

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: P302784

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302784  
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-04-LED-E1-T4W-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23762.6 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

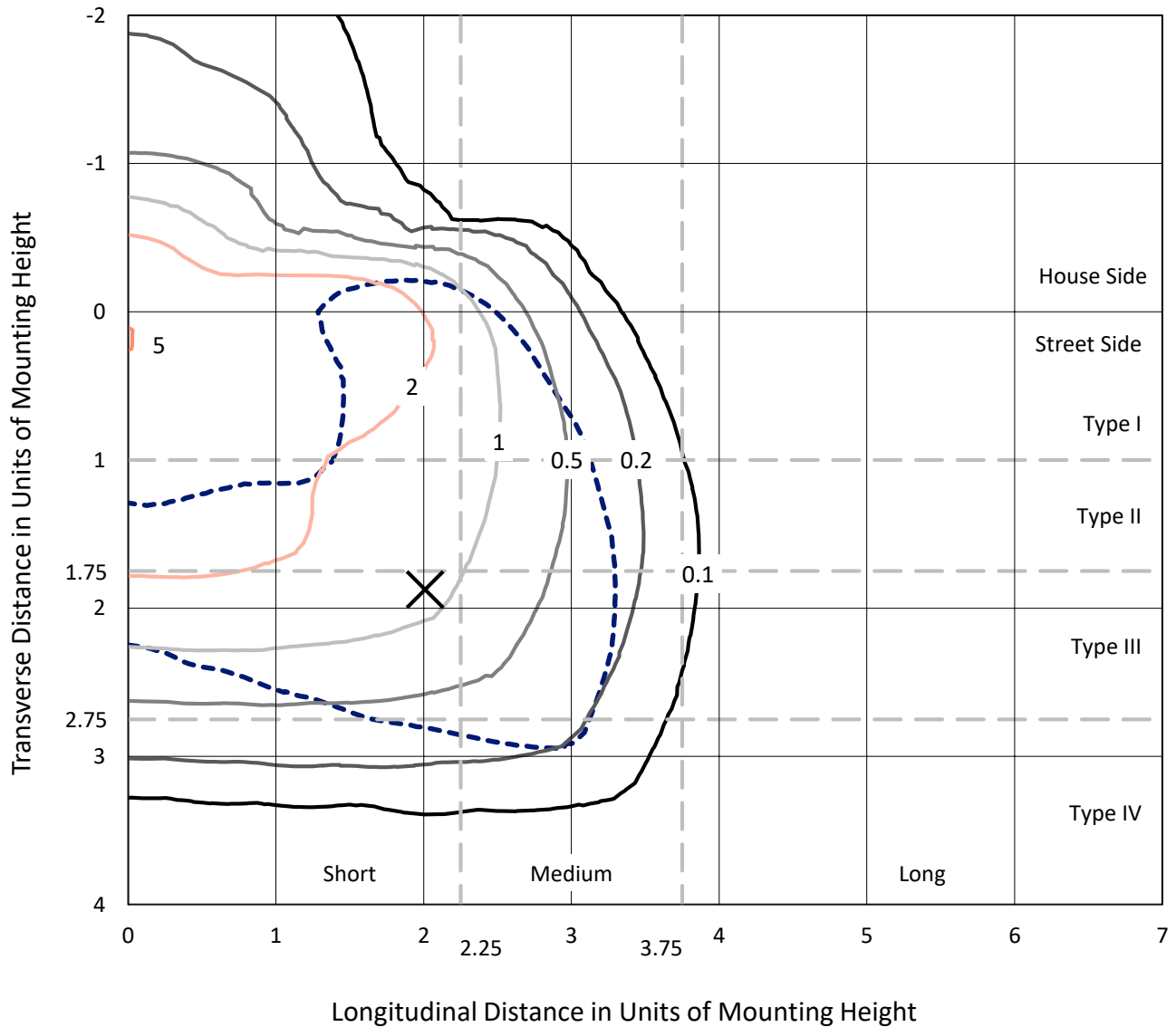
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

