

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: P299024

Luminaire Tested: **GLNA-AF-09-LED-E1-T2-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299024  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-T2-7030-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33161.3 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B3 - U0 - G4

Input Watts (W): 290  
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

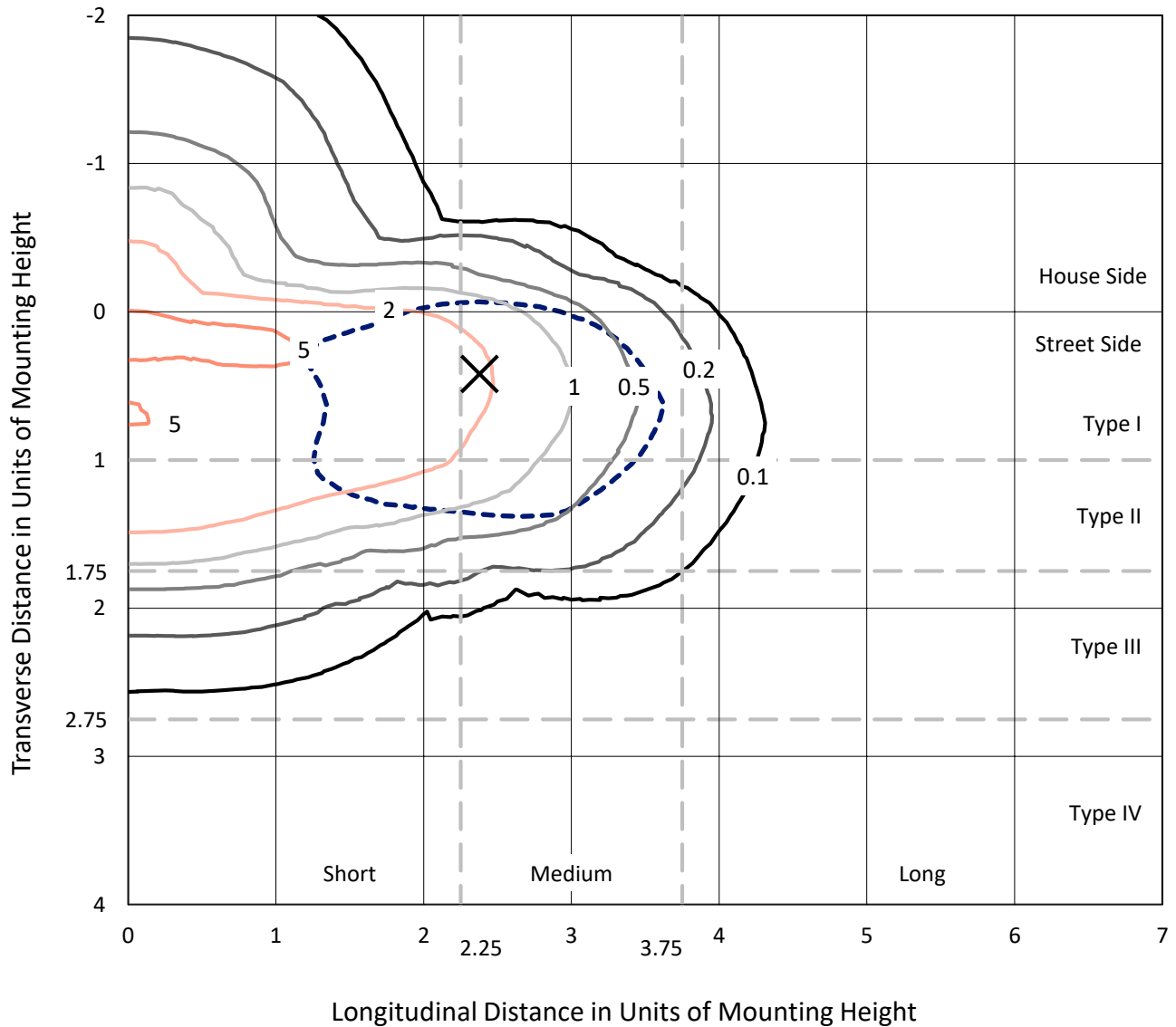


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

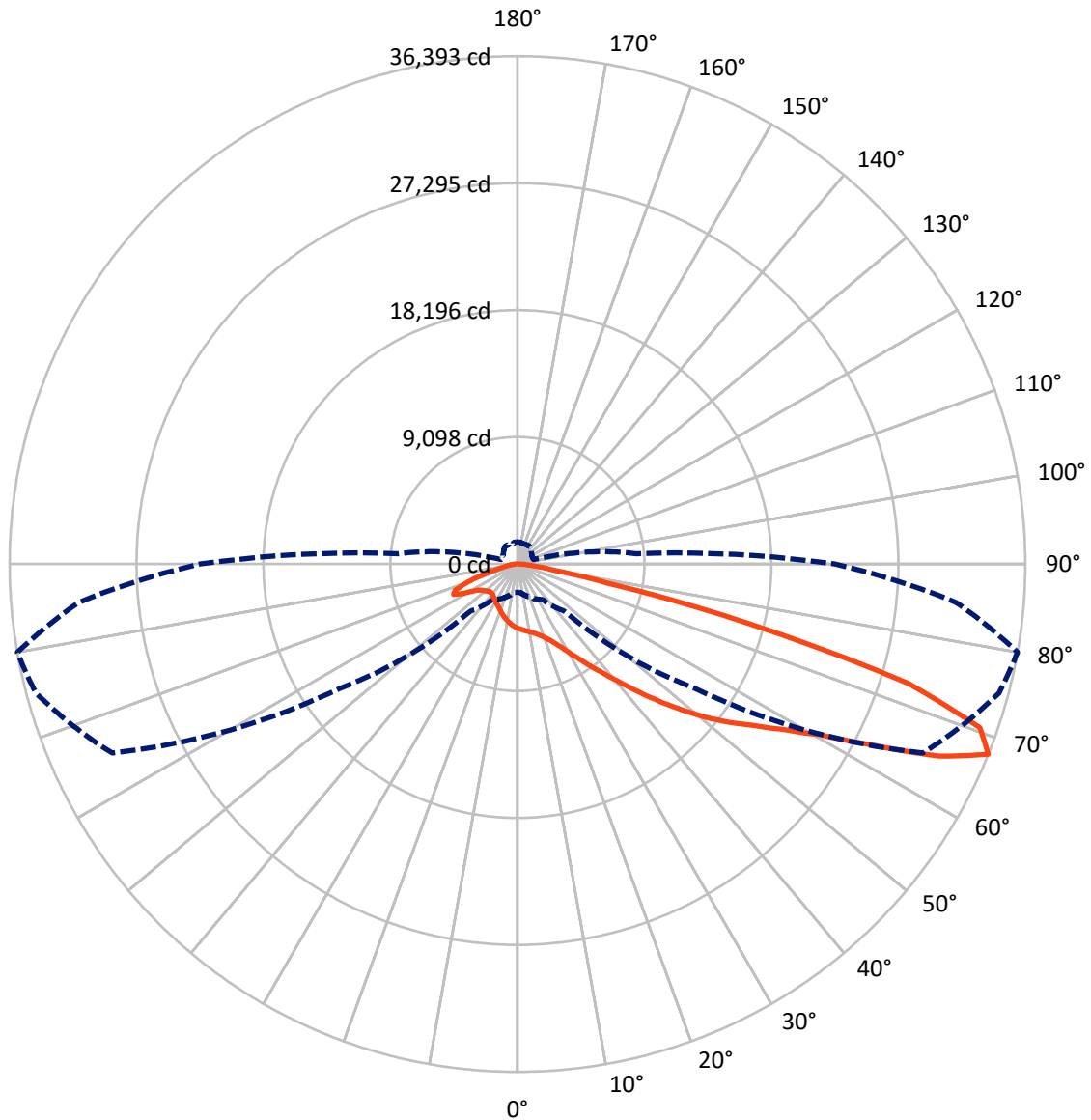


Based on 30 foot mounting height. Maximum calculated value = 6.2 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6107.0	0.0	6107.0
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	27054.2	0.0	27054.2
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	33161.3	0.0	33161.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	425.0	1.3
10°-20°	1224.2	3.7
20°-30°	2026.4	6.1
30°-40°	3314.7	10.0
40°-50°	5351.8	16.1
50°-60°	7726.5	23.3
60°-70°	8526.7	25.7
70°-80°	3930.3	11.9
80°-90°	635.7	1.9
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°	33161.3	100.0
0°-180°	33161.3	100.0



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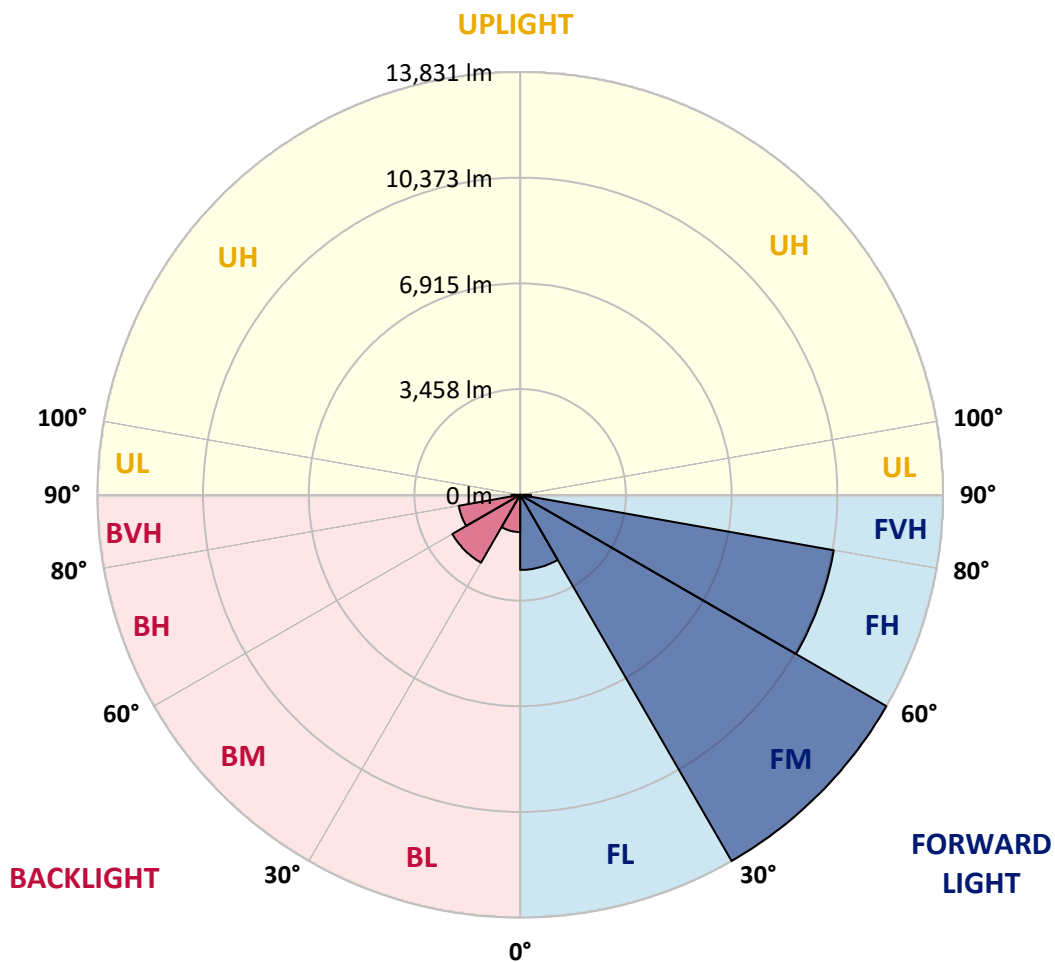
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2457.2	7.4			
FM (30°-60°)	13830.7	41.7			
FH (60°-80°)	10416.8	31.4			G4/12000
FVH (80°-90°)	349.5	1.1			G3/500
BL (0°-30°)	1218.4	3.7	B3/2500		
BM (30°-60°)	2562.3	7.7	B3/5000		
