

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: P300412

Luminaire Tested: **GLNA-AF-10-LED-E1-AFL-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300412  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-AFL-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

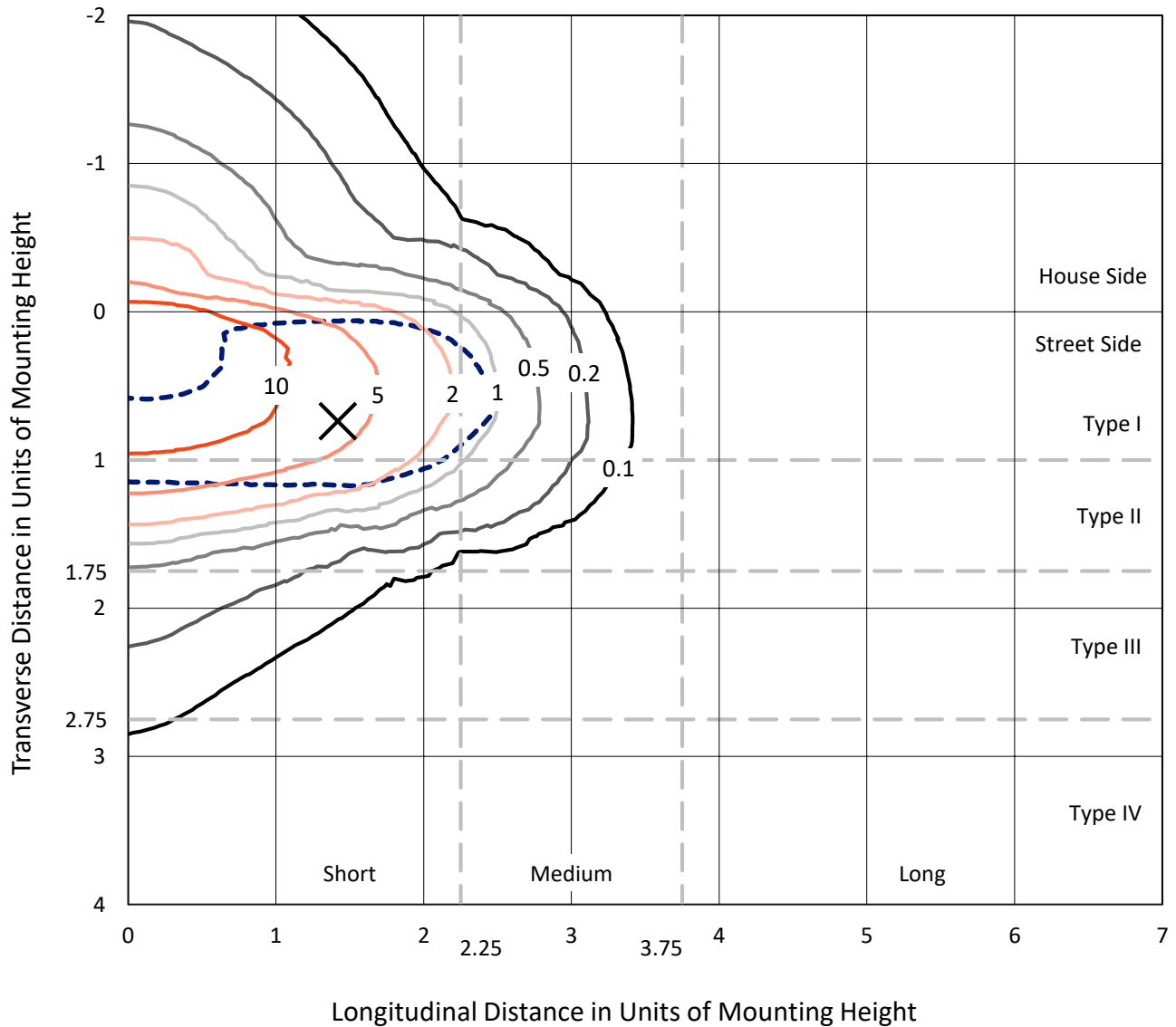
Lumens per Lamp: N/A  
Luminaire Lumens: 48664.8 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 419  
Input Voltage (V): NR  
Input Current (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

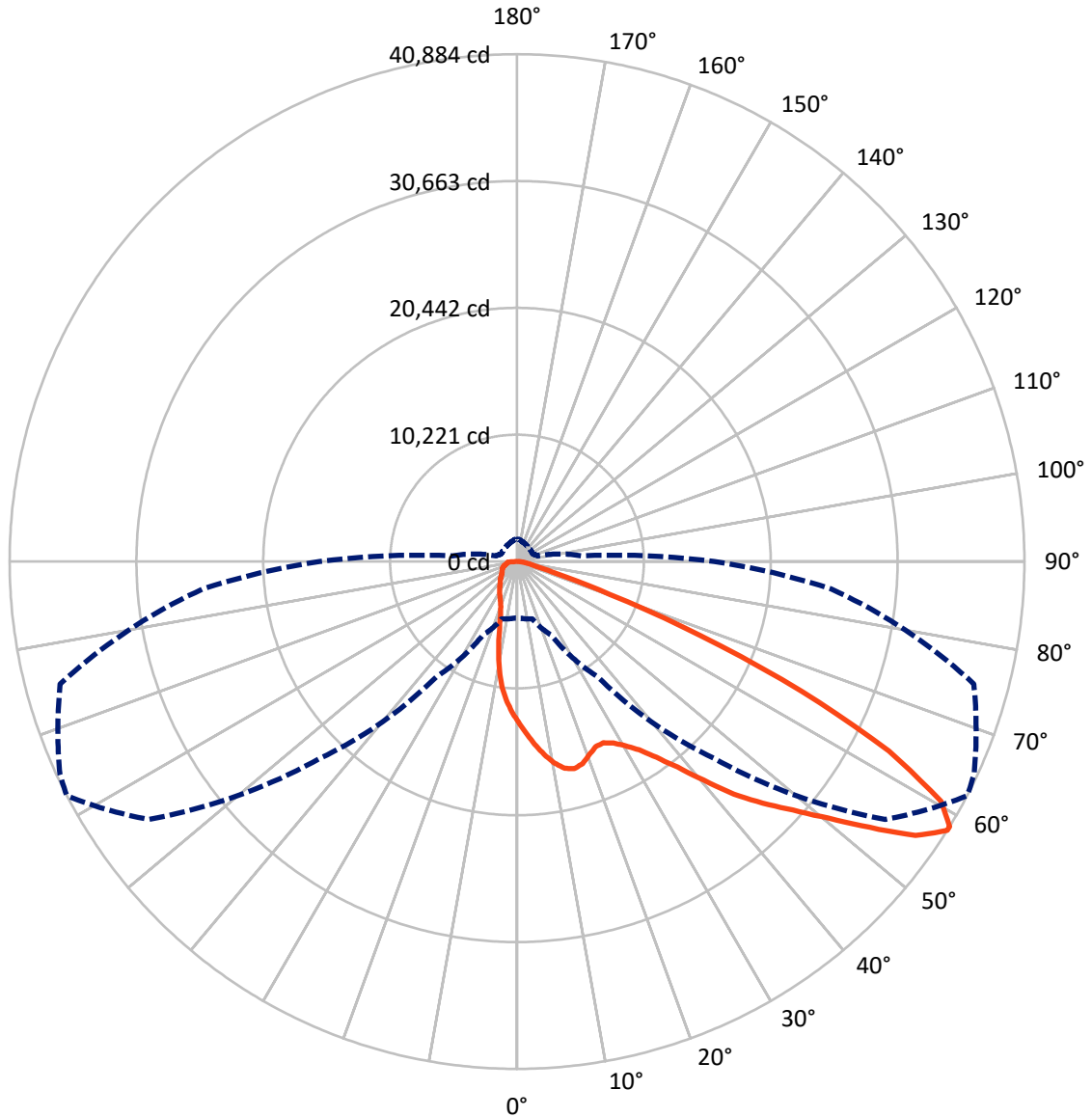
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.5 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7421.6	0.0	7421.6
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	41243.2	0.0	41243.2
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	48664.8	0.0	48664.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1156.1	2.4
10°-20°	2955.2	6.1
20°-30°	4777.2	9.8
30°-40°	7583.8	15.6
40°-50°	11096.6	22.8
50°-60°	11606.1	23.8
60°-70°	6856.9	14.1
70°-80°	1931.6	4.0
80°-90°	701.3	1.4
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°	48664.8	100.0
0°-180°	48664.8	100.0



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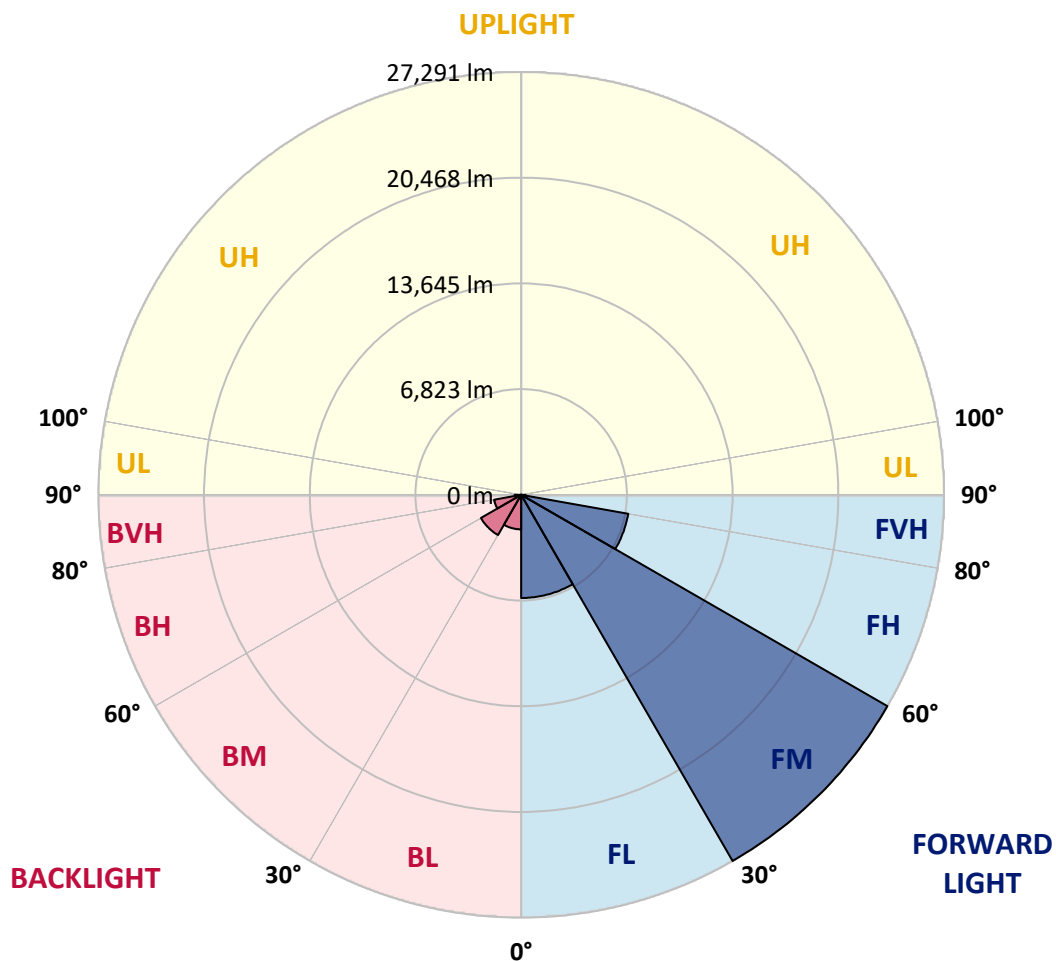
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6658.0	13.7			
FM (30°-60°)	27291.0	56.1			
FH (60°-80°)	7017.7	14.4			G3/7500
FVH (80°-90°)	276.7	0.6			G3/500
BL (0°-30°)	2230.6	4.6	B3/2500		
BM (30°-60°)	2995.5	6.2	B3/5000		
BH (60°-80°)	1770.9	3.6	B3/2500		G3/2500
BVH (80°-90°)	424.6	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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8
