

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: P321103

Luminaire Tested: **GAN-SA9D-827-U-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-29)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA9D-827-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52313 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - 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

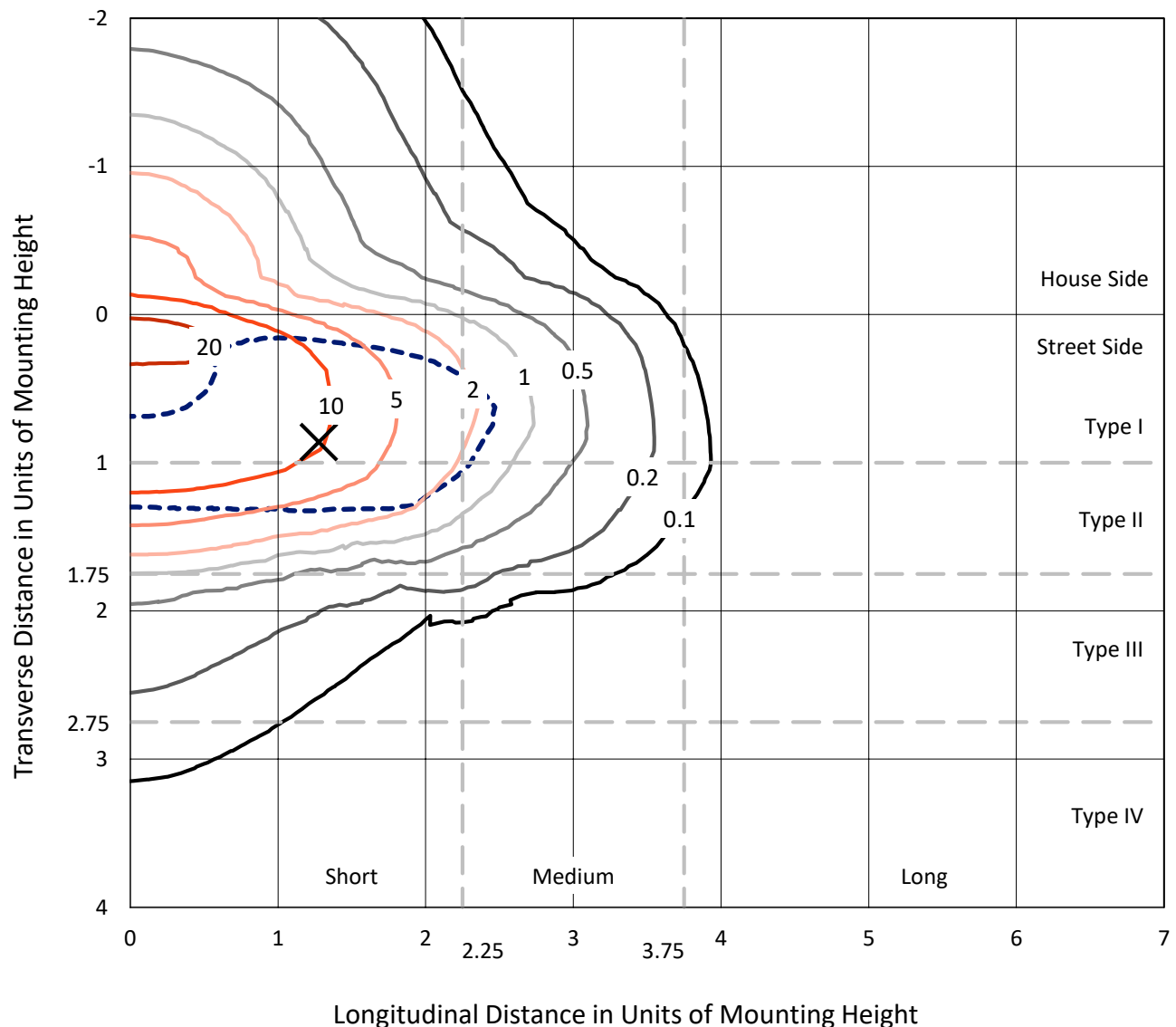


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Iso-Footcandle Lines of Horizontal Illumination

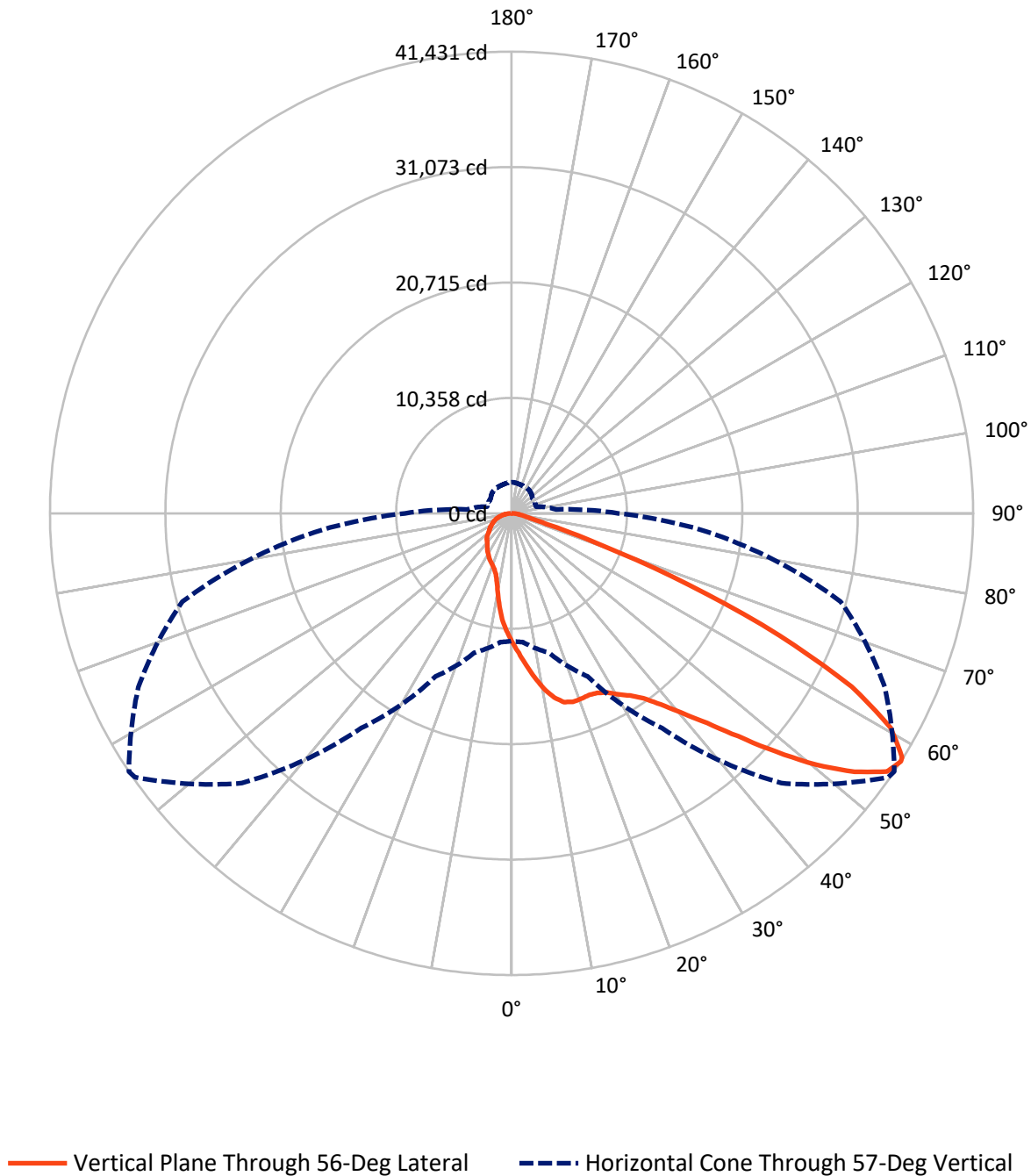
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 25.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9017.6	0.0	9017.6
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	43295.4	0.0	43295.4
	% Fixture	82.8	0.0	82.8
Total	Lumens	52313.0	0.0	52313.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1108.4	2.1
10°-20°	3133.7	6.0
20°-30°	5104.1	9.8
30°-40°	7630.1	14.6
40°-50°	11573.2	22.1
50°-60°	12971.6	24.8
60°-70°	7661.5	14.6
70°-80°	2510.2	4.8
80°-90°	620.2	1.2
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°	52313.0	100.0
0°-180°	52313.0	100.0

Coefficient of Utilization



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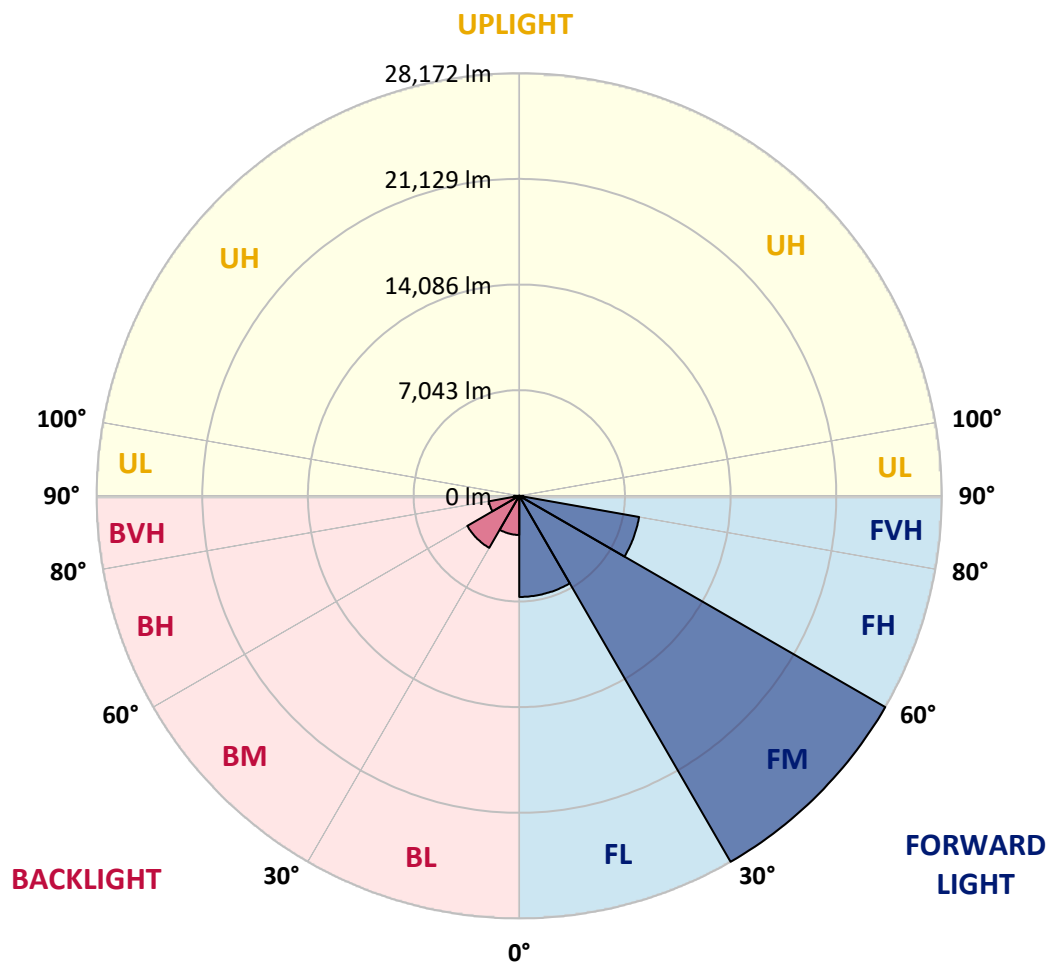
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6738.7	12.9			
FM	(30°-60°)	28172.3	53.9			
FH	(60°-80°)	8111.3	15.5			G4/12000
FVH	(80°-90°)	273.1	0.5			G3/500
BL	(0°-30°)	2607.5	5.0	B4/5000		
BM	(30°-60°)	4002.6	7.7	B3/5000		
BH	(60°-80°)	2060.4	3.9	B3/2500		G3/2500
BVH	(80°-90°)	347.1	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1
