

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: P302768

Luminaire Tested: **GLNA-AF-02-LED-E1-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302768  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
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-T4W-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10471.4 lumens  
Efficiency: N/A  
Efficacy: 92.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

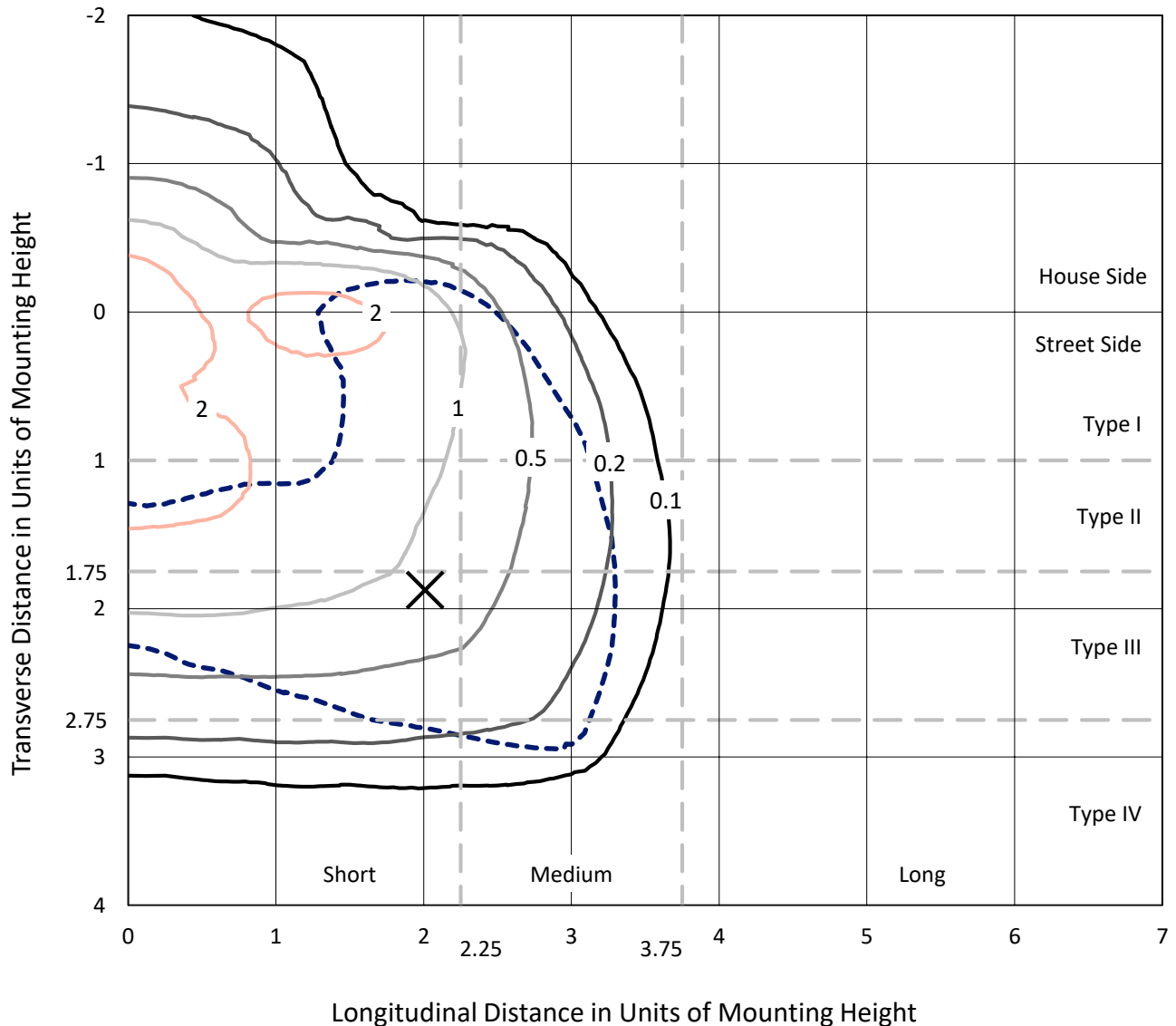
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

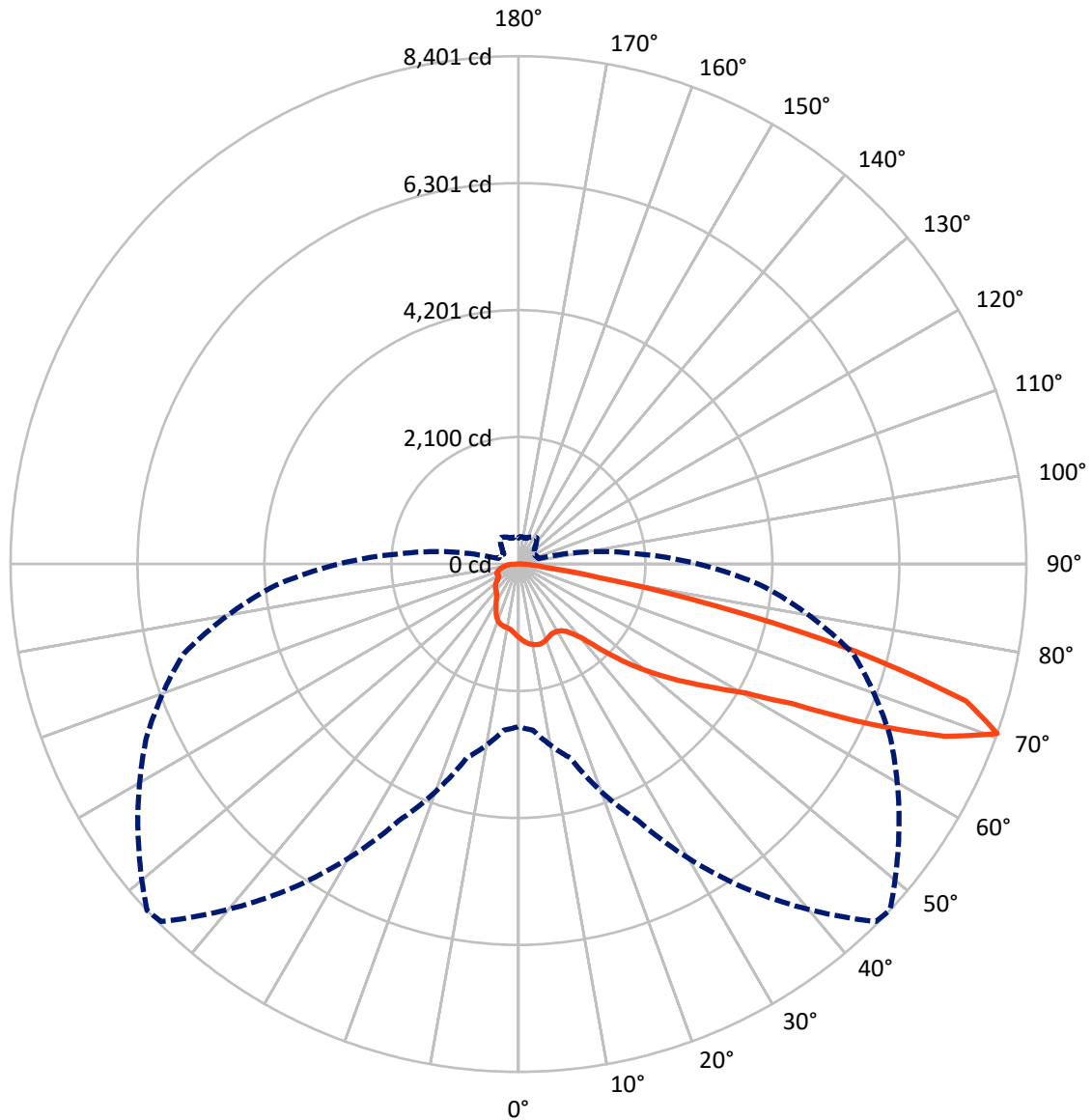
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2184.5	0.0	2184.5
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	8286.9	0.0	8286.9
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	10471.4	0.0	10471.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.4	1.1
10°-20°	341.5	3.3
20°-30°	504.4	4.8
30°-40°	733.1	7.0
40°-50°	1319.3	12.6
50°-60°	2285.5	21.8
60°-70°	3262.1	31.2
70°-80°	1674.6	16.0
80°-90°	234.4	2.2
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°	10471.4	100.0
0°-180°	10471.4	100.0

**Coefficient of Utilization**



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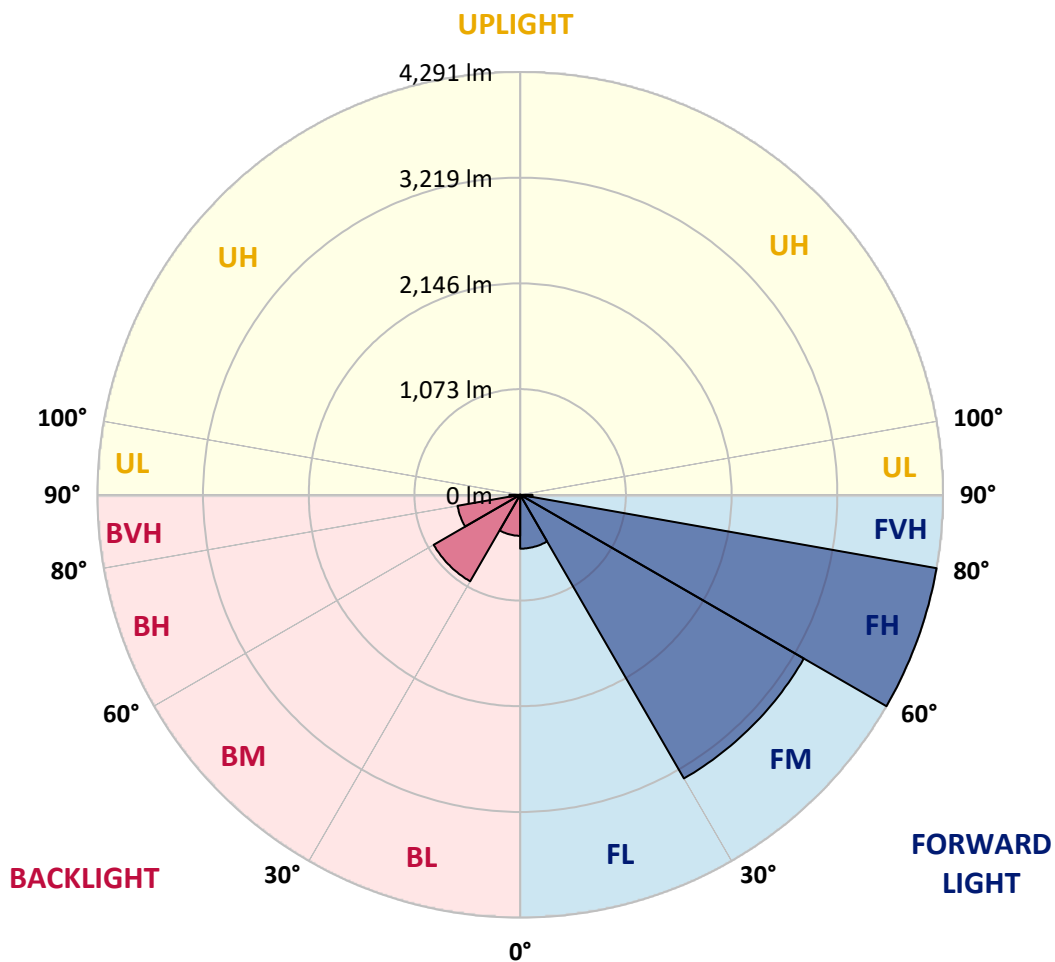
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	546.4	5.2			
FM	(30°-60°)	3323.9	31.7			
FH	(60°-80°)	4291.5	41.0			G2/5000
FVH	(80°-90°)	125.1	1.2			G2/225
BL	(0°-30°)	415.9	4.0	B1/500		
BM	(30°-60°)	1014.0	9.7	B2/2500		
