

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: P648174

Luminaire Tested: **GALN-SA9A-835-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P648174
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9A-835-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33082.5 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

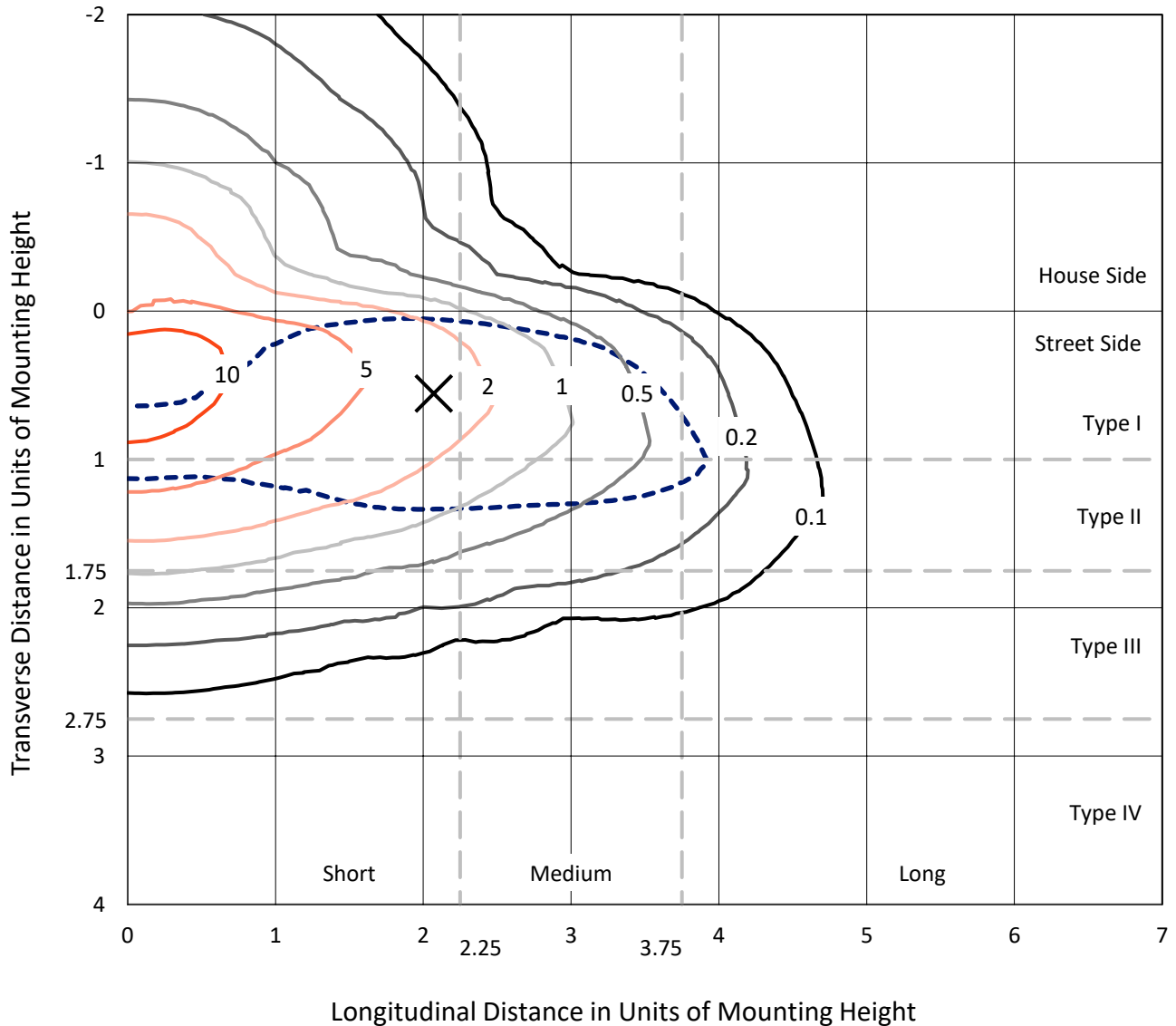
Input Watts (W): 274
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

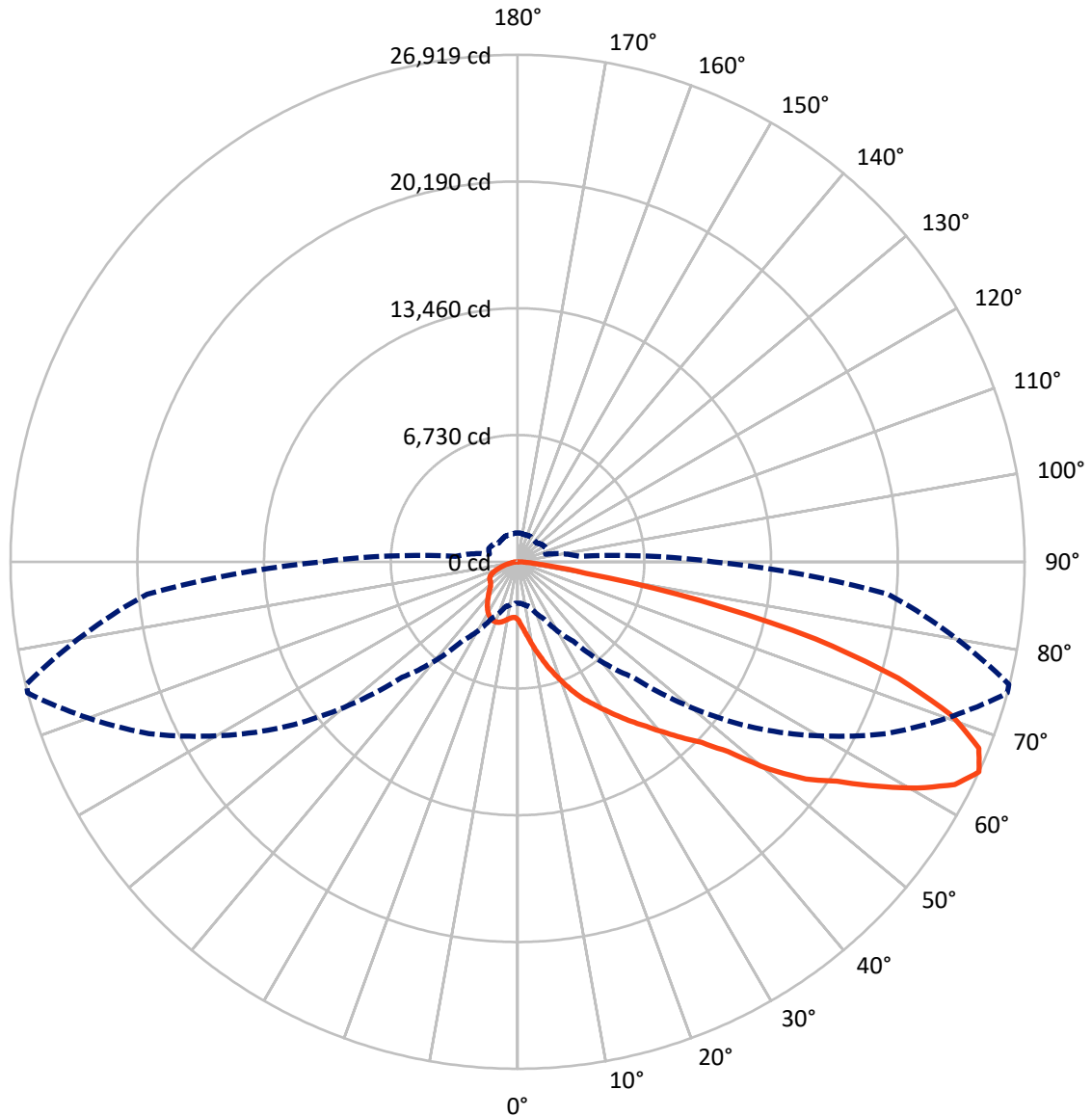
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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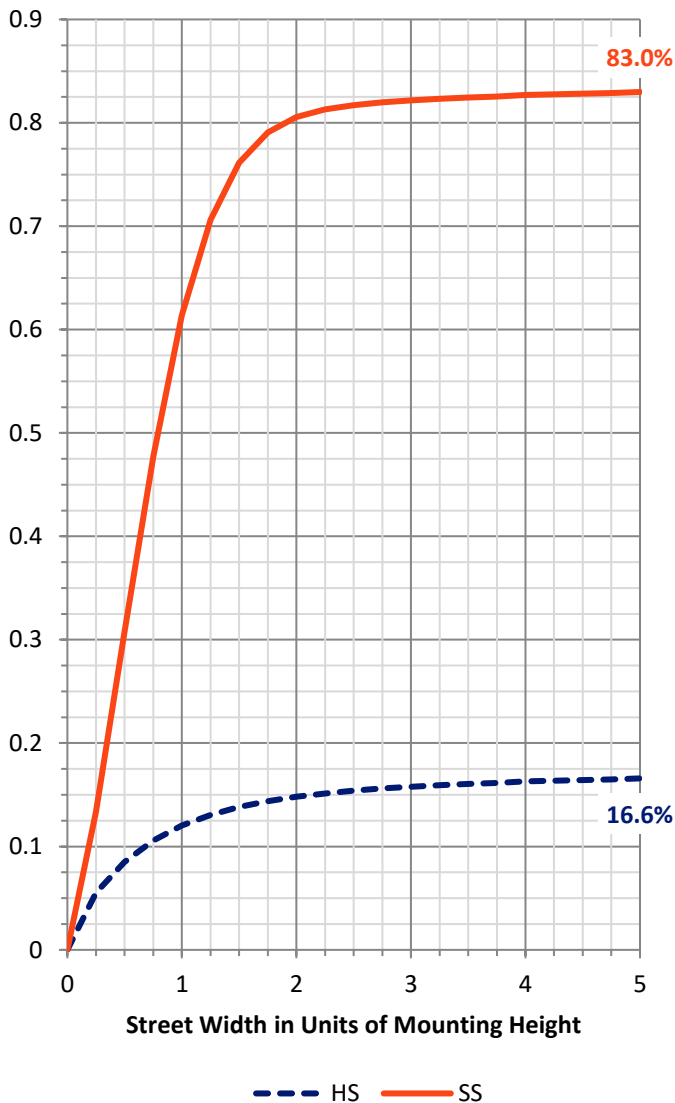
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5561.6	0.0	5561.6
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	27520.9	0.0	27520.9
	% Fixture	83.2	0.0	83.2
Total	Lumens	33082.5	0.0	33082.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	373.5	1.1
10°-20°	1462.8	4.4
20°-30°	2825.6	8.5
30°-40°	4589.6	13.9
40°-50°	6313.4	19.1
50°-60°	7454.0	22.5
60°-70°	6530.9	19.7
70°-80°	3117.9	9.4
80°-90°	414.9	1.3
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°	33082.5	100.0
0°-180°	33082.5	100.0

Coefficient of Utilization



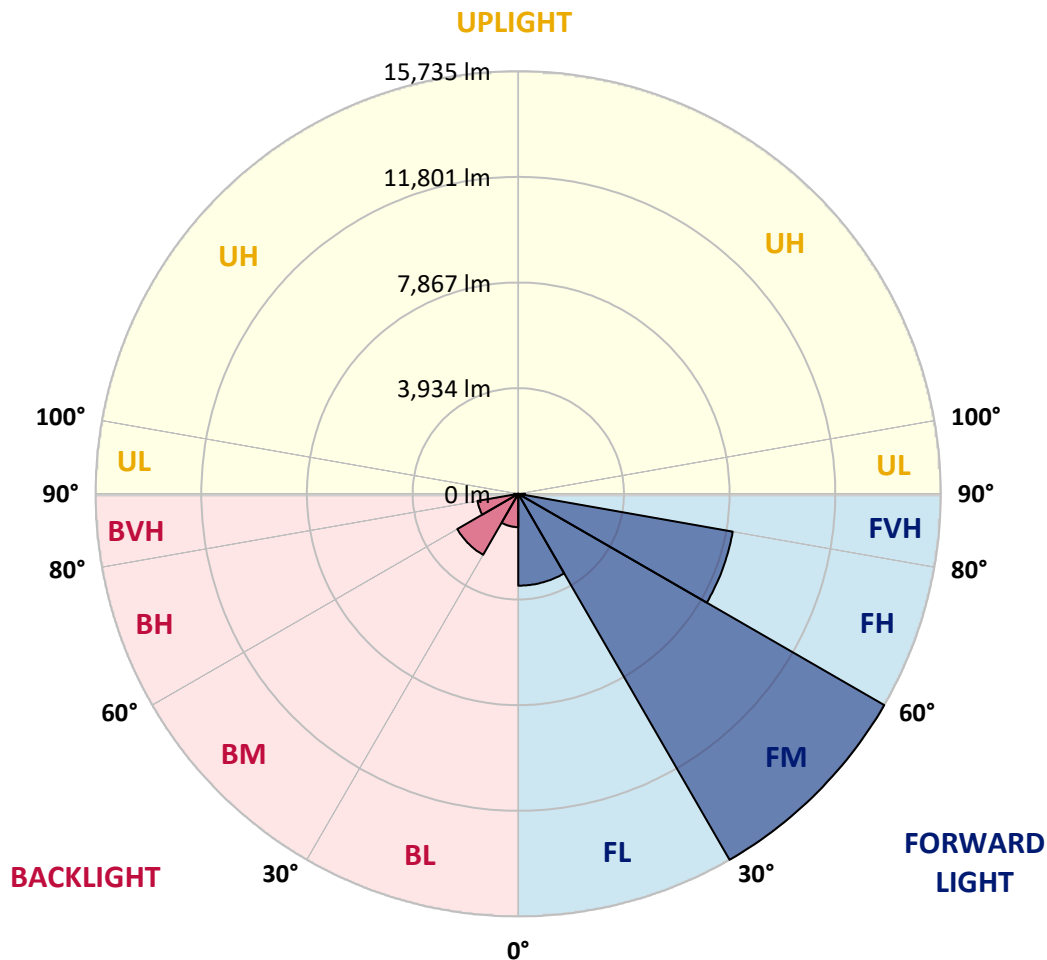
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3420.2	10.3			
