

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: P300343

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300343  
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-09-LED-E1-AFL-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47271.2 lumens  
Efficiency: N/A  
Efficacy: 94.4 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

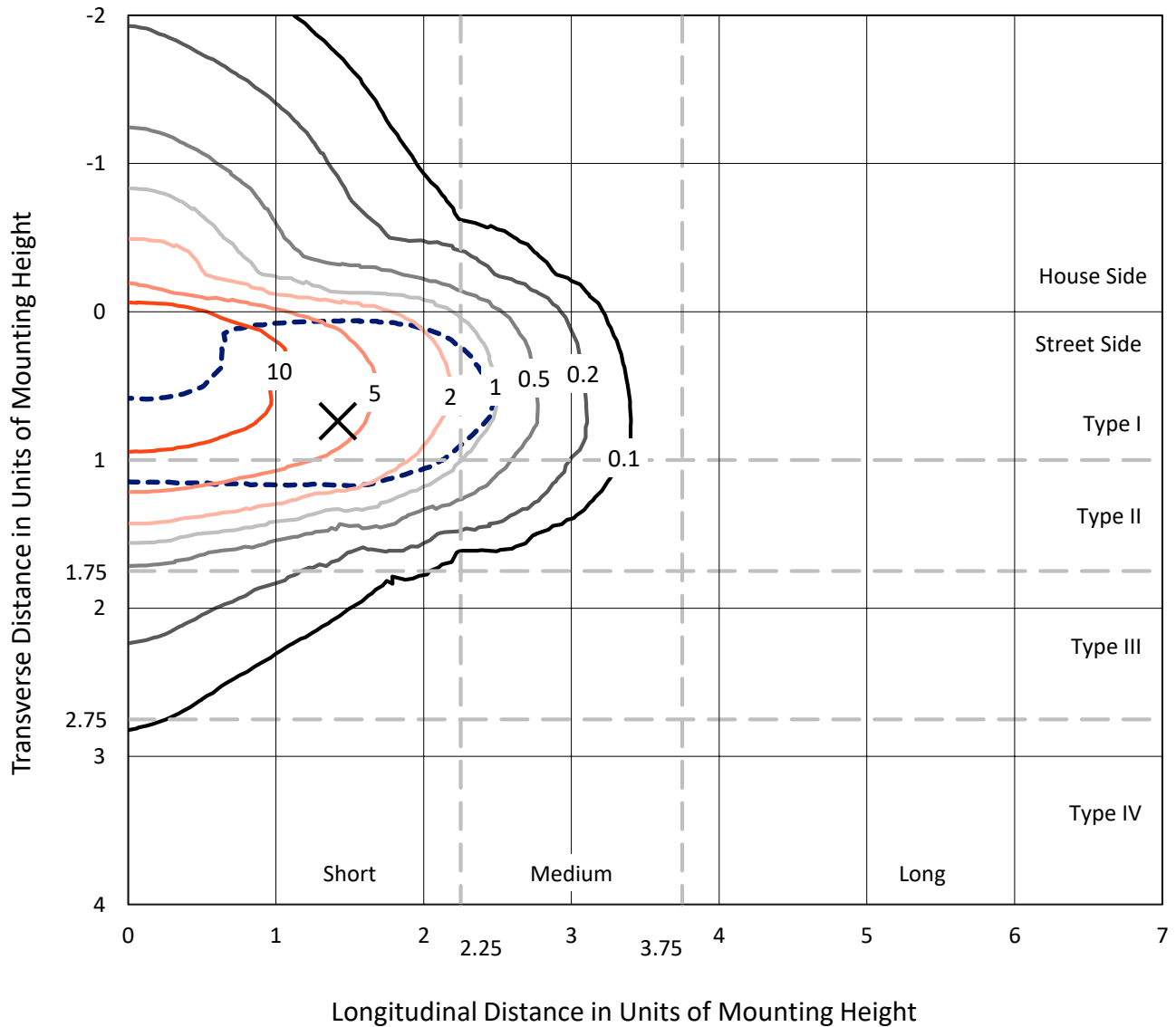
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P300343  
 CATALOG NUMBER: GLNA-AF-09-LED-E1-AFL-7027

