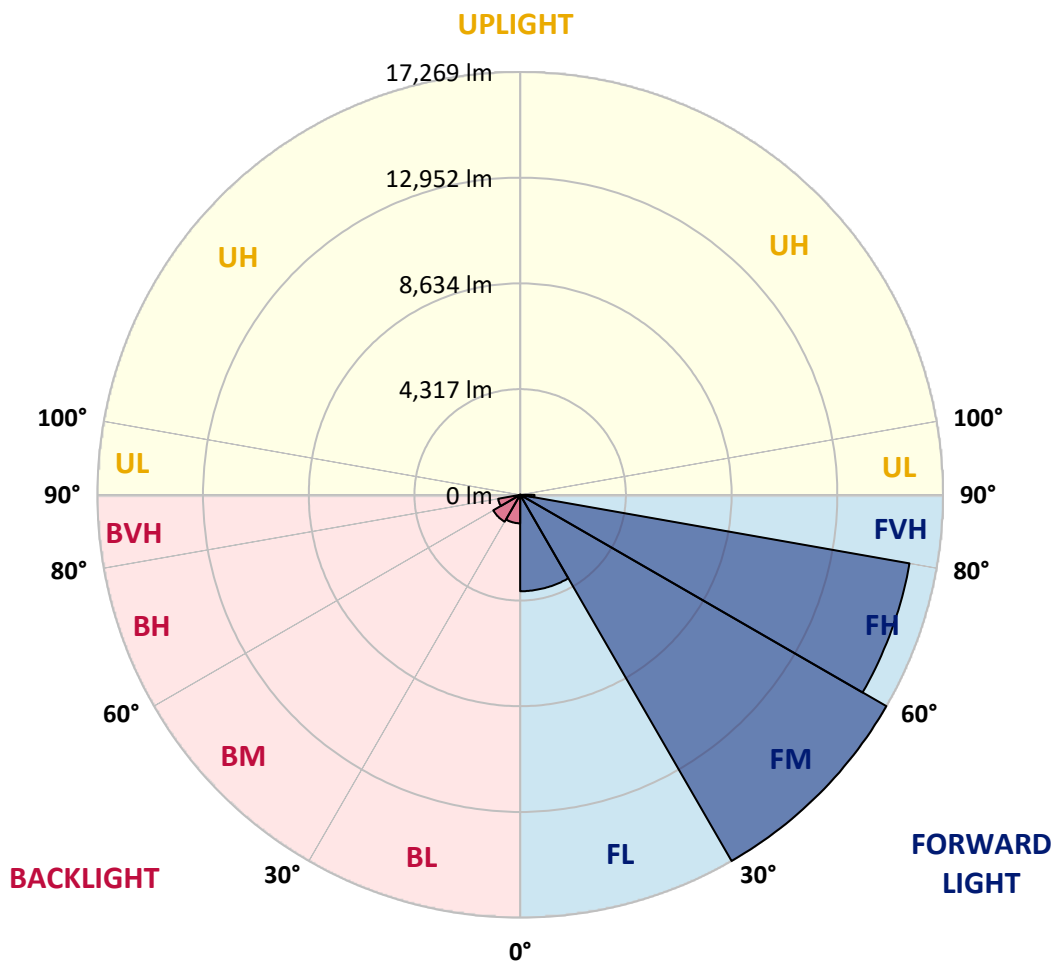
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3937.2	9.5			
FM	(30°-60°)	17269.0	41.8			
FH	(60°-80°)	16145.5	39.1			G5
FVH	(80°-90°)	581.9	1.4			G4/750
BL	(0°-30°)	1164.1	2.8	B3/2500		
BM	(30°-60°)	1267.2	3.1	B2/2500		
BH	(60°-80°)	913.3	2.2	B2/1000		G2/1000
BVH	(80°-90°)	18.5	0.0			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7
2.5°	11780.9	11776.7	11725.1	11701.7	11659.3	11570.9	11433.1	11361.0	11244.3	11040.7	10767.8
5°	11673.5	11730.0	11759.7	11762.5	11792.9	11759.7	11636.0	11575.9	11414.7	11087.3	10597.4
7.5°	10945.2	10965.7	11052.7	11126.9	11271.9	11409.7	11454.3	11428.1	11332.7	10982.7	10330.8
10°	10165.4	10185.9	10289.1	10386.7	10583.2	10795.3	11019.5	11066.8	11106.4	10832.8	10074.2
12.5°	9492.3	9513.5	9618.9	9746.9	9975.9	10237.5	10585.4	10662.4	10837.8	10690.7	9868.5
15°	8913.3	8922.5	9025.7	9184.1	9457.7	9793.5	10188.7	10312.5	10581.1	10590.3	9688.9
17.5°	8420.5	8443.8	8507.5	8658.8	8957.8	9373.6	9833.8	10011.3	10325.9	10506.2	9513.5
20°	8119.3	8142.6	8140.5	8224.7	8493.3	8936.6	9478.9	9691.0	10074.2	10419.9	9357.3
22.5°	8061.3	8061.3	8000.5	7988.5	8147.6	8518.8	9109.8	9368.6	9847.2	10382.5	9247.7
25°	8269.2	8259.3	8108.0	7984.3	7991.3	8212.6	8752.1	9060.3	9656.4	10407.9	9189.0
27.5°	8708.3	8696.2	8504.6	8269.2	8079.7	8077.6	8481.3	8812.9	9504.3	10529.5	9212.4
30°	9314.9	9310.6	9102.8	8805.8	8462.9	8147.6	8388.0	8689.2	9406.1	10748.7	9266.1
32.5°	9978.0	9971.0	9814.7	9502.2	9067.4	8462.9	8486.3	8738.7	9434.4	11040.7	9396.9
35°	10681.5	10669.5	10601.6	10328.7	9850.1	9044.1	8808.6	9004.5	9611.8	11477.6	9653.5
37.5°	11442.3	11454.3	11503.1	11241.5	10739.5	9859.3	9348.1	9481.0	9968.9	12070.8	10071.4
40°	12565.7	12563.6	12579.8	12236.2	11753.3	10856.2	10101.8	10144.2	10567.0	12857.7	10707.0
42.5°	14604.0	14461.9	14029.9	13329.3	12843.6	11995.9	11052.7	11008.2	11298.0	13831.3	11596.4
45°	17343.7	17039.7	15919.1	14576.4	13955.0	13280.5	12222.1	12080.0	12264.5	15001.4	12694.4
47.5°	19699.4	19384.1	17799.0	15874.5	15134.3	14499.4	13593.0	13336.3	13397.1	16311.4	14085.8
