

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: P299827

Luminaire Tested: **GLNA-AF-03-LED-E1-5WQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299827  
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-03-LED-E1-5WQ-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16572.4 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B4 - U0 - G2

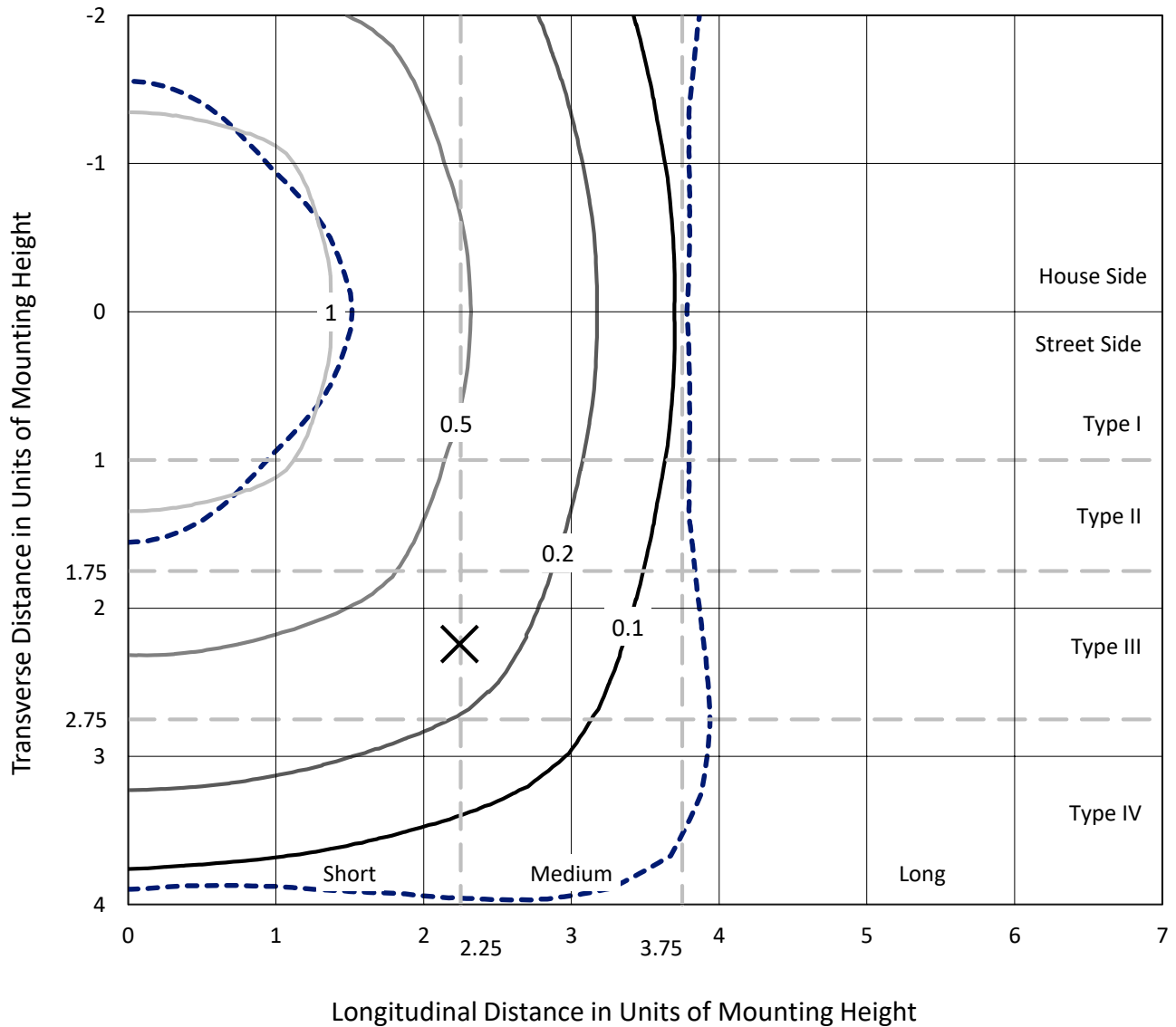
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P299827  
 CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7027