### Iso-Footcandle Lines of Horizontal Illumination

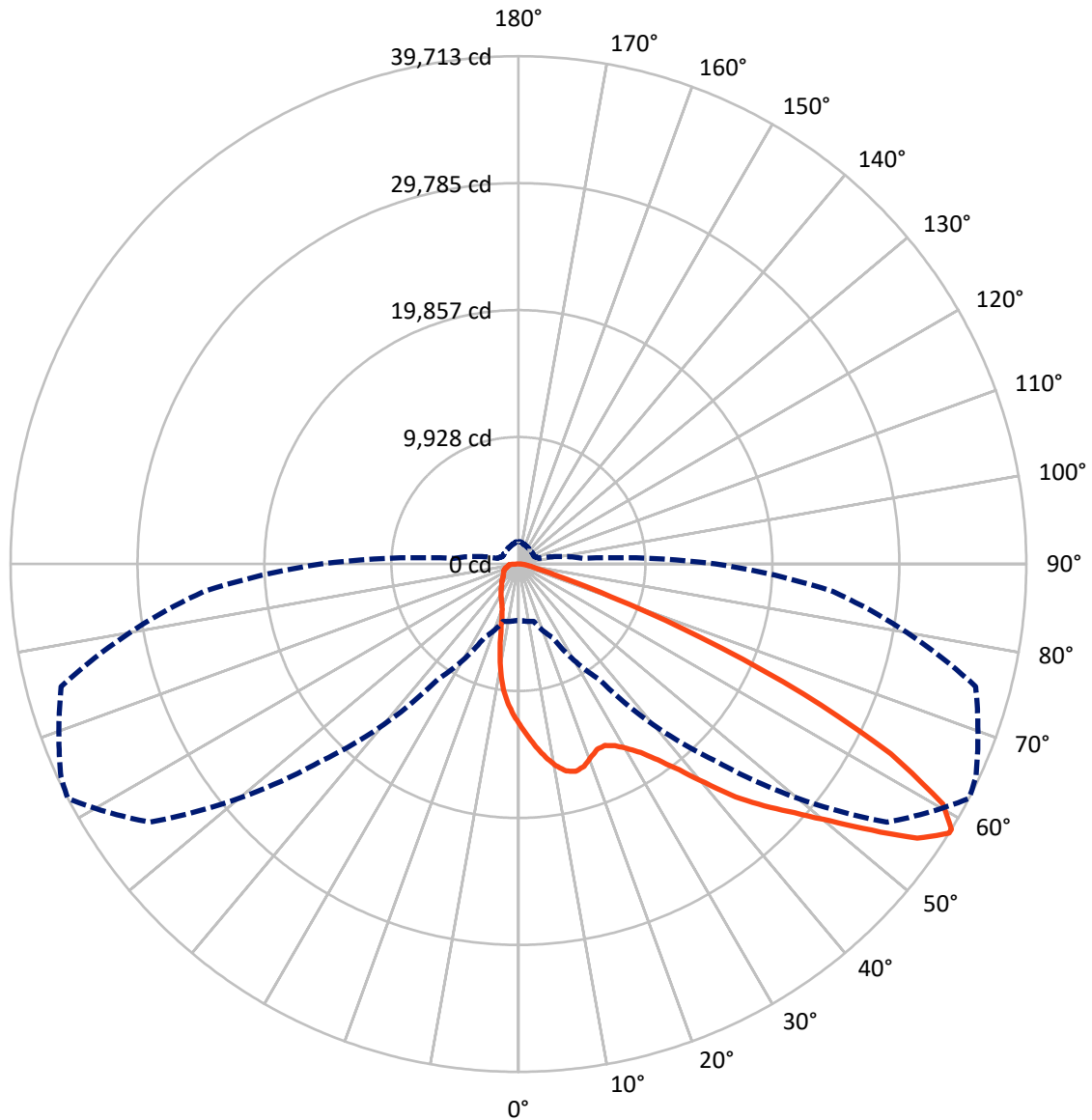
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P300343  
CATALOG NUMBER: GLNA-AF-09-LED-E1-AFL-7027

