

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: P299242

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299242  
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-T3-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19535.1 lumens  
Efficiency: N/A  
Efficacy: 120.6 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

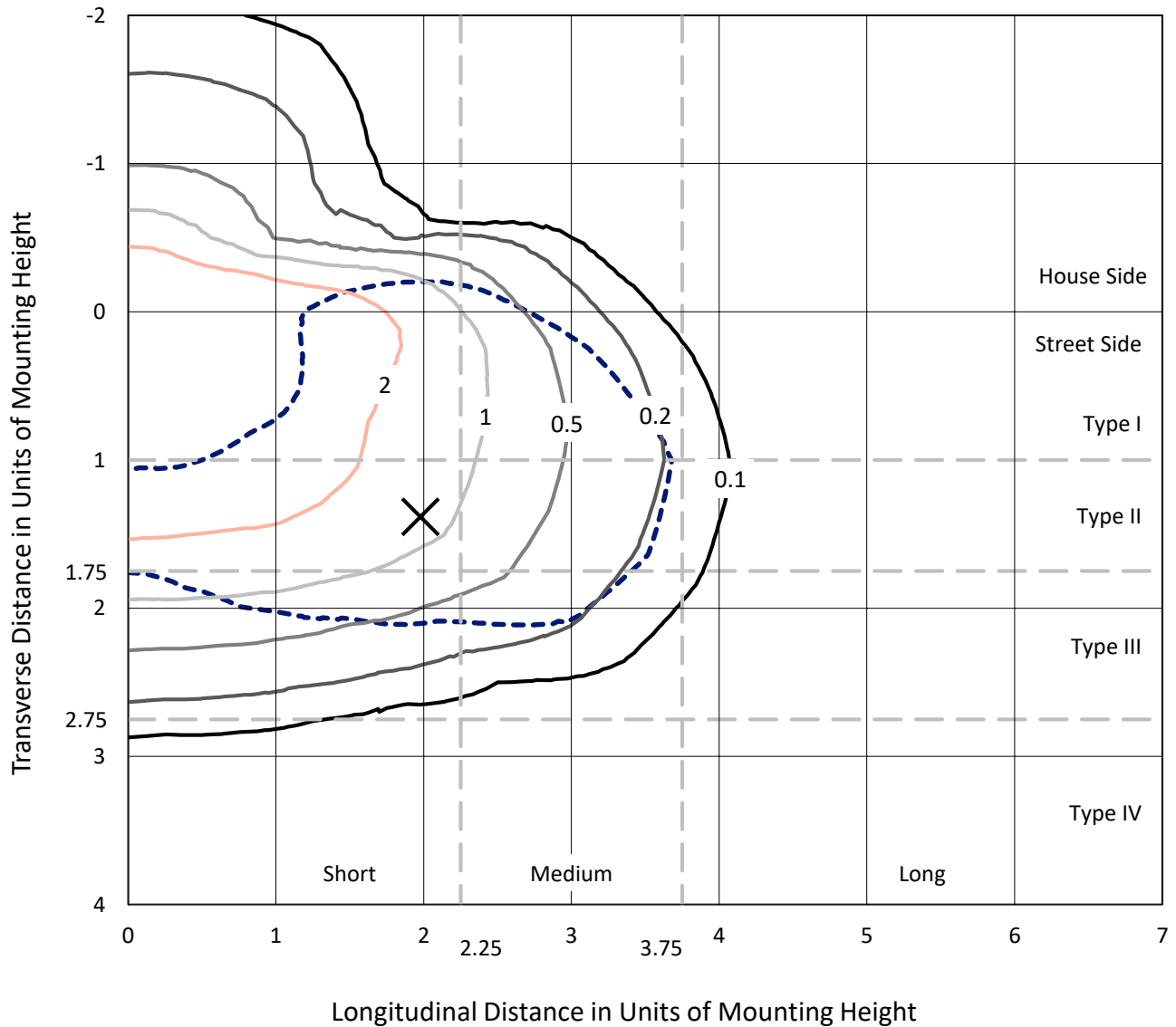
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

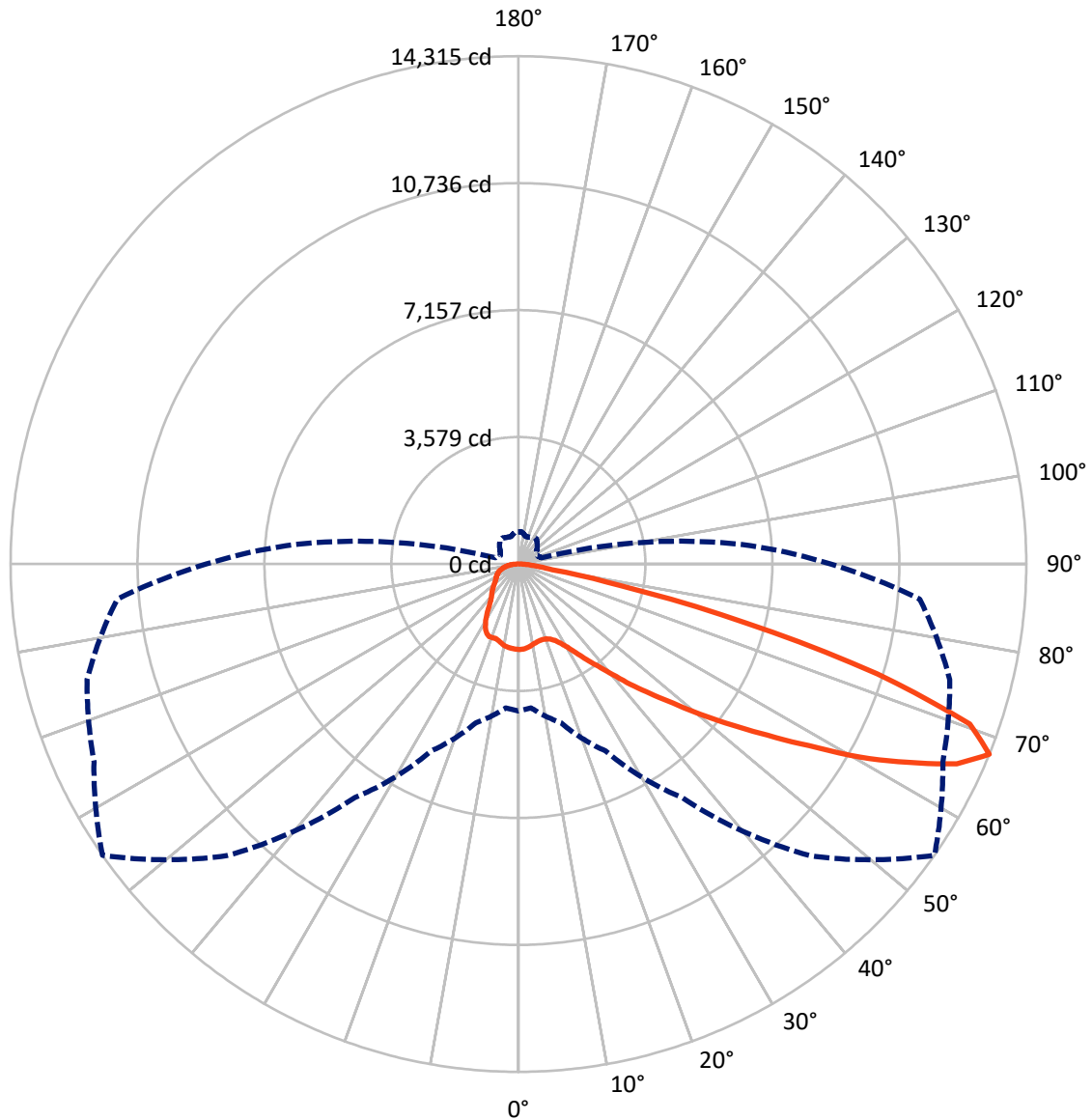


Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type III - Short - Full Cutoff

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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	4220.0	0.0	4220.0
	% Fixture	21.6	0.0	21.6
<b>Street Side</b>	Lumens	15315.1	0.0	15315.1
	% Fixture	78.4	0.0	78.4
<b>Total</b>	Lumens	19535.1	0.0	19535.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	224.8	1.2
10°-20°	636.8	3.3
20°-30°	1066.7	5.5
30°-40°	1754.1	9.0
40°-50°	2952.7	15.1
50°-60°	4647.4	23.8
60°-70°	5546.2	28.4
70°-80°	2381.6	12.2
80°-90°	324.7	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°	19535.1	100.0
0°-180°	19535.1	100.0



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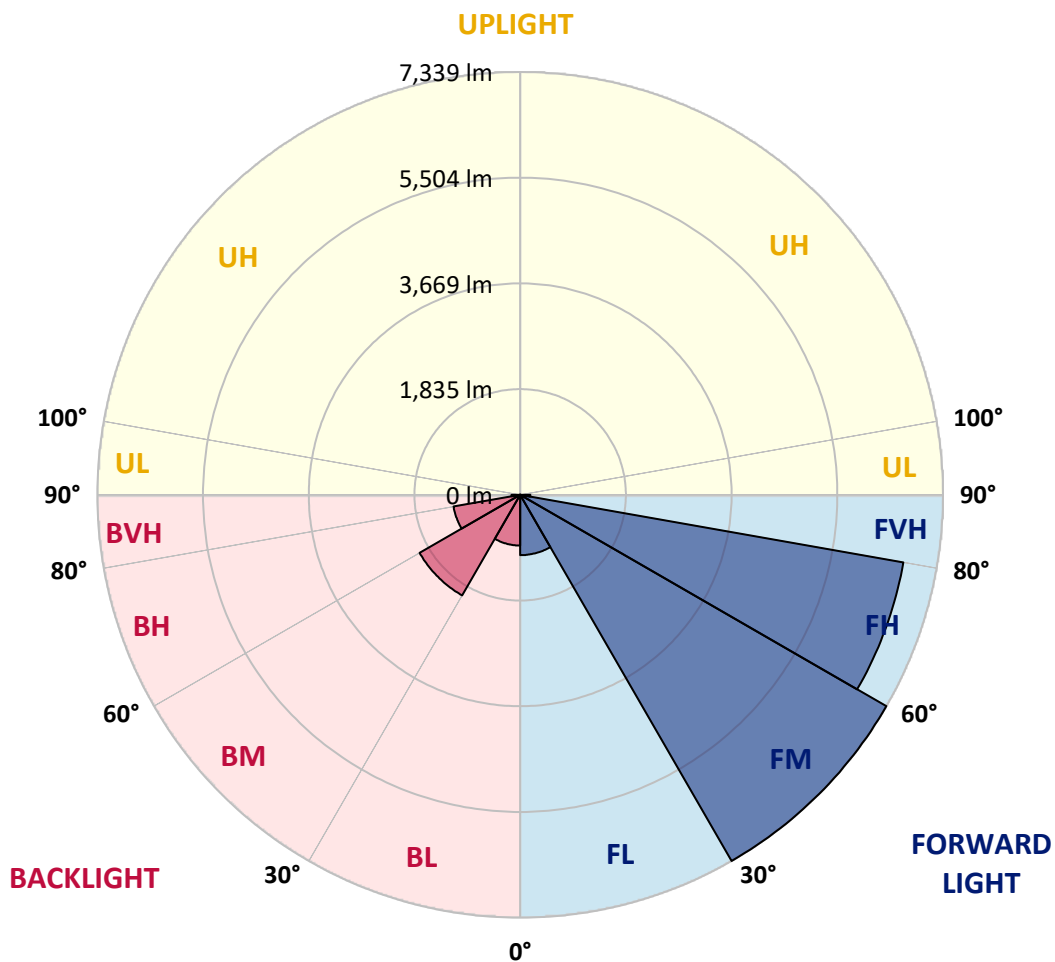
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1047.1	5.4			
FM	(30°-60°)	7338.8	37.6			
FH	(60°-80°)	6753.4	34.6			G3/7500
FVH	(80°-90°)	175.8	0.9			G2/225
BL	(0°-30°)	881.2	4.5	B2/1000		
