

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: P231307

Luminaire Tested: **ARCH-M-AF48-150-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-150-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17740 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 151
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

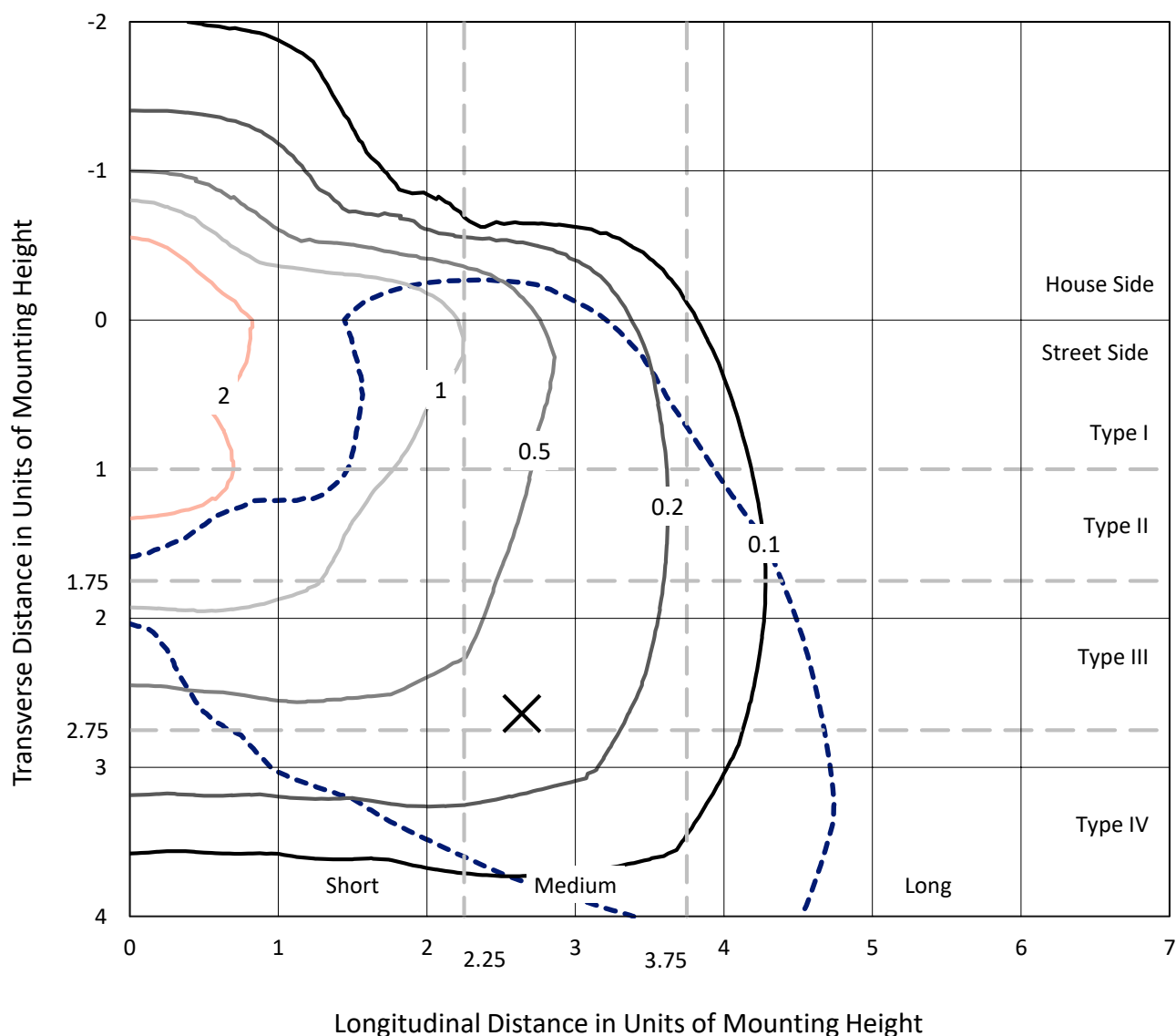


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

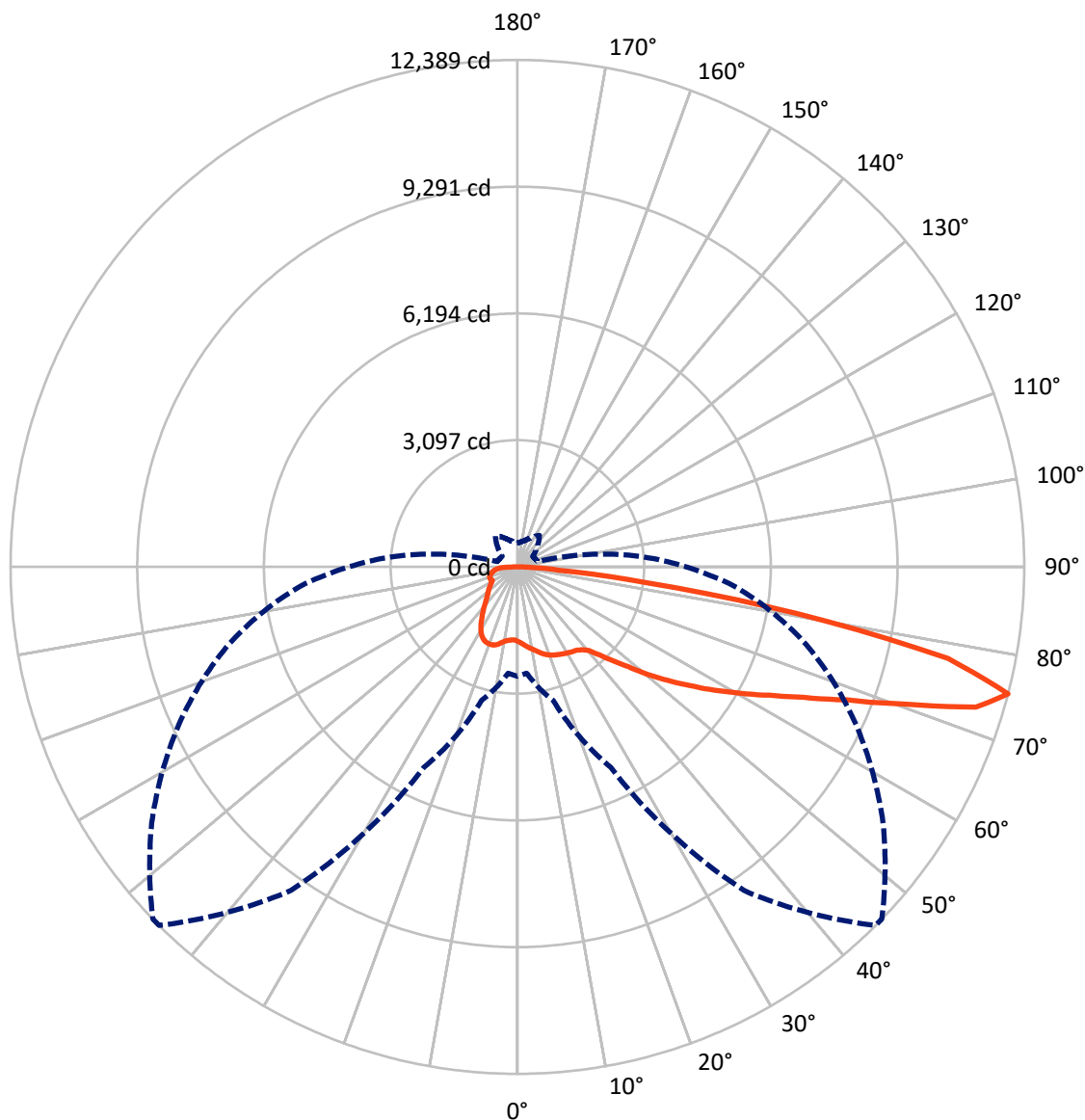


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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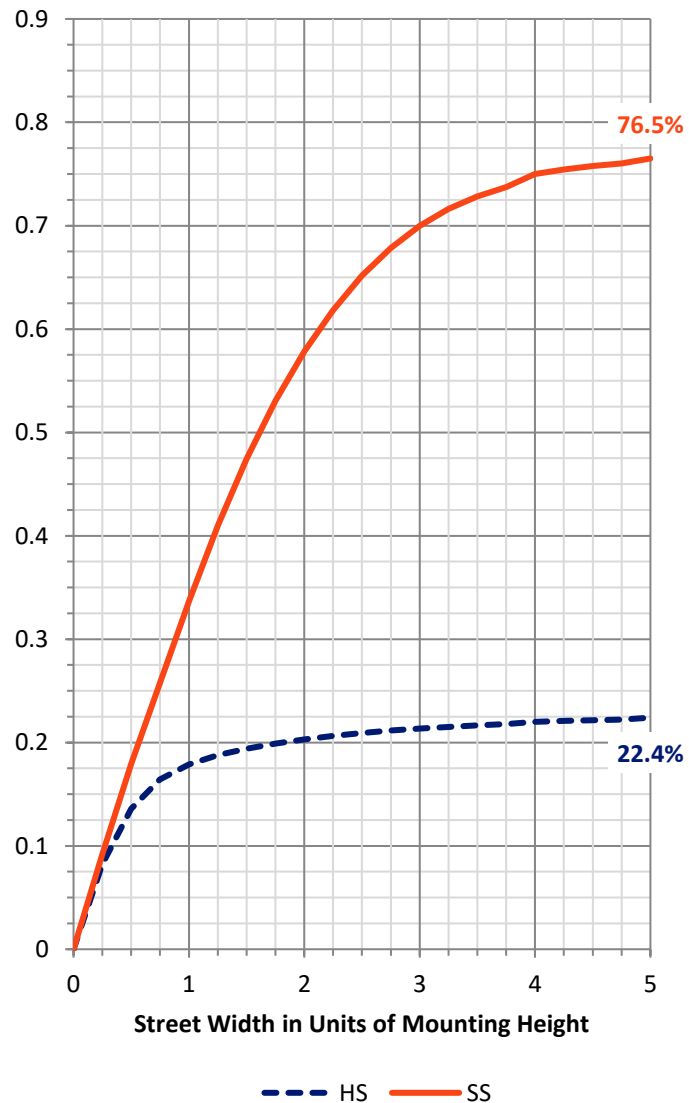
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4109.6	0.0	4109.6
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	13630.4	0.0	13630.4
	% Fixture	76.8	0.0	76.8
Total	Lumens	17740.0	0.0	17740.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.2	1.0
10°-20°	584.0	3.3
20°-30°	1002.2	5.6
30°-40°	1401.7	7.9
40°-50°	2056.1	11.6
50°-60°	3202.9	18.1
60°-70°	4608.7	26.0
70°-80°	4014.7	22.6
80°-90°	689.5	3.9
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°	17740.0	100.0
0°-180°	17740.0	100.0

Coefficient of Utilization



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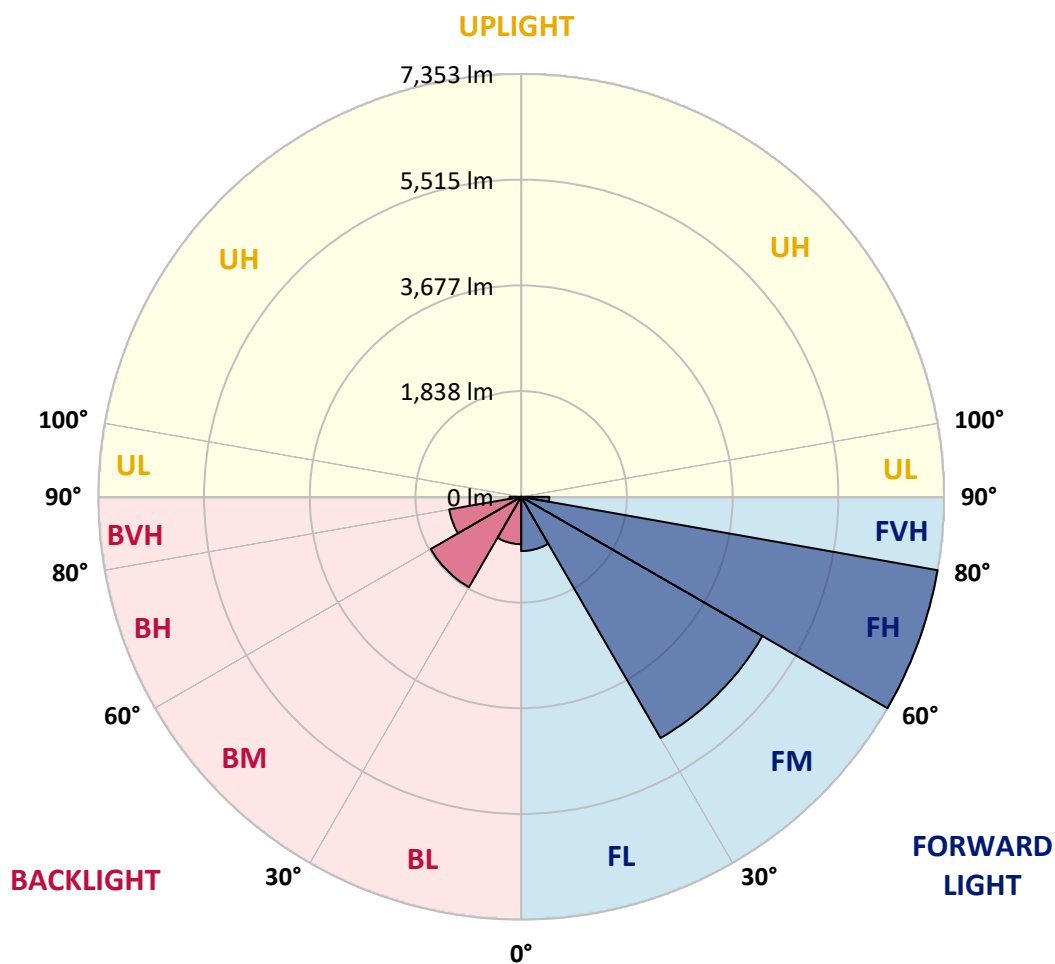
