

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: P457779

Luminaire Tested: **GALN-SA9A-827-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P457779
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA9A-827-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31060 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

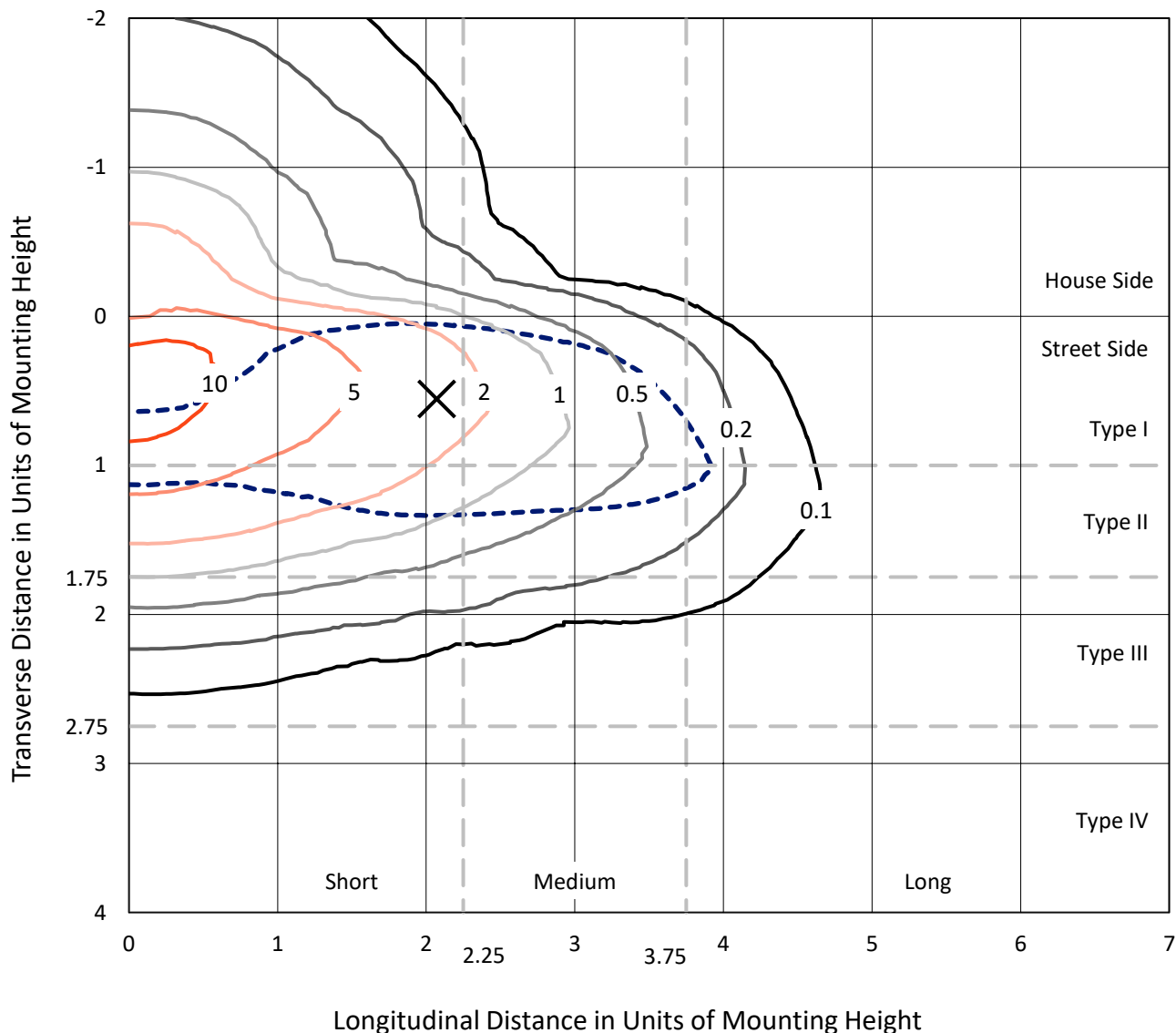
Input Watts (W): 274
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

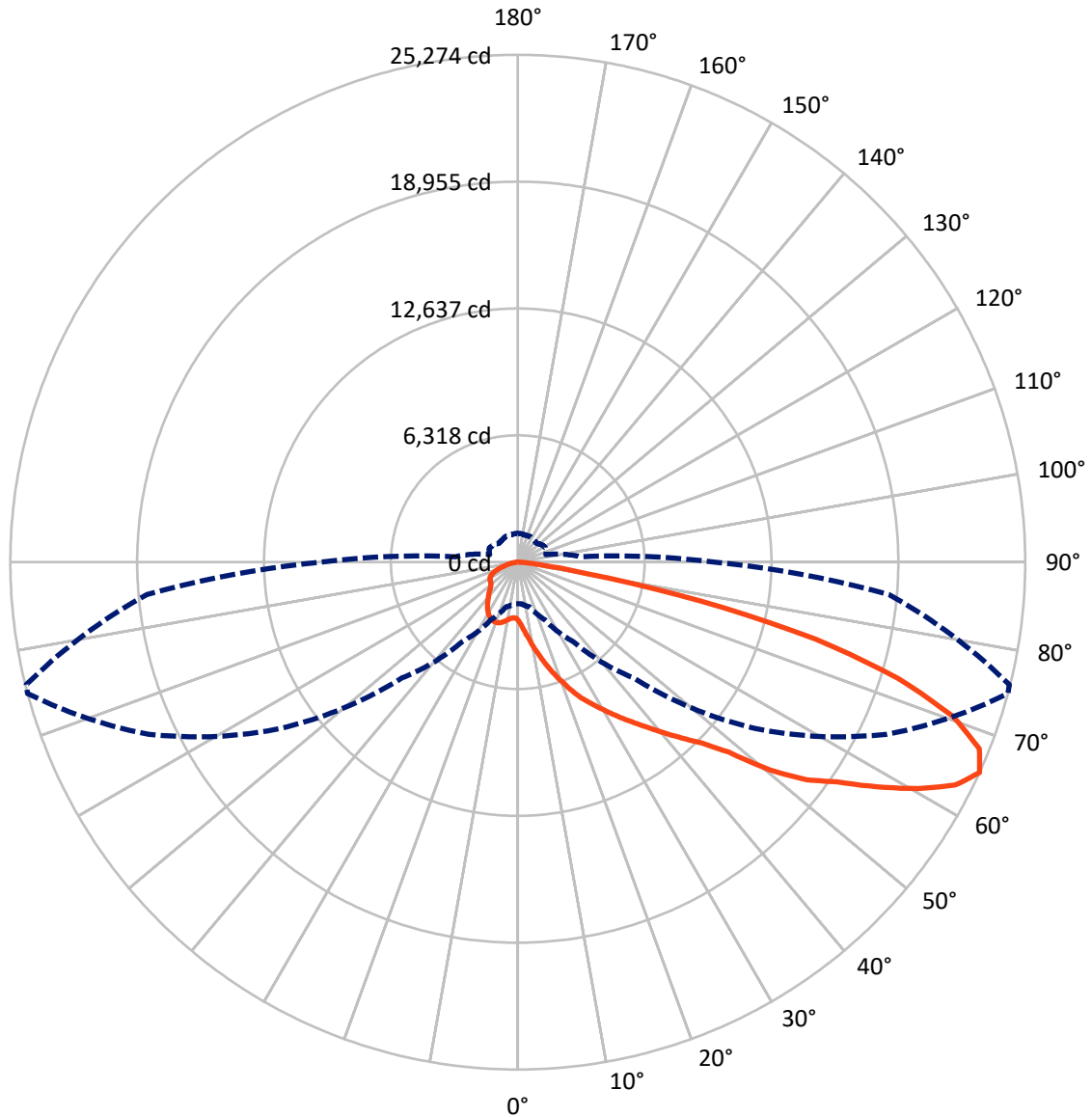
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5221.6	0.0	5221.6
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	25838.4	0.0	25838.4
	% Fixture	83.2	0.0	83.2
Total	Lumens	31060.0	0.0	31060.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.6	1.1
10°-20°	1373.3	4.4
20°-30°	2652.8	8.5
30°-40°	4309.0	13.9
40°-50°	5927.4	19.1
50°-60°	6998.3	22.5
60°-70°	6131.6	19.7
70°-80°	2927.3	9.4
80°-90°	389.5	1.3
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°	31060.0	100.0
0°-180°	31060.0	100.0

Coefficient of Utilization



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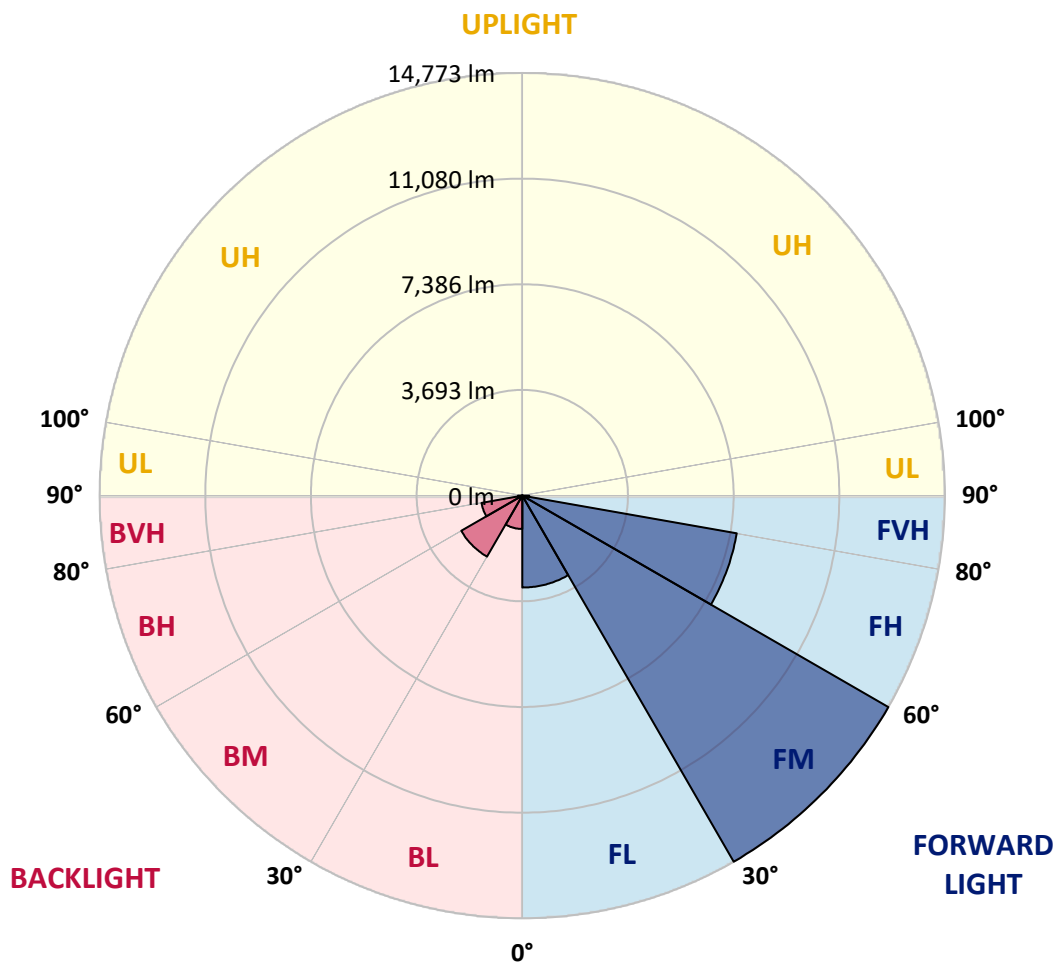
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3211.1	10.3			
FM	(30°-60°)	14772.8	47.6			
FH	(60°-80°)	7611.1	24.5			G4/12000
FVH	(80°-90°)	243.4	0.8			G3/500
BL	(0°-30°)	1165.7	3.8	B3/2500		
BM	(30°-60°)	2461.9	7.9	B2/2500		
BH	(60°-80°)	1447.9	4.7	B3/2500		G3/2500
BVH	(80°-90°)	146.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9