BM	(30°-60°)	2015.4	10.3	B2/2500		
BH	(60°-80°)	1174.4	6.0	B3/2500		G3/2500
BVH	(80°-90°)	148.9	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°	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9
2.5°	2388.1	2389.1	2391.0	2398.5	2405.1	2403.2	2404.2	2400.4	2399.5	2393.8	2399.5
5°	2357.9	2360.8	2361.7	2374.0	2381.5	2383.4	2380.6	2375.9	2370.2	2364.5	2367.4
7.5°	2289.1	2296.6	2297.6	2314.5	2326.8	2342.8	2343.8	2344.7	2341.9	2338.1	2343.8
10°	2245.7	2247.5	2246.6	2258.9	2268.3	2286.2	2296.6	2314.5	2322.1	2324.0	2327.7
12.5°	2242.8	2240.9	2238.1	2238.1	2235.3	2242.8	2261.7	2287.2	2305.1	2310.8	2315.5
15°	2273.0	2272.1	2262.6	2248.5	2230.6	2224.9	2240.9	2269.2	2292.8	2305.1	2309.8
17.5°	2341.0	2335.3	2320.2	2288.1	2249.4	2234.3	2236.2	2259.8	2287.2	2303.2	2307.9
20°	2465.5	2465.5	2433.4	2373.0	2304.2	2268.3	2251.3	2265.5	2291.9	2313.6	2320.2
22.5°	2680.6	2682.5	2628.7	2529.7	2413.6	2337.2	2294.7	2291.9	2323.0	2347.6	2355.1
25°	2985.4	2977.9	2902.4	2760.8	2584.4	2458.0	2384.4	2367.4	2393.8	2421.2	2430.6
27.5°	3340.2	3312.8	3223.2	3052.4	2824.1	2639.1	2525.9	2498.5	2524.0	2555.1	2564.6
30°	3691.2	3662.9	3556.3	3369.4	3115.6	2881.6	2719.3	2675.0	2710.8	2755.2	2760.8
32.5°	4042.2	4042.2	3923.3	3705.3	3428.9	3171.3	2976.9	2924.1	2983.5	3037.3	3049.6
35°	4462.1	4464.0	4348.8	4086.5	3789.3	3516.6	3302.4	3263.8	3353.4	3391.1	3420.4
37.5°	4978.2	4988.6	4840.4	4523.4	4197.9	3911.0	3656.3	3603.4	3693.1	3795.9	3890.3
