

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: P651870

Luminaire Tested: **GALN-SA4A-840-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651870
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4A-840-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15180.9 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

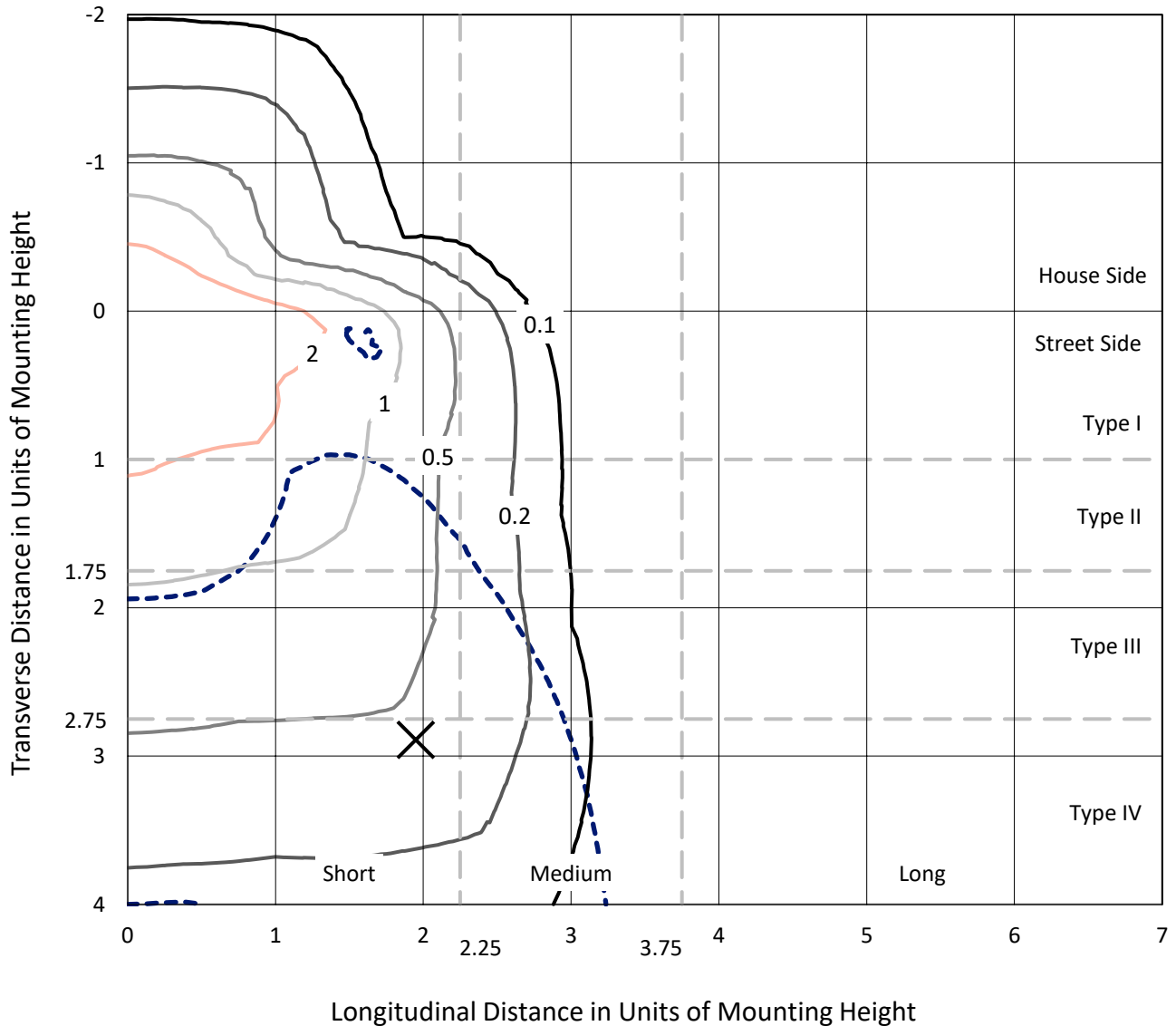
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

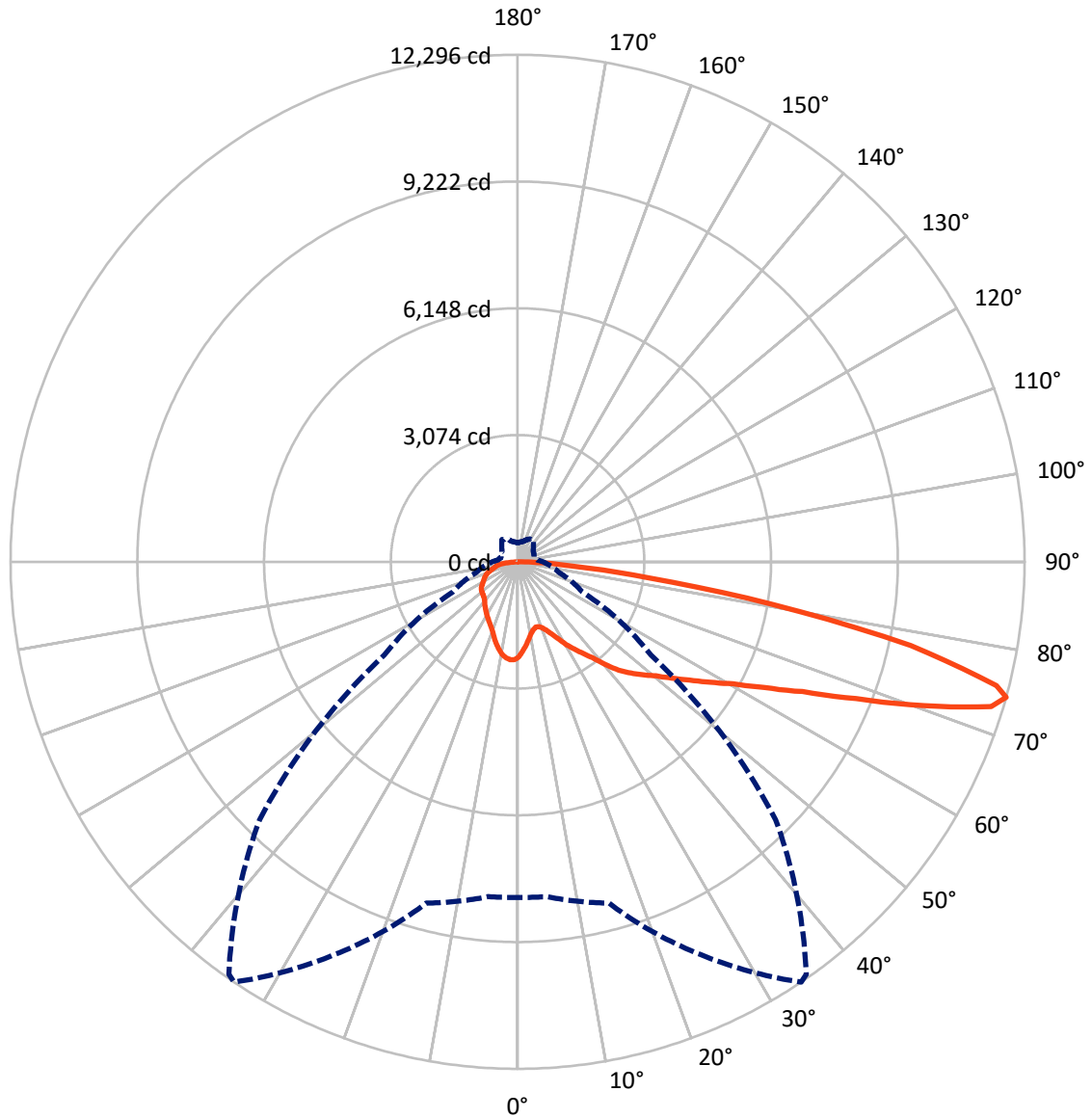
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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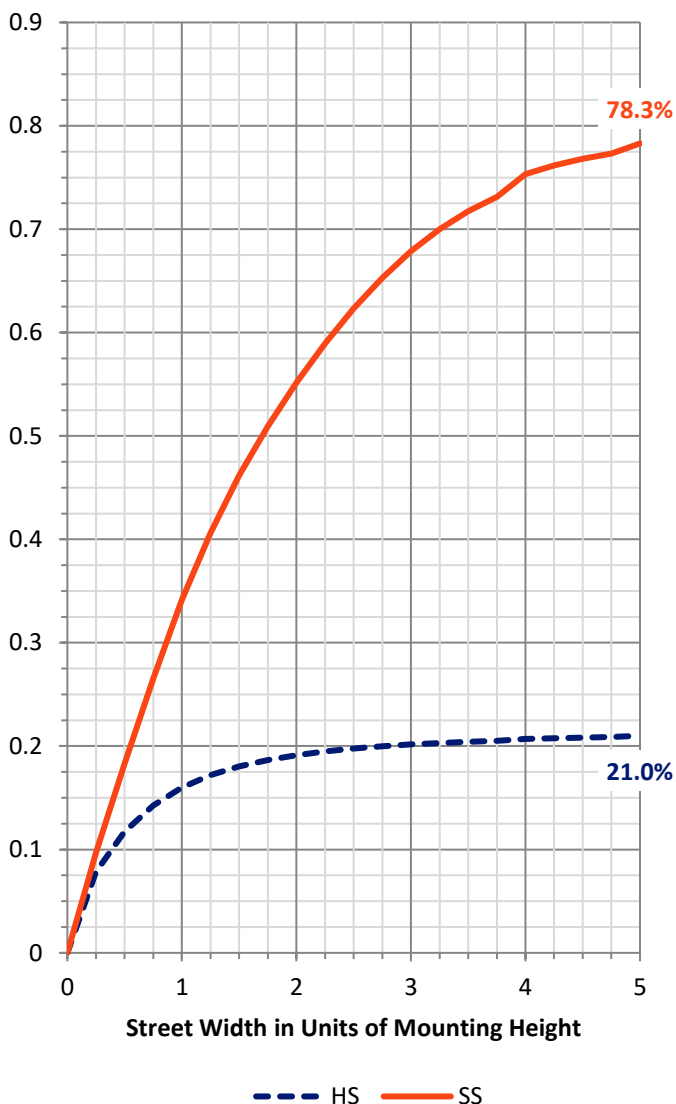
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3230.6	0.0	3230.6
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	11950.3	0.0	11950.3
	% Fixture	78.7	0.0	78.7
Total	Lumens	15180.9	0.0	15180.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.8	1.4
10°-20°	577.0	3.8
20°-30°	951.4	6.3
30°-40°	1425.1	9.4
40°-50°	2071.7	13.6
50°-60°	2893.7	19.1
60°-70°	3622.7	23.9
70°-80°	2995.7	19.7
80°-90°	432.9	2.9
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°	15180.9	100.0
0°-180°	15180.9	100.0

Coefficient of Utilization



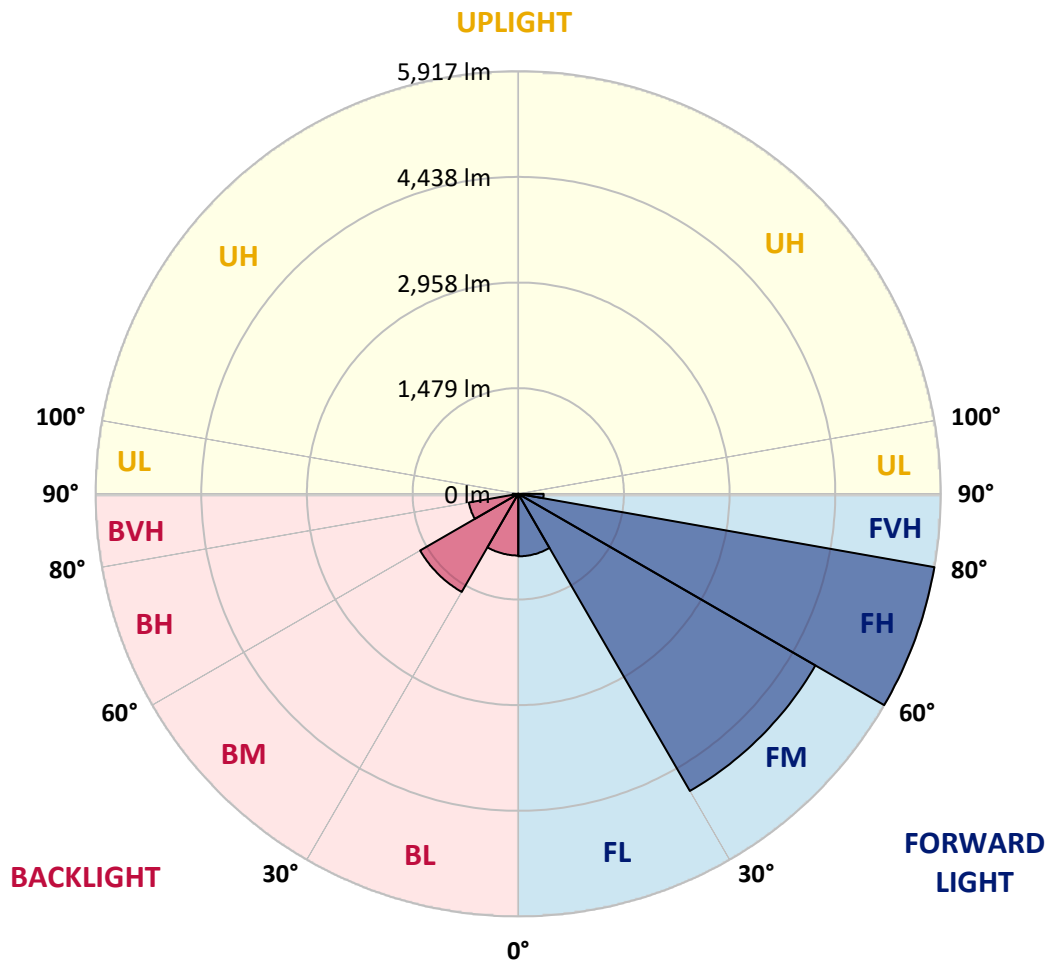
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	875.1	5.8			
