

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: P299710

Luminaire Tested: **GLNA-AF-03-LED-E1-5MQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
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-E1-5MQ-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12533 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

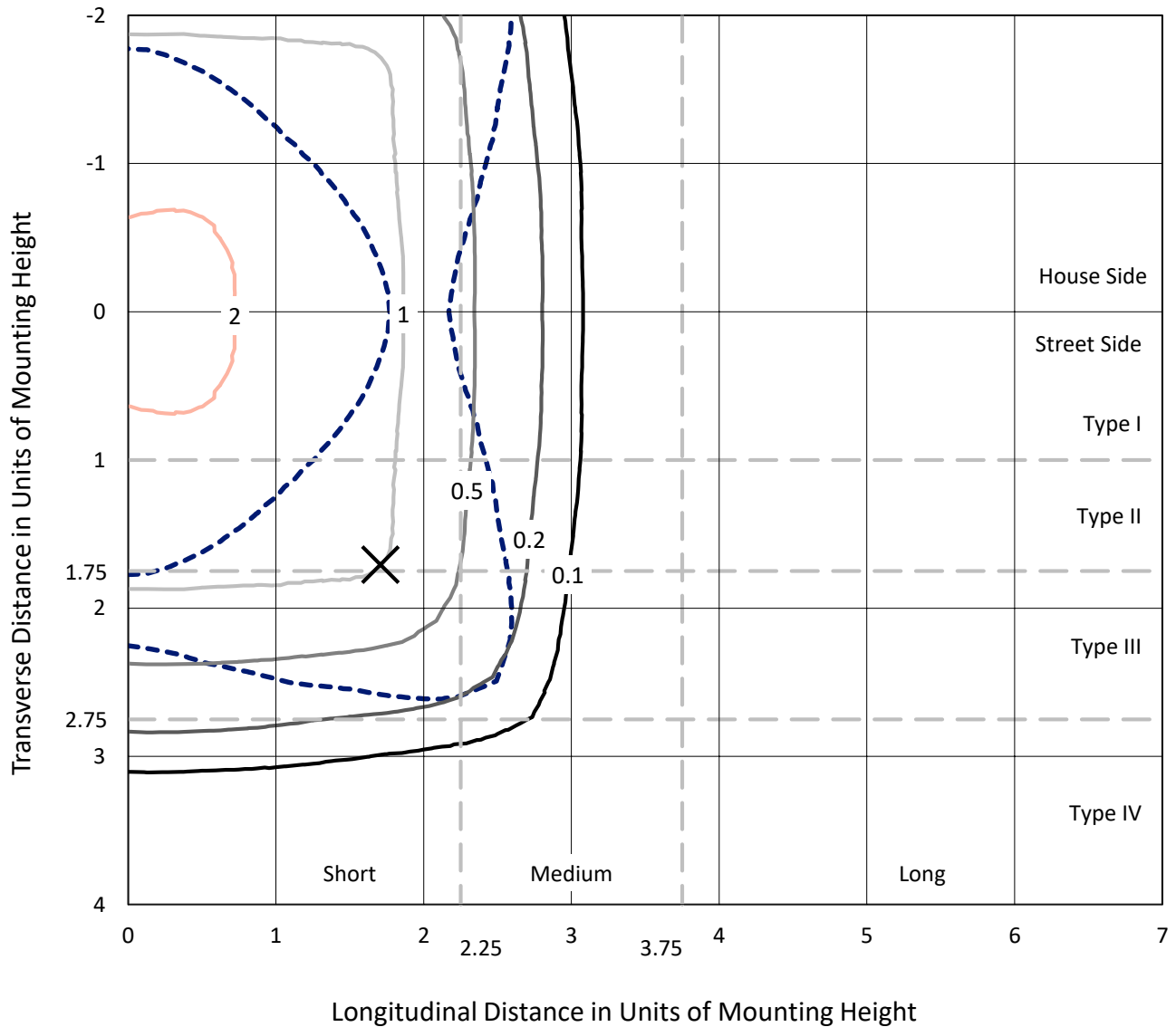
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

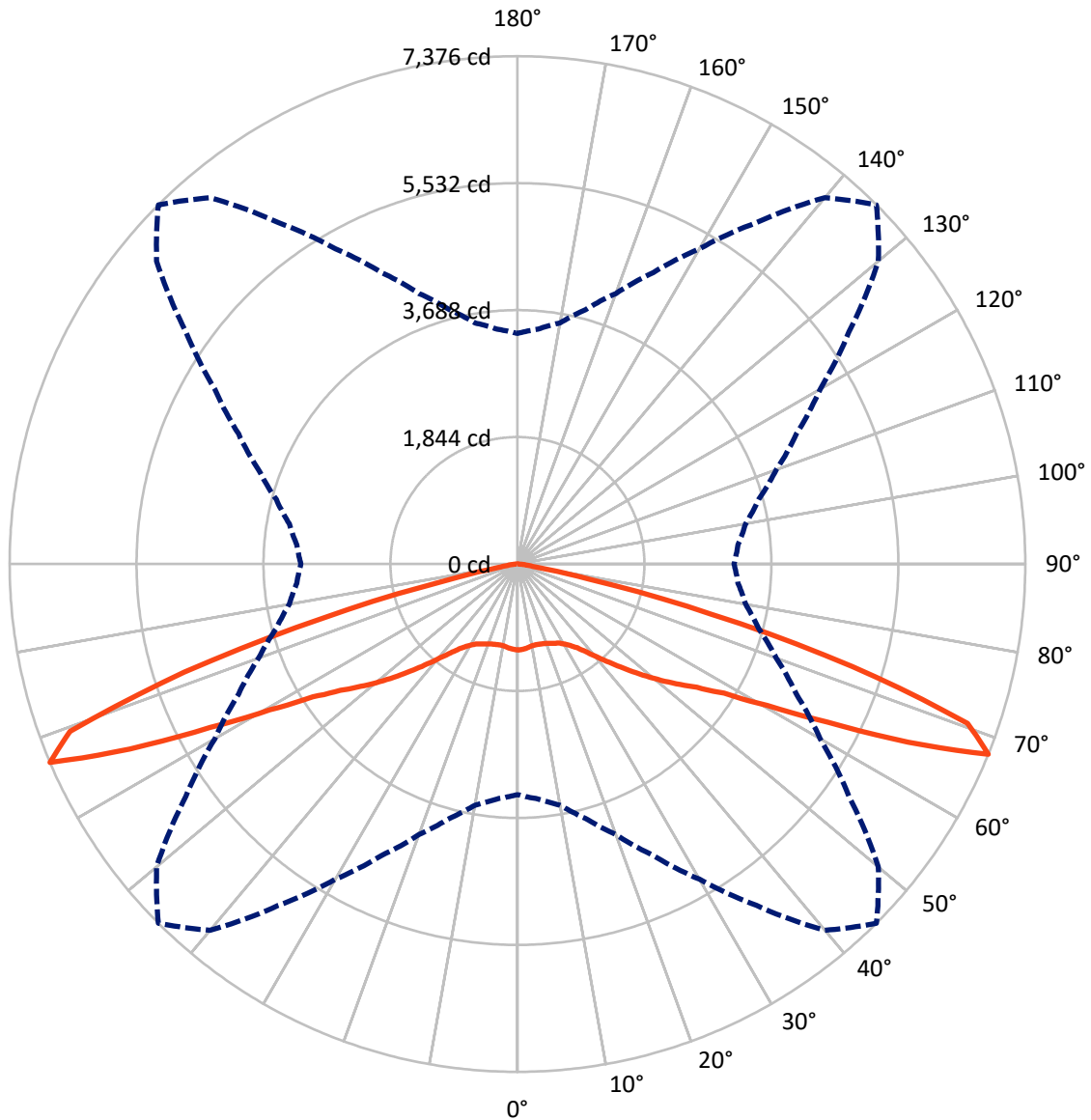


Based on 20 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6266.5	0.0	6266.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6266.5	0.0	6266.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	12533.0	0.0	12533.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.9	0.9
10°-20°	339.2	2.7
20°-30°	576.7	4.6
30°-40°	942.7	7.5
40°-50°	1682.8	13.4
50°-60°	2837.3	22.6
60°-70°	4403.0	35.1
70°-80°	1547.0	12.3
80°-90°	87.4	0.7
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°	12533.0	100.0
0°-180°	12533.0	100.0



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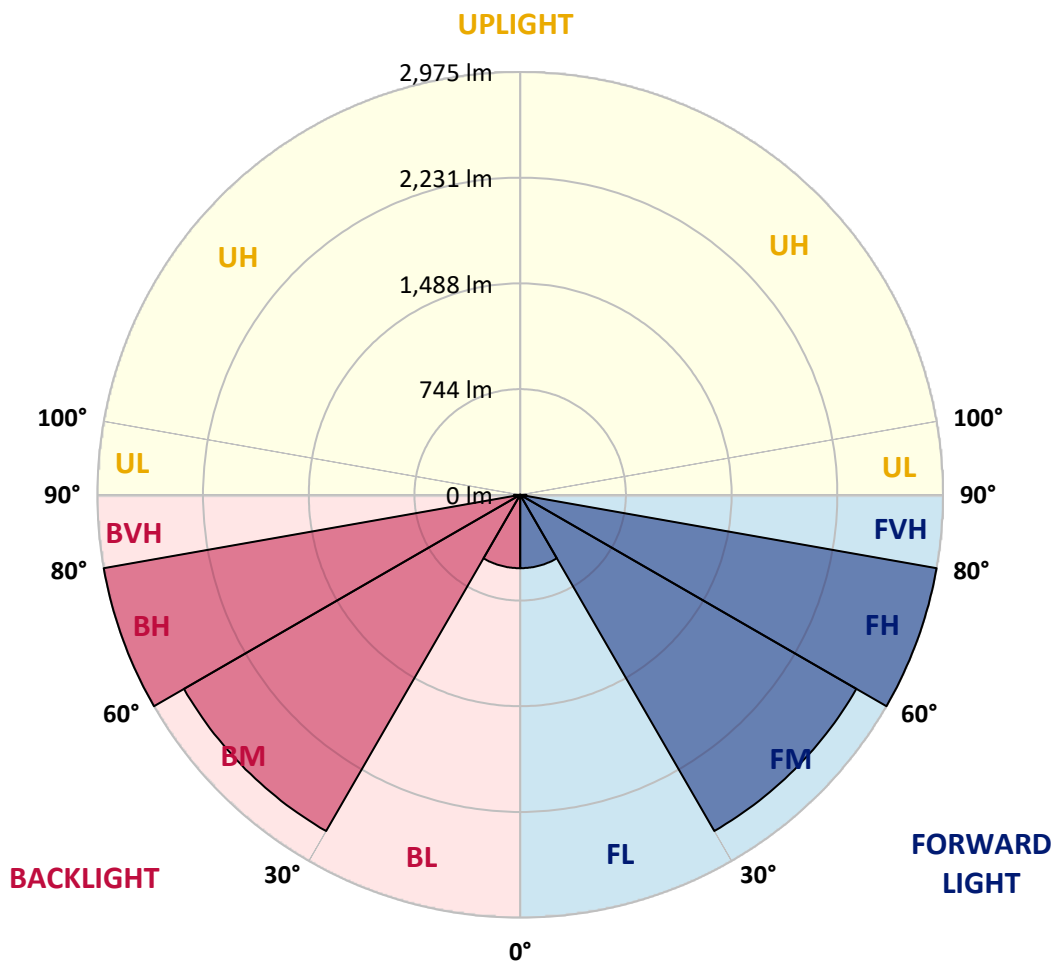
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	516.4	4.1			
FM	(30°-60°)	2731.4	21.8			
FH	(60°-80°)	2975.0	23.7			G2/5000
FVH	(80°-90°)	43.7	0.3			G1/100
BL	(0°-30°)	516.4	4.1	B2/1000		
