

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: P300322

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300322
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: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-AFL
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30417.3 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 279
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: 25 FT

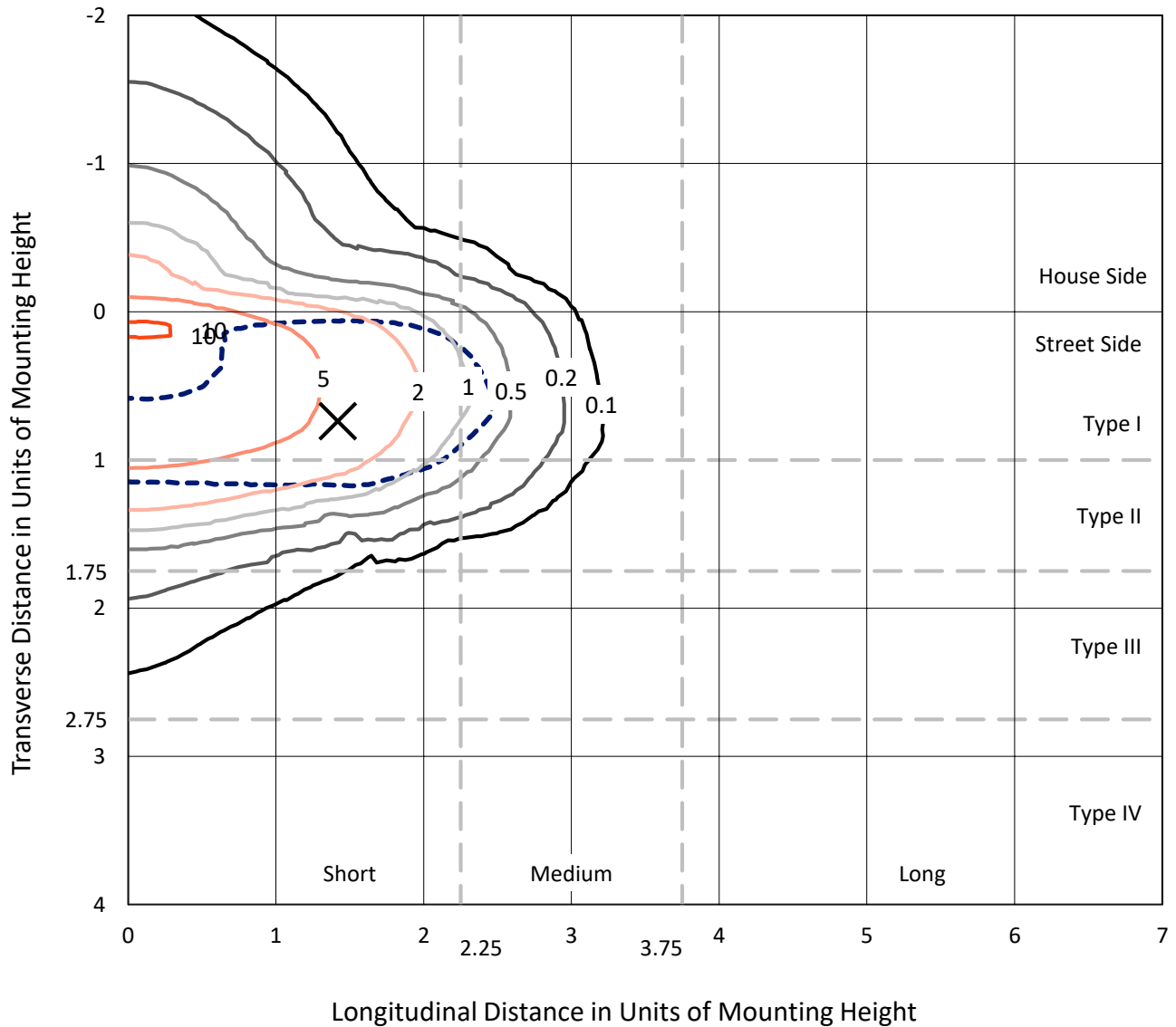


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

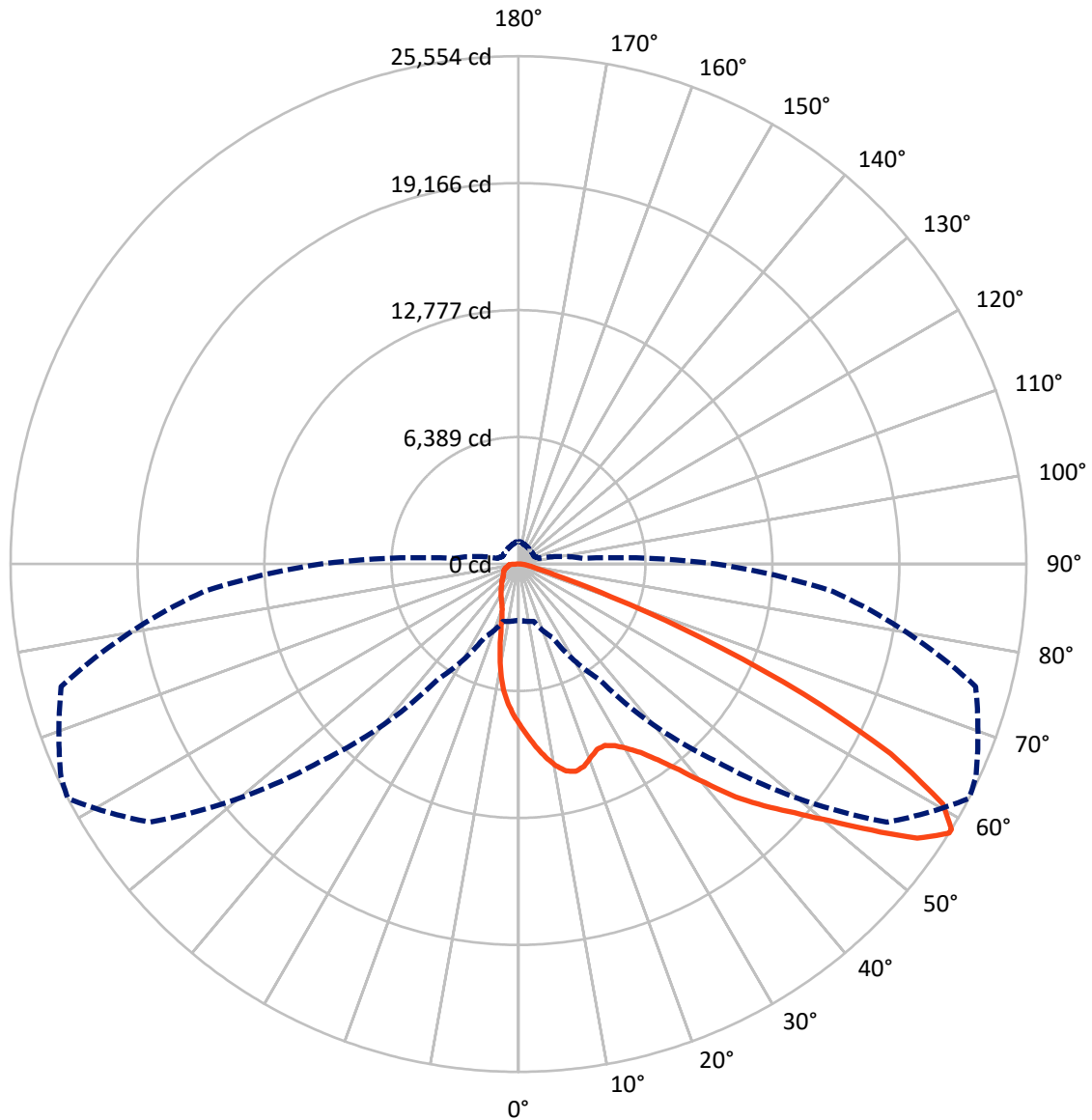


Based on 30 foot mounting height. Maximum calculated value = 10.9 fc
 Type II - Short - Full Cutoff

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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	4638.8	0.0	4638.8
	% Fixture	15.3	0.0	15.3
Street Side	Lumens	25778.6	0.0	25778.6
	% Fixture	84.7	0.0	84.7
Total	Lumens	30417.3	0.0	30417.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	722.6	2.4
10°-20°	1847.1	6.1
20°-30°	2985.9	9.8
30°-40°	4740.1	15.6
40°-50°	6935.8	22.8
50°-60°	7254.3	23.8
60°-70°	4285.8	14.1
70°-80°	1207.3	4.0
80°-90°	438.3	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°	30417.3	100.0
0°-180°	30417.3	100.0

