

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: P302831

Luminaire Tested: **GLNA-AF-02-LED-E1-T4W-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302831  
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-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9736.8 lumens  
Efficiency: N/A  
Efficacy: 114.6 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

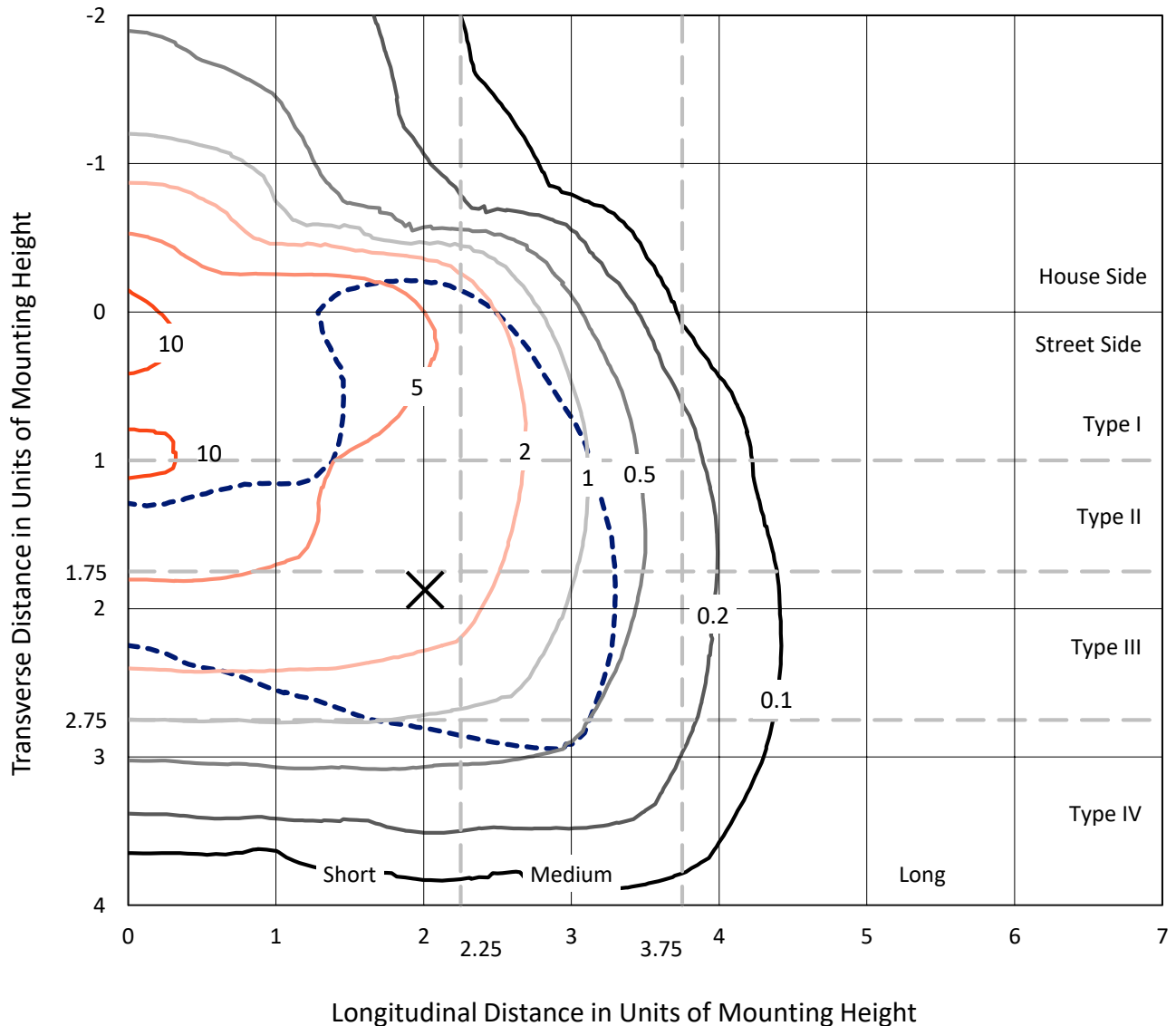
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

