

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: P302850

Luminaire Tested: **GLNA-AF-05-LED-E1-T4W-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302850  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
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-T4W-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23785.8 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

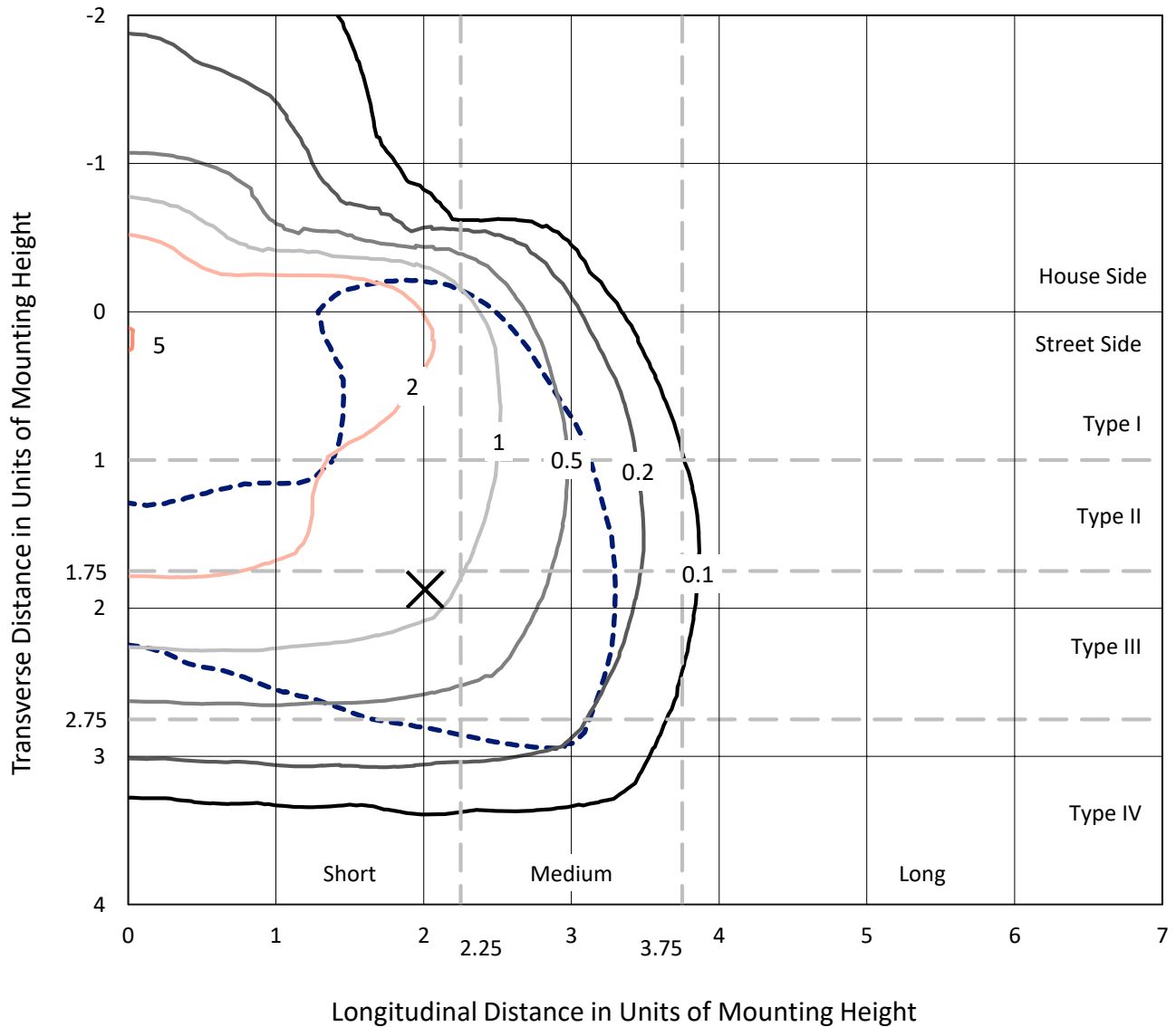
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

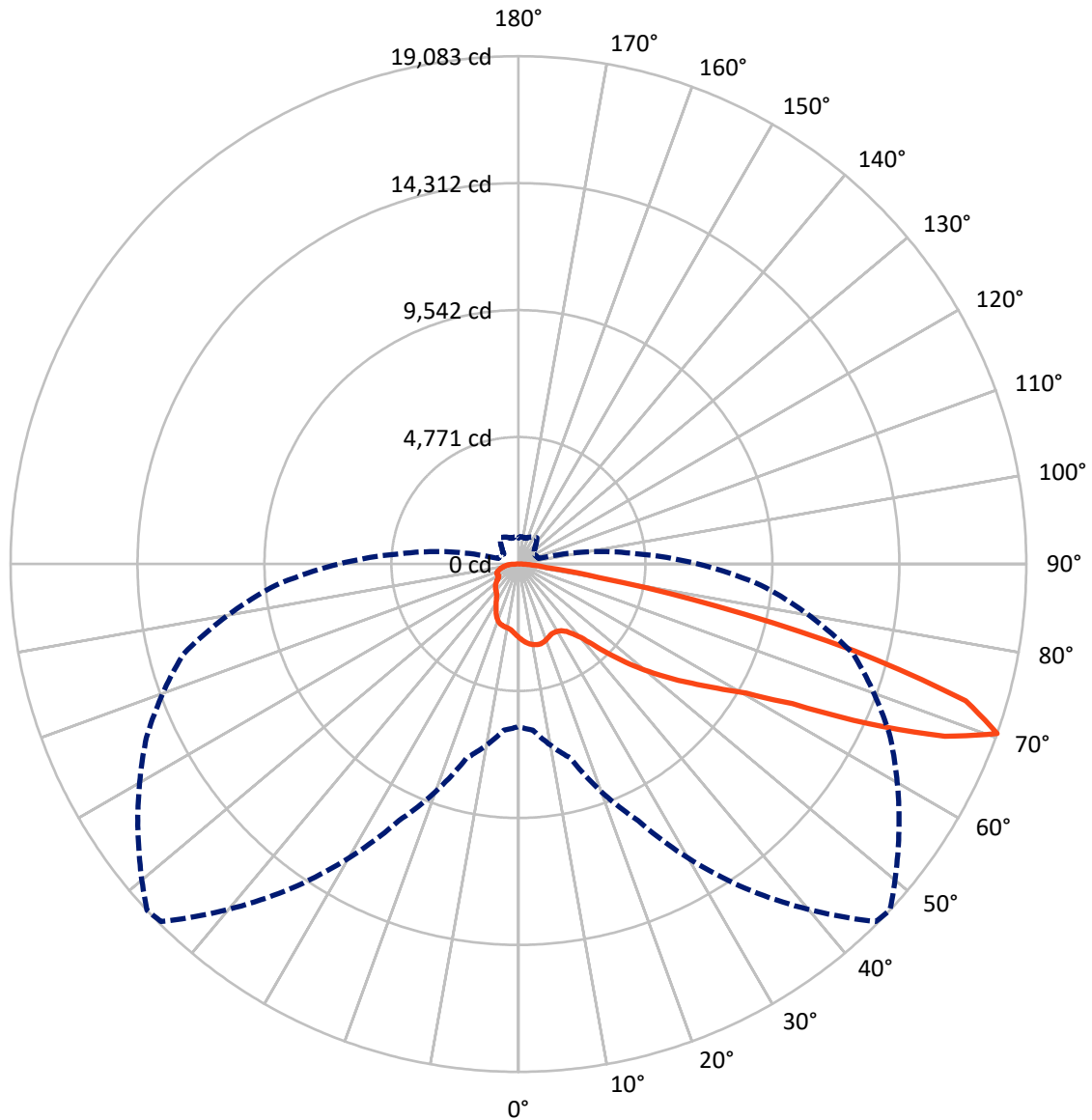
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4962.2	0.0	4962.2
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	18823.7	0.0	18823.7
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	23785.8	0.0	23785.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	264.4	1.1
10°-20°	775.8	3.3
20°-30°	1145.7	4.8
30°-40°	1665.2	7.0
40°-50°	2996.8	12.6
50°-60°	5191.6	21.8
60°-70°	7409.9	31.2
70°-80°	3803.8	16.0
80°-90°	532.5	2.2
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°	23785.8	100.0
0°-180°	23785.8	100.0



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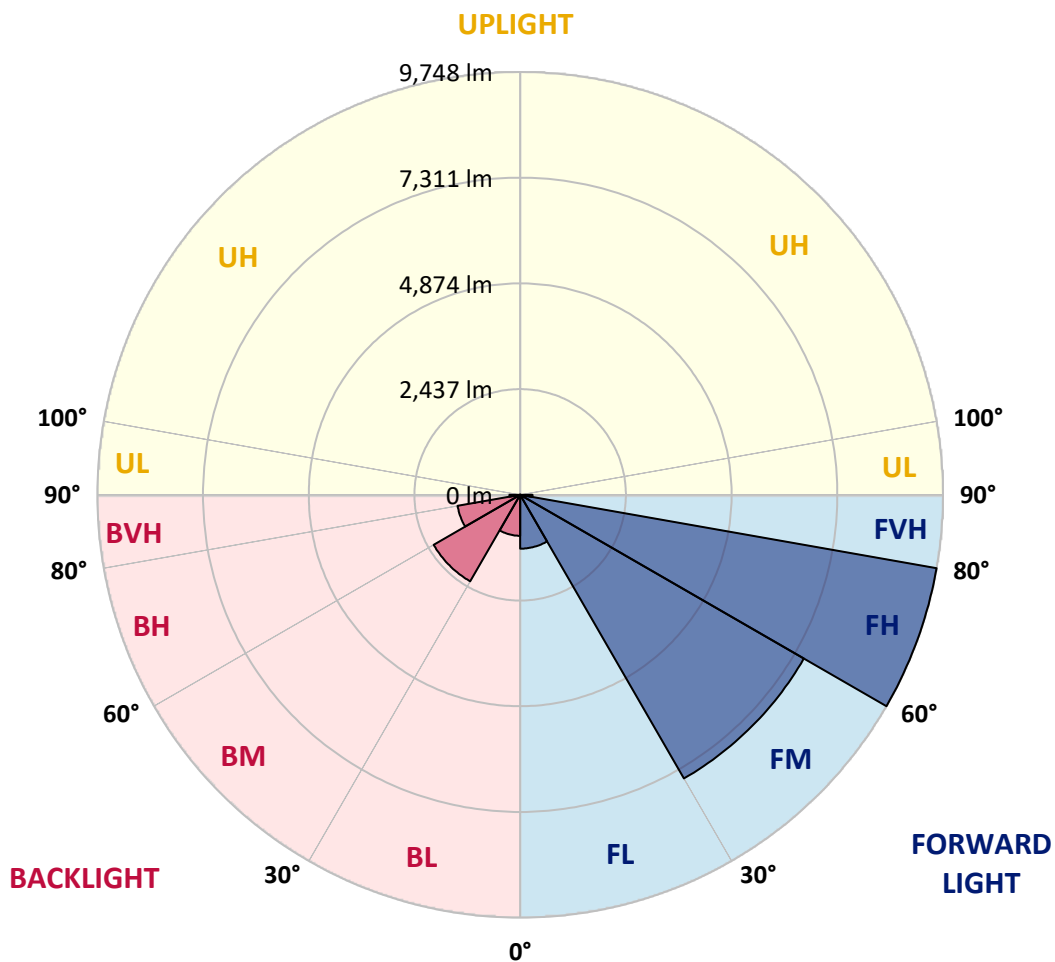
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1241.1	5.2			
FM	(30°-60°)	7550.3	31.7			
FH	(60°-80°)	9748.1	41.0			G4/12000
FVH	(80°-90°)	284.2	1.2			G3/500
BL	(0°-30°)	944.8	4.0	B2/1000		
BM	(30°-60°)	2303.3	9.7	B2/2500		
BH	(60°-80°)	1465.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	248.4	1.0			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

