

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: P302894

Luminaire Tested: **GLNA-AF-03-LED-E1-T4W-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302894
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-03-LED-E1-T4W-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10293.3 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 96
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

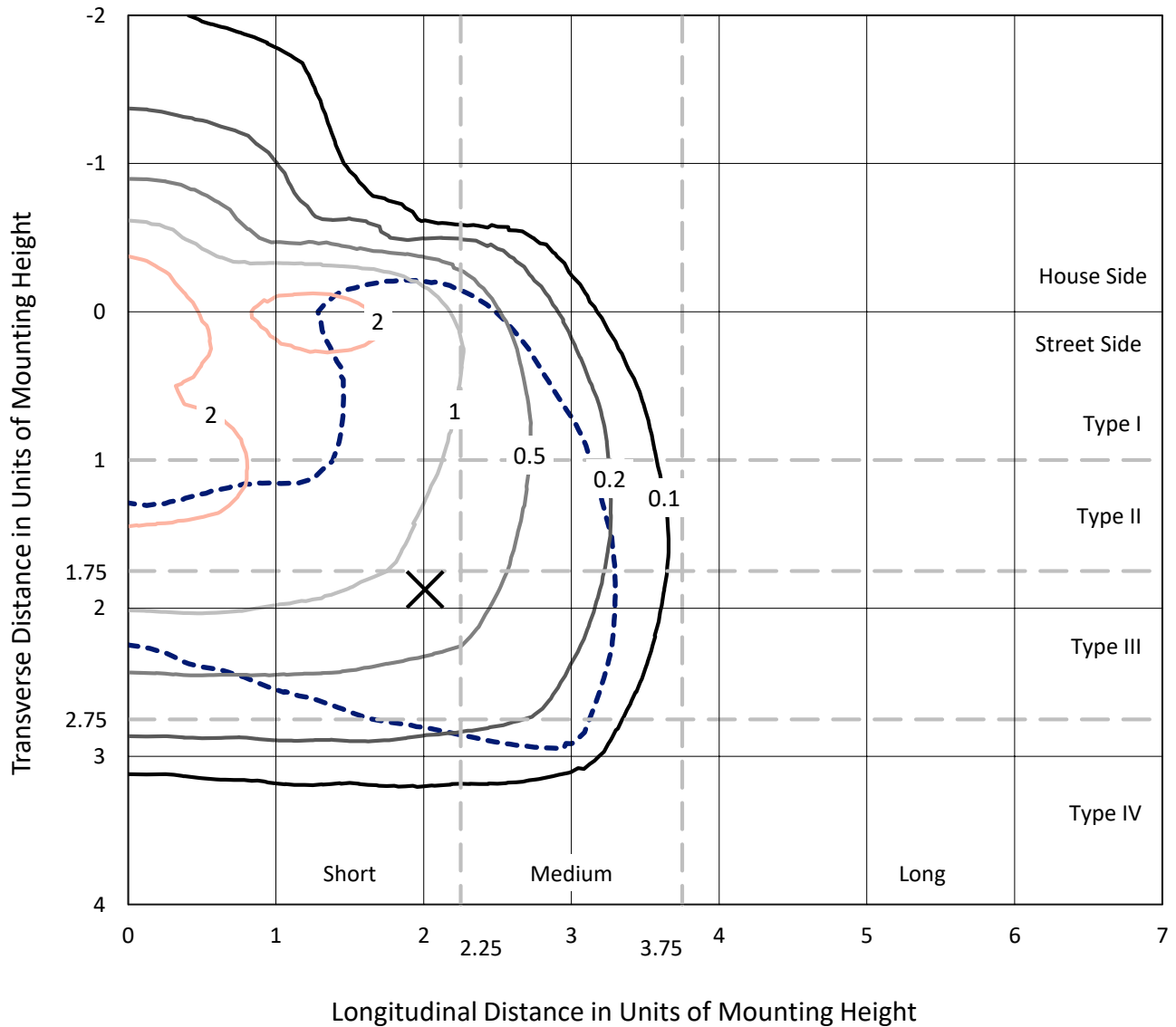


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Iso-Footcandle Lines of Horizontal Illumination

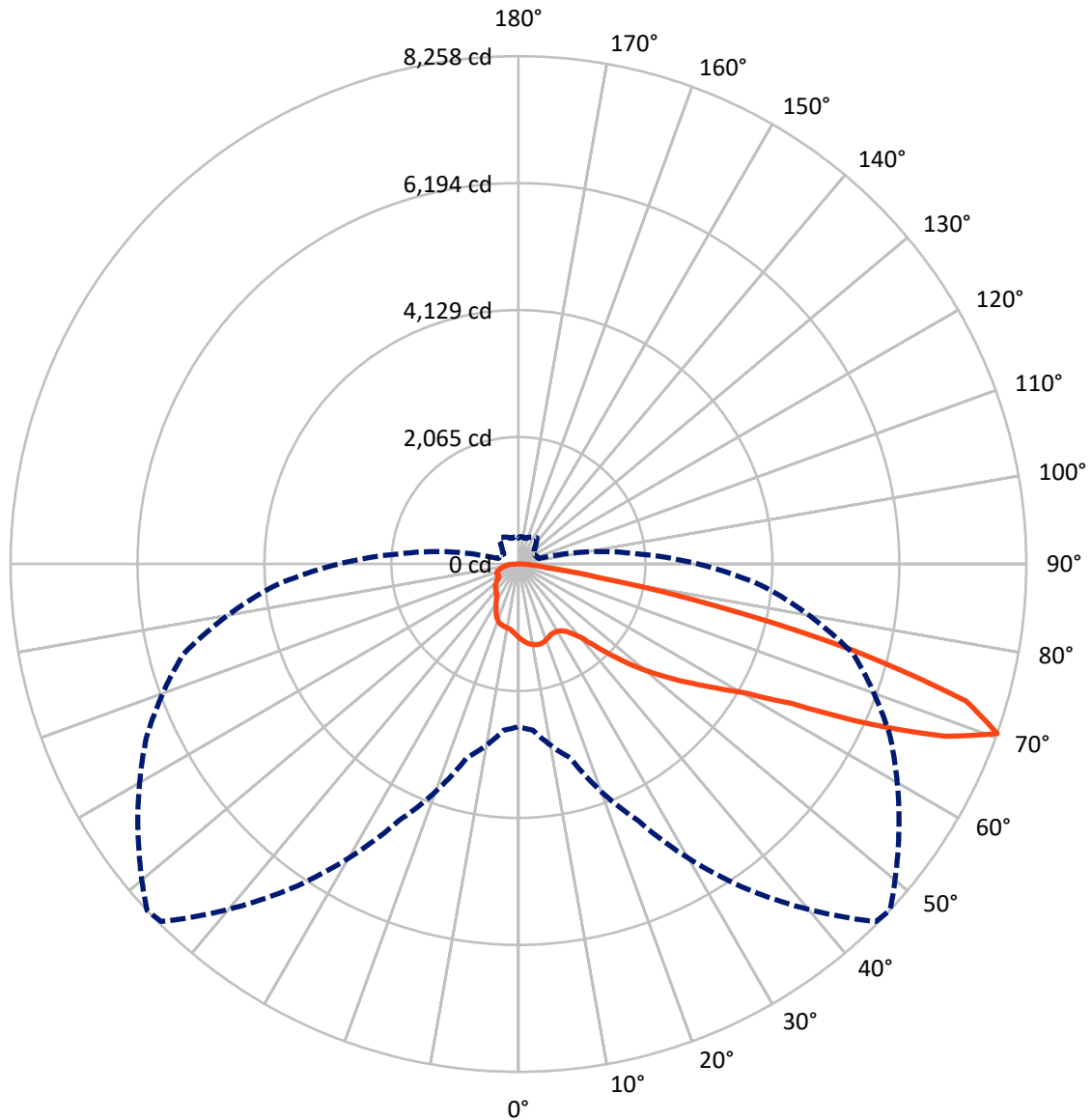
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.4 fc
 Type 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
House Side	Lumens	2147.4	0.0	2147.4
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	8145.9	0.0	8145.9
	% Fixture	79.1	0.0	79.1
Total	Lumens	10293.3	0.0	10293.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	1.1
10°-20°	335.7	3.3
20°-30°	495.8	4.8
30°-40°	720.6	7.0
40°-50°	1296.9	12.6
50°-60°	2246.7	21.8
60°-70°	3206.7	31.2
70°-80°	1646.1	16.0
80°-90°	230.5	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°	10293.3	100.0
0°-180°	10293.3	100.0



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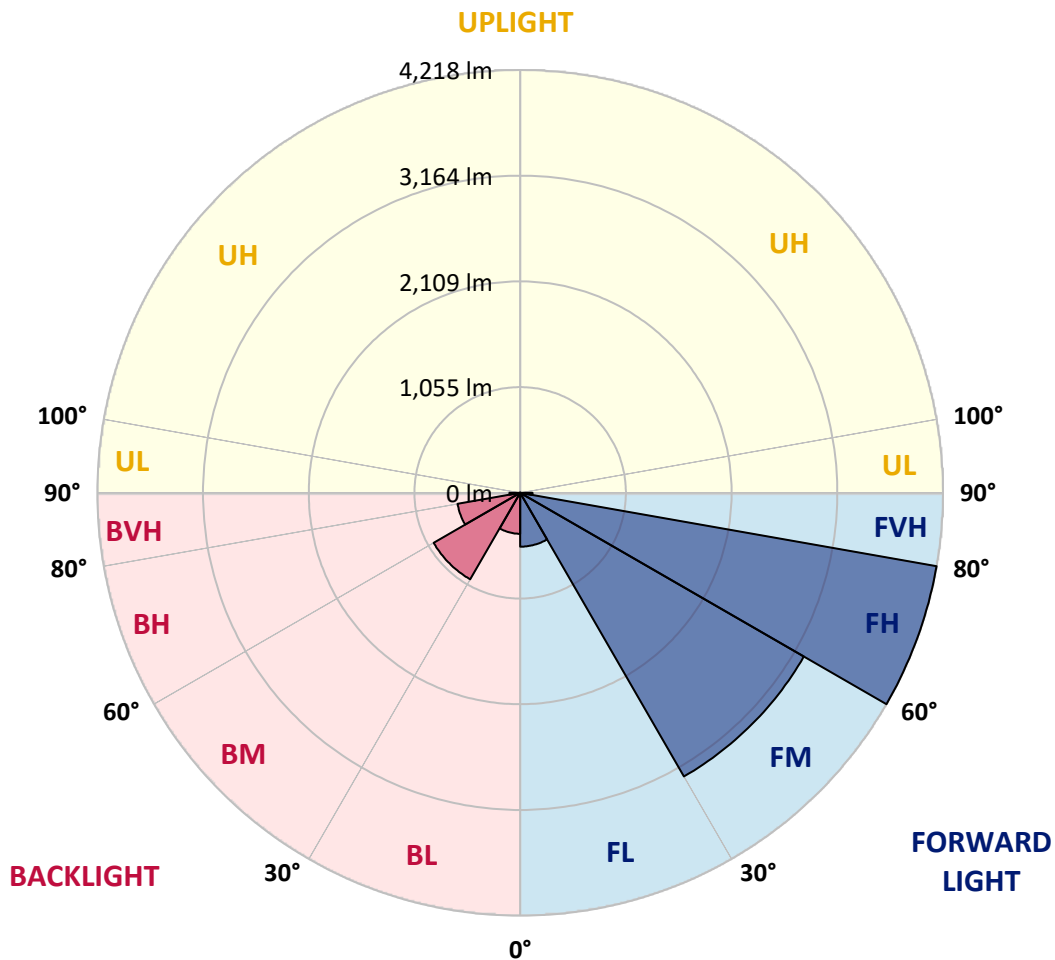
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	537.1	5.2			
FM	(30°-60°)	3267.4	31.7			
FH	(60°-80°)	4218.5	41.0			G2/5000
FVH	(80°-90°)	123.0	1.2			G2/225
BL	(0°-30°)	408.9	4.0	B1/500		
