

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: P301209

Luminaire Tested: **GLNA-AF-02-LED-E1-T3R-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301209  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
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-T3R-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8173.9 lumens  
Efficiency: N/A  
Efficacy: 123.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

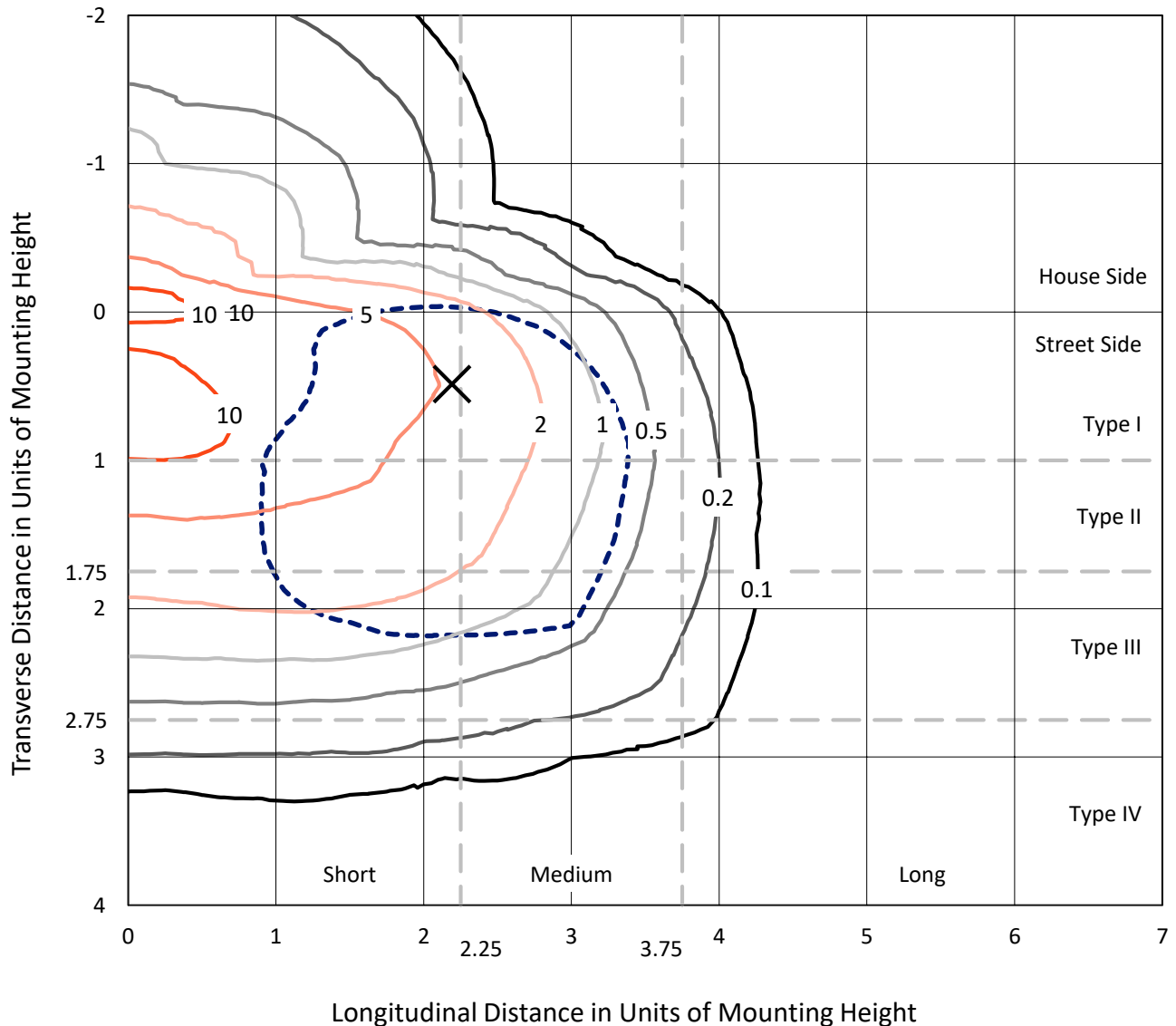
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

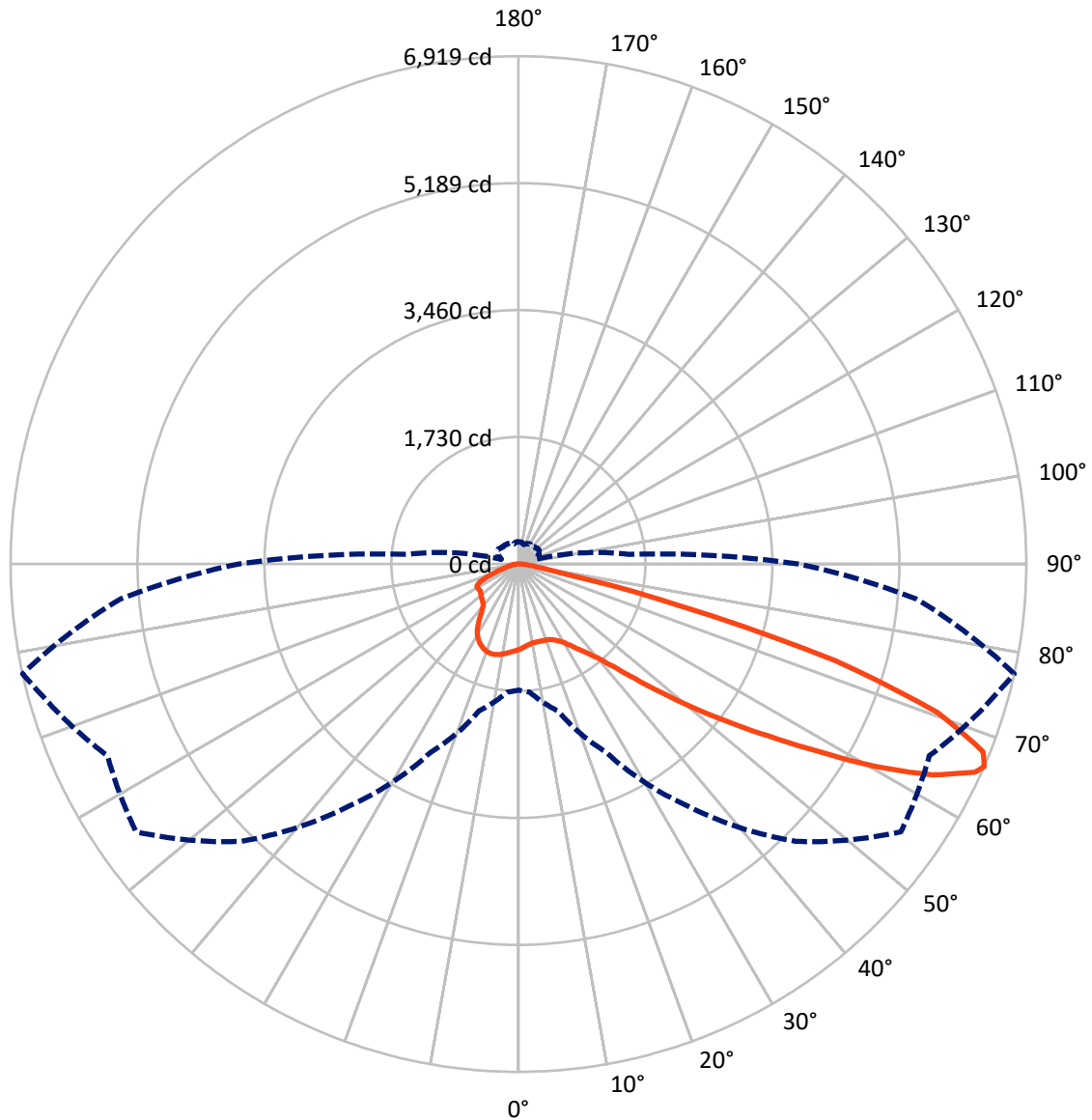
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.4 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1396.5	0.0	1396.5
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	6777.5	0.0	6777.5
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	8173.9	0.0	8173.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.1	1.3
10°-20°	293.6	3.6
20°-30°	501.1	6.1
30°-40°	802.1	9.8
40°-50°	1239.2	15.2
50°-60°	1757.6	21.5
60°-70°	2351.2	28.8
70°-80°	1021.1	12.5
80°-90°	104.1	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°	8173.9	100.0
0°-180°	8173.9	100.0



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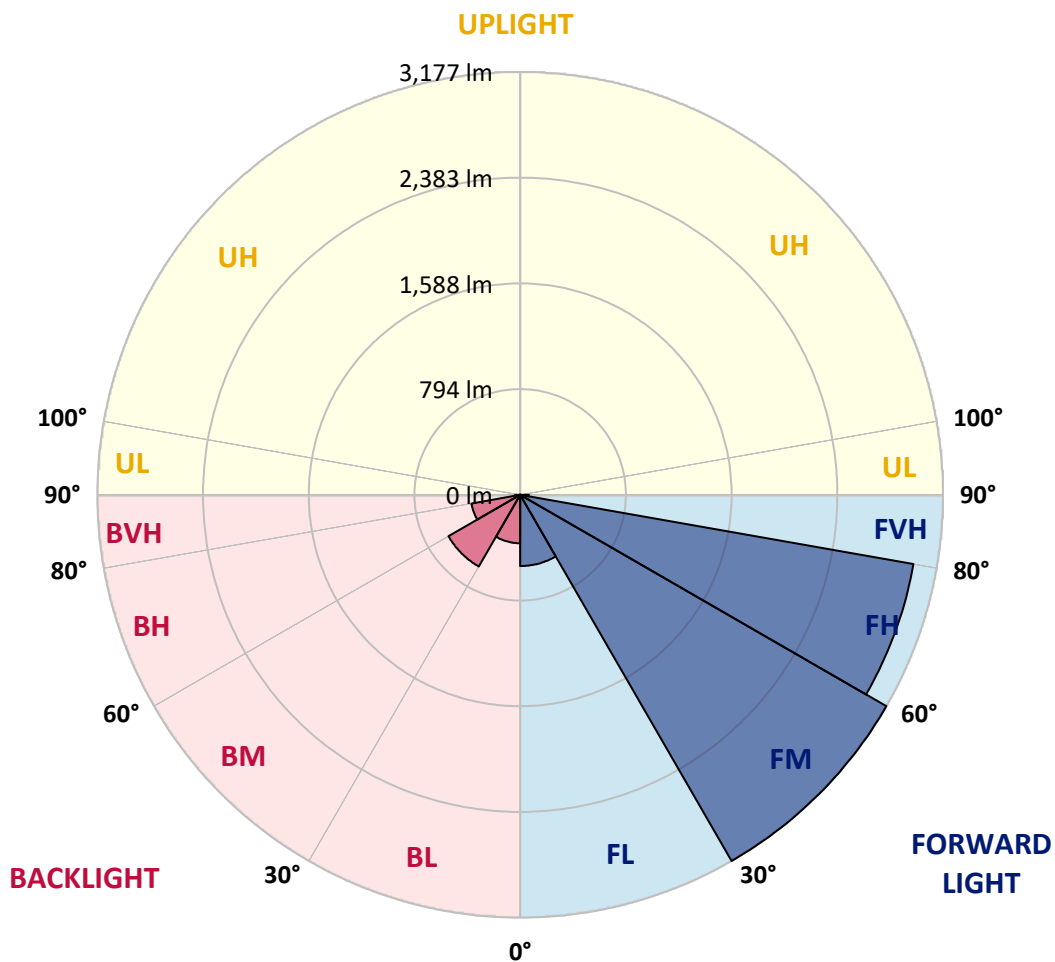
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	535.0	6.5			
FM	(30°-60°)	3176.8	38.9			
FH	(60°-80°)	3000.3	36.7			G2/5000
FVH	(80°-90°)	65.3	0.8			G1/100
BL	(0°-30°)	363.7	4.4	B1/500		
