

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: STREETWORKS

Report Number: P231162

Luminaire Tested: **ARCH-M-AF48-130-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231162
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-130-D-U-T3
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16519.6 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

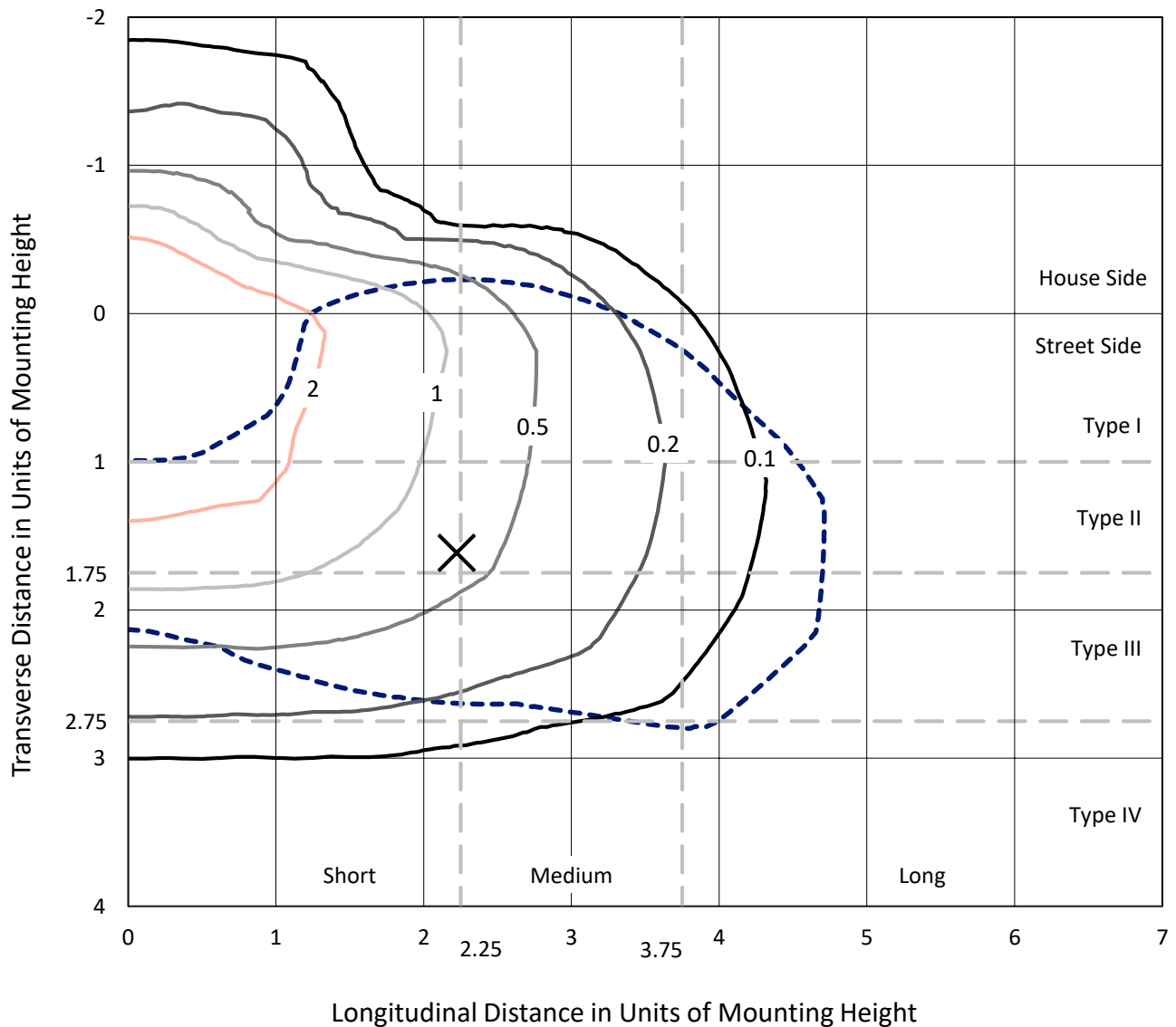
Input Watts (W): 131
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

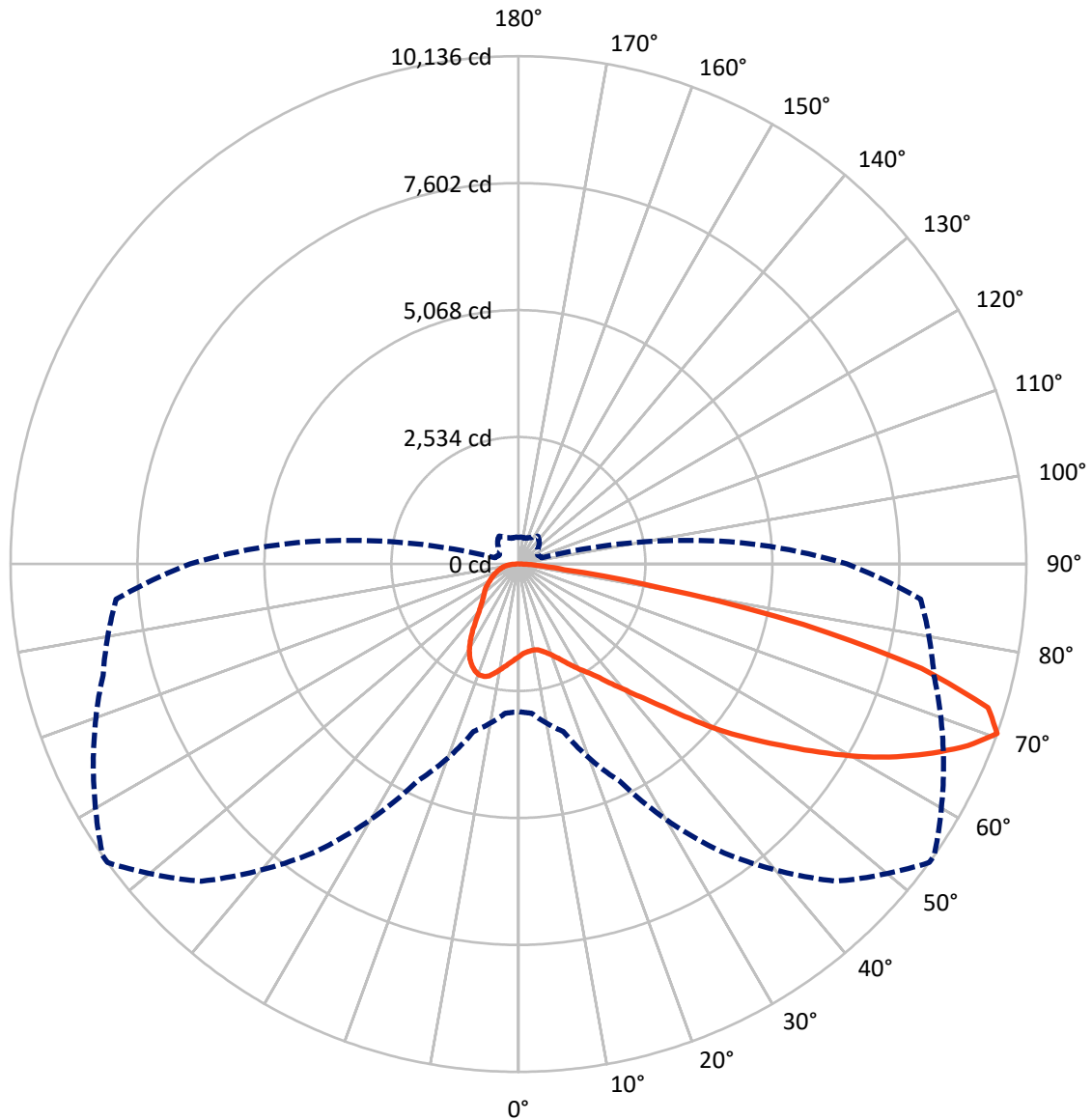


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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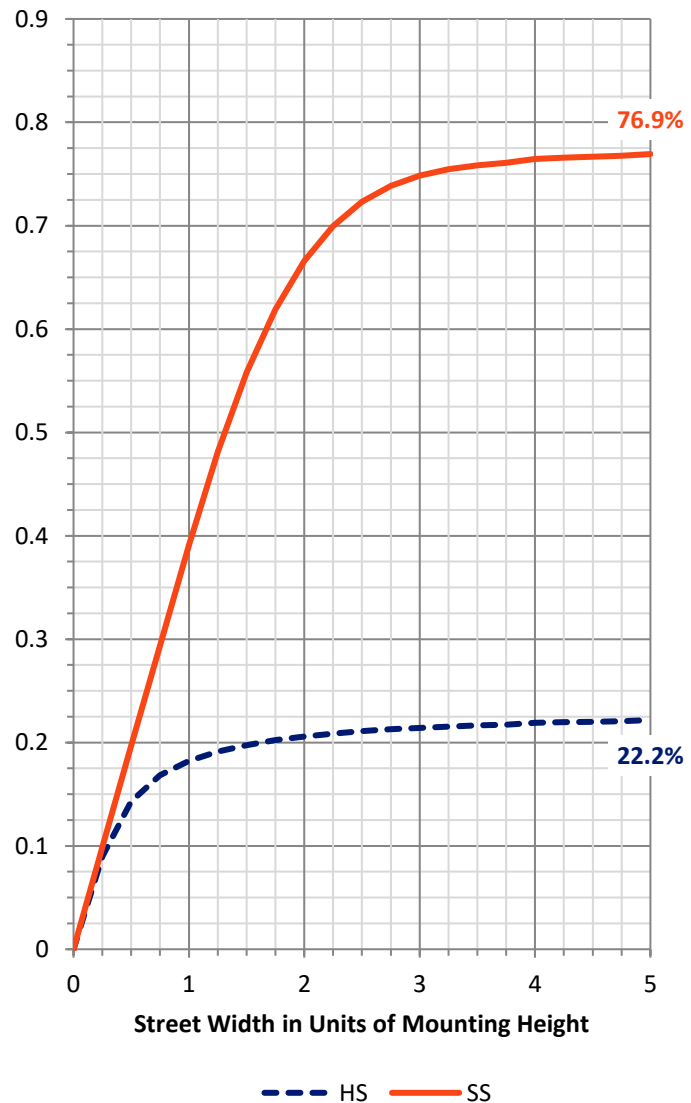
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3746.6	0.0	3746.6
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	12773.0	0.0	12773.0
	% Fixture	77.3	0.0	77.3
Total	Lumens	16519.6	0.0	16519.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.4	1.1
10°-20°	579.6	3.5
20°-30°	1006.9	6.1
30°-40°	1471.4	8.9
40°-50°	2309.4	14.0
50°-60°	3551.3	21.5
60°-70°	4338.8	26.3
70°-80°	2690.1	16.3
80°-90°	390.8	2.4
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°	16519.6	100.0
0°-180°	16519.6	100.0



