

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-07-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-07-LED-E1-SL3-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 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: 32673.6 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G5

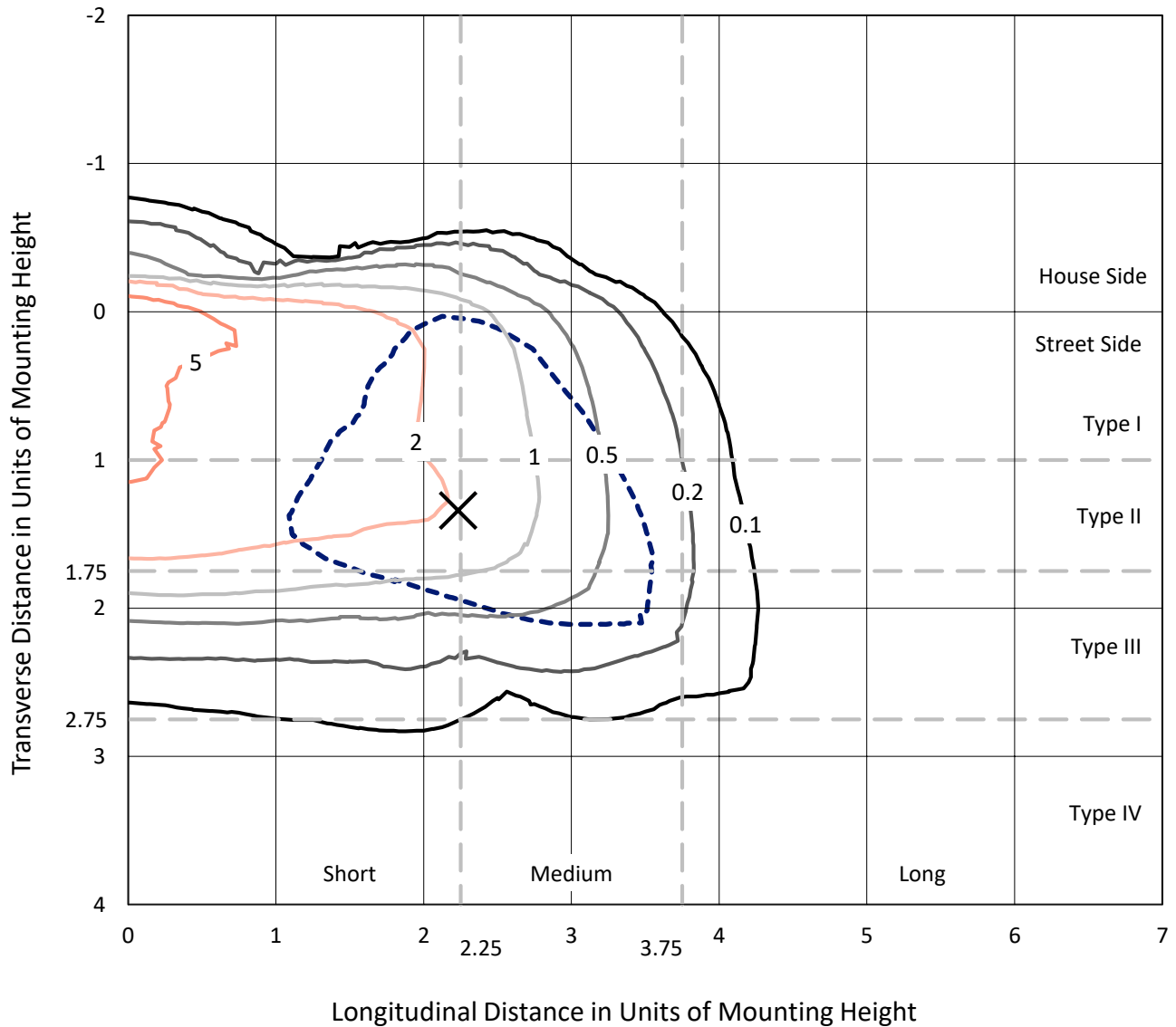
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

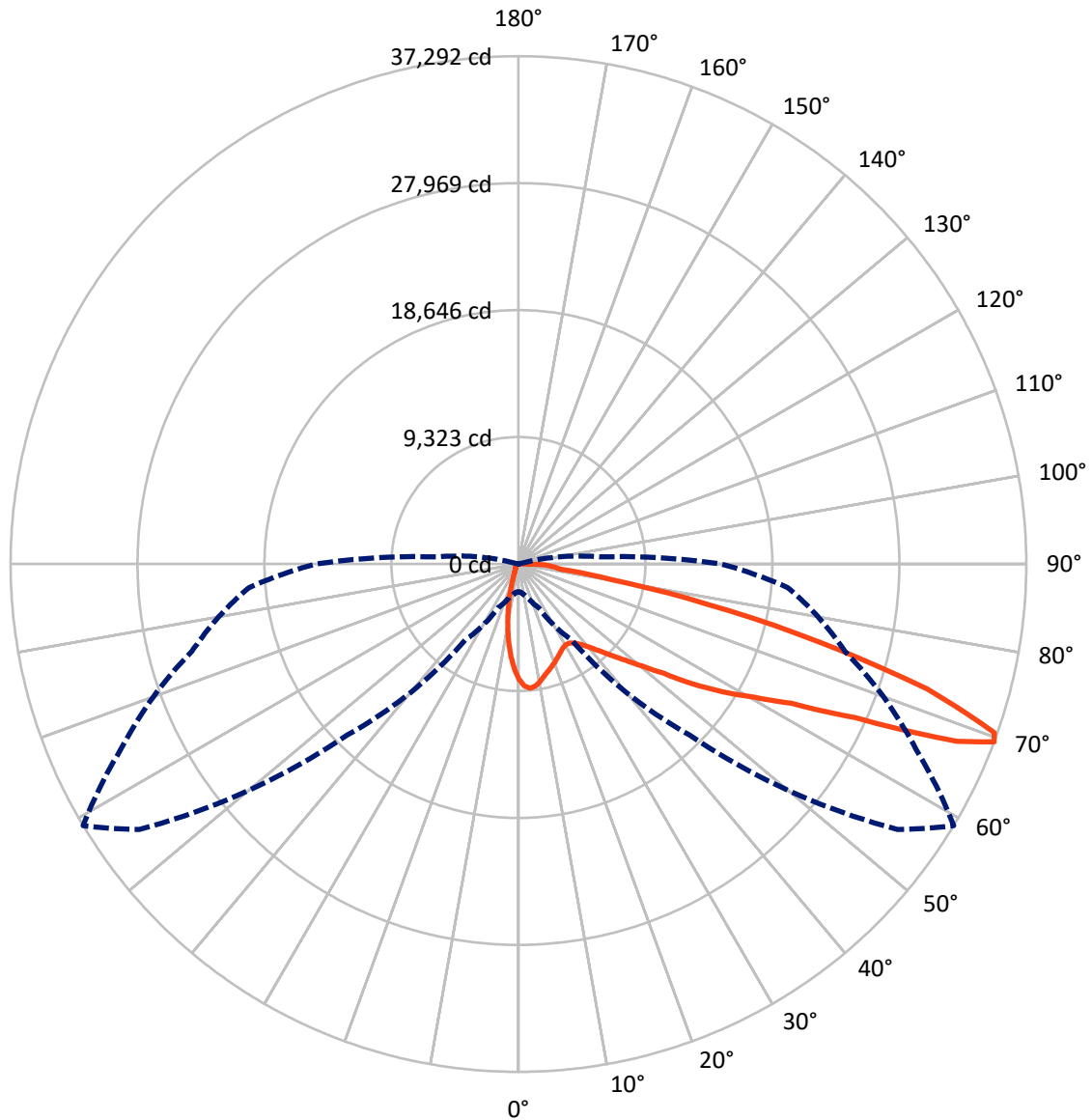
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.5 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	2660.8	0.0	2660.8
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	30012.8	0.0	30012.8
	% Fixture	91.9	0.0	91.9
Total	Lumens	32673.6	0.0	32673.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	690.3	2.1
10°-20°	1426.4	4.4
20°-30°	1919.4	5.9
30°-40°	2786.8	8.5
40°-50°	4640.2	14.2
50°-60°	7238.7	22.2
60°-70°	8957.3	27.4
70°-80°	4539.5	13.9
80°-90°	475.0	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°	32673.6	100.0
0°-180°	32673.6	100.0



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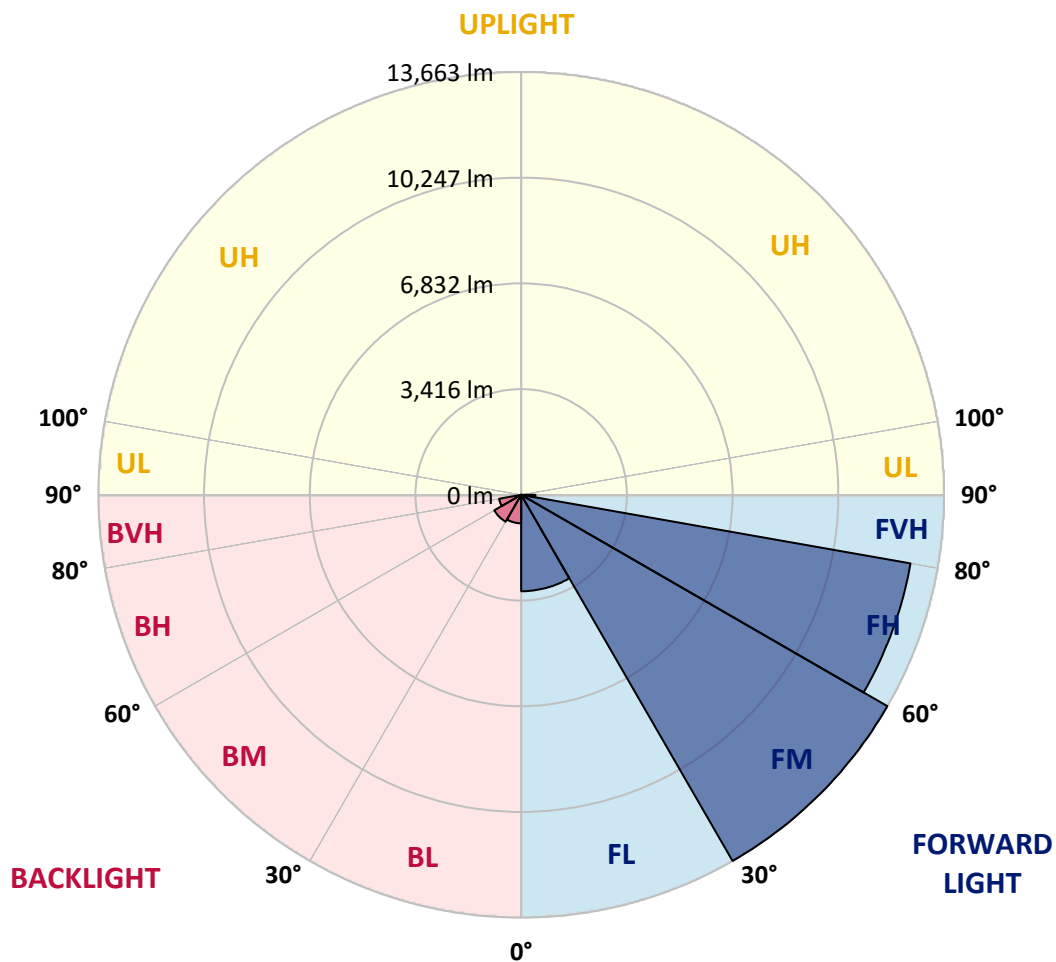
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3115.1	9.5			
FM	(30°-60°)	13663.1	41.8			
FH	(60°-80°)	12774.2	39.1			G5
FVH	(80°-90°)	460.4	1.4			G3/500
BL	(0°-30°)	921.0	2.8	B2/1000		
BM	(30°-60°)	1002.6	3.1	B2/2500		
BH	(60°-80°)	722.6	2.2	B2/1000		G2/1000
BVH	(80°-90°)	14.6	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3
