

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: STREETWORKS

Report Number: P321423

Luminaire Tested: **GAN-SA9D-827-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA9D-827-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41159 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

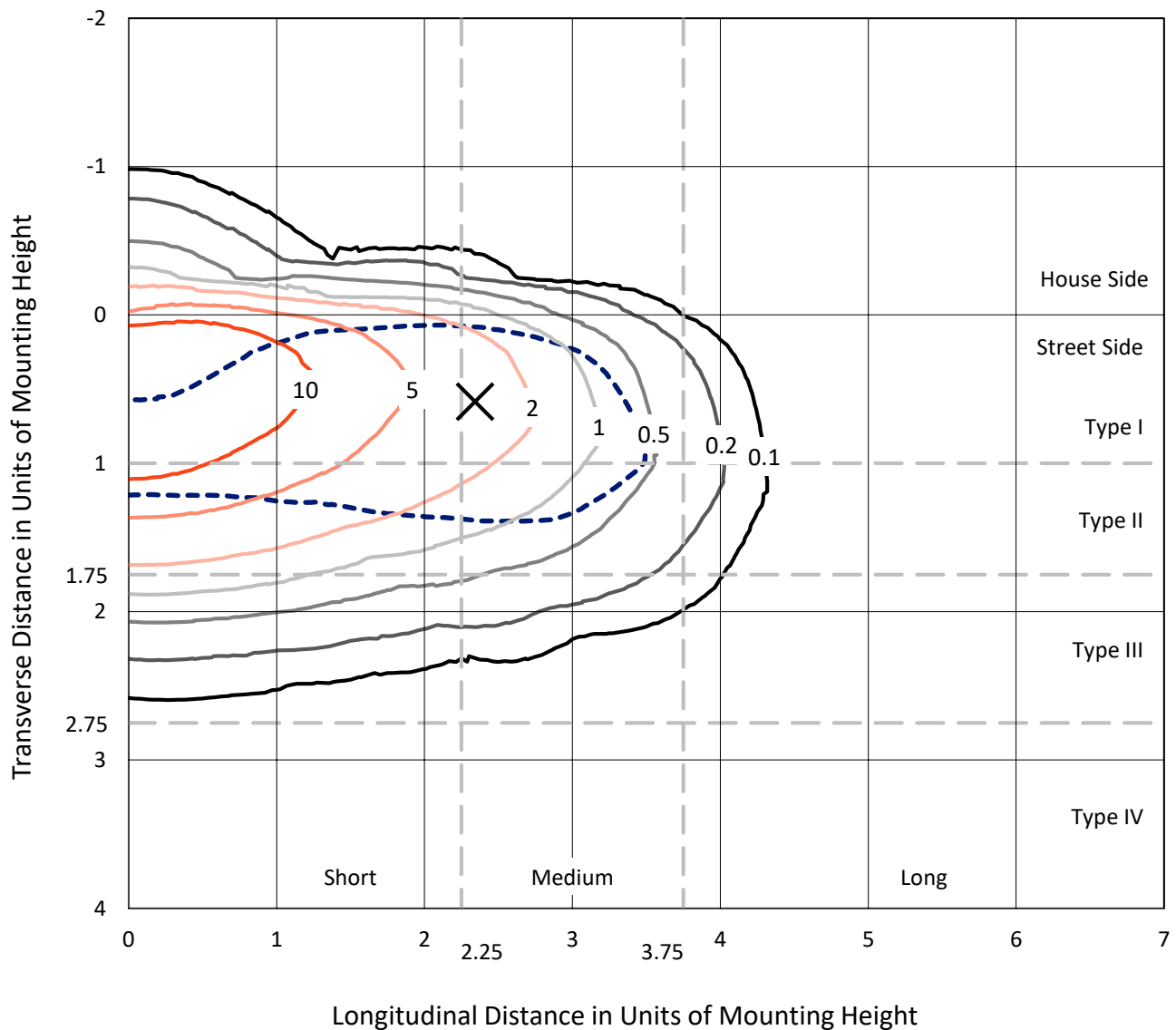
Input Watts (W): 575
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

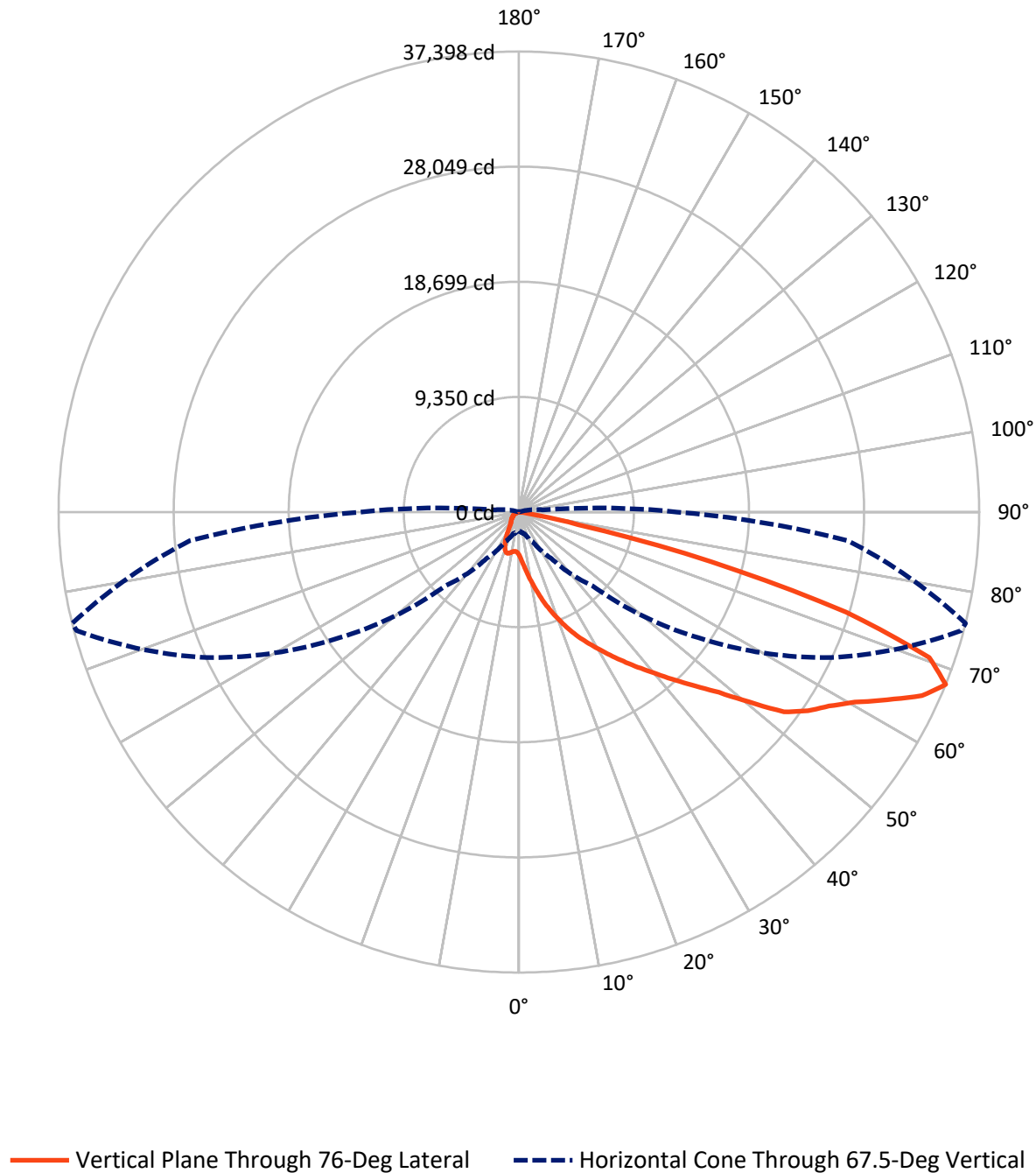
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2043.8	0.0	2043.8
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	39115.2	0.0	39115.2
	% Fixture	95.0	0.0	95.0
Total	Lumens	41159.0	0.0	41159.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	434.2	1.1
10°-20°	1721.1	4.2
20°-30°	3501.8	8.5
30°-40°	6078.0	14.8
40°-50°	8587.4	20.9
50°-60°	9738.6	23.7
60°-70°	8077.2	19.6
70°-80°	2925.8	7.1
80°-90°	94.9	0.2
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°	41159.0	100.0
0°-180°	41159.0	100.0

Coefficient of Utilization



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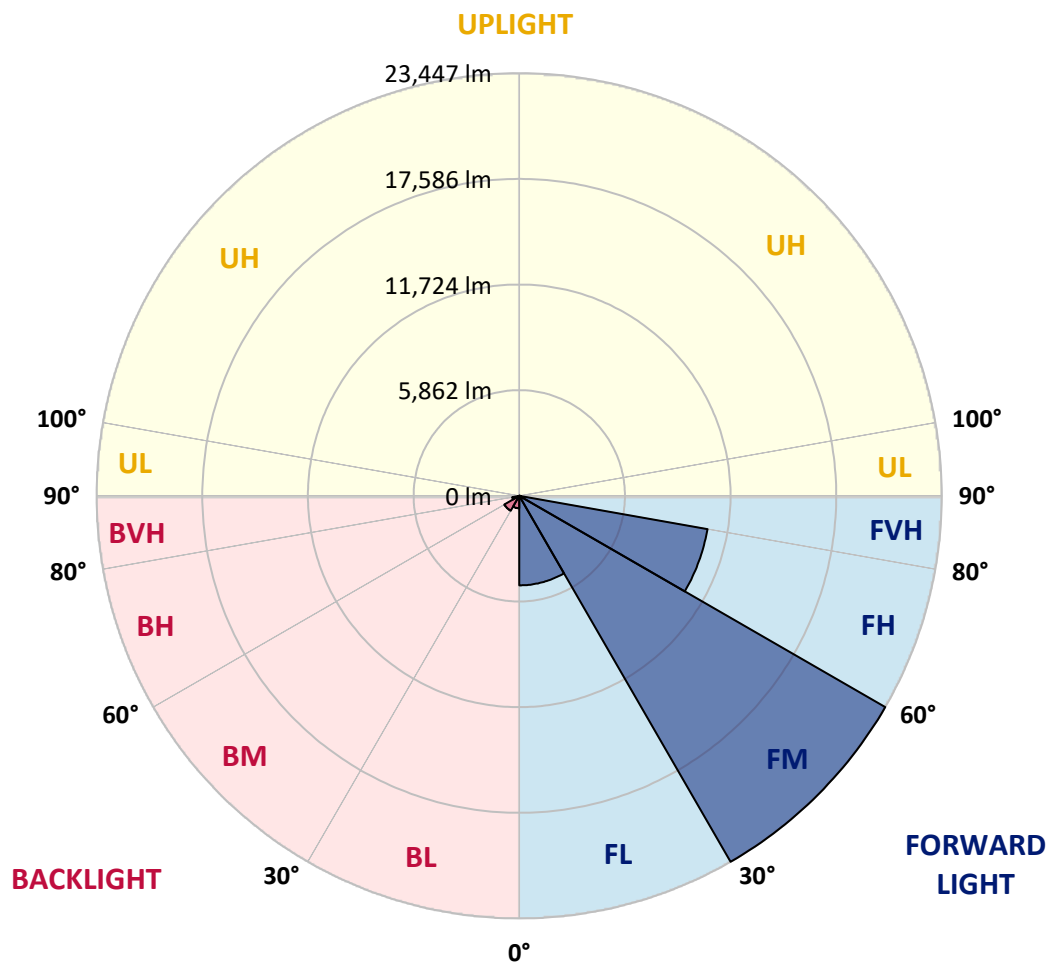
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4967.8	12.1			
FM	(30°-60°)	23447.4	57.0			
FH	(60°-80°)	10608.1	25.8			G4/12000
FVH	(80°-90°)	91.9	0.2			G1/100
BL	(0°-30°)	689.3	1.7	B2/1000		
BM	(30°-60°)	956.6	2.3	B1/1000		
BH	(60°-80°)	395.0	1.0	B1/500		G1/500
BVH	(80°-90°)	3.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5