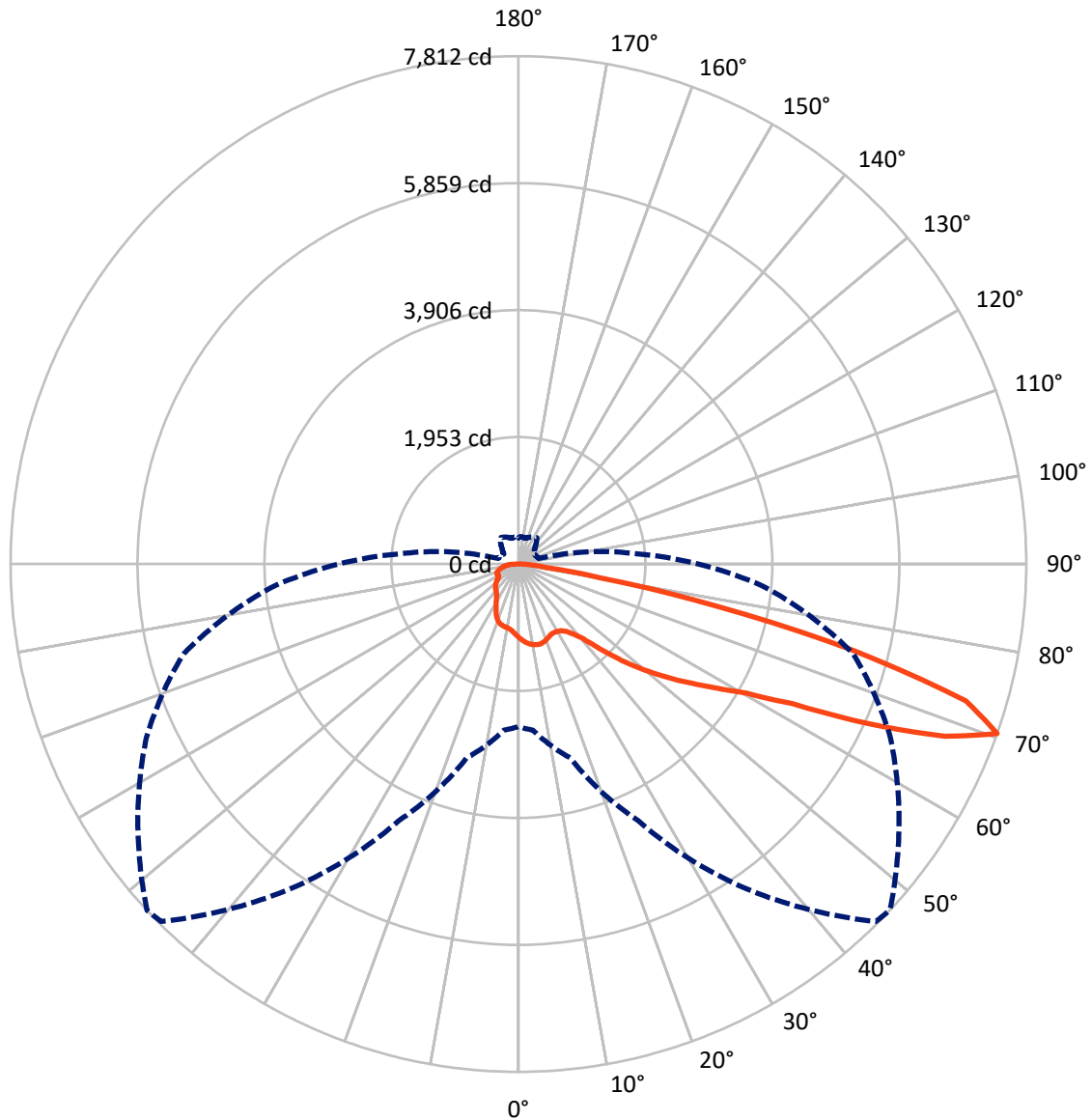
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13 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	2031.3	0.0	2031.3
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	7705.5	0.0	7705.5
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	9736.8	0.0	9736.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.2	1.1
10°-20°	317.6	3.3
20°-30°	469.0	4.8
30°-40°	681.7	7.0
40°-50°	1226.7	12.6
50°-60°	2125.2	21.8
60°-70°	3033.3	31.2
70°-80°	1557.1	16.0
80°-90°	218.0	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°	9736.8	100.0
0°-180°	9736.8	100.0