2.5°	9321.0	9317.7	9276.8	9258.4	9224.8	9154.9	9045.8	8988.7	8896.4	8735.3	8519.4
5°	9236.0	9280.7	9304.2	9306.5	9330.5	9304.2	9206.3	9158.8	9031.2	8772.3	8384.6
7.5°	8659.8	8676.0	8744.8	8803.6	8918.3	9027.3	9062.6	9041.9	8966.4	8689.5	8173.7
10°	8042.8	8059.0	8140.7	8217.9	8373.4	8541.2	8718.6	8756.0	8787.4	8570.9	7970.7
12.5°	7510.3	7527.1	7610.4	7711.7	7892.9	8099.9	8375.1	8436.1	8574.8	8458.4	7807.9
15°	7052.1	7059.4	7141.1	7266.4	7482.9	7748.6	8061.3	8159.2	8371.7	8379.0	7665.8
17.5°	6662.3	6680.7	6731.1	6850.8	7087.4	7416.3	7780.5	7920.9	8169.8	8312.4	7527.1
20°	6424.0	6442.4	6440.7	6507.3	6719.9	7070.6	7499.7	7667.5	7970.7	8244.2	7403.4
22.5°	6378.1	6378.1	6330.0	6320.5	6446.3	6740.0	7207.7	7412.4	7791.1	8214.5	7316.7
25°	6542.6	6534.7	6415.0	6317.1	6322.7	6497.8	6924.6	7168.5	7640.1	8234.7	7270.3
27.5°	6889.9	6880.4	6728.8	6542.6	6392.6	6391.0	6710.4	6972.7	7519.8	8330.9	7288.8
30°	7369.9	7366.5	7202.1	6967.1	6695.8	6446.3	6636.5	6874.8	7442.0	8504.3	7331.3
32.5°	7894.6	7889.0	7765.4	7518.1	7174.1	6695.8	6714.3	6914.0	7464.4	8735.3	7434.8
35°	8451.2	8441.7	8388.0	8172.0	7793.3	7155.6	6969.4	7124.3	7604.8	9081.0	7637.8
37.5°	9053.1	9062.6	9101.2	8894.2	8497.0	7800.6	7396.2	7501.3	7887.3	9550.4	7968.4
40°	9941.9	9940.2	9953.1	9681.3	9299.2	8589.3	7992.5	8026.0	8360.5	10172.9	8471.3
42.5°	11554.6	11442.2	11100.4	10546.1	10161.8	9491.1	8744.8	8709.6	8938.9	10943.2	9175.0
