

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: P231174

Luminaire Tested: **ARCH-M-AF48-120-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231174
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-AF48-120-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15286 lumens
Efficiency: N/A
Efficacy: 125.3 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): 122
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



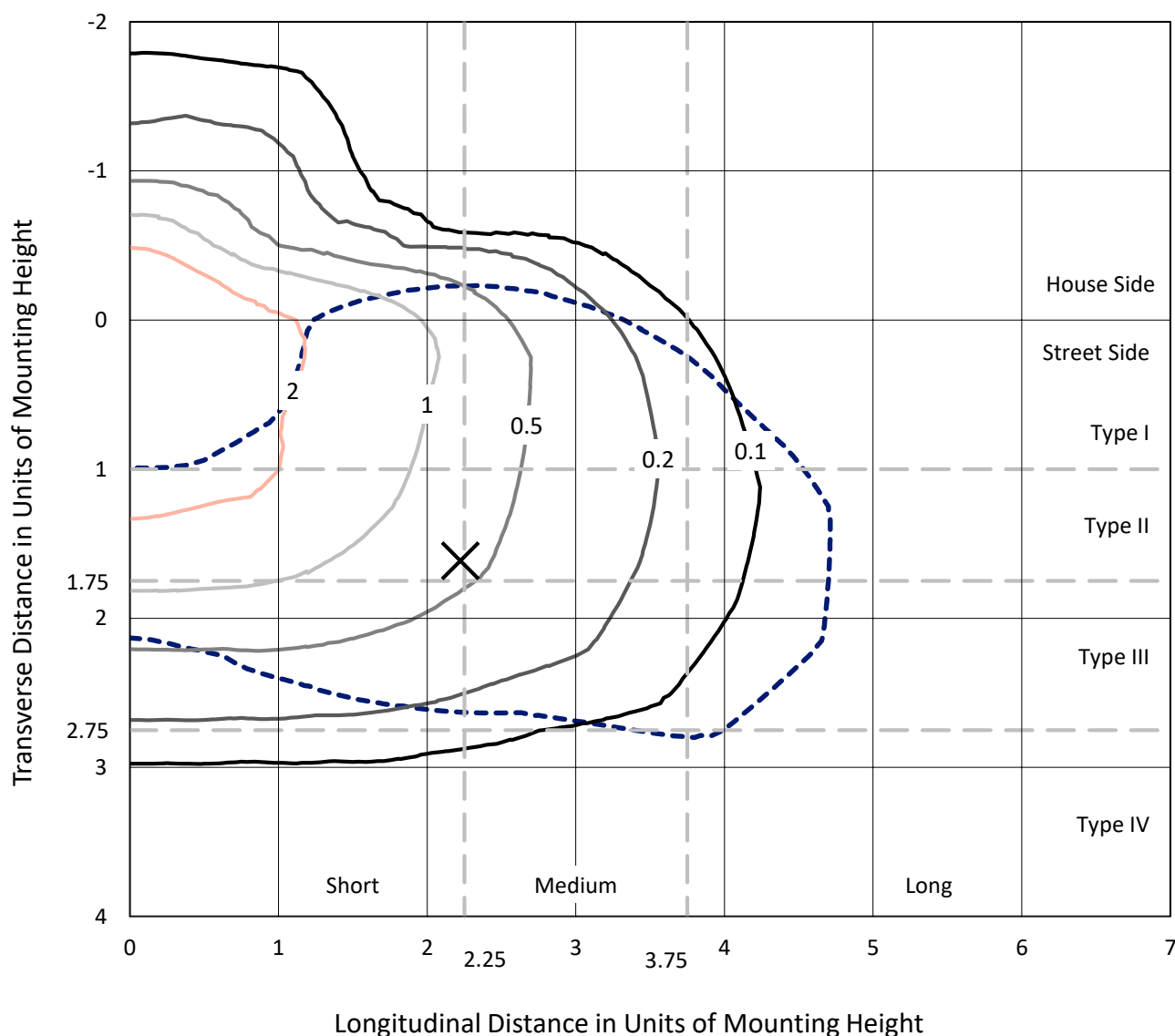
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

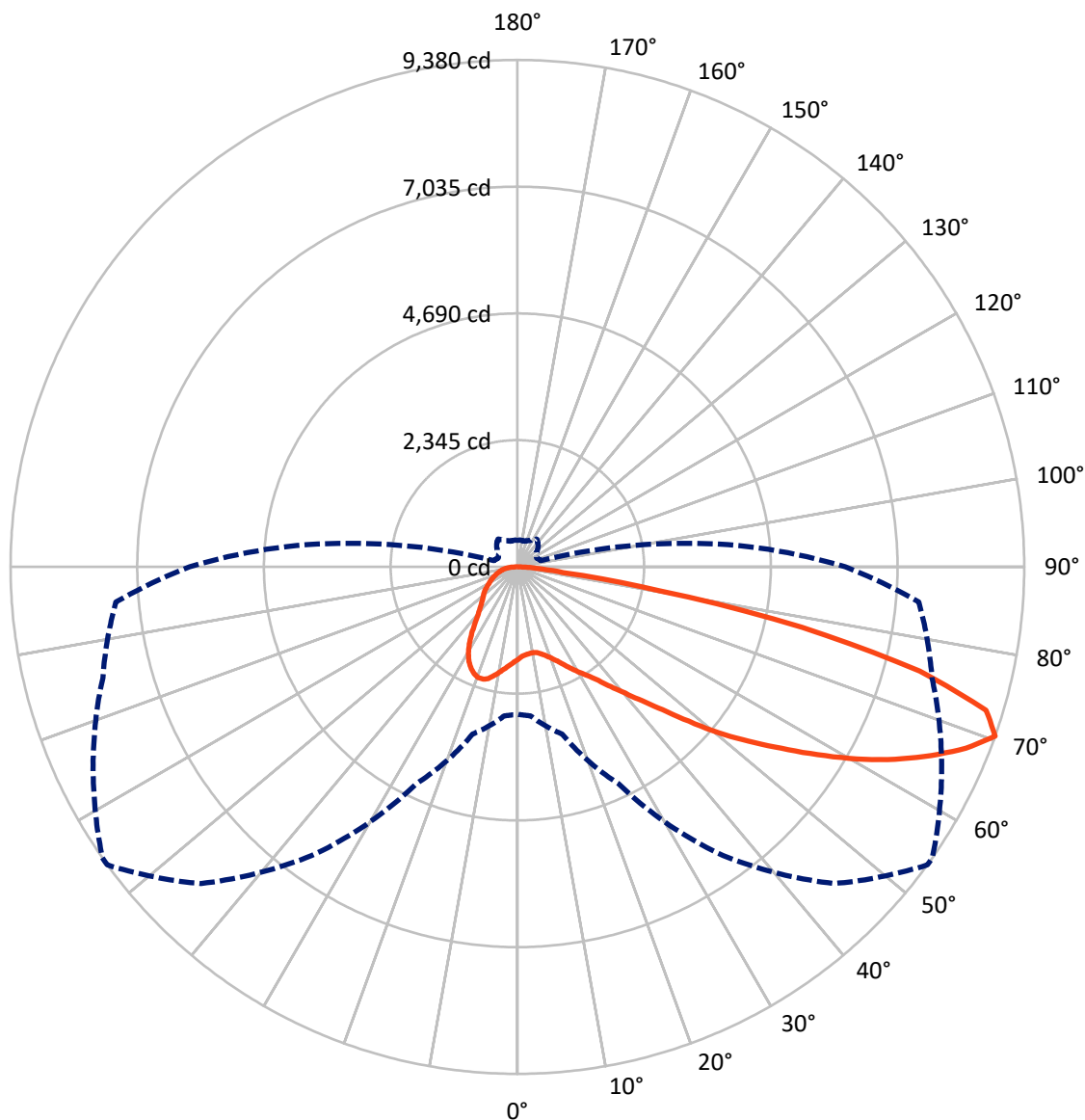


Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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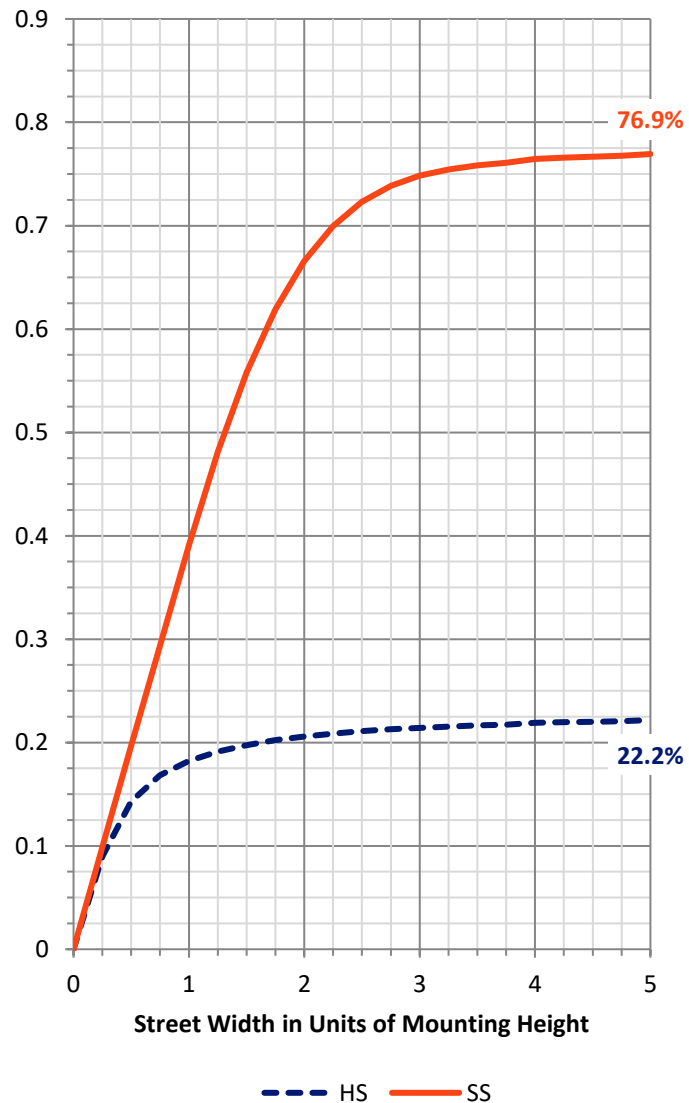
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3466.8	0.0	3466.8
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	11819.2	0.0	11819.2
	% Fixture	77.3	0.0	77.3
Total	Lumens	15286.0	0.0	15286.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.8	1.1
10°-20°	536.3	3.5
20°-30°	931.7	6.1
30°-40°	1361.6	8.9
40°-50°	2136.9	14.0
50°-60°	3286.1	21.5
60°-70°	4014.8	26.3
70°-80°	2489.2	16.3
80°-90°	361.6	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°	15286.0	100.0
0°-180°	15286.0	100.0

