

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: P299179

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299179
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-05-LED-E1-T3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20814.8 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

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

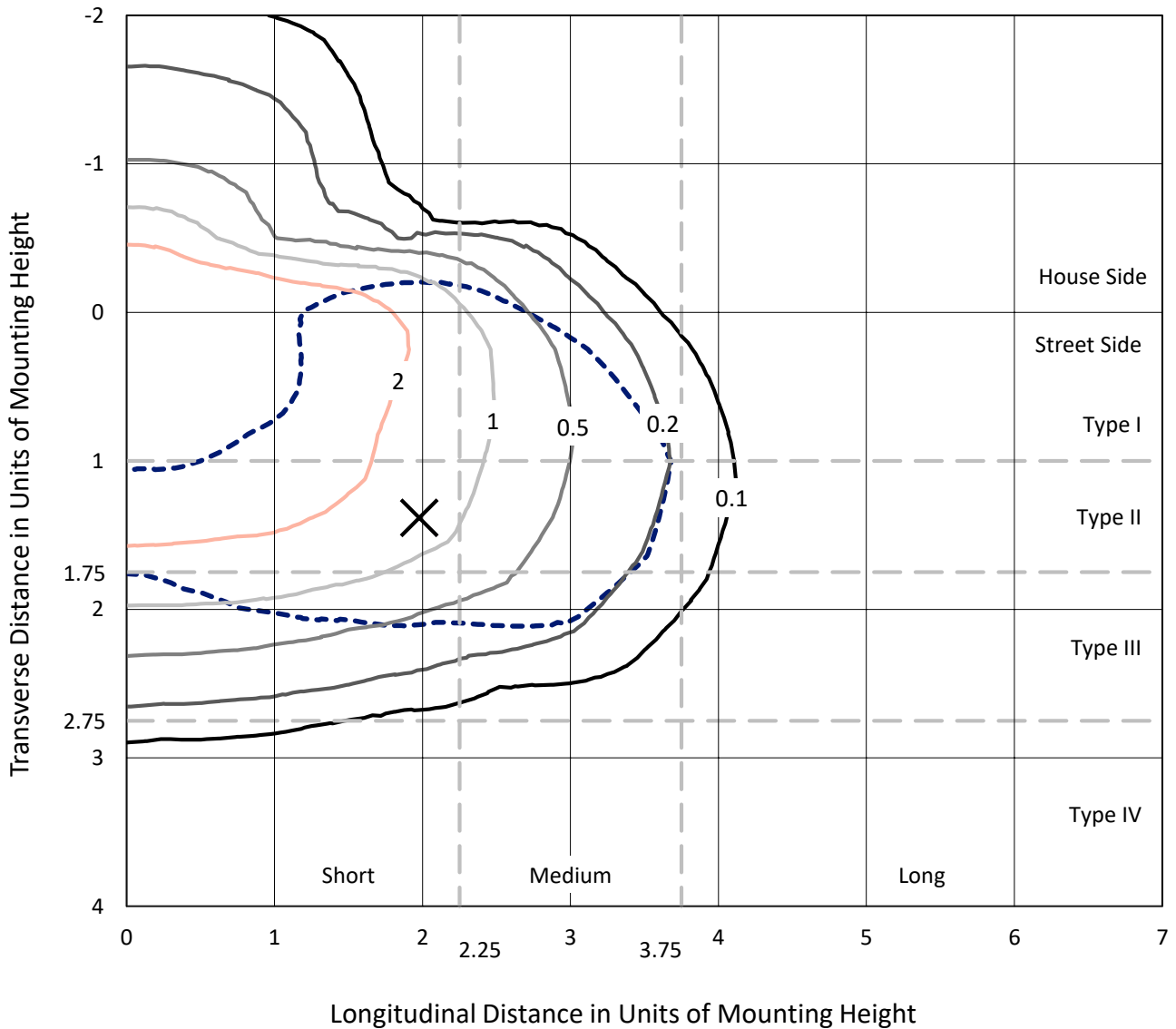


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

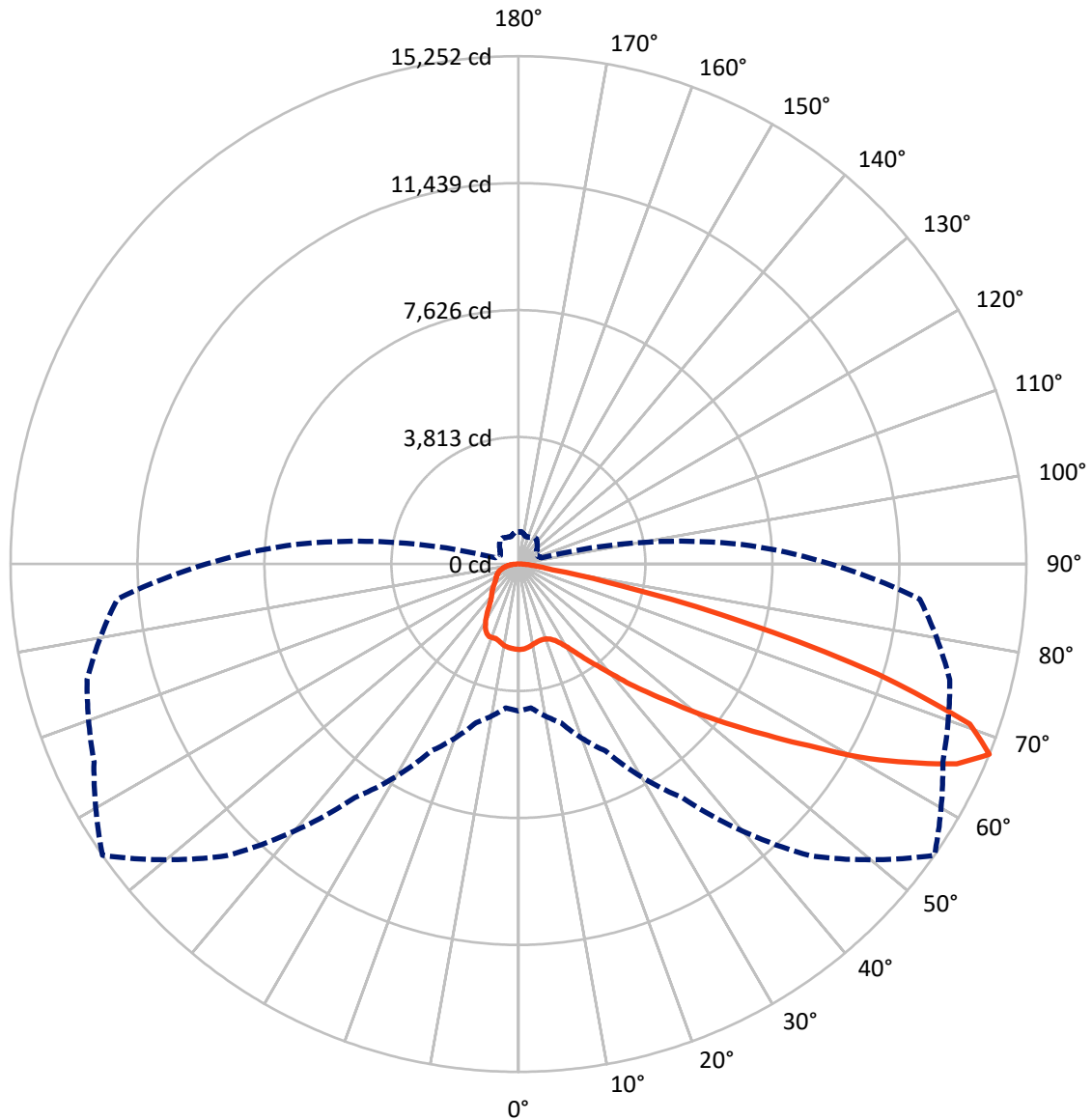


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Short - Full Cutoff

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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
House Side	Lumens	4496.4	0.0	4496.4
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	16318.4	0.0	16318.4
	% Fixture	78.4	0.0	78.4
Total	Lumens	20814.8	0.0	20814.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.6	1.2
10°-20°	678.5	3.3
20°-30°	1136.6	5.5
30°-40°	1869.0	9.0
40°-50°	3146.2	15.1
50°-60°	4951.8	23.8
60°-70°	5909.5	28.4
70°-80°	2537.6	12.2
80°-90°	346.0	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°	20814.8	100.0
0°-180°	20814.8	100.0



