

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: P301158

Luminaire Tested: **GLNA-AF-04-LED-E1-T3R-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301158  
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-04-LED-E1-T3R-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17171.7 lumens  
Efficiency: N/A  
Efficacy: 100.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B2 - U0 - G3

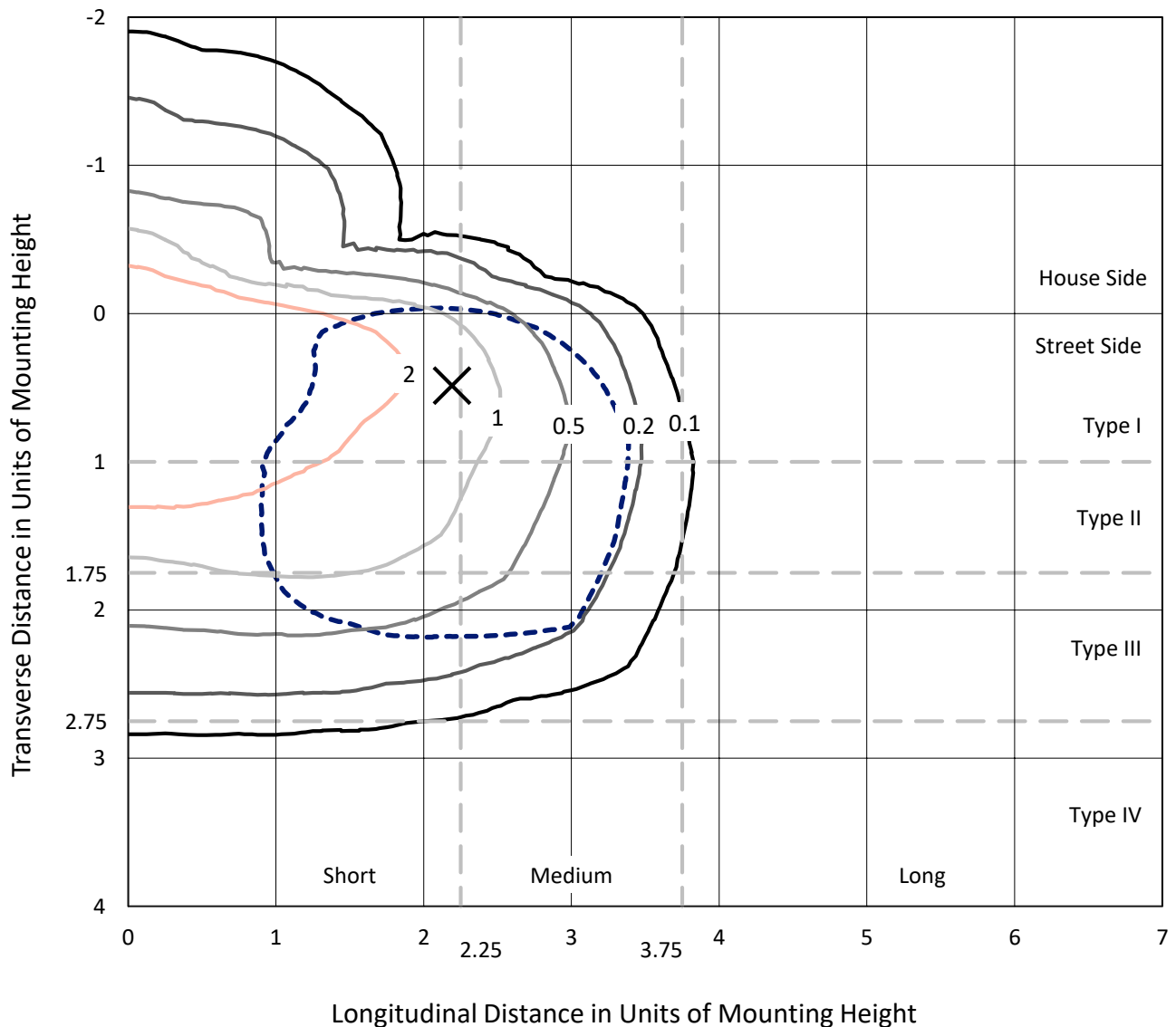
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P301158  
 CATALOG NUMBER: GLNA-AF-04-LED-E1-T3R-7027-800