BM	(30°-60°)	622.0	7.6	B1/1000		
BH	(60°-80°)	371.9	4.5	B1/500		G1/500
BVH	(80°-90°)	38.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8
2.5°	1030.4	1037.3	1043.2	1048.6	1059.3	1077.1	1097.6	1114.2	1138.1	1142.8	1155.6
5°	935.8	935.8	940.4	948.6	963.2	989.9	1017.7	1054.8	1106.9	1119.2	1153.2
7.5°	889.9	890.2	892.9	899.8	912.6	936.9	967.4	1011.2	1081.8	1102.2	1160.1
10°	906.8	903.0	897.1	893.8	895.6	909.9	938.9	987.5	1066.3	1092.5	1175.7
12.5°	1001.8	994.6	974.4	947.8	922.3	911.9	928.8	976.3	1059.8	1090.3	1196.1
15°	1157.1	1154.1	1116.5	1061.3	999.6	947.8	936.2	972.1	1060.5	1093.0	1220.5
17.5°	1351.8	1347.5	1298.1	1217.8	1117.0	1016.2	962.0	975.6	1063.2	1097.6	1244.0
20°	1548.4	1535.2	1481.9	1386.2	1256.7	1109.1	1005.0	984.5	1066.7	1102.6	1268.8
22.5°	1695.1	1684.2	1636.4	1543.3	1394.2	1217.0	1062.5	999.9	1077.9	1117.3	1299.2
25°	1824.1	1824.8	1777.3	1687.4	1533.3	1331.3	1136.6	1041.2	1106.5	1147.4	1340.9
27.5°	1983.6	1974.4	1929.9	1840.7	1670.8	1446.7	1226.2	1098.0	1149.0	1190.3	1395.8
30°	2174.3	2167.8	2116.4	2015.3	1823.3	1570.7	1328.5	1164.0	1203.9	1246.7	1467.6
32.5°	2398.7	2395.7	2342.4	2212.2	1999.4	1716.8	1448.7	1251.3	1285.7	1330.2	1570.7
35°	2662.2	2662.5	2599.6	2443.2	2192.1	1886.7	1585.0	1363.7	1385.4	1431.7	1693.6
37.5°	2824.4	2844.0	2820.5	2661.0	2410.3	2076.7	1761.9	1512.8	1498.9	1545.7	1825.3
40°	2859.1	2883.1	2957.6	2876.5	2654.5	2286.0	1918.7	1656.1	1638.8	1695.8	1994.8