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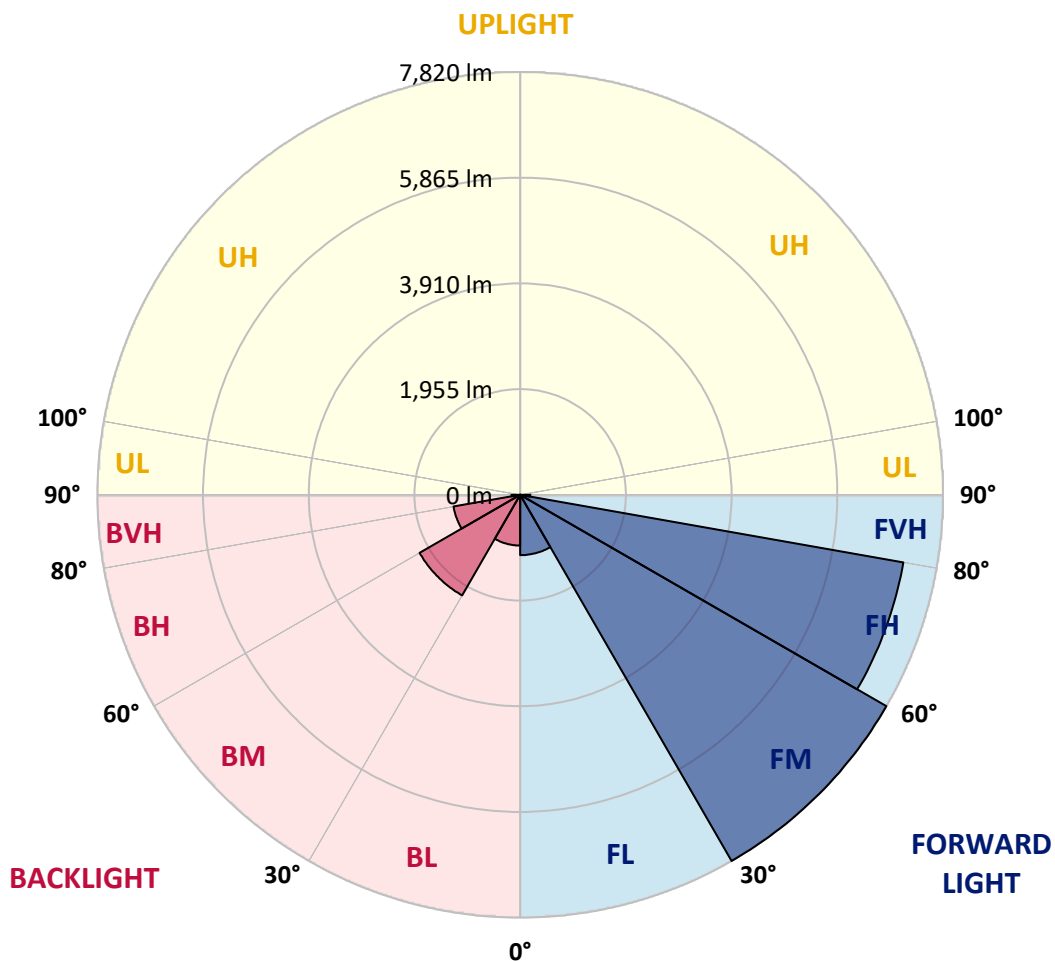
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1115.7	5.4			
FM (30°-60°)	7819.6	37.6			
FH (60°-80°)	7195.8	34.6			G3/7500
FVH (80°-90°)	187.3	0.9			G2/225
BL (0°-30°)	938.9	4.5	B2/1000		
BM (30°-60°)	2147.5	10.3	B2/2500		
BH (60°-80°)	1251.3	6.0	B3/2500		G3/2500
BVH (80°-90°)	158.7	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7
2.5°	2544.6	2545.6	2547.6	2555.6	2562.7	2560.7	2561.7	2557.6	2556.6	2550.6	2556.6
5°	2512.4	2515.4	2516.4	2529.5	2537.5	2539.6	2536.5	2531.5	2525.5	2519.4	2522.5
7.5°	2439.0	2447.1	2448.1	2466.2	2479.2	2496.3	2497.3	2498.3	2495.3	2491.3	2497.3
10°	2392.8	2394.8	2393.8	2406.8	2416.9	2436.0	2447.1	2466.2	2474.2	2476.2	2480.2
12.5°	2389.8	2387.7	2384.7	2384.7	2381.7	2389.8	2409.9	2437.0	2456.1	2462.1	2467.2
15°	2421.9	2420.9	2410.9	2395.8	2376.7	2370.7	2387.7	2417.9	2443.0	2456.1	2461.1
17.5°	2494.3	2488.3	2472.2	2438.0	2396.8	2380.7	2382.7	2407.8	2437.0	2454.1	2459.1
20°	2627.0	2627.0	2592.8	2528.5	2455.1	2416.9	2398.8	2413.9	2442.0	2465.2	2472.2
22.5°	2856.2	2858.3	2800.9	2695.4	2571.7	2490.3	2445.0	2442.0	2475.2	2501.3	2509.4
25°	3181.0	3172.9	3092.5	2941.7	2753.7	2619.0	2540.6	2522.5	2550.6	2579.8	2589.8
27.5°	3559.0	3529.8	3434.3	3252.4	3009.1	2812.0	2691.4	2662.2	2689.4	2722.5	2732.6
30°	3933.0	3902.8	3789.2	3590.2	3319.7	3070.4	2897.5	2850.2	2888.4	2935.7	2941.7
32.5°	4307.0	4307.0	4180.3	3948.1	3653.5	3379.0	3171.9	3115.6	3179.0	3236.3	3249.3
35°	4754.4	4756.4	4633.7	4354.2	4037.5	3747.0	3518.8	3477.6	3573.1	3613.3	3644.4
37.5°	5304.3	5315.4	5157.5	4819.7	4472.9	4167.2	3895.8	3839.5	3935.0	4044.6	4145.1
40°	5898.5	5912.6	5738.6	5322.4	4975.6	4655.8	4362.3	4260.7	4419.6	4628.7	4758.4
42.5°	6465.5	6537.9	6370.0	5941.7	5568.7	5238.0	4940.4	4792.6	4991.6	5307.3	5419.9
45°	7284.9	7337.2	7044.6	6656.5	6305.7	5935.7	5541.6	5385.7	5664.2	6062.4	6085.5
47.5°	7830.8	7791.6	7642.8	7401.5	7179.3	6833.5	6240.3	6069.4	6439.4	6907.9	6778.2
