

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: P302906

Luminaire Tested: **GLNA-AF-05-LED-E1-T4W-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302906
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-T4W-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16851.6 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

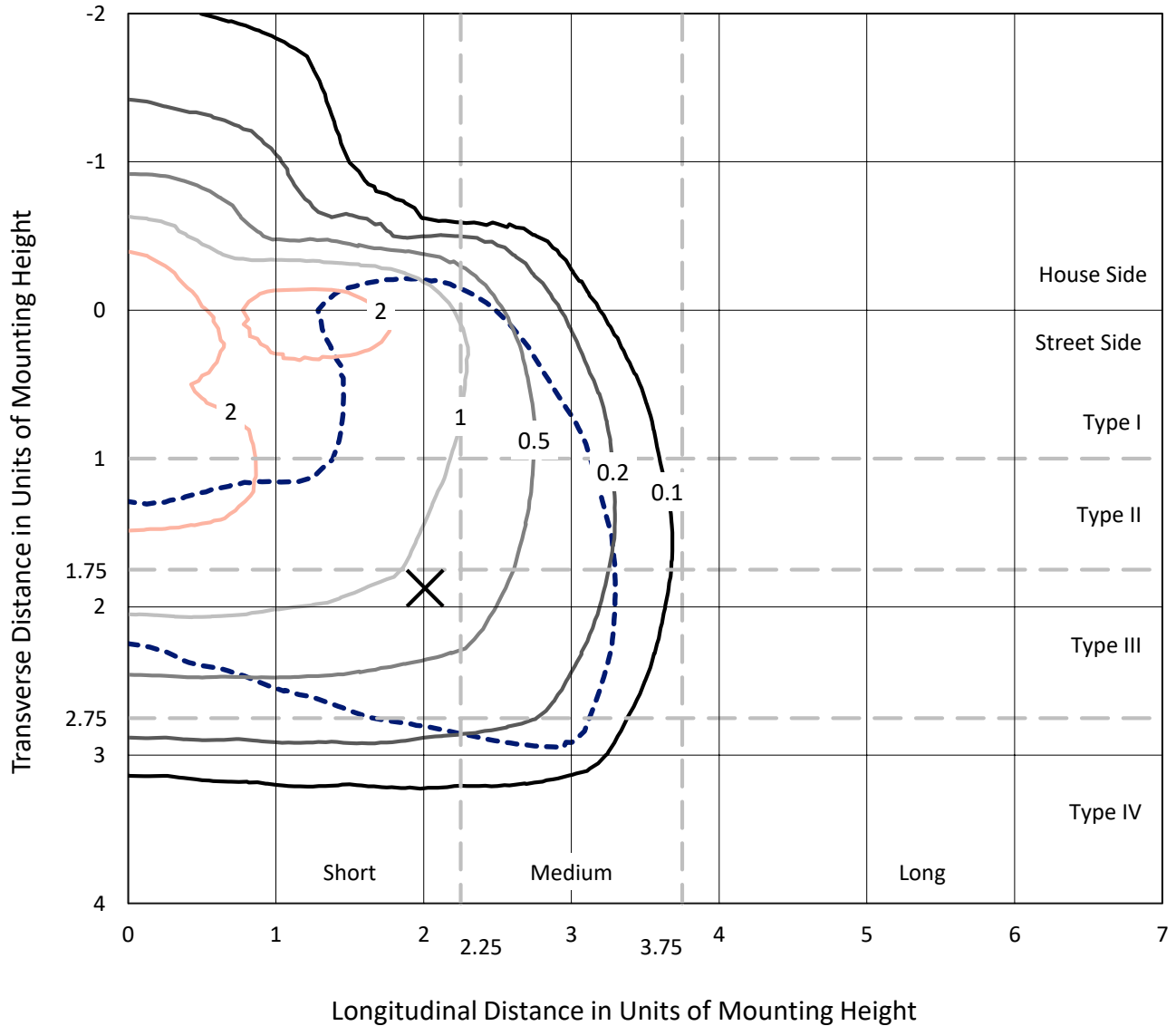
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

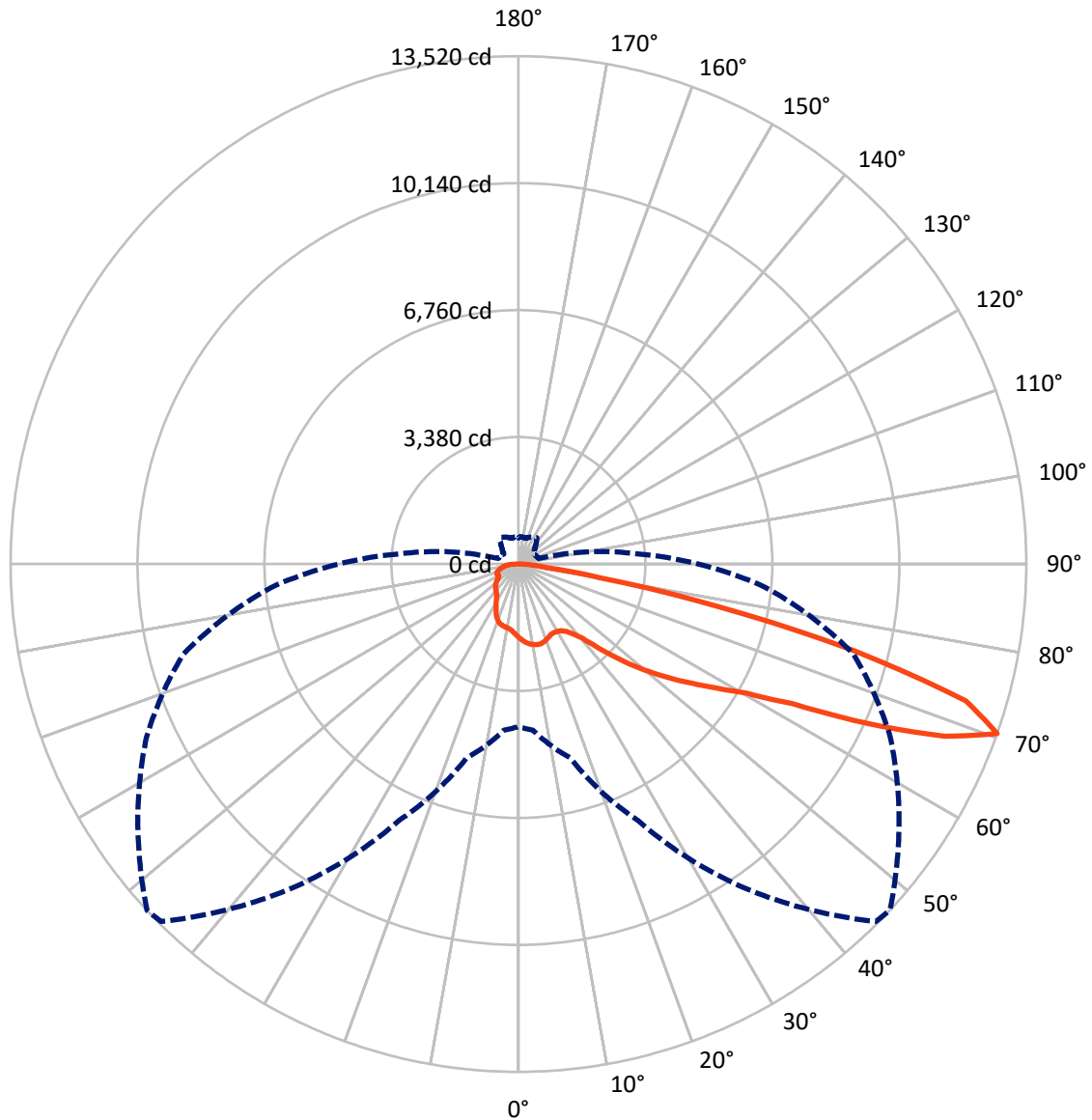
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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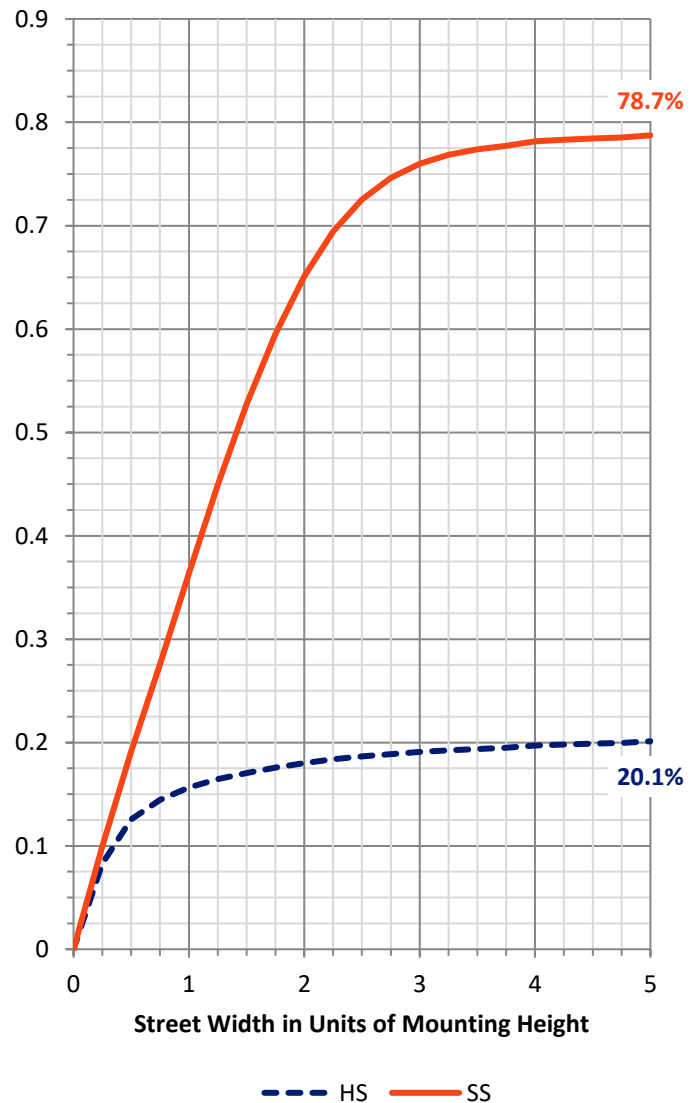
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3515.6	0.0	3515.6
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	13336.0	0.0	13336.0
	% Fixture	79.1	0.0	79.1
Total	Lumens	16851.6	0.0	16851.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.3	1.1
10°-20°	549.6	3.3
20°-30°	811.7	4.8
30°-40°	1179.7	7.0
40°-50°	2123.1	12.6
50°-60°	3678.1	21.8
60°-70°	5249.7	31.2
70°-80°	2694.9	16.0
80°-90°	377.3	2.2
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°	16851.6	100.0
0°-180°	16851.6	100.0



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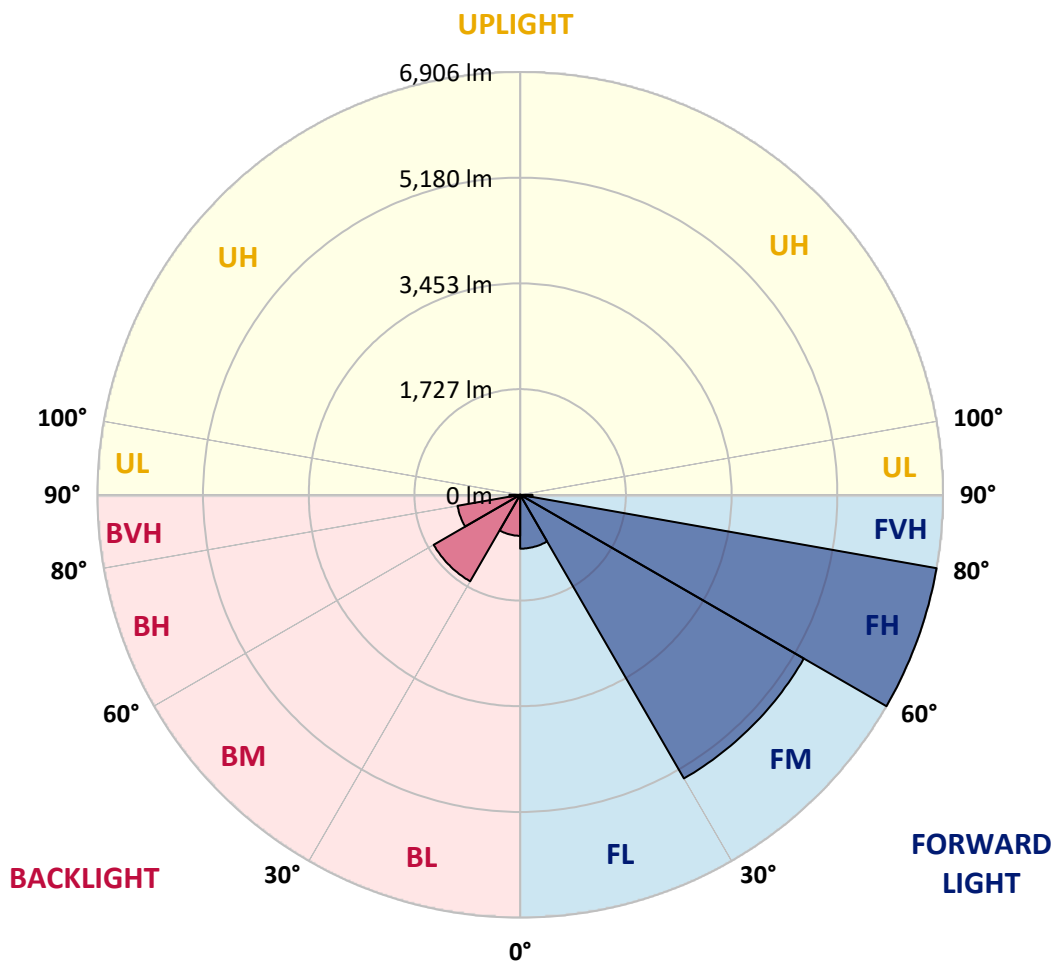