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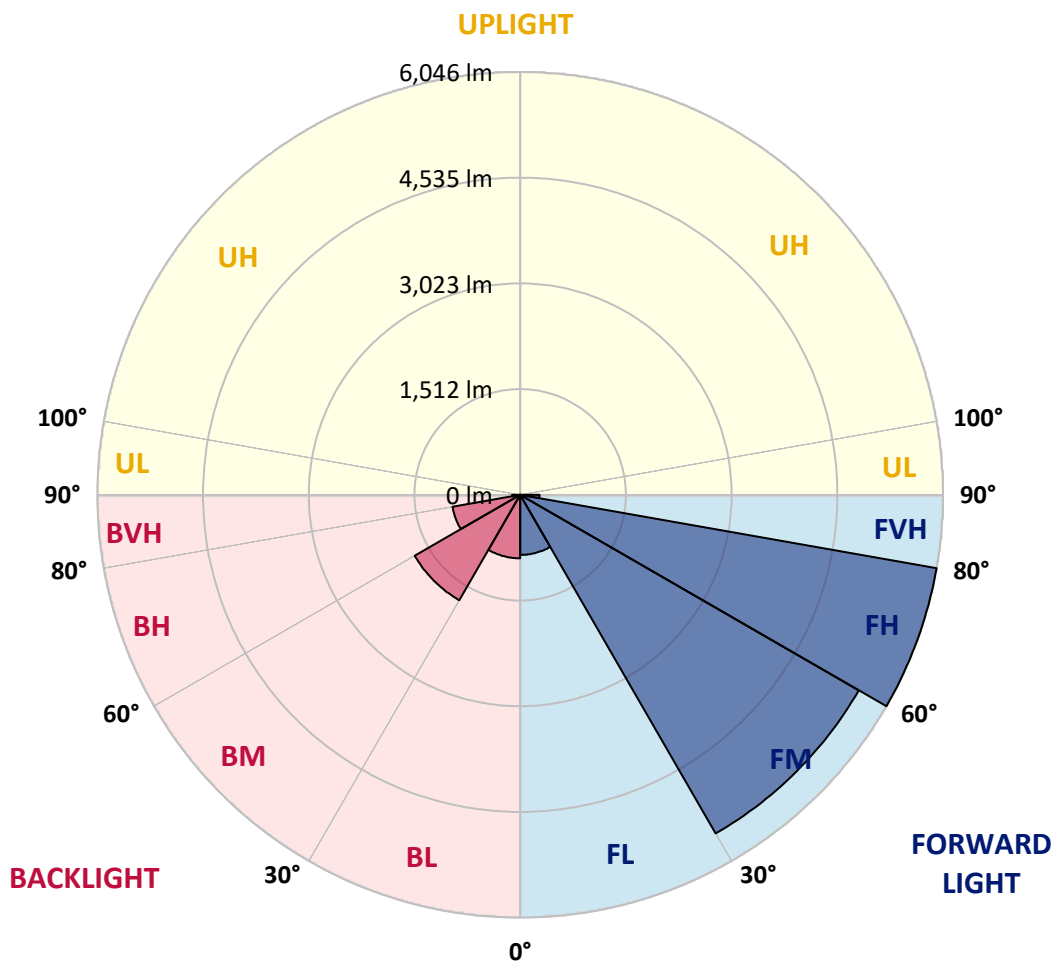
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	859.5	5.2			
FM (30°-60°)	5591.1	33.8			
FH (60°-80°)	6046.4	36.6			G3/7500
FVH (80°-90°)	275.9	1.7			G3/500
BL (0°-30°)	908.3	5.5	B2/1000		
BM (30°-60°)	1741.0	10.5	B2/2500		
BH (60°-80°)	982.5	5.9	B2/1000		G2/1000
BVH (80°-90°)	114.8	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2
2.5°	1775.6	1769.6	1769.6	1778.6	1781.7	1790.8	1790.8	1793.7	1802.8	1818.0	1836.1
5°	1721.2	1718.1	1721.2	1733.3	1739.3	1757.4	1763.6	1766.5	1784.6	1808.9	1836.1
7.5°	1666.7	1663.7	1669.8	1687.9	1706.1	1733.3	1748.4	1751.4	1778.6	1812.0	1848.2
10°	1648.6	1645.5	1654.6	1669.8	1687.9	1718.1	1742.4	1745.4	1784.6	1824.0	1875.5
12.5°	1672.7	1669.8	1678.9	1693.9	1712.1	1733.3	1760.5	1763.6	1814.9	1866.4	1920.8
15°	1733.3	1733.3	1736.3	1745.4	1763.6	1781.7	1805.8	1808.9	1863.3	1923.9	1978.3
17.5°	1827.0	1821.0	1821.0	1818.0	1830.1	1839.2	1869.3	1872.4	1929.9	1984.3	2038.7
20°	1942.0	1939.0	1926.8	1911.7	1908.7	1914.8	1945.0	1948.0	2005.5	2050.9	2102.3
22.5°	2081.1	2084.2	2056.9	2023.7	2008.6	2017.6	2044.9	2047.8	2090.2	2129.6	2174.9
25°	2265.6	2256.5	2217.2	2168.9	2138.6	2138.6	2165.8	2165.8	2205.2	2229.3	2259.6