BM	(30°-60°)	2731.4	21.8	B3/5000		
BH	(60°-80°)	2975.0	23.7	B4/5000		G2/5000
BVH	(80°-90°)	43.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0
2.5°	1244.4	1245.5	1245.5	1245.5	1244.9	1244.9	1243.8	1244.9	1244.4	1242.6	1243.2
5°	1234.0	1235.1	1235.1	1234.6	1236.3	1235.7	1234.0	1235.1	1234.6	1233.4	1234.0
7.5°	1219.0	1220.7	1220.7	1220.1	1221.9	1221.3	1220.1	1220.7	1220.7	1219.0	1219.0
10°	1202.3	1203.4	1203.4	1202.9	1205.7	1205.7	1205.2	1206.9	1207.5	1205.7	1204.6
12.5°	1186.7	1188.4	1188.4	1190.8	1193.6	1194.8	1197.7	1200.0	1202.3	1201.7	1199.4
15°	1177.5	1178.6	1181.0	1183.8	1188.4	1192.5	1197.1	1202.3	1206.9	1208.0	1204.6
17.5°	1171.7	1173.5	1176.9	1181.0	1187.3	1194.2	1201.1	1208.0	1214.4	1216.7	1212.7
20°	1170.0	1171.2	1174.6	1181.5	1190.2	1200.6	1210.3	1218.4	1227.1	1229.9	1227.1
22.5°	1173.5	1175.8	1179.8	1187.9	1199.4	1212.7	1224.2	1235.1	1246.1	1251.3	1247.2
25°	1189.0	1191.3	1196.5	1206.9	1219.6	1233.4	1246.7	1259.3	1269.1	1274.3	1271.4
27.5°	1217.8	1220.7	1227.1	1237.4	1251.3	1266.3	1280.7	1291.0	1299.1	1300.8	1297.4
30°	1261.1	1267.4	1274.9	1286.4	1302.6	1315.2	1329.7	1338.9	1348.7	1348.7	1345.8
32.5°	1328.5	1334.8	1342.9	1353.9	1366.5	1380.4	1393.1	1401.1	1411.5	1412.1	1405.2
35°	1429.4	1432.2	1439.2	1446.1	1457.6	1469.7	1480.7	1485.8	1494.5	1495.1	1488.7