50°	8121.3	8133.4	8113.3	8127.4	8135.4	7918.3	7096.9	6862.6	7304.0	7870.0	7571.4
52.5°	8392.8	8312.4	8378.7	8708.5	9106.6	9026.2	8028.8	7784.5	8230.9	8937.7	8409.9
55°	8386.8	8264.1	8480.3	9062.4	9926.0	10018.5	9075.4	8793.9	9211.2	10082.8	9298.6
57.5°	8090.2	8096.2	8429.0	9191.0	10497.0	10951.4	10289.9	9867.7	10250.7	11243.0	10110.0
60°	7682.0	7737.3	8216.8	9169.9	10954.5	11716.5	11779.9	11024.8	11269.1	12297.6	10781.5
62.5°	7023.5	7081.8	7743.3	8950.8	10885.1	12453.5	13127.1	12337.8	12333.8	12937.0	10978.6
65°	5984.9	5967.8	6662.6	8131.4	10303.0	12998.4	14465.2	13472.9	13136.1	12947.1	10582.5
67.5°	4413.6	4337.1	4933.3	6193.0	8563.7	12388.1	15252.4	14064.1	13409.6	12095.5	9372.0
70°	2290.2	2213.8	2696.4	3616.3	5632.1	9668.6	14380.7	13758.4	12805.3	10139.1	7342.2
72.5°	979.2	966.2	1162.2	1586.5	2724.5	5576.8	11276.2	11908.6	10987.6	7554.3	5047.9
75°	658.5	654.5	727.9	864.6	1225.5	2263.1	7056.7	8453.1	8038.9	4684.0	2839.2
77.5°	516.8	511.7	555.0	621.3	794.2	892.8	3131.7	4538.2	4200.4	2038.9	1242.6
80°	404.2	400.1	427.3	463.5	571.0	563.0	1030.5	1805.6	1397.5	781.2	604.2
82.5°	318.7	318.7	340.8	341.8	405.2	384.0	537.9	795.2	697.7	455.4	370.0
85°	291.6	291.6	314.7	255.4	264.4	242.3	333.8	471.5	442.4	187.0	160.9
87.5°	146.8	142.8	264.4	226.2	143.8	128.7	162.9	228.2	245.3	103.6	80.4
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7	2566.7
2.5°	2554.6	2553.6	2555.6	2556.6	2564.7	2575.7	2580.8	2587.8	2591.8	2589.8
5°	2524.5	2526.5	2534.5	2540.6	2554.6	2572.7	2582.8	2590.8	2597.9	2594.8
7.5°	2499.3	2504.4	2516.4	2521.5	2529.5	2534.5	2533.5	2536.5	2542.6	2535.5
10°	2485.3	2491.3	2500.3	2493.3	2474.2	2447.1	2421.9	2408.9	2412.9	2407.8
12.5°	2471.2	2479.2	2472.2	2439.0	2385.7	2350.5	2331.4	2333.5	2342.5	2344.5
15°	2463.1	2466.2	2436.0	2373.7	2319.4	2314.4	2324.4	2322.4	2323.4	2323.4
17.5°	2463.1	2455.1	2398.8	2336.5	2313.3	2304.3	2273.1	2233.9	2216.8	2210.8
20°	2476.2	2455.1	2386.7	2345.5	2295.2	2217.8	2135.4	2063.0	2030.8	2021.8
