

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: P301104

Luminaire Tested: **GLNA-AF-05-LED-E1-T3R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301104  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
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-T3R-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

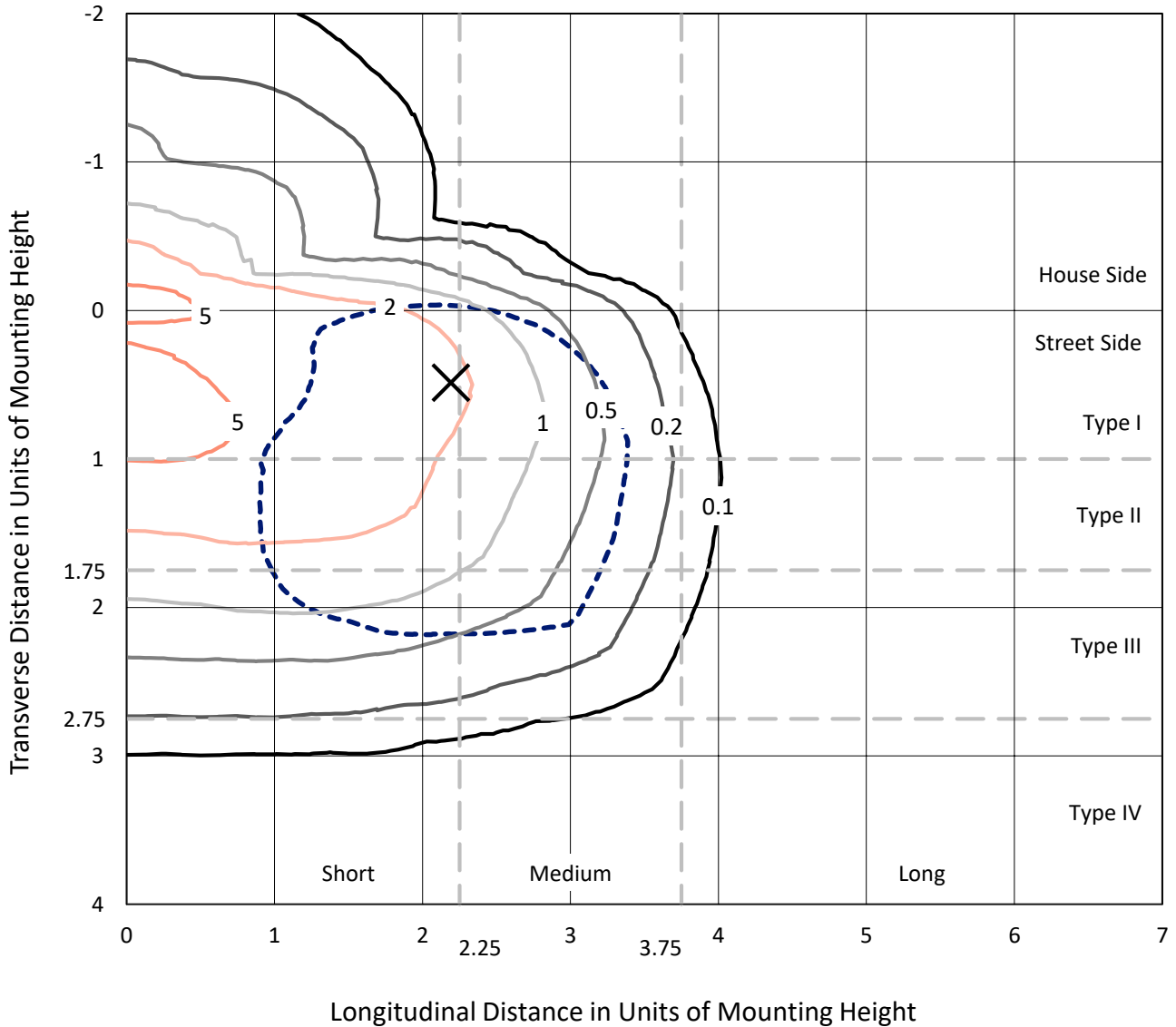
Lumens per Lamp: N/A  
Luminaire Lumens: 26335.6 lumens  
Efficiency: N/A  
Efficacy: 94.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (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: P301104  
 CATALOG NUMBER: GLNA-AF-05-LED-E1-T3R-7027