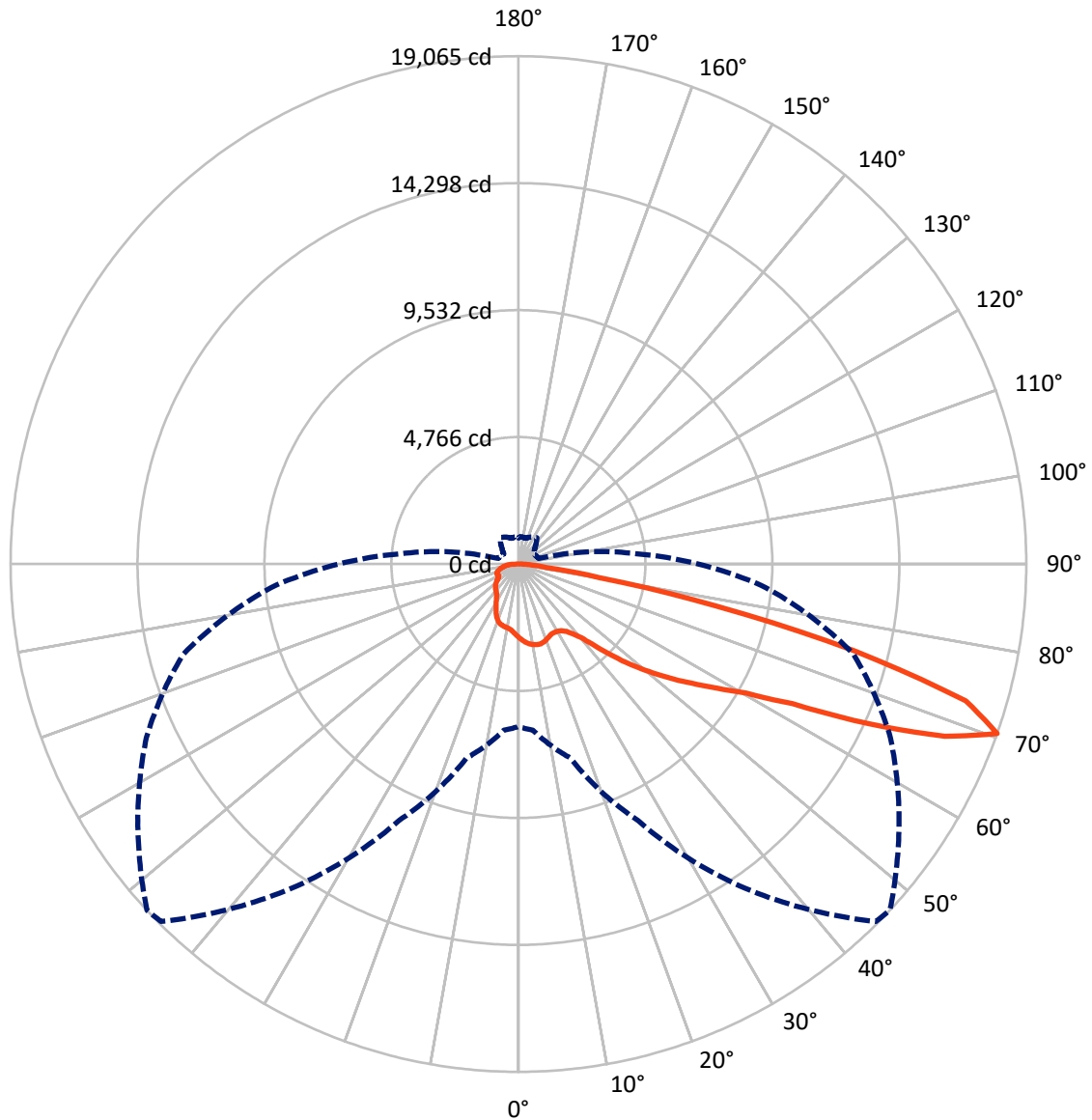
✕ Max cd  
 - - - 1/2 Max cd



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	4957.3	0.0	4957.3
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	18805.2	0.0	18805.2
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	23762.6	0.0	23762.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	264.2	1.1
10°-20°	775.1	3.3
20°-30°	1144.5	4.8
30°-40°	1663.6	7.0
40°-50°	2993.8	12.6
50°-60°	5186.5	21.8
60°-70°	7402.7	31.2
70°-80°	3800.1	16.0
80°-90°	532.0	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°	23762.6	100.0
0°-180°	23762.6	100.0