FM (30°-60°)	4803.9	31.6			
FH (60°-80°)	5916.7	39.0			G3/7500
FVH (80°-90°)	354.6	2.3			G3/500
BL (0°-30°)	864.1	5.7	B2/1000		
BM (30°-60°)	1586.5	10.5	B2/2500		
BH (60°-80°)	701.7	4.6	B2/1000		G2/1000
BVH (80°-90°)	78.2	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8
2.5°	2142.0	2153.0	2158.8	2179.9	2184.9	2191.6	2209.3	2232.9	2263.1	2290.0	2313.6
5°	1963.7	1980.6	1990.6	2009.1	2045.3	2048.7	2095.8	2149.6	2211.0	2268.2	2315.3
7.5°	1794.7	1813.2	1821.6	1855.2	1903.2	1910.8	1979.7	2064.7	2167.3	2253.9	2326.2
10°	1667.7	1677.0	1695.5	1720.7	1777.9	1782.9	1872.9	1986.4	2119.3	2247.2	2344.7
12.5°	1598.7	1603.8	1608.0	1634.9	1691.3	1698.8	1793.0	1921.7	2081.5	2252.2	2375.0
15°	1608.8	1610.5	1592.0	1597.1	1642.5	1653.4	1746.8	1878.8	2057.9	2264.8	2420.4
17.5°	1693.8	1687.9	1642.5	1618.9	1650.9	1655.9	1737.5	1862.0	2047.0	2288.4	2467.5
20°	1827.5	1819.1	1740.9	1688.7	1707.2	1711.4	1767.8	1874.6	2057.9	2327.0	2540.7
22.5°	1994.0	1990.6	1872.1	1809.0	1808.2	1808.2	1837.6	1920.0	2090.7	2380.0	2617.2
25°	2227.0	2209.3	2054.6	1973.0	1950.3	1948.6	1945.2	1994.9	2132.8	2436.4	2708.0
27.5°	2465.8	2435.5	2297.6	2172.3	2123.5	2117.6	2095.8	2100.8	2186.6	2500.3	2811.5