2.5°	13323.6	13445.8	13391.9	13204.9	13061.1	12857.9	12631.4	12563.1	12324.0	12056.1	11734.3
5°	15432.4	15371.3	15283.2	14991.9	14684.5	14326.8	13758.6	13668.8	13136.6	12530.7	11890.7
7.5°	16633.3	16628.0	16575.8	16405.0	16124.6	15657.1	14972.2	14866.1	14062.5	13088.1	12095.7
10°	16459.0	16446.4	16532.7	16710.7	16795.1	16698.1	16121.0	16014.9	15027.9	13704.7	12333.0
12.5°	15468.4	15475.6	15614.0	15987.9	16496.7	17108.0	17014.5	16962.3	16029.3	14402.3	12620.6
15°	14697.1	14713.3	14823.0	15148.4	15748.8	16858.1	17557.4	17575.4	16998.3	15171.7	12956.8
17.5°	14359.1	14393.3	14443.6	14671.9	15222.1	16360.1	17686.9	17783.9	17846.9	15970.0	13280.4
20°	14467.0	14499.3	14513.7	14659.3	15110.6	16058.0	17597.0	17771.4	18497.7	16721.4	13604.0
22.5°	14950.6	14970.4	14979.4	15017.1	15367.7	16144.3	17537.6	17721.0	18968.7	17395.6	13848.5
25°	15752.4	15738.0	15680.5	15632.0	15867.5	16485.9	17674.3	17848.7	19351.6	18006.9	14008.5
27.5°	16712.4	16694.5	16583.0	16450.0	16584.8	17018.1	18068.0	18206.4	19695.0	18578.6	14089.4
30°	17864.8	17818.1	17607.8	17449.6	17501.7	17816.3	18717.0	18842.9	20225.4	19227.6	14168.5
32.5°	19197.0	19146.7	18842.9	18580.4	18580.4	18842.9	19385.8	19490.1	20674.8	19961.1	14296.2
35°	20865.4	20802.5	20407.0	19966.5	19842.4	19975.5	20297.3	20371.0	21483.8	20885.2	14528.1
37.5°	22832.2	22747.7	22235.3	21645.6	21374.2	21367.0	21598.9	21749.9	22776.5	22098.7	14921.8
40°	24804.4	24745.1	24297.4	23833.6	23301.4	23130.6	23488.4	23535.1	24466.4	23605.3	15425.2
42.5°	26328.9	26318.2	26235.5	26296.6	25751.8	25406.7	25687.1	25724.9	26530.3	25235.9	15961.0