2.5°	5212.0	5094.7	5121.8	5046.0	4909.0	4627.6	4387.8	4160.6	3895.4	3886.4	3668.2
5°	7028.0	6928.8	6916.2	6762.9	6514.1	6036.1	5570.9	5040.6	4449.1	4405.8	3942.3
7.5°	8676.4	8597.0	8568.2	8386.0	7922.5	7457.3	6851.3	6072.2	5147.0	5067.7	4312.0
10°	9942.4	9904.5	9911.8	9781.9	9385.1	8952.3	8157.0	7163.3	5938.8	5816.1	4755.7
12.5°	10901.8	10910.9	10975.8	10896.4	10674.6	10353.6	9504.2	8326.5	6815.2	6647.5	5262.5
15°	11607.0	11652.1	11771.1	11870.3	11854.1	11576.3	10797.2	9507.8	7745.8	7560.1	5826.9
17.5°	12063.3	12113.8	12286.9	12506.9	12708.9	12644.0	12045.2	10647.6	8687.2	8472.6	6431.1
20°	12463.6	12523.1	12708.9	12999.3	13376.2	13457.3	13064.2	11753.1	9626.8	9365.3	7055.1
22.5°	13331.1	13329.3	13442.9	13612.4	13971.3	14180.5	13931.6	12779.2	10555.6	10283.3	7691.7
25°	14900.1	14840.6	14800.9	14667.4	14746.8	14876.6	14737.8	13738.7	11489.8	11213.8	8337.3
27.5°	16764.9	16800.9	16479.9	16121.0	15843.3	15709.8	15482.6	14627.8	12387.9	12084.9	8968.5
30°	18732.4	18743.2	18364.5	17906.4	17295.1	16788.3	16395.1	15477.2	13311.2	12981.2	9581.7
32.5°	20507.0	20436.7	20061.6	19437.6	18665.7	18095.8	17278.8	16425.8	14288.7	13969.5	10263.4
35°	21913.7	21830.7	21374.5	20806.4	20005.6	19432.2	18449.3	17372.6	15316.7	15004.7	10946.9
37.5°	22941.7	22844.3	22375.4	21791.1	21100.3	20766.7	19807.3	18402.4	16438.4	16103.0	11666.5
40°	23298.7	23214.0	22920.0	22492.6	21937.1	21861.4	21248.2	19587.2	17659.4	17302.3	12481.7