BH	(60°-80°)	645.3	6.2	B2/1000		G2/1000
BVH	(80°-90°)	109.3	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0
2.5°	1286.4	1283.8	1282.8	1280.8	1278.3	1265.4	1262.9	1253.7	1241.0	1227.7	1214.0
5°	1371.0	1370.5	1364.7	1354.6	1338.3	1310.2	1303.6	1281.3	1251.2	1222.1	1193.2
7.5°	1445.3	1440.7	1430.0	1409.6	1381.1	1342.9	1333.8	1302.6	1261.3	1221.6	1182.3
10°	1499.7	1497.2	1473.9	1445.8	1408.5	1366.2	1355.6	1320.9	1275.6	1225.1	1176.2
12.5°	1530.9	1525.8	1498.7	1465.2	1420.9	1379.6	1368.8	1333.8	1282.8	1225.1	1167.6
15°	1528.8	1525.3	1498.2	1461.5	1416.8	1380.6	1371.0	1335.8	1281.3	1220.1	1156.4
17.5°	1488.1	1489.6	1466.7	1430.5	1393.8	1366.2	1357.6	1325.1	1271.0	1209.9	1143.2
20°	1416.8	1423.9	1408.5	1376.6	1356.1	1337.3	1331.7	1304.1	1255.3	1195.2	1128.9
22.5°	1345.4	1352.0	1345.9	1318.9	1315.8	1304.7	1301.6	1281.8	1241.5	1186.1	1120.2
25°	1293.0	1299.1	1298.1	1274.5	1283.8	1283.3	1280.8	1271.0	1238.5	1186.1	1121.8
27.5°	1278.8	1280.8	1278.8	1257.3	1270.0	1280.3	1278.3	1276.6	1247.6	1200.8	1141.2
30°	1327.7	1324.6	1308.7	1265.4	1277.2	1291.5	1289.4	1290.4	1275.0	1239.5	1184.5
32.5°	1522.7	1508.9	1459.0	1337.3	1306.2	1313.8	1314.8	1331.7	1334.3	1299.1	1251.7
35°	1814.6	1799.4	1734.6	1529.9	1396.4	1370.0	1370.0	1395.3	1410.6	1384.7	1356.1
37.5°	2123.9	2107.0	2072.5	1796.8	1585.9	1467.3	1464.7	1482.5	1504.3	1510.6	1517.7
40°	2475.3	2457.5	2467.2	2096.3	1850.3	1635.8	1599.6	1586.9	1645.9	1685.2	1742.4