45°	27134.4	27152.3	27553.2	28441.4	28642.7	28391.0	28529.5	28540.2	28889.0	26880.9	16451.8
47.5°	26488.9	26582.4	27596.4	29583.0	31231.6	32067.6	31837.4	31970.5	31175.8	28293.9	16836.5
50°	23973.8	24088.9	25814.8	29074.2	32439.7	35625.4	35505.0	35474.4	33020.4	29329.5	17045.0
52.5°	20858.2	20948.1	22372.0	26429.6	31553.4	37592.2	38697.9	38539.7	34660.0	30104.3	17084.6
55°	16113.8	16254.0	17618.5	21151.2	27968.5	36840.7	41045.8	40903.8	36154.0	30510.6	17037.9
57°	11455.7	11603.1	12958.6	16142.5	23528.0	34239.3	41279.5	41430.6	36961.2	30579.0	17090.0
57.5°	10222.4	10373.4	11716.3	14808.6	22143.6	33299.1	41078.2	41329.9	37106.8	30568.2	17118.8
60°	5147.1	5204.7	6060.4	8266.3	13997.8	26920.4	38451.6	39100.6	37238.1	30039.6	17242.8
62.5°	3200.1	3158.8	3131.8	3807.8	6810.1	17852.3	33031.2	34280.7	34726.5	28759.6	16942.6
65°	2813.6	2736.3	2439.6	2385.7	3007.7	8670.8	24874.5	26429.6	29360.0	26742.4	16227.0
67.5°	2642.8	2567.3	2232.9	2031.5	2033.3	3437.4	15443.2	17194.3	22871.7	23332.0	14538.9
70°	2466.6	2398.3	2085.5	1848.1	1731.3	1903.9	7104.9	8433.5	14909.2	18339.5	12151.4
72.5°	2240.1	2193.3	1896.7	1652.2	1528.1	1425.7	2720.1	3212.7	8631.3	12316.8	8438.9
75°	2002.8	1959.6	1706.1	1472.4	1321.4	1121.8	1531.7	1650.4	4384.9	6301.3	4154.7
77.5°	1742.1	1716.9	1517.4	1301.6	1181.2	929.5	1084.1	1141.6	1880.5	2702.1	2083.7
80°	1386.1	1434.7	1326.8	1159.6	1048.1	744.3	767.7	805.4	1094.9	1319.6	1183.0
82.5°	902.5	987.0	1039.1	942.1	862.9	586.1	551.9	568.1	713.7	805.4	514.2
85°	375.7	422.5	683.2	616.6	573.5	427.9	370.3	377.5	442.3	458.4	210.3