Coefficient of Utilization



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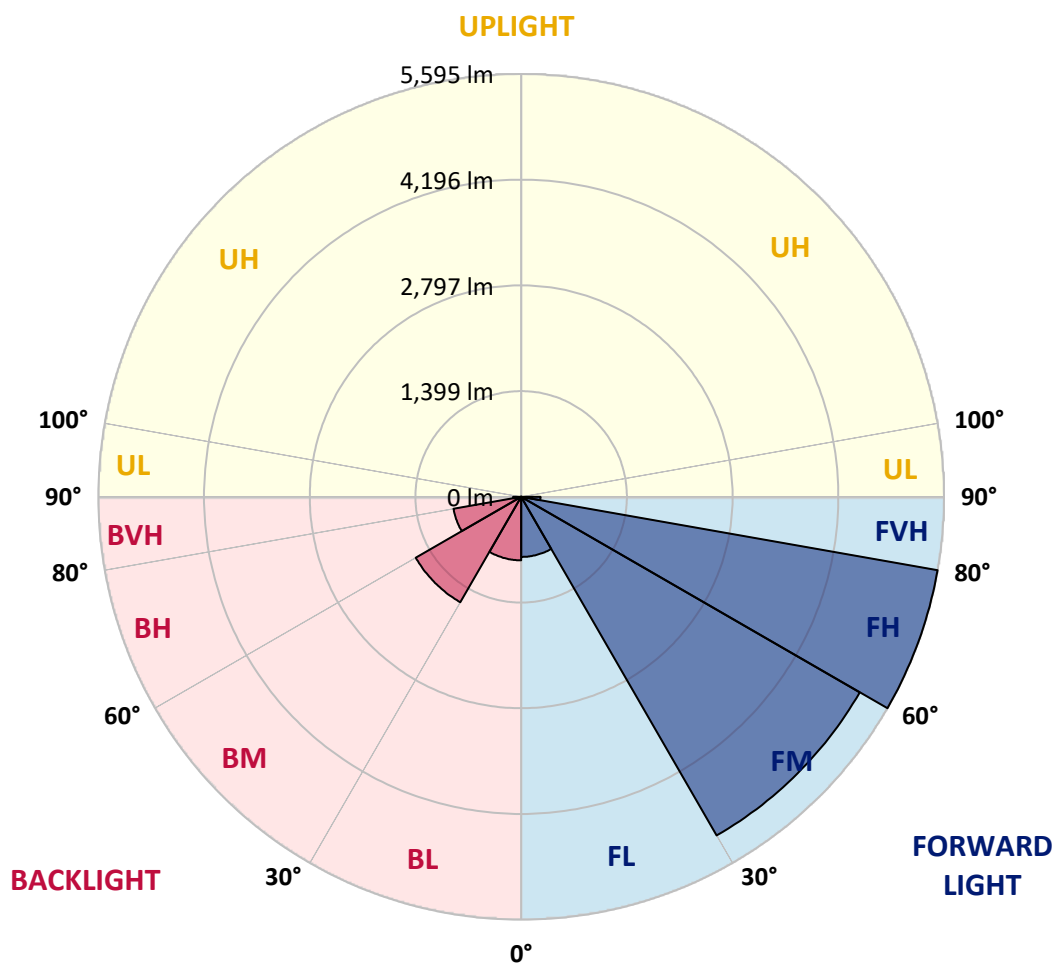
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	795.3	5.2			
FM	(30°-60°)	5173.6	33.8			
FH	(60°-80°)	5594.9	36.6			G3/7500
FVH	(80°-90°)	255.3	1.7			G3/500
BL	(0°-30°)	840.5	5.5	B2/1000		
BM	(30°-60°)	1611.0	10.5	B2/2500		
BH	(60°-80°)	909.1	5.9	B2/1000		G2/1000
BVH	(80°-90°)	106.3	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°	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2
2.5°	1643.0	1637.4	1637.4	1645.8	1648.6	1657.0	1657.0	1659.8	1668.2	1682.2	1699.0
5°	1592.6	1589.8	1592.6	1603.8	1609.4	1626.2	1631.8	1634.6	1651.4	1673.8	1699.0
7.5°	1542.3	1539.5	1545.1	1561.8	1578.6	1603.8	1617.8	1620.6	1645.8	1676.6	1710.2
10°	1525.5	1522.7	1531.1	1545.1	1561.8	1589.8	1612.2	1615.0	1651.4	1687.8	1735.4
12.5°	1547.9	1545.1	1553.5	1567.4	1584.2	1603.8	1629.0	1631.8	1679.4	1727.0	1777.4
15°	1603.8	1603.8	1606.6	1615.0	1631.8	1648.6	1671.0	1673.8	1724.2	1780.2	1830.6
17.5°	1690.6	1685.0	1685.0	1682.2	1693.4	1701.8	1729.8	1732.6	1785.8	1836.2	1886.5
20°	1797.0	1794.2	1783.0	1769.0	1766.2	1771.8	1799.8	1802.6	1855.7	1897.7	1945.3
22.5°	1925.7	1928.5	1903.3	1872.5	1858.5	1866.9	1892.1	1894.9	1934.1	1970.5	2012.5
