

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: P299101

Luminaire Tested: **GLNA-AF-02-LED-E1-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-T3-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10546.8 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

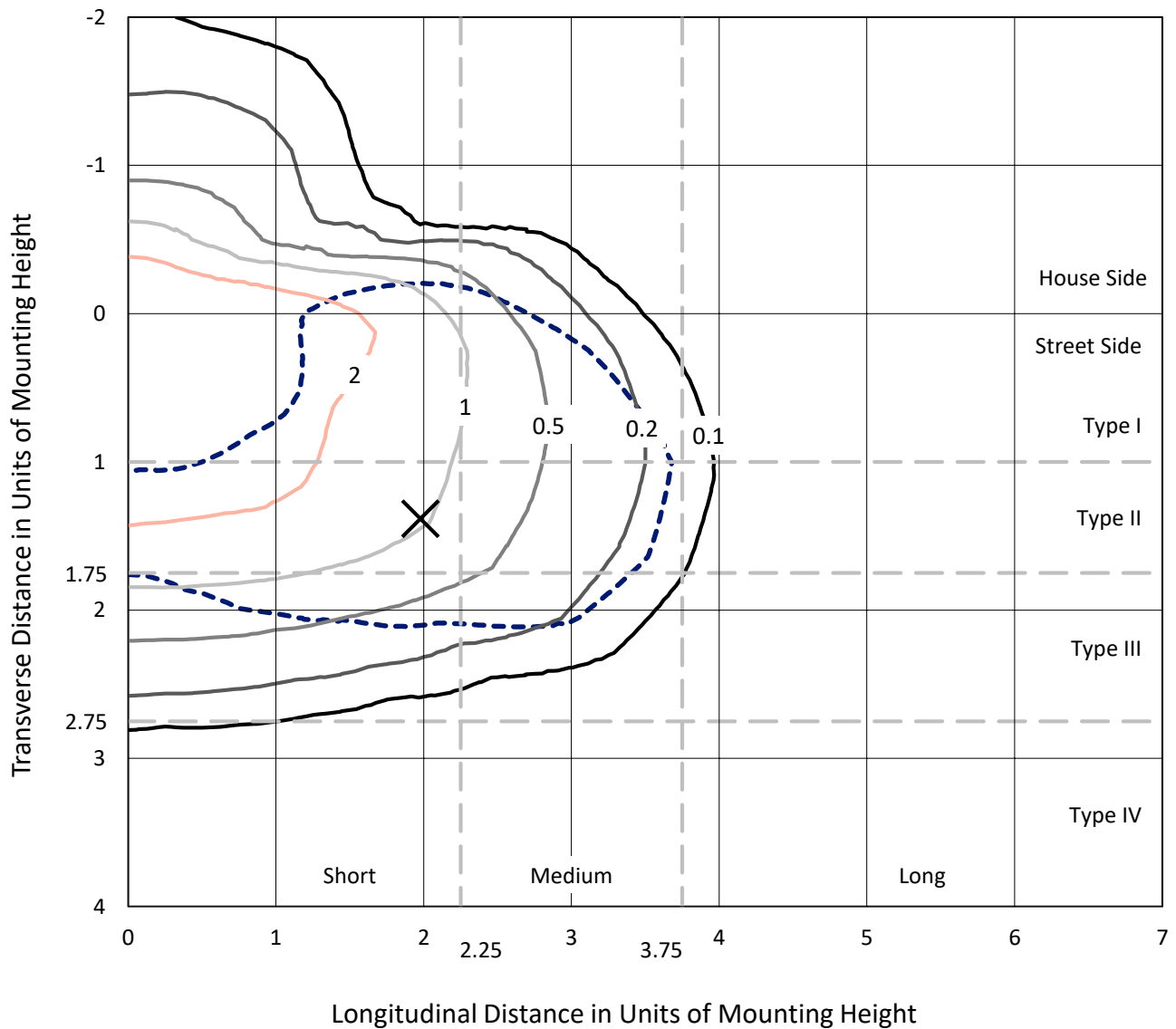
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

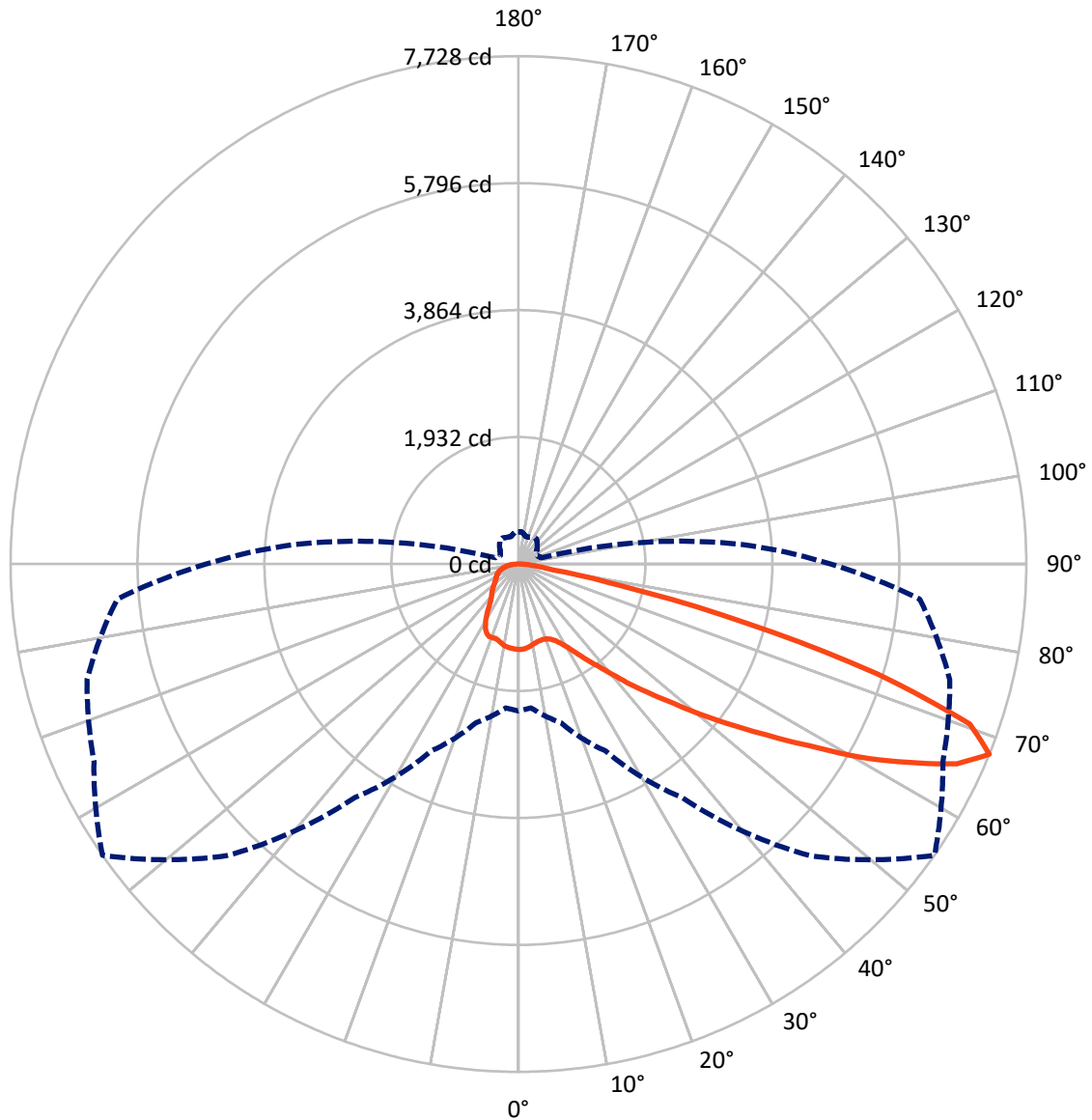
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2278.3	0.0	2278.3
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	8268.5	0.0	8268.5
	% Fixture	78.4	0.0	78.4
Total	Lumens	10546.8	0.0	10546.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.4	1.2
10°-20°	343.8	3.3
20°-30°	575.9	5.5
30°-40°	947.0	9.0
40°-50°	1594.2	15.1
50°-60°	2509.1	23.8
60°-70°	2994.3	28.4
70°-80°	1285.8	12.2
80°-90°	175.3	1.7
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°	10546.8	100.0
0°-180°	10546.8	100.0



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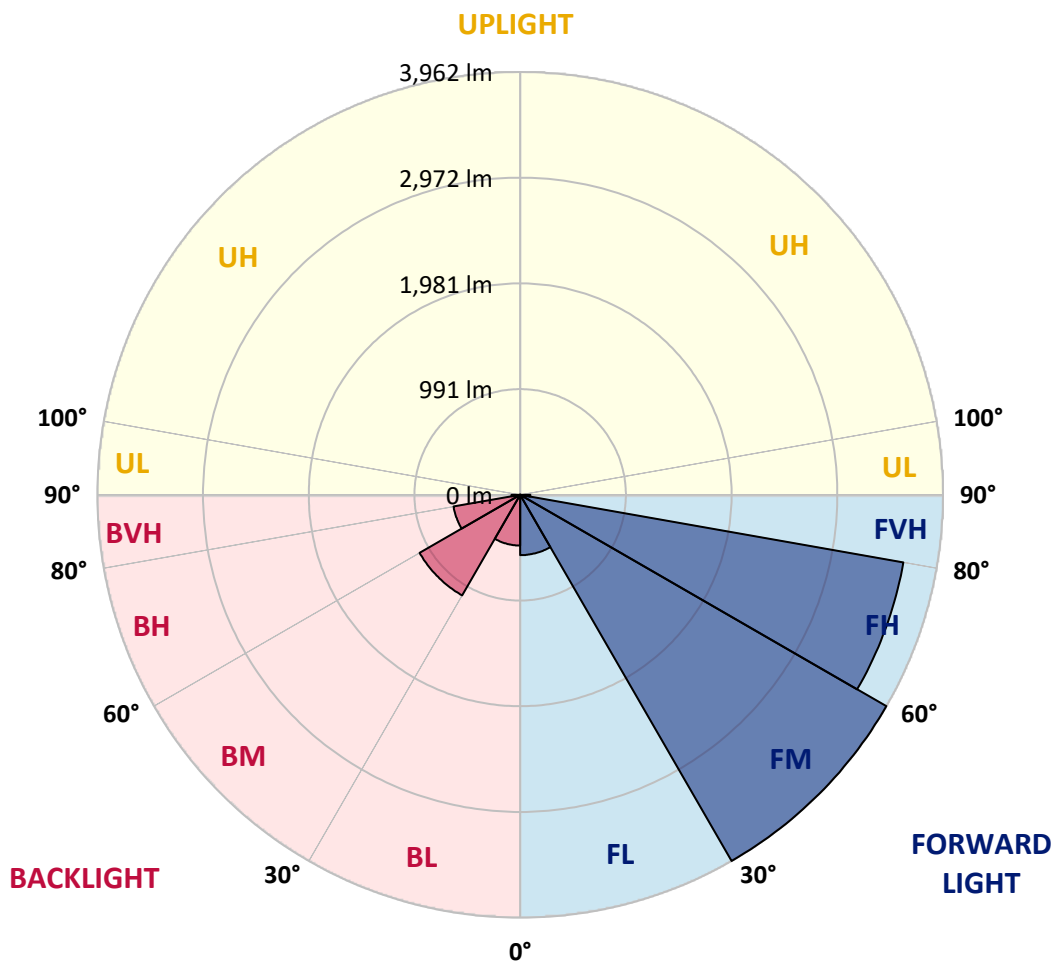
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	565.3	5.4			
FM	(30°-60°)	3962.2	37.6			
FH	(60°-80°)	3646.1	34.6			G2/5000
FVH	(80°-90°)	94.9	0.9			G1/100
BL	(0°-30°)	475.8	4.5	B1/500		
BM	(30°-60°)	1088.1	10.3	B2/2500		
BH	(60°-80°)	634.1	6.0	B2/1000		G2/1000
BVH	(80°-90°)	80.4	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5