### Iso-Footcandle Lines of Horizontal Illumination

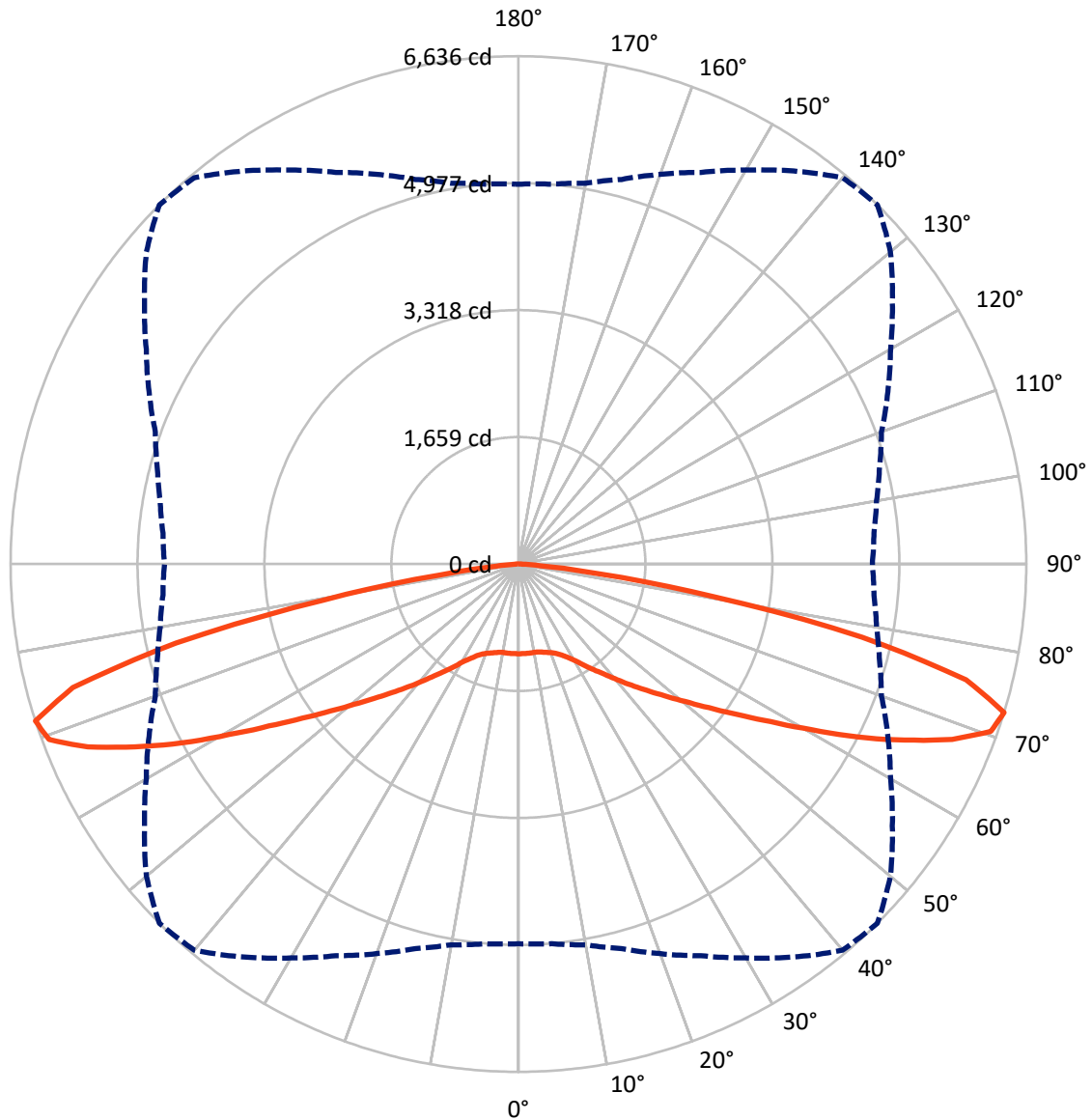
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P299827  
CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7027

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P299827

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8286.2	0.0	8286.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	8286.2	0.0	8286.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	16572.4	0.0	16572.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.1	0.7
10°-20°	340.3	2.1
20°-30°	622.0	3.8
30°-40°	1072.4	6.5
40°-50°	1833.2	11.1
50°-60°	2971.4	17.9
60°-70°	4929.4	29.7
70°-80°	4341.6	26.2
80°-90°	350.1	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°	16572.4	100.0
0°-180°	16572.4	100.0