50°	20500.5	20346.4	18962.0	17005.0	16276.1	16033.6	15183.8	14870.6	14784.3	17826.6	15699.2
52.5°	20222.6	20211.3	19288.7	17738.2	17322.5	17621.5	17184.6	16822.6	16505.2	19424.4	17340.9
55°	19776.5	19835.2	19421.6	18380.2	18366.0	19071.6	19921.4	19620.3	18700.4	21159.4	18756.3
57.5°	18546.3	18795.9	19347.4	19594.8	20168.9	20890.8	22200.8	22378.3	21290.2	22487.9	19930.6
60°	15048.0	15596.7	17399.5	19769.4	22492.8	24290.8	24951.8	25103.1	23414.8	23592.2	21516.5
62.5°	10681.5	11241.5	13527.9	17537.4	22527.5	28757.7	29049.7	28454.4	25755.0	25229.7	24251.2
65°	5669.5	6102.2	7970.1	12659.0	19531.9	29794.9	36216.6	34442.0	29883.2	28449.4	27784.1
67.5°	2900.2	3031.0	3774.0	6195.5	13427.6	26464.8	42640.5	43889.8	36998.6	31644.4	27613.7
69°	2566.4	2643.5	3136.3	4478.9	8598.0	22415.8	42953.7	47133.6	40723.8	31377.9	25093.9
70°	2484.4	2552.3	3000.6	4054.0	6720.8	18798.0	41755.4	46848.7	41676.2	30364.7	23211.9
72.5°	2109.0	2167.0	2671.8	3582.4	5462.4	9331.1	33918.8	39698.7	37398.0	25294.7	16801.4
75°	1410.5	1602.1	2564.3	3358.3	5081.3	5301.2	22362.0	28687.7	26649.4	17060.9	8752.1
77.5°	338.7	364.1	724.0	2671.8	4647.2	4665.6	11500.9	17833.6	14546.0	6081.0	2068.7
80°	182.4	175.3	202.9	530.3	4326.9	4378.5	5177.4	8656.6	5193.7	1008.9	681.6
82.5°	128.7	121.6	130.8	222.0	1361.7	3988.2	3745.7	3918.3	2152.8	387.4	306.1
85°	46.7	44.5	72.1	200.8	427.0	2292.8	3848.3	3231.7	1744.2	177.5	224.1
87.5°	16.3	14.1	28.3	109.6	130.8	976.4	2374.8	2442.7	686.5	107.5	105.3
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°	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7	10748.7
2.5°	10653.2	10508.3	10242.5	9968.9	9716.5	9413.1	9261.1	9112.0	9049.0	9025.7	8916.1
5°	10345.0	10099.7	9534.7	8967.0	8443.8	7888.1	7521.9	7227.8	7054.6	6970.4	6837.5
7.5°	9950.5	9548.9	8691.3	7816.0	7000.8	6197.7	5602.4	5144.2	4828.9	4677.6	4539.7
10°	9567.3	9032.8	7813.9	6620.4	5513.3	4448.5	3626.3	3031.0	2650.6	2475.2	2363.5
12.5°	9224.4	8530.8	6966.2	5455.3	4065.3	2818.9	1982.5	1508.8	1272.6	1190.6	1151.0
15°	8918.2	8068.4	6165.1	4348.1	2753.1	1611.3	1083.8	922.6	885.2	885.2	880.2
17.5°	8628.4	7615.2	5391.7	3308.8	1727.9	985.6	824.4	803.2	803.2	812.4	812.4
