

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: P299114

Luminaire Tested: **GLNA-AF-04-LED-E1-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299114  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)  
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-T3-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

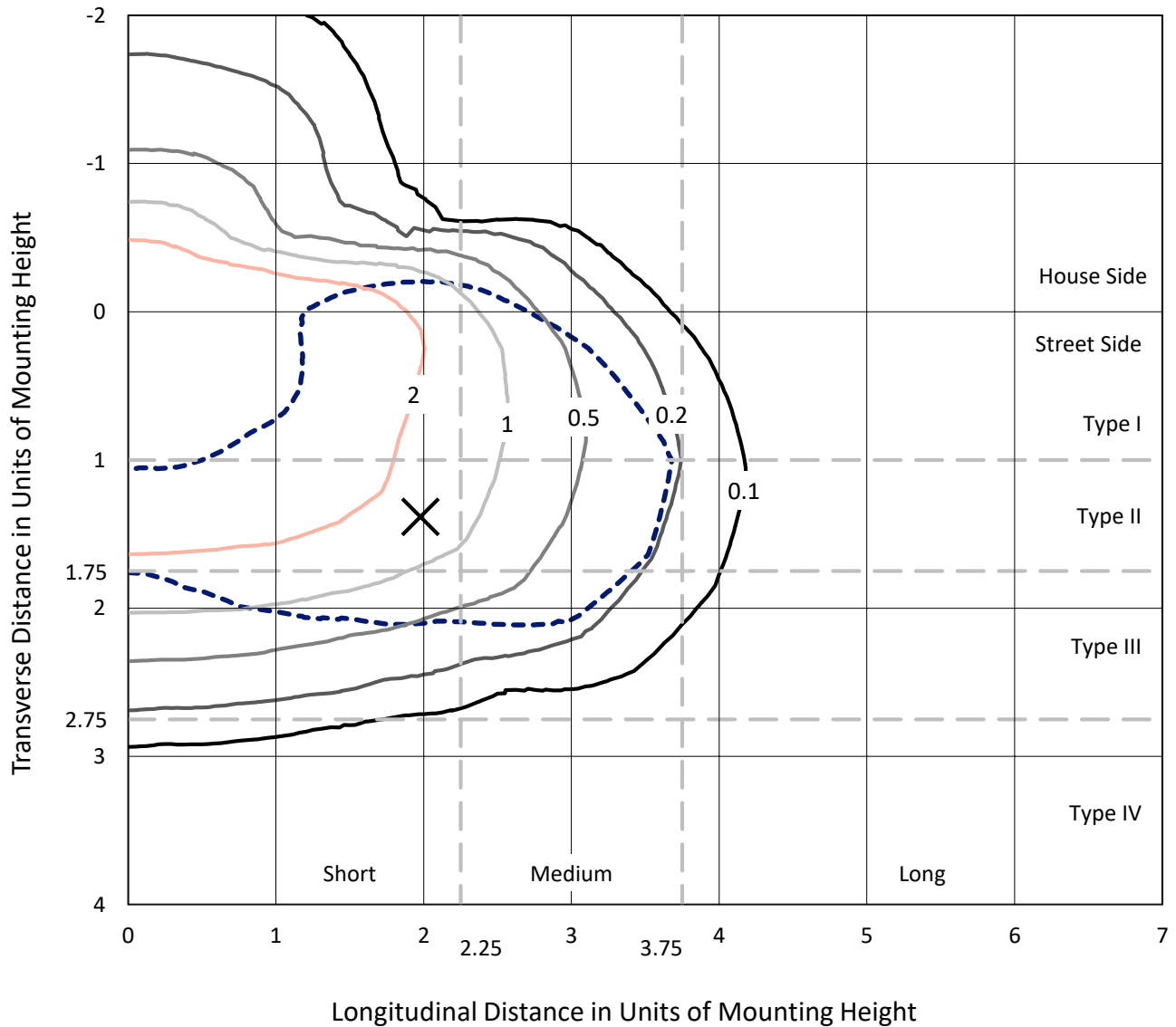
Lumens per Lamp: N/A  
Luminaire Lumens: 23150.5 lumens  
Efficiency: N/A  
Efficacy: 102.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (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

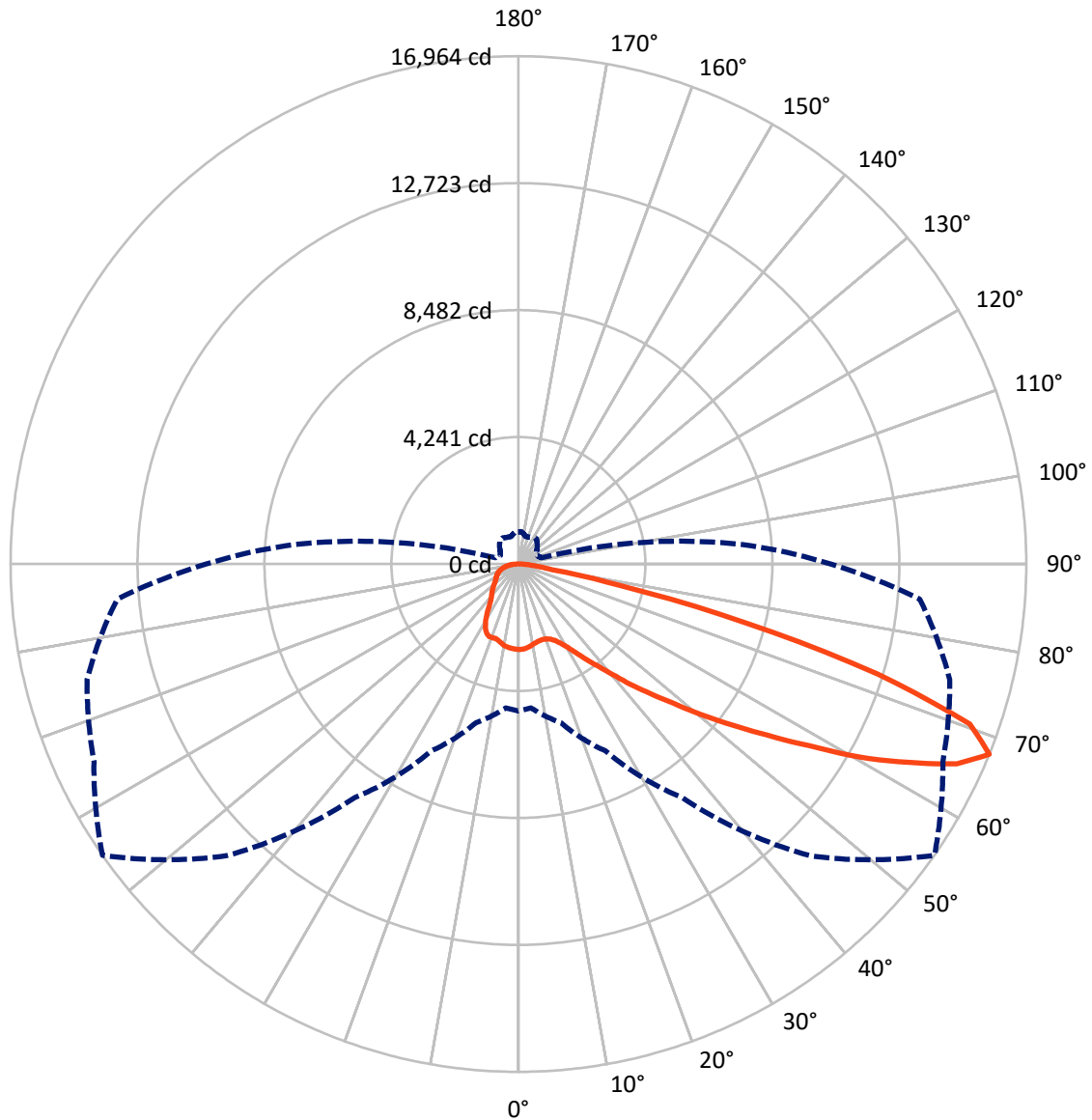
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5001.0	0.0	5001.0
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	18149.5	0.0	18149.5
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	23150.5	0.0	23150.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	266.5	1.2
10°-20°	754.6	3.3
20°-30°	1264.1	5.5
30°-40°	2078.8	9.0
40°-50°	3499.2	15.1
50°-60°	5507.5	23.8
60°-70°	6572.6	28.4
70°-80°	2822.4	12.2
80°-90°	384.8	1.7
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°	23150.5	100.0
0°-180°	23150.5	100.0



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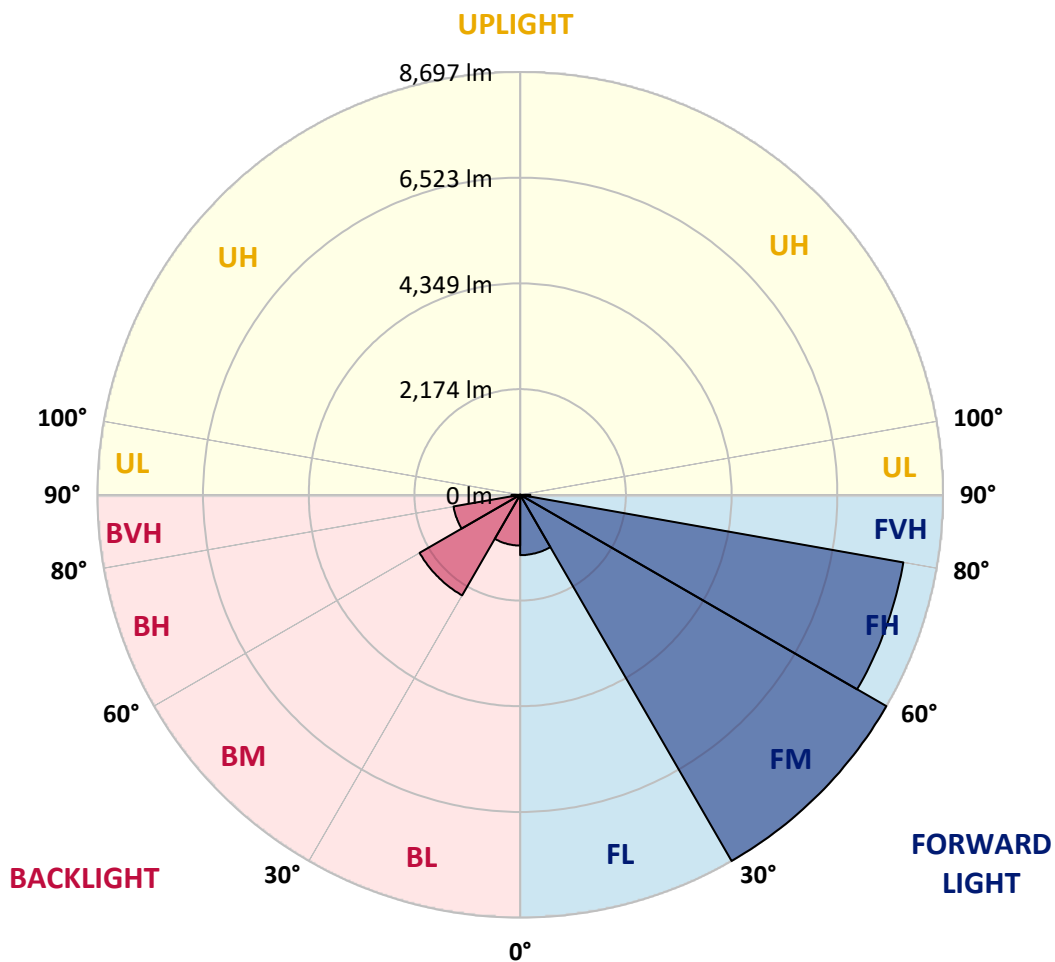
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1240.9	5.4			
FM	(30°-60°)	8697.0	37.6			
FH	(60°-80°)	8003.2	34.6			G4/12000
FVH	(80°-90°)	208.3	0.9			G2/225
BL	(0°-30°)	1044.3	4.5	B3/2500		