27.5°	2441.1	2423.0	2386.6	2317.1	2268.7	2277.7	2305.0	2305.0	2341.2	2350.3	2365.5
30°	2631.6	2613.5	2568.1	2480.5	2416.9	2410.9	2444.1	2441.1	2489.5	2486.5	2474.4
32.5°	2864.6	2855.5	2779.9	2668.0	2583.3	2562.1	2592.4	2595.3	2625.6	2616.5	2577.2
35°	3191.3	3188.2	3118.7	2922.1	2810.1	2770.8	2789.0	2789.0	2810.1	2785.9	2719.4
37.5°	3602.6	3608.7	3548.2	3257.8	3100.6	3034.0	3037.0	3034.0	3040.0	3012.8	2943.2
40°	4014.1	4029.2	4026.1	3675.3	3475.6	3360.7	3318.4	3312.3	3327.4	3315.3	3248.8
42.5°	4555.5	4591.8	4507.1	4189.5	3965.7	3772.0	3657.2	3642.0	3675.3	3690.4	3626.9
45°	5118.1	5106.1	4973.0	4743.0	4540.4	4292.3	4074.5	4050.4	4074.5	4119.9	4053.3
47.5°	5411.5	5402.5	5369.2	5254.3	5224.0	4939.6	4609.9	4588.8	4543.4	4607.0	4528.3
50°	5895.6	5904.6	5768.5	5756.3	5883.4	5726.2	5214.9	5166.5	5084.9	5136.2	5069.7
52.5°	6246.4	6207.1	6122.4	6228.2	6624.5	6539.8	5783.6	5762.4	5686.8	5674.7	5644.4
55°	6388.6	6388.6	6403.7	6648.8	7214.4	7102.4	6400.7	6421.9	6319.0	6234.3	6273.7
57.5°	6431.0	6449.1	6579.1	6984.5	7907.1	7541.1	7081.3	7111.6	6963.3	6793.9	6917.9
60°	6222.2	6276.6	6588.2	7175.1	8297.3	8006.9	7798.2	7807.3	7592.5	7344.5	7562.3
62.5°	5686.8	5753.4	6310.0	7253.7	8233.7	8484.9	8475.8	8496.9	8203.6	7895.0	8167.2