25°	2096.5	2088.1	2051.7	2006.9	1978.9	1978.9	2004.1	2004.1	2040.5	2062.9	2090.9
27.5°	2258.8	2242.0	2208.4	2144.0	2099.3	2107.7	2132.8	2132.8	2166.4	2174.8	2188.8
30°	2435.1	2418.3	2376.4	2295.2	2236.4	2230.8	2261.6	2258.8	2303.6	2300.8	2289.6
32.5°	2650.7	2642.3	2572.3	2468.7	2390.4	2370.8	2398.8	2401.5	2429.5	2421.1	2384.8
35°	2953.0	2950.2	2885.8	2703.8	2600.3	2563.9	2580.7	2580.7	2600.3	2577.9	2516.3
37.5°	3333.6	3339.2	3283.2	3014.5	2869.0	2807.4	2810.2	2807.4	2813.0	2787.8	2723.4
40°	3714.3	3728.3	3725.5	3400.8	3216.1	3109.7	3070.5	3064.9	3078.9	3067.7	3006.1
42.5°	4215.3	4248.9	4170.5	3876.6	3669.5	3490.4	3384.0	3370.0	3400.8	3414.8	3356.0
45°	4735.9	4724.7	4601.6	4388.8	4201.3	3971.8	3770.3	3747.9	3770.3	3812.3	3750.7
47.5°	5007.4	4999.0	4968.2	4861.9	4833.9	4570.8	4265.7	4246.1	4204.1	4262.9	4190.1
50°	5455.3	5463.7	5337.7	5326.5	5444.1	5298.5	4825.5	4780.7	4705.1	4752.7	4691.1
52.5°	5780.0	5743.6	5665.2	5763.2	6129.8	6051.5	5351.7	5332.1	5262.1	5250.9	5223.0
55°	5911.5	5911.5	5925.5	6152.2	6675.6	6572.1	5922.7	5942.3	5847.1	5768.8	5805.1
57.5°	5950.7	5967.5	6087.8	6462.9	7316.6	6977.9	6552.5	6580.5	6443.3	6286.6	6401.3
60°	5757.6	5807.9	6096.2	6639.2	7677.7	7409.0	7215.8	7224.2	7025.5	6796.0	6997.5