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	879.3	5.2			
FM (30°-60°)	5349.2	31.7			
FH (60°-80°)	6906.2	41.0			G3/7500
FVH (80°-90°)	201.3	1.2			G2/225
BL (0°-30°)	669.4	4.0	B2/1000		
BM (30°-60°)	1631.8	9.7	B2/2500		
BH (60°-80°)	1038.4	6.2	B3/2500		G3/2500
BVH (80°-90°)	176.0	1.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3
2.5°	2070.2	2066.1	2064.4	2061.2	2057.1	2036.4	2032.3	2017.6	1997.2	1975.7	1953.6
5°	2206.3	2205.5	2196.2	2179.9	2153.8	2108.6	2097.9	2062.0	2013.5	1966.7	1920.1
7.5°	2325.8	2318.5	2301.3	2268.4	2222.6	2161.1	2146.4	2096.3	2029.9	1965.9	1902.7
10°	2413.5	2409.4	2371.9	2326.7	2266.8	2198.7	2181.5	2125.7	2052.7	1971.6	1892.9
12.5°	2463.6	2455.4	2411.9	2358.0	2286.6	2220.2	2202.8	2146.4	2064.4	1971.6	1879.0
15°	2460.3	2454.6	2411.1	2352.0	2280.1	2221.8	2206.3	2149.7	2062.0	1963.4	1861.1
17.5°	2394.7	2397.2	2360.4	2302.1	2243.1	2198.7	2184.8	2132.5	2045.4	1947.1	1839.8
20°	2280.1	2291.5	2266.8	2215.3	2182.3	2152.1	2143.1	2098.8	2020.1	1923.4	1816.7
22.5°	2165.2	2175.8	2166.0	2122.4	2117.5	2099.6	2094.7	2062.8	1998.0	1908.7	1802.8
25°	2080.8	2090.6	2089.0	2051.1	2066.1	2065.3	2061.2	2045.4	1993.1	1908.7	1805.2