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

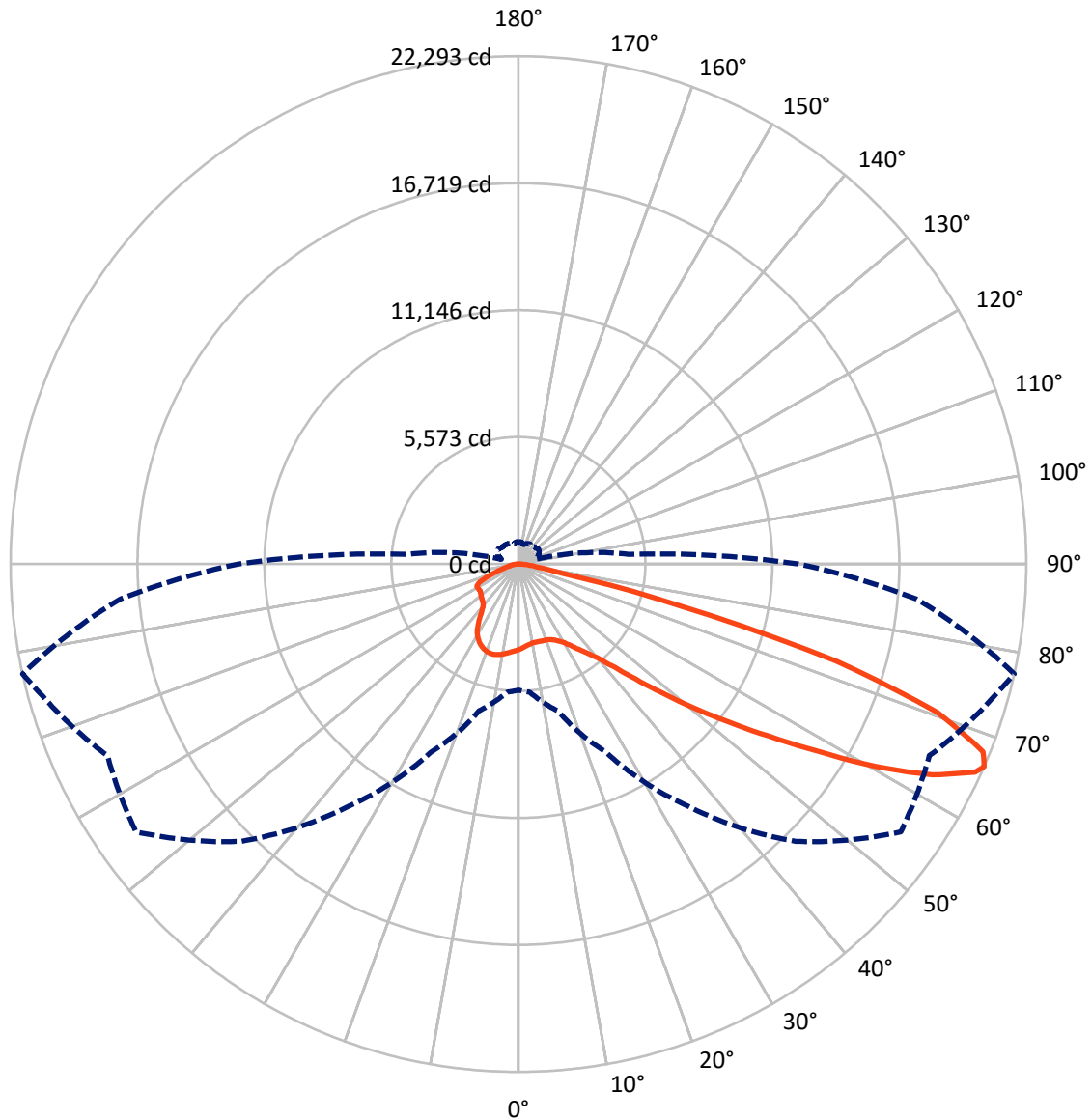


Based on 25 foot mounting height. Maximum calculated value = 7.4 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P301104

