

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: P299586

Luminaire Tested: **GLNA-AF-02-LED-E1-5MQ-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299586  
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-02-LED-E1-5MQ-7060  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

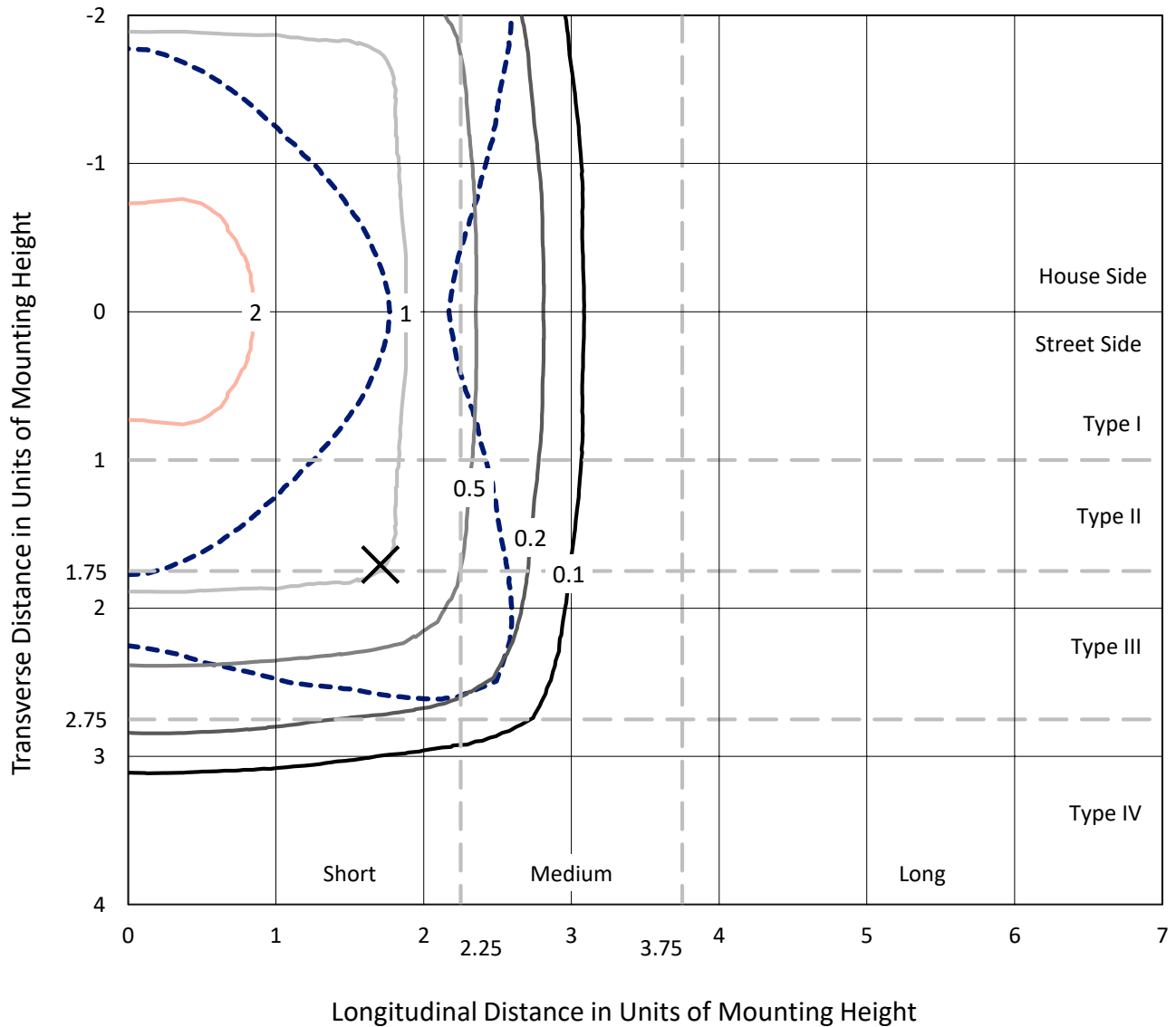
Lumens per Lamp: N/A  
Luminaire Lumens: 12749.8 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2  
  
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (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

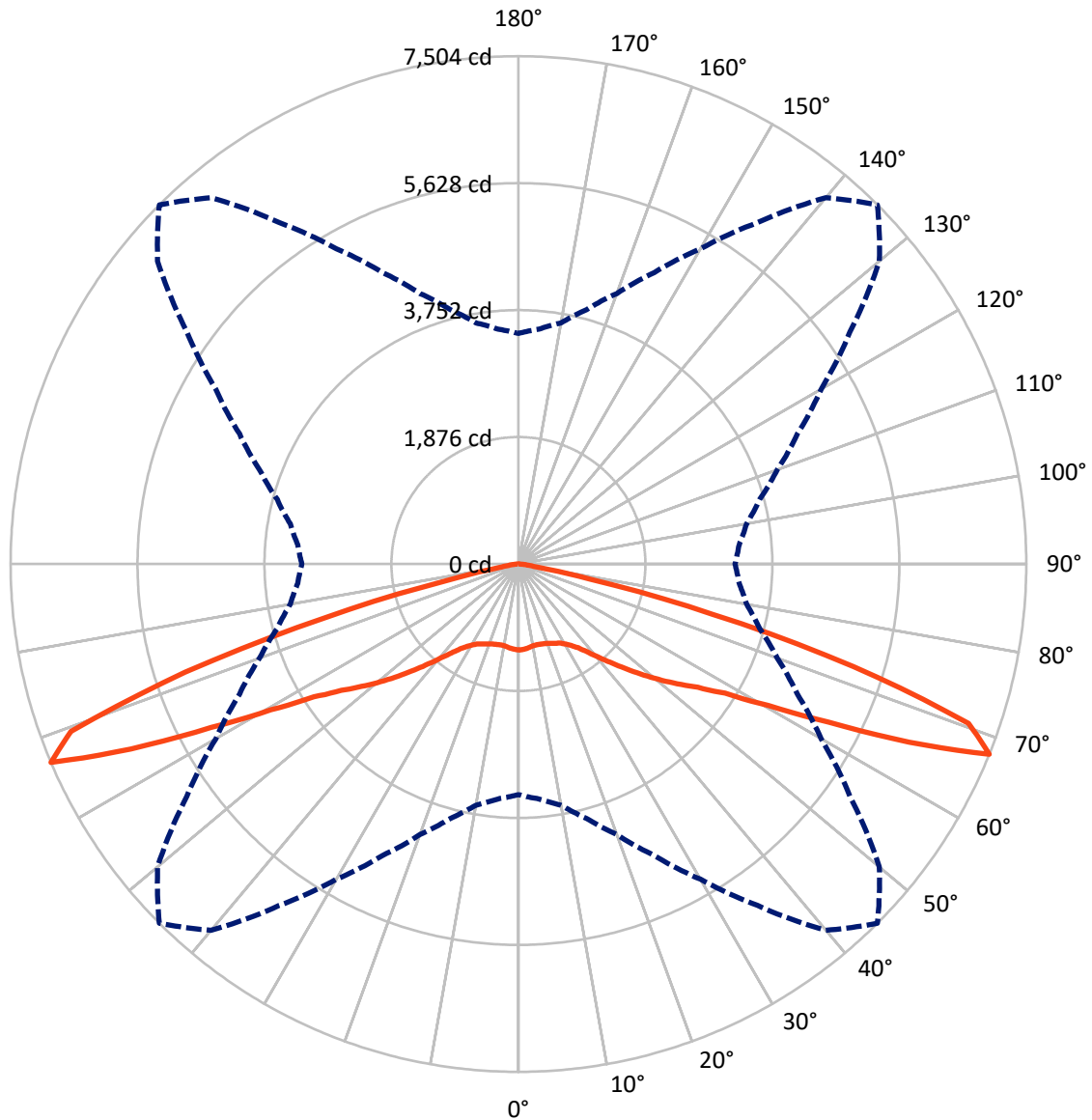
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.2 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
<b>House Side</b>	Lumens	6374.9	0.0	6374.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	6374.9	0.0	6374.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	12749.8	0.0	12749.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.9	0.9
10°-20°	345.1	2.7
20°-30°	586.6	4.6
30°-40°	959.0	7.5
40°-50°	1711.9	13.4
50°-60°	2886.4	22.6
60°-70°	4479.2	35.1
70°-80°	1573.8	12.3
80°-90°	88.9	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°	12749.8	100.0
0°-180°	12749.8	100.0



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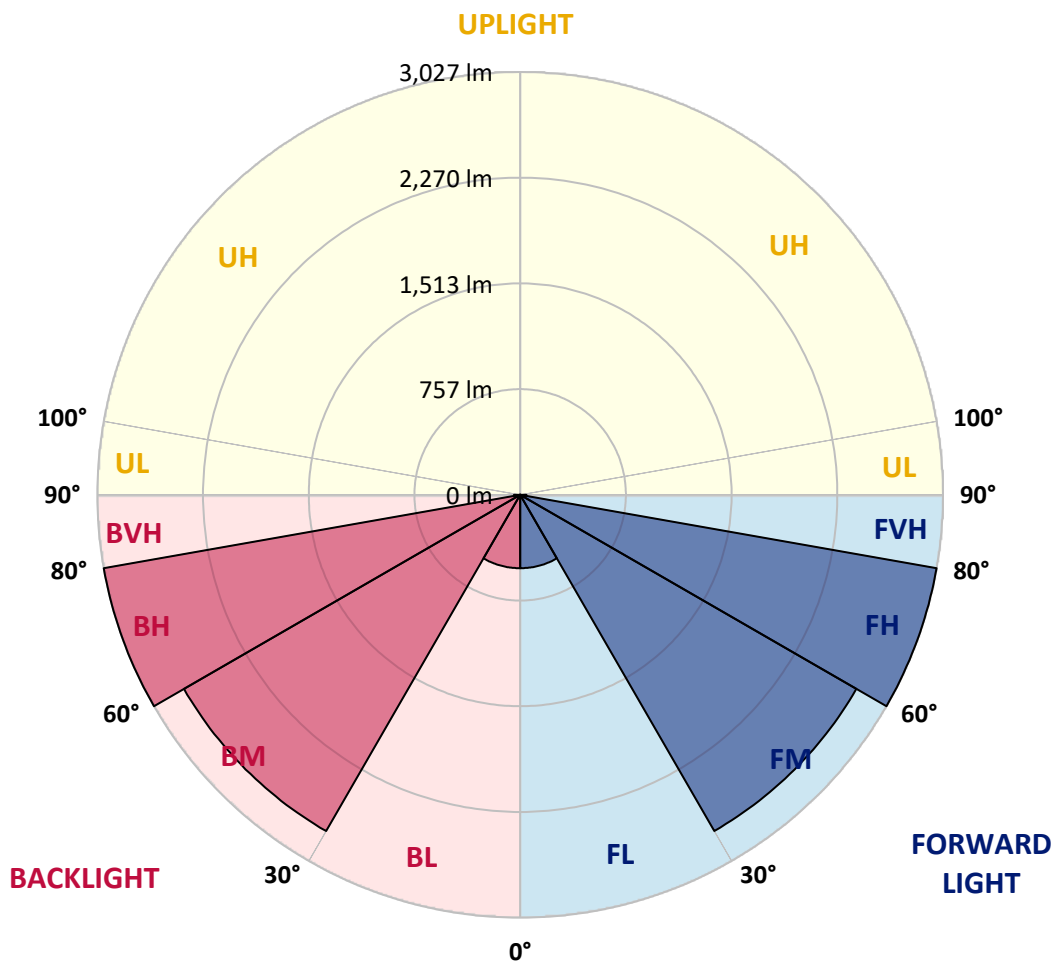
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	525.3	4.1			
