

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: P301225

Luminaire Tested: **GLNA-AF-05-LED-E1-T3R-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301225  
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-7030-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19314.6 lumens  
Efficiency: N/A  
Efficacy: 119.2 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

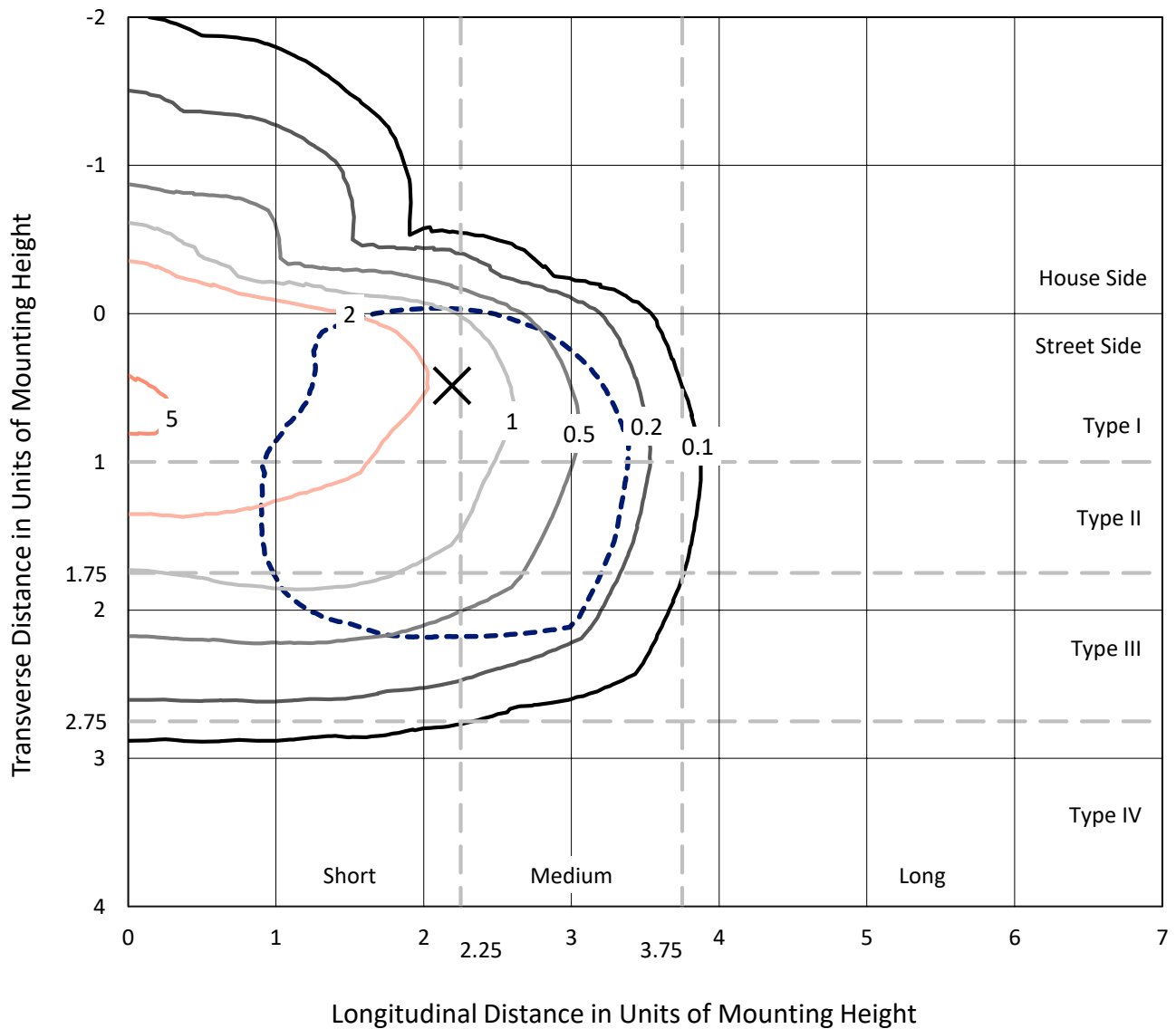
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

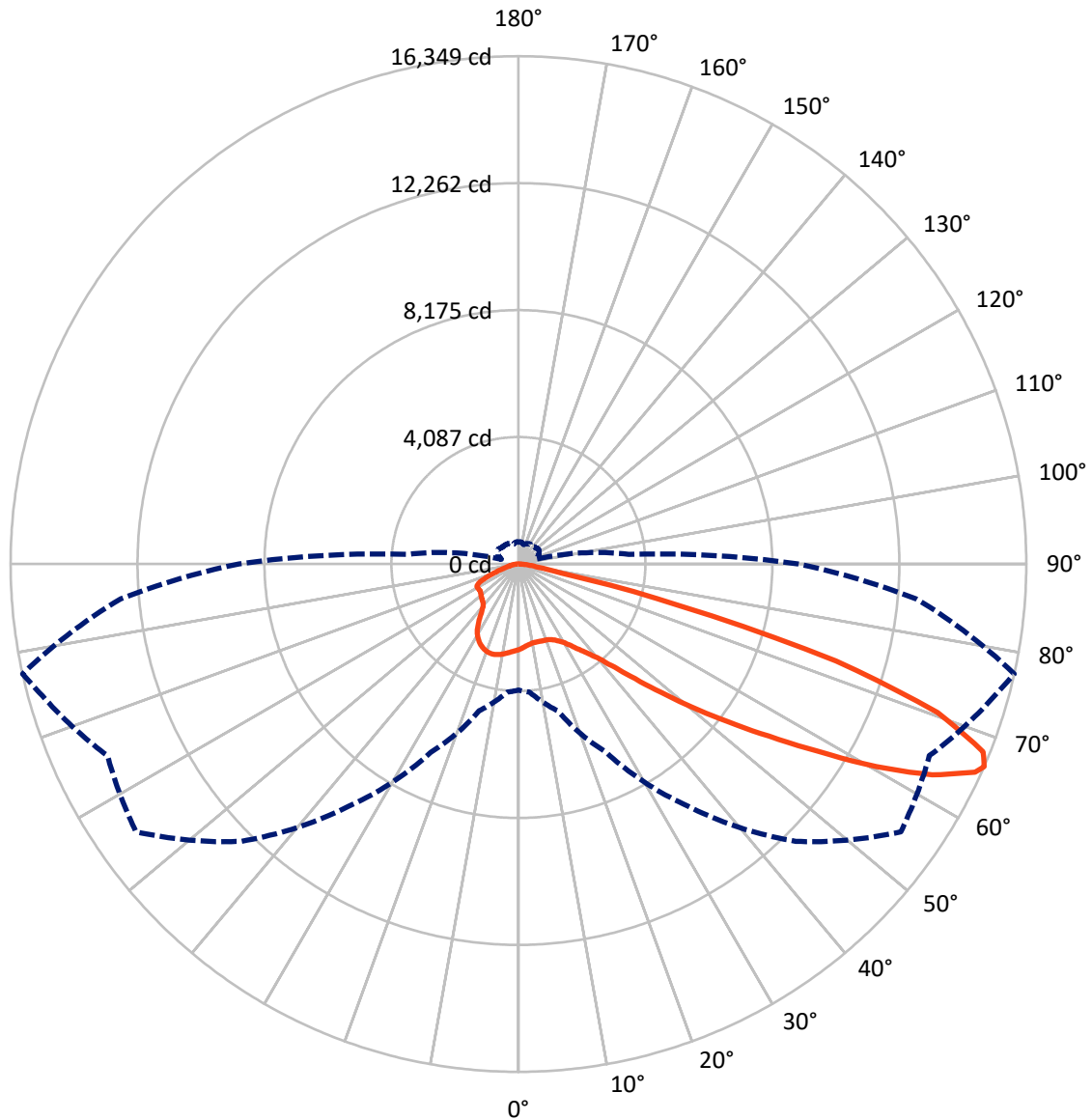
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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	3299.8	0.0	3299.8
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	16014.8	0.0	16014.8
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	19314.6	0.0	19314.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.9	1.3
10°-20°	693.7	3.6
20°-30°	1184.0	6.1
30°-40°	1895.3	9.8
40°-50°	2928.1	15.2
50°-60°	4153.1	21.5
60°-70°	5555.7	28.8
70°-80°	2412.7	12.5
80°-90°	246.0	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°	19314.6	100.0
0°-180°	19314.6	100.0



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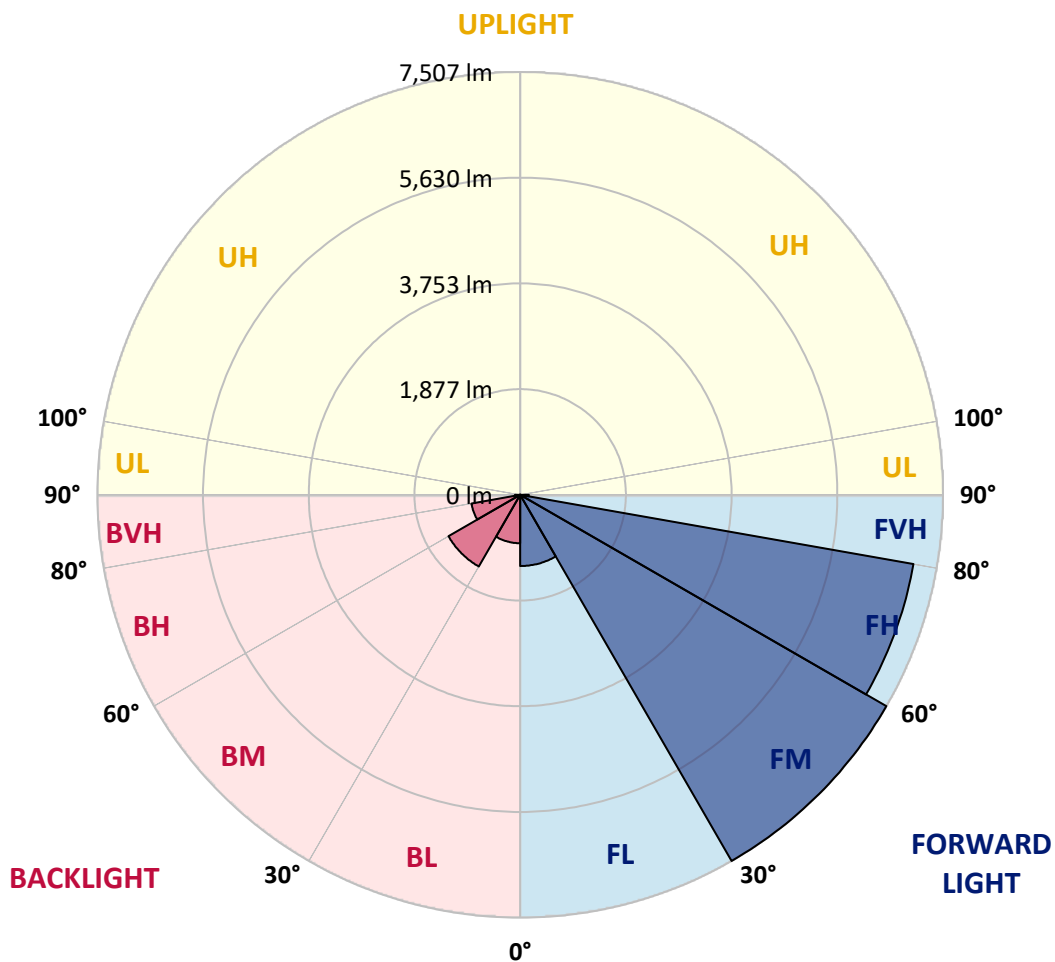
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1264.2	6.5			
FM	(30°-60°)	7506.7	38.9			
FH	(60°-80°)	7089.6	36.7			G3/7500
FVH	(80°-90°)	154.3	0.8			G2/225
BL	(0°-30°)	859.4	4.4	B2/1000		
BM	(30°-60°)	1469.9	7.6	B2/2500		
BH	(60°-80°)	878.8	4.5	B2/1000		G2/1000