30°	2680.3	2660.9	2531.4	2392.6	2334.6	2321.2	2260.6	2232.9	2276.6	2615.5	2976.3
32.5°	2844.3	2832.5	2731.6	2605.4	2519.6	2517.1	2428.8	2406.1	2417.0	2755.1	3164.7
35°	2977.1	2981.3	2930.0	2820.7	2722.3	2708.0	2649.2	2620.6	2588.6	2957.0	3401.8
37.5°	3158.8	3168.0	3164.7	3070.5	2950.2	2953.6	2940.1	2893.0	2808.1	3182.3	3665.1
40°	3359.0	3365.7	3364.8	3328.7	3265.6	3269.0	3263.9	3210.1	3083.1	3469.1	3957.8
42.5°	3635.6	3603.7	3520.4	3556.6	3593.6	3609.6	3644.1	3592.8	3418.7	3775.2	4232.8
45°	3945.2	3884.7	3696.2	3713.0	3850.2	3880.5	4070.5	3999.9	3782.9	4126.9	4556.6
47.5°	4140.3	4080.6	3921.7	3918.3	4100.0	4129.4	4465.8	4439.7	4114.3	4506.2	4951.9
50°	4314.4	4306.0	4126.9	4169.8	4347.2	4390.9	4896.4	4872.0	4444.8	4953.6	5382.5
52.5°	4572.6	4504.5	4361.5	4449.8	4684.5	4741.6	5323.6	5252.1	4748.4	5348.8	5800.5
55°	4688.7	4672.7	4664.3	4740.8	5062.9	5104.1	5739.1	5575.1	5007.4	5683.6	6118.4
57.5°	4999.0	4969.6	5052.8	5105.0	5508.6	5571.7	6173.0	5912.3	5234.5	5949.3	6273.1
60°	5401.0	5385.0	5461.5	5555.7	6006.5	6102.4	6667.5	6199.9	5417.0	6083.0	6188.2
62.5°	6001.5	5999.8	5985.5	6187.3	6712.1	6800.4	7235.2	6480.0	5445.6	5983.0	5749.2
65°	6862.6	6832.4	6707.9	6928.2	7590.1	7693.6	7826.4	6636.4	5273.2	5469.1	4840.9