REPORT NUMBER: P302784

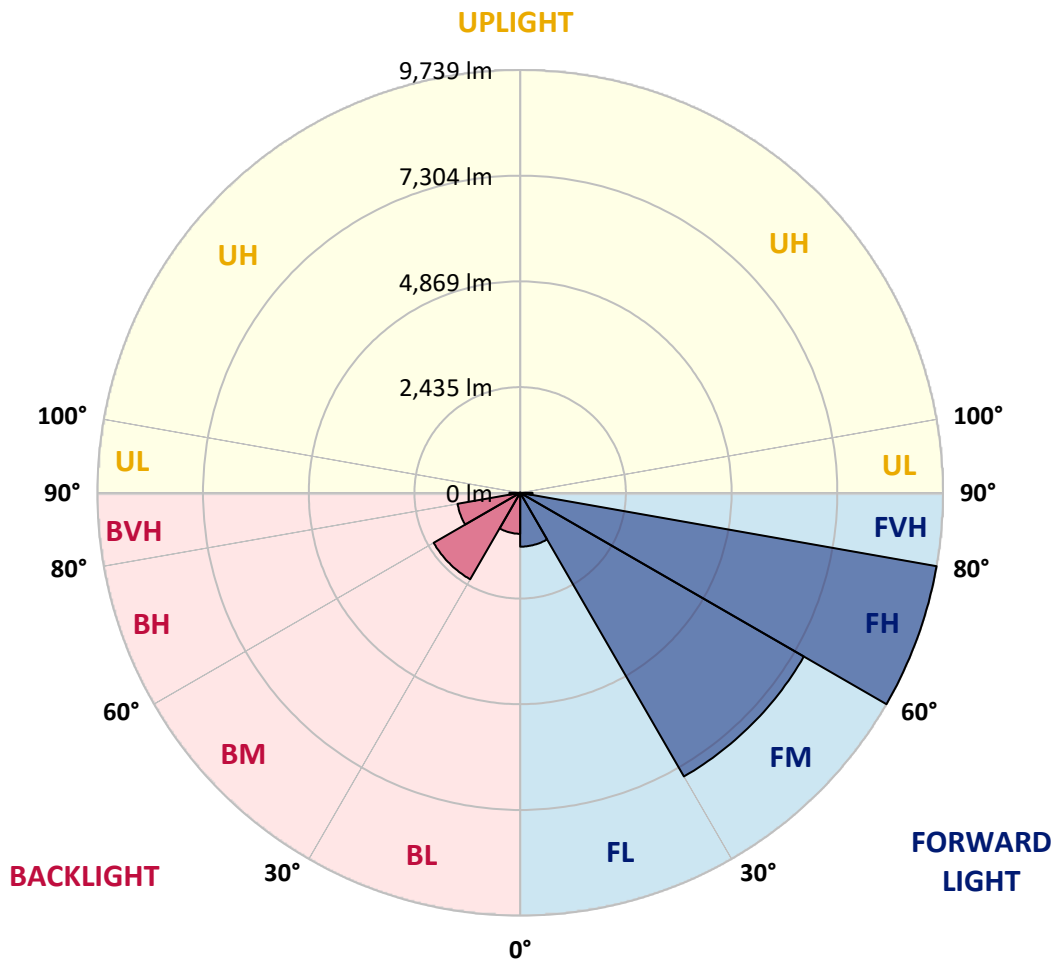
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1239.9	5.2			
FM	(30°-60°)	7542.9	31.7			
FH	(60°-80°)	9738.5	41.0			G4/12000
FVH	(80°-90°)	283.9	1.2			G3/500
BL	(0°-30°)	943.9	4.0	B2/1000		
BM	(30°-60°)	2301.0	9.7	B2/2500		
BH	(60°-80°)	1464.3	6.2	B3/2500		G3/2500
BVH	(80°-90°)	248.1	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°	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1
2.5°	2919.2	2913.4	2911.1	2906.5	2900.7	2871.6	2865.8	2845.1	2816.3	2785.9	2754.8
5°	3111.1	3110.0	3096.9	3073.9	3037.0	2973.3	2958.3	2907.6	2839.3	2773.3	2707.6
7.5°	3279.7	3269.3	3245.1	3198.7	3134.2	3047.4	3026.7	2956.0	2862.3	2772.1	2683.0
10°	3403.3	3397.6	3344.6	3280.8	3196.4	3100.4	3076.2	2997.5	2894.6	2780.2	2669.2
12.5°	3474.0	3462.4	3401.0	3325.0	3224.4	3130.7	3106.1	3026.7	2911.1	2780.2	2649.6
15°	3469.4	3461.3	3399.9	3316.5	3215.2	3133.0	3111.1	3031.3	2907.6	2768.7	2624.3
17.5°	3376.8	3380.3	3328.4	3246.3	3163.0	3100.4	3080.8	3007.1	2884.2	2745.6	2594.3
20°	3215.2	3231.3	3196.4	3123.8	3077.3	3034.7	3022.1	2959.5	2848.5	2712.2	2561.7
22.5°	3053.2	3068.1	3054.3	2992.9	2986.0	2960.6	2953.7	2908.8	2817.4	2691.5	2542.1
25°	2934.1	2948.0	2945.7	2892.3	2913.4	2912.2	2906.5	2884.2	2810.5	2691.5	2545.6
27.5°	2901.9	2906.5	2901.9	2853.1	2881.9	2905.3	2900.7	2896.9	2831.2	2724.9	2589.7
30°	3012.8	3005.9	2969.8	2871.6	2898.4	2930.7	2926.1	2928.4	2893.4	2812.8	2688.0
32.5°	3455.5	3424.1	3310.8	3034.7	2964.1	2981.4	2983.7	3022.1	3027.8	2948.0	2840.5
35°	4117.8	4083.3	3936.2	3471.7	3168.7	3108.8	3108.8	3166.4	3201.0	3142.2	3077.3
37.5°	4819.7	4781.3	4703.0	4077.5	3598.7	3329.6	3323.8	3364.2	3413.7	3427.9	3444.0