BM	(30°-60°)	996.8	9.7	B1/1000		
BH	(60°-80°)	634.3	6.2	B2/1000		G2/1000
BVH	(80°-90°)	107.5	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°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3
2.5°	1264.5	1262.0	1261.0	1259.0	1256.5	1243.9	1241.4	1232.4	1219.9	1206.8	1193.3
5°	1347.7	1347.2	1341.5	1331.5	1315.6	1288.0	1281.5	1259.5	1229.9	1201.3	1172.9
7.5°	1420.7	1416.2	1405.7	1385.6	1357.6	1320.1	1311.1	1280.5	1239.9	1200.8	1162.2
10°	1474.2	1471.7	1448.8	1421.2	1384.6	1343.0	1332.5	1298.4	1253.9	1204.3	1156.2
12.5°	1504.8	1499.8	1473.2	1440.3	1396.7	1356.1	1345.5	1311.1	1261.0	1204.3	1147.8
15°	1502.8	1499.3	1472.7	1436.6	1392.7	1357.1	1347.7	1313.1	1259.5	1199.3	1136.8
17.5°	1462.8	1464.3	1441.8	1406.2	1370.1	1343.0	1334.5	1302.6	1249.4	1189.3	1123.8
20°	1392.7	1399.7	1384.6	1353.2	1333.0	1314.6	1309.1	1282.0	1233.9	1174.9	1109.7
22.5°	1322.6	1329.0	1323.0	1296.4	1293.4	1282.5	1279.5	1260.0	1220.4	1165.9	1101.2
25°	1271.0	1277.0	1276.0	1252.9	1262.0	1261.5	1259.0	1249.4	1217.4	1165.9	1102.7
27.5°	1257.0	1259.0	1257.0	1235.9	1248.4	1258.5	1256.5	1254.9	1226.4	1180.3	1121.8
30°	1305.1	1302.1	1286.5	1243.9	1255.5	1269.5	1267.5	1268.5	1253.4	1218.4	1164.4
32.5°	1496.9	1483.2	1434.1	1314.6	1284.0	1291.4	1292.4	1309.1	1311.6	1277.0	1230.4
35°	1783.7	1768.8	1705.1	1503.8	1372.6	1346.7	1346.7	1371.6	1386.6	1361.1	1333.0
37.5°	2087.8	2071.1	2037.2	1766.3	1558.9	1442.3	1439.8	1457.3	1478.7	1484.9	1491.9