BVH	(80°-90°)	91.7	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°	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4
2.5°	2434.9	2451.2	2465.0	2477.7	2503.2	2545.2	2593.5	2632.8	2689.4	2700.5	2730.6
5°	2211.4	2211.4	2222.1	2241.5	2276.0	2339.0	2404.8	2492.4	2615.6	2644.6	2725.0
7.5°	2102.8	2103.6	2110.0	2126.3	2156.4	2213.9	2286.0	2389.3	2556.2	2604.6	2741.3
10°	2142.8	2133.7	2119.9	2111.9	2116.3	2150.0	2218.6	2333.5	2519.7	2581.6	2778.1
12.5°	2367.2	2350.1	2302.6	2239.6	2179.3	2154.7	2194.8	2307.0	2504.3	2576.4	2826.5
15°	2734.2	2727.0	2638.3	2507.9	2362.0	2239.6	2212.2	2297.0	2505.9	2582.7	2883.9
17.5°	3194.2	3184.0	3067.4	2877.6	2639.4	2401.2	2273.3	2305.3	2512.3	2593.5	2939.5
20°	3658.7	3627.5	3501.8	3275.5	2969.6	2620.9	2374.7	2326.3	2520.6	2605.4	2998.0
22.5°	4005.5	3979.8	3866.8	3646.8	3294.5	2875.6	2510.6	2362.8	2547.1	2640.2	3069.9
25°	4310.3	4311.9	4199.8	3987.3	3623.1	3145.9	2685.8	2460.3	2614.5	2711.2	3168.5
27.5°	4687.2	4665.3	4560.3	4349.5	3948.0	3418.6	2897.5	2594.6	2715.1	2812.6	3298.1
30°	5137.8	5122.4	5001.1	4762.1	4308.3	3711.5	3139.2	2750.5	2844.7	2945.8	3467.8
32.5°	5668.1	5660.9	5534.9	5227.4	4724.5	4056.6	3423.3	2956.9	3038.1	3143.1	3711.5
35°	6290.6	6291.5	6142.8	5773.1	5179.8	4458.1	3745.2	3222.4	3273.5	3383.0	4001.9
37.5°	6673.9	6720.3	6664.8	6287.9	5695.5	4907.1	4163.3	3574.7	3541.8	3652.4	4313.0
40°	6756.0	6812.6	6988.6	6797.1	6272.4	5401.7	4533.8	3913.2	3872.3	4007.2	4713.7
42.5°	6641.0	6719.5	7092.0	7226.8	6884.7	6011.3	5032.0	4416.1	4364.2	4545.7	5211.9