2.5°	14771.5	14652.4	14576.8	14510.3	14423.2	14237.6	13987.8	13829.7	13749.5	13476.8	13153.7
5°	16219.8	16114.4	16036.5	15947.1	15791.3	15500.3	15096.9	14776.1	14618.0	14072.6	13426.4
7.5°	15880.7	15924.2	16059.4	16295.4	16497.1	16458.1	16098.4	15690.5	15481.9	14723.4	13742.6
10°	13836.6	13912.2	14145.9	14698.2	15591.9	16508.6	16788.1	16506.3	16295.4	15367.4	14068.0
12.5°	13426.4	13424.1	13442.4	13589.1	14120.7	15410.9	16811.1	17095.2	16969.2	15981.5	14400.3
15°	13593.7	13598.3	13584.5	13646.4	13811.4	14322.4	16109.8	17322.1	17411.4	16600.2	14744.0
17.5°	14033.7	14022.2	13969.5	13969.5	14029.1	14228.4	15284.9	17111.3	17523.7	17147.9	15046.5
20°	14771.5	14718.8	14579.1	14450.7	14386.6	14494.3	14945.7	16625.4	17329.0	17626.9	15296.3
22.5°	15665.3	15624.0	15397.1	15122.2	14899.9	14897.6	15119.9	16201.5	16992.1	18078.3	15507.1
25°	16820.2	16753.8	16416.9	15976.9	15587.3	15438.4	15500.3	16180.9	16808.8	18568.7	15695.1
27.5°	18176.8	18055.4	17656.6	17021.9	16449.0	16148.8	16059.4	16554.4	16976.0	19176.0	15956.3
30°	19822.2	19682.4	19171.4	18344.1	17535.2	17042.5	16852.3	17216.7	17530.6	19916.1	16375.7
32.5°	21694.4	21492.8	20901.5	19989.5	18926.2	18174.5	17865.2	18092.0	18341.8	20807.6	16900.4
35°	24281.6	24041.0	23186.2	21928.2	20727.4	19693.9	19198.9	19363.9	19606.8	22136.7	17658.9
37.5°	26046.1	25938.4	25370.1	24187.7	22881.5	21692.1	20926.7	21023.0	21160.5	23798.1	18630.6
40°	26030.1	26073.6	26085.1	26096.5	25207.4	24068.5	23245.8	23145.0	23117.5	25622.2	19735.1
42.5°	24726.2	24904.9	25482.4	26653.4	27194.2	26671.7	25917.8	25626.8	25482.4	27771.7	20906.1