2.5°	1289.3	1289.8	1290.9	1294.9	1298.5	1297.5	1298.0	1296.0	1295.4	1292.4	1295.4
5°	1273.0	1274.6	1275.1	1281.7	1285.8	1286.8	1285.3	1282.7	1279.7	1276.6	1278.1
7.5°	1235.8	1239.9	1240.4	1249.6	1256.2	1264.9	1265.4	1265.9	1264.4	1262.3	1265.4
10°	1212.4	1213.4	1212.9	1219.5	1224.6	1234.3	1239.9	1249.6	1253.7	1254.7	1256.7
12.5°	1210.9	1209.9	1208.3	1208.3	1206.8	1210.9	1221.1	1234.8	1244.5	1247.6	1250.1
15°	1227.2	1226.7	1221.6	1213.9	1204.3	1201.2	1209.9	1225.1	1237.9	1244.5	1247.0
17.5°	1263.9	1260.8	1252.7	1235.3	1214.4	1206.3	1207.3	1220.1	1234.8	1243.5	1246.0
20°	1331.1	1331.1	1313.8	1281.2	1244.0	1224.6	1215.5	1223.1	1237.4	1249.1	1252.7
22.5°	1447.2	1448.3	1419.2	1365.7	1303.1	1261.8	1238.9	1237.4	1254.2	1267.4	1271.5
25°	1611.8	1607.7	1567.0	1490.5	1395.3	1327.0	1287.3	1278.1	1292.4	1307.2	1312.3
27.5°	1803.3	1788.6	1740.2	1648.0	1524.7	1424.8	1363.7	1348.9	1362.7	1379.5	1384.6
30°	1992.8	1977.6	1920.0	1819.1	1682.1	1555.8	1468.1	1444.2	1463.6	1487.5	1490.5
32.5°	2182.3	2182.3	2118.1	2000.5	1851.2	1712.1	1607.2	1578.7	1610.8	1639.8	1646.4
35°	2409.0	2410.0	2347.9	2206.3	2045.8	1898.6	1783.0	1762.1	1810.5	1830.8	1846.6
37.5°	2687.7	2693.3	2613.3	2442.1	2266.4	2111.5	1974.0	1945.5	1993.9	2049.4	2100.3
40°	2988.7	2995.9	2907.7	2696.8	2521.1	2359.1	2210.4	2158.9	2239.4	2345.3	2411.1