Coefficient of Utilization



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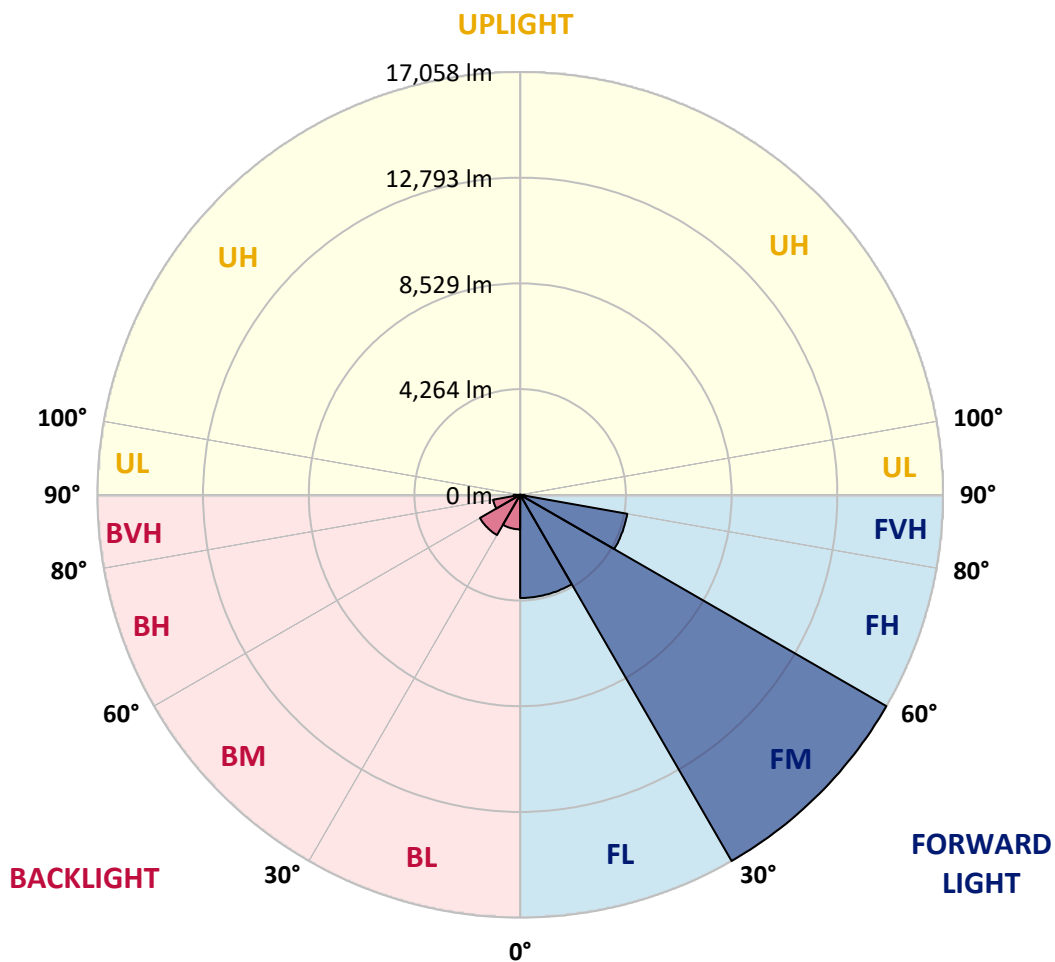
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4161.5	13.7			
FM (30°-60°)	17057.9	56.1			
FH (60°-80°)	4386.3	14.4			G2/5000
FVH (80°-90°)	172.9	0.6			G2/225
BL (0°-30°)	1394.2	4.6	B3/2500		
BM (30°-60°)	1872.3	6.2	B2/2500		
BH (60°-80°)	1106.8	3.6	B3/2500		G3/2500
BVH (80°-90°)	265.4	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°	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7
2.5°	9232.8	9158.3	9111.0	9069.5	9015.0	8899.0	8742.9	8644.1	8593.9	8423.5	8221.5
5°	10138.0	10072.1	10023.4	9967.5	9870.1	9688.2	9436.1	9235.6	9136.8	8795.9	8392.0
7.5°	9926.0	9953.2	10037.7	10185.3	10311.3	10286.9	10062.1	9807.1	9676.8	9202.7	8589.6
10°	8648.4	8695.6	8841.7	9186.9	9745.5	10318.5	10493.2	10317.0	10185.3	9605.2	8793.0
12.5°	8392.0	8390.6	8402.0	8493.7	8826.0	9632.4	10507.5	10685.1	10606.4	9989.0	9000.7
15°	8496.5	8499.4	8490.8	8529.5	8632.6	8952.0	10069.2	10826.9	10882.8	10375.8	9215.6
17.5°	8771.5	8764.4	8731.4	8731.4	8768.7	8893.3	9553.6	10695.2	10953.0	10718.1	9404.6
20°	9232.8	9199.8	9112.4	9032.2	8992.1	9059.4	9341.6	10391.5	10831.2	11017.4	9560.8
22.5°	9791.4	9765.6	9623.8	9451.9	9313.0	9311.5	9450.5	10126.5	10620.7	11299.6	9692.5
25°	10513.3	10471.7	10261.2	9986.2	9742.7	9649.6	9688.2	10113.6	10506.1	11606.1	9810.0
27.5°	11361.2	11285.3	11036.1	10639.3	10281.2	10093.6	10037.7	10347.1	10610.7	11985.7	9973.3
30°	12389.6	12302.2	11982.8	11465.8	10960.1	10652.2	10533.3	10761.0	10957.3	12448.3	10235.4
32.5°	13559.8	13433.8	13064.2	12494.2	11829.6	11359.8	11166.4	11308.2	11464.3	13005.5	10563.4
35°	15176.9	15026.5	14492.3	13705.9	12955.4	12309.4	12000.0	12103.1	12255.0	13836.2	11037.5
37.5°	16279.8	16212.5	15857.3	15118.2	14301.8	13558.4	13080.0	13140.1	13226.1	14874.7	11644.8
40°	16269.8	16297.0	16304.1	16311.3	15755.6	15043.7	14529.5	14466.5	14449.3	16014.8	12335.2
42.5°	15454.8	15566.5	15927.4	16659.4	16997.4	16670.8	16199.6	16017.7	15927.4	17358.3	13067.1
45°	14207.2	14267.4	14943.4	16372.9	17633.3	18282.2	17925.5	17352.6	17189.3	18593.0	13674.4
47.5°	13564.1	13630.0	14055.4	15613.8	17626.2	19584.2	19790.4	18699.0	18406.8	19667.2	14198.6