BH (60°-80°)	2040.1	6.2	B3/2500		G3/2500
BVH (80°-90°)	286.2	0.9			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1
2.5°	5039.7	5010.3	5015.2	5007.0	4982.6	4940.1	4894.4	4811.1	4724.6	4678.9	4643.0
5°	5460.9	5452.7	5441.3	5415.2	5353.1	5265.0	5155.6	5008.7	4850.3	4767.1	4687.1
7.5°	5776.0	5771.1	5756.4	5740.1	5679.7	5573.5	5408.6	5199.7	4969.5	4855.2	4731.1
10°	5802.1	5810.3	5821.7	5865.8	5873.9	5816.8	5648.6	5395.6	5093.6	4946.6	4788.3
12.5°	5580.1	5598.0	5642.1	5754.8	5873.9	5944.1	5857.6	5601.3	5238.9	5060.9	4860.1
15°	5286.2	5296.0	5349.9	5505.0	5718.8	5936.0	6017.6	5828.2	5426.6	5207.8	4967.9
17.5°	5160.5	5165.4	5202.9	5305.8	5505.0	5815.2	6107.4	6074.7	5656.8	5390.7	5100.1
20°	5096.8	5108.3	5162.1	5263.4	5389.1	5660.1	6120.4	6340.8	5931.1	5619.2	5266.6
22.5°	5278.0	5273.1	5292.7	5343.3	5449.5	5612.7	6110.6	6615.1	6280.4	5913.1	5483.7
25°	5700.9	5718.8	5684.6	5627.4	5661.7	5776.0	6162.9	6912.2	6718.0	6290.2	5767.8
27.5°	6303.3	6285.3	6234.7	6100.9	6030.7	6079.6	6335.9	7232.2	7261.6	6786.5	6143.3
30°	6904.1	6889.4	6840.4	6677.1	6533.5	6492.7	6672.2	7599.5	7909.7	7382.4	6603.7
32.5°	7527.7	7511.4	7465.7	7302.4	7129.4	7034.7	7150.6	8024.0	8673.8	8094.2	7145.7
35°	8296.6	8265.6	8169.3	7942.4	7772.6	7699.1	7753.0	8557.8	9555.3	8936.6	7803.6
37.5°	9019.9	9067.2	8969.2	8655.8	8435.4	8409.3	8469.7	9209.2	10505.5	9878.6	8559.5
40°	9746.3	9754.5	9666.3	9410.0	9183.1	9140.7	9292.5	9999.4	11627.0	11005.0	9478.6
42.5°	10497.3	10513.6	10365.1	10128.4	9961.8	9970.0	10143.1	10925.0	12913.5	12332.3	10536.5