42.5°	23085.9	23003.0	22898.4	22754.1	22523.3	22595.4	22608.0	20938.0	19015.6	18663.9	13381.6
45°	22241.9	22168.0	22276.2	22487.2	22773.9	23131.0	23848.8	22389.8	20530.5	20155.3	14422.2
47.5°	20999.3	20945.2	21244.6	21771.2	22609.8	23594.5	24983.2	23915.5	22231.1	21883.0	15720.7
50°	19232.0	19223.0	19821.7	20782.9	22072.4	23818.1	26155.4	25650.4	24593.6	24227.5	17525.9
52.5°	16479.9	16497.9	17675.6	19213.9	21129.2	23666.6	26909.2	27879.5	27342.1	26961.5	19089.5
55°	13859.5	13967.7	14802.7	17020.9	19682.8	23104.0	27168.9	28920.1	28858.8	28498.1	19958.8
57.5°	11293.2	11489.8	12294.1	14366.3	17571.0	21807.3	27026.5	29371.0	29987.7	29711.8	21105.8
60°	8512.3	8602.4	9529.4	11466.3	14860.4	19441.2	25993.1	29616.2	31531.5	31340.3	22770.3
62.5°	5415.8	5641.2	6463.6	8331.9	11570.9	16155.3	24251.0	29612.6	33463.0	33567.6	24918.2
65°	2853.1	3116.4	3552.8	5163.3	7951.4	12485.3	21630.6	29334.9	35832.7	35978.8	26597.3
67.5°	1538.3	1614.1	1844.9	2679.9	4611.4	8458.2	17780.2	27964.3	37205.1	37398.1	26831.7
70°	1125.4	1166.8	1253.4	1482.4	2321.0	4912.6	12974.0	24856.9	35435.9	35363.8	23839.8
72.5°	863.9	928.8	993.7	1085.7	1334.6	2622.2	8077.6	19464.6	28274.5	27798.3	17819.9
75°	681.7	692.5	784.5	867.5	1000.9	1493.3	3587.1	11336.5	17257.2	16130.0	9240.9
77.5°	544.6	551.9	606.0	678.1	804.3	981.1	1110.9	4459.9	5509.5	4916.2	2005.4
80°	322.8	340.9	450.9	523.0	667.3	618.6	405.8	968.5	860.2	779.1	337.2