FM (30°-60°)	15734.8	47.6			
FH (60°-80°)	8106.7	24.5			G4/12000
FVH (80°-90°)	259.3	0.8			G3/500
BL (0°-30°)	1241.6	3.8	B3/2500		
BM (30°-60°)	2622.3	7.9	B3/5000		
BH (60°-80°)	1542.1	4.7	B3/2500		G3/2500
BVH (80°-90°)	155.6	0.5			G2/225
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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8
2.5°	4084.0	4057.1	4028.4	3949.5	3865.1	3770.0	3633.7	3502.7	3328.6	3323.2	3194.0
5°	5216.3	5198.3	5070.9	4997.3	4801.7	4541.6	4320.9	3978.2	3660.5	3622.9	3371.7
7.5°	6257.0	6187.0	6138.6	6005.8	5812.1	5478.3	5051.2	4588.2	4057.1	4006.8	3590.6
10°	7041.2	7034.0	7008.9	6894.0	6748.7	6416.8	5943.0	5279.1	4559.6	4460.8	3856.1
12.5°	7627.9	7633.3	7629.7	7627.9	7523.8	7242.1	6728.9	6029.2	5067.3	4997.3	4163.0
15°	8013.8	8067.6	8089.1	8178.8	8187.8	7999.4	7558.0	6754.1	5639.8	5535.7	4493.2
17.5°	8268.6	8295.4	8396.0	8548.5	8672.3	8638.2	8245.2	7425.2	6224.7	6050.7	4835.9
20°	8512.5	8559.2	8636.4	8844.5	9063.5	9163.9	8887.6	8112.4	6804.3	6693.1	5214.5
22.5°	9020.4	9086.8	9113.7	9219.6	9406.2	9583.8	9458.2	8770.9	7439.5	7288.8	5616.5
25°	9879.9	9949.9	9874.5	9849.4	9910.4	9998.4	9971.4	9391.9	8038.8	7823.5	5996.8
27.5°	10999.6	11008.6	10861.5	10721.5	10570.7	10525.9	10443.3	9942.7	8559.2	8379.8	6379.0