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

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8
2.5°	2922.0	2916.3	2913.9	2909.3	2903.6	2874.4	2868.6	2847.8	2819.0	2788.7	2757.5
5°	3114.2	3113.0	3100.0	3076.9	3040.0	2976.2	2961.2	2910.5	2842.1	2776.0	2710.3
7.5°	3282.9	3272.5	3248.3	3201.8	3137.2	3050.4	3029.6	2958.9	2865.1	2774.8	2685.7
10°	3406.7	3400.9	3347.9	3284.1	3199.5	3103.4	3079.2	3000.4	2897.4	2782.9	2671.8
12.5°	3477.4	3465.8	3404.3	3328.3	3227.6	3133.8	3109.2	3029.6	2913.9	2782.9	2652.2
15°	3472.8	3464.7	3403.2	3319.8	3218.3	3136.1	3114.2	3034.2	2910.5	2771.4	2626.9
17.5°	3380.1	3383.6	3331.7	3249.5	3166.1	3103.4	3083.8	3010.0	2887.0	2748.3	2596.9
20°	3218.3	3234.5	3199.5	3126.9	3080.4	3037.7	3025.0	2962.4	2851.3	2714.9	2564.2
22.5°	3056.1	3071.1	3057.3	2995.8	2988.9	2963.5	2956.6	2911.6	2820.2	2694.1	2544.6
25°	2937.0	2950.8	2948.5	2895.1	2916.3	2915.1	2909.3	2887.0	2813.3	2694.1	2548.1
27.5°	2904.7	2909.3	2904.7	2855.9	2884.7	2908.2	2903.6	2899.7	2834.0	2727.6	2592.3
30°	3015.8	3008.9	2972.8	2874.4	2901.3	2933.6	2928.9	2931.2	2896.3	2815.6	2690.7
32.5°	3458.9	3427.4	3314.0	3037.7	2967.0	2984.3	2986.6	3025.0	3030.8	2950.8	2843.2
35°	4121.9	4087.3	3940.1	3475.1	3171.8	3111.9	3111.9	3169.5	3204.1	3145.3	3080.4
37.5°	4824.4	4786.0	4707.6	4081.5	3602.3	3332.9	3327.1	3367.5	3417.0	3431.3	3447.4
40°	5622.7	5582.3	5604.2	4761.8	4203.0	3715.7	3633.4	3604.6	3738.7	3827.9	3957.8