2.5°	3834.3	3809.1	3782.1	3708.0	3628.8	3539.5	3411.5	3288.5	3125.1	3120.0	2998.7
5°	4897.4	4880.5	4760.9	4691.8	4508.2	4263.9	4056.7	3734.9	3436.8	3401.4	3165.5
7.5°	5874.5	5808.8	5763.3	5638.6	5456.7	5143.3	4742.4	4307.7	3809.1	3761.9	3371.1
10°	6610.7	6604.0	6580.4	6472.6	6336.1	6024.4	5579.7	4956.3	4280.8	4188.1	3620.4
12.5°	7161.6	7166.7	7163.3	7161.6	7063.9	6799.4	6317.6	5660.5	4757.6	4691.8	3908.5
15°	7523.8	7574.3	7594.6	7678.8	7687.2	7510.3	7095.9	6341.2	5295.0	5197.3	4218.5
17.5°	7763.0	7788.3	7882.6	8025.8	8142.1	8110.1	7741.1	6971.2	5844.2	5680.8	4540.2
20°	7992.1	8035.9	8108.4	8303.8	8509.3	8603.7	8344.2	7616.5	6388.3	6283.9	4895.7
22.5°	8468.9	8531.2	8556.5	8655.9	8831.1	8997.9	8880.0	8234.7	6984.7	6843.2	5273.1
25°	9275.9	9341.6	9270.8	9247.2	9304.5	9387.1	9361.8	8817.6	7547.4	7345.2	5630.2
27.5°	10327.1	10335.5	10197.4	10066.0	9924.5	9882.4	9804.9	9334.8	8035.9	7867.5	5989.1
30°	11455.9	11415.4	11186.3	10948.8	10709.5	10473.7	10251.3	9833.5	8580.1	8386.4	6341.2
32.5°	12503.7	12481.8	12227.4	11858.5	11454.2	11231.8	10782.0	10337.2	9163.0	8976.0	6703.4
35°	13288.8	13320.8	13041.2	12638.5	12197.1	12000.0	11432.3	10866.2	9766.1	9562.3	7097.6
37.5°	13846.4	13829.6	13581.9	13233.2	12845.7	12673.9	12192.1	11444.1	10414.7	10219.3	7528.9
40°	14045.2	14035.1	13851.5	13597.1	13351.1	13290.5	12987.2	12067.4	11157.7	10928.6	8047.7
42.5°	13918.9	13940.8	13819.5	13750.4	13704.9	13748.7	13777.4	12884.5	11968.0	11757.4	8610.4