67.5°	7763.4	7761.7	7660.8	7946.7	8850.8	8957.6	8565.7	6601.9	4794.6	4430.5	3438.0
70°	8510.2	8474.0	8602.7	9364.6	10461.3	10584.9	9212.4	6195.7	3819.1	2925.8	2042.8
72.5°	8689.3	8691.0	8958.4	10457.9	12008.0	12027.3	9445.4	5021.7	2555.8	1613.9	1021.8
74°	8137.6	8151.9	8566.5	10512.6	12296.4	12209.0	8849.9	3946.9	1728.3	1053.8	736.7
75°	7427.8	7337.8	7937.4	10148.4	11997.0	11902.8	8152.7	3167.2	1318.7	841.8	645.0
77.5°	3971.3	4063.0	4988.1	7573.3	9746.4	9637.9	5528.0	1518.8	712.3	586.2	464.2
80°	1413.7	1559.2	2191.6	3962.9	6248.7	6282.4	2638.2	696.3	501.2	432.3	328.0
82.5°	576.9	592.9	941.1	1758.5	3173.1	3203.4	1077.3	413.8	358.3	297.7	196.0
85°	225.4	232.1	416.3	790.5	1354.0	1442.3	372.6	218.7	220.3	170.7	100.1
87.5°	75.7	85.8	170.7	263.2	460.0	450.8	108.5	64.8	79.1	74.0	31.1
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°	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8	2317.8
2.5°	2325.4	2341.3	2352.3	2364.1	2375.0	2378.3	2375.8	2383.4	2384.2	2385.1	2385.9
5°	2338.8	2360.7	2381.7	2393.5	2398.5	2394.3	2380.0	2372.5	2365.7	2360.7	2362.4
7.5°	2357.3	2388.4	2407.8	2412.8	2399.4	2380.0	2344.7	2317.0	2299.3	2287.5	2286.7
10°	2385.9	2416.2	2432.2	2417.9	2380.9	2333.8	2278.3	2226.1	2186.6	2174.8	2174.0
