

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: P300463

Luminaire Tested: **GAA-AF-09-LED-U-AFL-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300463
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-09-LED-U-AFL-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31140.6 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 290
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: 28.75 FT

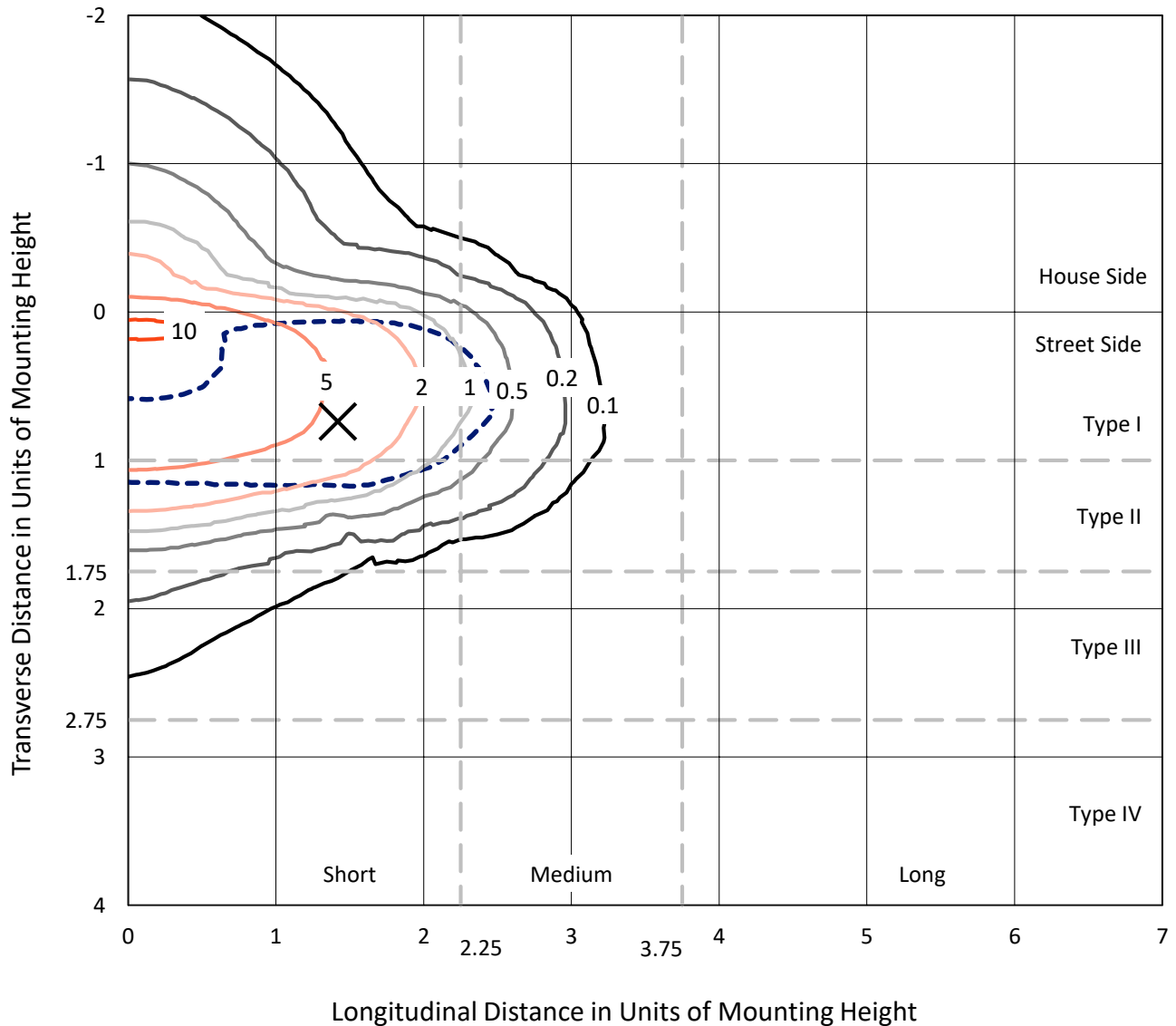


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Iso-Footcandle Lines of Horizontal Illumination

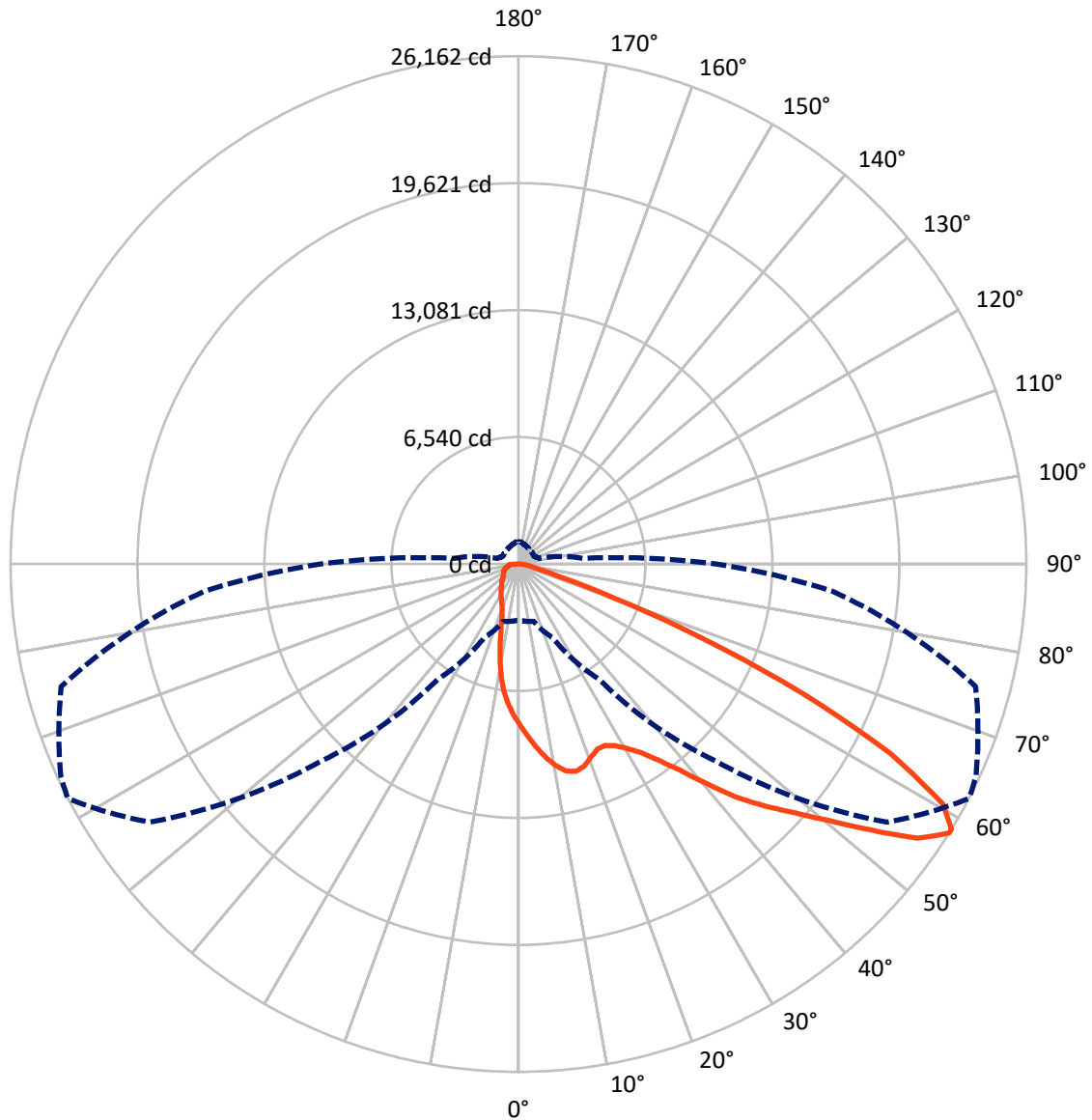
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4749.1	0.0	4749.1
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	26391.5	0.0	26391.5
	% Fixture	84.7	0.0	84.7
Total	Lumens	31140.6	0.0	31140.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	739.8	2.4
10°-20°	1891.0	6.1
20°-30°	3056.9	9.8
30°-40°	4852.8	15.6
40°-50°	7100.7	22.8
50°-60°	7426.7	23.8
60°-70°	4387.7	14.1
70°-80°	1236.0	4.0
80°-90°	448.8	1.4
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°	31140.6	100.0
0°-180°	31140.6	100.0

Coefficient of Utilization



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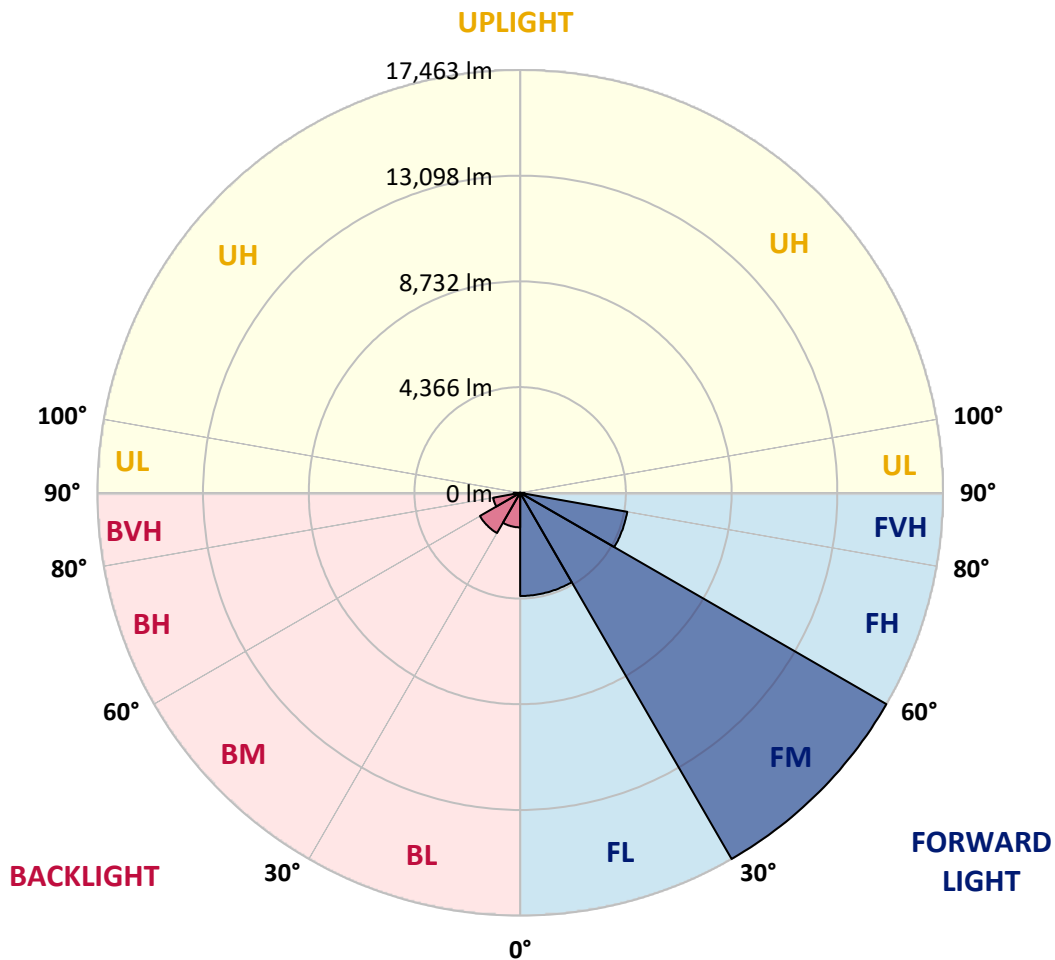
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4260.4	13.7			
FM	(30°-60°)	17463.5	56.1			
FH	(60°-80°)	4490.6	14.4			G2/5000
FVH	(80°-90°)	177.0	0.6			G2/225
BL	(0°-30°)	1427.3	4.6	B3/2500		
BM	(30°-60°)	1916.8	6.2	B2/2500		
BH	(60°-80°)	1133.2	3.6	B3/2500		G3/2500
