

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: P300406

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300406  
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-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 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: 43954.6 lumens  
Efficiency: N/A  
Efficacy: 117.5 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

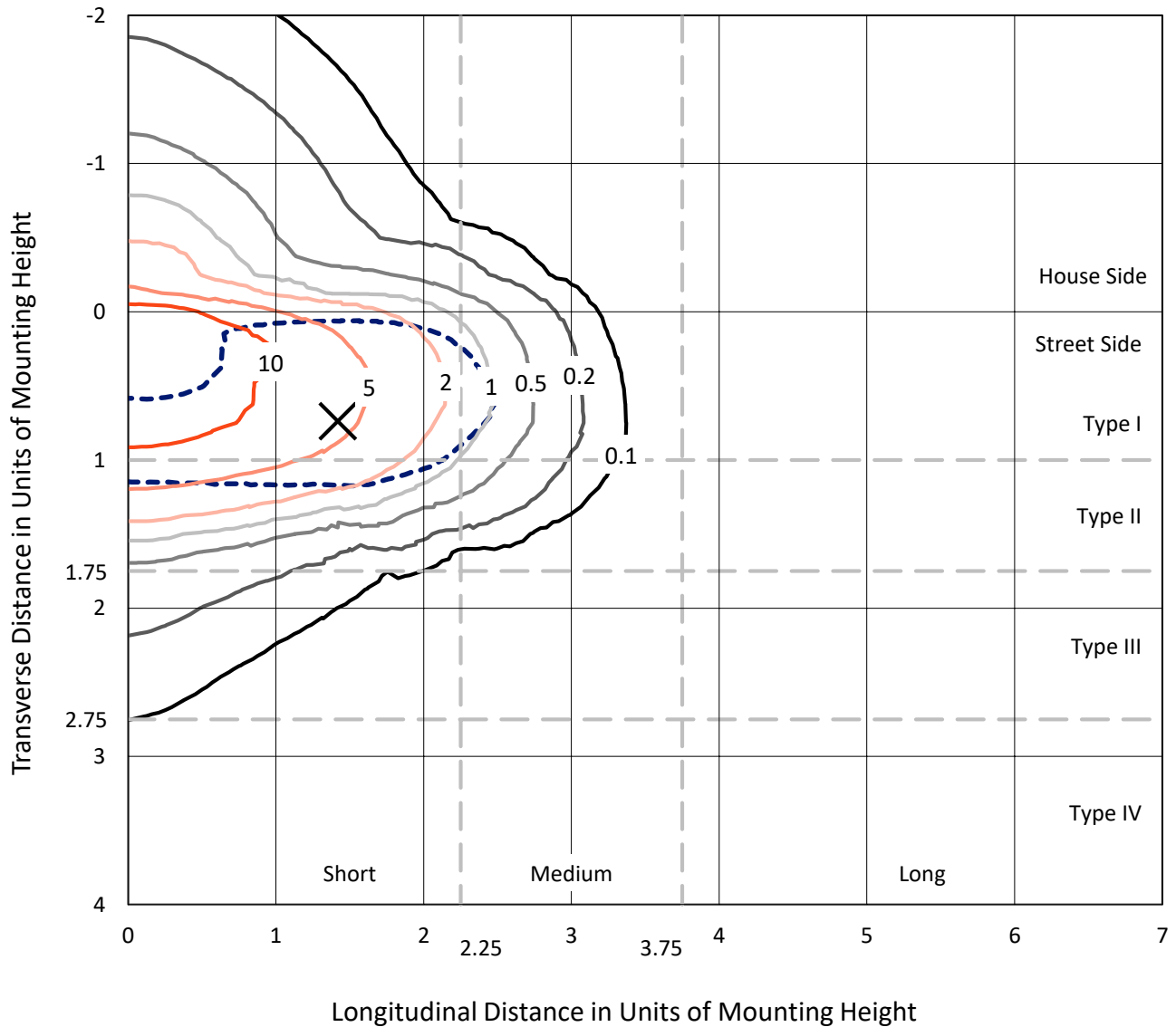
Input Watts (W): 374  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

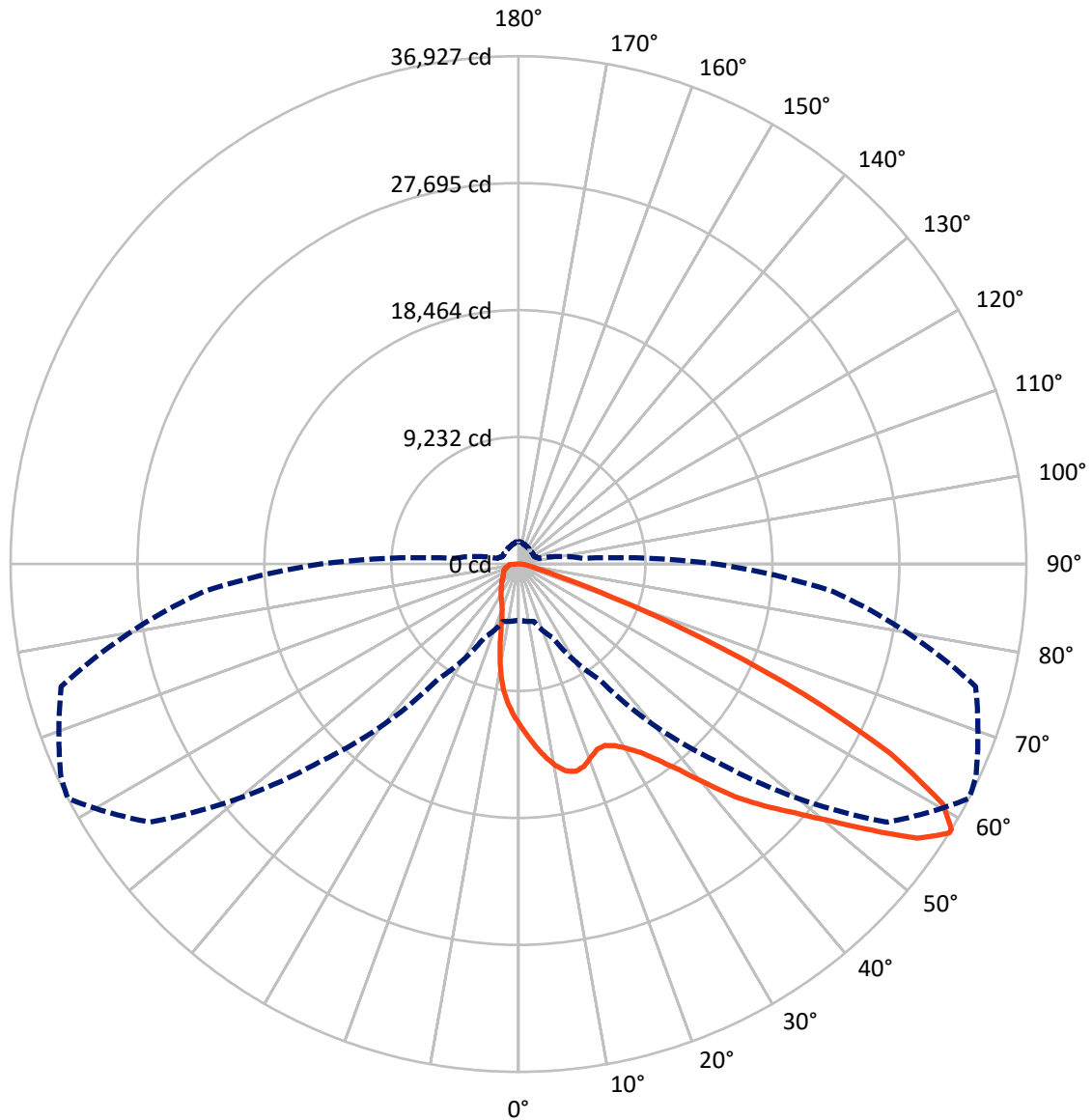
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.8 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	6703.3	0.0	6703.3
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	37251.4	0.0	37251.4
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	43954.6	0.0	43954.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1044.2	2.4
10°-20°	2669.2	6.1
20°-30°	4314.8	9.8
30°-40°	6849.7	15.6
40°-50°	10022.6	22.8
50°-60°	10482.8	23.8
60°-70°	6193.2	14.1
70°-80°	1744.7	4.0
80°-90°	633.4	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°	43954.6	100.0
0°-180°	43954.6	100.0



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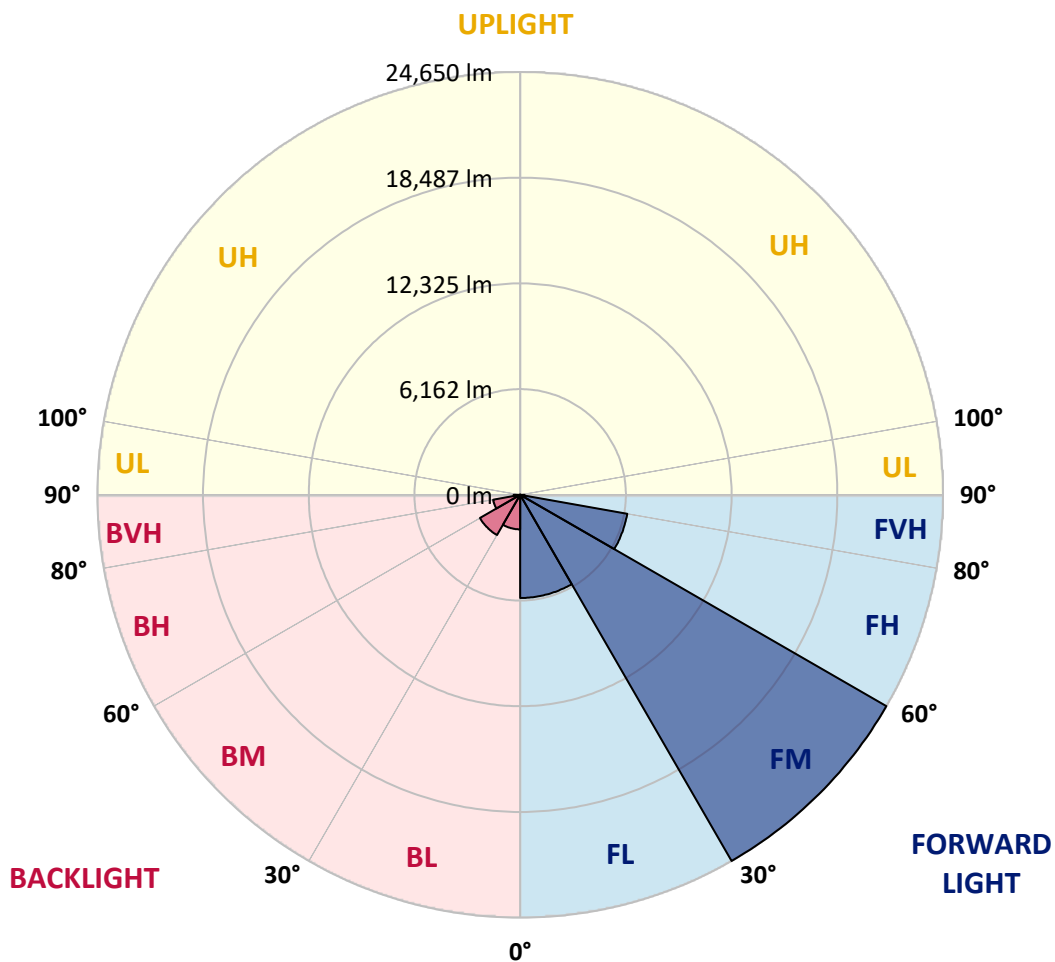
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6013.5	13.7			
FM	(30°-60°)	24649.5	56.1			
FH	(60°-80°)	6338.4	14.4			G3/7500
FVH	(80°-90°)	249.9	0.6			G3/500
BL	(0°-30°)	2014.7	4.6	B3/2500		
BM	(30°-60°)	2705.6	6.2	B3/5000		
BH	(60°-80°)	1599.5	3.6	B3/2500		G3/2500
BVH	(80°-90°)	383.5	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7