42.5°	3276.1	3312.7	3227.7	3010.6	2821.7	2654.1	2503.3	2428.4	2529.2	2689.2	2746.3
45°	3691.2	3717.7	3569.5	3372.8	3195.1	3007.6	2807.9	2728.9	2870.0	3071.8	3083.5
47.5°	3967.8	3948.0	3872.6	3750.3	3637.7	3462.5	3161.9	3075.3	3262.8	3500.2	3434.5
50°	4115.1	4121.2	4111.0	4118.1	4122.2	4012.2	3596.0	3477.3	3700.9	3987.7	3836.4
52.5°	4252.6	4211.8	4245.5	4412.6	4614.3	4573.5	4068.2	3944.4	4170.6	4528.7	4261.3
55°	4249.5	4187.4	4296.9	4591.9	5029.5	5076.3	4598.5	4455.9	4667.3	5108.9	4711.6
57.5°	4099.3	4102.3	4270.9	4657.1	5318.8	5549.1	5213.9	4999.9	5194.0	5696.8	5122.7
60°	3892.4	3920.5	4163.5	4646.4	5550.6	5936.7	5968.8	5586.3	5710.0	6231.2	5463.0
62.5°	3558.8	3588.3	3923.5	4535.3	5515.4	6310.1	6651.4	6251.5	6249.5	6555.2	5562.8
65°	3032.6	3023.9	3375.9	4120.2	5220.5	6586.2	7329.5	6826.7	6656.0	6560.3	5362.1
67.5°	2236.3	2197.6	2499.7	3138.0	4339.2	6277.0	7728.3	7126.2	6794.6	6128.8	4748.8
70°	1160.4	1121.7	1366.3	1832.4	2853.7	4899.0	7286.7	6971.4	6488.4	5137.5	3720.3
72.5°	496.2	489.5	588.9	803.9	1380.5	2825.7	5713.6	6034.0	5567.4	3827.7	2557.8
75°	333.7	331.6	368.8	438.1	621.0	1146.7	3575.6	4283.2	4073.3	2373.4	1438.6
77.5°	261.8	259.3	281.2	314.8	402.4	452.4	1586.8	2299.5	2128.3	1033.1	629.6
80°	204.8	202.7	216.5	234.8	289.3	285.3	522.2	914.9	708.1	395.8	306.2
82.5°	161.5	161.5	172.7	173.2	205.3	194.6	272.5	402.9	353.5	230.8	187.5