22.5°	2515.4	2479.2	2420.9	2349.5	2206.8	2077.1	1946.4	1859.9	1801.6	1791.6
25°	2594.8	2554.6	2488.3	2296.3	2066.0	1881.0	1732.2	1635.7	1577.4	1569.4
27.5°	2733.6	2707.4	2524.5	2178.6	1879.0	1681.0	1543.2	1468.8	1425.6	1422.6
30°	2942.7	2929.6	2506.4	2004.7	1648.8	1486.9	1420.6	1377.4	1345.2	1344.2
32.5°	3276.5	3170.9	2447.1	1792.6	1438.7	1349.2	1322.1	1295.9	1270.8	1270.8
35°	3705.8	3366.0	2334.5	1565.4	1311.0	1272.8	1238.6	1197.4	1164.2	1162.2
37.5°	4210.5	3486.6	2132.4	1382.4	1250.7	1221.5	1171.3	1109.9	1051.6	1041.6
40°	4720.2	3522.8	1847.9	1269.8	1212.5	1170.2	1108.9	1036.5	980.2	977.2
42.5°	5187.7	3453.4	1546.3	1192.4	1174.3	1118.0	1053.6	989.3	945.0	944.0
45°	5579.8	3273.5	1292.9	1119.0	1134.1	1070.7	1013.4	961.1	926.9	919.9
47.5°	5948.7	3019.1	1114.9	1041.6	1093.8	1044.6	996.3	947.1	913.9	908.9
50°	6377.0	2744.6	990.3	966.2	1058.6	1035.5	1010.4	959.1	903.8	897.8
52.5°	6895.8	2507.4	892.8	899.8	1031.5	1047.6	1046.6	993.3	896.8	888.7
55°	7474.9	2244.0	819.4	845.5	1020.4	1069.7	1055.6	1025.5	902.8	890.8
57.5°	8044.9	1936.3	768.1	804.3	1004.4	1067.7	1012.4	969.2	916.9	899.8
60°	8472.2	1523.1	728.9	768.1	969.2	1034.5	965.2	907.8	913.9	900.8
62.5°	8500.4	1177.3	681.6	736.9	915.9	1001.3	934.0	880.7	926.9	914.9
65°	8000.7	889.7	636.4	699.7	858.6	980.2	903.8	865.6	954.1	941.0
67.5°	6735.9	715.8	598.2	661.5	801.3	936.0	876.7	851.5	978.2	955.1
70°	4863.0	610.3	561.0	615.3	750.0	885.7	852.5	826.4	912.9	876.7
72.5°	2994.0	528.8	518.8	554.0	710.8	833.4	816.4	779.2	822.4	793.2
75°	1495.0	458.4	471.5	493.6	655.5	774.1	756.0	718.8	724.9	718.8
77.5°	715.8	392.1	416.2	433.3	584.1	706.8	687.7	649.5	642.4	643.4
80°	453.4	327.7	350.9	362.9	521.8	628.4	609.3	571.0	651.5	604.2
82.5°	283.5	266.4	272.5	294.6	454.4	546.9	521.8	487.6	587.1	464.5
85°	156.8	186.0	194.0	213.1	349.9	457.4	432.3	389.1	348.9	342.8
87.5°	93.5	110.6	113.6	127.7	235.3	330.8	292.6	277.5	230.2	229.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)