42.5°	2860.1	2851.8	2855.3	2430.0	2151.3	1888.0	1836.6	1770.8	1842.2	1911.9	2031.7
45°	3216.0	3223.2	3219.6	2787.1	2486.6	2195.6	2141.2	2013.8	2083.6	2203.2	2398.5
47.5°	3527.9	3498.3	3544.1	3177.3	2862.1	2540.1	2472.8	2302.2	2373.0	2520.7	2850.8
50°	3906.4	3902.3	3835.1	3698.1	3315.9	2885.9	2797.8	2600.2	2710.2	2915.6	3420.9
52.5°	4304.3	4230.4	4168.8	4103.0	3797.4	3240.6	3132.5	2897.1	3106.6	3364.8	4115.8
55°	4385.7	4352.7	4429.0	4539.7	4261.5	3608.9	3483.0	3269.5	3552.9	3878.4	4917.1
57.5°	4560.0	4559.4	4717.5	4914.6	4739.3	3999.6	3872.7	3719.4	4054.6	4466.7	5767.8
60°	4677.7	4710.7	5004.3	5386.8	5208.5	4451.0	4334.3	4238.5	4625.3	5124.4	6560.5
62.5°	4739.3	4784.1	5184.6	5578.3	5871.7	5202.4	5085.8	4947.8	5380.2	5845.8	7024.1
65°	4483.1	4571.1	5156.5	5744.0	6452.6	6420.4	6368.0	6125.5	6324.1	6415.8	6856.6
67.5°	3773.9	3864.1	4545.7	5589.5	6867.3	7595.3	7606.5	7192.3	6905.0	6464.7	5764.8
70°	2688.8	2759.6	3323.7	4686.3	6551.4	8362.9	8401.2	7683.8	6789.3	5733.2	4027.7
72.5°	1276.6	1319.9	1853.9	3050.1	5198.8	7662.5	7736.4	7056.3	5772.9	4244.6	2197.2
75°	469.2	482.4	626.5	1297.6	3015.4	5650.8	5737.9	5058.2	3826.8	2113.2	837.0
77.5°	281.2	289.8	351.6	547.7	1186.1	3229.9	3358.7	2750.9	1672.5	786.6	411.6
80°	196.6	202.7	252.1	340.8	560.4	1230.9	1345.4	1122.8	666.3	497.8	299.5
82.5°	133.0	136.0	177.3	230.3	372.4	439.6	474.3	499.3	449.4	370.4	190.0
85°	87.1	90.2	120.3	151.8	236.9	227.2	232.3	293.9	328.1	251.6	105.4