12.5°	2422.1	2456.6	2455.7	2413.7	2348.9	2264.8	2174.8	2114.3	2060.4	2033.5	2044.5
15°	2469.2	2495.2	2470.9	2395.2	2292.6	2177.3	2066.3	1983.9	1923.4	1894.8	1896.5
17.5°	2523.8	2546.5	2481.8	2362.4	2213.5	2065.5	1936.8	1858.6	1810.7	1789.6	1788.0
20°	2592.0	2598.7	2481.8	2305.2	2111.8	1935.1	1812.4	1757.7	1730.8	1719.8	1723.2
22.5°	2665.1	2651.7	2468.3	2224.4	1978.0	1798.9	1716.5	1692.1	1678.6	1677.0	1678.6
25°	2747.5	2709.7	2440.6	2115.1	1838.4	1681.2	1633.2	1637.4	1640.0	1640.0	1645.8
27.5°	2848.5	2772.8	2394.3	1977.2	1675.3	1571.8	1558.4	1587.8	1601.3	1603.8	1608.0
30°	2981.3	2841.7	2317.8	1804.8	1536.5	1473.4	1497.0	1536.5	1551.6	1560.9	1559.2
32.5°	3139.5	2917.4	2214.4	1632.4	1424.7	1404.5	1433.1	1473.4	1490.3	1495.3	1488.6
35°	3325.3	3003.2	2078.1	1470.9	1327.1	1338.9	1372.5	1385.1	1400.3	1400.3	1403.6
37.5°	3525.5	3072.2	1911.6	1322.9	1251.4	1294.3	1318.7	1306.9	1300.2	1291.8	1296.0
40°	3729.0	3123.5	1695.5	1176.6	1175.7	1248.0	1254.8	1221.1	1194.2	1185.8	1181.6
42.5°	3906.5	3155.4	1500.3	1063.0	1104.2	1202.6	1207.7	1153.9	1111.0	1085.7	1077.3
45°	4115.9	3192.4	1309.4	968.8	1037.8	1166.5	1179.1	1106.8	1043.7	990.7	977.2
47.5°	4402.7	3276.5	1158.9	895.7	989.9	1143.8	1161.4	1068.1	984.8	915.8	904.9