62.5°	5262.1	5323.7	5838.7	6712.0	7618.9	7851.2	7842.8	7862.4	7590.9	7305.4	7557.3
65°	4654.8	4716.3	5264.9	6507.7	7574.1	8167.5	8416.6	8469.8	8119.9	7736.5	7907.2
67.5°	3761.9	3843.0	4363.7	5819.1	7355.8	8427.8	8954.0	9010.0	8528.6	7960.4	7876.4
70°	2726.2	2765.4	3202.1	4422.4	6465.7	8285.1	9379.5	9376.7	8662.9	7943.6	7456.6
72.5°	1312.7	1343.5	1721.4	2745.8	4624.0	7031.1	9071.6	9124.8	8478.2	7700.1	6496.5
75°	540.2	571.0	697.0	1158.8	2426.7	4646.4	7688.9	7814.8	7700.1	6910.8	5083.0
77.5°	335.9	347.1	408.7	599.0	1108.4	2169.2	5382.5	5553.2	6101.8	5536.4	3356.0
80°	251.9	260.3	305.1	419.9	699.8	800.5	2673.1	2888.6	3697.5	3176.9	1519.9
82.5°	209.9	212.7	243.5	305.1	475.8	459.0	856.5	954.5	1724.2	1212.0	523.4
85°	195.9	201.5	218.3	218.3	302.3	288.3	355.5	372.3	501.0	414.3	181.9
87.5°	100.8	95.2	193.1	170.7	156.7	140.0	151.1	162.3	187.5	198.7	81.2
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°	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2	1710.2
2.5°	1704.6	1713.0	1727.0	1741.0	1757.8	1777.4	1788.6	1802.6	1813.8	1808.2	1805.4
5°	1713.0	1727.0	1757.8	1785.8	1819.4	1858.5	1883.7	1911.7	1934.1	1939.7	1931.3
7.5°	1727.0	1752.2	1794.2	1844.5	1889.3	1939.7	1978.9	2018.1	2046.1	2051.7	2051.7