82.5°	180.3	194.8	254.3	413.0	465.3	295.8	202.0	261.5	202.0	196.6	95.6
85°	0.0	9.0	164.1	256.1	189.4	64.9	84.8	86.6	59.5	55.9	37.9
87.5°	0.0	0.0	50.5	48.7	7.2	10.8	19.8	28.9	23.4	23.4	19.8
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°	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5	3491.5
2.5°	3560.0	3462.6	3278.7	3098.3	2946.8	2822.4	2710.6	2665.5	2629.4	2624.0	2595.2
5°	3718.7	3522.1	3170.5	2881.9	2688.9	2551.9	2434.7	2362.5	2306.6	2285.0	2265.1
7.5°	3958.6	3661.0	3156.0	2824.2	2593.4	2362.5	2146.1	1911.7	1765.6	1709.7	1677.2
10°	4250.7	3845.0	3210.1	2808.0	2404.0	1917.1	1558.2	1260.6	1139.8	1100.1	1089.3
12.5°	4591.6	4074.0	3303.9	2707.0	2000.0	1361.6	1074.9	973.9	946.8	934.2	934.2
15°	4982.9	4324.7	3370.6	2414.8	1478.8	1029.8	930.6	883.7	854.8	838.6	840.4
17.5°	5383.3	4569.9	3338.2	1991.0	1091.1	916.2	842.2	791.7	752.0	735.8	732.2
20°	5787.3	4797.2	3157.8	1482.4	923.4	831.4	748.4	692.5	652.8	636.6	633.0
22.5°	6205.7	4990.1	2840.4	1087.5	829.6	737.6	656.5	600.5	562.7	548.2	541.0
25°	6613.2	5147.0	2396.8	880.1	741.2	649.2	571.7	519.4	485.1	470.7	468.9
27.5°	6993.8	5246.2	1882.8	777.3	663.7	569.9	499.6	452.7	423.8	413.0	411.2
30°	7336.4	5255.2	1392.3	701.5	595.1	501.4	436.4	395.0	369.7	358.9	355.3
32.5°	7682.7	5179.5	1013.5	633.0	532.0	441.8	378.7	346.3	328.2	319.2	319.2
35°	8009.1	5004.6	789.9	573.5	470.7	384.1	333.6	310.2	299.4	290.4	290.4