45°	6572.5	6631.1	7061.8	7450.6	7415.8	6700.4	5666.4	5047.5	5028.4	5266.6	5786.9
47.5°	6453.9	6507.0	6921.2	7502.6	7728.1	7331.8	6428.5	5819.8	5857.1	6169.3	6435.7
50°	6517.8	6539.6	6764.3	7370.2	7818.4	7794.6	7279.9	6714.0	6841.9	7231.5	7170.4
52.5°	6508.7	6565.3	6746.0	7153.0	7830.3	8080.4	8118.5	7711.5	7980.9	8428.0	7985.3
55°	5262.2	5366.1	6531.6	7098.3	7872.0	8360.3	8865.1	8762.9	9264.7	9785.8	8905.2
57.5°	5024.8	5090.6	5736.6	7213.3	8094.7	8895.2	9695.4	9920.1	10759.5	11364.7	10025.9
60°	4978.1	5059.4	5728.3	7353.9	8546.5	9766.7	10926.7	11321.0	12578.5	13241.1	11325.4
62.5°	4833.1	4920.7	5674.5	7335.4	9188.1	10972.3	12502.8	12810.4	14303.3	14947.7	12412.5
65°	4373.3	4455.3	5235.7	7040.8	9620.8	12259.1	14368.0	14175.6	15665.0	16149.4	12954.3
66°	4058.3	4138.7	4889.7	6694.1	9520.2	12624.1	15028.9	14598.1	15969.8	16349.4	12848.5
67.5°	3482.4	3545.4	4218.0	5917.3	8986.4	12726.4	15584.6	14915.6	16001.6	16135.8	12243.6
70°	2200.3	2218.6	2741.3	4084.8	6802.7	11037.0	14738.5	14127.3	14682.1	14318.8	10264.1
72.5°	954.7	948.3	1316.1	2077.9	3851.3	7405.9	11922.3	11656.7	11517.2	10688.5	7185.1
75°	531.1	538.5	683.6	964.6	1565.1	3637.7	7799.1	7463.3	6301.4	5377.1	3258.1
77.5°	426.1	436.3	566.7	684.4	702.7	1268.6	3649.6	2969.6	1787.8	1434.6	905.2
80°	336.8	355.1	494.6	533.0	473.6	522.8	1179.0	942.8	707.4	648.8	469.2
82.5°	266.4	279.4	424.4	403.4	331.3	352.3	564.8	550.4	460.1	418.9	271.1
85°	191.8	215.3	348.7	303.9	217.2	237.4	375.0	359.5	263.6	215.3	119.6