10°	1760.6	1788.6	1844.5	1911.7	1964.9	2018.1	2062.9	2093.7	2118.9	2130.0	2130.0
12.5°	1808.2	1841.7	1908.9	1990.1	2048.9	2099.3	2124.4	2138.4	2149.6	2160.8	2163.6
15°	1864.1	1900.5	1981.7	2068.5	2130.0	2155.2	2155.2	2152.4	2152.4	2158.0	2163.6
17.5°	1920.1	1959.3	2043.3	2135.6	2174.8	2160.8	2141.2	2132.8	2127.2	2124.4	2132.8
20°	1978.9	2018.1	2102.1	2188.8	2177.6	2118.9	2090.9	2071.3	2054.5	2046.1	2057.3
22.5°	2043.3	2079.7	2166.4	2225.2	2141.2	2051.7	1998.5	1967.7	1939.7	1922.9	1934.1
25°	2118.9	2155.2	2239.2	2236.4	2076.9	1950.9	1866.9	1816.6	1785.8	1769.0	1769.0
27.5°	2208.4	2239.2	2320.4	2208.4	1987.3	1816.6	1693.4	1645.8	1637.4	1623.4	1623.4
30°	2300.8	2326.0	2396.0	2144.0	1864.1	1640.2	1505.9	1483.5	1486.3	1472.3	1475.1
32.5°	2396.0	2421.1	2440.7	2048.9	1704.6	1441.5	1351.9	1335.1	1332.3	1321.1	1309.9
35°	2530.3	2566.7	2446.3	1920.1	1511.5	1276.3	1212.0	1195.2	1178.4	1139.2	1139.2
37.5°	2734.6	2773.8	2432.3	1760.6	1312.7	1147.6	1088.8	1066.4	1038.4	999.2	985.3
40°	3014.5	3014.5	2401.5	1581.4	1153.2	1044.0	988.1	960.1	929.3	890.1	881.7
42.5°	3344.8	3266.4	2354.0	1399.5	1035.6	974.1	923.7	892.9	856.5	811.7	806.1
45°	3731.1	3518.4	2286.8	1237.2	948.9	932.1	901.3	848.1	786.5	738.9	730.5
47.5°	4106.1	3745.1	2222.4	1122.4	876.1	915.3	890.1	800.5	716.5	649.4	641.0