45°	11387.1	11411.5	11248.3	10938.1	10786.3	11091.6	11019.7	11963.4	14324.0	13840.8	11751.1
47.5°	12317.6	12355.2	12231.1	11940.5	11751.1	12170.7	11896.4	13114.3	15842.3	15458.6	13084.9
50°	12825.3	12879.2	13000.0	12978.8	12938.0	12867.8	12874.3	14348.5	17407.9	17143.4	14456.3
52.5°	12552.7	12551.1	12991.9	13527.3	14098.7	14141.2	14066.1	15649.7	18870.7	18790.7	15747.6
55°	11305.4	11390.3	12058.0	13094.7	14655.4	15630.1	15852.1	17140.2	20307.3	20400.4	17058.5
57.5°	9228.8	9299.0	10200.2	11645.0	13904.5	16514.9	18392.3	19306.6	21913.8	22348.0	18803.7
60°	6259.2	6344.1	7299.1	9034.5	11883.4	16021.9	20810.2	23172.5	23836.9	24824.6	21252.6
62.5°	3678.1	3754.9	4533.6	5699.2	8366.8	13731.4	21871.3	28672.5	26891.4	28561.5	24987.9
65°	2532.1	2584.3	2963.1	3547.5	4807.9	9248.4	20555.5	32469.9	31591.5	33191.4	29319.0
67.5°	2037.4	2030.9	2331.3	2729.6	3095.3	4768.7	15543.5	32040.5	35725.2	36392.9	31567.1
70°	1678.3	1671.7	1875.8	2205.6	2473.3	2685.6	8466.4	27038.3	34882.8	35153.8	29497.0
72.5°	1404.0	1410.5	1541.1	1786.0	2029.3	2022.7	3720.6	19020.9	27441.6	29315.8	23513.7
75°	1185.2	1188.5	1275.0	1448.1	1647.2	1629.3	2017.8	10304.7	15951.7	17256.1	13034.3
77.5°	1008.9	1012.2	1067.7	1164.0	1306.0	1299.5	1472.6	4452.0	6654.3	6572.7	4458.5
80°	899.5	899.5	925.7	943.6	1022.0	992.6	1092.2	2138.6	2812.9	2597.4	1779.5
82.5°	705.3	708.5	868.5	862.0	804.8	767.3	767.3	1260.3	1490.5	1377.9	1041.6
85°	396.7	395.1	560.0	675.9	708.5	540.4	535.5	705.3	811.4	715.1	504.5