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3R-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

REPORT NUMBER: P301104

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3R-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4499.3	0.0	4499.3
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	21836.4	0.0	21836.4
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	26335.6	0.0	26335.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	335.3	1.3
10°-20°	945.9	3.6
20°-30°	1614.4	6.1
30°-40°	2584.3	9.8
40°-50°	3992.5	15.2
50°-60°	5662.8	21.5
60°-70°	7575.2	28.8
70°-80°	3289.8	12.5
80°-90°	335.4	1.3
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°	26335.6	100.0
0°-180°	26335.6	100.0



REPORT NUMBER: P301104

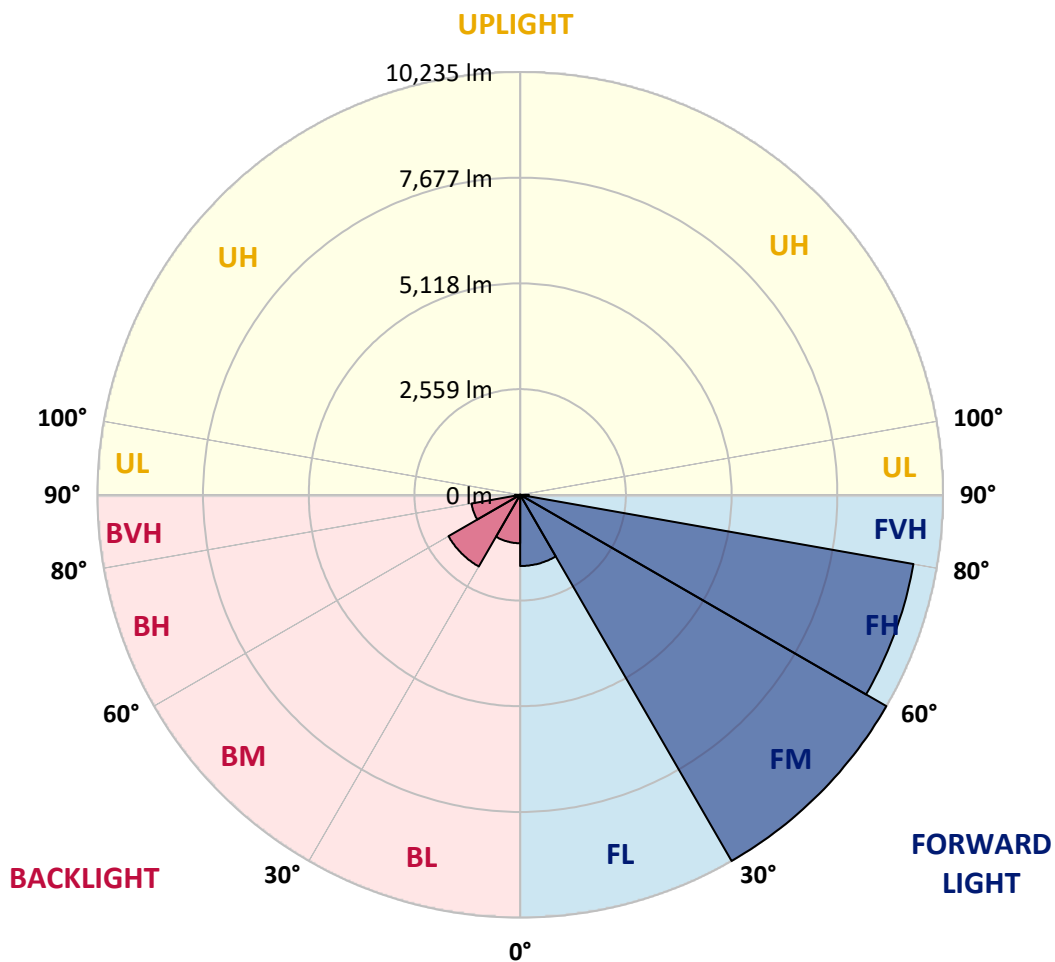
CATALOG NUMBER: GLNA-AF-05-LED-E1-T3R-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1723.8	6.5			
FM	(30°-60°)	10235.4	38.9			
FH	(60°-80°)	9666.8	36.7			G4/12000
FVH	(80°-90°)	210.4	0.8			G2/225
BL	(0°-30°)	1171.8	4.4	B3/2500		
BM	(30°-60°)	2004.2	7.6	B2/2500		
BH	(60°-80°)	1198.3	4.5	B3/2500		G3/2500
BVH	(80°-90°)	125.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