87.5°	78.5	102.2	246.5	201.7	121.3	110.5	187.1	176.0	124.9	91.2	59.4
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°	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4	2752.4
2.5°	2749.6	2771.5	2799.9	2817.3	2826.5	2832.8	2842.8	2841.9	2844.7	2845.5	2849.1
5°	2767.9	2804.3	2845.5	2856.6	2856.6	2846.3	2836.4	2819.8	2813.5	2811.8	2813.5
7.5°	2815.4	2855.5	2891.1	2878.4	2851.0	2810.7	2758.8	2713.2	2688.6	2680.3	2678.6
10°	2875.6	2924.0	2938.6	2890.3	2809.9	2713.2	2610.1	2535.2	2492.4	2480.5	2476.9
12.5°	2948.6	2994.2	2974.3	2872.0	2723.1	2567.3	2424.7	2305.3	2215.8	2187.6	2185.7
15°	3029.0	3064.6	2994.2	2815.4	2593.5	2363.6	2110.0	1903.8	1792.5	1756.8	1754.1
17.5°	3103.9	3122.1	2982.3	2716.8	2402.9	2030.7	1693.8	1534.9	1496.8	1505.9	1507.6
20°	3167.7	3167.7	2942.2	2575.3	2102.8	1591.6	1378.8	1376.3	1403.7	1431.0	1436.6
22.5°	3237.9	3195.9	2872.0	2375.5	1677.2	1302.3	1271.3	1296.8	1327.7	1357.8	1362.5
25°	3324.7	3218.8	2774.2	2072.7	1318.6	1182.6	1194.5	1215.5	1231.0	1250.3	1253.1
27.5°	3421.4	3247.8	2645.7	1655.4	1144.5	1108.0	1117.2	1124.3	1122.4	1129.9	1131.5
30°	3537.1	3281.8	2469.5	1294.0	1072.4	1043.9	1027.6	1021.3	1021.3	1033.2	1037.6
32.5°	3692.4	3331.8	2216.6	1108.9	1037.6	998.3	945.6	921.8	930.9	971.0	980.1
35°	3863.2	3385.7	1874.5	1045.9	1030.4	977.3	895.3	851.3	852.4	889.7	901.6
37.5°	4049.2	3454.2	1499.3	1034.0	1046.7	978.4	868.7	808.5	783.9	783.9	788.6
40°	4287.3	3524.4	1213.9	1042.3	1081.5	989.2	855.2	774.8	705.4	707.4	711.0