30°	12201.8	12158.7	11914.8	11661.7	11406.9	11155.7	10918.9	10473.8	9138.8	8932.5	6754.1
32.5°	13318.0	13294.6	13023.6	12630.7	12200.0	11963.1	11484.1	11010.4	9759.7	9560.5	7139.9
35°	14154.1	14188.2	13890.3	13461.5	12991.4	12781.5	12176.7	11573.8	10402.1	10185.0	7559.8
37.5°	14748.0	14730.1	14466.3	14094.9	13682.2	13499.2	12986.0	12189.3	11092.9	10884.7	8019.1
40°	14959.8	14949.0	14753.4	14482.5	14220.5	14155.9	13832.9	12853.2	11884.2	11640.2	8571.8
42.5°	14825.2	14848.6	14719.4	14645.8	14597.3	14644.0	14674.5	13723.5	12747.3	12523.0	9171.1
45°	14412.5	14399.9	14382.0	14502.3	14775.0	15081.8	15507.1	14545.3	13685.8	13506.4	9975.0
47.5°	13675.0	13764.7	13809.6	14141.5	14737.3	15464.0	16465.3	15647.1	15047.7	14891.6	11200.6
50°	12643.3	12715.1	12980.6	13571.0	14459.2	15607.6	17401.9	17448.6	17319.4	17027.0	12532.0
52.5°	11031.9	11143.1	11690.4	12772.5	13888.5	15548.3	17969.0	18993.6	19164.1	18945.2	13843.7
55°	9228.5	9384.6	9962.4	11381.8	13102.6	15225.4	18360.2	19889.0	20569.1	20366.3	15107.0
57.5°	7462.9	7627.9	8221.9	9596.4	11731.7	14511.2	18616.8	20886.7	22481.9	22218.1	16678.8
60°	5593.1	5765.4	6275.0	7690.7	9779.4	13115.2	18442.7	21751.6	24392.9	24279.9	18252.5
62.5°	3608.5	3798.7	4241.9	5413.7	7516.7	11207.7	17511.4	22228.9	26047.4	25911.0	19400.9