87.5°	169.8	173.1	259.6	300.4	401.6	336.3	331.4	364.1	413.0	357.5	233.5
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1	4607.1
2.5°	4608.7	4566.3	4473.2	4357.3	4252.8	4184.2	4122.2	4032.4	4037.3	3975.3	3929.6
5°	4605.4	4517.3	4301.8	4045.5	3799.0	3621.0	3487.1	3366.3	3336.9	3279.8	3245.5
7.5°	4608.7	4465.0	4102.6	3692.8	3387.5	3162.3	3048.0	2984.3	2969.6	2950.0	2951.7
10°	4620.1	4417.7	3883.8	3363.1	3043.1	2894.5	2866.8	2886.4	2909.2	2915.7	2917.4
12.5°	4646.2	4375.2	3643.9	3069.2	2827.6	2781.9	2829.2	2896.1	2940.2	2961.5	2959.8
15°	4705.0	4342.6	3413.7	2839.0	2708.4	2732.9	2821.1	2915.7	2979.4	3008.8	3010.4
17.5°	4768.7	4295.2	3176.9	2662.7	2620.2	2682.3	2791.7	2902.7	2981.0	3013.7	3020.2
20°	4851.9	4236.5	2928.8	2530.5	2537.0	2607.2	2710.0	2821.1	2907.6	2935.3	2948.4
22.5°	4961.3	4172.8	2711.7	2422.7	2442.3	2496.2	2576.2	2672.5	2747.6	2760.6	2772.1
25°	5108.3	4104.2	2538.6	2324.8	2332.9	2363.9	2417.8	2475.0	2527.2	2512.5	2523.9
27.5°	5305.8	4045.5	2409.6	2235.0	2220.3	2226.8	2254.6	2272.5	2300.3	2259.5	2264.4
30°	5537.6	3981.8	2310.1	2156.6	2115.8	2104.4	2110.9	2120.7	2141.9	2086.4	2078.2
32.5°	5807.0	3905.1	2217.0	2088.0	2030.9	2008.0	2011.3	2037.4	2119.1	2084.8	2066.8
35°	6120.4	3818.5	2119.1	2012.9	1973.8	1941.1	1937.8	2019.5	2262.7	2241.5	2225.2
37.5°	6487.8	3732.0	2021.1	1928.0	1931.3	1895.4	1884.0	1977.0	2290.5	2207.2	2195.8
40°	6954.7	3686.3	1937.8	1838.3	1879.1	1874.2	1851.3	1898.7	2107.6	1955.8	1936.2
42.5°	7532.6	3692.8	1875.8	1741.9	1817.0	1869.3	1833.4	1835.0	1910.1	1795.8	1777.9
