

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: P299959

Luminaire Tested: **GLNA-AF-05-LED-E1-5WQ-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299959  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-05-LED-E1-5WQ-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17873.1 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2  
  
Input Watts (W): 162  
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

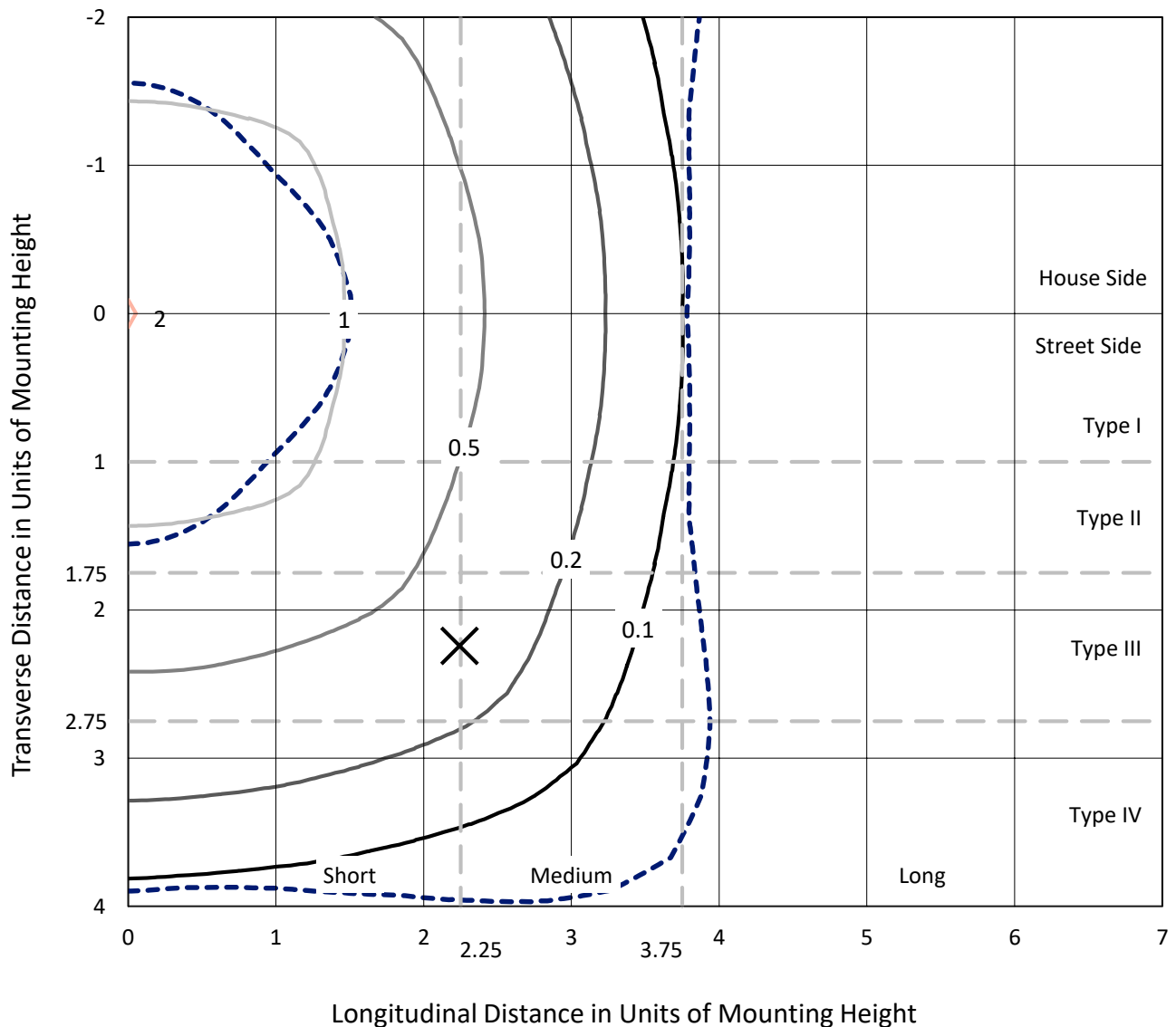


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

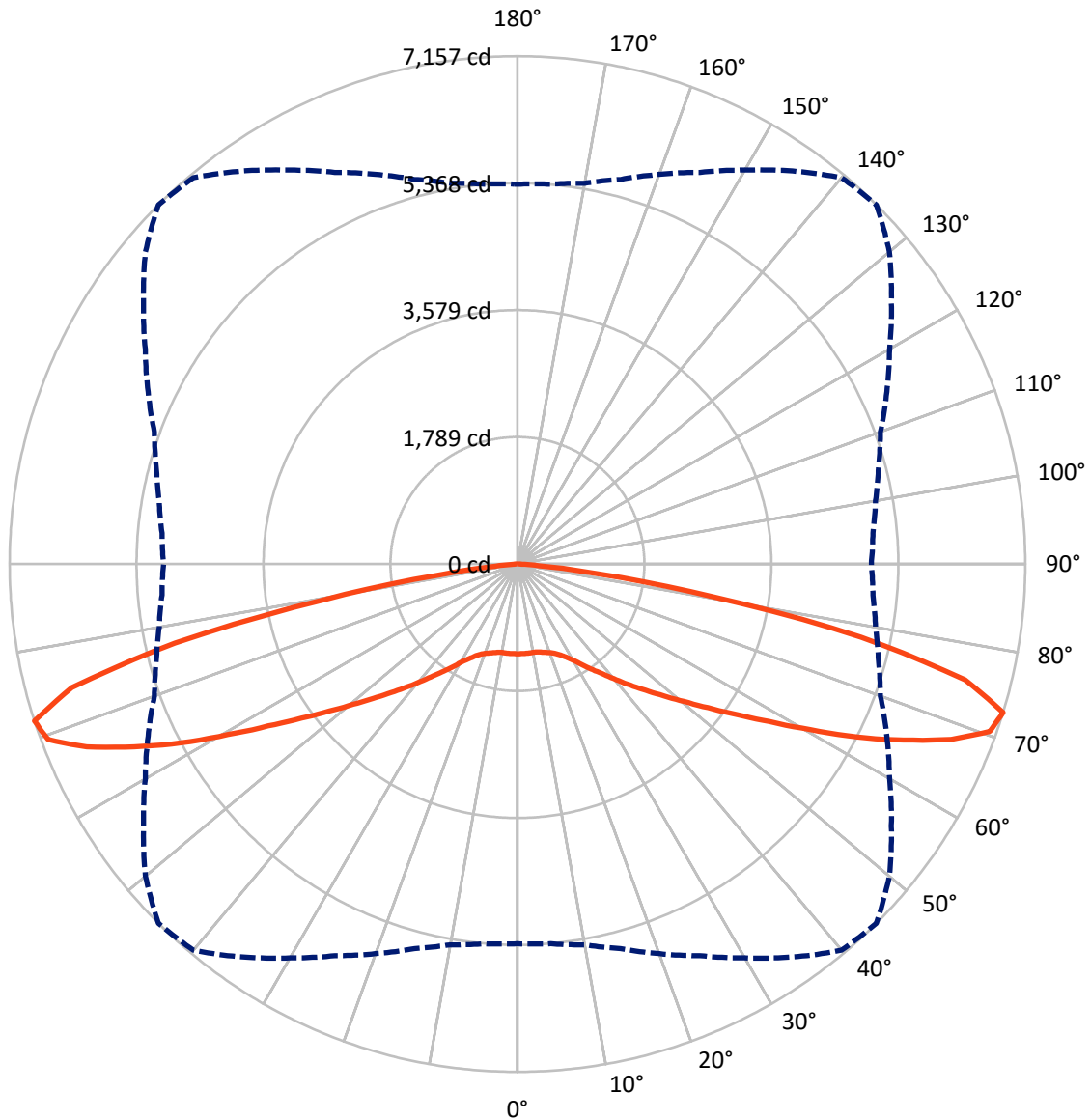


Based on 25 foot mounting height. Maximum calculated value = 2 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8936.5	0.0	8936.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	8936.5	0.0	8936.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	17873.1	0.0	17873.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.9	0.7
10°-20°	367.1	2.1
20°-30°	670.8	3.8
30°-40°	1156.5	6.5
40°-50°	1977.1	11.1
50°-60°	3204.6	17.9
60°-70°	5316.3	29.7
70°-80°	4682.4	26.2
80°-90°	377.5	2.1
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°	17873.1	100.0
0°-180°	17873.1	100.0



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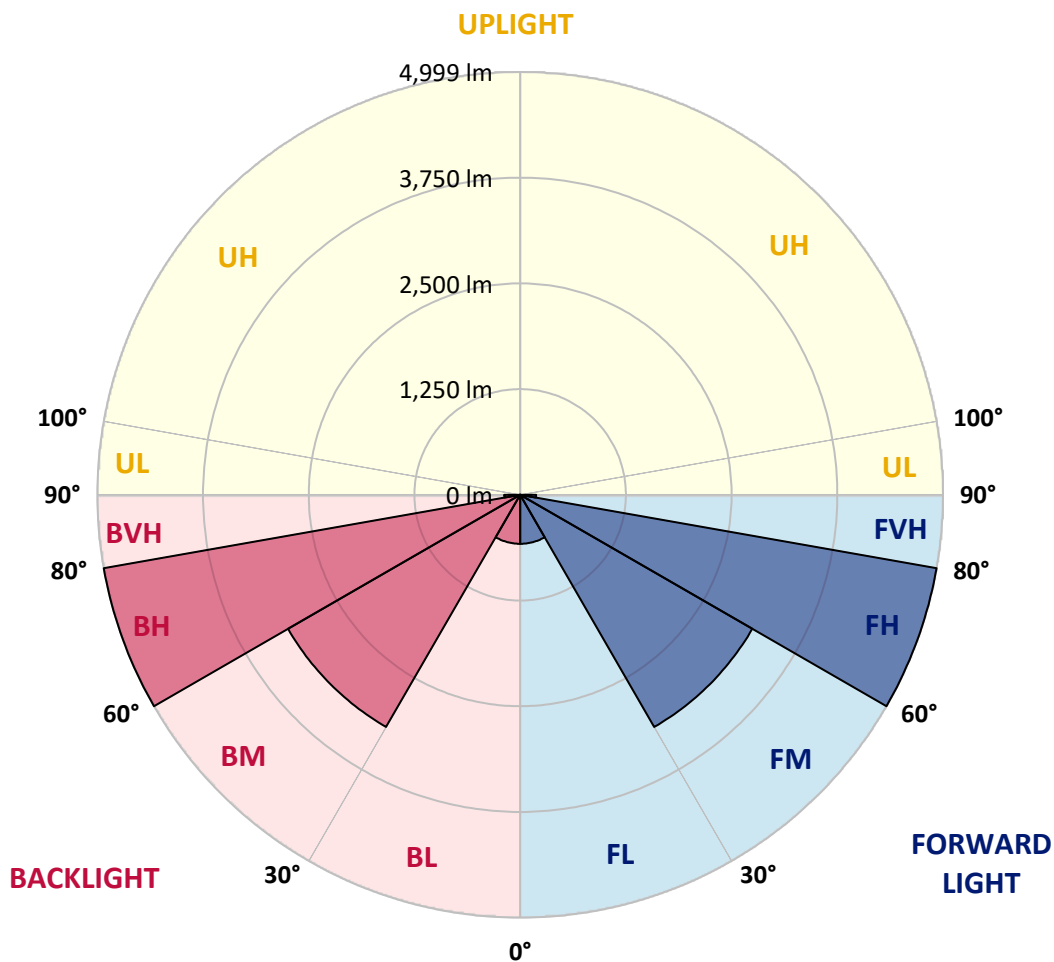
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	579.3	3.2			
FM (30°-60°)	3169.1	17.7			