### Iso-Footcandle Lines of Horizontal Illumination

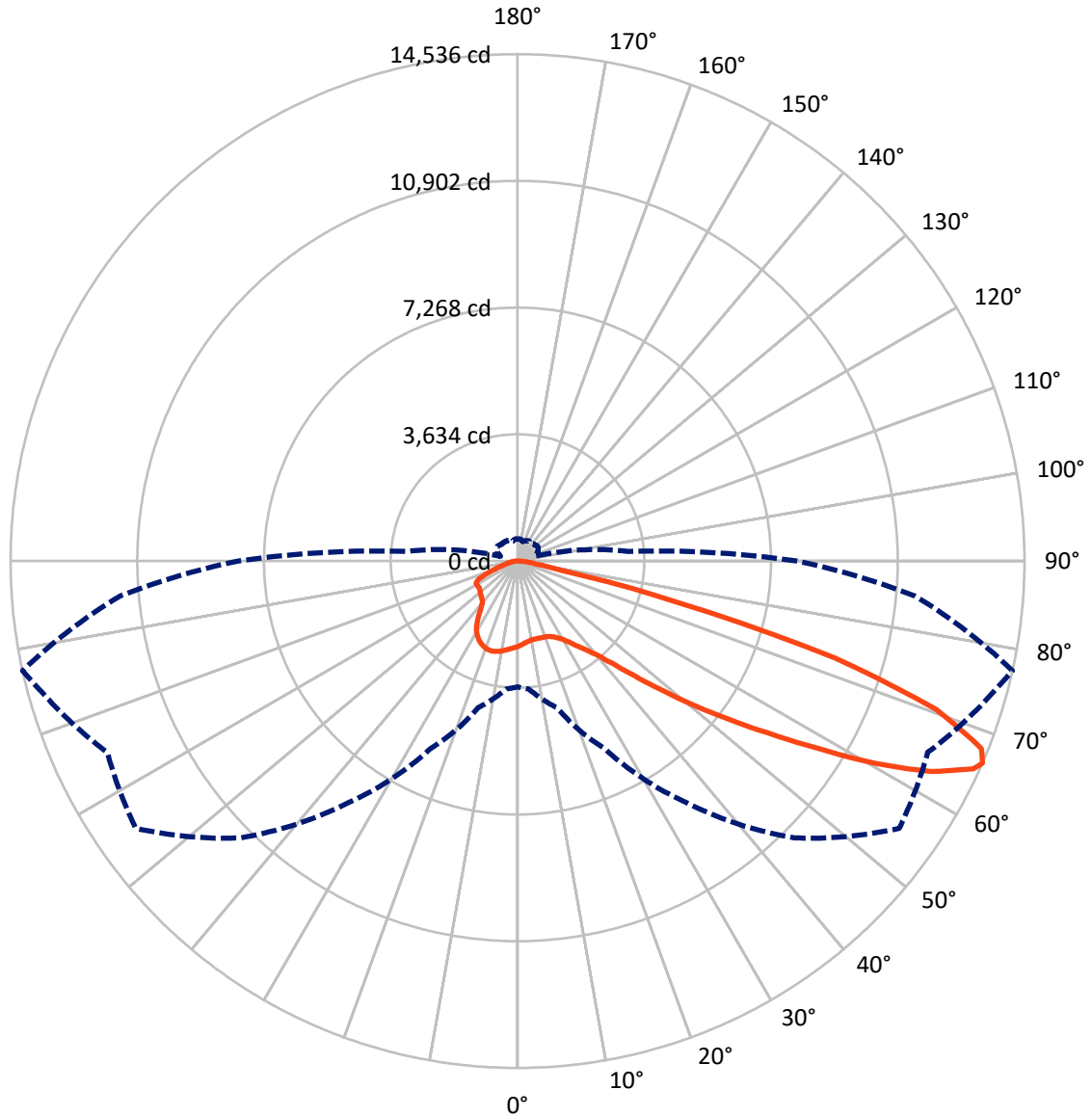
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P301158  
CATALOG NUMBER: GLNA-AF-04-LED-E1-T3R-7027-800

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P301158

CATALOG NUMBER: GLNA-AF-04-LED-E1-T3R-7027-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2933.7	0.0	2933.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	14238.0	0.0	14238.0
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	17171.7	0.0	17171.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.6	1.3
10°-20°	616.8	3.6
20°-30°	1052.6	6.1
30°-40°	1685.0	9.8
40°-50°	2603.3	15.2
50°-60°	3692.3	21.5
60°-70°	4939.3	28.8
70°-80°	2145.1	12.5
80°-90°	218.7	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°	17171.7	100.0
0°-180°	17171.7	100.0