2.5°	13341.8	13234.2	13165.9	13105.9	13027.2	12859.6	12634.0	12491.2	12418.7	12172.4	11880.6
5°	14649.9	14554.7	14484.4	14403.6	14262.9	14000.0	13635.7	13346.0	13203.2	12710.5	12126.9
7.5°	14343.6	14382.9	14505.1	14718.2	14900.4	14865.2	14540.2	14171.8	13983.5	13298.4	12412.5
10°	12497.4	12565.7	12776.8	13275.6	14082.8	14910.7	15163.2	14908.7	14718.2	13880.0	12706.4
12.5°	12126.9	12124.8	12141.4	12273.8	12754.0	13919.3	15183.9	15440.6	15326.8	14434.7	13006.5
15°	12278.0	12282.1	12269.7	12325.6	12474.6	12936.2	14550.6	15645.5	15726.2	14993.5	13317.0
17.5°	12675.4	12665.0	12617.4	12617.4	12671.2	12851.3	13805.5	15455.1	15827.6	15488.2	13590.2
20°	13341.8	13294.2	13168.0	13052.1	12994.1	13091.4	13499.1	15016.3	15651.7	15920.8	13815.8
22.5°	14149.0	14111.8	13906.9	13658.5	13457.7	13455.7	13656.4	14633.4	15347.5	16328.5	14006.2
25°	15192.2	15132.2	14827.9	14430.5	14078.7	13944.1	14000.0	14614.8	15181.9	16771.5	14176.0
27.5°	16417.5	16307.8	15947.7	15374.4	14856.9	14585.8	14505.1	14952.1	15333.0	17320.0	14411.9
30°	17903.6	17777.4	17315.8	16568.6	15838.0	15393.0	15221.2	15550.3	15833.9	17988.5	14790.7
32.5°	19594.7	19412.5	18878.5	18054.7	17094.4	16415.5	16136.0	16341.0	16566.6	18793.6	15264.7
35°	21931.4	21714.1	20942.1	19805.8	18721.2	17787.7	17340.7	17489.7	17709.1	19994.1	15949.8
37.5°	23525.2	23427.9	22914.6	21846.6	20666.8	19592.6	18901.3	18988.2	19112.4	21494.7	16827.4
40°	23510.7	23550.0	23560.4	23570.7	22767.6	21739.0	20995.9	20904.8	20880.0	23142.3	17825.0
42.5°	22333.0	22494.4	23016.0	24073.7	24562.1	24090.2	23409.3	23146.4	23016.0	25083.7	18882.6