65°	2198.1	2219.6	2463.7	3360.9	5144.5	8677.7	15381.5	21595.5	26919.4	26878.1	19750.8
67.5°	1421.1	1455.3	1566.5	2013.3	3084.6	6027.4	12298.7	19505.0	26409.8	26395.4	19027.7
70°	1200.4	1211.2	1261.5	1358.3	1792.6	3655.2	8636.4	16172.8	24473.7	24473.7	17289.0
72.5°	1073.0	1087.4	1105.4	1135.8	1279.4	2070.7	5153.5	12589.4	21130.7	21270.7	14715.8
75°	974.4	970.8	981.6	986.9	1091.0	1352.9	2664.6	9311.0	16346.8	16066.9	10656.9
77.5°	834.4	839.8	834.4	857.7	963.6	1030.0	1352.9	6248.0	9906.8	9544.4	5349.1
80°	685.4	694.4	703.4	717.8	823.6	782.4	812.8	2847.7	3664.1	3587.0	1652.6
82.5°	515.0	527.6	541.9	576.0	647.8	516.8	513.2	1216.6	1322.5	1211.2	608.3
85°	208.1	245.9	371.5	405.5	407.3	283.5	315.8	507.8	540.1	527.6	238.7
87.5°	48.5	57.4	120.2	181.3	166.9	105.9	116.7	165.1	188.4	174.1	80.7
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°	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8	3073.8
2.5°	3134.8	3072.0	2964.4	2881.8	2822.6	2770.6	2738.2	2718.5	2711.3	2709.5	2711.3
5°	3240.7	3129.4	2959.0	2851.3	2792.1	2758.0	2738.2	2736.4	2738.2	2740.0	2734.6
7.5°	3386.0	3226.3	3003.8	2903.3	2858.4	2833.4	2824.4	2820.8	2822.6	2820.8	2820.8
10°	3579.8	3360.9	3091.8	2987.7	2950.0	2921.3	2906.9	2898.0	2890.8	2883.6	2880.0