50°	4726.5	3391.8	1042.0	846.0	952.9	1123.6	1145.4	1028.5	930.1	853.6	845.2
52.5°	5023.4	3454.0	941.1	801.5	916.7	1086.6	1124.4	999.9	876.3	791.4	783.8
55°	5185.7	3353.1	841.8	757.7	867.1	1038.6	1095.0	960.4	824.2	758.6	747.6
57.5°	5207.6	3144.5	751.9	710.6	814.9	979.8	1040.3	912.5	790.5	735.9	726.6
60°	5038.5	2833.3	682.1	672.0	761.9	913.3	978.9	870.4	756.1	710.6	701.4
62.5°	4618.0	2495.2	633.3	636.6	708.1	843.5	933.5	830.1	723.3	682.9	674.5
65°	3894.8	2059.6	586.2	600.5	660.2	788.9	892.3	796.4	690.5	661.9	654.3
67.5°	2705.5	1486.9	547.5	562.6	614.8	733.4	844.4	760.3	653.5	638.3	626.5
70°	1497.8	915.0	502.1	519.7	567.7	671.1	790.5	705.6	599.6	592.9	576.1
72.5°	787.2	582.8	450.8	470.1	503.8	591.2	708.1	645.9	546.6	518.1	496.2
74°	614.8	477.7	416.3	436.5	459.2	544.1	659.3	603.0	508.8	475.2	458.3
75°	535.7	425.5	386.9	412.9	433.1	512.2	621.5	572.7	487.8	455.8	440.7
77.5°	378.4	318.7	316.2	347.3	358.3	449.1	560.1	521.4	434.8	401.2	386.9
80°	265.8	238.8	250.6	270.0	285.1	397.0	519.7	450.8	356.6	317.1	312.0
82.5°	173.2	156.4	179.1	196.8	201.8	292.7	419.7	342.3	259.9	211.1	196.0
85°	79.9	78.2	102.6	100.1	99.2	143.0	248.9	200.2	149.7	111.9	105.1
87.5°	20.2	19.3	25.2	21.0	25.2	21.9	22.7	5.9	0.8	0.0	0.0
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)