85°	147.7	147.7	159.4	129.4	134.0	122.8	169.1	238.9	224.1	94.8	81.5
87.5°	74.4	72.3	134.0	114.6	72.8	65.2	82.5	115.6	124.3	52.5	40.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5	1300.5
2.5°	1294.4	1293.9	1294.9	1295.4	1299.5	1305.1	1307.7	1311.2	1313.3	1312.3
5°	1279.1	1280.2	1284.2	1287.3	1294.4	1303.6	1308.7	1312.8	1316.3	1314.8
7.5°	1266.4	1269.0	1275.1	1277.6	1281.7	1284.2	1283.7	1285.3	1288.3	1284.7
10°	1259.3	1262.3	1266.9	1263.4	1253.7	1239.9	1227.2	1220.6	1222.6	1220.1
12.5°	1252.1	1256.2	1252.7	1235.8	1208.8	1191.0	1181.3	1182.4	1186.9	1188.0
15°	1248.1	1249.6	1234.3	1202.7	1175.2	1172.7	1177.8	1176.7	1177.3	1177.3
17.5°	1248.1	1244.0	1215.5	1183.9	1172.2	1167.6	1151.8	1131.9	1123.3	1120.2
20°	1254.7	1244.0	1209.4	1188.5	1163.0	1123.8	1082.0	1045.3	1029.0	1024.4
22.5°	1274.6	1256.2	1226.7	1190.5	1118.2	1052.5	986.2	942.4	912.9	907.8
25°	1314.8	1294.4	1260.8	1163.5	1046.8	953.1	877.7	828.8	799.3	795.2
27.5°	1385.1	1371.9	1279.1	1103.9	952.1	851.7	782.0	744.3	722.4	720.8
30°	1491.1	1484.4	1270.0	1015.8	835.4	753.4	719.8	697.9	681.6	681.1
32.5°	1660.2	1606.7	1239.9	908.3	729.0	683.6	669.9	656.6	643.9	643.9
35°	1877.7	1705.5	1182.9	793.2	664.3	644.9	627.6	606.7	589.9	588.9
37.5°	2133.4	1766.7	1080.5	700.4	633.7	618.9	593.5	562.4	532.8	527.8
40°	2391.7	1785.0	936.3	643.4	614.4	593.0	561.9	525.2	496.7	495.2