12.5°	3793.3	3509.8	3186.8	3086.4	3032.5	2987.7	2955.4	2932.0	2915.9	2899.8	2896.2
15°	4032.0	3667.7	3292.7	3152.7	3075.5	3009.2	2953.6	2915.9	2887.2	2863.8	2862.0
17.5°	4259.9	3816.7	3364.5	3183.2	3070.2	2976.9	2903.3	2851.3	2815.4	2784.9	2781.3
20°	4503.9	3958.5	3396.8	3163.5	3016.4	2903.3	2806.4	2743.6	2702.4	2668.2	2662.9
22.5°	4749.8	4078.6	3393.2	3100.7	2923.1	2790.3	2688.0	2621.6	2573.2	2539.0	2526.5
25°	4984.8	4175.5	3348.3	3000.2	2793.8	2655.7	2551.6	2490.6	2447.6	2406.2	2406.2
27.5°	5196.5	4233.0	3264.0	2878.2	2661.1	2515.7	2433.2	2377.6	2338.1	2311.2	2295.1
30°	5404.7	4259.9	3149.1	2723.9	2521.1	2397.3	2330.9	2298.6	2262.7	2232.3	2228.7
32.5°	5591.3	4254.5	3005.6	2573.2	2388.3	2300.4	2273.5	2248.4	2210.7	2167.7	2156.9
35°	5772.5	4218.6	2835.2	2408.0	2277.0	2243.0	2250.2	2214.2	2146.1	2092.3	2083.2
37.5°	5969.9	4154.0	2648.5	2273.5	2183.8	2216.0	2234.0	2155.1	2043.8	1959.5	1939.7
40°	6197.8	4080.4	2454.7	2138.9	2110.2	2190.9	2190.9	2045.6	1893.1	1841.1	1826.7
42.5°	6465.2	4019.5	2293.3	2025.9	2049.2	2129.9	2121.0	1900.3	1837.5	1810.5	1803.3
45°	6888.7	3997.9	2126.3	1927.2	1998.9	2058.2	1984.6	1850.0	1814.1	1792.6	1785.4
47.5°	7558.0	4023.1	1979.2	1853.6	1941.5	1986.4	1832.1	1815.9	1790.8	1760.3	1756.7