BVH	(80°-90°)	271.7	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9
2.5°	9452.3	9376.0	9327.6	9285.1	9229.4	9110.6	8950.8	8849.6	8798.3	8623.8	8417.0
5°	10379.0	10311.6	10261.7	10204.5	10104.8	9918.6	9660.5	9455.2	9354.0	9005.0	8591.5
7.5°	10162.0	10189.9	10276.4	10427.4	10556.5	10531.5	10301.3	10040.3	9906.9	9421.5	8793.9
10°	8854.0	8902.4	9052.0	9405.4	9977.3	10563.8	10742.7	10562.3	10427.4	9833.6	9002.1
12.5°	8591.5	8590.1	8601.8	8695.6	9035.8	9861.4	10757.4	10939.2	10858.6	10226.5	9214.7
15°	8698.6	8701.5	8692.7	8732.3	8837.9	9164.9	10308.7	11084.4	11141.6	10622.5	9434.7
17.5°	8980.1	8972.8	8939.1	8939.1	8977.2	9104.8	9780.8	10949.5	11213.4	10972.9	9628.3
20°	9452.3	9418.6	9329.1	9247.0	9205.9	9274.9	9563.7	10638.6	11088.8	11279.4	9788.1
22.5°	10024.2	9997.8	9852.6	9676.6	9534.4	9532.9	9675.2	10367.3	10873.2	11568.3	9923.0
25°	10763.2	10720.7	10505.2	10223.6	9974.3	9879.0	9918.6	10354.1	10755.9	11882.1	10043.2
27.5°	11631.3	11553.6	11298.5	10892.3	10525.7	10333.6	10276.4	10593.1	10863.0	12270.7	10210.4
30°	12684.2	12594.7	12267.7	11738.4	11220.7	10905.5	10783.8	11016.9	11217.8	12744.3	10478.8
32.5°	13882.2	13753.2	13374.9	12791.2	12110.8	11629.9	11431.9	11577.1	11736.9	13314.7	10814.6
35°	15537.8	15383.8	14836.8	14031.8	13263.4	12602.1	12285.3	12390.9	12546.4	14165.2	11299.9
37.5°	16666.9	16598.0	16234.3	15477.7	14641.8	13880.8	13391.0	13452.6	13540.6	15228.4	11921.7
40°	16656.6	16684.5	16691.8	16699.1	16130.2	15401.4	14875.0	14810.4	14792.9	16395.6	12628.5
42.5°	15822.3	15936.6	16306.2	17055.5	17401.5	17067.2	16584.8	16398.5	16306.2	17771.1	13377.8
