

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-10-LED-E1-SL3-7027-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-10-LED-E1-SL3-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K 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: 39724.9 lumens
Efficiency: N/A
Efficacy: 71.2 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

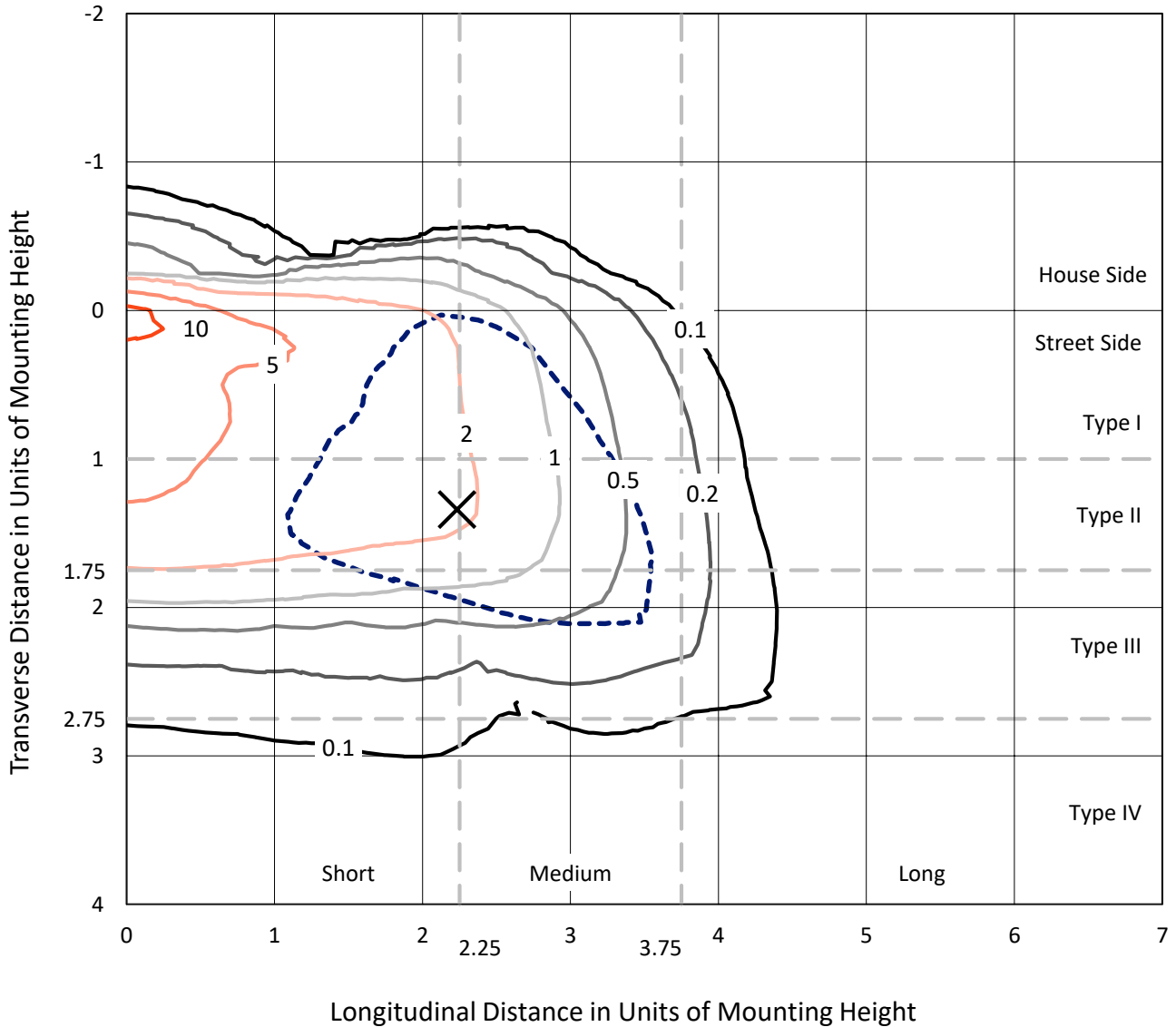
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

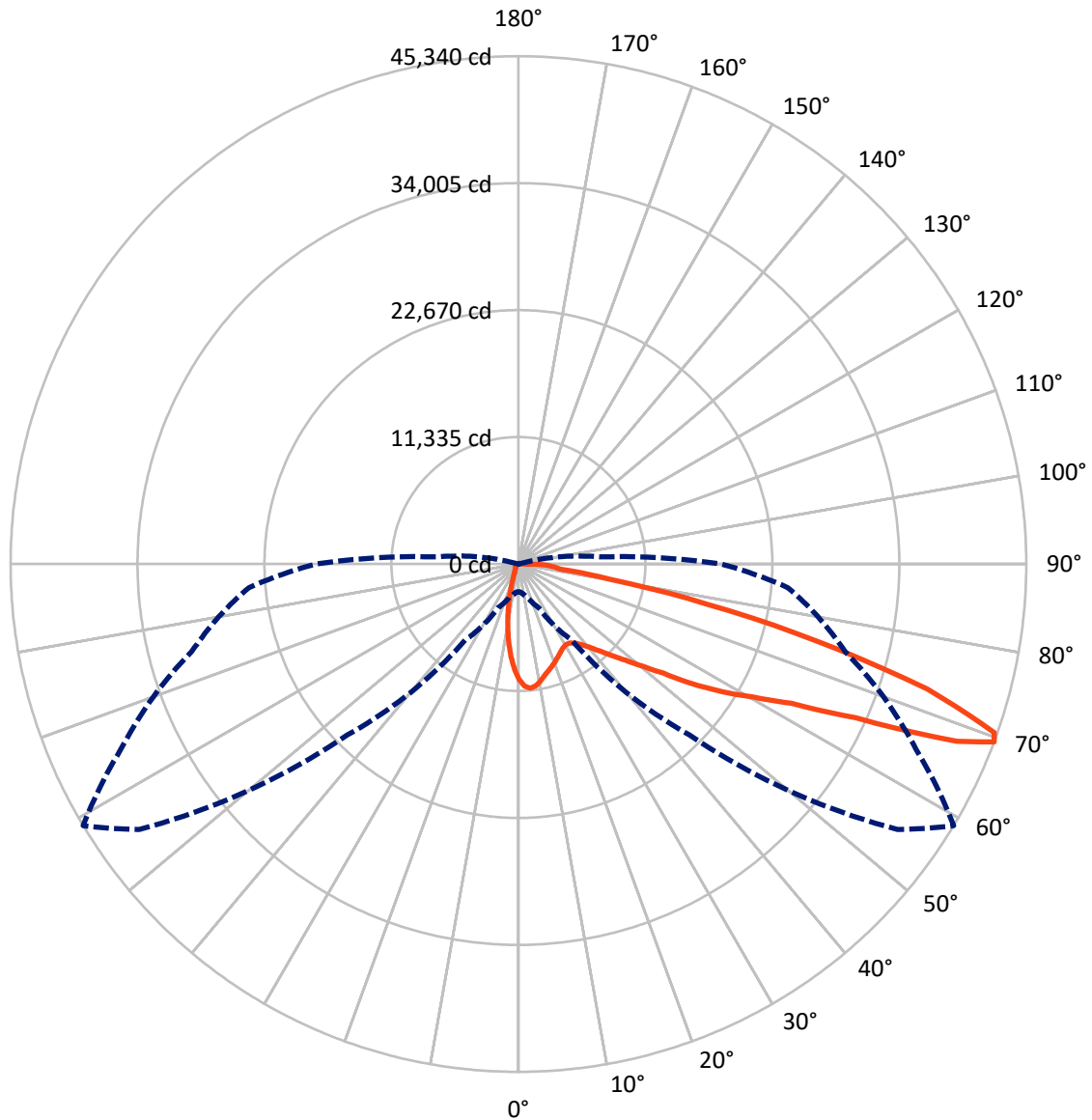
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.5 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	3235.0	0.0	3235.0
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	36489.9	0.0	36489.9
	% Fixture	91.9	0.0	91.9
Total	Lumens	39724.9	0.0	39724.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	839.3	2.1
10°-20°	1734.2	4.4
20°-30°	2333.6	5.9
30°-40°	3388.2	8.5
40°-50°	5641.6	14.2
50°-60°	8800.9	22.2
60°-70°	10890.4	27.4
70°-80°	5519.1	13.9
80°-90°	577.5	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°	39724.9	100.0
0°-180°	39724.9	100.0



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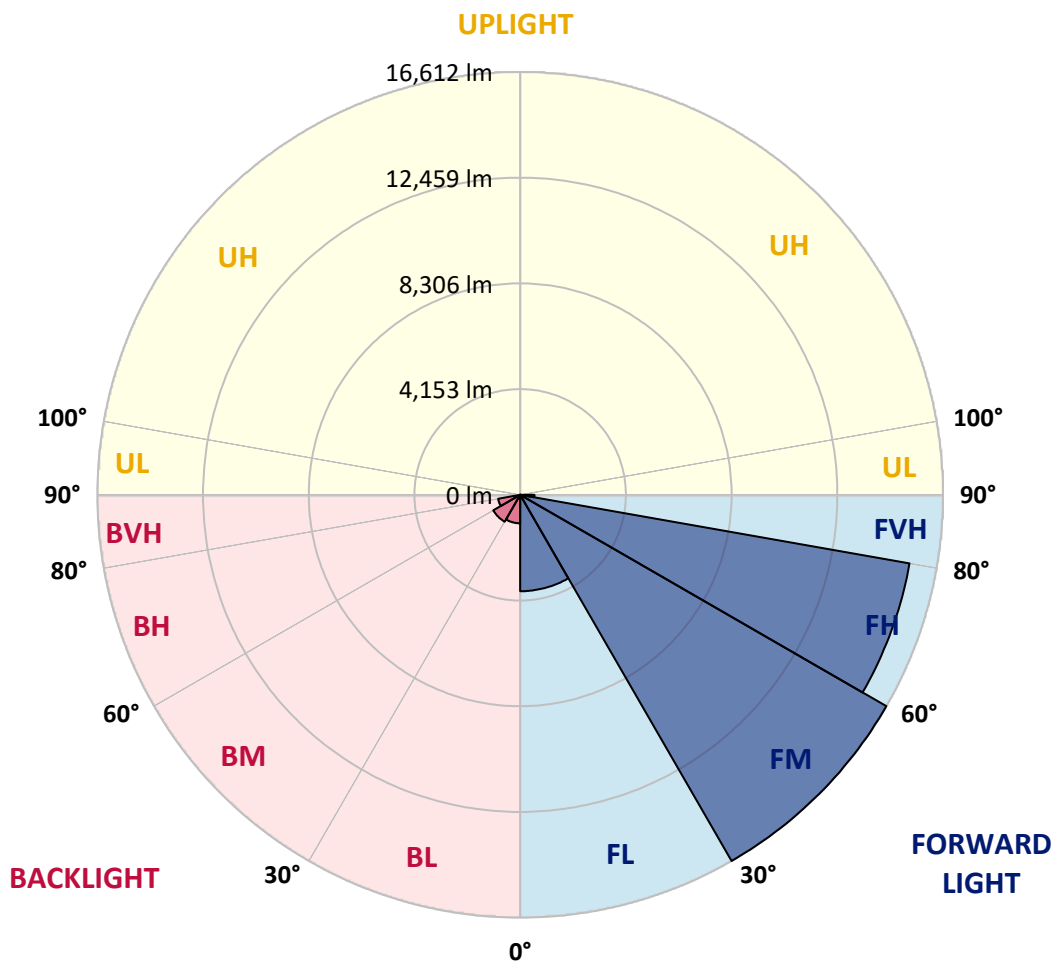
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3787.3	9.5			
FM	(30°-60°)	16611.8	41.8			
FH	(60°-80°)	15531.0	39.1			G5
FVH	(80°-90°)	559.7	1.4			G4/750
BL	(0°-30°)	1119.7	2.8	B3/2500		
BM	(30°-60°)	1218.9	3.1	B2/2500		
BH	(60°-80°)	878.6	2.2	B2/1000		G2/1000