27.5°	2057.9	2061.2	2057.9	2023.3	2043.8	2060.4	2057.1	2054.4	2007.8	1932.4	1836.5
30°	2136.6	2131.7	2106.1	2036.4	2055.5	2078.3	2075.1	2076.7	2051.9	1994.7	1906.3
32.5°	2450.5	2428.2	2347.9	2152.1	2102.0	2114.3	2115.9	2143.1	2147.2	2090.6	2014.3
35°	2920.2	2895.7	2791.4	2462.0	2247.1	2204.7	2204.7	2245.5	2270.0	2228.4	2182.3
37.5°	3418.0	3390.7	3335.2	2891.6	2552.1	2361.2	2357.2	2385.7	2420.9	2430.9	2442.4
40°	3983.5	3954.9	3970.4	3373.6	2977.7	2632.4	2574.2	2553.7	2648.8	2711.9	2804.0
42.5°	4602.7	4589.3	4595.0	3910.5	3462.1	3038.4	2955.6	2849.7	2964.6	3076.8	3269.6
45°	5175.5	5187.0	5181.3	4485.3	4001.7	3533.4	3445.7	3240.7	3353.2	3545.7	3859.9
47.5°	5677.4	5629.7	5703.5	5113.2	4605.9	4087.8	3979.4	3704.9	3818.8	4056.5	4587.7
50°	6286.5	6279.9	6171.8	5951.3	5336.2	4644.3	4502.5	4184.4	4361.4	4692.0	5505.3
52.5°	6926.9	6807.9	6708.8	6602.9	6111.1	5215.0	5041.0	4662.3	4999.4	5414.9	6623.5
55°	7057.8	7004.7	7127.5	7305.6	6858.0	5807.8	5605.2	5261.6	5717.7	6241.5	7913.1
57.5°	7338.3	7337.5	7591.8	7909.0	7626.9	6436.5	6232.3	5985.6	6525.0	7188.3	9282.1
60°	7527.8	7580.9	8053.3	8668.9	8381.9	7162.9	6975.1	6821.0	7443.4	8246.6	10557.8
62.5°	7626.9	7699.1	8343.6	8977.2	9449.3	8372.1	8184.5	7962.4	8658.3	9407.6	11303.8