37.5°	8328.3	4753.9	670.9	521.2	413.0	335.4	294.0	279.5	270.5	261.5	261.5
40°	8652.9	4438.3	609.6	472.5	366.1	297.6	261.5	248.9	239.9	232.6	230.8
42.5°	9051.5	4074.0	569.9	427.4	324.6	263.3	230.8	216.4	209.2	202.0	198.4
45°	9513.2	3760.2	537.4	382.3	290.4	234.4	200.2	185.8	174.9	165.9	164.1
47.5°	10178.7	3533.0	494.1	333.6	257.9	203.8	173.1	156.9	140.7	131.7	129.8
50°	11028.1	3345.4	438.2	290.4	225.4	173.1	144.3	124.4	110.0	101.0	101.0
52.5°	11450.1	3100.1	387.7	252.5	189.4	146.1	117.2	93.8	86.6	77.5	77.5
55°	11619.6	2912.6	337.2	214.6	156.9	120.8	92.0	72.1	66.7	61.3	59.5
57.5°	12095.7	2858.5	294.0	182.1	129.8	95.6	70.3	54.1	50.5	43.3	43.3
60°	12862.2	2885.5	254.3	155.1	104.6	73.9	52.3	41.5	37.9	30.7	30.7
62.5°	13690.0	2851.3	214.6	133.5	81.2	54.1	36.1	30.7	30.7	18.0	16.2
65°	13848.7	2539.3	184.0	110.0	63.1	39.7	23.4	19.8	27.1	3.6	0.0
67.5°	12853.2	1969.4	158.7	84.8	46.9	30.7	18.0	9.0	23.4	0.0	0.0
70°	10277.8	1251.6	128.0	61.3	36.1	25.2	14.4	3.6	18.0	0.0	0.0
72.5°	7267.9	726.8	101.0	43.3	30.7	19.8	10.8	0.0	10.8	0.0	0.0
75°	3675.4	387.7	63.1	32.5	23.4	14.4	7.2	0.0	1.8	0.0	0.0
77.5°	795.3	180.3	39.7	23.4	16.2	9.0	3.6	0.0	0.0	0.0	0.0
80°	173.1	79.4	25.2	14.4	9.0	5.4	0.0	0.0	0.0	0.0	0.0
82.5°	63.1	41.5	12.6	7.2	3.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	34.3	21.6	7.2	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	18.0	7.2	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)