

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: P321463

Luminaire Tested: **GAN-SA9D-830-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321463
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-830-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 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: 44492 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

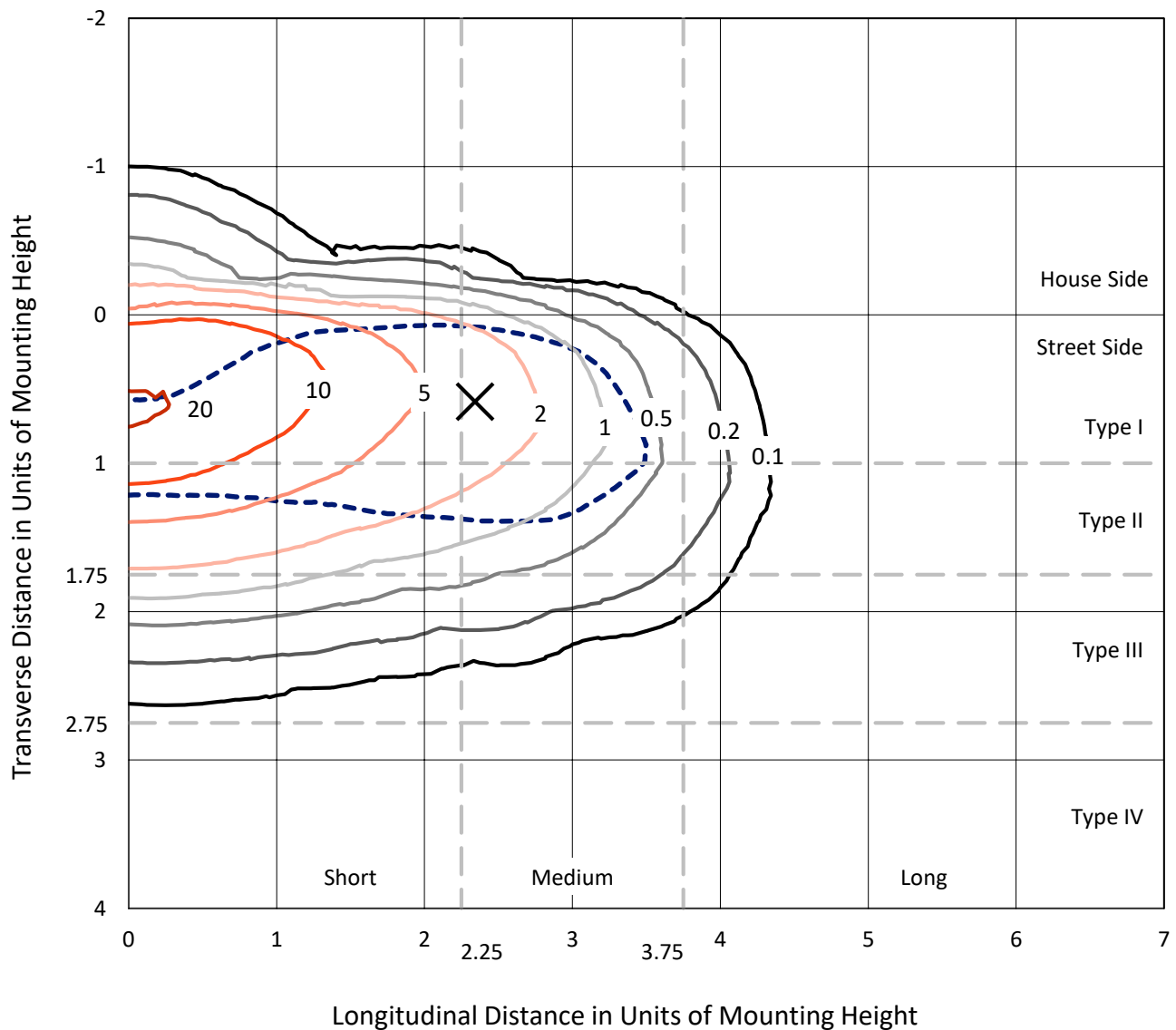
Input Watts (W): 575
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P321463
 CATALOG NUMBER: GAN-SA9D-830-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