FH (60°-80°)	4999.3	28.0			G2/5000
FVH (80°-90°)	188.8	1.1			G2/225
BL (0°-30°)	579.3	3.2	B2/1000		
BM (30°-60°)	3169.1	17.7	B3/5000		
BH (60°-80°)	4999.3	28.0	B4/5000		G2/5000
BVH (80°-90°)	188.8	1.1			G2/225
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°	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7
2.5°	1265.7	1266.5	1267.3	1266.5	1266.5	1265.7	1264.9	1265.7	1264.9	1263.2	1264.1
5°	1269.8	1271.4	1271.4	1269.8	1270.6	1269.8	1268.2	1269.0	1267.3	1264.9	1264.9
7.5°	1274.7	1275.5	1275.5	1273.9	1274.7	1273.1	1271.4	1270.6	1269.0	1265.7	1263.2
10°	1282.1	1282.9	1282.1	1280.4	1280.4	1278.0	1273.9	1272.3	1269.0	1264.1	1261.6
12.5°	1290.3	1291.1	1290.3	1288.6	1287.8	1283.7	1280.4	1278.0	1275.5	1271.4	1267.3
15°	1301.8	1303.4	1301.8	1298.5	1296.0	1292.7	1291.1	1291.9	1292.7	1289.5	1285.4
17.5°	1323.1	1323.9	1321.4	1314.1	1310.8	1307.5	1307.5	1309.1	1311.6	1310.0	1305.9
20°	1362.4	1360.0	1354.2	1345.2	1341.1	1335.4	1334.6	1335.4	1335.4	1334.6	1331.3
22.5°	1411.6	1410.0	1402.6	1391.1	1385.4	1382.1	1377.2	1373.1	1372.3	1369.8	1366.5
25°	1470.6	1469.8	1460.8	1451.0	1446.9	1442.8	1438.7	1432.9	1428.0	1422.3	1419.0
27.5°	1546.0	1542.8	1529.7	1524.7	1519.0	1516.5	1510.8	1504.2	1500.1	1492.8	1488.7
30°	1628.8	1628.8	1618.2	1616.5	1616.5	1610.8	1604.2	1592.8	1585.4	1578.0	1575.6
32.5°	1711.6	1712.5	1701.8	1705.1	1707.5	1711.6	1713.3	1709.2	1704.3	1703.4	1698.5