FM	(30°-60°)	2778.6	21.8			
FH	(60°-80°)	3026.5	23.7			G2/5000
FVH	(80°-90°)	44.5	0.3			G1/100
BL	(0°-30°)	525.3	4.1	B2/1000		
BM	(30°-60°)	2778.6	21.8	B3/5000		
BH	(60°-80°)	3026.5	23.7	B4/5000		G2/5000
BVH	(80°-90°)	44.5	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°	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6
2.5°	1265.9	1267.1	1267.1	1267.1	1266.5	1266.5	1265.3	1266.5	1265.9	1264.1	1264.7
5°	1255.3	1256.5	1256.5	1255.9	1257.7	1257.1	1255.3	1256.5	1255.9	1254.7	1255.3
7.5°	1240.1	1241.8	1241.8	1241.3	1243.0	1242.4	1241.3	1241.8	1241.8	1240.1	1240.1
10°	1223.1	1224.3	1224.3	1223.7	1226.6	1226.6	1226.0	1227.8	1228.4	1226.6	1225.4
12.5°	1207.3	1209.0	1209.0	1211.4	1214.3	1215.5	1218.4	1220.7	1223.1	1222.5	1220.2
15°	1197.9	1199.0	1201.4	1204.3	1209.0	1213.1	1217.8	1223.1	1227.8	1228.9	1225.4
17.5°	1192.0	1193.8	1197.3	1201.4	1207.8	1214.9	1221.9	1228.9	1235.4	1237.7	1233.6
20°	1190.2	1191.4	1194.9	1202.0	1210.8	1221.3	1231.3	1239.5	1248.3	1251.2	1248.3
22.5°	1193.8	1196.1	1200.2	1208.4	1220.2	1233.6	1245.4	1256.5	1267.6	1272.9	1268.8
25°	1209.6	1211.9	1217.2	1227.8	1240.7	1254.7	1268.2	1281.1	1291.1	1296.4	1293.4
27.5°	1238.9	1241.8	1248.3	1258.8	1272.9	1288.2	1302.8	1313.4	1321.6	1323.3	1319.8
30°	1282.9	1289.3	1297.0	1308.7	1325.1	1338.0	1352.7	1362.0	1372.0	1372.0	1369.1