BVH	(80°-90°)	17.8	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°	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6
2.5°	11332.6	11328.5	11278.9	11256.4	11215.6	11130.6	10998.0	10928.6	10816.4	10620.5	10358.0
5°	11229.2	11283.6	11312.2	11314.9	11344.1	11312.2	11193.2	11135.4	10980.3	10665.4	10194.1
7.5°	10528.7	10548.4	10632.1	10703.5	10842.9	10975.5	11018.4	10993.2	10901.4	10564.7	9937.7
10°	9778.5	9798.3	9897.6	9991.4	10180.5	10384.5	10600.1	10645.7	10683.8	10420.6	9690.8
12.5°	9131.1	9151.5	9252.8	9375.9	9596.3	9847.9	10182.5	10256.7	10425.3	10283.9	9492.9
15°	8574.1	8582.9	8682.2	8834.6	9097.8	9420.8	9801.0	9920.0	10178.4	10187.3	9320.2
17.5°	8100.0	8122.5	8183.7	8329.2	8616.9	9016.8	9459.6	9630.3	9932.9	10106.4	9151.5
20°	7810.3	7832.8	7830.7	7911.7	8170.1	8596.5	9118.2	9322.2	9690.8	10023.4	9001.2
22.5°	7754.6	7754.6	7696.1	7684.5	7837.5	8194.6	8763.1	9012.1	9472.5	9987.3	8895.8
25°	7954.5	7945.0	7799.4	7680.4	7687.2	7900.1	8419.0	8715.5	9288.9	10011.8	8839.3
27.5°	8376.8	8365.3	8181.0	7954.5	7772.2	7770.2	8158.5	8477.5	9142.6	10128.8	8861.8
30°	8960.4	8956.3	8756.3	8470.7	8140.9	7837.5	8068.8	8358.5	9048.1	10339.6	8913.4
32.5°	9598.3	9591.5	9441.2	9140.6	8722.3	8140.9	8163.3	8406.1	9075.3	10620.5	9039.3
35°	10275.0	10263.5	10198.2	9935.6	9475.2	8699.9	8473.4	8661.8	9246.0	11040.8	9286.1
37.5°	11006.8	11018.4	11065.3	10813.7	10330.8	9484.1	8992.3	9120.2	9589.5	11611.4	9688.1
40°	12087.5	12085.5	12101.1	11770.6	11306.1	10443.0	9717.3	9758.1	10164.8	12368.4	10299.5