65°	5030.4	5097.0	5689.9	7032.9	8185.3	8826.6	9095.9	9153.4	8775.3	8360.8	8545.3
67.5°	4065.5	4153.2	4715.8	6288.8	7949.5	9107.9	9676.6	9737.2	9216.9	8602.8	8512.1
70°	2946.2	2988.6	3460.4	4779.3	6987.5	8953.7	10136.4	10133.5	9362.0	8584.7	8058.3
72.5°	1418.6	1452.0	1860.3	2967.4	4997.1	7598.6	9803.7	9861.1	9162.5	8321.5	7020.8
75°	583.8	617.0	753.2	1252.3	2622.5	5021.4	8309.4	8445.5	8321.5	7468.5	5493.2
77.5°	362.9	375.1	441.6	647.3	1197.9	2344.3	5816.9	6001.4	6594.2	5983.2	3626.9
80°	272.2	281.3	329.7	453.8	756.3	865.1	2888.8	3121.7	3995.9	3433.2	1642.6
82.5°	226.9	229.9	263.2	329.7	514.2	496.1	925.7	1031.4	1863.3	1309.8	565.7
85°	211.8	217.8	235.9	235.9	326.7	311.6	384.1	402.3	541.4	447.6	196.6
87.5°	108.9	102.8	208.7	184.5	169.4	151.3	163.4	175.4	202.6	214.7	87.8
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°	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2	1848.2
2.5°	1842.1	1851.2	1866.4	1881.5	1899.6	1920.8	1932.9	1948.0	1960.2	1954.0	1951.1
5°	1851.2	1866.4	1899.6	1929.9	1966.2	2008.6	2035.8	2066.1	2090.2	2096.2	2087.2
7.5°	1866.4	1893.6	1939.0	1993.4	2041.8	2096.2	2138.6	2180.9	2211.2	2217.2	2217.2
10°	1902.7	1932.9	1993.4	2066.1	2123.4	2180.9	2229.3	2262.7	2289.9	2301.9	2301.9