87.5°	49.9	51.9	72.4	81.0	116.2	96.3	97.3	154.8	210.0	169.7	64.1
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°	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0	1215.0
2.5°	1210.4	1203.8	1189.1	1179.8	1171.2	1169.1	1165.6	1165.1	1164.6	1164.6	1163.0
5°	1183.3	1172.2	1149.3	1136.5	1125.8	1124.8	1124.3	1126.8	1127.8	1128.9	1127.3
7.5°	1166.1	1150.9	1122.3	1104.0	1091.3	1088.1	1093.3	1105.0	1112.6	1115.7	1114.1
10°	1155.4	1136.5	1103.5	1083.5	1072.9	1071.3	1077.9	1091.8	1107.5	1113.6	1113.1
12.5°	1143.2	1121.8	1086.6	1065.8	1059.7	1062.7	1071.3	1084.0	1100.4	1110.1	1110.6
15°	1130.9	1106.0	1069.8	1051.5	1049.0	1053.1	1061.2	1070.8	1083.5	1093.3	1094.3
17.5°	1116.2	1090.1	1054.1	1035.1	1033.1	1035.1	1035.6	1040.7	1049.0	1058.1	1060.7
20°	1100.4	1073.9	1036.1	1017.4	1008.2	1000.1	990.8	991.8	994.4	1003.7	1005.7
22.5°	1089.1	1062.7	1022.4	996.4	972.0	947.5	929.2	926.7	927.7	935.3	937.8
25°	1090.1	1062.2	1018.9	974.1	920.6	881.3	856.8	852.7	852.2	857.8	861.5
27.5°	1110.1	1082.0	1032.1	951.0	864.6	806.4	780.5	777.4	773.4	774.9	779.0
30°	1154.4	1128.4	1064.2	927.7	803.8	733.1	706.0	703.0	697.4	694.9	697.9
32.5°	1226.7	1205.3	1111.1	905.2	743.3	670.3	642.9	636.3	632.8	629.7	632.3
35°	1347.0	1337.8	1173.7	880.8	689.8	622.0	597.1	586.9	581.9	587.4	591.5
37.5°	1535.4	1540.5	1255.8	842.6	648.5	590.0	569.0	557.3	549.7	554.3	558.8
40°	1802.4	1806.0	1346.4	788.6	612.8	571.0	548.7	538.0	527.2	519.1	518.6