45°	13531.4	13519.6	13502.8	13615.6	13871.7	14159.8	14559.1	13656.1	12849.1	12680.6	9365.2
47.5°	12839.0	12923.2	12965.3	13277.0	13836.3	14518.6	15458.7	14690.5	14127.8	13981.2	10515.8
50°	11870.3	11937.7	12187.0	12741.3	13575.2	14653.4	16338.1	16381.9	16260.6	15986.0	11765.8
52.5°	10357.4	10461.9	10975.7	11991.6	13039.5	14597.8	16870.4	17832.4	17992.4	17786.9	12997.3
55°	8664.3	8810.9	9353.4	10686.0	12301.6	14294.6	17237.7	18673.1	19311.6	19121.2	14183.4
57.5°	7006.6	7161.6	7719.2	9009.7	11014.5	13624.1	17478.6	19609.7	21107.4	20859.8	15659.2
60°	5251.2	5412.9	5891.3	7220.6	9181.5	12313.4	17315.2	20421.8	22901.6	22795.5	17136.6
62.5°	3387.9	3566.5	3982.6	5082.7	7057.1	10522.5	16440.8	20869.9	24454.9	24326.9	18214.8
65°	2063.7	2084.0	2313.1	3155.4	4830.0	8147.1	14441.1	20275.2	25273.7	25234.9	18543.3
67.5°	1334.3	1366.3	1470.7	1890.2	2896.0	5658.9	11546.8	18312.5	24795.2	24781.7	17864.4
70°	1127.1	1137.2	1184.3	1275.3	1683.0	3431.7	8108.4	15184.1	22977.4	22977.4	16231.9
72.5°	1007.4	1020.9	1037.8	1066.4	1201.2	1944.1	4838.4	11819.8	19838.9	19970.3	13816.1
75°	914.8	911.4	921.5	926.6	1024.3	1270.3	2501.8	8741.8	15347.5	15084.7	10005.3
77.5°	783.4	788.4	783.4	805.3	904.7	967.0	1270.3	5866.1	9301.1	8960.8	5022.0
80°	643.5	652.0	660.4	673.9	773.3	734.5	763.2	2673.6	3440.1	3367.7	1551.6
82.5°	483.5	495.3	508.8	540.8	608.2	485.2	481.8	1142.2	1241.6	1137.2	571.1
85°	195.4	230.8	348.7	380.7	382.4	266.2	296.5	476.8	507.1	495.3	224.1
87.5°	45.5	53.9	112.9	170.2	156.7	99.4	109.5	155.0	176.9	163.4	75.8