REPORT NUMBER: P302831

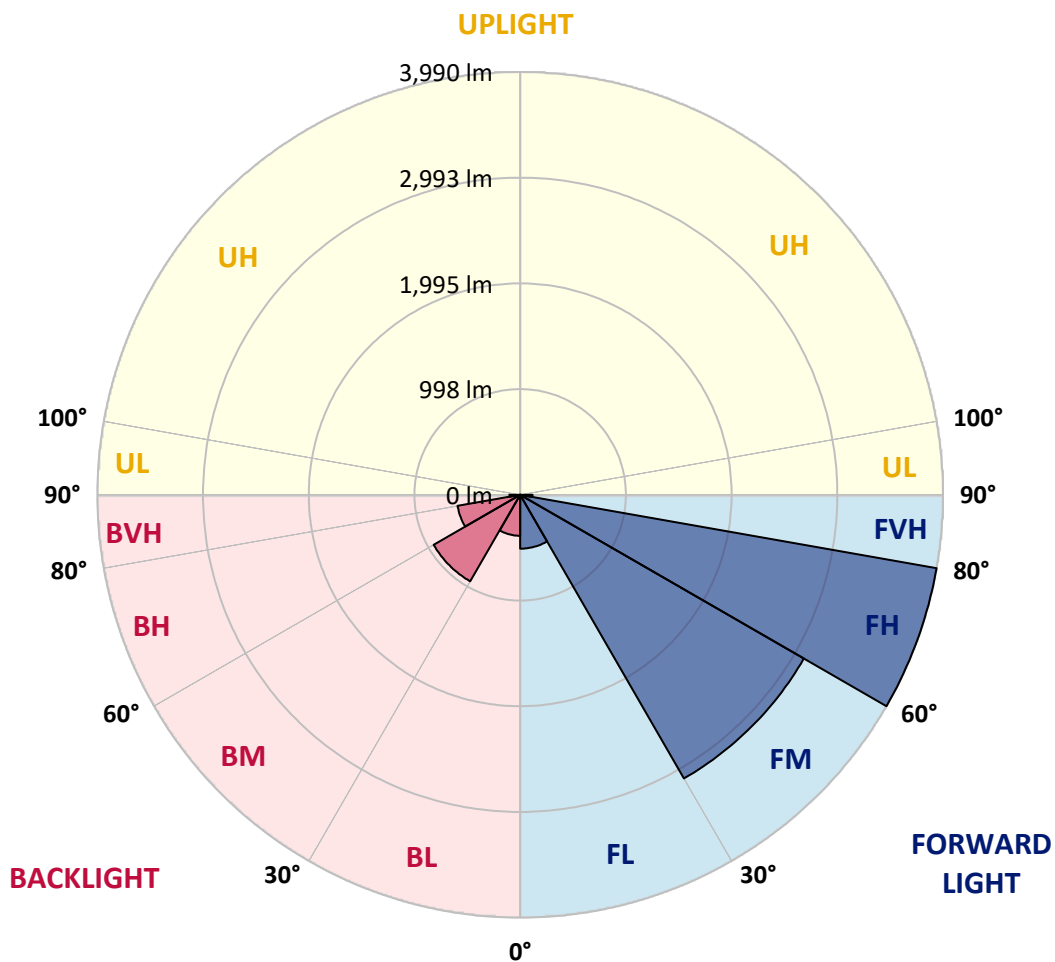
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	508.0	5.2			
FM	(30°-60°)	3090.7	31.7			
FH	(60°-80°)	3990.4	41.0			G2/5000
FVH	(80°-90°)	116.3	1.2			G2/225
BL	(0°-30°)	386.8	4.0	B1/500		
BM	(30°-60°)	942.9	9.7	B1/1000		
BH	(60°-80°)	600.0	6.2	B2/1000		G2/1000
BVH	(80°-90°)	101.7	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