87.5°	167.2	178.0	300.2	282.3	242.7	147.4	158.2	172.6	235.5	222.9	80.9
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°	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1	11603.1
2.5°	11613.9	11462.8	11204.0	10918.1	10684.4	10497.4	10308.6	10179.2	10028.2	9947.3	9905.9
5°	11622.8	11326.2	10781.5	10222.4	9722.6	9265.9	8830.8	8496.5	8183.6	8014.6	7967.9
7.5°	11660.6	11214.7	10333.8	9413.3	8525.2	7714.4	7088.8	6696.8	6414.6	6288.7	6252.8
10°	11691.2	11083.5	9780.1	8417.4	7209.2	6387.6	5902.2	5682.9	5585.8	5569.6	5553.4
12.5°	11763.1	10948.7	9197.6	7378.2	6186.3	5618.2	5449.2	5434.8	5461.7	5501.3	5501.3
15°	11876.3	10815.6	8532.4	6486.5	5535.5	5335.9	5370.1	5449.2	5522.9	5584.0	5593.0
17.5°	11959.0	10652.0	7816.9	5772.8	5188.5	5242.4	5364.7	5476.1	5551.6	5611.0	5616.4
20°	12018.4	10398.5	7052.8	5228.0	4988.9	5156.1	5308.9	5407.8	5460.0	5519.3	5528.3
22.5°	11987.8	10058.8	6375.0	4837.9	4827.1	5030.3	5175.9	5294.6	5255.0	5197.5	5235.2
25°	11840.4	9591.3	5677.5	4546.7	4656.3	4861.3	5041.1	4962.0	4828.9	4803.8	4818.1
27.5°	11577.9	8994.4	5032.1	4277.0	4458.6	4704.9	4694.1	4615.0	4568.2	4535.9	4555.7
30°	11295.6	8347.2	4467.6	4041.5	4239.2	4442.4	4401.0	4399.2	4352.5	4300.4	4325.5
32.5°	11017.0	7696.4	4019.9	3847.3	4073.8	4100.8	4190.7	4217.7	4126.0	4016.3	4009.1
35°	10774.3	7081.6	3680.1	3671.1	3874.3	3877.9	4009.1	3971.4	3743.0	3629.8	3629.8
37.5°	10592.7	6468.5	3421.2	3512.9	3611.8	3705.3	3771.8	3615.4	3577.6	3514.7	3512.9
40°	10513.6	5929.2	3259.4	3392.5	3426.6	3545.3	3374.5	3435.6	3453.6	3421.2	3421.2
42.5°	10430.9	5460.0	3119.2	3300.8	3295.4	3279.2	3192.9	3272.0	3343.9	3345.7	3340.3