32.5°	1351.5	1357.9	1366.1	1377.3	1390.2	1404.3	1417.2	1425.4	1435.9	1436.5	1429.5
35°	1454.1	1457.0	1464.1	1471.1	1482.8	1495.1	1506.3	1511.6	1520.4	1520.9	1514.5
37.5°	1589.5	1590.1	1594.8	1597.2	1607.7	1621.2	1631.8	1635.3	1643.5	1642.3	1635.9
40°	1747.3	1750.2	1752.0	1755.5	1766.6	1779.5	1790.6	1792.4	1801.2	1799.4	1791.2
42.5°	1929.6	1930.8	1940.7	1946.0	1956.6	1963.0	1977.1	1978.9	1989.4	1984.7	1975.3
45°	2134.2	2144.8	2154.2	2164.7	2175.9	2183.5	2194.6	2192.3	2199.3	2192.3	2187.0
47.5°	2349.4	2357.0	2378.2	2394.6	2412.7	2419.2	2435.0	2428.0	2435.0	2425.1	2423.3
50°	2586.3	2599.8	2618.0	2636.7	2656.1	2666.6	2687.1	2678.4	2687.7	2678.4	2673.1
52.5°	2819.7	2823.2	2863.0	2890.6	2917.6	2929.9	2942.2	2938.1	2938.7	2938.1	2932.8
55°	3041.3	3049.5	3089.4	3126.9	3173.8	3208.4	3229.5	3227.2	3221.9	3216.6	3207.8
57.5°	3291.1	3299.3	3345.0	3391.3	3444.7	3493.9	3536.7	3580.7	3597.7	3602.4	3583.1
60°	3628.8	3628.2	3689.2	3745.5	3821.7	3895.0	3988.8	4084.4	4194.0	4245.0	4177.6
62.5°	3972.4	3986.5	4074.4	4174.1	4331.2	4484.2	4657.2	4827.2	5000.8	5142.1	4992.0
65°	3931.3	3985.3	4116.0	4341.8	4632.0	4976.8	5349.7	5744.3	6100.8	6345.8	6070.9
67.5°	3407.2	3484.0	3617.1	3891.5	4254.4	4751.6	5377.8	6158.2	7065.3	7503.8	6960.3
70°	2469.6	2556.4	2695.9	2963.9	3323.3	3795.9	4476.0	5413.0	6613.8	7055.9	6457.2
72.5°	1228.9	1275.9	1362.0	1532.7	1804.7	2188.2	2805.0	3705.6	4768.0	5173.8	4626.7