65°	7214.7	7356.3	8298.4	9243.7	10384.0	10332.3	10247.9	9857.7	10177.4	10325.0	11034.3
67.5°	6073.3	6218.4	7315.4	8995.1	11051.4	12223.0	12241.0	11574.5	11112.1	10403.6	9277.2
70°	4327.1	4440.9	5348.7	7541.7	10543.1	13458.4	13519.9	12365.4	10925.9	9226.3	6481.7
72.5°	2054.4	2124.1	2983.4	4908.4	8366.4	12331.1	12450.1	11355.5	9290.3	6830.8	3535.9
75°	755.0	776.3	1008.3	2088.1	4852.6	9093.7	9233.9	8140.2	6158.5	3400.8	1347.0
77.5°	452.5	466.4	565.8	881.4	1908.7	5197.9	5405.1	4427.0	2691.5	1265.8	662.5
80°	316.4	326.2	405.7	548.4	901.8	1980.9	2165.2	1806.9	1072.2	801.1	481.9
82.5°	214.0	218.9	285.4	370.6	599.3	707.4	763.2	803.5	723.2	596.0	305.8
85°	140.2	145.1	193.6	244.2	381.2	365.7	373.8	473.0	528.0	404.9	169.6
87.5°	80.3	83.6	116.5	130.4	187.1	154.9	156.6	249.1	337.9	273.1	103.2
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°	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3	1955.3
2.5°	1947.9	1937.3	1913.6	1898.6	1884.7	1881.5	1875.8	1874.9	1874.1	1874.1	1871.7
5°	1904.3	1886.4	1849.6	1828.9	1811.8	1810.1	1809.3	1813.4	1815.0	1816.7	1814.2
7.5°	1876.6	1852.1	1806.1	1776.6	1756.2	1751.0	1759.5	1778.3	1790.5	1795.4	1793.0
10°	1859.4	1828.9	1775.8	1743.7	1726.5	1724.1	1734.7	1757.0	1782.4	1792.2	1791.3