40°	2433.2	2415.7	2425.2	2060.7	1818.8	1607.9	1572.4	1559.9	1617.9	1656.5	1712.7
42.5°	2811.4	2803.3	2806.8	2388.6	2114.7	1855.9	1805.4	1740.7	1810.9	1879.4	1997.1
45°	3161.3	3168.3	3164.8	2739.7	2444.4	2158.3	2104.7	1979.5	2048.2	2165.8	2357.7
47.5°	3467.9	3438.8	3483.8	3123.3	2813.4	2496.9	2430.7	2263.1	2332.6	2477.8	2802.3
50°	3839.9	3835.9	3769.9	3635.2	3259.5	2836.9	2750.2	2556.0	2664.1	2866.0	3362.8
52.5°	4231.1	4158.4	4097.9	4033.2	3732.8	3185.5	3079.2	2847.8	3053.7	3307.5	4045.8
55°	4311.1	4278.7	4353.7	4462.4	4189.0	3547.5	3423.8	3213.9	3492.5	3812.5	4833.5
57.5°	4482.4	4481.9	4637.2	4831.0	4658.7	3931.6	3806.8	3656.1	3985.6	4390.8	5669.7
60°	4598.2	4630.6	4919.1	5295.2	5119.9	4375.3	4260.5	4166.4	4546.6	5037.2	6448.9
62.5°	4658.7	4702.8	5096.4	5483.5	5771.9	5113.9	4999.3	4863.6	5288.7	5746.4	6904.6
65°	4406.9	4493.4	5068.8	5646.3	6342.8	6311.2	6259.7	6021.3	6216.6	6306.7	6740.0
67.5°	3709.7	3798.3	4468.4	5494.4	6750.5	7466.1	7477.1	7070.0	6787.5	6354.8	5666.7
70°	2643.1	2712.6	3267.1	4606.6	6439.9	8220.7	8258.3	7553.1	6673.8	5635.6	3959.2
72.5°	1254.9	1297.4	1822.3	2998.2	5110.4	7532.1	7604.8	6936.2	5674.7	4172.4	2159.8
75°	461.2	474.2	615.9	1275.5	2964.1	5554.6	5640.3	4972.2	3761.8	2077.3	822.8
77.5°	276.4	284.9	345.6	538.4	1165.9	3175.0	3301.6	2704.1	1644.0	773.2	404.6
80°	193.3	199.2	247.8	335.0	550.8	1210.0	1322.6	1103.7	655.0	489.3	294.4
82.5°	130.7	133.7	174.3	226.4	366.1	432.1	466.2	490.8	441.7	364.1	186.8