12.5°	1954.0	1990.4	2063.0	2150.8	2214.2	2268.7	2295.9	2311.1	2323.1	2335.2	2338.3
15°	2014.6	2053.9	2141.6	2235.4	2301.9	2329.2	2329.2	2326.2	2326.2	2332.2	2338.3
17.5°	2075.1	2117.4	2208.1	2308.0	2350.3	2335.2	2314.0	2305.0	2298.9	2295.9	2305.0
20°	2138.6	2180.9	2271.7	2365.5	2353.4	2289.9	2259.6	2238.4	2220.3	2211.2	2223.3
22.5°	2208.1	2247.5	2341.2	2404.8	2314.0	2217.2	2159.8	2126.5	2096.2	2078.1	2090.2
25°	2289.9	2329.2	2419.9	2416.9	2244.5	2108.4	2017.6	1963.1	1929.9	1911.7	1911.7
27.5°	2386.6	2419.9	2507.7	2386.6	2147.7	1963.1	1830.1	1778.6	1769.6	1754.5	1754.5
30°	2486.5	2513.7	2589.3	2317.1	2014.6	1772.6	1627.4	1603.2	1606.2	1591.1	1594.2
32.5°	2589.3	2616.5	2637.7	2214.2	1842.1	1557.9	1461.0	1442.9	1439.8	1427.7	1415.7
35°	2734.6	2773.8	2643.7	2075.1	1633.4	1379.3	1309.8	1291.7	1273.5	1231.1	1231.1
37.5°	2955.3	2997.7	2628.7	1902.7	1418.6	1240.2	1176.7	1152.5	1122.3	1079.9	1064.8
40°	3257.8	3257.8	2595.3	1709.0	1246.3	1128.3	1067.8	1037.6	1004.2	961.9	952.9
42.5°	3614.8	3530.1	2544.0	1512.4	1119.2	1052.6	998.2	964.9	925.7	877.2	871.1
45°	4032.2	3802.3	2471.3	1337.0	1025.4	1007.3	974.1	916.6	850.0	798.6	789.5
47.5°	4437.6	4047.3	2401.8	1213.0	946.8	989.1	961.9	865.1	774.4	701.7	692.7