12.5°	1839.8	1805.2	1748.6	1715.1	1705.3	1710.2	1724.1	1744.5	1770.9	1786.4	1787.3
15°	1819.9	1779.9	1721.6	1692.2	1688.2	1694.7	1707.8	1723.3	1743.7	1759.5	1761.1
17.5°	1796.2	1754.3	1696.3	1665.8	1662.6	1665.8	1666.6	1674.8	1688.2	1702.9	1706.9
20°	1770.9	1728.2	1667.5	1637.2	1622.5	1609.5	1594.5	1596.1	1600.2	1615.2	1618.4
22.5°	1752.7	1710.2	1645.4	1603.5	1564.3	1524.8	1495.4	1491.3	1492.9	1505.2	1509.3
25°	1754.3	1709.4	1639.7	1567.5	1481.5	1418.3	1378.8	1372.3	1371.5	1380.5	1386.5
27.5°	1786.4	1741.2	1660.9	1530.5	1391.4	1297.7	1256.0	1251.1	1244.6	1247.1	1253.6
30°	1857.8	1815.9	1712.7	1492.9	1293.6	1179.8	1136.2	1131.3	1122.3	1118.3	1123.2
32.5°	1974.0	1939.7	1788.1	1456.7	1196.1	1078.8	1034.7	1024.1	1018.3	1013.4	1017.5
35°	2167.6	2152.9	1888.8	1417.5	1110.1	1000.9	960.9	944.5	936.4	945.4	951.9
37.5°	2471.0	2479.1	2020.9	1356.0	1043.7	949.4	915.7	896.9	884.6	892.0	899.3
40°	2900.6	2906.3	2166.8	1269.1	986.2	919.0	883.0	865.9	848.4	835.4	834.5
42.5°	3464.5	3406.5	2310.3	1174.9	919.8	900.2	860.1	838.6	812.5	776.3	768.9
45°	4133.5	3929.6	2419.2	1066.5	845.2	877.3	834.5	805.1	764.0	724.8	720.7
47.5°	4904.4	4491.0	2472.6	954.4	775.5	843.5	803.5	756.7	704.9	685.3	682.9