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	943.3	5.3			
FM	(30°-60°)	4844.5	27.3			
FH	(60°-80°)	7353.4	41.5			G3/7500
FVH	(80°-90°)	489.2	2.8			G3/500
BL	(0°-30°)	823.1	4.6	B2/1000		
BM	(30°-60°)	1816.2	10.2	B2/2500		
BH	(60°-80°)	1270.0	7.2	B3/2500		G3/2500
BVH	(80°-90°)	200.3	1.1			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6
2.5°	1908.3	1894.5	1894.5	1884.2	1884.2	1866.9	1860.0	1856.6	1839.3	1829.0	1818.6
5°	2018.8	2001.5	1998.0	1973.9	1963.5	1925.6	1922.1	1898.0	1866.9	1835.9	1811.7
7.5°	2118.8	2108.5	2091.2	2067.1	2036.0	1987.7	1984.2	1946.3	1894.5	1853.1	1818.6
10°	2191.3	2184.4	2160.2	2129.2	2094.7	2046.4	2042.9	2001.5	1939.4	1891.1	1842.8
12.5°	2277.6	2267.2	2236.2	2194.7	2156.8	2111.9	2108.5	2074.0	2004.9	1942.8	1880.7
15°	2360.4	2346.6	2308.6	2267.2	2225.8	2187.8	2187.8	2149.9	2077.4	2004.9	1932.5
17.5°	2401.8	2394.9	2356.9	2312.1	2277.6	2250.0	2246.5	2212.0	2139.5	2063.6	1984.2
20°	2415.6	2419.1	2384.5	2336.2	2312.1	2298.3	2294.8	2270.7	2191.3	2118.8	2042.9
22.5°	2412.1	2422.5	2394.9	2343.1	2336.2	2336.2	2336.2	2308.6	2246.5	2174.0	2098.1
25°	2426.0	2439.8	2419.1	2356.9	2356.9	2370.7	2370.7	2356.9	2301.7	2239.6	2163.7