75°	417.5	439.2	453.8	509.5	595.7	746.4	1053.0	1620.0	2471.4	2962.7	2436.2
77.5°	241.0	241.6	251.5	261.5	276.2	292.6	333.6	438.0	757.5	1075.9	783.9
80°	156.0	155.4	163.6	171.2	181.2	189.4	191.7	202.9	233.9	277.3	248.0
82.5°	80.9	90.9	109.1	119.0	137.8	141.3	136.6	132.5	140.1	145.4	148.9
85°	44.6	38.7	58.0	75.1	83.3	84.4	84.4	79.7	82.7	80.9	87.9
87.5°	20.5	18.8	22.9	36.9	39.3	33.4	35.2	31.1	22.3	21.7	24.6
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°	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6	1270.6
2.5°	1264.7	1265.3	1265.3	1267.1	1267.6	1268.8	1270.0	1270.6
5°	1254.7	1256.5	1255.3	1257.1	1257.1	1258.3	1258.3	1258.8
7.5°	1240.1	1241.8	1241.8	1241.8	1241.3	1243.0	1243.0	1243.0
10°	1224.8	1226.0	1225.4	1224.3	1223.1	1224.8	1224.3	1223.7
12.5°	1220.2	1217.2	1214.9	1213.7	1211.4	1211.9	1210.2	1210.2
15°	1223.1	1217.8	1213.7	1211.9	1209.6	1208.4	1207.3	1207.8
17.5°	1230.7	1224.3	1219.0	1216.0	1213.1	1211.4	1209.0	1209.6
20°	1244.2	1236.6	1228.9	1223.1	1217.8	1214.9	1213.1	1212.5
22.5°	1264.1	1253.0	1241.8	1233.0	1226.0	1221.9	1220.2	1219.0
25°	1287.0	1274.7	1261.8	1251.8	1244.8	1239.5	1236.0	1236.0
27.5°	1315.7	1305.8	1294.0	1282.3	1275.9	1270.6	1268.2	1267.1
30°	1363.8	1354.4	1345.0	1333.9	1325.7	1320.4	1316.3	1312.8
32.5°	1425.4	1417.7	1410.1	1401.9	1394.3	1387.3	1380.8	1377.9