42.5°	2628.6	1749.8	783.5	604.2	595.0	566.5	533.9	501.3	478.9	478.3
45°	2827.3	1658.7	655.1	567.0	574.6	542.5	513.5	487.0	469.7	466.1
47.5°	3014.2	1529.8	564.9	527.8	554.2	529.3	504.8	479.9	463.1	460.5
50°	3231.2	1390.7	501.8	489.5	536.4	524.7	512.0	486.0	458.0	454.9
52.5°	3494.1	1270.5	452.4	455.9	522.7	530.8	530.3	503.3	454.4	450.3
55°	3787.5	1137.0	415.2	428.4	517.1	542.0	534.9	519.6	457.5	451.3
57.5°	4076.3	981.1	389.2	407.5	508.9	541.0	513.0	491.1	464.6	455.9
60°	4292.8	771.8	369.3	389.2	491.1	524.2	489.0	460.0	463.1	456.4
62.5°	4307.1	596.5	345.4	373.4	464.1	507.4	473.2	446.2	469.7	463.6
65°	4053.9	450.8	322.5	354.6	435.0	496.7	458.0	438.6	483.4	476.8
67.5°	3413.1	362.7	303.1	335.2	406.0	474.3	444.2	431.5	495.7	483.9
70°	2464.0	309.2	284.3	311.8	380.0	448.8	432.0	418.7	462.5	444.2
72.5°	1517.0	268.0	262.9	280.7	360.2	422.3	413.6	394.8	416.7	401.9
75°	757.5	232.3	238.9	250.1	332.1	392.2	383.1	364.2	367.3	364.2
77.5°	362.7	198.7	210.9	219.6	296.0	358.1	348.4	329.1	325.5	326.0
80°	229.7	166.1	177.8	183.9	264.4	318.4	308.7	289.3	330.1	306.2
82.5°	143.7	135.0	138.1	149.3	230.3	277.1	264.4	247.1	297.5	235.3
85°	79.5	94.2	98.3	108.0	177.3	231.8	219.0	197.1	176.8	173.7
87.5°	47.4	56.0	57.6	64.7	119.2	167.6	148.2	140.6	116.7	116.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)