REPORT NUMBER: P302831

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1196.1	1193.8	1192.8	1190.9	1188.6	1176.6	1174.3	1165.8	1154.0	1141.5	1128.8
5°	1274.8	1274.3	1269.0	1259.5	1244.4	1218.3	1212.2	1191.4	1163.4	1136.3	1109.4
7.5°	1343.9	1339.6	1329.7	1310.7	1284.2	1248.7	1240.2	1211.2	1172.8	1135.9	1099.4
10°	1394.5	1392.2	1370.4	1344.3	1309.7	1270.4	1260.5	1228.2	1186.1	1139.2	1093.7
12.5°	1423.5	1418.7	1393.6	1362.4	1321.2	1282.8	1272.7	1240.2	1192.8	1139.2	1085.7
15°	1421.6	1418.3	1393.1	1359.0	1317.4	1283.8	1274.8	1242.1	1191.4	1134.5	1075.3
17.5°	1383.7	1385.1	1363.8	1330.2	1296.0	1270.4	1262.4	1232.2	1181.8	1125.0	1063.0
20°	1317.4	1324.0	1309.7	1280.0	1260.9	1243.5	1238.3	1212.7	1167.2	1111.3	1049.7
22.5°	1251.0	1257.2	1251.5	1226.3	1223.5	1213.1	1210.3	1191.9	1154.4	1102.8	1041.6
25°	1202.3	1207.9	1207.0	1185.1	1193.8	1193.3	1190.9	1181.8	1151.6	1102.8	1043.1
27.5°	1189.1	1190.9	1189.1	1169.1	1180.9	1190.5	1188.6	1187.0	1160.1	1116.5	1061.1
30°	1234.5	1231.7	1216.9	1176.6	1187.6	1200.9	1199.0	1199.9	1185.6	1152.6	1101.4
32.5°	1415.9	1403.0	1356.6	1243.5	1214.5	1221.6	1222.6	1238.3	1240.7	1207.9	1163.9
35°	1687.3	1673.1	1612.9	1422.5	1298.4	1273.8	1273.8	1297.4	1311.6	1287.5	1260.9
37.5°	1974.9	1959.2	1927.1	1670.8	1474.6	1364.3	1362.0	1378.5	1398.8	1404.6	1411.2
40°	2301.6	2285.1	2294.1	1949.2	1720.5	1521.0	1487.3	1475.5	1530.4	1566.9	1620.1
42.5°	2659.4	2651.7	2655.0	2259.5	2000.4	1755.6	1707.7	1646.5	1712.9	1777.8	1889.1
45°	2990.4	2997.0	2993.7	2591.6	2312.2	2041.6	1990.9	1872.5	1937.4	2048.7	2230.2
47.5°	3280.4	3252.8	3295.5	2954.4	2661.3	2361.9	2299.3	2140.7	2206.5	2343.8	2650.7
50°	3632.3	3628.5	3566.1	3438.6	3083.2	2683.5	2601.5	2417.7	2520.0	2711.0	3180.9
52.5°	4002.3	3933.6	3876.3	3815.1	3531.0	3013.2	2912.7	2693.9	2888.6	3128.7	3827.1
55°	4078.0	4047.3	4118.3	4221.2	3962.5	3355.7	3238.7	3040.1	3303.6	3606.3	4572.1
57.5°	4240.0	4239.6	4386.5	4569.8	4406.8	3719.0	3601.0	3458.4	3770.1	4153.3	5363.2
60°	4349.5	4380.2	4653.2	5008.9	4843.1	4138.7	4030.2	3941.1	4300.8	4764.9	6100.2
62.5°	4406.8	4448.5	4820.9	5187.0	5459.8	4837.4	4729.0	4600.6	5002.7	5435.7	6531.3
65°	4168.6	4250.4	4794.8	5341.0	5999.9	5970.0	5921.2	5695.7	5880.4	5965.7	6375.5
67.5°	3509.1	3593.0	4226.8	5197.3	6385.5	7062.4	7072.8	6687.7	6420.5	6011.2	5360.3
70°	2500.2	2565.9	3090.5	4357.6	6091.7	7776.2	7811.7	7144.7	6312.9	5330.9	3745.1
72.5°	1187.0	1227.3	1723.8	2836.1	4834.1	7124.9	7193.6	6561.2	5367.9	3946.8	2043.0
75°	436.3	448.5	582.6	1206.5	2803.8	5254.3	5335.3	4703.3	3558.3	1965.0	778.3
77.5°	261.5	269.5	326.9	509.3	1102.8	3003.3	3123.0	2557.9	1555.1	731.4	382.8
80°	182.8	188.5	234.4	316.8	521.1	1144.5	1251.0	1044.0	619.5	462.8	278.5
82.5°	123.7	126.5	164.9	214.1	346.3	408.7	441.0	464.3	417.9	344.4	176.7
85°	81.0	83.9	111.9	141.1	220.3	211.3	216.0	273.3	305.1	233.9	98.0
87.5°	46.4	48.3	67.3	75.4	108.1	89.5	90.5	144.0	195.2	157.8	59.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P302831