50°	12033.0	12170.5	12706.1	14293.2	16983.1	20182.9	21739.8	20303.2	19698.7	20712.8	14724.3
52.5°	9221.3	9433.3	10033.4	12121.8	15351.6	19886.4	23299.6	22248.3	21394.6	21795.7	15175.5
55°	5816.7	5974.2	6478.4	8561.0	12280.7	18343.8	23891.2	24352.4	23593.2	22821.2	15566.5
57.5°	3162.6	3232.8	3421.8	4726.7	7988.1	14933.4	23028.9	25549.8	25234.7	23692.1	15861.6
58°	2830.3	2877.5	2995.0	4096.4	7084.3	14001.0	22646.5	25554.1	25396.5	23819.5	15884.5
60°	2099.8	2075.4	1970.9	2337.6	3943.2	9672.5	20334.7	24531.4	24994.0	23975.7	15772.7
62.5°	1844.8	1786.1	1572.7	1548.3	1917.9	4456.0	15559.3	21013.6	22106.5	23084.8	15093.8
65°	1733.1	1670.1	1395.1	1306.3	1383.6	1884.9	9165.4	15759.9	17130.6	20383.4	13357.8
67.5°	1650.0	1568.4	1281.9	1160.2	1165.9	1246.1	3673.9	9926.0	11468.6	15476.3	10390.1
70°	1569.8	1481.0	1186.0	1045.6	1012.7	985.4	1461.0	4968.7	6368.1	9775.6	6624.5
72.5°	1483.9	1396.5	1101.5	955.4	890.9	800.7	953.9	2032.5	2838.9	4625.0	3005.0
75°	1359.3	1280.5	1016.9	875.1	783.5	663.2	720.5	1061.4	1273.3	1842.0	1448.1
77.5°	1206.0	1141.6	922.4	809.3	694.7	538.6	554.3	736.2	816.4	1054.2	860.8
80°	866.6	889.5	820.7	727.6	618.8	436.9	425.4	537.1	580.1	677.5	560.0
82.5°	608.7	621.6	678.9	594.4	511.3	343.8	313.7	378.1	403.9	445.5	302.2
85°	419.7	405.3	465.5	413.9	369.5	229.2	214.8	256.4	272.1	276.4	156.1
87.5°	252.1	252.1	269.3	222.0	199.1	118.9	116.0	146.1	156.1	149.0	85.9
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°	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7	8079.7
2.5°	8101.2	7999.5	7783.2	7609.9	7390.8	7163.1	7035.6	6899.5	6806.4	6739.1	6846.5
5°	8162.8	7955.1	7508.2	7084.3	6615.9	6128.9	5759.4	5415.6	5176.4	5027.5	5167.8
7.5°	8260.2	7940.8	7228.9	6504.2	5663.4	4852.7	4128.0	3673.9	3408.9	3278.6	3360.2
10°	8371.9	7917.9	6900.9	5717.8	4514.7	3493.4	2952.0	2768.7	2708.5	2684.2	2695.6
12.5°	8465.0	7869.2	6498.5	4766.8	3390.3	2758.7	2602.5	2598.2	2611.1	2614.0	2618.3
15°	8530.9	7797.6	5901.2	3775.6	2711.4	2513.7	2505.1	2530.9	2555.3	2565.3	2571.0
17.5°	8575.3	7650.0	5226.5	2985.0	2429.2	2394.8	2414.9	2447.8	2473.6	2480.8	2486.5
20°	8571.0	7433.8	4423.0	2489.4	2276.0	2276.0	2310.3	2336.1	2337.6	2329.0	2333.3