37.5°	1562.5	1563.1	1567.7	1570.0	1580.4	1593.6	1604.0	1607.5	1615.5	1614.4	1608.0
40°	1717.5	1720.4	1722.2	1725.6	1736.6	1749.2	1760.2	1761.9	1770.6	1768.8	1760.8
42.5°	1896.8	1897.9	1907.7	1912.9	1923.3	1929.6	1943.5	1945.2	1955.6	1951.0	1941.7
45°	2097.9	2108.3	2117.5	2127.9	2138.9	2146.4	2157.3	2155.0	2161.9	2155.0	2149.8
47.5°	2309.5	2317.0	2337.7	2353.8	2371.7	2378.0	2393.6	2386.7	2393.6	2383.8	2382.1
50°	2542.3	2555.6	2573.4	2591.9	2610.9	2621.3	2641.4	2632.8	2642.0	2632.8	2627.6
52.5°	2771.7	2775.2	2814.3	2841.4	2868.0	2880.1	2892.2	2888.1	2888.7	2888.1	2882.9
55°	2989.6	2997.6	3036.8	3073.7	3119.8	3153.8	3174.6	3172.3	3167.1	3161.9	3153.2
57.5°	3235.1	3243.2	3288.1	3333.6	3386.1	3434.5	3476.6	3519.8	3536.5	3541.1	3522.1
60°	3567.1	3566.5	3626.4	3681.8	3756.7	3828.7	3921.0	4014.9	4122.7	4172.8	4106.5
62.5°	3904.8	3918.6	4005.1	4103.1	4257.5	4408.0	4578.0	4745.1	4915.7	5054.6	4907.1
65°	3864.5	3917.5	4046.0	4267.9	4553.2	4892.1	5258.7	5646.6	5997.0	6237.9	5967.6
67.5°	3349.2	3424.7	3555.5	3825.3	4182.0	4670.8	5286.3	6053.5	6945.1	7376.2	6841.9
70°	2427.6	2512.9	2650.1	2913.5	3266.8	3731.3	4399.9	5320.9	6501.3	6935.9	6347.4
72.5°	1208.0	1254.2	1338.9	1506.6	1774.0	2151.0	2757.3	3642.6	4686.9	5085.8	4548.0