42.5°	14048.2	13911.5	13496.0	12822.0	12354.8	11539.3	10632.1	10589.2	10868.1	13304.9	11155.1
45°	16683.6	16391.2	15313.2	14021.7	13423.9	12775.1	11757.0	11620.3	11797.8	14430.5	12211.3
47.5°	18949.8	18646.4	17121.6	15270.4	14558.3	13947.6	13075.7	12828.8	12887.3	15690.7	13549.7
50°	19720.3	19572.0	18240.4	16357.9	15656.7	15423.4	14605.9	14304.6	14221.7	17148.2	15101.7
52.5°	19453.0	19442.1	18554.6	17063.1	16663.2	16950.9	16530.6	16182.4	15877.0	18685.2	16680.9
55°	19023.9	19080.3	18682.5	17680.7	17667.1	18345.8	19163.3	18873.6	17988.8	20354.2	18042.5
57.5°	17840.5	18080.6	18611.1	18849.1	19401.3	20095.7	21356.0	21526.7	20480.0	21632.1	19172.1
60°	14475.3	15003.1	16737.4	19017.1	21636.8	23366.4	24002.2	24147.8	22523.7	22694.4	20697.6
62.5°	10275.0	10813.7	13013.1	16870.0	21670.2	27663.3	27944.1	27371.5	24774.8	24269.5	23328.3
65°	5453.8	5870.0	7666.8	12177.3	18788.6	28661.0	34838.4	33131.3	28746.0	27366.7	26726.7
67.5°	2789.8	2915.6	3630.4	5959.8	12916.5	25457.7	41017.8	42219.5	35590.5	30440.1	26562.8
69°	2468.8	2542.9	3016.9	4308.5	8270.8	21562.7	41319.1	45339.8	39174.0	30183.7	24138.9
70°	2389.9	2455.2	2886.4	3899.7	6465.1	18082.6	40166.3	45065.8	40090.1	29209.1	22328.5
72.5°	2028.8	2084.5	2570.1	3446.1	5254.5	8976.0	32628.0	38187.9	35974.8	24332.1	16162.0
75°	1356.8	1541.1	2466.7	3230.5	4887.9	5099.4	21511.0	27595.9	25635.2	16411.6	8419.0
77.5°	325.8	350.3	696.4	2570.1	4470.3	4488.0	11063.3	17155.0	13992.5	5849.6	1990.0
80°	175.5	168.7	195.2	510.1	4162.2	4211.9	4980.4	8327.2	4996.0	970.5	655.6