40°	5617.2	5576.9	5598.7	4757.1	4198.9	3712.0	3629.8	3601.1	3735.1	3824.1	3953.9
42.5°	6490.3	6471.5	6479.5	5514.3	4881.9	4284.5	4167.8	4018.4	4180.4	4338.6	4610.5
45°	7298.1	7314.2	7306.2	6324.8	5642.9	4982.5	4858.9	4569.8	4728.3	4999.8	5442.9
47.5°	8005.7	7938.5	8042.6	7210.2	6494.9	5764.2	5611.4	5224.4	5384.9	5720.1	6469.1
50°	8864.6	8855.4	8703.0	8392.0	7524.6	6549.0	6349.0	5900.5	6150.1	6616.2	7763.1
52.5°	9767.7	9599.9	9460.1	9310.8	8617.3	7353.8	7108.4	6574.4	7049.7	7635.6	9339.9
55°	9952.3	9877.5	10050.6	10301.7	9670.5	8189.6	7904.0	7419.4	8062.5	8801.3	11158.3
57.5°	10347.8	10346.6	10705.3	11152.6	10754.8	9076.2	8788.2	8440.3	9200.9	10136.2	13088.8
60°	10615.0	10689.9	11356.0	12224.2	11819.5	10100.5	9835.6	9618.3	10496.0	11628.6	14887.6
62.5°	10754.8	10856.5	11765.3	12658.8	13324.5	11805.6	11541.1	11227.8	12209.2	13265.8	15939.6
65°	10173.5	10373.1	11701.6	13034.7	14642.6	14569.7	14450.7	13900.5	14351.2	14559.3	15559.5
67.5°	8564.0	8768.6	10315.5	12684.1	15583.7	17235.8	17261.2	16321.3	15669.3	14670.3	13081.9
70°	6101.7	6262.2	7542.3	10634.6	14866.9	18977.8	19064.6	17436.6	15406.7	13010.1	9139.9
72.5°	2896.9	2995.2	4206.9	6921.4	11797.6	17388.3	17556.0	16012.6	13100.3	9632.1	4986.0
75°	1064.7	1094.6	1421.8	2944.5	6842.7	12823.1	13020.8	11478.5	8684.1	4795.5	1899.4
77.5°	638.1	657.7	797.8	1242.8	2691.5	7329.6	7621.8	6242.6	3795.3	1785.0	934.1
80°	446.1	460.0	572.1	773.3	1271.6	2793.2	3053.2	2547.9	1512.0	1129.6	679.6
82.5°	301.8	308.7	402.4	522.6	845.1	997.5	1076.2	1133.0	1019.8	840.5	431.2
85°	197.7	204.6	273.0	344.4	537.5	515.6	527.2	666.9	744.5	570.9	239.2
87.5°	113.3	117.9	164.3	183.9	263.8	218.5	220.8	351.3	476.5	385.1	145.5
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: P302784

CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-7050

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1	2757.1
2.5°	2746.8	2731.8	2698.4	2677.3	2657.7	2653.1	2645.0	2643.9	2642.7	2642.7	2639.3
5°	2685.3	2660.0	2608.2	2579.0	2554.8	2552.5	2551.3	2557.1	2559.4	2561.7	2558.2
7.5°	2646.2	2611.6	2546.7	2505.3	2476.5	2469.2	2481.1	2507.6	2524.8	2531.8	2528.3
10°	2622.0	2579.0	2504.1	2458.8	2434.6	2431.2	2446.1	2477.6	2513.3	2527.1	2526.0
12.5°	2594.3	2545.6	2465.7	2418.5	2404.7	2411.6	2431.2	2460.0	2497.2	2519.1	2520.2
15°	2566.3	2509.9	2427.7	2386.2	2380.5	2389.7	2408.1	2430.0	2458.8	2481.1	2483.4
17.5°	2532.9	2473.8	2392.0	2349.0	2344.4	2349.0	2350.1	2361.7	2380.5	2401.2	2407.0
20°	2497.2	2436.9	2351.3	2308.7	2287.9	2269.5	2248.4	2250.7	2256.5	2277.6	2282.2
22.5°	2471.5	2411.6	2320.2	2261.1	2205.8	2150.1	2108.6	2102.9	2105.2	2122.5	2128.2
25°	2473.8	2410.4	2312.1	2210.4	2089.1	2000.0	1944.3	1935.1	1933.9	1946.6	1955.1
27.5°	2519.1	2455.4	2342.1	2158.2	1962.0	1829.9	1771.2	1764.2	1755.0	1758.5	1767.7
30°	2619.7	2560.6	2415.0	2105.2	1824.1	1663.6	1602.2	1595.3	1582.6	1576.9	1583.8
32.5°	2783.6	2735.2	2521.4	2054.1	1686.7	1521.2	1459.0	1444.0	1436.0	1429.1	1434.8
35°	3056.6	3035.9	2663.5	1998.8	1565.4	1411.4	1355.0	1331.9	1320.4	1333.1	1342.3
37.5°	3484.3	3495.9	2849.7	1912.1	1471.7	1338.8	1291.2	1264.7	1247.4	1257.8	1268.2
40°	4090.2	4098.3	3055.5	1789.6	1390.7	1295.8	1245.1	1221.0	1196.4	1178.0	1176.8
42.5°	4885.4	4803.6	3257.8	1656.7	1297.0	1269.3	1212.9	1182.6	1145.7	1094.6	1084.3
45°	5828.7	5541.1	3411.4	1503.9	1191.8	1237.1	1176.8	1135.3	1077.4	1022.1	1016.3
47.5°	6915.7	6332.8	3486.6	1345.7	1093.5	1189.5	1133.0	1067.0	994.0	966.4	962.9
50°	8242.6	7272.8	3522.3	1191.8	1008.2	1127.3	1069.3	991.7	930.7	924.9	921.5
52.5°	9753.8	8403.5	3534.2	1065.8	937.6	1046.3	1017.5	942.2	893.4	898.4	898.4
55°	11335.3	9571.1	3376.8	974.5	872.7	962.9	982.5	922.6	881.9	900.7	907.7
57.5°	12787.0	10605.8	2881.9	904.2	811.7	899.6	969.9	941.1	913.4	988.3	992.9
60°	13901.6	11217.1	2152.4	840.5	766.4	877.3	1003.6	1011.7	1018.6	1197.5	1222.1
62.5°	14135.1	11013.9	1479.7	790.9	745.6	896.1	1064.7	1065.8	1057.8	1182.6	1197.5
65°	13063.5	9727.0	1076.2	762.9	728.4	929.5	1116.9	1092.3	1039.3	1134.2	1106.2
67.5°	10374.3	7328.4	896.1	742.2	703.0	927.2	1172.2	1116.9	1029.0	1111.1	1065.8
70°	6734.1	4431.1	797.8	724.9	672.7	883.1	1204.4	1114.6	998.7	1033.6	980.2
72.5°	3285.4	1981.6	731.8	699.6	641.6	822.0	1203.3	1093.5	967.6	965.2	936.5
75°	1285.5	907.7	671.5	661.2	588.6	752.5	1171.0	1063.5	930.7	893.4	883.1
77.5°	752.5	647.3	595.5	604.7	524.9	683.0	1123.8	1011.7	879.6	835.9	824.3
80°	547.9	484.5	507.6	522.6	448.5	613.9	1060.1	948.0	823.2	845.1	828.9
82.5°	351.3	312.2	411.6	426.6	373.6	543.3	990.6	880.8	743.3	675.0	658.9
85°	179.3	197.7	306.4	324.8	288.0	446.1	906.5	792.1	653.1	561.7	570.9
87.5°	100.6	135.1	195.4	218.5	203.5	343.2	735.3	653.1	532.9	433.5	381.6
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)