75°	410.4	431.7	446.1	500.9	585.6	733.7	1035.1	1592.5	2429.3	2912.3	2394.8
77.5°	236.9	237.5	247.3	257.1	271.5	287.6	327.9	430.5	744.7	1057.6	770.6
80°	153.3	152.7	160.8	168.3	178.1	186.2	188.5	199.4	230.0	272.6	243.8
82.5°	79.5	89.3	107.2	117.0	135.4	138.9	134.3	130.3	137.7	142.9	146.4
85°	43.8	38.0	57.1	73.8	81.8	83.0	83.0	78.4	81.3	79.5	86.5
87.5°	20.2	18.4	22.5	36.3	38.6	32.9	34.6	30.5	21.9	21.3	24.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0	1249.0
2.5°	1243.2	1243.8	1243.8	1245.5	1246.1	1247.2	1248.4	1249.0
5°	1233.4	1235.1	1234.0	1235.7	1235.7	1236.9	1236.9	1237.4
7.5°	1219.0	1220.7	1220.7	1220.7	1220.1	1221.9	1221.9	1221.9
10°	1204.0	1205.2	1204.6	1203.4	1202.3	1204.0	1203.4	1202.9
12.5°	1199.4	1196.5	1194.2	1193.1	1190.8	1191.3	1189.6	1189.6
15°	1202.3	1197.1	1193.1	1191.3	1189.0	1187.9	1186.7	1187.3
17.5°	1209.8	1203.4	1198.2	1195.4	1192.5	1190.8	1188.4	1189.0
20°	1223.0	1215.5	1208.0	1202.3	1197.1	1194.2	1192.5	1191.9
22.5°	1242.6	1231.7	1220.7	1212.1	1205.2	1201.1	1199.4	1198.2
25°	1265.1	1253.0	1240.3	1230.5	1223.6	1218.4	1215.0	1215.0
27.5°	1293.3	1283.5	1272.0	1260.5	1254.2	1249.0	1246.7	1245.5
30°	1340.6	1331.4	1322.2	1311.2	1303.1	1298.0	1293.9	1290.5
32.5°	1401.1	1393.6	1386.1	1378.1	1370.6	1363.7	1357.3	1354.4
35°	1486.4	1480.7	1475.5	1466.3	1463.4	1459.3	1455.9	1453.0