45°	13722.2	13481.7	12595.1	11532.8	11041.1	10507.5	9670.1	9557.6	9703.6	11869.0	10043.7
47.5°	15586.1	15336.6	14082.5	12559.8	11974.2	11471.8	10754.7	10551.7	10599.8	12905.5	11144.6
50°	16219.9	16097.9	15002.7	13454.3	12877.6	12685.7	12013.3	11765.5	11697.3	14104.3	12421.1
52.5°	16000.0	15991.1	15261.1	14034.4	13705.5	13942.1	13596.4	13310.0	13058.8	15368.5	13720.0
55°	15647.1	15693.5	15366.3	14542.3	14531.1	15089.4	15761.8	15523.5	14795.7	16741.2	14839.9
57.5°	14673.7	14871.2	15307.5	15503.3	15957.5	16528.7	17565.2	17705.6	16844.7	17792.3	15769.0
60°	11905.9	12340.0	13766.4	15641.5	17796.2	19218.7	19741.8	19861.5	18525.7	18666.1	17023.7
62.5°	8451.2	8894.2	10703.2	13875.5	17823.6	22752.9	22984.0	22513.0	20377.2	19961.6	19187.4
65°	4485.7	4828.0	6305.9	10015.8	15453.5	23573.5	28654.4	27250.4	23643.5	22509.0	21982.7
67.5°	2294.6	2398.1	2986.0	4901.9	10623.8	20938.8	33737.0	34725.4	29273.1	25036.9	21847.8
69°	2030.6	2091.5	2481.4	3543.7	6802.7	17735.3	33984.8	37291.9	32220.5	24826.0	19854.2
70°	1965.7	2019.4	2374.0	3207.5	5317.5	14872.9	33036.6	37066.4	32974.0	24024.4	18365.1
72.5°	1668.6	1714.5	2113.9	2834.4	4321.8	7382.7	26836.4	31409.4	29589.2	20013.1	13293.2
75°	1116.0	1267.6	2028.9	2657.1	4020.3	4194.3	17692.7	22697.5	21084.8	13498.5	6924.6
77.5°	267.9	288.1	572.8	2113.9	3676.8	3691.4	9099.5	14109.9	11508.8	4811.3	1636.8
80°	144.3	138.7	160.5	419.5	3423.4	3464.3	4096.4	6849.1	4109.2	798.2	539.2
82.5°	101.8	96.2	103.5	175.6	1077.4	3155.5	2963.6	3100.1	1703.3	306.5	242.2