35°	1831.3	1828.0	1817.4	1819.8	1819.0	1818.2	1818.2	1827.2	1828.9	1830.5	1820.7
37.5°	1979.7	1979.7	1969.0	1969.0	1964.1	1959.2	1952.6	1958.4	1967.4	1969.9	1963.3
40°	2149.4	2155.1	2142.0	2141.2	2142.8	2127.2	2119.9	2128.9	2134.6	2144.5	2137.1
42.5°	2349.4	2345.3	2332.2	2330.5	2321.5	2316.6	2310.1	2317.4	2326.4	2333.0	2335.5
45°	2541.2	2537.9	2523.2	2523.2	2514.2	2510.1	2513.3	2525.6	2529.7	2538.8	2547.8
47.5°	2730.6	2726.5	2716.6	2720.7	2721.6	2728.9	2739.6	2751.1	2762.6	2774.8	2778.9
50°	2924.0	2924.9	2914.2	2924.0	2936.3	2956.8	2985.5	3004.4	3028.2	3043.7	3048.6
52.5°	3100.3	3103.6	3115.0	3138.0	3162.6	3202.8	3251.9	3297.8	3337.2	3363.4	3361.8
55°	3311.8	3316.7	3344.6	3383.9	3424.1	3484.8	3557.7	3638.9	3704.4	3742.2	3718.4
57.5°	3582.3	3593.0	3624.1	3677.4	3737.2	3815.9	3915.9	4038.1	4139.7	4190.6	4152.0
60°	3953.6	3960.2	3997.9	4056.9	4129.1	4226.6	4360.2	4524.2	4667.6	4734.9	4690.6
62.5°	4443.0	4455.3	4485.7	4545.5	4619.3	4730.0	4893.1	5098.0	5276.7	5370.2	5270.2
65°	5027.5	5066.9	5092.3	5152.9	5221.8	5339.0	5509.5	5729.2	5921.0	5982.5	5866.9
67.5°	5606.3	5640.7	5685.0	5754.6	5824.3	5956.3	6114.5	6327.6	6538.3	6594.1	6414.5
70°	5859.6	5879.2	5948.1	6043.2	6176.8	6332.6	6515.4	6754.7	7015.4	7061.3	6833.4
72.5°	5352.1	5371.8	5448.9	5610.4	5843.2	6090.7	6409.6	6761.3	7105.6	7157.2	6843.3