REPORT NUMBER: P299827

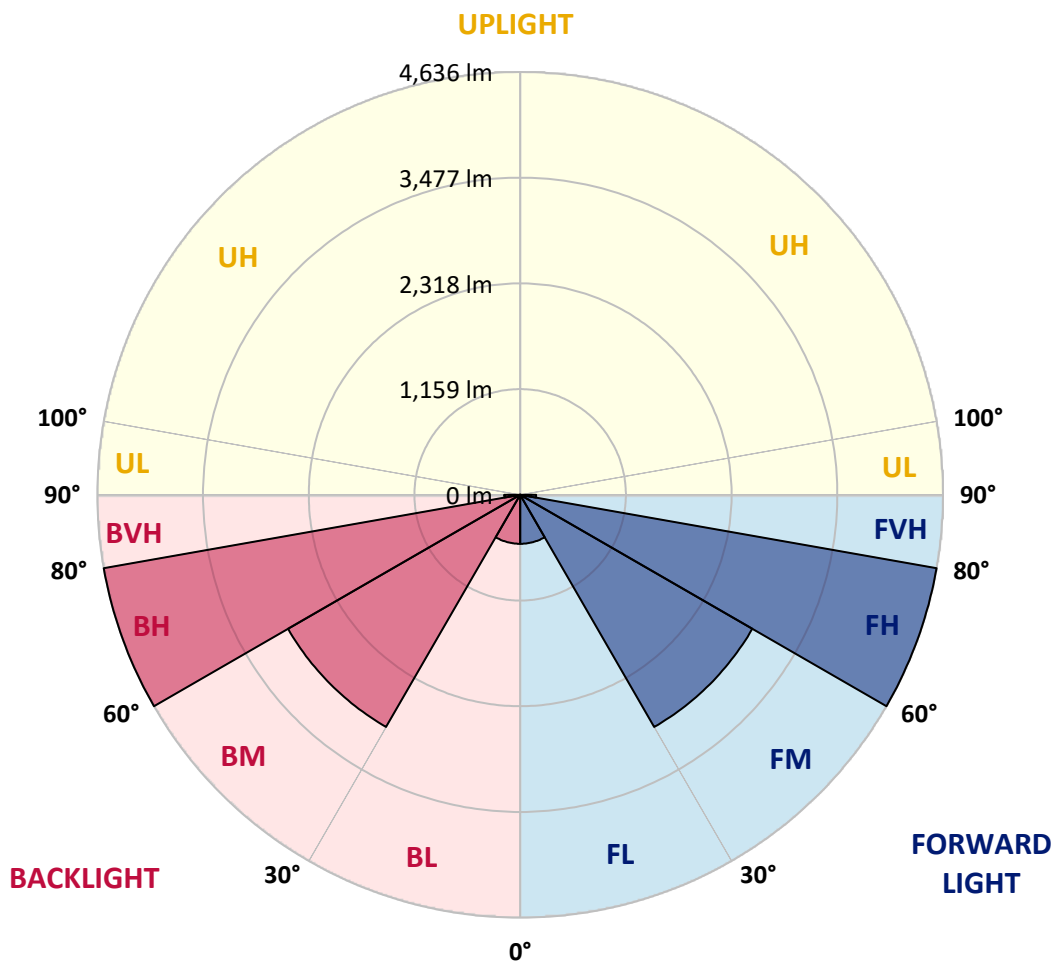
CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	537.2	3.2			
FM	(30°-60°)	2938.5	17.7			
FH	(60°-80°)	4635.5	28.0			G2/5000
FVH	(80°-90°)	175.0	1.1			G2/225
BL	(0°-30°)	537.2	3.2	B2/1000		
BM	(30°-60°)	2938.5	17.7	B3/5000		
BH	(60°-80°)	4635.5	28.0	B4/5000		G2/5000
BVH	(80°-90°)	175.0	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





