

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: P301228

Luminaire Tested: **GLNA-AF-05-LED-E1-T3R-7050-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301228  
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-7050-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19968 lumens  
Efficiency: N/A  
Efficacy: 123.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B2 - U0 - G3

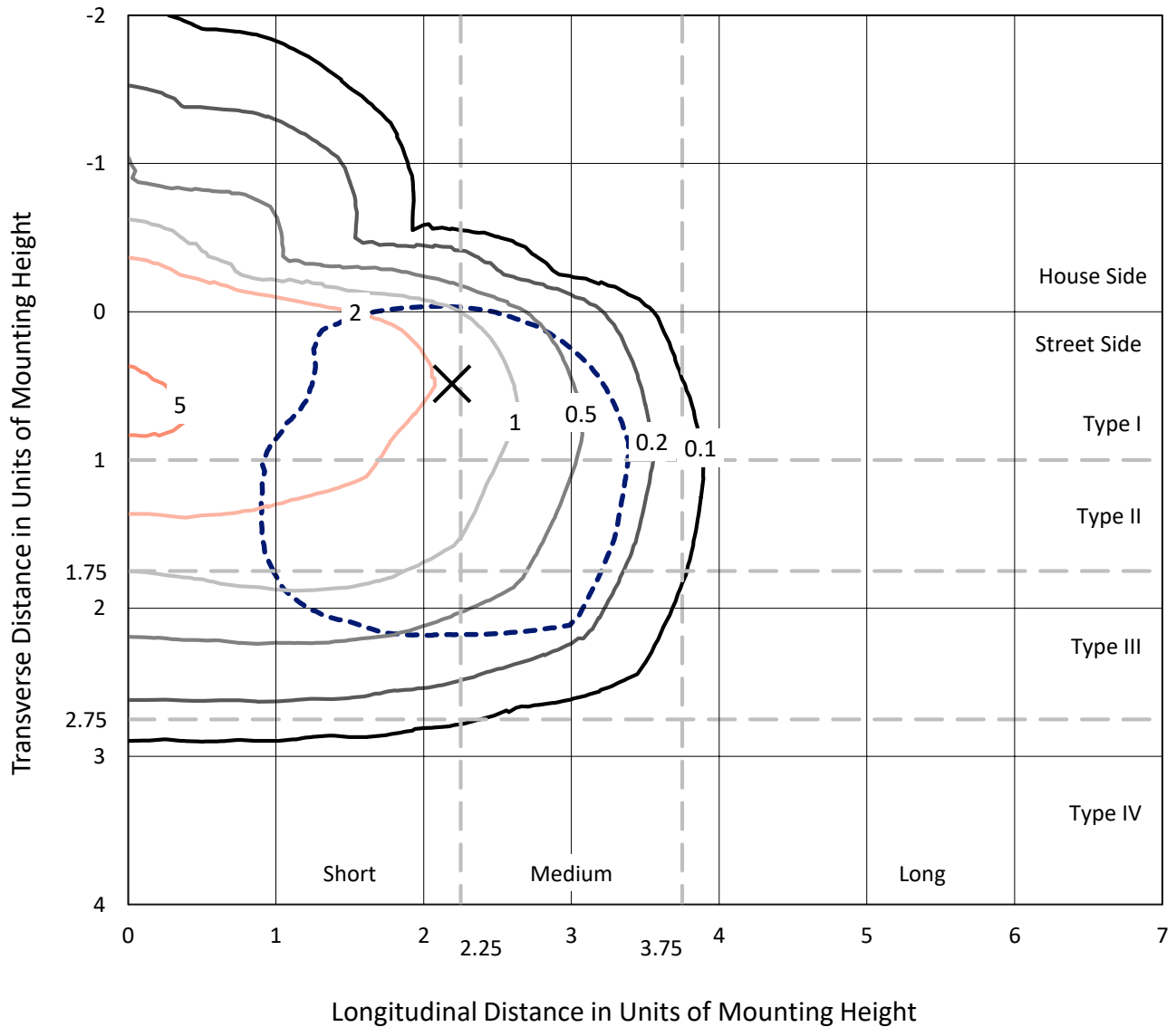
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

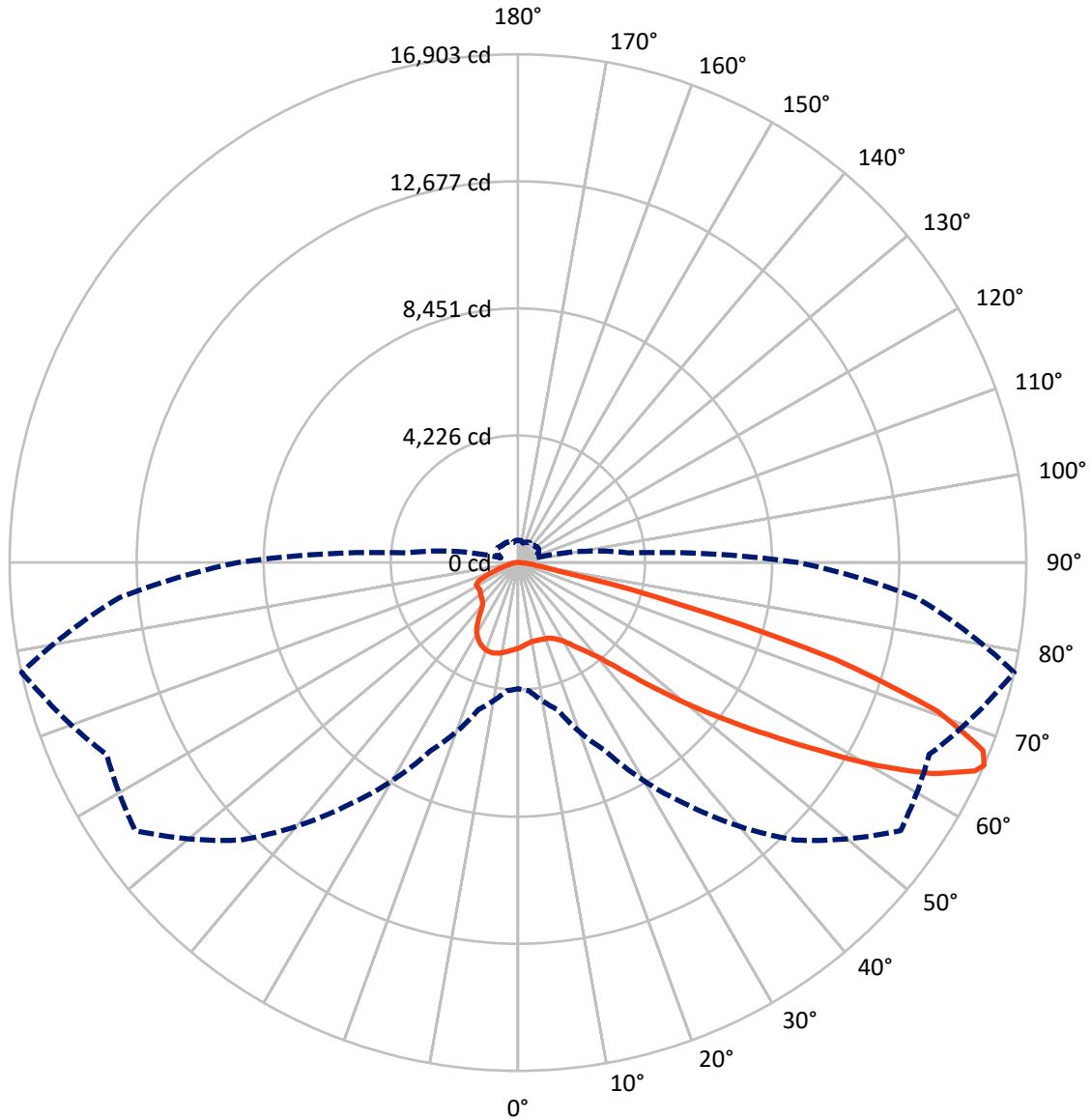
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3411.4	0.0	3411.4
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	16556.6	0.0	16556.6
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	19968.0	0.0	19968.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.2	1.3
10°-20°	717.2	3.6
20°-30°	1224.0	6.1
30°-40°	1959.4	9.8
40°-50°	3027.2	15.2
50°-60°	4293.6	21.5
60°-70°	5743.6	28.8
70°-80°	2494.4	12.5
80°-90°	254.3	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°	19968.0	100.0
0°-180°	19968.0	100.0



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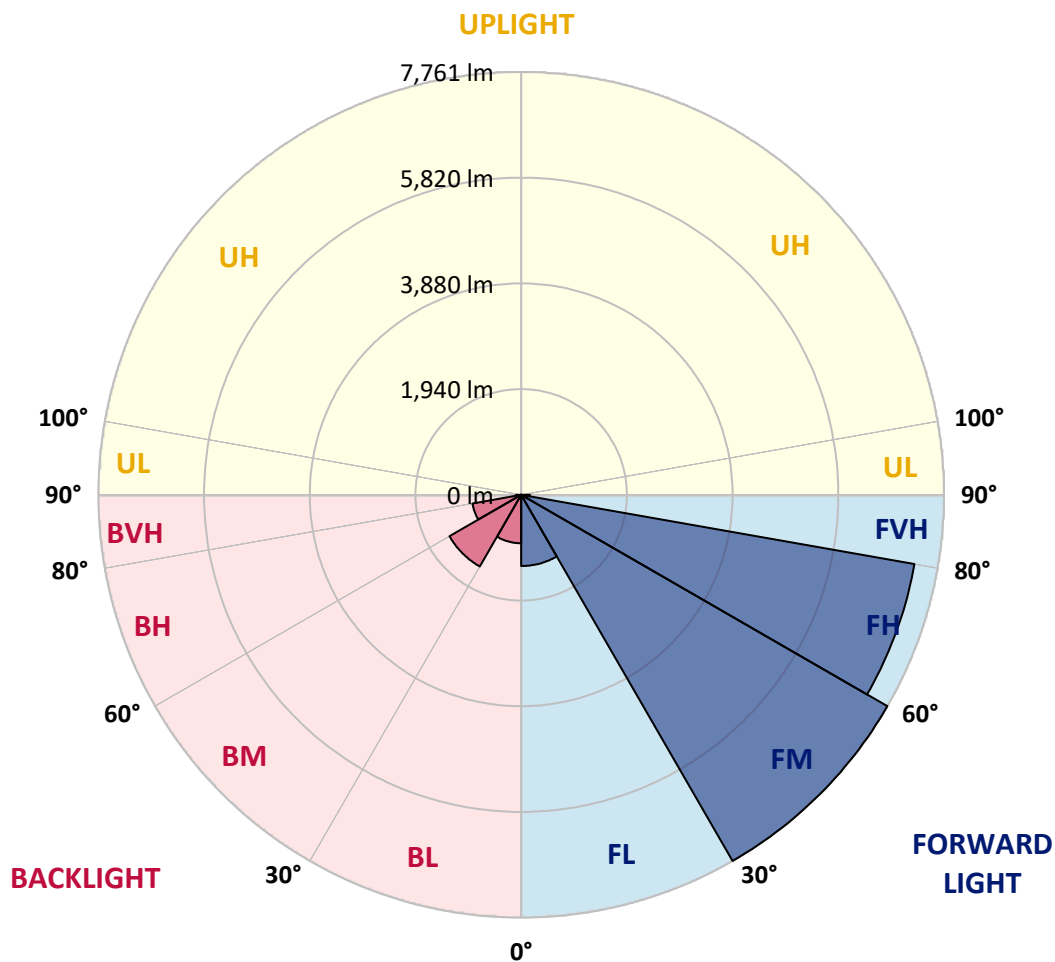
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1307.0	6.5			
FM	(30°-60°)	7760.6	38.9			
FH	(60°-80°)	7329.5	36.7			G3/7500
FVH	(80°-90°)	159.5	0.8			G2/225
BL	(0°-30°)	888.5	4.4	B2/1000		
BM	(30°-60°)	1519.6	7.6	B2/2500		
BH	(60°-80°)	908.5	4.5	B2/1000		G2/1000
BVH	(80°-90°)	94.8	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5