82.5°	123.8	117.0	125.8	213.6	1309.9	3836.5	3603.2	3769.1	2070.9	372.7	294.5
85°	44.9	42.8	69.4	193.1	410.8	2205.6	3701.8	3108.8	1677.8	170.7	215.6
87.5°	15.6	13.6	27.2	105.4	125.8	939.2	2284.5	2349.8	660.4	103.4	101.3
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°	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6	10339.6
2.5°	10247.8	10108.4	9852.7	9589.5	9346.7	9054.9	8908.7	8765.2	8704.7	8682.2	8576.8
5°	9951.3	9715.3	9171.9	8625.8	8122.5	7587.9	7235.6	6952.7	6786.1	6705.2	6577.3
7.5°	9571.8	9185.5	8360.5	7518.6	6734.4	5961.8	5389.1	4948.4	4645.1	4499.6	4367.0
10°	9203.2	8689.0	7516.5	6368.5	5303.5	4279.2	3488.3	2915.6	2549.7	2381.0	2273.6
12.5°	8873.3	8206.1	6701.1	5247.7	3910.6	2711.6	1907.0	1451.3	1224.2	1145.3	1107.2
15°	8578.8	7761.4	5930.5	4182.6	2648.3	1550.0	1042.6	887.5	851.5	851.5	846.7
17.5°	8300.0	7325.4	5186.5	3182.9	1662.2	948.1	793.0	772.6	772.6	781.4	781.4
20°	8032.7	6909.9	4467.6	2284.5	1046.7	752.2	716.8	712.1	716.8	727.7	727.7
22.5°	7803.5	6532.4	3796.3	1567.6	777.4	678.1	660.4	653.6	655.6	662.4	667.2
25°	7632.8	6213.4	3163.2	1062.3	669.2	617.5	597.8	586.3	577.4	577.4	581.5
27.5°	7525.4	5944.1	2549.7	772.6	601.9	561.8	529.8	512.1	491.7	480.8	484.9
30°	7446.5	5687.7	1974.3	631.1	539.3	498.5	458.4	429.1	399.9	386.3	391.1
32.5°	7417.2	5481.0	1475.8	557.0	482.9	438.0	388.3	350.3	319.0	307.4	310.1
35°	7496.1	5317.1	1080.7	503.3	438.0	381.5	325.8	282.9	258.4	251.6	253.7
37.5°	7702.9	5229.3	808.6	458.4	397.9	334.6	272.0	231.2	215.6	215.6	217.6