75°	4047.9	4015.9	4129.9	4343.8	4657.8	5002.9	5448.9	5953.0	6450.6	6515.4	6140.7
77.5°	2092.0	2087.9	2174.0	2439.6	2814.2	3206.9	3697.9	4267.6	4754.5	4951.3	4646.3
80°	589.4	596.0	636.9	768.9	987.8	1271.4	1655.1	2188.7	2587.1	2790.4	2619.9
82.5°	231.2	249.2	264.8	289.4	318.1	359.9	480.4	714.8	959.1	1146.0	938.6
85°	82.8	88.5	125.4	148.4	150.8	159.0	181.2	211.5	254.9	304.1	250.0
87.5°	31.2	34.4	40.2	66.4	65.6	59.8	73.0	76.2	57.4	52.5	64.8
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°	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7	1265.7
2.5°	1262.4	1263.2	1263.2	1264.1	1264.9	1264.9	1266.5	1266.5
5°	1263.2	1263.2	1261.6	1262.4	1261.6	1261.6	1262.4	1262.4
7.5°	1261.6	1260.8	1259.1	1258.3	1256.7	1256.7	1256.7	1256.7
10°	1259.1	1258.3	1256.7	1255.9	1255.0	1255.0	1255.0	1255.0
12.5°	1265.7	1263.2	1261.6	1260.8	1260.8	1260.8	1260.8	1260.8
15°	1282.9	1277.2	1273.1	1273.1	1273.9	1275.5	1275.5	1277.2
17.5°	1304.2	1297.7	1293.6	1290.3	1291.9	1294.4	1296.0	1297.7
20°	1329.6	1326.4	1320.6	1317.3	1317.3	1320.6	1322.3	1323.1
22.5°	1364.9	1362.4	1360.0	1355.9	1355.9	1357.5	1360.8	1360.8
25°	1417.3	1415.7	1414.1	1410.8	1410.0	1410.0	1411.6	1413.2
27.5°	1482.9	1483.7	1482.1	1481.3	1478.8	1478.0	1480.5	1479.6
30°	1570.6	1574.7	1578.8	1575.6	1571.5	1569.0	1566.5	1563.3
32.5°	1689.5	1684.6	1681.3	1675.6	1668.2	1661.6	1656.7	1651.0