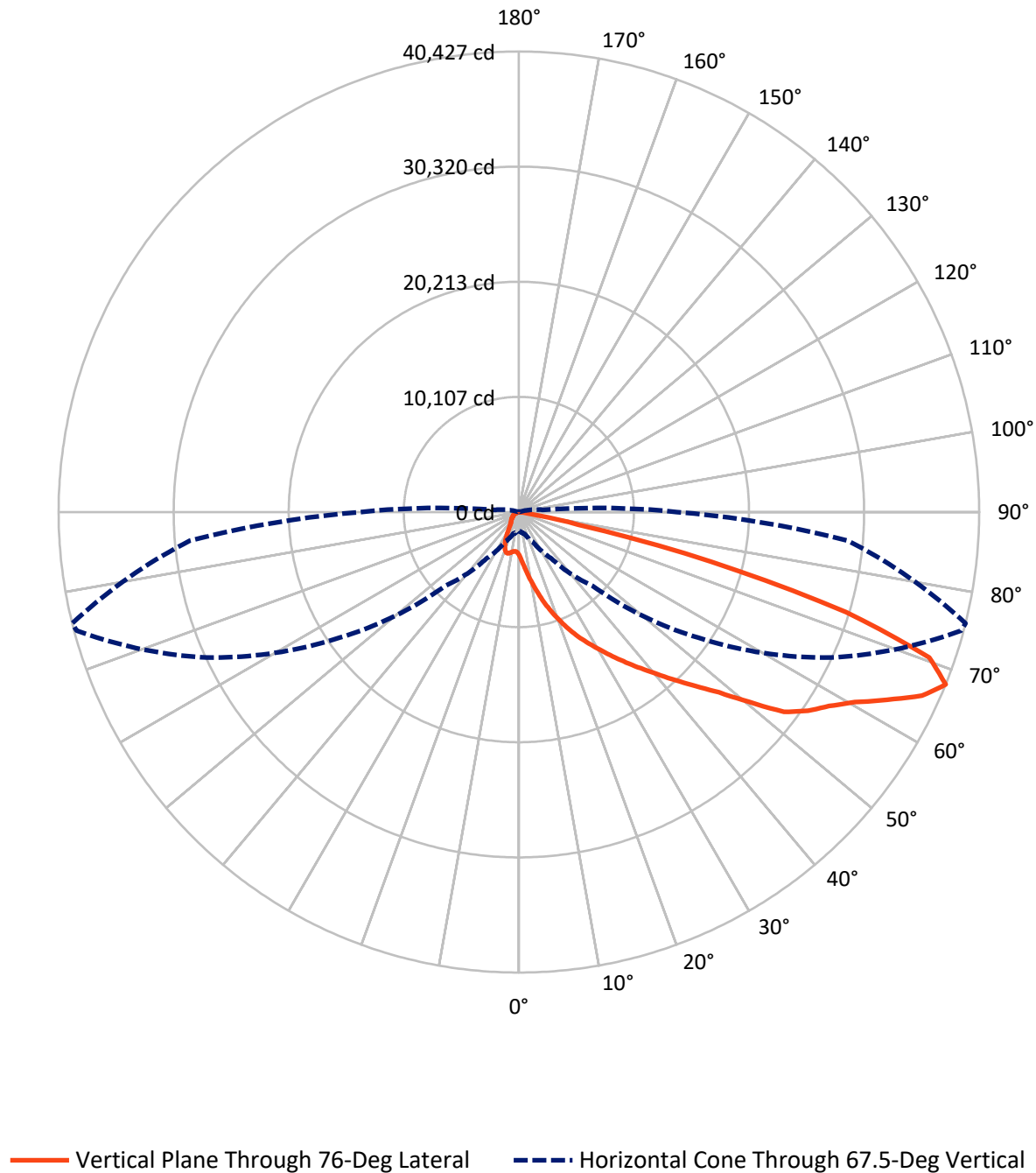
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 21.3 fc
 Type II - Medium - N/A

REPORT NUMBER: P321463
CATALOG NUMBER: GAN-SA9D-830-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P321463

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2209.3	0.0	2209.3
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	42282.6	0.0	42282.6
	% Fixture	95.0	0.0	95.0
Total	Lumens	44492.0	0.0	44492.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	469.3	1.1
10°-20°	1860.4	4.2
20°-30°	3785.4	8.5
30°-40°	6570.2	14.8
40°-50°	9282.9	20.9
50°-60°	10527.2	23.7
60°-70°	8731.3	19.6
70°-80°	3162.7	7.1
80°-90°	102.6	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°	44492.0	100.0
0°-180°	44492.0	100.0