42.5°	2810.5	2843.7	3001.3	3058.4	2913.6	2544.0	2129.5	1868.9	1846.9	1923.7	2205.7
45°	2781.5	2806.3	2988.6	3153.1	3138.4	2835.6	2398.0	2136.1	2128.0	2228.8	2449.0
47.5°	2731.3	2753.8	2929.0	3175.1	3270.5	3102.8	2720.5	2462.9	2478.7	2610.9	2723.6
50°	2758.3	2767.6	2862.6	3119.1	3308.7	3298.7	3080.8	2841.3	2895.5	3060.4	3034.5
52.5°	2754.5	2778.4	2854.9	3027.2	3313.8	3419.6	3435.7	3263.5	3377.5	3566.7	3379.4
55°	2227.0	2270.9	2764.2	3004.0	3331.4	3538.0	3751.7	3708.4	3920.8	4141.3	3768.6
57.5°	2126.5	2154.3	2427.7	3052.6	3425.7	3764.4	4103.1	4198.2	4553.4	4809.5	4242.9
60°	2106.7	2141.1	2424.2	3112.2	3616.9	4133.3	4624.2	4791.0	5323.2	5603.6	4792.9
62.5°	2045.3	2082.4	2401.4	3104.3	3888.4	4643.5	5291.2	5421.3	6053.1	6325.8	5252.9
65°	1850.8	1885.5	2215.7	2979.7	4071.5	5188.0	6080.5	5999.1	6629.4	6834.4	5482.2
66°	1717.5	1751.5	2069.3	2832.9	4029.0	5342.5	6360.2	6177.9	6758.4	6919.1	5437.5
67.5°	1473.8	1500.4	1785.0	2504.2	3803.0	5385.8	6595.4	6312.3	6771.8	6828.7	5181.5
70°	931.2	938.9	1160.1	1728.7	2878.9	4670.8	6237.3	5978.6	6213.5	6059.7	4343.7
72.5°	404.0	401.3	557.0	879.4	1629.9	3134.1	5045.5	4933.1	4874.1	4523.4	3040.7
75°	224.8	227.9	289.3	408.2	662.3	1539.5	3300.6	3158.5	2666.8	2275.6	1378.8
77.5°	180.3	184.6	239.8	289.7	297.4	536.9	1544.5	1256.7	756.6	607.1	383.1
80°	142.5	150.3	209.3	225.6	200.4	221.2	499.0	399.0	299.4	274.6	198.6
82.5°	112.7	118.2	179.6	170.7	140.2	149.1	239.0	232.9	194.7	177.3	114.7
85°	81.2	91.1	147.6	128.6	91.9	100.4	158.7	152.1	111.6	91.1	50.6