BM	(30°-60°)	2388.4	10.3	B2/2500		
BH	(60°-80°)	1391.8	6.0	B3/2500		G3/2500
BVH	(80°-90°)	176.5	0.8			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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7
2.5°	2830.1	2831.2	2833.5	2842.4	2850.2	2848.0	2849.1	2844.6	2843.5	2836.8	2843.5
5°	2794.3	2797.7	2798.8	2813.3	2822.3	2824.5	2821.2	2815.6	2808.9	2802.2	2805.5
7.5°	2712.7	2721.6	2722.8	2742.9	2757.4	2776.4	2777.6	2778.7	2775.3	2770.8	2777.6
10°	2661.3	2663.5	2662.4	2676.9	2688.1	2709.3	2721.6	2742.9	2751.8	2754.1	2758.5
12.5°	2657.9	2655.7	2652.3	2652.3	2649.0	2657.9	2680.3	2710.5	2731.7	2738.4	2744.0
15°	2693.7	2692.6	2681.4	2664.6	2643.4	2636.7	2655.7	2689.2	2717.2	2731.7	2737.3
17.5°	2774.2	2767.5	2749.6	2711.6	2665.7	2647.8	2650.1	2678.0	2710.5	2729.5	2735.1
20°	2921.8	2921.8	2883.8	2812.2	2730.6	2688.1	2668.0	2684.7	2716.1	2741.8	2749.6
22.5°	3176.7	3179.0	3115.2	2997.8	2860.3	2769.7	2719.4	2716.1	2753.0	2782.0	2791.0
25°	3537.9	3529.0	3439.5	3271.8	3062.7	2912.9	2825.6	2805.5	2836.8	2869.2	2880.4
27.5°	3958.4	3925.9	3819.7	3617.3	3346.7	3127.5	2993.4	2960.9	2991.1	3028.0	3039.2
30°	4374.3	4340.8	4214.4	3993.0	3692.2	3414.9	3222.6	3170.0	3212.5	3265.1	3271.8
32.5°	4790.3	4790.3	4649.4	4391.1	4063.5	3758.2	3527.9	3465.2	3535.7	3599.4	3614.0
35°	5287.9	5290.1	5153.7	4842.8	4490.6	4167.5	3913.6	3867.8	3974.0	4018.7	4053.4
37.5°	5899.5	5911.8	5736.3	5360.5	4974.8	4634.9	4332.9	4270.3	4376.6	4498.4	4610.3