45°	14545.0	14606.6	15298.8	16762.2	18052.6	18716.9	18351.8	17765.2	17598.0	19035.1	13999.5
47.5°	13886.6	13954.1	14389.6	15985.0	18045.3	20049.8	20261.0	19143.6	18844.5	20134.9	14536.2
50°	12319.1	12459.8	13008.3	14633.0	17386.9	20662.8	22256.7	20786.0	20167.1	21205.3	15074.4
52.5°	9440.6	9657.6	10272.0	12410.0	15716.7	20359.2	23853.6	22777.3	21903.3	22313.9	15536.3
55°	5955.0	6116.3	6632.4	8764.6	12572.8	18779.9	24459.2	24931.4	24154.2	23363.8	15936.6
57.5°	3237.8	3309.6	3503.2	4839.1	8178.0	15288.5	23576.5	26157.3	25834.7	24255.4	16238.7
58°	2897.6	2946.0	3066.2	4193.8	7252.7	14333.9	23185.0	26161.7	26000.4	24385.9	16262.2
60°	2149.7	2124.8	2017.7	2393.1	4036.9	9902.5	20818.2	25114.7	25588.3	24545.8	16147.8
62.5°	1888.7	1828.6	1610.1	1585.2	1963.5	4561.9	15929.3	21513.3	22632.1	23633.7	15452.7
65°	1774.3	1709.8	1428.3	1337.3	1416.5	1929.8	9383.4	16134.6	17537.9	20868.1	13675.5
67.5°	1689.3	1605.7	1312.4	1187.8	1193.6	1275.8	3761.3	10162.0	11741.3	15844.2	10637.1
70°	1607.2	1516.2	1214.2	1070.5	1036.7	1008.9	1495.7	5086.9	6519.5	10008.1	6782.0
72.5°	1519.2	1429.7	1127.6	978.1	912.1	819.7	976.6	2080.8	2906.4	4734.9	3076.5
75°	1391.6	1310.9	1041.1	896.0	802.1	678.9	737.6	1086.6	1303.6	1885.8	1482.5
77.5°	1234.7	1168.7	944.3	828.5	711.2	551.4	567.5	753.7	835.8	1079.3	881.3
80°	887.2	910.6	840.2	744.9	633.5	447.2	435.5	549.9	593.9	693.6	573.4
82.5°	623.2	636.4	695.1	608.5	523.5	351.9	321.1	387.1	413.5	456.0	309.4
85°	429.6	415.0	476.6	423.8	378.3	234.6	220.0	262.5	278.6	283.0	159.8