27.5°	2474.3	2484.6	2467.4	2381.1	2384.5	2405.2	2401.8	2405.2	2370.7	2312.1	2236.2
30°	2532.9	2546.7	2526.0	2419.1	2415.6	2436.3	2436.3	2453.6	2429.4	2367.3	2305.2
32.5°	2691.7	2688.2	2622.7	2460.5	2450.1	2470.8	2470.8	2488.1	2474.3	2426.0	2367.3
35°	3164.4	3112.7	2967.7	2595.0	2491.5	2501.9	2501.9	2532.9	2539.8	2501.9	2450.1
37.5°	3647.6	3630.3	3519.9	2953.9	2643.4	2567.4	2564.0	2608.8	2639.9	2608.8	2574.3
40°	4134.1	4120.3	4096.2	3433.6	2960.8	2684.8	2674.4	2712.4	2767.6	2746.9	2726.2
42.5°	4586.2	4579.3	4603.4	3906.4	3364.6	2936.7	2905.6	2860.8	2940.1	2933.2	2933.2
45°	4941.6	4958.9	4972.7	4348.1	3802.8	3261.1	3223.1	3071.3	3178.2	3205.8	3226.6
47.5°	5141.8	5155.6	5203.9	4779.4	4241.1	3637.2	3609.6	3361.1	3502.6	3585.4	3644.1
50°	5428.2	5390.2	5431.6	5200.4	4769.1	4127.2	4051.3	3751.1	3930.5	4075.5	4213.5
52.5°	5704.3	5642.2	5676.7	5687.0	5369.5	4606.9	4527.5	4210.0	4434.4	4662.1	4907.1
55°	5952.7	5949.3	5983.8	6159.8	5949.3	5121.1	5031.3	4717.3	5041.7	5286.7	5700.8
57.5°	6152.9	6187.4	6339.2	6708.5	6618.7	5680.1	5580.0	5307.4	5690.5	5935.5	6622.2
60°	6387.5	6442.8	6694.7	7174.3	7229.5	6266.8	6163.2	5966.5	6356.5	6604.9	7688.5
62.5°	6466.9	6546.3	7063.9	7664.4	7868.0	6908.6	6815.4	6684.3	7057.0	7281.3	8751.4