REPORT NUMBER: P301158

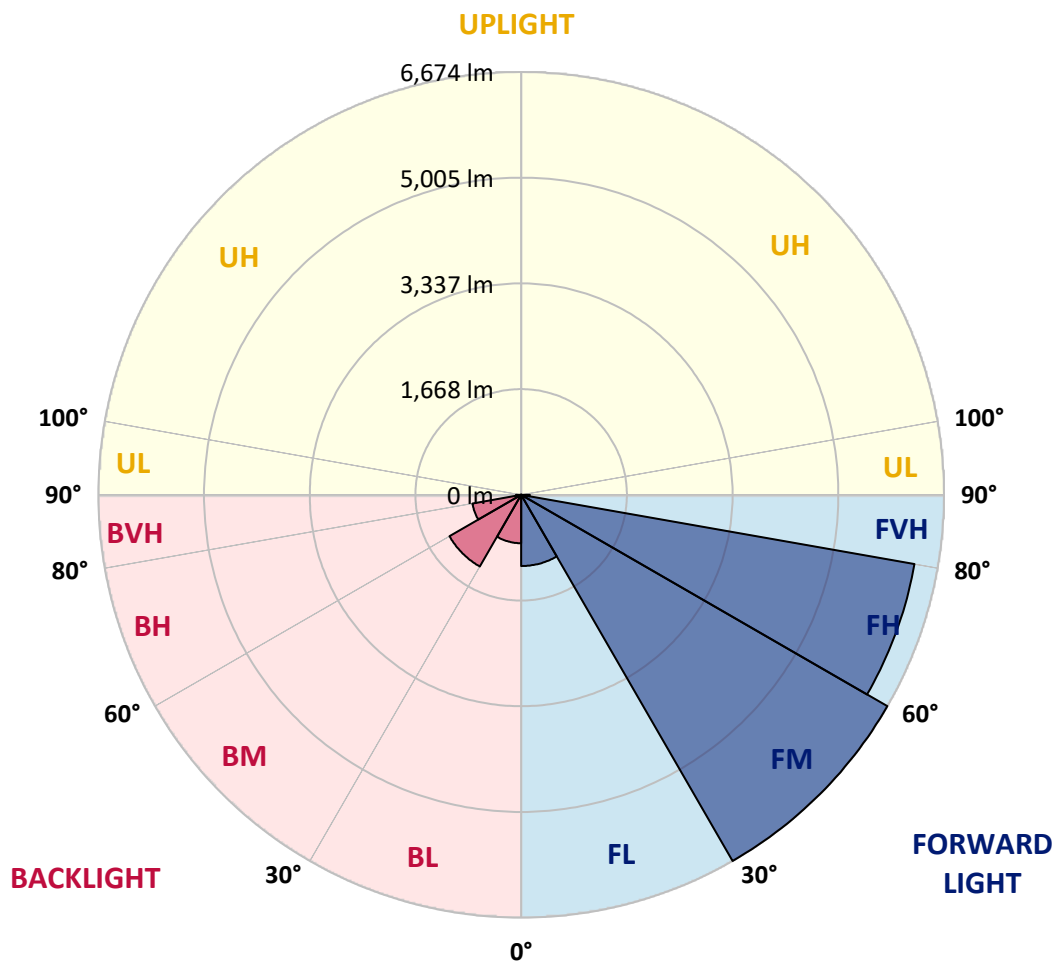
CATALOG NUMBER: GLNA-AF-04-LED-E1-T3R-7027-800

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1124.0	6.5			
FM (30°-60°)	6673.8	38.9			
FH (60°-80°)	6303.1	36.7			G3/7500
FVH (80°-90°)	137.2	0.8			G2/225
BL (0°-30°)	764.1	4.4	B2/1000		
BM (30°-60°)	1306.8	7.6	B2/2500		
BH (60°-80°)	781.3	4.5	B2/1000		G2/1000
BVH (80°-90°)	81.5	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short