2.5°	2517.3	2534.1	2548.4	2561.6	2587.8	2631.3	2681.2	2721.8	2780.4	2791.8	2822.9
5°	2286.2	2286.2	2297.3	2317.3	2353.0	2418.2	2486.1	2576.7	2704.1	2734.1	2817.2
7.5°	2173.9	2174.8	2181.3	2198.2	2229.3	2288.7	2363.3	2470.1	2642.7	2692.7	2834.1
10°	2215.3	2205.9	2191.6	2183.3	2187.9	2222.8	2293.6	2412.4	2605.0	2669.0	2872.1
12.5°	2447.3	2429.6	2380.4	2315.3	2253.0	2227.6	2269.0	2385.0	2589.0	2663.5	2922.1
15°	2826.7	2819.2	2727.5	2592.7	2441.9	2315.3	2287.0	2374.7	2590.7	2670.1	2981.5
17.5°	3302.3	3291.7	3171.2	2974.9	2728.7	2482.4	2350.2	2383.3	2597.3	2681.2	3038.9
20°	3782.5	3750.2	3620.2	3386.3	3070.0	2709.5	2455.0	2405.0	2605.8	2693.5	3099.5
22.5°	4141.0	4114.4	3997.6	3770.2	3406.0	2972.9	2595.5	2442.7	2633.3	2729.5	3173.7
25°	4456.1	4457.8	4341.8	4122.1	3745.6	3252.3	2776.7	2543.6	2703.0	2802.9	3275.7
27.5°	4845.7	4823.2	4714.6	4496.6	4081.6	3534.2	2995.5	2682.4	2806.9	2907.8	3409.7
30°	5311.7	5295.7	5170.2	4923.1	4454.1	3837.0	3245.4	2843.5	2940.9	3045.5	3585.1
32.5°	5859.8	5852.4	5722.2	5404.2	4884.3	4193.8	3539.1	3056.9	3140.9	3249.4	3837.0
35°	6503.4	6504.3	6350.6	5968.4	5355.1	4608.9	3871.9	3331.4	3384.3	3497.4	4137.3
37.5°	6899.7	6947.7	6890.2	6500.6	5888.1	5073.1	4304.1	3695.6	3661.7	3775.9	4458.9
40°	6984.5	7043.1	7225.0	7027.1	6484.6	5584.5	4687.2	4045.6	4003.3	4142.7	4873.2
42.5°	6865.7	6946.8	7331.9	7471.3	7117.6	6214.6	5202.2	4565.5	4511.8	4699.5	5388.2
45°	6794.8	6855.4	7300.7	7702.7	7666.7	6927.1	5858.1	5218.2	5198.5	5444.8	5982.7