45°	22730.2	22826.5	23908.1	26195.1	28211.7	29249.8	28679.2	27762.5	27501.3	29747.0	21877.7
47.5°	21701.3	21806.7	22487.3	24980.5	28200.2	31332.8	31662.8	29916.6	29449.1	31465.7	22716.5
50°	19251.6	19471.6	20328.6	22867.7	27171.3	32290.7	34781.6	32483.2	31516.1	33138.6	23557.5
52.5°	14753.2	15092.4	16052.5	19393.7	24561.2	31816.3	37277.2	35595.2	34229.4	34871.0	24279.3
55°	9306.1	9558.2	10364.8	13696.8	19648.0	29348.3	38223.6	38961.5	37747.0	36511.8	24904.9
57.5°	5059.8	5172.1	5474.6	7562.2	12780.2	23892.0	36844.1	40877.3	40373.1	37905.1	25377.0
58°	4528.2	4603.8	4791.7	6553.9	11334.2	22400.2	36232.2	40884.1	40632.1	38109.0	25413.7
60°	3359.5	3320.5	3153.2	3739.9	6308.7	15475.1	32533.6	39247.9	39988.1	38358.8	25234.9
62.5°	2951.6	2857.6	2516.2	2477.2	3068.4	7129.1	24893.5	33619.8	35368.3	36933.4	24148.7
65°	2772.8	2672.0	2232.0	2089.9	2213.7	3015.7	14663.8	25214.3	27407.3	32611.5	21371.3
67.5°	2639.9	2509.3	2051.0	1856.2	1865.3	1993.7	5877.9	15880.7	18348.7	24760.6	16623.1
70°	2511.6	2369.5	1897.4	1672.9	1620.1	1576.6	2337.4	7949.5	10188.4	15640.1	10598.6
72.5°	2374.1	2234.3	1762.2	1528.5	1425.4	1281.0	1526.2	3251.8	4541.9	7399.5	4807.7
75°	2174.7	2048.7	1627.0	1400.2	1253.5	1061.0	1152.7	1698.1	2037.2	2947.0	2316.8
77.5°	1929.5	1826.4	1475.8	1294.7	1111.4	861.6	886.8	1177.9	1306.2	1686.6	1377.2
80°	1386.4	1423.1	1313.1	1164.1	990.0	698.9	680.6	859.3	928.1	1083.9	896.0
82.5°	973.9	994.5	1086.2	951.0	818.1	550.0	501.9	605.0	646.2	712.7	483.5
85°	671.4	648.5	744.8	662.3	591.2	366.7	343.7	410.2	435.4	442.3	249.8