87.5°	33.2	43.3	104.3	85.4	51.3	46.8	79.2	74.5	52.9	38.6	25.1
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°	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8	1164.8
2.5°	1163.6	1172.9	1184.9	1192.3	1196.1	1198.8	1203.0	1202.7	1203.9	1204.2	1205.7
5°	1171.4	1186.8	1204.2	1208.9	1208.9	1204.6	1200.4	1193.3	1190.7	1190.0	1190.7
7.5°	1191.5	1208.4	1223.5	1218.1	1206.6	1189.5	1167.5	1148.2	1137.8	1134.3	1133.6
10°	1217.0	1237.4	1243.6	1223.2	1189.1	1148.2	1104.6	1072.9	1054.8	1049.7	1048.2
12.5°	1247.8	1267.1	1258.7	1215.4	1152.4	1086.5	1026.1	975.6	937.7	925.8	925.0
15°	1281.9	1296.9	1267.1	1191.5	1097.6	1000.3	892.9	805.7	758.6	743.5	742.3
17.5°	1313.6	1321.3	1262.1	1149.7	1016.9	859.4	716.8	649.6	633.4	637.3	638.0
20°	1340.6	1340.6	1245.1	1089.9	889.9	673.6	583.5	582.5	594.0	605.6	608.0
22.5°	1370.3	1352.5	1215.4	1005.3	709.8	551.1	538.0	548.8	561.9	574.6	576.6
25°	1407.0	1362.2	1174.0	877.1	558.0	500.5	505.5	514.4	521.0	529.1	530.3
27.5°	1447.9	1374.5	1119.7	700.6	484.4	468.9	472.8	475.8	475.0	478.2	478.9
30°	1496.9	1388.9	1045.1	547.6	453.8	441.8	434.9	432.2	432.2	437.2	439.1
32.5°	1562.6	1410.0	938.1	469.3	439.1	422.5	400.2	390.1	394.0	410.9	414.8
35°	1634.9	1432.8	793.3	442.6	436.1	413.6	378.9	360.3	360.8	376.5	381.6
37.5°	1713.6	1461.8	634.5	437.6	443.0	414.1	367.7	342.2	331.8	331.8	333.7
40°	1814.4	1491.5	513.7	441.1	457.7	418.6	361.9	327.9	298.5	299.4	300.9