40°	5535.8	5549.0	5385.8	4995.2	4669.7	4369.6	4094.1	3998.8	4147.9	4344.1	4465.8
42.5°	6068.0	6135.9	5978.4	5576.4	5226.3	4915.9	4636.6	4497.9	4684.7	4981.0	5086.7
45°	6837.0	6886.1	6611.5	6247.3	5918.0	5570.7	5200.9	5054.6	5316.0	5689.6	5711.3
47.5°	7349.3	7312.5	7172.9	6946.4	6737.9	6413.3	5856.6	5696.2	6043.5	6483.2	6361.4
50°	7622.0	7633.4	7614.5	7627.7	7635.2	7431.4	6660.6	6440.7	6854.9	7386.1	7105.9
52.5°	7876.8	7801.3	7863.6	8173.1	8546.7	8471.2	7535.2	7305.9	7724.9	8388.2	7892.8
55°	7871.1	7756.0	7958.9	8505.2	9315.7	9402.5	8517.5	8253.3	8644.8	9462.9	8726.9
57.5°	7592.8	7598.4	7910.8	8626.0	9851.7	10278.1	9657.3	9261.0	9620.5	10551.8	9488.4
60°	7209.7	7261.6	7711.7	8606.2	10281.0	10996.2	11055.6	10347.0	10576.3	11541.6	10118.7
62.5°	6591.7	6646.4	7267.3	8400.5	10215.9	11687.8	12320.0	11579.3	11575.5	12141.7	10303.6
65°	5617.0	5600.9	6252.9	7631.5	9669.5	12199.2	13575.9	12644.6	12328.5	12151.1	9931.9
67.5°	4142.2	4070.5	4630.0	5812.3	8037.2	11626.5	14314.7	13199.4	12585.1	11351.9	8795.8
70°	2149.4	2077.7	2530.6	3394.0	5285.8	9074.2	13496.6	12912.5	12018.1	9515.7	6890.8
72.5°	919.0	906.8	1090.7	1488.9	2557.0	5233.9	10582.9	11176.4	10312.1	7089.9	4737.6
75°	618.0	614.3	683.1	811.5	1150.2	2123.9	6622.8	7933.4	7544.7	4396.0	2664.6
77.5°	485.0	480.3	520.8	583.1	745.4	837.9	2939.2	4259.2	3942.2	1913.5	1166.2
80°	379.3	375.5	401.0	435.0	535.9	528.4	967.1	1694.6	1311.5	733.1	567.1