87.5°	258.1	258.1	275.7	227.3	203.8	121.7	118.8	149.6	159.8	152.5	88.0
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°	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9	8271.9
2.5°	8293.9	8189.7	7968.3	7790.9	7566.5	7333.4	7202.9	7063.6	6968.2	6899.3	7009.3
5°	8356.9	8144.3	7686.8	7252.7	6773.2	6274.6	5896.3	5544.4	5299.5	5147.0	5290.7
7.5°	8456.6	8129.6	7400.8	6658.8	5798.1	4968.1	4226.1	3761.3	3490.0	3356.5	3440.1
10°	8571.0	8106.2	7065.0	5853.8	4622.0	3576.5	3022.2	2834.5	2772.9	2748.0	2759.7
12.5°	8666.3	8056.3	6653.0	4880.1	3470.9	2824.2	2664.4	2660.0	2673.2	2676.1	2680.5
15°	8733.8	7983.0	6041.5	3865.4	2775.9	2573.5	2564.7	2591.1	2616.0	2626.3	2632.2
17.5°	8779.2	7831.9	5350.8	3055.9	2487.0	2451.8	2472.3	2506.0	2532.4	2539.8	2545.6
20°	8774.8	7610.5	4528.2	2548.6	2330.1	2330.1	2365.3	2391.7	2393.1	2384.3	2388.7
22.5°	8729.4	7307.0	3730.5	2278.8	2190.8	2215.7	2250.9	2226.0	2123.3	2055.9	2060.3
25°	8653.1	6944.8	3047.1	2107.2	2061.7	2105.7	2095.5	1907.8	1761.1	1695.1	1695.1
27.5°	8585.7	6516.6	2522.2	1957.6	1932.7	1986.9	1805.1	1635.0	1573.4	1542.6	1532.4
30°	8537.3	6054.7	2171.7	1813.9	1811.0	1771.4	1566.1	1519.2	1508.9	1484.0	1475.2
32.5°	8549.0	5586.9	1947.4	1687.8	1698.1	1516.2	1451.7	1462.0	1453.2	1426.8	1415.1
35°	8645.8	5142.6	1800.7	1573.4	1542.6	1369.6	1384.3	1403.3	1400.4	1363.7	1352.0
37.5°	8818.8	4721.7	1703.9	1478.1	1346.1	1296.3	1319.7	1349.1	1341.7	1316.8	1308.0
40°	9000.6	4325.8	1624.8	1403.3	1230.3	1246.4	1267.0	1283.1	1290.4	1297.7	1291.9
42.5°	9178.1	3912.3	1528.0	1327.1	1181.9	1199.5	1208.3	1224.4	1264.0	1291.9	1290.4