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P300343

CATALOG NUMBER: GLNA-AF-09-LED-E1-AFL-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7209.0	0.0	7209.0
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	40062.2	0.0	40062.2
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	47271.2	0.0	47271.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1123.0	2.4
10°-20°	2870.6	6.1
20°-30°	4640.4	9.8
30°-40°	7366.6	15.6
40°-50°	10778.8	22.8
50°-60°	11273.8	23.8
60°-70°	6660.5	14.1
70°-80°	1876.3	4.0
80°-90°	681.2	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°	47271.2	100.0
0°-180°	47271.2	100.0



REPORT NUMBER: P300343

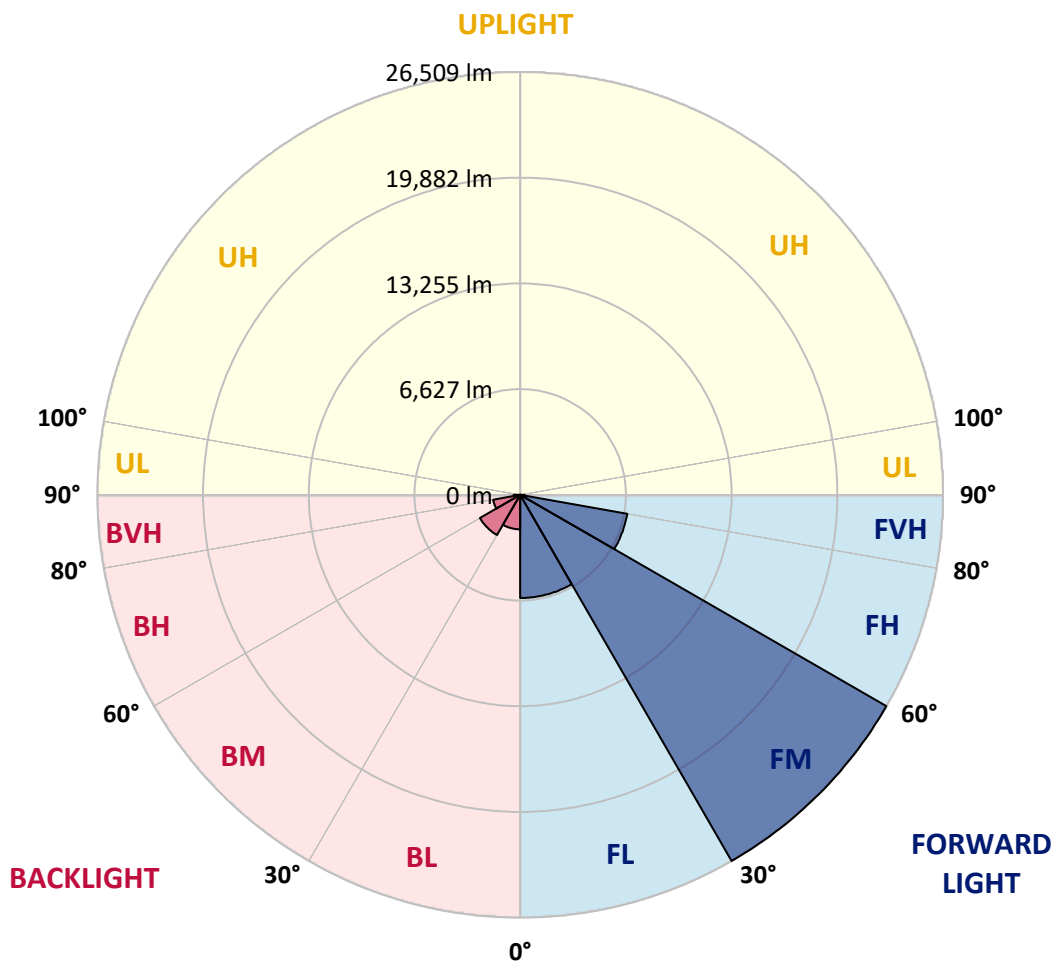
CATALOG NUMBER: GLNA-AF-09-LED-E1-AFL-7027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6467.3	13.7			
FM	(30°-60°)	26509.4	56.1			
FH	(60°-80°)	6816.7	14.4			G3/7500
FVH	(80°-90°)	268.7	0.6			G3/500
BL	(0°-30°)	2166.7	4.6	B3/2500		
BM	(30°-60°)	2909.7	6.2	B3/5000		
BH	(60°-80°)	1720.1	3.6	B3/2500		G3/2500
BVH	(80°-90°)	412.5	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