87.5°	403.3	403.3	430.8	355.2	318.5	190.2	185.6	233.7	249.8	238.3	137.5
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°	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8	12926.8
2.5°	12961.2	12798.5	12452.5	12175.2	11824.6	11460.2	11256.3	11038.6	10889.6	10781.9	10953.8
5°	13059.7	12727.5	12012.5	11334.2	10584.8	9805.7	9214.5	8664.5	8281.8	8043.5	8268.0
7.5°	13215.6	12704.5	11565.6	10406.1	9060.9	7763.9	6604.3	5877.9	5454.0	5245.4	5376.1
10°	13394.3	12667.9	11040.8	9148.0	7223.1	5589.2	4723.0	4429.6	4333.4	4294.4	4312.8
12.5°	13543.3	12590.0	10396.9	7626.4	5424.2	4413.6	4163.8	4156.9	4177.6	4182.1	4189.0
15°	13648.7	12475.4	9441.3	6040.6	4338.0	4021.7	4008.0	4049.2	4088.2	4104.2	4113.4
17.5°	13719.7	12239.3	8362.0	4775.7	3886.5	3831.5	3863.6	3916.3	3957.6	3969.0	3978.2
20°	13712.8	11893.3	7076.4	3982.8	3641.3	3641.3	3696.3	3737.6	3739.9	3726.1	3733.0
22.5°	13641.8	11419.0	5829.8	3561.1	3423.6	3462.6	3517.6	3478.6	3318.2	3212.8	3219.7
25°	13522.6	10852.9	4761.9	3293.0	3222.0	3290.7	3274.7	2981.3	2752.2	2649.1	2649.1
27.5°	13417.2	10183.8	3941.5	3059.3	3020.3	3105.1	2820.9	2555.1	2458.9	2410.7	2394.7
30°	13341.6	9461.9	3393.8	2834.7	2830.1	2768.2	2447.4	2374.1	2358.0	2319.1	2305.3
32.5°	13359.9	8730.9	3043.2	2637.6	2653.7	2369.5	2268.7	2284.7	2271.0	2229.7	2211.4
35°	13511.2	8036.6	2814.1	2458.9	2410.7	2140.3	2163.3	2193.0	2188.5	2131.2	2112.8
37.5°	13781.6	7378.9	2662.8	2309.9	2103.7	2025.8	2062.4	2108.3	2096.8	2057.8	2044.1
40°	14065.7	6760.2	2539.1	2193.0	1922.6	1947.8	1979.9	2005.1	2016.6	2028.1	2018.9
42.5°	14343.0	6113.9	2387.8	2073.9	1847.0	1874.5	1888.3	1913.5	1975.3	2018.9	2016.6