35°	1801.8	1793.6	1790.3	1795.2	1794.4	1790.3	1784.6	1779.7
37.5°	1939.5	1937.9	1939.5	1948.5	1946.9	1951.0	1939.5	1938.7
40°	2113.3	2115.0	2126.4	2137.1	2142.8	2148.6	2142.0	2135.4
42.5°	2315.0	2314.2	2318.2	2333.0	2342.8	2349.4	2335.5	2333.8
45°	2528.1	2522.4	2525.6	2537.9	2547.8	2555.2	2539.6	2539.6
47.5°	2762.6	2752.7	2742.1	2756.0	2761.7	2766.7	2754.4	2750.3
50°	3024.1	3003.6	2980.6	2986.3	2986.3	2984.7	2969.1	2968.3
52.5°	3324.1	3286.4	3244.6	3229.0	3220.0	3210.1	3183.1	3170.0
55°	3669.2	3612.6	3547.1	3506.9	3485.6	3458.5	3413.4	3401.1
57.5°	4072.5	3984.0	3870.9	3821.7	3774.1	3729.9	3679.9	3665.9
60°	4550.4	4420.1	4270.1	4179.1	4127.4	4084.8	4033.2	4030.7
62.5°	5083.3	4877.5	4707.8	4625.8	4588.1	4550.4	4501.2	4507.8
65°	5625.1	5410.3	5251.3	5184.9	5149.7	5118.5	5069.3	5076.7
67.5°	6159.6	5962.0	5787.4	5719.4	5680.0	5640.7	5596.4	5603.8
70°	6543.2	6298.1	6101.4	5950.6	5856.3	5749.7	5680.9	5663.6
72.5°	6433.4	6055.5	5743.2	5444.0	5268.5	5125.9	5029.2	4987.4
75°	5567.7	5051.3	4649.6	4282.4	4075.8	3907.7	3785.6	3709.4
77.5°	4134.8	3554.4	3079.8	2656.8	2322.3	2097.7	1939.5	1837.1
80°	2263.3	1721.5	1258.3	884.5	650.1	540.2	477.1	446.8
82.5°	705.0	455.0	335.3	289.4	268.9	257.4	238.5	208.2
85°	224.6	196.7	182.8	174.6	166.4	145.1	100.0	91.0
87.5°	86.9	89.4	88.5	83.6	85.3	61.5	49.2	43.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)