50°	8178.8	3999.7	1875.1	1812.3	1891.3	1900.3	1769.3	1774.7	1760.3	1726.2	1719.0
52.5°	8686.6	3926.1	1808.7	1790.8	1848.2	1749.5	1710.1	1729.8	1724.4	1681.3	1674.1
55°	9244.6	3881.3	1776.5	1790.8	1819.5	1618.5	1654.4	1683.1	1675.9	1645.5	1643.7
57.5°	9921.2	3890.3	1753.1	1796.2	1790.8	1552.1	1598.8	1632.9	1631.1	1622.1	1622.1
60°	10613.8	3893.9	1717.2	1794.4	1756.7	1500.1	1541.4	1589.8	1593.4	1598.8	1598.8
62.5°	10843.5	3737.7	1647.3	1762.1	1681.3	1449.9	1487.5	1553.9	1550.3	1564.7	1566.5
65°	10414.6	3305.3	1543.1	1688.5	1584.5	1413.9	1446.3	1507.3	1487.5	1525.2	1532.4
67.5°	9479.8	2734.6	1381.7	1555.7	1476.8	1376.3	1419.3	1442.7	1406.8	1480.3	1482.1
70°	8193.2	2135.3	1177.1	1367.4	1354.7	1336.8	1397.8	1362.0	1311.7	1401.4	1383.5
72.5°	6850.9	1631.1	940.2	1117.9	1191.5	1277.6	1360.1	1257.9	1187.9	1214.8	1182.5
75°	5146.3	1205.8	755.4	875.6	992.3	1193.3	1326.1	1132.3	1024.6	999.5	992.3
77.5°	2623.4	787.7	565.2	655.0	744.6	1078.4	1279.4	985.1	848.8	809.2	791.3
80°	936.7	489.8	398.4	452.2	502.5	927.7	1117.9	814.6	658.5	651.4	658.5
82.5°	434.3	315.8	267.4	296.1	297.9	619.0	852.3	608.3	500.7	760.8	642.4
85°	186.6	157.9	150.7	147.1	136.4	276.3	479.1	326.6	509.6	227.9	209.9
87.5°	55.6	62.8	55.6	41.3	30.5	30.5	48.5	17.9	12.5	9.0	9.0
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)