45°	9283.7	3523.7	1428.3	1218.6	1143.8	1154.0	1148.2	1180.4	1228.8	1274.3	1275.8
47.5°	9401.0	3221.6	1349.1	1118.8	1107.1	1114.4	1096.9	1129.1	1173.1	1228.8	1234.7
50°	9543.2	3041.3	1286.0	1039.7	1057.3	1057.3	1052.9	1082.2	1143.8	1208.3	1220.0
52.5°	9704.5	3006.1	1233.2	982.5	1007.4	1005.9	1010.3	1054.3	1121.8	1184.8	1195.1
55°	9901.0	3101.4	1176.0	940.0	959.0	964.9	979.5	1029.4	1086.6	1158.4	1162.8
57.5°	10129.8	3295.0	1130.6	906.2	915.0	934.1	957.5	1003.0	1064.6	1143.8	1148.2
58°	10167.9	3336.0	1123.2	903.3	906.2	928.2	954.6	998.6	1060.2	1146.7	1151.1
60°	10169.4	3472.4	1107.1	890.1	872.5	909.2	938.5	982.5	1052.9	1157.0	1167.2
62.5°	9808.6	3470.9	1095.4	871.0	837.3	882.8	916.5	967.8	1045.5	1181.9	1202.4
65°	8637.0	3154.2	1039.7	841.7	809.4	859.3	897.4	957.5	1066.1	1290.4	1303.6
67.5°	6755.6	2585.2	935.6	800.6	772.8	835.8	885.7	956.1	1088.1	1315.3	1324.1
70°	4466.6	1934.2	821.2	753.7	734.7	808.0	891.6	1005.9	1063.1	1262.6	1239.1
72.5°	2318.3	1357.9	728.8	695.1	690.7	783.0	976.6	1000.1	1038.2	1187.8	1158.4
75°	1217.1	942.9	648.1	630.5	637.9	777.2	1152.6	973.7	1005.9	1136.4	1192.2
77.5°	744.9	761.1	579.2	571.9	586.6	759.6	1151.1	940.0	959.0	1045.5	1107.1
80°	498.6	617.3	526.4	527.9	538.2	695.1	1033.8	887.2	901.8	988.3	1051.4
82.5°	315.3	365.1	478.0	503.0	489.8	573.4	878.4	808.0	828.5	1130.6	1195.1
85°	159.8	228.8	415.0	483.9	441.4	401.8	712.7	708.3	718.5	815.3	852.0
87.5°	73.3	126.1	324.1	422.3	332.9	250.8	517.6	525.0	566.0	579.2	579.2
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)