65°	5938.9	6090.8	7267.5	7916.3	8554.7	7681.6	7602.2	7488.4	7754.1	7902.5	9472.6
67.5°	5794.0	5863.0	6870.7	8278.6	9200.0	8675.5	8596.1	8399.4	8406.3	8344.2	9707.3
70°	5590.4	5666.3	6463.5	8551.2	10124.8	10035.1	9938.5	9358.7	9003.3	8627.1	9244.8
72.5°	4762.2	4738.0	5569.7	7816.2	10570.0	11719.1	11605.2	10390.5	9445.0	8382.1	7802.4
75°	2674.4	2605.4	3378.4	5407.5	9652.0	12388.6	12385.1	10911.6	9134.4	7302.0	5310.9
77.5°	776.4	755.7	1114.6	2267.2	6498.0	10763.2	10894.4	9841.8	7622.9	5245.3	2916.0
80°	365.8	372.7	479.7	748.8	2774.5	6946.6	7322.7	6480.7	4555.1	2419.1	1204.3
82.5°	231.2	234.7	327.8	483.1	1173.3	3154.1	3464.7	2916.0	1804.8	1045.6	531.4
85°	144.9	144.9	217.4	317.5	700.5	1007.7	1093.9	993.8	773.0	569.4	289.9
87.5°	79.4	79.4	131.1	182.9	383.0	324.4	334.7	396.8	483.1	348.5	144.9
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°	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6	1818.6
2.5°	1815.2	1808.2	1797.9	1794.4	1791.0	1787.5	1791.0	1797.9	1791.0	1791.0	1794.4
5°	1804.8	1797.9	1784.1	1784.1	1787.5	1791.0	1808.2	1818.6	1822.1	1822.1	1822.1
7.5°	1804.8	1794.4	1784.1	1787.5	1794.4	1808.2	1835.9	1853.1	1866.9	1870.4	1870.4
10°	1822.1	1808.2	1801.3	1808.2	1829.0	1839.3	1866.9	1894.5	1911.8	1918.7	1918.7