20°	8350.5	7183.2	4644.4	2374.8	1088.1	782.0	745.2	740.2	745.2	756.5	756.5
22.5°	8112.2	6790.8	3946.5	1629.7	808.1	704.9	686.5	679.4	681.6	688.6	693.6
25°	7934.8	6459.3	3288.3	1104.4	695.7	642.0	621.5	609.4	600.3	600.3	604.5
27.5°	7823.1	6179.3	2650.6	803.2	625.7	584.0	550.8	532.4	511.2	499.9	504.1
30°	7741.1	5912.7	2052.5	656.1	560.7	518.2	476.5	446.1	415.7	401.6	406.5
32.5°	7710.7	5697.8	1534.2	579.0	502.0	455.3	403.7	364.1	331.6	319.6	322.4
35°	7792.7	5527.4	1123.4	523.2	455.3	396.6	338.7	294.1	268.7	261.6	263.7
37.5°	8007.6	5436.2	840.6	476.5	413.6	347.8	282.8	240.4	224.1	224.1	226.2
40°	8413.4	5434.1	675.2	444.0	376.1	301.2	233.3	202.9	193.7	198.7	200.8
42.5°	9006.6	5557.8	588.2	413.6	343.6	256.6	193.7	172.5	170.4	175.3	177.5
45°	9816.8	5784.1	541.6	387.4	308.3	214.9	163.3	149.2	149.2	156.2	159.1
47.5°	10809.5	6115.6	502.0	362.0	272.9	179.6	140.0	130.8	132.9	140.0	142.1
50°	12005.0	6534.2	462.4	333.7	247.5	149.2	121.6	114.5	116.7	125.8	128.7
52.5°	13366.7	7097.0	429.9	308.3	214.9	123.7	102.5	98.3	102.5	112.4	114.5
55°	14534.0	7601.1	390.3	287.0	172.5	102.5	84.1	84.1	89.1	100.4	102.5
57.5°	15657.5	8128.5	354.9	247.5	135.7	82.0	70.0	72.1	79.2	91.2	93.3
60°	17306.2	9022.9	313.2	207.9	102.5	65.0	58.7	60.8	70.0	82.0	84.1
62.5°	20106.0	10384.6	270.8	172.5	79.2	51.6	46.7	51.6	62.9	77.1	79.2
65°	22632.8	10938.2	222.0	144.9	60.8	39.6	39.6	46.7	60.8	74.9	77.1
67.5°	21224.5	9207.4	172.5	114.5	46.7	30.4	32.5	44.5	58.7	74.9	77.1
69°	18770.4	7529.0	147.1	91.2	39.6	28.3	30.4	44.5	58.7	72.1	74.9
70°	16858.0	6356.7	130.8	77.1	35.4	28.3	30.4	41.7	58.7	72.1	74.9
72.5°	11291.0	3432.5	105.3	55.9	32.5	25.5	25.5	41.7	55.9	70.0	72.1
75°	4852.2	948.1	84.1	39.6	28.3	23.3	23.3	39.6	53.7	67.9	72.1
77.5°	887.3	240.4	67.9	35.4	28.3	23.3	21.2	37.5	51.6	65.0	67.9
80°	352.8	118.8	53.7	30.4	25.5	21.2	18.4	35.4	48.8	62.9	65.0
82.5°	212.8	67.9	44.5	28.3	25.5	18.4	16.3	30.4	46.7	60.8	62.9
85°	172.5	46.7	35.4	28.3	23.3	18.4	14.1	28.3	41.7	58.7	60.8
87.5°	84.1	32.5	32.5	25.5	23.3	18.4	14.1	25.5	39.6	55.9	58.7
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)