45°	20530.2	20617.1	21594.1	23659.7	25481.1	26418.7	25903.4	25075.4	24839.5	26867.9	19760.2
47.5°	19600.9	19696.1	20310.8	22562.7	25470.8	28300.2	28598.2	27021.0	26598.8	28420.2	20517.8
50°	17388.3	17587.0	18361.1	20654.4	24541.4	29165.3	31415.2	29339.2	28465.8	29931.2	21277.4
52.5°	13325.3	13631.6	14498.8	17516.6	22184.0	28736.9	33669.2	32150.0	30916.4	31495.9	21929.4
55°	8405.4	8633.1	9361.6	12371.1	17746.3	26507.7	34524.0	35190.5	34093.5	32977.9	22494.4
57.5°	4570.1	4671.5	4944.7	6830.3	11543.2	21579.6	33278.0	36920.8	36465.5	34236.3	22920.8
58°	4089.9	4158.2	4327.9	5919.6	10237.2	20232.1	32725.4	36927.0	36699.4	34420.5	22953.9
60°	3034.3	2999.1	2848.0	3377.9	5698.1	13977.3	29384.7	35449.2	36117.7	34646.1	22792.5
62.5°	2665.9	2581.0	2272.6	2237.4	2771.4	6439.1	22484.1	30365.8	31945.1	33358.7	21811.4
65°	2504.4	2413.4	2016.0	1887.6	1999.4	2723.8	13244.6	22773.8	24754.6	29455.1	19302.8
67.5°	2384.4	2266.4	1852.5	1676.5	1684.8	1800.7	5309.0	14343.6	16572.8	22364.0	15014.2
70°	2268.5	2140.2	1713.8	1510.9	1463.3	1424.0	2111.2	7180.1	9202.3	14126.3	9572.8
72.5°	2144.3	2018.0	1591.7	1380.5	1287.4	1157.0	1378.5	2937.0	4102.3	6683.3	4342.4
75°	1964.2	1850.4	1469.5	1264.6	1132.2	958.3	1041.1	1533.7	1840.0	2661.7	2092.6
77.5°	1742.8	1649.6	1332.9	1169.4	1003.8	778.2	801.0	1063.9	1179.8	1523.4	1243.9
80°	1252.2	1285.3	1186.0	1051.5	894.1	631.3	614.7	776.2	838.3	979.0	809.3
82.5°	879.7	898.3	981.1	859.0	738.9	496.7	453.3	546.4	583.7	643.7	436.7
85°	606.4	585.7	672.7	598.2	534.0	331.2	310.5	370.5	393.3	399.5	225.6
87.5°	364.3	364.3	389.1	320.8	287.7	171.8	167.7	211.1	225.6	215.3	124.2