37.5°	1604.0	1601.7	1601.7	1591.9	1589.6	1587.9	1584.4	1585.0
40°	1758.5	1760.8	1757.9	1754.4	1752.7	1748.1	1748.1	1752.1
42.5°	1941.2	1942.9	1949.2	1943.5	1949.8	1944.1	1940.6	1943.5
45°	2153.3	2159.6	2172.3	2166.5	2170.6	2160.8	2148.7	2149.2
47.5°	2391.3	2397.1	2402.3	2398.2	2398.8	2382.7	2366.5	2362.5
50°	2638.6	2640.9	2643.7	2638.0	2639.1	2621.3	2602.8	2603.4
52.5°	2882.9	2893.9	2905.4	2889.9	2886.4	2866.2	2840.3	2829.9
55°	3162.5	3178.0	3164.8	3137.7	3110.6	3083.5	3049.5	3043.7
57.5°	3507.1	3480.6	3439.1	3387.8	3350.4	3312.3	3277.7	3263.3
60°	3986.7	3886.9	3812.0	3735.9	3688.1	3641.4	3595.9	3589.0
62.5°	4664.5	4492.1	4342.8	4185.5	4057.0	3956.7	3876.6	3854.1
65°	5514.0	5106.5	4753.2	4423.5	4137.1	3921.0	3784.9	3725.0
67.5°	5879.4	5074.8	4469.1	4001.1	3626.4	3364.8	3217.8	3144.6
70°	5166.5	4208.6	3549.8	3081.2	2740.0	2461.0	2327.9	2249.5
72.5°	3554.4	2677.2	2117.0	1727.9	1455.3	1221.9	1129.7	1122.7
75°	1595.9	1057.0	728.5	561.4	472.6	410.9	391.9	377.5
77.5°	446.7	330.3	294.5	275.5	257.1	235.7	227.7	229.4
80°	217.3	205.2	197.1	185.0	168.3	150.4	142.4	145.8
82.5°	144.1	142.4	147.5	138.9	114.7	97.4	81.8	74.9
85°	87.6	88.8	90.5	91.1	77.2	54.2	36.9	41.5
87.5°	34.6	39.8	43.2	45.0	42.1	25.9	20.7	21.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)