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°	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9	2885.9
2.5°	2943.1	2884.2	2783.1	2705.6	2650.0	2601.2	2570.8	2552.3	2545.6	2543.9	2545.6
5°	3042.5	2938.1	2778.0	2677.0	2621.4	2589.4	2570.8	2569.1	2570.8	2572.5	2567.5
7.5°	3179.0	3029.1	2820.2	2725.8	2683.7	2660.1	2651.7	2648.3	2650.0	2648.3	2648.3
10°	3360.9	3155.4	2902.7	2805.0	2769.6	2742.7	2729.2	2720.8	2714.0	2707.3	2703.9
12.5°	3561.4	3295.2	2992.0	2897.7	2847.1	2805.0	2774.7	2752.8	2737.6	2722.5	2719.1
15°	3785.5	3443.5	3091.4	2960.0	2887.6	2825.2	2773.0	2737.6	2710.7	2688.8	2687.1
17.5°	3999.4	3583.3	3158.8	2988.6	2882.5	2794.9	2725.8	2677.0	2643.3	2614.6	2611.3
20°	4228.6	3716.4	3189.1	2970.1	2832.0	2725.8	2634.8	2575.9	2537.1	2505.1	2500.1
22.5°	4459.4	3829.3	3185.7	2911.1	2744.4	2619.7	2523.7	2461.3	2415.8	2383.8	2372.0
25°	4680.1	3920.3	3143.6	2816.8	2623.1	2493.3	2395.6	2338.3	2297.9	2259.2	2259.2
27.5°	4878.8	3974.2	3064.4	2702.2	2498.4	2361.9	2284.4	2232.2	2195.1	2169.9	2154.7
30°	5074.3	3999.4	2956.6	2557.4	2367.0	2250.7	2188.4	2158.1	2124.4	2095.7	2092.4
32.5°	5249.5	3994.4	2821.8	2415.8	2242.3	2159.8	2134.5	2110.9	2075.5	2035.1	2025.0
35°	5419.6	3960.7	2661.8	2260.8	2137.9	2105.9	2112.6	2078.9	2014.9	1964.3	1955.9
37.5°	5604.9	3900.0	2486.6	2134.5	2050.3	2080.6	2097.4	2023.3	1918.9	1839.7	1821.1
40°	5818.9	3831.0	2304.6	2008.1	1981.2	2057.0	2057.0	1920.5	1777.3	1728.5	1715.0
42.5°	6069.9	3773.7	2153.0	1902.0	1923.9	1999.7	1991.3	1784.1	1725.1	1699.8	1693.1