42.5°	6496.6	6477.8	6485.9	5519.7	4886.7	4288.7	4171.8	4022.3	4184.5	4342.9	4615.0
45°	7305.2	7321.4	7313.3	6331.0	5648.4	4987.4	4863.6	4574.2	4733.0	5004.7	5448.2
47.5°	8013.6	7946.3	8050.4	7217.2	6501.2	5769.9	5616.9	5229.5	5390.2	5725.7	6475.5
50°	8873.3	8864.1	8711.5	8400.2	7532.0	6555.4	6355.2	5906.3	6156.1	6622.7	7770.7
52.5°	9777.2	9609.3	9469.4	9319.9	8625.8	7361.0	7115.4	6580.8	7056.6	7643.1	9349.1
55°	9962.1	9887.1	10060.5	10311.8	9680.0	8197.6	7911.7	7426.7	8070.4	8809.9	11169.2
57.5°	10357.9	10356.8	10715.7	11163.5	10765.3	9085.1	8796.8	8448.6	9210.0	10146.2	13101.6
60°	10625.4	10700.4	11367.2	12236.1	11831.1	10110.4	9845.2	9627.7	10506.3	11640.0	14902.2
62.5°	10765.3	10867.2	11776.9	12671.2	13337.6	11817.2	11552.4	11238.8	12221.1	13278.8	15955.2
65°	10183.5	10383.3	11713.1	13047.4	14657.0	14584.0	14464.8	13914.1	14365.3	14573.6	15574.8
67.5°	8572.4	8777.2	10325.7	12696.5	15599.0	17252.7	17278.1	16337.3	15684.7	14684.7	13094.7
70°	6107.7	6268.3	7549.7	10645.0	14881.4	18996.4	19083.3	17453.7	15421.8	13022.8	9148.8
72.5°	2899.7	2998.1	4211.0	6928.2	11809.1	17405.3	17573.2	16028.3	13113.2	9641.6	4990.8
75°	1065.7	1095.7	1423.2	2947.4	6849.4	12835.7	13033.6	11489.8	8692.7	4800.2	1901.3
77.5°	638.7	658.3	798.6	1244.1	2694.1	7336.8	7629.2	6248.7	3799.0	1786.7	935.1
80°	446.6	460.4	572.6	774.0	1272.9	2796.0	3056.1	2550.4	1513.5	1130.7	680.3
82.5°	302.1	309.0	402.8	523.1	845.9	998.5	1077.3	1134.1	1020.8	841.3	431.6
85°	197.9	204.8	273.3	344.7	538.1	516.1	527.7	667.6	745.2	571.5	239.4