82.5°	299.1	299.1	319.9	320.8	380.3	360.4	504.8	746.4	654.8	427.4	347.2
85°	273.6	273.6	295.3	239.7	248.2	227.4	313.3	442.5	415.2	175.5	151.0
87.5°	137.8	134.0	248.2	212.3	134.9	120.8	152.9	214.2	230.2	97.2	75.5
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°	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9	2408.9
2.5°	2397.6	2396.6	2398.5	2399.5	2407.0	2417.4	2422.1	2428.7	2432.5	2430.6
5°	2369.3	2371.2	2378.7	2384.4	2397.6	2414.6	2424.0	2431.5	2438.1	2435.3
7.5°	2345.7	2350.4	2361.7	2366.4	2374.0	2378.7	2377.8	2380.6	2386.2	2379.6
10°	2332.5	2338.1	2346.6	2340.0	2322.1	2296.6	2273.0	2260.8	2264.5	2259.8
12.5°	2319.3	2326.8	2320.2	2289.1	2239.1	2206.0	2188.1	2190.0	2198.5	2200.4
15°	2311.7	2314.5	2286.2	2227.7	2176.8	2172.1	2181.5	2179.6	2180.6	2180.6
17.5°	2311.7	2304.2	2251.3	2192.8	2171.1	2162.6	2133.4	2096.6	2080.5	2074.9
20°	2324.0	2304.2	2240.0	2201.3	2154.1	2081.5	2004.1	1936.2	1906.0	1897.5
22.5°	2360.8	2326.8	2272.1	2205.1	2071.1	1949.4	1826.7	1745.6	1690.8	1681.4
25°	2435.3	2397.6	2335.3	2155.1	1939.0	1765.4	1625.7	1535.2	1480.4	1472.9
27.5°	2565.5	2541.0	2369.3	2044.7	1763.5	1577.6	1448.4	1378.5	1338.0	1335.1
30°	2761.8	2749.5	2352.3	1881.4	1547.4	1395.5	1333.2	1292.7	1262.5	1261.5
32.5°	3075.0	2976.0	2296.6	1682.4	1350.2	1266.3	1240.8	1216.2	1192.7	1192.7
35°	3477.9	3159.0	2190.9	1469.1	1230.4	1194.5	1162.5	1123.8	1092.6	1090.7
37.5°	3951.6	3272.2	2001.3	1297.4	1173.8	1146.4	1099.2	1041.7	987.0	977.5