50°	4517.6	3946.6	2146.8	1027.2	820.1	904.1	876.1	730.5	638.2	590.6	585.0
52.5°	4929.1	4150.9	2065.7	926.5	772.5	881.7	842.5	680.2	635.4	571.0	562.6
55°	5362.9	4388.8	1970.5	814.5	716.5	836.9	797.7	677.4	655.0	571.0	551.4
57.5°	5785.6	4652.0	1816.6	705.4	655.0	769.7	780.9	660.6	613.0	565.4	543.0
60°	6253.0	4931.9	1561.8	613.0	601.8	713.7	758.5	624.2	565.4	548.6	537.4
62.5°	6628.1	5183.8	1220.4	548.6	557.0	669.0	730.5	601.8	545.8	531.8	529.0
65°	6790.4	5189.4	876.1	492.6	512.2	627.0	702.6	582.2	529.0	523.4	520.6
67.5°	6619.7	4903.9	615.8	439.4	464.6	587.8	666.2	562.6	512.2	515.0	509.4
70°	6068.3	4302.1	450.6	389.1	419.9	545.8	627.0	537.4	492.6	498.2	489.8
72.5°	5077.4	3353.2	361.1	347.1	383.5	501.0	587.8	509.4	461.8	464.6	447.8
75°	3750.7	2222.4	302.3	310.7	341.5	459.0	537.4	473.0	428.2	417.1	405.9
77.5°	2230.8	1142.0	249.1	271.5	305.1	408.7	481.4	428.2	391.9	372.3	363.9
80°	920.9	461.8	204.3	229.5	265.9	363.9	425.4	375.1	349.9	330.3	319.1
82.5°	366.7	226.7	162.3	187.5	223.9	316.3	372.3	330.3	305.1	291.1	260.3
85°	140.0	112.0	109.2	131.6	167.9	243.5	307.9	277.1	257.5	221.1	212.7
87.5°	56.0	50.4	50.4	64.4	95.2	153.9	221.1	193.1	201.5	159.5	162.3
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)