47.5°	6672.3	6727.1	7155.3	7756.4	7989.5	7579.8	6646.0	6016.7	6055.2	6378.0	6653.4
50°	6738.3	6760.8	6993.1	7619.5	8082.9	8058.3	7526.1	6941.1	7073.3	7476.1	7413.0
52.5°	6728.8	6787.4	6974.2	7395.0	8095.2	8353.7	8393.1	7972.3	8250.9	8713.1	8255.4
55°	5440.2	5547.6	6752.5	7338.4	8138.3	8643.1	9165.0	9059.3	9578.1	10116.8	9206.4
57.5°	5194.8	5262.8	5930.7	7457.3	8368.5	9196.1	10023.4	10255.6	11123.5	11749.1	10365.1
60°	5146.5	5230.5	5922.1	7602.7	8835.6	10097.1	11296.3	11704.0	13004.0	13689.1	11708.5
62.5°	4996.6	5087.1	5866.4	7583.5	9498.9	11343.5	12925.8	13243.7	14787.1	15453.3	12832.3
65°	4521.2	4606.1	5412.8	7279.0	9946.3	12673.8	14854.0	14655.2	16194.9	16695.7	13392.5
66°	4195.6	4278.7	5055.1	6920.5	9842.3	13051.2	15537.3	15092.0	16510.0	16902.5	13283.1
67.5°	3600.2	3665.4	4360.7	6117.5	9290.4	13156.9	16111.8	15420.2	16542.8	16681.7	12657.8
70°	2274.7	2293.6	2834.1	4223.0	7032.8	11410.3	15237.1	14605.2	15178.8	14803.1	10611.3
72.5°	987.0	980.4	1360.6	2148.2	3981.6	7656.4	12325.6	12051.1	11906.8	11050.1	7428.1
75°	549.0	556.8	706.7	997.3	1618.0	3760.8	8062.9	7715.8	6514.6	5559.0	3368.3
77.5°	440.5	451.1	585.9	707.6	726.4	1311.5	3773.1	3070.0	1848.3	1483.2	935.8
80°	348.2	367.1	511.3	551.0	489.6	540.5	1218.9	974.7	731.3	670.7	485.1
82.5°	275.4	288.8	438.8	417.1	342.5	364.2	583.9	569.0	475.6	433.1	280.2
85°	198.3	222.5	360.5	314.2	224.5	245.4	387.6	371.6	272.5	222.5	123.7
87.5°	81.1	105.7	254.8	208.5	125.4	114.3	193.4	182.0	129.1	94.3	61.4