40°	4430.0	3306.2	1734.3	1191.7	1137.9	1098.3	1040.7	972.8	920.0	917.1
42.5°	4868.7	3241.1	1451.2	1119.1	1102.1	1049.2	988.8	928.5	886.9	886.0
45°	5236.7	3072.2	1213.4	1050.2	1064.3	1004.9	951.1	902.0	870.0	863.4
47.5°	5583.0	2833.5	1046.4	977.5	1026.6	980.4	935.1	888.8	857.7	853.0
50°	5985.0	2575.9	929.4	906.8	993.6	971.9	948.3	900.2	848.3	842.6
52.5°	6471.8	2353.2	837.9	844.5	968.1	983.2	982.2	932.2	841.7	834.1
55°	7015.3	2106.0	769.0	793.5	957.7	1003.9	990.7	962.4	847.3	836.0
57.5°	7550.3	1817.3	720.9	754.8	942.6	1002.1	950.2	909.6	860.5	844.5
60°	7951.3	1429.5	684.1	720.9	909.6	970.9	905.8	852.0	857.7	845.4
62.5°	7977.8	1104.9	639.7	691.6	859.6	939.8	876.6	826.6	870.0	858.6
65°	7508.8	835.0	597.3	656.7	805.8	920.0	848.3	812.4	895.4	883.2
67.5°	6321.8	671.8	561.4	620.9	752.0	878.4	822.8	799.2	918.1	896.4
70°	4564.0	572.7	526.5	577.5	703.9	831.3	800.1	775.6	856.7	822.8
72.5°	2809.9	496.3	486.9	519.9	667.1	782.2	766.2	731.3	771.8	744.5
75°	1403.1	430.3	442.5	463.3	615.2	726.5	709.6	674.6	680.3	674.6
77.5°	671.8	368.0	390.6	406.7	548.2	663.3	645.4	609.5	602.9	603.9
80°	425.5	307.6	329.3	340.6	489.7	589.7	571.8	535.9	611.4	567.1
82.5°	266.1	250.0	255.7	276.5	426.5	513.3	489.7	457.6	551.0	435.9
85°	147.2	174.6	182.1	200.0	328.4	429.3	405.7	365.2	327.4	321.8
87.5°	87.8	103.8	106.6	119.8	220.8	310.4	274.6	260.4	216.1	215.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)