REPORT NUMBER: P301104

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3R-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9
2.5°	3320.0	3342.2	3361.1	3378.4	3413.1	3470.3	3536.3	3589.8	3667.0	3682.1	3723.2
5°	3015.2	3015.2	3029.9	3056.3	3103.4	3189.3	3279.0	3398.4	3566.4	3606.0	3715.6
7.5°	2867.2	2868.3	2876.9	2899.2	2940.2	3018.6	3116.9	3257.9	3485.4	3551.3	3737.8
10°	2921.8	2909.3	2890.5	2879.6	2885.6	2931.6	3025.0	3181.7	3435.7	3520.1	3788.0
12.5°	3227.7	3204.4	3139.6	3053.6	2971.5	2938.0	2992.6	3145.6	3414.6	3512.9	3853.9
15°	3728.1	3718.3	3597.3	3419.5	3220.6	3053.6	3016.3	3132.0	3416.8	3521.6	3932.3
17.5°	4355.4	4341.4	4182.4	3923.6	3598.8	3274.1	3099.6	3143.3	3425.5	3536.3	4008.0
20°	4988.7	4946.1	4774.7	4466.1	4049.1	3573.6	3237.9	3172.0	3436.8	3552.5	4087.9
22.5°	5461.5	5426.5	5272.4	4972.5	4492.1	3921.0	3423.3	3221.7	3473.0	3600.0	4185.8
25°	5877.1	5879.4	5726.4	5436.7	4940.1	4289.4	3662.1	3354.7	3564.9	3696.8	4320.3
27.5°	6391.0	6361.2	6218.1	5930.6	5383.2	4661.3	3950.7	3537.8	3702.1	3835.1	4497.0
30°	7005.5	6984.4	6819.0	6493.1	5874.5	5060.7	4280.4	3750.3	3878.8	4016.6	4728.4
32.5°	7728.5	7718.7	7546.9	7127.6	6441.9	5531.2	4667.7	4031.7	4142.5	4285.7	5060.7
35°	8577.3	8578.5	8375.8	7871.7	7062.8	6078.7	5106.6	4393.8	4463.5	4612.7	5456.6
37.5°	9099.9	9163.2	9087.5	8573.6	7765.8	6690.9	5676.7	4874.2	4829.3	4980.0	5880.9
40°	9211.8	9289.0	9529.0	9267.9	8552.5	7365.3	6181.9	5335.7	5279.9	5463.8	6427.2
42.5°	9055.1	9162.1	9669.9	9853.8	9387.4	8196.4	6861.2	6021.4	5950.6	6198.1	7106.5
45°	8961.6	9041.5	9628.9	10159.0	10111.5	9136.1	7726.2	6882.3	6856.3	7181.1	7890.5