12.5°	1853.1	1839.3	1839.3	1853.1	1880.7	1894.5	1918.7	1939.4	1960.1	1970.4	1970.4
15°	1904.9	1887.6	1891.1	1915.2	1946.3	1960.1	1977.3	1984.2	2001.5	2015.3	2015.3
17.5°	1953.2	1935.9	1942.8	1970.4	1991.1	1998.0	2008.4	2004.9	2011.8	2022.2	2025.7
20°	2008.4	1991.1	1994.6	2011.8	2015.3	2008.4	2008.4	1998.0	1994.6	2011.8	2018.8
22.5°	2063.6	2046.4	2042.9	2032.6	2015.3	1998.0	1987.7	1977.3	1970.4	1987.7	1994.6
25°	2129.2	2105.0	2087.8	2042.9	1998.0	1967.0	1953.2	1946.3	1942.8	1960.1	1967.0
27.5°	2201.6	2177.5	2125.7	2029.1	1956.6	1904.9	1894.5	1894.5	1901.4	1911.8	1918.7
30°	2270.7	2246.5	2153.3	1998.0	1884.2	1808.2	1797.9	1808.2	1825.5	1835.9	1846.2
32.5°	2339.7	2315.5	2170.6	1949.7	1777.2	1680.6	1673.7	1690.9	1718.5	1725.4	1732.3
35°	2432.9	2408.7	2191.3	1880.7	1642.6	1539.1	1532.2	1542.5	1566.7	1577.0	1587.4
37.5°	2564.0	2550.2	2222.4	1804.8	1518.4	1404.5	1383.8	1376.9	1390.7	1387.2	1401.0
40°	2736.5	2746.9	2277.6	1704.7	1397.6	1280.3	1235.4	1214.7	1200.9	1173.3	1187.1
42.5°	2988.4	2995.3	2339.7	1590.8	1294.1	1162.9	1104.3	1066.3	1038.7	993.8	1000.7
45°	3357.7	3299.0	2412.1	1470.1	1200.9	1069.8	1000.7	955.9	917.9	880.0	883.4
47.5°	3847.7	3668.3	2491.5	1370.0	1107.7	993.8	931.7	880.0	835.1	804.0	807.5