22.5°	8526.6	7137.3	3643.8	2225.8	2139.9	2164.2	2198.6	2174.3	2074.0	2008.1	2012.4
25°	8452.1	6783.5	2976.4	2058.2	2013.8	2056.8	2046.8	1863.5	1720.2	1655.8	1655.8
27.5°	8386.3	6365.2	2463.6	1912.2	1887.8	1940.8	1763.2	1597.0	1536.9	1506.8	1496.8
30°	8339.0	5914.1	2121.3	1771.8	1768.9	1730.2	1529.7	1483.9	1473.9	1449.5	1440.9
32.5°	8350.4	5457.2	1902.1	1648.6	1658.6	1481.0	1418.0	1428.0	1419.4	1393.7	1382.2
35°	8445.0	5023.2	1758.9	1536.9	1506.8	1337.8	1352.1	1370.7	1367.9	1332.1	1320.6
37.5°	8614.0	4612.1	1664.4	1443.8	1314.9	1266.2	1289.1	1317.7	1310.6	1286.2	1277.6
40°	8791.6	4225.4	1587.0	1370.7	1201.7	1217.5	1237.5	1253.3	1260.4	1267.6	1261.9
42.5°	8964.9	3821.4	1492.5	1296.3	1154.5	1171.6	1180.2	1196.0	1234.7	1261.9	1260.4
45°	9068.0	3441.9	1395.1	1190.3	1117.2	1127.2	1121.5	1153.0	1200.3	1244.7	1246.1
47.5°	9182.6	3146.8	1317.7	1092.9	1081.4	1088.6	1071.4	1102.9	1145.9	1200.3	1206.0
50°	9321.6	2970.6	1256.1	1015.5	1032.7	1032.7	1028.4	1057.1	1117.2	1180.2	1191.7
52.5°	9479.1	2936.3	1204.6	959.7	984.0	982.6	986.9	1029.8	1095.7	1157.3	1167.3
55°	9671.0	3029.4	1148.7	918.1	936.7	942.5	956.8	1005.5	1061.4	1131.5	1135.8
57.5°	9894.5	3218.4	1104.3	885.2	893.8	912.4	935.3	979.7	1039.9	1117.2	1121.5
58°	9931.7	3258.5	1097.2	882.3	885.2	906.7	932.4	975.4	1035.6	1120.1	1124.4
60°	9933.2	3391.7	1081.4	869.4	852.2	888.0	916.7	959.7	1028.4	1130.1	1140.1
62.5°	9580.8	3390.3	1069.9	850.8	817.9	862.3	895.2	945.3	1021.2	1154.5	1174.5
65°	8436.4	3080.9	1015.5	822.2	790.6	839.3	876.6	935.3	1041.3	1260.4	1273.3
67.5°	6598.7	2525.2	913.8	782.0	754.8	816.4	865.1	933.9	1062.8	1284.8	1293.4
70°	4362.9	1889.2	802.1	736.2	717.6	789.2	870.9	982.6	1038.4	1233.2	1210.3
72.5°	2264.5	1326.3	711.9	678.9	674.6	764.9	953.9	976.8	1014.1	1160.2	1131.5
75°	1188.8	921.0	633.1	615.9	623.1	759.1	1125.8	951.1	982.6	1110.1	1164.5
77.5°	727.6	743.4	565.8	558.6	572.9	741.9	1124.4	918.1	936.7	1021.2	1081.4
80°	487.0	603.0	514.2	515.6	525.7	678.9	1009.8	866.6	880.9	965.4	1027.0
82.5°	307.9	356.6	466.9	491.3	478.4	560.0	858.0	789.2	809.3	1104.3	1167.3
85°	156.1	223.4	405.3	472.7	431.1	392.5	696.1	691.8	701.8	796.4	832.2
87.5°	71.6	123.2	316.5	412.5	325.1	244.9	505.6	512.8	552.9	565.8	565.8
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)