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°	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7	11675.7
2.5°	11706.7	11559.7	11247.2	10996.8	10680.1	10351.0	10166.8	9970.2	9835.6	9738.3	9893.6
5°	11795.7	11495.6	10849.8	10237.2	9560.3	8856.6	8322.6	7825.9	7480.2	7264.9	7467.8
7.5°	11936.4	11474.9	10446.2	9398.9	8183.9	7012.4	5965.1	5309.0	4926.1	4737.7	4855.7
10°	12097.9	11441.8	9972.2	8262.6	6524.0	5048.2	4265.8	4000.9	3914.0	3878.8	3895.3
12.5°	12232.4	11371.4	9390.6	6888.2	4899.2	3986.4	3760.8	3754.6	3773.2	3777.4	3783.6
15°	12327.6	11267.9	8527.5	5456.0	3918.1	3632.5	3620.1	3657.3	3692.5	3707.0	3715.3
17.5°	12391.8	11054.7	7552.6	4313.4	3510.4	3460.7	3489.7	3537.3	3574.5	3584.9	3593.1
20°	12385.6	10742.2	6391.5	3597.3	3288.9	3288.9	3338.6	3375.8	3377.9	3365.5	3371.7
22.5°	12321.4	10313.7	5265.5	3216.4	3092.3	3127.4	3177.1	3141.9	2997.0	2901.8	2908.0
25°	12213.8	9802.5	4301.0	2974.3	2910.1	2972.2	2957.7	2692.8	2485.8	2392.7	2392.7
27.5°	12118.6	9198.1	3560.0	2763.2	2728.0	2804.6	2547.9	2307.8	2220.9	2177.4	2162.9
30°	12050.3	8546.1	3065.4	2560.3	2556.2	2500.3	2210.5	2144.3	2129.8	2094.6	2082.2
32.5°	12066.8	7885.9	2748.7	2382.3	2396.8	2140.2	2049.1	2063.6	2051.2	2013.9	1997.3
35°	12203.5	7258.7	2541.7	2220.9	2177.4	1933.2	1953.9	1980.8	1976.6	1924.9	1908.3
37.5°	12447.7	6664.7	2405.1	2086.3	1900.1	1829.7	1862.8	1904.2	1893.9	1858.7	1846.2
40°	12704.3	6105.9	2293.3	1980.8	1736.5	1759.3	1788.3	1811.1	1821.4	1831.8	1823.5
42.5°	12954.8	5522.2	2156.7	1873.2	1668.2	1693.1	1705.5	1728.3	1784.2	1823.5	1821.4