85°	85.7	88.6	118.3	149.2	232.8	223.4	228.4	288.9	322.5	247.3	103.6
87.5°	49.1	51.1	71.2	79.7	114.3	94.6	95.6	152.2	206.4	166.8	63.0
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°	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3	1194.3
2.5°	1189.8	1183.3	1168.9	1159.7	1151.2	1149.2	1145.8	1145.3	1144.8	1144.8	1143.3
5°	1163.2	1152.2	1129.8	1117.1	1106.7	1105.7	1105.2	1107.7	1108.7	1109.7	1108.2
7.5°	1146.3	1131.3	1103.2	1085.2	1072.7	1069.6	1074.7	1086.2	1093.7	1096.7	1095.2
10°	1135.8	1117.1	1084.7	1065.1	1054.6	1053.1	1059.6	1073.2	1088.7	1094.7	1094.2
12.5°	1123.8	1102.7	1068.1	1047.6	1041.6	1044.6	1053.1	1065.6	1081.7	1091.2	1091.7
15°	1111.7	1087.2	1051.6	1033.7	1031.2	1035.2	1043.1	1052.6	1065.1	1074.7	1075.7
17.5°	1097.2	1071.6	1036.2	1017.5	1015.5	1017.5	1018.0	1023.0	1031.2	1040.1	1042.6
20°	1081.7	1055.6	1018.5	1000.1	991.1	983.1	974.0	974.9	977.4	986.6	988.6
22.5°	1070.6	1044.6	1005.1	979.4	955.5	931.4	913.4	910.9	911.9	919.4	921.9
25°	1071.6	1044.1	1001.6	957.5	904.9	866.3	842.2	838.2	837.7	843.2	846.9
27.5°	1091.2	1063.6	1014.5	934.9	849.9	792.7	767.2	764.2	760.2	761.7	765.7
30°	1134.8	1109.2	1046.1	911.9	790.2	720.7	694.0	691.0	685.6	683.1	686.1
32.5°	1205.8	1184.8	1092.2	889.8	730.6	658.9	632.0	625.5	622.0	619.0	621.5
35°	1324.0	1315.1	1153.7	865.8	678.1	611.4	586.9	577.0	572.0	577.5	581.4
37.5°	1509.3	1514.3	1234.4	828.3	637.5	579.9	559.3	547.8	540.4	544.9	549.3
40°	1771.8	1775.3	1323.5	775.2	602.4	561.3	539.4	528.9	518.2	510.3	509.8