REPORT NUMBER: P299827

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6
2.5°	1173.6	1174.3	1175.1	1174.3	1174.3	1173.6	1172.8	1173.6	1172.8	1171.3	1172.1
5°	1177.4	1178.9	1178.9	1177.4	1178.1	1177.4	1175.9	1176.6	1175.1	1172.8	1172.8
7.5°	1181.9	1182.7	1182.7	1181.2	1181.9	1180.4	1178.9	1178.1	1176.6	1173.6	1171.3
10°	1188.8	1189.5	1188.8	1187.3	1187.3	1185.0	1181.2	1179.7	1176.6	1172.1	1169.8
12.5°	1196.4	1197.1	1196.4	1194.9	1194.1	1190.3	1187.3	1185.0	1182.7	1178.9	1175.1
15°	1207.0	1208.5	1207.0	1204.0	1201.7	1198.7	1197.1	1197.9	1198.7	1195.6	1191.8
17.5°	1226.8	1227.6	1225.3	1218.4	1215.4	1212.3	1212.3	1213.9	1216.1	1214.6	1210.8
20°	1263.3	1261.0	1255.7	1247.3	1243.5	1238.2	1237.4	1238.2	1238.2	1237.4	1234.4
22.5°	1308.9	1307.4	1300.5	1289.9	1284.6	1281.5	1277.0	1273.2	1272.4	1270.1	1267.1
25°	1363.6	1362.8	1354.5	1345.4	1341.6	1337.8	1334.0	1328.6	1324.1	1318.8	1315.7
27.5°	1433.5	1430.5	1418.3	1413.8	1408.5	1406.2	1400.9	1394.8	1391.0	1384.1	1380.3
30°	1510.3	1510.3	1500.4	1498.9	1498.9	1493.6	1487.5	1476.9	1470.0	1463.2	1460.9
32.5°	1587.1	1587.8	1578.0	1581.0	1583.3	1587.1	1588.6	1584.8	1580.2	1579.5	1574.9
35°	1698.0	1695.0	1685.1	1687.4	1686.6	1685.9	1685.9	1694.2	1695.8	1697.3	1688.2
37.5°	1835.6	1835.6	1825.7	1825.7	1821.2	1816.6	1810.5	1815.9	1824.2	1826.5	1820.4
40°	1993.0	1998.3	1986.1	1985.4	1986.9	1972.4	1965.6	1974.0	1979.3	1988.4	1981.6
42.5°	2178.4	2174.6	2162.5	2160.9	2152.6	2148.0	2141.9	2148.8	2157.1	2163.2	2165.5
45°	2356.3	2353.2	2339.6	2339.6	2331.2	2327.4	2330.4	2341.8	2345.6	2354.0	2362.4
47.5°	2531.9	2528.1	2518.9	2522.7	2523.5	2530.4	2540.2	2550.9	2561.5	2572.9	2576.7
50°	2711.3	2712.0	2702.1	2711.3	2722.7	2741.7	2768.3	2785.7	2807.8	2822.2	2826.8
52.5°	2874.7	2877.7	2888.4	2909.6	2932.4	2969.7	3015.3	3057.9	3094.3	3118.7	3117.1
55°	3070.8	3075.3	3101.2	3137.7	3174.9	3231.2	3298.8	3374.1	3434.9	3469.8	3447.8
57.5°	3321.6	3331.5	3360.4	3409.8	3465.3	3538.2	3631.0	3744.2	3838.5	3885.6	3849.9
60°	3665.9	3672.0	3707.0	3761.7	3828.6	3919.0	4042.9	4195.0	4328.0	4390.3	4349.3
62.5°	4119.7	4131.1	4159.2	4214.7	4283.1	4385.7	4537.0	4727.0	4892.7	4979.4	4886.6
65°	4661.7	4698.1	4721.7	4777.9	4841.8	4950.5	5108.6	5312.3	5490.2	5547.2	5440.0
67.5°	5198.3	5230.2	5271.2	5335.9	5400.5	5522.8	5669.5	5867.2	6062.5	6114.2	5947.7
70°	5433.1	5451.4	5515.2	5603.4	5727.3	5871.7	6041.2	6263.2	6504.9	6547.4	6336.1
72.5°	4962.6	4980.9	5052.3	5202.1	5417.9	5647.5	5943.2	6269.2	6588.5	6636.4	6345.3
75°	3753.3	3723.7	3829.3	4027.7	4318.8	4638.8	5052.3	5519.8	5981.2	6041.2	5693.9
77.5°	1939.8	1936.0	2015.8	2262.0	2609.4	2973.5	3428.8	3957.0	4408.5	4591.0	4308.2
80°	546.5	552.6	590.6	713.0	915.9	1178.9	1534.6	2029.4	2398.9	2587.4	2429.3
82.5°	214.3	231.1	245.5	268.3	294.9	333.7	445.4	662.8	889.3	1062.6	870.3
85°	76.8	82.1	116.3	137.6	139.9	147.5	168.0	196.1	236.4	282.0	231.8
87.5°	28.9	31.9	37.2	61.6	60.8	55.5	67.6	70.7	53.2	48.6	60.0
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: P299827