50°	4451.6	4127.2	2570.9	1276.8	1014.6	935.2	880.0	824.8	779.9	748.8	745.4
52.5°	5248.8	4679.4	2622.7	1173.3	921.4	883.4	835.1	783.3	728.1	690.2	686.7
55°	6077.0	5321.2	2667.5	1049.1	831.7	824.8	800.6	741.9	676.4	628.1	621.2
57.5°	6988.0	6007.9	2702.0	928.3	762.6	776.4	769.5	700.5	628.1	583.2	579.7
60°	7816.2	6718.8	2591.6	821.3	700.5	728.1	735.0	676.4	638.4	648.8	652.2
62.5°	8651.3	7267.5	2170.6	741.9	659.1	697.1	755.7	752.3	735.0	752.3	755.7
65°	8951.5	7381.4	1539.1	676.4	617.7	710.9	821.3	814.4	735.0	704.0	697.1
67.5°	8782.4	7043.2	1035.3	624.6	586.6	728.1	890.3	814.4	707.4	666.0	652.2
70°	7978.4	6211.5	759.2	572.8	559.0	724.7	928.3	811.0	693.6	648.8	631.5
72.5°	6363.4	4793.2	610.8	524.5	517.6	707.4	949.0	804.0	679.8	631.5	610.8
75°	4120.3	2981.5	514.2	476.2	455.5	679.8	938.6	783.3	662.6	600.4	586.6
77.5°	1911.8	1283.7	438.3	421.0	396.8	638.4	907.6	741.9	624.6	565.9	548.7
80°	890.3	607.4	369.2	365.8	355.4	603.9	866.2	693.6	579.7	531.4	503.8
82.5°	476.2	365.8	300.2	300.2	310.6	562.5	814.4	635.0	521.1	496.9	424.5
85°	251.9	210.5	217.4	234.7	265.7	496.9	745.4	572.8	455.5	379.6	369.2
87.5°	127.7	134.6	134.6	158.7	203.6	403.8	614.3	472.8	386.5	310.6	303.7
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)