40°	6560.4	6576.0	6382.6	5919.6	5533.9	5178.3	4851.8	4738.8	4915.5	5148.1	5292.3
42.5°	7191.0	7271.5	7084.8	6608.4	6193.6	5825.7	5494.7	5330.4	5551.8	5902.9	6028.1
45°	8102.3	8160.5	7835.1	7403.5	7013.2	6601.7	6163.4	5990.1	6299.8	6742.6	6768.3
47.5°	8709.5	8665.9	8500.4	8232.0	7984.9	7600.3	6940.5	6750.4	7161.9	7683.0	7538.8
50°	9032.6	9046.1	9023.7	9039.4	9048.3	8806.8	7893.2	7632.7	8123.6	8753.1	8421.0
52.5°	9334.6	9245.1	9318.9	9685.7	10128.5	10039.0	8929.8	8658.1	9154.5	9940.6	9353.6
55°	9327.8	9191.4	9431.8	10079.3	11039.8	11142.7	10093.8	9780.7	10244.8	11214.2	10342.0
57.5°	8998.0	9004.7	9374.8	10222.4	11674.9	12180.3	11444.6	10974.9	11401.0	12504.6	11244.4
60°	8544.0	8605.5	9138.9	10198.9	12183.7	13031.3	13101.7	12261.9	12533.7	13677.6	11991.3
62.5°	7811.6	7876.5	8612.2	9955.1	12106.5	13850.9	14600.1	13722.3	13717.8	14388.7	12210.5
65°	6656.5	6637.5	7410.2	9043.8	11459.1	14456.9	16088.4	14984.7	14610.1	14399.9	11770.0
67.5°	4908.8	4823.8	5486.9	6888.0	9524.6	13778.2	16963.9	15642.2	14914.3	13452.8	10423.7
70°	2547.2	2462.2	2999.0	4022.1	6264.0	10753.5	15994.4	15302.3	14242.2	11276.8	8166.1
72.5°	1089.1	1074.6	1292.6	1764.5	3030.3	6202.5	12541.5	13244.8	12220.6	8402.0	5614.4
75°	732.4	727.9	809.6	961.6	1363.1	2517.0	7848.5	9401.6	8941.0	5209.6	3157.7
77.5°	574.7	569.2	617.2	691.0	883.4	992.9	3483.1	5047.5	4671.8	2267.7	1382.1
80°	449.5	445.0	475.2	515.5	635.1	626.2	1146.1	2008.2	1554.3	868.8	672.0