87.5°	113.4	118.0	164.5	184.1	264.0	218.7	221.0	351.7	476.9	385.5	145.7
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8	2759.8
2.5°	2749.5	2734.5	2701.0	2679.9	2660.3	2655.7	2647.6	2646.5	2645.3	2645.3	2641.8
5°	2688.0	2662.6	2610.7	2581.5	2557.3	2555.0	2553.8	2559.6	2561.9	2564.2	2560.8
7.5°	2648.8	2614.2	2549.2	2507.7	2478.9	2471.6	2483.5	2510.0	2527.3	2534.2	2530.8
10°	2624.6	2581.5	2506.6	2461.2	2437.0	2433.5	2448.5	2480.0	2515.8	2529.6	2528.5
12.5°	2596.9	2548.1	2468.1	2420.9	2407.0	2413.9	2433.5	2462.4	2499.6	2521.6	2522.7
15°	2568.8	2512.3	2430.1	2388.6	2382.8	2392.0	2410.5	2432.4	2461.2	2483.5	2485.8
17.5°	2535.4	2476.2	2394.3	2351.3	2346.7	2351.3	2352.5	2364.0	2382.8	2403.6	2409.3
20°	2499.6	2439.3	2353.6	2310.9	2290.2	2271.7	2250.6	2252.9	2258.7	2279.8	2284.4
22.5°	2473.9	2413.9	2322.5	2263.3	2207.9	2152.2	2110.7	2104.9	2107.3	2124.5	2130.3
25°	2476.2	2412.8	2314.4	2212.6	2091.1	2001.9	1946.2	1937.0	1935.8	1948.5	1957.0
27.5°	2521.6	2457.8	2344.4	2160.3	1963.9	1831.7	1772.9	1766.0	1756.7	1760.2	1769.4
30°	2622.2	2563.1	2417.4	2107.3	1825.9	1665.3	1603.8	1596.9	1584.2	1578.4	1585.3
32.5°	2786.4	2737.9	2523.9	2056.1	1688.3	1522.7	1460.4	1445.4	1437.4	1430.5	1436.2
35°	3059.6	3038.9	2666.1	2000.8	1566.9	1412.8	1356.3	1333.2	1321.7	1334.4	1343.6
37.5°	3487.7	3499.3	2852.5	1913.9	1473.1	1340.1	1292.5	1266.0	1248.7	1259.0	1269.4
40°	4094.2	4102.3	3058.5	1791.3	1392.0	1297.1	1246.4	1222.2	1197.6	1179.1	1178.0