45°	6467.5	3753.5	1996.4	1809.4	1876.7	1932.3	1863.3	1736.9	1703.2	1683.0	1676.3
47.5°	7095.9	3777.1	1858.2	1740.3	1822.8	1864.9	1720.1	1704.9	1681.3	1652.7	1649.3
50°	7678.8	3755.2	1760.5	1701.5	1775.7	1784.1	1661.1	1666.2	1652.7	1620.7	1613.9
52.5°	8155.6	3686.1	1698.2	1681.3	1735.2	1642.6	1605.5	1624.0	1619.0	1578.6	1571.8
55°	8679.5	3644.0	1667.8	1681.3	1708.3	1519.6	1553.3	1580.2	1573.5	1544.9	1543.2
57.5°	9314.6	3652.4	1645.9	1686.4	1681.3	1457.3	1501.1	1533.1	1531.4	1523.0	1523.0
60°	9964.9	3655.8	1612.2	1684.7	1649.3	1408.4	1447.1	1492.6	1496.0	1501.1	1501.1
62.5°	10180.6	3509.2	1546.5	1654.4	1578.6	1361.2	1396.6	1458.9	1455.6	1469.0	1470.7
65°	9777.9	3103.2	1448.8	1585.3	1487.6	1327.5	1357.9	1415.1	1396.6	1432.0	1438.7
67.5°	8900.2	2567.5	1297.2	1460.6	1386.5	1292.2	1332.6	1354.5	1320.8	1389.9	1391.6
70°	7692.3	2004.8	1105.2	1283.7	1271.9	1255.1	1312.4	1278.7	1231.5	1315.7	1298.9
72.5°	6432.1	1531.4	882.8	1049.6	1118.6	1199.5	1277.0	1181.0	1115.3	1140.5	1110.2
75°	4831.7	1132.1	709.3	822.1	931.6	1120.3	1245.0	1063.0	962.0	938.4	931.6
77.5°	2463.0	739.6	530.7	614.9	699.1	1012.5	1201.2	924.9	796.9	759.8	742.9
80°	879.4	459.9	374.0	424.5	471.7	871.0	1049.6	764.8	618.3	611.5	618.3
82.5°	407.7	296.5	251.0	278.0	279.7	581.2	800.2	571.1	470.0	714.3	603.1
85°	175.2	148.3	141.5	138.1	128.0	259.4	449.8	306.6	478.5	214.0	197.1
87.5°	52.2	59.0	52.2	38.7	28.6	28.6	45.5	16.8	11.8	8.4	8.4
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)