REPORT NUMBER: P301158

CATALOG NUMBER: GLNA-AF-04-LED-E1-T3R-7027-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0
2.5°	2164.8	2179.3	2191.5	2202.8	2225.4	2262.8	2305.8	2340.7	2391.0	2400.8	2427.6
5°	1966.0	1966.0	1975.6	1992.8	2023.5	2079.5	2138.0	2215.9	2325.4	2351.2	2422.7
7.5°	1869.5	1870.2	1875.9	1890.4	1917.1	1968.2	2032.4	2124.2	2272.6	2315.6	2437.2
10°	1905.1	1897.0	1884.7	1877.6	1881.5	1911.5	1972.4	2074.6	2240.2	2295.2	2469.9
12.5°	2104.6	2089.3	2047.1	1991.1	1937.5	1915.7	1951.3	2051.0	2226.4	2290.5	2512.9
15°	2430.8	2424.4	2345.6	2229.6	2099.9	1991.1	1966.8	2042.2	2227.9	2296.2	2564.0
17.5°	2839.8	2830.7	2727.1	2558.3	2346.6	2134.8	2021.0	2049.5	2233.5	2305.8	2613.3
20°	3252.8	3225.0	3113.3	2912.1	2640.1	2330.1	2111.2	2068.2	2240.9	2316.3	2665.4
22.5°	3561.1	3538.2	3437.8	3242.2	2929.0	2556.6	2232.1	2100.6	2264.5	2347.3	2729.3
25°	3832.1	3833.5	3733.8	3544.9	3221.1	2796.8	2387.8	2187.4	2324.4	2410.4	2817.0
27.5°	4167.1	4147.7	4054.4	3866.9	3510.0	3039.3	2576.0	2306.8	2413.9	2500.6	2932.2
30°	4567.8	4554.1	4446.2	4233.7	3830.3	3299.7	2791.0	2445.3	2529.1	2619.0	3083.0
32.5°	5039.2	5032.8	4920.8	4647.4	4200.3	3606.5	3043.5	2628.8	2701.0	2794.4	3299.7
35°	5592.7	5593.4	5461.3	5132.6	4605.2	3963.5	3329.7	2864.9	2910.3	3007.6	3557.9
37.5°	5933.4	5974.7	5925.3	5590.3	5063.6	4362.7	3701.4	3178.1	3148.9	3247.1	3834.5
40°	6006.4	6056.8	6213.2	6043.0	5576.5	4802.4	4030.8	3479.0	3442.7	3562.6	4190.7
42.5°	5904.2	5974.0	6305.1	6425.0	6120.9	5344.3	4473.7	3926.1	3880.0	4041.4	4633.7
45°	5843.3	5895.4	6278.3	6624.0	6593.0	5957.0	5037.8	4487.5	4470.5	4682.3	5144.9
47.5°	5737.9	5785.1	6153.3	6670.2	6870.6	6518.4	5715.3	5174.1	5207.3	5484.9	5721.7
50°	5794.6	5814.0	6013.8	6552.5	6951.0	6929.8	6472.2	5969.1	6082.8	6429.2	6374.9
52.5°	5786.5	5836.9	5997.6	6359.4	6961.5	7183.9	7217.8	6855.9	7095.4	7492.9	7099.3
55°	4678.4	4770.7	5806.9	6310.8	6998.6	7432.7	7881.5	7790.6	8236.8	8700.1	7917.1
57.5°	4467.3	4525.8	5100.2	6413.0	7196.6	7908.3	8619.7	8819.5	9565.8	10103.8	8913.5
60°	4425.8	4498.0	5092.8	6538.0	7598.3	8683.1	9714.4	10065.0	11183.0	11772.1	10068.9
62.5°	4296.8	4374.7	5044.9	6521.6	8168.7	9754.9	11115.7	11389.1	12716.4	13289.3	11035.3
65°	3888.1	3961.0	4654.8	6259.7	8553.4	10899.0	12773.9	12602.9	13927.0	14357.6	11517.1
66°	3608.0	3679.5	4347.2	5951.4	8464.0	11223.5	13361.5	12978.5	14198.0	14535.5	11423.0
67.5°	3096.1	3152.1	3750.0	5260.8	7989.4	11314.4	13855.5	13260.8	14226.2	14345.6	10885.2
70°	1956.2	1972.4	2437.2	3631.6	6047.9	9812.4	13103.3	12559.9	13053.2	12730.1	9125.3
72.5°	848.8	843.1	1170.1	1847.4	3424.0	6584.2	10599.5	10363.4	10239.4	9502.6	6387.9
75°	472.2	478.8	607.8	857.6	1391.4	3234.1	6933.8	6635.3	5602.3	4780.6	2896.6
77.5°	378.8	387.9	503.8	608.5	624.7	1127.8	3244.7	2640.1	1589.4	1275.5	804.8
80°	299.5	315.7	439.7	473.9	421.1	464.8	1048.2	838.2	628.9	576.8	417.1
82.5°	236.8	248.4	377.3	358.7	294.5	313.2	502.1	489.4	409.0	372.4	241.0
85°	170.5	191.4	310.0	270.2	193.1	211.0	333.4	319.6	234.4	191.4	106.4
87.5°	69.8	90.9	219.1	179.3	107.8	98.3	166.3	156.5	111.0	81.1	52.8
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: P301158