40°	8093.2	5227.3	649.5	427.1	361.8	289.7	224.4	195.2	186.3	191.1	193.1
42.5°	8663.9	5346.3	565.8	397.9	330.5	246.9	186.3	165.9	163.9	168.7	170.7
45°	9443.3	5563.9	521.0	372.7	296.5	206.8	157.1	143.5	143.5	150.3	153.0
47.5°	10398.1	5882.9	482.9	348.2	262.5	172.7	134.7	125.8	127.9	134.7	136.7
50°	11548.2	6285.5	444.8	321.0	238.0	143.5	117.0	110.2	112.2	121.1	123.8
52.5°	12858.1	6826.9	413.5	296.5	206.8	119.0	98.6	94.5	98.6	108.1	110.2
55°	13980.9	7311.8	375.4	276.1	165.9	98.6	80.9	80.9	85.7	96.6	98.6
57.5°	15061.6	7819.2	341.4	238.0	130.6	78.9	67.3	69.4	76.2	87.7	89.8
60°	16647.6	8679.5	301.3	200.0	98.6	62.6	56.4	58.5	67.3	78.9	80.9
62.5°	19340.8	9989.4	260.5	165.9	76.2	49.6	44.9	49.6	60.5	74.1	76.2
65°	21771.5	10521.9	213.6	139.4	58.5	38.1	38.1	44.9	58.5	72.1	74.1
67.5°	20416.7	8857.0	165.9	110.2	44.9	29.2	31.3	42.8	56.4	72.1	74.1
69°	18056.1	7242.4	141.5	87.7	38.1	27.2	29.2	42.8	56.4	69.4	72.1
70°	16216.4	6114.8	125.8	74.1	34.0	27.2	29.2	40.1	56.4	69.4	72.1
72.5°	10861.3	3301.9	101.3	53.7	31.3	24.5	24.5	40.1	53.7	67.3	69.4
75°	4667.6	912.0	80.9	38.1	27.2	22.4	22.4	38.1	51.7	65.3	69.4
77.5°	853.5	231.2	65.3	34.0	27.2	22.4	20.4	36.0	49.6	62.6	65.3
80°	339.4	114.3	51.7	29.2	24.5	20.4	17.7	34.0	46.9	60.5	62.6
82.5°	204.7	65.3	42.8	27.2	24.5	17.7	15.6	29.2	44.9	58.5	60.5
85°	165.9	44.9	34.0	27.2	22.4	17.7	13.6	27.2	40.1	56.4	58.5
87.5°	80.9	31.3	31.3	24.5	22.4	17.7	13.6	24.5	38.1	53.7	56.4
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)