REPORT NUMBER: P300343

CATALOG NUMBER: GLNA-AF-09-LED-E1-AFL-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6
2.5°	14348.5	14232.8	14159.3	14094.8	14010.2	13829.9	13587.2	13433.7	13355.8	13090.9	12777.0
5°	15755.3	15652.9	15577.3	15490.4	15339.1	15056.4	14664.6	14353.0	14199.4	13669.6	13041.9
7.5°	15425.9	15468.2	15599.5	15828.8	16024.7	15986.8	15637.4	15241.1	15038.6	14301.8	13349.1
10°	13440.3	13513.8	13740.8	14277.3	15145.4	16035.8	16307.4	16033.6	15828.8	14927.3	13665.2
12.5°	13041.9	13039.7	13057.5	13199.9	13716.4	14969.6	16329.6	16605.6	16483.2	15523.8	13987.9
15°	13204.4	13208.8	13195.5	13255.6	13415.9	13912.2	15648.5	16826.0	16912.8	16124.8	14321.8
17.5°	13631.8	13620.6	13569.4	13569.4	13627.3	13821.0	14847.1	16621.2	17021.9	16656.8	14615.6
20°	14348.5	14297.3	14161.5	14036.9	13974.6	14079.2	14517.7	16149.3	16832.7	17122.1	14858.3
22.5°	15216.7	15176.6	14956.2	14689.1	14473.2	14471.0	14686.9	15737.5	16505.5	17560.6	15063.1
25°	16338.5	16274.0	15946.8	15519.4	15141.0	14996.3	15056.4	15717.5	16327.4	18036.9	15245.6
27.5°	17656.3	17538.3	17151.0	16534.4	15977.9	15686.3	15599.5	16080.3	16489.9	18626.8	15499.3
30°	19254.5	19118.8	18622.4	17818.8	17033.0	16554.5	16369.7	16723.6	17028.6	19345.8	15906.7
32.5°	21073.1	20877.3	20303.0	19417.0	18384.2	17654.1	17353.6	17573.9	17816.6	20211.7	16416.4
35°	23586.3	23352.5	22522.2	21300.2	20133.8	19129.9	18649.1	18809.3	19045.3	21502.8	17153.2
37.5°	25300.2	25195.6	24643.6	23495.0	22226.2	21070.9	20327.5	20420.9	20554.5	23116.6	18097.0
40°	25284.7	25327.0	25338.1	25349.2	24485.5	23379.2	22580.1	22482.2	22455.5	24888.4	19170.0
42.5°	24018.1	24191.7	24752.7	25890.1	26415.4	25907.9	25175.6	24892.9	24752.7	26976.4	20307.4