82.5°	354.5	354.5	379.1	380.2	450.6	427.1	598.2	884.5	776.0	506.5	411.5
85°	324.3	324.3	350.0	284.0	294.1	269.5	371.2	524.4	492.0	208.0	178.9
87.5°	163.3	158.8	294.1	251.6	159.9	143.1	181.1	253.8	272.8	115.2	89.5
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7	2854.7
2.5°	2841.3	2840.2	2842.4	2843.5	2852.5	2864.8	2870.4	2878.2	2882.7	2880.4
5°	2807.7	2810.0	2818.9	2825.6	2841.3	2861.4	2872.6	2881.5	2889.4	2886.0
7.5°	2779.8	2785.4	2798.8	2804.4	2813.3	2818.9	2817.8	2821.2	2827.9	2820.0
10°	2764.1	2770.8	2780.9	2773.1	2751.8	2721.6	2693.7	2679.2	2683.6	2678.0
12.5°	2748.5	2757.4	2749.6	2712.7	2653.4	2614.3	2593.1	2595.3	2605.4	2607.6
15°	2739.5	2742.9	2709.3	2640.0	2579.6	2574.0	2585.2	2583.0	2584.1	2584.1
17.5°	2739.5	2730.6	2668.0	2598.6	2572.9	2562.9	2528.2	2484.6	2465.6	2458.9
20°	2754.1	2730.6	2654.6	2608.7	2552.8	2466.7	2375.0	2294.5	2258.7	2248.7
22.5°	2797.7	2757.4	2692.6	2613.2	2454.4	2310.2	2164.8	2068.6	2003.8	1992.6
25°	2886.0	2841.3	2767.5	2553.9	2297.9	2092.1	1926.6	1819.3	1754.4	1745.5
27.5°	3040.3	3011.3	2807.7	2423.1	2089.9	1869.6	1716.4	1633.7	1585.6	1582.2
30°	3272.9	3258.4	2787.6	2229.6	1833.8	1653.8	1580.0	1531.9	1496.1	1495.0
32.5°	3644.1	3526.7	2721.6	1993.7	1600.1	1500.6	1470.4	1441.3	1413.4	1413.4
35°	4121.6	3743.7	2596.4	1741.0	1458.1	1415.6	1377.6	1331.8	1294.9	1292.6
37.5°	4682.9	3877.8	2371.7	1537.5	1391.0	1358.6	1302.7	1234.5	1169.6	1158.4