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°	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5	2845.5
2.5°	2842.6	2865.2	2894.6	2912.6	2922.1	2928.6	2938.9	2938.1	2940.9	2941.8	2945.5
5°	2861.5	2899.2	2941.8	2953.2	2953.2	2942.6	2932.3	2915.2	2908.6	2906.9	2908.6
7.5°	2910.6	2952.1	2988.9	2975.8	2947.5	2905.8	2852.1	2804.9	2779.5	2770.9	2769.2
10°	2972.9	3022.9	3038.0	2988.1	2904.9	2804.9	2698.4	2621.0	2576.7	2564.4	2560.7
12.5°	3048.3	3095.5	3074.9	2969.2	2815.2	2654.1	2506.7	2383.3	2290.7	2261.6	2259.6
15°	3131.5	3168.3	3095.5	2910.6	2681.2	2443.6	2181.3	1968.2	1853.1	1816.3	1813.4
17.5°	3208.9	3227.7	3083.2	2808.7	2484.1	2099.4	1751.1	1586.9	1547.4	1556.9	1558.6
20°	3274.9	3274.9	3041.8	2662.4	2173.9	1645.4	1425.5	1422.9	1451.2	1479.5	1485.2
22.5°	3347.4	3304.0	2969.2	2455.9	1734.0	1346.3	1314.3	1340.6	1372.6	1403.8	1408.6
25°	3437.1	3327.7	2868.1	2142.8	1363.2	1222.6	1234.9	1256.6	1272.6	1292.6	1295.5
27.5°	3537.1	3357.7	2735.2	1711.4	1183.2	1145.5	1154.9	1162.4	1160.4	1168.1	1169.8
30°	3656.8	3392.8	2553.0	1337.8	1108.7	1079.2	1062.4	1055.8	1055.8	1068.1	1072.7
32.5°	3817.3	3444.5	2291.6	1146.4	1072.7	1032.1	977.5	953.0	962.4	1003.8	1013.3
35°	3993.9	3500.3	1937.9	1081.2	1065.2	1010.4	925.6	880.1	881.3	919.8	932.1
37.5°	4186.1	3571.1	1550.0	1069.0	1082.1	1011.5	898.1	835.9	810.4	810.4	815.3
40°	4432.4	3643.7	1254.9	1077.5	1118.1	1022.7	884.1	801.0	729.3	731.3	735.0
42.5°	4753.2	3705.9	1096.4	1095.2	1161.5	1037.8	883.0	754.7	692.5	735.0	773.6