42.5°	2116.2	2080.8	1411.2	717.7	561.8	549.8	525.4	512.3	496.3	474.2	469.7
45°	2524.9	2400.3	1477.7	651.5	516.2	535.9	509.8	491.8	466.7	442.7	440.2
47.5°	2995.7	2743.2	1510.3	582.9	473.7	515.2	490.8	462.2	430.6	418.6	417.1
50°	3570.5	3150.4	1525.8	516.2	436.7	488.3	463.2	429.6	403.2	400.7	399.2
52.5°	4225.1	3640.2	1530.9	461.7	406.1	453.2	440.7	408.1	387.0	389.2	389.2
55°	4910.2	4145.9	1462.8	422.1	378.0	417.1	425.6	399.7	382.0	390.2	393.2
57.5°	5539.0	4594.2	1248.4	391.7	351.6	389.7	420.1	407.6	395.7	428.1	430.1
60°	6021.8	4858.9	932.4	364.1	332.0	380.0	434.8	438.2	441.2	518.7	529.4
62.5°	6122.9	4771.0	641.0	342.6	323.0	388.2	461.2	461.7	458.2	512.3	518.7
65°	5658.8	4213.5	466.2	330.5	315.5	402.7	483.8	473.2	450.2	491.3	479.2
67.5°	4493.9	3174.5	388.2	321.5	304.5	401.7	507.8	483.8	445.7	481.3	461.7
70°	2917.0	1919.5	345.6	314.0	291.4	382.5	521.7	482.8	432.6	447.7	424.6
72.5°	1423.2	858.4	317.0	303.0	277.9	356.1	521.2	473.7	419.1	418.1	405.6
75°	556.8	393.2	290.9	286.4	255.0	326.0	507.3	460.7	403.2	387.0	382.5
77.5°	326.0	280.4	258.0	261.9	227.4	295.9	486.8	438.2	381.0	362.1	357.1
80°	237.3	209.9	219.9	226.4	194.3	265.9	459.2	410.6	356.6	366.1	359.1
82.5°	152.2	135.2	178.3	184.8	161.8	235.3	429.1	381.5	322.0	292.4	285.4
85°	77.7	85.7	132.7	140.7	124.7	193.3	392.7	343.1	282.9	243.3	247.3
87.5°	43.6	58.5	84.7	94.6	88.1	148.7	318.5	282.9	230.8	187.8	165.3
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)