45°	22079.3	22172.8	23223.4	25444.9	27403.8	28412.1	27857.9	26967.5	26713.7	28895.2	21251.2
47.5°	21079.8	21182.2	21843.3	24265.2	27392.6	30435.5	30756.1	29059.9	28605.8	30564.6	22065.9
50°	18700.3	18914.0	19746.5	22212.8	26393.2	31366.0	33785.6	31553.0	30613.6	32189.6	22882.9
52.5°	14330.7	14660.2	15592.8	18838.3	23857.8	30905.2	36209.7	34575.8	33249.1	33872.4	23584.0
55°	9039.6	9284.5	10068.0	13304.6	19085.4	28507.8	37129.0	37845.7	36666.0	35466.2	24191.7
57.5°	4914.9	5024.0	5317.8	7345.7	12414.2	23207.8	35789.0	39706.6	39216.9	36819.6	24650.3
58°	4398.5	4472.0	4654.5	6366.2	11009.6	21758.7	35194.6	39713.3	39468.5	37017.7	24685.9
60°	3263.3	3225.4	3062.9	3632.8	6128.1	15031.9	31601.9	38124.0	38843.0	37260.3	24512.3
62.5°	2867.0	2775.8	2444.1	2406.3	2980.6	6925.0	24180.6	32657.0	34355.4	35875.8	23457.1
65°	2693.4	2595.5	2168.1	2030.1	2150.3	2929.4	14243.9	24492.2	26622.5	31677.6	20759.3
67.5°	2564.3	2437.4	1992.2	1803.0	1811.9	1936.6	5709.6	15425.9	17823.2	24051.5	16147.1
70°	2439.7	2301.6	1843.1	1624.9	1573.8	1531.5	2270.5	7721.8	9896.6	15192.2	10295.1
72.5°	2306.1	2170.3	1711.8	1484.7	1384.5	1244.3	1482.5	3158.6	4411.8	7187.6	4670.1
75°	2112.4	1990.0	1580.4	1360.1	1217.6	1030.6	1119.7	1649.4	1978.9	2862.6	2250.4
77.5°	1874.3	1774.1	1433.5	1257.7	1079.6	837.0	861.4	1144.1	1268.8	1638.3	1337.8
80°	1346.7	1382.3	1275.5	1130.8	961.6	678.9	661.1	834.7	901.5	1052.9	870.3
82.5°	946.0	966.1	1055.1	923.8	794.7	534.2	487.5	587.7	627.7	692.3	469.7
85°	652.2	629.9	723.4	643.3	574.3	356.2	333.9	398.4	422.9	429.6	242.6
87.5°	391.8	391.8	418.5	345.0	309.4	184.8	180.3	227.0	242.6	231.5	133.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P300343