45°	5110.0	3737.1	1026.4	1111.5	1196.4	1047.2	868.1	747.3	697.3	823.6	897.3
47.5°	5520.2	3719.1	987.8	1116.9	1204.9	1047.2	851.0	765.3	730.2	953.8	1039.8
50°	5970.4	3667.4	950.1	1105.8	1202.1	1045.2	867.0	783.0	742.4	976.4	1035.8
52.5°	6499.7	3623.9	910.4	1081.2	1182.1	1035.0	885.8	775.6	703.9	887.8	929.3
55°	7103.3	3636.2	866.1	1046.4	1150.9	1015.3	879.3	745.3	663.3	782.2	807.6
57.5°	7875.2	3782.5	813.3	1002.1	1108.7	982.1	855.9	731.3	651.0	709.6	724.7
60°	8736.5	4037.0	747.3	957.5	1055.8	929.3	837.9	737.9	656.7	703.9	711.3
62.5°	9368.7	4185.3	690.7	892.4	984.1	870.7	815.3	746.2	671.9	723.6	721.9
65°	9540.3	3941.9	619.9	797.3	887.0	809.6	786.7	755.6	678.5	739.6	731.3
66°	9299.8	3679.6	588.8	753.0	837.9	779.3	772.7	754.7	675.6	741.6	727.3
67.5°	8715.9	3141.7	535.1	687.9	759.6	734.2	750.2	746.2	667.9	739.6	719.9
70°	7108.2	2143.6	457.6	572.8	632.2	646.2	706.7	716.2	643.3	706.7	663.3
72.5°	4966.6	1305.8	404.8	444.5	511.3	551.0	647.3	674.5	610.5	617.0	575.6
75°	2400.2	693.6	367.1	344.5	397.1	460.5	575.6	617.9	558.5	516.2	501.1
77.5°	748.2	423.6	311.4	277.4	311.4	371.6	481.1	541.6	497.3	432.2	426.5
80°	401.9	311.4	239.7	222.5	246.2	291.7	378.2	451.9	427.4	387.6	346.2
82.5°	265.1	202.0	177.4	172.5	187.7	222.5	281.1	374.5	374.5	332.2	241.7
85°	136.8	123.7	121.7	121.7	131.1	148.3	191.4	288.8	307.7	175.4	145.4
87.5°	68.0	70.8	66.0	68.8	73.7	72.6	91.4	145.4	173.7	106.6	88.6
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)