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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7	1129.7
2.5°	1125.5	1119.4	1105.7	1097.0	1089.0	1087.1	1083.8	1083.3	1082.9	1082.9	1081.4
5°	1100.3	1089.9	1068.7	1056.7	1046.8	1045.9	1045.4	1047.8	1048.7	1049.7	1048.2
7.5°	1084.3	1070.1	1043.5	1026.5	1014.7	1011.7	1016.6	1027.5	1034.6	1037.4	1036.0
10°	1074.4	1056.7	1026.1	1007.5	997.6	996.2	1002.3	1015.2	1029.8	1035.5	1035.0
12.5°	1063.0	1043.1	1010.3	991.0	985.3	988.1	996.2	1008.0	1023.2	1032.2	1032.7
15°	1051.6	1028.4	994.8	977.8	975.4	979.2	986.7	995.7	1007.5	1016.6	1017.6
17.5°	1037.9	1013.6	980.1	962.5	960.6	962.5	963.0	967.7	975.4	983.9	986.3
20°	1023.2	998.5	963.5	946.0	937.5	929.9	921.3	922.2	924.6	933.2	935.1
22.5°	1012.7	988.1	950.7	926.5	903.8	881.0	864.0	861.7	862.6	869.7	872.0
25°	1013.6	987.7	947.4	905.7	856.0	819.5	796.7	792.9	792.4	797.6	801.1
27.5°	1032.2	1006.1	959.7	884.3	803.9	749.8	725.7	722.9	719.1	720.5	724.3
30°	1073.4	1049.2	989.6	862.6	747.4	681.7	656.5	653.7	648.5	646.1	649.0
32.5°	1140.6	1120.8	1033.1	841.7	691.1	623.3	597.8	591.7	588.4	585.6	587.9
35°	1252.5	1244.0	1091.4	819.0	641.4	578.3	555.2	545.8	541.0	546.2	550.0
37.5°	1427.7	1432.4	1167.7	783.5	603.0	548.6	529.1	518.2	511.1	515.4	519.6
40°	1676.0	1679.3	1252.0	733.3	569.8	531.0	510.2	500.3	490.2	482.7	482.2
42.5°	2001.8	1968.3	1334.9	678.9	531.4	520.1	497.0	484.6	469.5	448.5	444.3
45°	2388.3	2270.5	1397.8	616.2	488.3	506.9	482.2	465.2	441.5	418.8	416.4
47.5°	2833.7	2594.9	1428.7	551.4	448.1	487.4	464.3	437.2	407.3	396.0	394.6
50°	3377.4	2980.0	1443.3	488.3	413.1	461.9	438.1	406.4	381.4	379.0	377.6
52.5°	3996.7	3443.3	1448.2	436.7	384.2	428.7	416.9	386.1	366.1	368.1	368.1
55°	4644.7	3921.8	1383.7	399.3	357.6	394.6	402.6	378.0	361.4	369.1	371.9
57.5°	5239.5	4345.8	1180.9	370.5	332.6	368.6	397.4	385.6	374.3	405.0	406.8
60°	5696.2	4596.2	882.0	344.4	314.0	359.5	411.2	414.5	417.4	490.7	500.8
62.5°	5791.9	4513.0	606.3	324.1	305.5	367.2	436.3	436.7	433.4	484.6	490.7
65°	5352.8	3985.6	441.0	312.6	298.4	380.9	457.7	447.6	425.9	464.7	453.2
67.5°	4250.9	3002.8	367.2	304.1	288.1	379.9	480.3	457.7	421.6	455.3	436.7
70°	2759.3	1815.7	326.9	297.0	275.6	361.8	493.5	456.7	409.2	423.5	401.6
72.5°	1346.2	811.9	299.9	286.6	262.9	336.8	493.1	448.1	396.5	395.5	383.7
75°	526.7	371.9	275.2	270.9	241.2	308.4	479.8	435.8	381.4	366.1	361.8
77.5°	308.4	265.2	244.0	247.8	215.1	279.9	460.5	414.5	360.4	342.5	337.8
80°	224.5	198.5	208.0	214.1	183.8	251.6	434.4	388.4	337.3	346.3	339.7
82.5°	144.0	127.9	168.7	174.8	153.1	222.6	405.9	360.9	304.6	276.6	270.0
85°	73.5	81.0	125.5	133.1	118.0	182.8	371.4	324.6	267.6	230.2	233.9
87.5°	41.2	55.4	80.1	89.5	83.4	140.6	301.3	267.6	218.4	177.6	156.4
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)