42.5°	4890.1	4808.3	3261.0	1658.4	1298.2	1270.6	1214.1	1183.7	1146.8	1095.7	1085.3
45°	5834.4	5546.6	3414.7	1505.4	1192.9	1238.3	1178.0	1136.4	1078.4	1023.1	1017.3
47.5°	6922.5	6339.1	3490.1	1347.1	1094.6	1190.6	1134.1	1068.0	995.0	967.3	963.9
50°	8250.7	7279.9	3525.8	1192.9	1009.2	1128.4	1070.3	992.7	931.6	925.8	922.4
52.5°	9763.4	8411.7	3537.7	1066.9	938.5	1047.3	1018.5	943.1	894.3	899.3	899.3
55°	11346.4	9580.4	3380.1	975.4	873.6	963.9	983.5	923.5	882.8	901.6	908.5
57.5°	12799.5	10616.2	2884.7	905.1	812.5	900.5	970.8	942.0	914.3	989.3	993.9
60°	13915.2	11228.0	2154.5	841.3	767.1	878.2	1004.6	1012.7	1019.6	1198.7	1223.3
62.5°	14148.9	11024.7	1481.2	791.7	746.4	897.0	1065.7	1066.9	1058.8	1183.7	1198.7
65°	13076.3	9736.5	1077.3	763.7	729.1	930.5	1118.0	1093.4	1040.4	1135.3	1107.2
67.5°	10384.5	7335.6	897.0	742.9	703.7	928.1	1173.3	1118.0	1030.0	1112.2	1066.9
70°	6740.7	4435.5	798.6	725.6	673.3	883.9	1205.6	1115.7	999.6	1034.6	981.2
72.5°	3288.7	1983.5	732.5	700.2	642.2	822.8	1204.5	1094.6	968.5	966.2	937.4
75°	1286.7	908.5	672.2	661.8	589.2	753.3	1172.2	1064.6	931.6	894.3	883.9
77.5°	753.3	648.0	596.1	605.3	525.4	683.7	1124.9	1012.7	880.5	836.7	825.1
80°	548.4	485.0	508.1	523.1	448.9	614.5	1061.1	948.9	824.0	845.9	829.8
82.5°	351.7	312.5	412.0	427.0	373.9	543.8	991.6	881.6	744.1	675.6	659.5
85°	179.5	197.9	306.7	325.1	288.2	446.6	907.4	792.9	653.7	562.3	571.5
87.5°	100.7	135.3	195.6	218.7	203.7	343.6	736.0	653.7	533.4	433.9	382.0
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)