45°	14508.0	5506.7	2232.0	1904.3	1787.4	1803.5	1794.3	1844.7	1920.3	1991.4	1993.7
47.5°	14691.3	5034.6	2108.3	1748.5	1730.1	1741.6	1714.1	1764.5	1833.3	1920.3	1929.5
50°	14913.6	4752.7	2009.7	1624.7	1652.2	1652.2	1645.4	1691.2	1787.4	1888.3	1906.6
52.5°	15165.7	4697.7	1927.2	1535.4	1574.3	1572.0	1578.9	1647.6	1753.1	1851.6	1867.6
55°	15472.8	4846.7	1837.8	1468.9	1498.7	1507.9	1530.8	1608.7	1698.1	1810.4	1817.2
57.5°	15830.3	5149.2	1766.8	1416.2	1429.9	1459.7	1496.4	1567.4	1663.7	1787.4	1794.3
58°	15889.8	5213.4	1755.4	1411.6	1416.2	1450.6	1491.8	1560.6	1656.8	1792.0	1798.9
60°	15892.1	5426.5	1730.1	1391.0	1363.5	1420.8	1466.6	1535.4	1645.4	1808.1	1824.1
62.5°	15328.4	5424.2	1711.8	1361.2	1308.5	1379.5	1432.2	1512.4	1633.9	1847.0	1879.1
65°	13497.4	4929.2	1624.7	1315.4	1265.0	1342.9	1402.4	1496.4	1666.0	2016.6	2037.2
67.5°	10557.3	4040.1	1462.0	1251.2	1207.7	1306.2	1384.1	1494.1	1700.4	2055.5	2069.3
70°	6980.2	3022.6	1283.3	1177.9	1148.1	1262.7	1393.3	1572.0	1661.4	1973.1	1936.4
72.5°	3623.0	2122.0	1138.9	1086.2	1079.3	1223.7	1526.2	1562.9	1622.4	1856.2	1810.4
75°	1902.0	1473.5	1012.9	985.4	996.8	1214.5	1801.2	1521.6	1572.0	1776.0	1863.1
77.5°	1164.1	1189.3	905.2	893.7	916.6	1187.0	1798.9	1468.9	1498.7	1633.9	1730.1
80°	779.1	964.8	822.7	825.0	841.0	1086.2	1615.6	1386.4	1409.3	1544.5	1643.1
82.5°	492.7	570.6	747.1	786.0	765.4	896.0	1372.7	1262.7	1294.7	1766.8	1867.6
85°	249.8	357.5	648.5	756.2	689.8	627.9	1113.7	1106.8	1122.9	1274.1	1331.4
87.5°	114.6	197.1	506.4	660.0	520.2	391.9	808.9	820.4	884.6	905.2	905.2
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)