CATALOG NUMBER: GLNA-AF-09-LED-E1-AFL-7027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6	12556.6
2.5°	12590.0	12432.0	12095.9	11826.5	11485.9	11132.0	10933.9	10722.4	10577.8	10473.1	10640.1
5°	12685.7	12363.0	11668.5	11009.6	10281.7	9524.9	8950.6	8416.3	8044.6	7813.1	8031.3
7.5°	12837.1	12340.7	11234.4	10108.1	8801.4	7541.5	6415.2	5709.6	5297.8	5095.2	5222.1
10°	13010.7	12305.1	10724.7	8886.0	7016.2	5429.1	4587.7	4302.8	4209.3	4171.4	4189.3
12.5°	13155.4	12229.4	10099.2	7408.0	5268.8	4287.2	4044.6	4037.9	4057.9	4062.4	4069.1
15°	13257.8	12118.1	9170.9	5867.6	4213.7	3906.6	3893.2	3933.3	3971.1	3986.7	3995.6
17.5°	13326.8	11888.8	8122.5	4638.9	3775.2	3721.8	3753.0	3804.2	3844.2	3855.4	3864.3
20°	13320.1	11552.7	6873.8	3868.7	3537.0	3537.0	3590.5	3630.5	3632.8	3619.4	3626.1
22.5°	13251.1	11092.0	5662.8	3459.1	3325.6	3363.4	3416.8	3379.0	3223.2	3120.8	3127.5
25°	13135.4	10542.1	4625.5	3198.7	3129.7	3196.5	3180.9	2896.0	2673.4	2573.2	2573.2
27.5°	13033.0	9892.2	3828.6	2971.7	2933.8	3016.2	2740.2	2481.9	2388.5	2341.7	2326.1
30°	12959.5	9191.0	3296.6	2753.5	2749.1	2689.0	2377.3	2306.1	2290.5	2252.7	2239.3
32.5°	12977.3	8480.9	2956.1	2562.1	2577.7	2301.6	2203.7	2219.3	2205.9	2165.9	2148.0
35°	13124.3	7806.4	2733.5	2388.5	2341.7	2079.0	2101.3	2130.2	2125.8	2070.1	2052.3
37.5°	13386.9	7167.6	2586.6	2243.8	2043.4	1967.7	2003.4	2047.9	2036.8	1998.9	1985.6
40°	13662.9	6566.6	2466.4	2130.2	1867.6	1892.1	1923.2	1947.7	1958.8	1970.0	1961.1
42.5°	13932.3	5938.9	2319.4	2014.5	1794.1	1820.8	1834.2	1858.7	1918.8	1961.1	1958.8
45°	14092.5	5349.0	2168.1	1849.8	1736.2	1751.8	1742.9	1791.9	1865.4	1934.4	1936.6
47.5°	14270.6	4890.4	2047.9	1698.4	1680.6	1691.7	1665.0	1714.0	1780.8	1865.4	1874.3
50°	14486.5	4616.6	1952.2	1578.2	1604.9	1604.9	1598.2	1642.8	1736.2	1834.2	1852.0
52.5°	14731.4	4563.2	1872.0	1491.4	1529.2	1527.0	1533.7	1600.5	1702.9	1798.6	1814.2
55°	15029.7	4707.9	1785.2	1426.8	1455.8	1464.7	1486.9	1562.6	1649.4	1758.5	1765.2
57.5°	15376.9	5001.7	1716.2	1375.6	1389.0	1417.9	1453.6	1522.6	1616.0	1736.2	1742.9
58°	15434.8	5064.1	1705.1	1371.2	1375.6	1409.0	1449.1	1515.9	1609.4	1740.7	1747.4
60°	15437.0	5271.1	1680.6	1351.2	1324.4	1380.1	1424.6	1491.4	1598.2	1756.3	1771.9
62.5°	14889.4	5268.8	1662.8	1322.2	1271.0	1340.0	1391.2	1469.1	1587.1	1794.1	1825.3
65°	13110.9	4788.0	1578.2	1277.7	1228.7	1304.4	1362.3	1453.6	1618.3	1958.8	1978.9
67.5°	10255.0	3924.4	1420.2	1215.4	1173.1	1268.8	1344.5	1451.3	1651.7	1996.7	2010.0
70°	6780.3	2936.0	1246.5	1144.1	1115.2	1226.5	1353.4	1527.0	1613.8	1916.6	1880.9
72.5°	3519.2	2061.2	1106.3	1055.1	1048.4	1188.7	1482.5	1518.1	1576.0	1803.0	1758.5
75°	1847.5	1431.3	983.9	957.2	968.3	1179.8	1749.6	1478.0	1527.0	1725.1	1809.7
77.5°	1130.8	1155.3	879.3	868.1	890.4	1153.0	1747.4	1426.8	1455.8	1587.1	1680.6
80°	756.8	937.1	799.1	801.3	816.9	1055.1	1569.3	1346.7	1369.0	1500.3	1596.0
82.5°	478.6	554.3	725.7	763.5	743.5	870.3	1333.3	1226.5	1257.7	1716.2	1814.2
85°	242.6	347.2	629.9	734.6	670.0	609.9	1081.8	1075.1	1090.7	1237.6	1293.3
87.5°	111.3	191.4	491.9	641.1	505.3	380.6	785.8	796.9	859.2	879.3	879.3
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)