42.5°	1945.7	1517.0	448.8	448.3	475.5	424.8	361.5	308.9	283.5	300.9	316.7
45°	2091.8	1529.8	420.2	455.0	489.7	428.7	355.4	305.9	285.4	337.1	367.3
47.5°	2259.7	1522.4	404.4	457.2	493.2	428.7	348.4	313.3	298.9	390.5	425.7
50°	2444.0	1501.2	388.9	452.7	492.1	427.9	354.9	320.5	303.9	399.7	424.0
52.5°	2660.7	1483.5	372.7	442.6	483.9	423.7	362.6	317.5	288.1	363.4	380.4
55°	2907.8	1488.5	354.6	428.3	471.1	415.6	359.9	305.1	271.5	320.2	330.6
57.5°	3223.7	1548.4	332.9	410.2	453.8	402.0	350.3	299.4	266.5	290.5	296.7
60°	3576.3	1652.6	305.9	392.0	432.2	380.4	343.0	302.0	268.8	288.1	291.2
62.5°	3835.1	1713.2	282.8	365.3	402.8	356.4	333.7	305.4	275.0	296.2	295.5
65°	3905.3	1613.6	253.8	326.4	363.1	331.4	322.0	309.3	277.7	302.8	299.4
66°	3806.9	1506.3	241.0	308.2	343.0	319.0	316.3	308.9	276.6	303.6	297.7
67.5°	3567.9	1286.1	219.0	281.6	310.9	300.5	307.1	305.4	273.4	302.8	294.7
70°	2909.7	877.5	187.3	234.5	258.8	264.5	289.3	293.2	263.3	289.3	271.5
72.5°	2033.1	534.5	165.7	182.0	209.3	225.6	265.0	276.1	249.9	252.6	235.6
75°	982.5	283.9	150.3	141.0	162.5	188.5	235.6	252.9	228.6	211.3	205.1
77.5°	306.3	173.4	127.5	113.5	127.5	152.1	196.9	221.7	203.6	176.9	174.6
80°	164.5	127.5	98.1	91.1	100.8	119.4	154.8	185.0	174.9	158.7	141.7
82.5°	108.5	82.7	72.6	70.6	76.8	91.1	115.1	153.3	153.3	136.0	98.9
85°	56.0	50.6	49.8	49.8	53.7	60.7	78.3	118.2	125.9	71.8	59.5
87.5°	27.8	29.0	27.0	28.2	30.2	29.7	37.4	59.5	71.1	43.6	36.3
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)