47.5°	8800.0	8872.3	9437.1	10229.8	10537.3	9997.0	8765.3	7935.3	7986.2	8411.9	8775.1
50°	8887.0	8916.8	9223.1	10049.3	10660.5	10628.1	9926.1	9154.5	9329.0	9860.2	9777.0
52.5°	8874.6	8951.8	9198.2	9753.2	10676.7	11017.6	11069.6	10514.6	10882.0	11491.6	10888.0
55°	7175.0	7316.7	8905.9	9678.6	10733.5	11399.3	12087.6	11948.2	12632.4	13343.0	12142.3
57.5°	6851.4	6941.1	7821.9	9835.3	11037.2	12128.7	13219.8	13526.1	14670.7	15495.8	13670.4
60°	6787.7	6898.5	7810.6	10027.1	11653.2	13317.0	14898.6	15436.3	17150.9	18054.4	15442.3
62.5°	6589.9	6709.4	7737.2	10001.9	12528.1	14960.8	17047.7	17467.0	19502.7	20381.3	16924.5
65°	5963.0	6074.9	7138.9	9600.2	13118.1	16715.4	19590.8	19328.6	21359.3	22019.8	17663.3
66°	5533.5	5643.1	6667.2	9127.4	12980.9	17213.1	20492.0	19904.7	21774.9	22292.6	17519.0
67.5°	4748.3	4834.2	5751.3	8068.3	12253.0	17352.5	21249.7	20337.6	21818.2	22001.3	16694.3
70°	3000.1	3025.0	3737.8	5569.7	9275.5	15049.0	20096.1	19262.7	20019.2	19523.8	13995.2
72.5°	1301.7	1293.0	1794.5	2833.2	5251.3	10098.0	16256.1	15894.0	15703.8	14573.9	9796.9
75°	724.1	734.3	932.1	1315.3	2134.0	4960.1	10634.1	10176.3	8592.0	7331.8	4442.4
77.5°	581.0	594.9	772.7	933.2	958.1	1729.7	4976.3	4049.1	2437.6	1956.1	1234.3
80°	459.3	484.1	674.4	726.8	645.8	712.8	1607.6	1285.5	964.5	884.6	639.7
82.5°	363.2	380.9	578.7	550.1	451.7	480.4	770.1	750.5	627.3	571.2	369.6
85°	261.5	293.5	475.5	414.4	296.1	323.6	511.3	490.2	359.4	293.5	163.1
87.5°	107.0	139.4	336.1	275.0	165.4	150.7	255.1	240.0	170.3	124.3	81.0
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: P301104