45°	13103.8	4973.7	2016.0	1720.0	1614.4	1628.9	1620.6	1666.2	1734.5	1798.6	1800.7
47.5°	13269.4	4547.3	1904.2	1579.2	1562.7	1573.0	1548.2	1593.7	1655.8	1734.5	1742.8
50°	13470.2	4292.7	1815.2	1467.5	1492.3	1492.3	1486.1	1527.5	1614.4	1705.5	1722.1
52.5°	13697.8	4243.1	1740.7	1386.8	1421.9	1419.9	1426.1	1488.2	1583.4	1672.4	1686.9
55°	13975.2	4377.6	1660.0	1326.7	1353.6	1361.9	1382.6	1453.0	1533.7	1635.1	1641.3
57.5°	14298.1	4650.8	1595.8	1279.1	1291.5	1318.5	1351.6	1415.7	1502.7	1614.4	1620.6
58°	14351.9	4708.8	1585.5	1275.0	1279.1	1310.2	1347.4	1409.5	1496.5	1618.6	1624.8
60°	14354.0	4901.3	1562.7	1256.4	1231.5	1283.3	1324.7	1386.8	1486.1	1633.1	1647.5
62.5°	13844.8	4899.2	1546.1	1229.5	1181.8	1246.0	1293.6	1366.1	1475.8	1668.2	1697.2
65°	12191.0	4452.1	1467.5	1188.1	1142.5	1212.9	1266.7	1351.6	1504.7	1821.4	1840.0
67.5°	9535.5	3649.0	1320.5	1130.1	1090.8	1179.8	1250.2	1349.5	1535.8	1856.6	1869.0
70°	6304.6	2730.0	1159.1	1063.9	1037.0	1140.5	1258.4	1419.9	1500.6	1782.1	1749.0
72.5°	3272.3	1916.6	1028.7	981.1	974.9	1105.3	1378.5	1411.6	1465.4	1676.5	1635.1
75°	1717.9	1330.9	914.8	890.0	900.4	1097.0	1626.9	1374.3	1419.9	1604.1	1682.7
77.5°	1051.5	1074.2	817.6	807.2	827.9	1072.1	1624.8	1326.7	1353.6	1475.8	1562.7
80°	703.7	871.4	743.1	745.1	759.6	981.1	1459.2	1252.2	1272.9	1395.0	1484.0
82.5°	445.0	515.4	674.7	709.9	691.3	809.3	1239.8	1140.5	1169.4	1595.8	1686.9
85°	225.6	322.9	585.7	683.0	623.0	567.1	1005.9	999.7	1014.2	1150.8	1202.5
87.5°	103.5	178.0	457.4	596.1	469.8	353.9	730.6	741.0	798.9	817.6	817.6
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)