Coefficient of Utilization



REPORT NUMBER: P321463

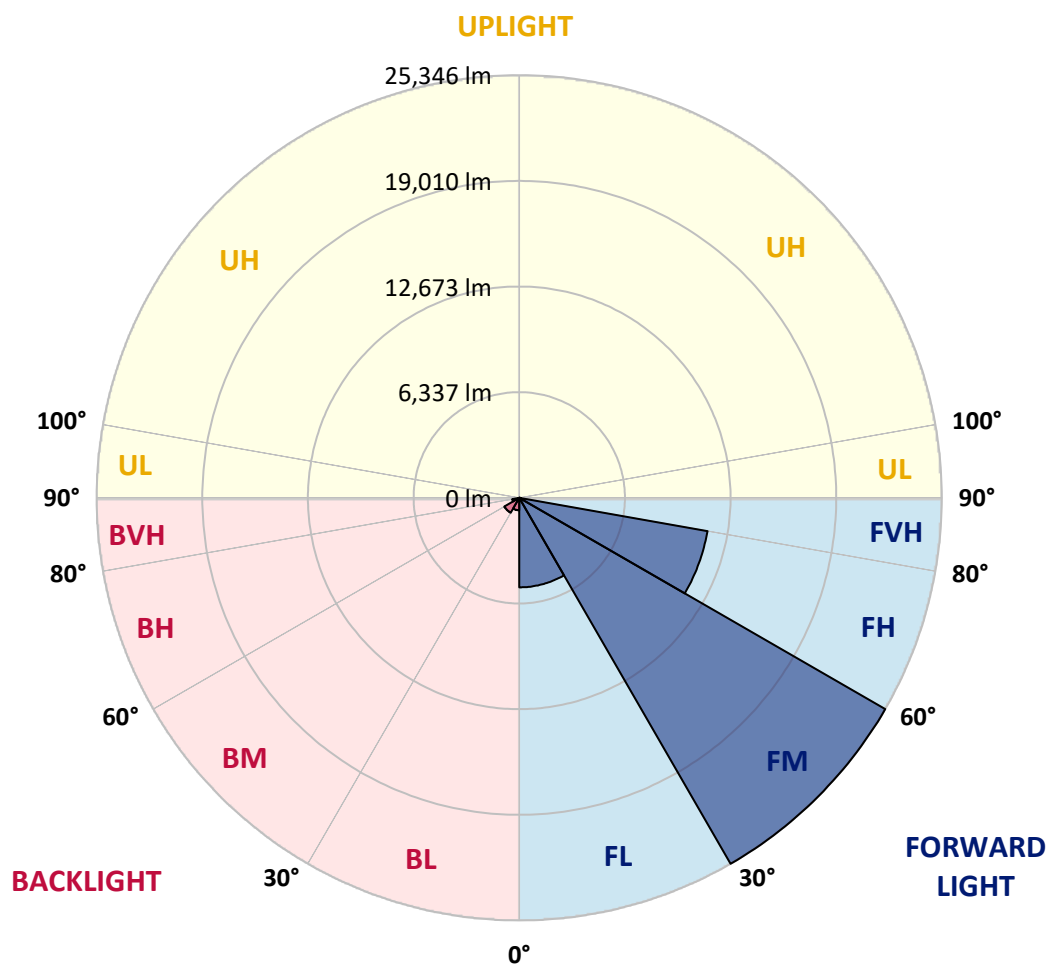
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5370.0	12.1			
FM	(30°-60°)	25346.2	57.0			
FH	(60°-80°)	11467.1	25.8			G4/12000
FVH	(80°-90°)	99.3	0.2			G1/100
BL	(0°-30°)	745.1	1.7	B2/1000		
BM	(30°-60°)	1034.0	2.3	B2/2500		
BH	(60°-80°)	427.0	1.0	B1/500		G1/500
BVH	(80°-90°)	3.2	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