50°	4882.2	4265.1	2320.1	1110.1	886.3	977.0	946.8	789.5	689.7	638.2	632.2
52.5°	5326.8	4485.9	2232.4	1001.3	834.8	952.9	910.5	735.1	686.6	617.0	608.0
55°	5795.7	4743.0	2129.6	880.2	774.4	904.5	862.1	732.0	707.8	617.0	595.9
57.5°	6252.5	5027.4	1963.1	762.3	707.8	831.9	843.9	713.9	662.5	611.0	586.9
60°	6757.6	5329.9	1687.9	662.5	650.4	771.3	819.8	674.5	611.0	592.9	580.8
62.5°	7163.0	5602.1	1318.9	592.9	601.9	722.9	789.5	650.4	589.8	574.7	571.7
65°	7338.4	5608.1	946.8	532.3	553.5	677.6	759.2	629.2	571.7	565.7	562.6
67.5°	7153.9	5299.6	665.4	475.0	502.2	635.3	720.0	608.0	553.5	556.6	550.6
70°	6557.9	4649.3	487.0	420.4	453.8	589.8	677.6	580.8	532.3	538.5	529.4
72.5°	5487.2	3623.8	390.3	375.1	414.4	541.4	635.3	550.6	499.1	502.2	484.0
75°	4053.3	2401.8	326.7	335.7	369.1	496.1	580.8	511.2	462.8	450.7	438.6
77.5°	2410.9	1234.2	269.2	293.4	329.7	441.6	520.3	462.8	423.5	402.3	393.2
80°	995.2	499.1	220.9	248.1	287.3	393.2	459.8	405.3	378.1	356.9	344.8
82.5°	396.3	245.0	175.4	202.6	242.0	341.8	402.3	356.9	329.7	314.6	281.3
85°	151.3	121.0	117.9	142.2	181.5	263.2	332.8	299.4	278.2	239.0	229.9
87.5°	60.5	54.4	54.4	69.6	102.8	166.3	239.0	208.7	217.8	172.5	175.4
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)