CATALOG NUMBER: GLNA-AF-04-LED-E1-T3R-7027-800

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0	2447.0
2.5°	2444.6	2464.0	2489.3	2504.8	2512.9	2518.5	2527.4	2526.6	2529.1	2529.8	2533.0
5°	2460.8	2493.2	2529.8	2539.6	2539.6	2530.5	2521.7	2507.0	2501.3	2499.8	2501.3
7.5°	2503.0	2538.7	2570.3	2559.0	2534.7	2498.9	2452.7	2412.1	2390.3	2382.9	2381.4
10°	2556.6	2599.6	2612.6	2569.6	2498.1	2412.1	2320.5	2253.9	2215.9	2205.3	2202.1
12.5°	2621.4	2662.0	2644.3	2553.4	2421.0	2282.4	2155.7	2049.5	1970.0	1944.9	1943.2
15°	2692.9	2724.6	2662.0	2503.0	2305.8	2101.4	1875.9	1692.6	1593.6	1561.9	1559.5
17.5°	2759.5	2775.7	2651.4	2415.3	2136.3	1805.4	1505.9	1364.6	1330.7	1338.9	1340.3
20°	2816.3	2816.3	2615.8	2289.6	1869.5	1415.0	1225.8	1223.6	1248.0	1272.3	1277.2
22.5°	2878.7	2841.3	2553.4	2111.9	1491.2	1157.8	1130.3	1152.9	1180.4	1207.2	1211.4
25°	2955.8	2861.7	2466.4	1842.7	1172.3	1051.4	1062.0	1080.7	1094.4	1111.6	1114.1
27.5°	3041.8	2887.5	2352.2	1471.8	1017.5	985.1	993.2	999.6	997.9	1004.5	1006.0
30°	3144.7	2917.7	2195.5	1150.4	953.4	928.1	913.6	908.0	908.0	918.5	922.5
32.5°	3282.8	2962.2	1970.7	985.8	922.5	887.6	840.7	819.5	827.6	863.3	871.4
35°	3434.6	3010.1	1666.6	929.8	916.1	868.9	795.9	756.9	757.9	791.0	801.6
37.5°	3599.9	3071.0	1333.0	919.3	930.6	869.9	772.4	718.8	696.9	696.9	701.1
40°	3811.7	3133.4	1079.2	926.6	961.5	879.5	760.3	688.8	627.2	628.9	632.1
42.5°	4087.5	3187.0	942.8	941.9	998.9	892.5	759.3	649.0	595.5	632.1	665.2
45°	4394.4	3213.7	882.7	955.9	1028.8	900.6	746.6	642.6	599.7	708.2	771.6
47.5°	4747.1	3198.3	849.5	960.5	1036.2	900.6	731.8	658.1	627.9	820.3	894.2
50°	5134.3	3153.8	817.1	951.0	1033.7	898.9	745.6	673.4	638.5	839.7	890.8
52.5°	5589.5	3116.5	782.9	929.8	1016.5	890.0	761.8	667.0	605.3	763.5	799.1
55°	6108.6	3127.0	744.8	899.9	989.8	873.1	756.1	640.9	570.4	672.6	694.5
57.5°	6772.4	3252.8	699.4	861.8	953.4	844.6	736.0	628.9	559.9	610.2	623.2
60°	7513.0	3471.7	642.6	823.5	908.0	799.1	720.5	634.5	564.8	605.3	611.7
62.5°	8056.7	3599.2	594.0	767.4	846.3	748.8	701.1	641.7	577.8	622.3	620.8
65°	8204.3	3389.9	533.1	685.6	762.8	696.2	676.5	649.8	583.4	636.0	628.9
66°	7997.5	3164.4	506.3	647.6	720.5	670.2	664.5	649.0	581.0	637.7	625.5
67.5°	7495.4	2701.8	460.1	591.6	653.2	631.3	645.1	641.7	574.4	636.0	619.1
70°	6112.8	1843.4	393.5	492.5	543.6	555.7	607.8	615.9	553.2	607.8	570.4
72.5°	4271.1	1122.9	348.1	382.2	439.7	473.9	556.7	580.0	525.0	530.6	495.0
75°	2064.0	596.5	315.7	296.3	341.5	396.0	495.0	531.4	480.3	443.9	430.9
77.5°	643.4	364.3	267.8	238.5	267.8	319.6	413.7	465.8	427.7	371.7	366.8
80°	345.6	267.8	206.1	191.4	211.8	250.8	325.3	388.6	367.5	333.4	297.7
82.5°	228.0	173.7	152.6	148.4	161.4	191.4	241.7	322.1	322.1	285.7	207.8
85°	117.7	106.4	104.7	104.7	112.8	127.5	164.6	248.4	264.6	150.8	125.0
87.5°	58.5	60.9	56.7	59.2	63.4	62.4	78.6	125.0	149.4	91.6	76.2
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)