85°	36.9	35.2	57.1	158.9	337.9	1814.1	3044.7	2556.9	1380.0	140.4	177.3
87.5°	12.9	11.2	22.4	86.7	103.5	772.5	1879.0	1932.7	543.2	85.0	83.3
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°	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3	8504.3
2.5°	8428.8	8314.1	8103.8	7887.3	7687.6	7447.6	7327.4	7209.3	7159.6	7141.1	7054.4
5°	8184.9	7990.8	7543.8	7094.7	6680.7	6241.0	5951.3	5718.6	5581.5	5515.0	5409.8
7.5°	7872.8	7555.0	6876.5	6184.0	5539.0	4903.6	4432.6	4070.1	3820.6	3700.9	3591.8
10°	7569.6	7146.7	6182.3	5238.1	4362.1	3519.6	2869.1	2398.1	2097.1	1958.4	1870.0
12.5°	7298.3	6749.5	5511.6	4316.2	3216.5	2230.3	1568.5	1193.7	1006.9	942.0	910.7
15°	7056.1	6383.7	4877.8	3440.2	2178.2	1274.8	857.5	730.0	700.3	700.3	696.4
17.5°	6826.7	6025.1	4265.9	2617.9	1367.1	779.8	652.2	635.5	635.5	642.7	642.7
20°	6606.9	5683.3	3674.6	1879.0	860.9	618.7	589.6	585.7	589.6	598.5	598.5
22.5°	6418.4	5372.9	3122.5	1289.4	639.4	557.7	543.2	537.6	539.2	544.8	548.8
25°	6278.0	5110.5	2601.7	873.8	550.4	507.9	491.7	482.2	474.9	474.9	478.3
27.5°	6189.6	4889.0	2097.1	635.5	495.1	462.1	435.8	421.2	404.4	395.5	398.8
30°	6124.7	4678.1	1623.9	519.1	443.6	410.0	377.0	353.0	328.9	317.7	321.6
32.5°	6100.6	4508.1	1213.9	458.1	397.2	360.2	319.4	288.1	262.4	252.8	255.1
35°	6165.5	4373.3	888.9	413.9	360.2	313.8	267.9	232.7	212.6	207.0	208.7
37.5°	6335.6	4301.1	665.1	377.0	327.2	275.2	223.8	190.2	177.3	177.3	179.0