CATALOG NUMBER: GLNA-AF-03-LED-E1-5WQ-7027

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6	1173.6
2.5°	1170.5	1171.3	1171.3	1172.1	1172.8	1172.8	1174.3	1174.3
5°	1171.3	1171.3	1169.8	1170.5	1169.8	1169.8	1170.5	1170.5
7.5°	1169.8	1169.0	1167.5	1166.7	1165.2	1165.2	1165.2	1165.2
10°	1167.5	1166.7	1165.2	1164.5	1163.7	1163.7	1163.7	1163.7
12.5°	1173.6	1171.3	1169.8	1169.0	1169.0	1169.0	1169.0	1169.0
15°	1189.5	1184.2	1180.4	1180.4	1181.2	1182.7	1182.7	1184.2
17.5°	1209.3	1203.2	1199.4	1196.4	1197.9	1200.2	1201.7	1203.2
20°	1232.9	1229.8	1224.5	1221.5	1221.5	1224.5	1226.0	1226.8
22.5°	1265.6	1263.3	1261.0	1257.2	1257.2	1258.7	1261.8	1261.8
25°	1314.2	1312.7	1311.2	1308.1	1307.4	1307.4	1308.9	1310.4
27.5°	1375.0	1375.8	1374.2	1373.5	1371.2	1370.4	1372.7	1372.0
30°	1456.3	1460.1	1463.9	1460.9	1457.1	1454.8	1452.5	1449.5
32.5°	1566.6	1562.0	1559.0	1553.6	1546.8	1540.7	1536.1	1530.8
35°	1670.7	1663.1	1660.0	1664.6	1663.8	1660.0	1654.7	1650.2
37.5°	1798.4	1796.9	1798.4	1806.7	1805.2	1809.0	1798.4	1797.6
40°	1959.5	1961.0	1971.7	1981.6	1986.9	1992.2	1986.1	1980.0
42.5°	2146.5	2145.7	2149.5	2163.2	2172.3	2178.4	2165.5	2164.0
45°	2344.1	2338.8	2341.8	2353.2	2362.4	2369.2	2354.8	2354.8
47.5°	2561.5	2552.4	2542.5	2555.4	2560.8	2565.3	2553.9	2550.1
50°	2804.0	2785.0	2763.7	2769.0	2769.0	2767.5	2753.1	2752.3
52.5°	3082.2	3047.2	3008.4	2994.0	2985.6	2976.5	2951.4	2939.3
55°	3402.2	3349.7	3288.9	3251.7	3231.9	3206.8	3165.0	3153.6
57.5°	3776.1	3694.1	3589.2	3543.6	3499.5	3458.4	3412.1	3399.1
60°	4219.3	4098.4	3959.3	3875.0	3827.1	3787.5	3739.7	3737.4
62.5°	4713.3	4522.6	4365.2	4289.2	4254.2	4219.3	4173.7	4179.8
65°	5215.8	5016.6	4869.2	4807.6	4774.9	4746.0	4700.4	4707.3
67.5°	5711.3	5528.2	5366.3	5303.2	5266.7	5230.2	5189.2	5196.0
70°	6067.1	5839.8	5657.4	5517.5	5430.1	5331.3	5267.4	5251.5
72.5°	5965.2	5614.8	5325.2	5047.8	4885.1	4752.9	4663.2	4624.4
75°	5162.6	4683.7	4311.2	3970.7	3779.2	3623.4	3510.1	3439.4
77.5°	3833.9	3295.8	2855.7	2463.5	2153.3	1945.1	1798.4	1703.4
80°	2098.6	1596.2	1166.7	820.1	602.8	500.9	442.4	414.3
82.5°	653.7	421.9	310.9	268.3	249.3	238.7	221.2	193.1
85°	208.3	182.4	169.5	161.9	154.3	134.5	92.7	84.4
87.5°	80.6	82.9	82.1	77.5	79.0	57.0	45.6	40.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)