40°	5249.8	3918.1	2055.2	1412.3	1348.5	1301.6	1233.4	1152.8	1090.2	1086.9
42.5°	5769.8	3840.9	1719.8	1326.2	1306.0	1243.4	1171.9	1100.3	1051.1	1050.0
45°	6205.9	3640.8	1438.0	1244.5	1261.3	1190.9	1127.1	1069.0	1031.0	1023.1
47.5°	6616.3	3357.9	1240.1	1158.4	1216.6	1161.8	1108.1	1053.3	1016.4	1010.8
50°	7092.6	3052.6	1101.4	1074.6	1177.4	1151.7	1123.8	1066.7	1005.2	998.5
52.5°	7669.6	2788.7	992.9	1000.8	1147.3	1165.1	1164.0	1104.8	997.4	988.5
55°	8313.7	2495.8	911.3	940.4	1135.0	1189.7	1174.1	1140.5	1004.1	990.7
57.5°	8947.7	2153.6	854.3	894.5	1117.1	1187.5	1126.0	1077.9	1019.8	1000.8
60°	9422.9	1694.0	810.7	854.3	1077.9	1150.6	1073.5	1009.7	1016.4	1001.9
62.5°	9454.2	1309.4	758.1	819.6	1018.7	1113.7	1038.8	979.5	1031.0	1017.5
65°	8898.5	989.6	707.8	778.3	954.9	1090.2	1005.2	962.8	1061.2	1046.6
67.5°	7491.8	796.1	665.3	735.8	891.2	1041.0	975.1	947.1	1088.0	1062.3
70°	5408.6	678.7	623.9	684.3	834.2	985.1	948.2	919.1	1015.3	975.1
72.5°	3329.9	588.2	577.0	616.1	790.6	927.0	908.0	866.6	914.7	882.2
75°	1662.7	509.9	524.4	549.0	729.1	861.0	840.9	799.5	806.2	799.5
77.5°	796.1	436.1	462.9	481.9	649.7	786.1	764.8	722.3	714.5	715.6
80°	504.3	364.5	390.2	403.7	580.3	698.9	677.6	635.1	724.6	672.0
82.5°	315.3	296.3	303.0	327.6	505.4	608.3	580.3	542.3	653.0	516.6
85°	174.4	206.9	215.8	237.1	389.1	508.8	480.8	432.7	388.0	381.3
87.5°	104.0	123.0	126.4	142.0	261.7	367.9	325.4	308.6	256.1	254.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)