REPORT NUMBER: P321463

CATALOG NUMBER: GAN-SA9D-830-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2
2.5°	5634.0	5507.3	5536.5	5454.7	5306.5	5002.4	4743.1	4497.5	4210.9	4201.1	3965.3
5°	7597.2	7489.9	7476.3	7310.6	7041.6	6524.9	6022.0	5448.8	4809.4	4762.6	4261.6
7.5°	9379.0	9293.2	9262.0	9065.1	8564.1	8061.1	7406.1	6563.9	5563.8	5478.1	4661.2
10°	10747.5	10706.6	10714.4	10574.0	10145.1	9677.3	8817.5	7743.4	6419.7	6287.1	5140.8
12.5°	11784.7	11794.4	11864.6	11778.8	11539.0	11192.0	10273.8	9000.8	7367.1	7185.8	5688.6
15°	12546.9	12595.6	12724.3	12831.5	12814.0	12513.8	11671.6	10277.7	8373.1	8172.3	6298.8
17.5°	13040.1	13094.7	13281.9	13519.7	13738.0	13667.9	13020.6	11509.8	9390.7	9158.7	6951.9
20°	13472.9	13537.2	13738.0	14051.9	14459.4	14547.1	14122.1	12704.8	10406.4	10123.7	7626.4
22.5°	14410.6	14408.7	14531.5	14714.7	15102.7	15328.8	15059.8	13814.1	11410.4	11116.0	8314.6
25°	16106.7	16042.3	15999.5	15855.2	15941.0	16081.3	15931.2	14851.2	12420.2	12121.9	9012.5
27.5°	18122.4	18161.4	17814.4	17426.5	17126.3	16982.0	16736.4	15812.3	13391.0	13063.5	9694.8
30°	20249.3	20261.0	19851.6	19356.5	18695.6	18147.8	17722.8	16730.5	14389.2	14032.4	10357.6
32.5°	22167.6	22091.6	21686.1	21011.6	20177.2	19561.2	18678.1	17755.9	15445.8	15100.7	11094.5
35°	23688.2	23598.6	23105.3	22491.3	21625.7	21005.7	19943.3	18779.4	16557.0	16219.7	11833.4
37.5°	24799.4	24694.2	24187.3	23555.7	22809.0	22448.4	21411.2	19892.6	17769.6	17407.0	12611.2
40°	25185.4	25093.8	24776.1	24314.0	23713.6	23631.7	22968.9	21173.4	19089.4	18703.4	13492.4
42.5°	24955.4	24865.7	24752.7	24596.7	24347.2	24425.1	24438.8	22633.6	20555.4	20175.3	14465.2
45°	24043.0	23963.1	24080.1	24308.2	24618.1	25004.1	25780.0	24202.9	22193.0	21787.5	15590.1
47.5°	22699.8	22641.4	22965.0	23534.2	24440.7	25505.2	27006.3	25852.2	24031.3	23655.1	16993.7
50°	20789.3	20779.6	21426.8	22465.9	23859.8	25746.9	28273.4	27727.6	26585.2	26189.4	18945.1
52.5°	17814.4	17833.9	19106.9	20769.9	22840.2	25583.1	29088.3	30137.1	29556.2	29144.9	20635.3
55°	14981.8	15098.8	16001.4	18399.3	21276.7	24974.9	29369.0	31262.0	31195.7	30805.8	21575.0
57.5°	12207.7	12420.2	13289.7	15529.6	18993.9	23573.2	29215.0	31749.4	32416.1	32117.8	22814.9
60°	9201.6	9299.1	10301.1	12394.8	16063.8	21015.5	28098.0	32014.5	34084.9	33878.2	24614.2
62.5°	5854.3	6098.0	6987.0	9006.6	12507.9	17463.5	26214.8	32010.6	36172.8	36285.8	26936.1
65°	3084.1	3368.7	3840.5	5581.4	8595.3	13496.3	23382.2	31710.4	38734.4	38892.3	28751.1
67.5°	1662.9	1744.8	1994.3	2896.9	4984.8	9143.1	19220.0	30228.8	40218.0	40426.5	29004.5
70°	1216.5	1261.3	1354.9	1602.5	2509.0	5310.4	14024.6	26869.8	38305.5	38227.5	25770.3
72.5°	933.8	1004.0	1074.2	1173.6	1442.6	2834.6	8731.8	21040.8	30564.1	30049.4	19262.9
75°	736.9	748.6	848.0	937.7	1082.0	1614.2	3877.5	12254.5	18654.7	17436.2	9989.2
77.5°	588.7	596.5	655.0	733.0	869.5	1060.5	1200.9	4821.1	5955.7	5314.3	2167.8
80°	349.0	368.5	487.4	565.4	721.3	668.7	438.6	1046.9	929.9	842.2	364.6
82.5°	194.9	210.5	274.9	446.4	503.0	319.7	218.3	282.7	218.3	212.5	103.3
85°	0.0	9.7	177.4	276.8	204.7	70.2	91.6	93.6	64.3	60.4	40.9
87.5°	0.0	0.0	54.6	52.6	7.8	11.7	21.4	31.2	25.3	25.3	21.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P321463