CATALOG NUMBER: GLNA-AF-05-LED-E1-T3R-7027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9	3752.9
2.5°	3749.1	3778.9	3817.7	3841.5	3853.9	3862.6	3876.1	3875.0	3878.8	3879.9	3884.8
5°	3774.0	3823.7	3879.9	3895.0	3895.0	3881.0	3867.5	3844.8	3836.2	3833.9	3836.2
7.5°	3838.8	3893.4	3942.1	3924.7	3887.4	3832.4	3761.6	3699.4	3665.9	3654.6	3652.3
10°	3921.0	3986.9	4006.9	3940.9	3831.3	3699.4	3558.9	3456.8	3398.4	3382.2	3377.3
12.5°	4020.4	4082.6	4055.5	3916.1	3713.0	3500.5	3306.1	3143.3	3021.2	2982.8	2980.2
15°	4130.1	4178.7	4082.6	3838.8	3536.3	3222.8	2876.9	2595.9	2444.0	2395.4	2391.7
17.5°	4232.2	4257.0	4066.4	3704.3	3276.3	2768.8	2309.5	2092.9	2040.9	2053.3	2055.6
20°	4319.2	4319.2	4011.8	3511.4	2867.2	2170.1	1880.0	1876.6	1913.9	1951.2	1958.8
22.5°	4414.9	4357.6	3916.1	3239.0	2286.9	1775.7	1733.5	1768.1	1810.3	1851.4	1857.8
25°	4533.2	4388.9	3782.7	2826.1	1797.9	1612.5	1628.7	1657.4	1678.5	1704.8	1708.6
27.5°	4665.1	4428.4	3607.5	2257.2	1560.5	1510.8	1523.2	1533.0	1530.4	1540.6	1542.8
30°	4822.9	4474.8	3367.1	1764.4	1462.2	1423.4	1401.2	1392.5	1392.5	1408.7	1414.7
32.5°	5034.7	4543.0	3022.4	1511.9	1414.7	1361.2	1289.3	1256.9	1269.3	1323.9	1336.4
35°	5267.5	4616.5	2555.9	1426.0	1404.9	1332.6	1220.7	1160.8	1162.3	1213.2	1229.4
37.5°	5521.1	4709.9	2044.3	1409.8	1427.2	1334.1	1184.5	1102.4	1068.9	1068.9	1075.3
40°	5845.8	4805.6	1655.1	1421.1	1474.6	1348.8	1166.1	1056.4	961.9	964.5	969.4
42.5°	6268.9	4887.7	1446.0	1444.5	1531.9	1368.8	1164.6	995.4	913.3	969.4	1020.3
45°	6739.5	4928.8	1353.7	1466.0	1577.9	1381.2	1145.0	985.6	919.7	1086.2	1183.4
47.5°	7280.5	4905.1	1302.8	1473.1	1589.2	1381.2	1122.4	1009.3	963.0	1258.0	1371.4
50°	7874.3	4836.9	1253.1	1458.4	1585.4	1378.6	1143.5	1032.7	979.2	1287.8	1366.1
52.5°	8572.4	4779.6	1200.7	1426.0	1559.0	1365.0	1168.3	1022.9	928.3	1171.0	1225.6
55°	9368.5	4795.8	1142.3	1380.1	1518.0	1339.0	1159.7	983.0	874.8	1031.6	1065.1
57.5°	10386.5	4988.7	1072.6	1321.7	1462.2	1295.3	1128.8	964.5	858.6	935.9	955.8
60°	11522.5	5324.4	985.6	1262.9	1392.5	1225.6	1105.0	973.2	866.2	928.3	938.1
62.5°	12356.3	5519.9	911.0	1177.0	1297.9	1148.4	1075.3	984.1	886.1	954.3	952.1
65°	12582.7	5198.9	817.6	1051.5	1169.8	1067.7	1037.6	996.5	894.8	975.4	964.5
66°	12265.5	4853.1	776.5	993.1	1105.0	1027.8	1019.1	995.4	891.0	978.1	959.2
67.5°	11495.4	4143.6	705.7	907.2	1001.8	968.3	989.4	984.1	880.9	975.4	949.4
70°	9374.9	2827.2	603.6	755.4	833.8	852.2	932.1	944.5	848.5	932.1	874.8
72.5°	6550.4	1722.2	533.9	586.2	674.4	726.8	853.7	889.5	805.1	813.8	759.2
75°	3165.5	914.8	484.1	454.4	523.7	607.3	759.2	814.9	736.6	680.8	660.8
77.5°	986.7	558.7	410.7	365.8	410.7	490.2	634.5	714.3	655.9	570.0	562.5
80°	530.1	410.7	316.1	293.5	324.8	384.7	498.8	596.0	563.6	511.3	456.6
82.5°	349.6	266.4	234.0	227.6	247.5	293.5	370.7	493.9	493.9	438.2	318.7
85°	180.5	163.1	160.5	160.5	172.9	195.5	252.4	380.9	405.8	231.3	191.8
87.5°	89.7	93.4	87.0	90.8	97.2	95.7	120.6	191.8	229.1	140.5	116.8
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)