42.5°	2152.8	2116.8	1435.6	730.1	571.5	559.4	534.5	521.1	504.9	482.4	477.8
45°	2568.5	2441.8	1503.3	662.7	525.2	545.1	518.6	500.3	474.8	450.4	447.9
47.5°	3047.5	2790.7	1536.5	593.0	481.9	524.2	499.3	470.2	438.0	425.9	424.3
50°	3632.3	3204.9	1552.2	525.2	444.3	496.8	471.2	437.0	410.1	407.6	406.1
52.5°	4298.2	3703.2	1557.4	469.7	413.2	461.1	448.4	415.2	393.7	395.9	395.9
55°	4995.1	4217.7	1488.1	429.4	384.6	424.3	433.0	406.6	388.6	396.9	400.0
57.5°	5634.8	4673.7	1270.0	398.5	357.7	396.4	427.4	414.7	402.5	435.5	437.5
60°	6126.0	4943.0	948.5	370.4	337.7	386.6	442.3	445.8	448.9	527.7	538.5
62.5°	6228.9	4853.5	652.1	348.5	328.6	394.9	469.2	469.7	466.1	521.1	527.7
65°	5756.7	4286.4	474.3	336.2	321.0	409.6	492.2	481.4	458.0	499.8	487.4
67.5°	4571.6	3229.4	394.9	327.1	309.8	408.6	516.6	492.2	453.4	489.6	469.7
70°	2967.5	1952.7	351.6	319.4	296.4	389.1	530.8	491.2	440.1	455.5	432.0
72.5°	1447.8	873.2	322.5	308.3	282.7	362.2	530.3	481.9	426.4	425.4	412.7
75°	566.5	400.0	295.9	291.4	259.4	331.6	516.0	468.7	410.1	393.7	389.1
77.5°	331.6	285.3	262.4	266.5	231.3	301.0	495.2	445.8	387.6	368.3	363.3
80°	241.4	213.5	223.7	230.3	197.6	270.5	467.1	417.7	362.8	372.4	365.3
82.5°	154.8	137.6	181.4	188.0	164.6	239.4	436.5	388.1	327.6	297.4	290.3
85°	79.0	87.1	135.0	143.1	126.9	196.6	399.5	349.0	287.8	247.5	251.6
87.5°	44.3	59.6	86.1	96.3	89.7	151.3	324.0	287.8	234.8	191.0	168.2
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)