35°	1512.1	1506.3	1501.0	1491.6	1488.7	1484.6	1481.1	1478.1
37.5°	1631.8	1629.4	1629.4	1619.4	1617.1	1615.3	1611.8	1612.4
40°	1788.9	1791.2	1788.3	1784.8	1783.0	1778.3	1778.3	1782.4
42.5°	1974.8	1976.5	1983.0	1977.1	1983.6	1977.7	1974.2	1977.1
45°	2190.5	2197.0	2209.9	2204.0	2208.1	2198.1	2185.8	2186.4
47.5°	2432.7	2438.5	2443.8	2439.7	2440.3	2423.9	2407.5	2403.4
50°	2684.2	2686.6	2689.5	2683.6	2684.8	2666.6	2647.9	2648.4
52.5°	2932.8	2944.0	2955.7	2939.9	2936.3	2915.8	2889.4	2878.9
55°	3217.2	3233.0	3219.5	3192.0	3164.4	3136.9	3102.3	3096.4
57.5°	3567.8	3540.8	3498.6	3446.4	3408.3	3369.6	3334.5	3319.8
60°	4055.6	3954.2	3878.0	3800.6	3751.9	3704.4	3658.1	3651.1
62.5°	4745.2	4569.8	4418.0	4257.9	4127.2	4025.1	3943.6	3920.8
65°	5609.4	5194.9	4835.5	4500.1	4208.7	3988.8	3850.4	3789.4
67.5°	5981.1	5162.6	4546.4	4070.3	3689.2	3423.0	3273.5	3199.0
70°	5255.9	4281.4	3611.2	3134.5	2787.4	2503.6	2368.2	2288.4
72.5°	3615.9	2723.5	2153.6	1757.8	1480.5	1243.0	1149.2	1142.2
75°	1623.5	1075.3	741.1	571.1	480.8	418.1	398.7	384.0
77.5°	454.4	336.0	299.6	280.3	261.5	239.8	231.6	233.4
80°	221.0	208.7	200.5	188.2	171.2	153.0	144.8	148.3
82.5°	146.6	144.8	150.1	141.3	116.7	99.1	83.3	76.2
85°	89.1	90.3	92.1	92.6	78.6	55.1	37.5	42.2
87.5°	35.2	40.5	44.0	45.7	42.8	26.4	21.1	21.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)