45°	10348.2	5055.4	2995.2	3104.8	3180.3	3005.9	3022.1	3106.6	3207.3	3243.3	3243.3
47.5°	10256.5	4735.4	2881.9	2898.1	3014.9	2898.1	2885.5	2950.2	3068.9	3126.4	3139.0
50°	10055.2	4447.8	2752.4	2716.5	2748.9	2788.4	2799.2	2829.8	2961.0	3052.7	3074.3
52.5°	9776.5	4190.7	2587.0	2549.3	2549.3	2698.5	2748.9	2757.8	2869.3	2979.0	3000.5
55°	9544.6	4027.1	2416.3	2409.1	2401.9	2603.2	2689.5	2703.9	2781.2	2867.5	2878.3
57°	9560.8	4014.5	2285.0	2292.2	2290.4	2506.1	2633.8	2664.4	2703.9	2777.6	2790.2
57.5°	9569.7	4023.5	2256.3	2259.8	2258.1	2479.2	2617.6	2651.8	2682.3	2759.6	2772.2
60°	9704.6	4046.9	2139.4	2099.8	2108.8	2335.4	2525.9	2569.1	2588.8	2691.3	2707.5
62.5°	9505.0	3942.6	2045.9	1950.6	1950.6	2184.3	2398.3	2466.6	2497.2	2635.6	2662.6
65°	8926.1	3649.6	1936.2	1781.6	1799.6	2033.3	2245.5	2356.9	2403.7	2576.3	2605.0
67.5°	8032.6	3309.8	1819.4	1630.6	1648.6	1875.1	2087.3	2207.7	2281.4	2511.5	2534.9
70°	6869.4	2894.5	1661.2	1470.6	1492.2	1702.5	1900.3	2036.9	2146.6	2450.4	2457.6
72.5°	5064.4	2373.1	1440.0	1294.4	1317.8	1501.2	1711.5	1869.7	2017.1	2297.6	2294.0
75°	3011.3	1855.3	1195.5	1116.4	1132.6	1303.4	1540.7	1733.1	1954.2	2238.3	2272.4
77.5°	1826.6	1396.9	974.4	934.9	954.6	1129.0	1418.5	1623.4	1927.3	2110.6	2099.8
80°	1103.9	997.8	778.5	753.3	773.1	965.4	1312.4	1540.7	1684.5	1803.2	1803.2
82.5°	577.1	609.5	571.7	551.9	578.9	783.8	1193.7	1344.8	1488.6	1278.2	1193.7
85°	235.5	318.2	347.0	345.2	361.4	542.9	1030.1	1150.6	960.0	911.5	933.1
87.5°	79.1	134.8	169.0	145.6	152.8	341.6	713.7	555.5	659.8	460.2	436.9
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)