42.5°	4597.6	3584.7	1060.5	1059.4	1123.5	1003.9	854.1	730.0	669.8	711.0	748.3
45°	4942.8	3614.8	992.8	1075.2	1157.2	1013.0	839.7	722.8	674.5	796.6	867.9
47.5°	5339.6	3597.4	955.5	1080.4	1165.5	1013.0	823.2	740.3	706.3	922.6	1005.8
50°	5775.0	3547.4	919.0	1069.6	1162.7	1011.0	838.6	757.4	718.1	944.5	1001.9
52.5°	6287.1	3505.4	880.6	1045.9	1143.4	1001.1	856.9	750.2	680.8	858.8	898.9
55°	6870.9	3517.2	837.8	1012.2	1113.3	982.0	850.5	720.9	641.6	756.6	781.1
57.5°	7617.5	3658.7	786.7	969.3	1072.4	950.0	827.8	707.4	629.7	686.4	701.0
60°	8450.6	3904.9	722.8	926.2	1021.3	898.9	810.4	713.7	635.3	680.8	688.0
62.5°	9062.1	4048.3	668.1	863.2	951.9	842.2	788.6	721.7	649.9	699.9	698.3
65°	9228.2	3812.9	599.6	771.2	858.0	783.1	761.0	730.9	656.3	715.4	707.4
66°	8995.5	3559.2	569.5	728.4	810.4	753.8	747.4	730.0	653.5	717.3	703.5
67.5°	8430.7	3038.9	517.5	665.4	734.7	710.1	725.6	721.7	646.0	715.4	696.3
70°	6875.6	2073.5	442.7	554.0	611.5	625.0	683.6	692.7	622.3	683.6	641.6
72.5°	4804.1	1263.0	391.5	430.0	494.6	533.0	626.1	652.4	590.5	596.8	556.8
75°	2321.6	670.9	355.1	333.2	384.1	445.4	556.8	597.7	540.2	499.3	484.7
77.5°	723.7	409.8	301.2	268.3	301.2	359.5	465.3	523.9	481.1	418.1	412.5
80°	388.8	301.2	231.8	215.3	238.2	282.1	365.8	437.1	413.4	375.0	334.9
82.5°	256.4	195.4	171.6	166.9	181.5	215.3	271.9	362.3	362.3	321.4	233.8
85°	132.4	119.6	117.7	117.7	126.8	143.4	185.1	279.4	297.6	169.7	140.6
87.5°	65.8	68.5	63.8	66.6	71.3	70.2	88.4	140.6	168.0	103.1	85.7
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)