45°	8246.0	3769.6	1831.7	1665.2	1746.8	1864.4	1826.8	1800.7	1807.2	1746.8	1737.0
47.5°	9078.6	3927.9	1800.7	1601.5	1679.9	1846.4	1825.2	1790.9	1776.2	1743.6	1735.4
50°	10004.3	4158.1	1777.9	1541.1	1619.5	1817.0	1826.8	1781.1	1764.8	1751.7	1746.8
52.5°	10913.6	4421.0	1743.6	1488.9	1572.1	1781.1	1831.7	1771.3	1753.4	1743.6	1738.7
55°	11927.4	4749.1	1691.3	1444.8	1533.0	1735.4	1831.7	1756.6	1737.0	1738.7	1737.0
57.5°	13297.1	5279.7	1629.3	1407.3	1485.6	1679.9	1800.7	1740.3	1715.8	1717.4	1719.1
60°	15437.4	6215.1	1554.2	1369.7	1426.9	1614.6	1758.3	1704.4	1679.9	1686.4	1688.1
62.5°	18585.0	7588.1	1456.2	1314.2	1364.8	1544.4	1699.5	1658.7	1634.2	1650.5	1650.5
65°	21856.6	8799.5	1335.4	1244.0	1299.5	1467.7	1626.0	1601.5	1577.0	1614.6	1613.0
67.5°	22736.6	8528.5	1214.6	1167.3	1234.2	1382.8	1537.9	1524.8	1511.7	1577.0	1573.8
70°	20197.9	6846.9	1103.6	1088.9	1162.4	1291.3	1443.2	1443.2	1435.0	1484.0	1472.6
72.5°	15388.4	4855.2	997.5	1005.7	1080.8	1191.8	1340.3	1351.8	1338.7	1363.2	1353.4
75°	8237.9	2778.6	891.4	914.2	979.5	1090.5	1226.0	1237.5	1229.3	1227.7	1232.6
77.5°	2737.8	1358.3	780.4	816.3	873.4	986.1	1106.9	1124.8	1105.2	1102.0	1100.3
80°	1219.5	853.8	657.9	705.3	755.9	866.9	981.2	995.9	974.6	1004.0	966.5
82.5°	783.6	561.6	527.3	579.6	628.5	747.7	855.5	858.7	839.1	974.6	831.0
85°	380.4	347.7	396.7	444.1	486.5	587.7	708.5	710.2	661.2	602.4	581.2
87.5°	189.4	202.4	264.5	306.9	328.1	403.2	515.9	506.1	484.9	440.8	406.5
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)