40°	6656.7	4299.4	534.2	351.3	297.6	238.3	184.6	160.5	153.3	157.2	158.9
42.5°	7126.0	4397.3	465.4	327.2	271.9	203.1	153.3	136.5	134.8	138.7	140.4
45°	7767.0	4576.3	428.5	306.5	243.9	170.1	129.2	118.0	118.0	123.6	125.9
47.5°	8552.4	4838.7	397.2	286.4	215.9	142.1	110.8	103.5	105.2	110.8	112.4
50°	9498.3	5169.8	365.8	264.0	195.8	118.0	96.2	90.6	92.3	99.6	101.8
52.5°	10575.7	5615.1	340.1	243.9	170.1	97.9	81.1	77.8	81.1	88.9	90.6
55°	11499.2	6013.9	308.8	227.1	136.5	81.1	66.6	66.6	70.5	79.4	81.1
57.5°	12388.1	6431.2	280.8	195.8	107.4	64.9	55.4	57.1	62.7	72.2	73.8
60°	13692.6	7138.9	247.8	164.5	81.1	51.5	46.4	48.1	55.4	64.9	66.6
62.5°	15907.7	8216.2	214.2	136.5	62.7	40.8	36.9	40.8	49.8	61.0	62.7
65°	17907.0	8654.2	175.6	114.7	48.1	31.3	31.3	36.9	48.1	59.3	61.0
67.5°	16792.7	7284.9	136.5	90.6	36.9	24.1	25.7	35.2	46.4	59.3	61.0
69°	14851.1	5956.9	116.4	72.2	31.3	22.4	24.1	35.2	46.4	57.1	59.3
70°	13337.9	5029.4	103.5	61.0	28.0	22.4	24.1	33.0	46.4	57.1	59.3
72.5°	8933.4	2715.8	83.3	44.2	25.7	20.1	20.1	33.0	44.2	55.4	57.1
75°	3839.0	750.1	66.6	31.3	22.4	18.5	18.5	31.3	42.5	53.7	57.1
77.5°	702.0	190.2	53.7	28.0	22.4	18.5	16.8	29.6	40.8	51.5	53.7
80°	279.1	94.0	42.5	24.1	20.1	16.8	14.5	28.0	38.6	49.8	51.5
82.5°	168.4	53.7	35.2	22.4	20.1	14.5	12.9	24.1	36.9	48.1	49.8
85°	136.5	36.9	28.0	22.4	18.5	14.5	11.2	22.4	33.0	46.4	48.1
87.5°	66.6	25.7	25.7	20.1	18.5	14.5	11.2	20.1	31.3	44.2	46.4
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)