50°	5845.4	5157.6	2497.9	845.2	715.0	799.4	758.3	703.3	660.0	655.9	653.5
52.5°	6917.1	5959.4	2506.4	755.9	664.9	742.0	721.5	668.2	633.6	637.1	637.1
55°	8038.6	6787.5	2394.7	691.1	618.9	682.9	696.8	654.3	625.4	638.8	643.7
57.5°	9068.1	7521.3	2043.8	641.2	575.6	638.0	687.8	667.4	647.8	700.9	704.1
60°	9858.5	7954.7	1526.4	596.0	543.5	622.2	711.7	717.5	722.4	849.2	866.7
62.5°	10024.1	7810.7	1049.4	560.9	528.8	635.5	755.0	755.9	750.1	838.6	849.2
65°	9264.1	6898.0	763.2	541.0	516.5	659.2	792.1	774.6	737.1	804.3	784.4
67.5°	7357.1	5197.1	635.5	526.3	498.5	657.6	831.3	792.1	729.7	788.0	755.9
70°	4775.6	3142.4	565.8	514.1	477.0	626.2	854.2	790.4	708.2	733.0	695.1
72.5°	2329.9	1405.3	519.0	496.1	455.0	583.0	853.3	775.5	686.2	684.5	664.1
75°	911.6	643.7	476.2	468.9	417.4	533.7	830.5	754.2	660.0	633.6	626.2
77.5°	533.7	459.1	422.3	428.8	372.2	484.4	797.0	717.5	623.8	592.8	584.6
80°	388.5	343.6	360.0	370.6	318.0	435.4	751.8	672.3	583.8	599.3	587.9
82.5°	249.1	221.4	291.9	302.5	264.9	385.3	702.5	624.6	527.1	478.7	467.2
85°	127.2	140.2	217.3	230.4	204.2	316.4	642.9	561.7	463.2	398.3	404.9
87.5°	71.3	95.8	138.6	154.9	144.3	243.4	521.4	463.2	377.9	307.4	270.6
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)