CATALOG NUMBER: GAN-SA9D-830-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2	3774.2
2.5°	3848.3	3743.0	3544.2	3349.2	3185.5	3050.9	2930.1	2881.3	2842.4	2836.5	2805.3
5°	4019.8	3807.4	3427.2	3115.3	2906.7	2758.5	2631.8	2553.8	2493.4	2470.0	2448.6
7.5°	4279.1	3957.5	3411.6	3052.9	2803.4	2553.8	2319.9	2066.5	1908.5	1848.1	1813.0
10°	4594.9	4156.3	3470.1	3035.4	2598.7	2072.3	1684.4	1362.7	1232.1	1189.2	1177.5
12.5°	4963.4	4403.9	3571.5	2926.2	2162.0	1471.9	1161.9	1052.7	1023.5	1009.8	1009.8
15°	5386.4	4674.9	3643.6	2610.4	1598.6	1113.2	1005.9	955.2	924.1	906.5	908.5
17.5°	5819.2	4940.0	3608.5	2152.2	1179.4	990.3	910.4	855.8	812.9	795.4	791.5
20°	6255.9	5185.6	3413.6	1602.5	998.1	898.7	809.0	748.6	705.7	688.2	684.3
22.5°	6708.2	5394.2	3070.4	1175.5	896.8	797.3	709.6	649.2	608.2	592.6	584.8
25°	7148.8	5563.8	2590.9	951.4	801.2	701.8	618.0	561.5	524.4	508.8	506.9
27.5°	7560.1	5671.1	2035.3	840.2	717.4	616.0	540.0	489.3	458.1	446.4	444.5
30°	7930.5	5680.8	1505.0	758.4	643.3	542.0	471.8	426.9	399.6	387.9	384.0
32.5°	8304.8	5598.9	1095.6	684.3	575.1	477.6	409.4	374.3	354.8	345.1	345.1
35°	8657.7	5409.8	853.9	619.9	508.8	415.2	360.7	335.3	323.6	313.9	313.9
37.5°	9002.7	5138.9	725.2	563.4	446.4	362.6	317.8	302.2	292.4	282.7	282.7
40°	9353.6	4797.7	658.9	510.8	395.7	321.7	282.7	269.0	259.3	251.5	249.5
42.5°	9784.5	4403.9	616.0	462.0	350.9	284.6	249.5	233.9	226.1	218.3	214.4
45°	10283.6	4064.7	580.9	413.3	313.9	253.4	216.4	200.8	189.1	179.4	177.4
47.5°	11002.9	3819.0	534.2	360.7	278.8	220.3	187.2	169.6	152.1	142.3	140.4
50°	11921.1	3616.3	473.7	313.9	243.7	187.2	156.0	134.5	118.9	109.2	109.2
52.5°	12377.3	3351.2	419.1	272.9	204.7	157.9	126.7	101.4	93.6	83.8	83.8
55°	12560.6	3148.4	364.6	232.0	169.6	130.6	99.4	78.0	72.1	66.3	64.3
57.5°	13075.2	3089.9	317.8	196.9	140.4	103.3	76.0	58.5	54.6	46.8	46.8
60°	13903.8	3119.2	274.9	167.7	113.1	79.9	56.5	44.8	40.9	33.1	33.1
62.5°	14798.6	3082.1	232.0	144.3	87.7	58.5	39.0	33.1	33.1	19.5	17.5
65°	14970.1	2744.9	198.8	118.9	68.2	42.9	25.3	21.4	29.2	3.9	0.0
67.5°	13894.0	2128.8	171.6	91.6	50.7	33.1	19.5	9.7	25.3	0.0	0.0
70°	11110.1	1352.9	138.4	66.3	39.0	27.3	15.6	3.9	19.5	0.0	0.0
72.5°	7856.4	785.6	109.2	46.8	33.1	21.4	11.7	0.0	11.7	0.0	0.0
75°	3973.1	419.1	68.2	35.1	25.3	15.6	7.8	0.0	1.9	0.0	0.0
77.5°	859.7	194.9	42.9	25.3	17.5	9.7	3.9	0.0	0.0	0.0	0.0
80°	187.2	85.8	27.3	15.6	9.7	5.8	0.0	0.0	0.0	0.0	0.0
82.5°	68.2	44.8	13.6	7.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0
85°	37.0	23.4	7.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	19.5	7.8	1.9	1.9	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)