

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: P231159

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231159
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-AF48-100-D-U-T3
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13622.6 lumens
Efficiency: N/A
Efficacy: 134.9 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

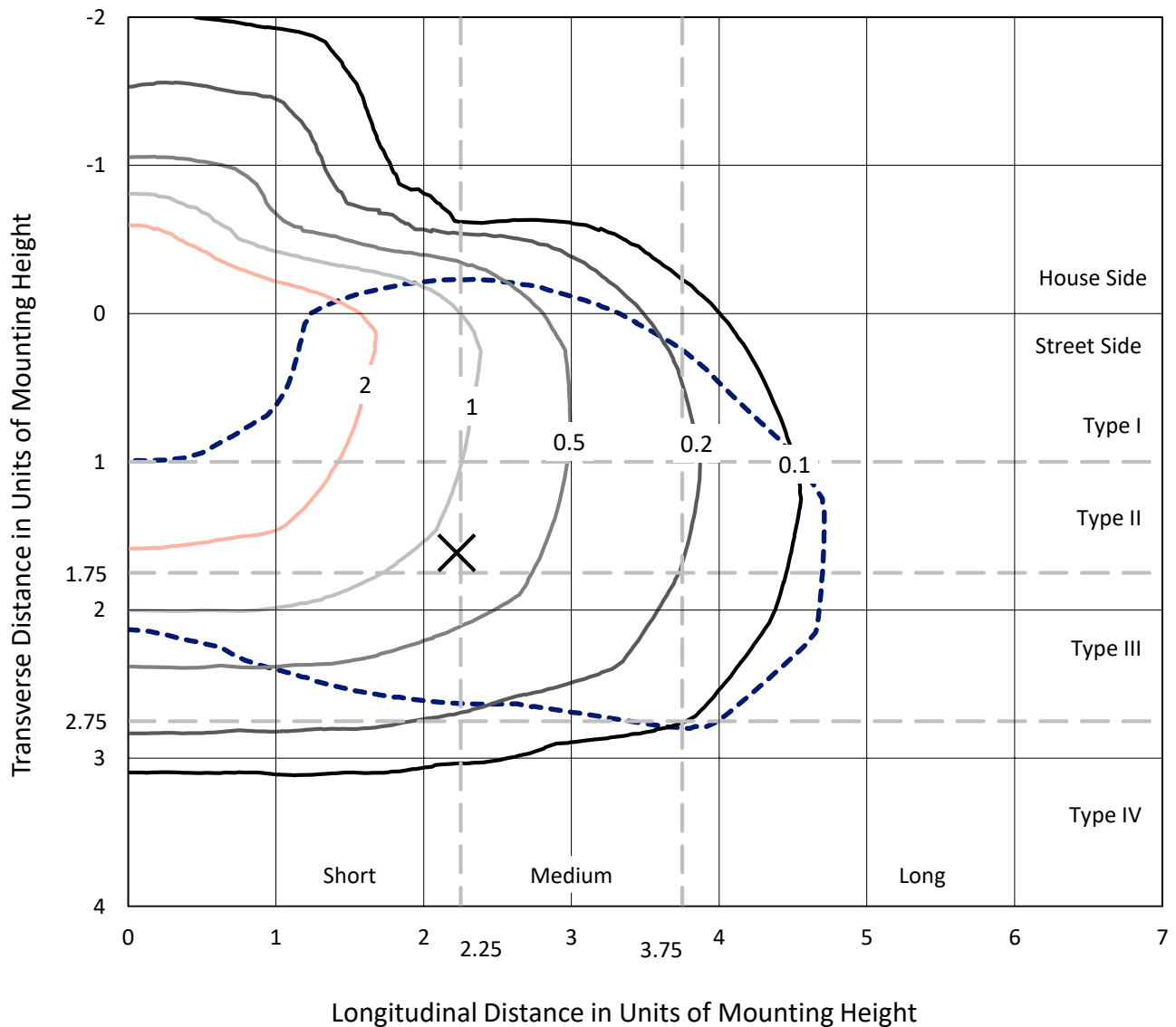
Input Watts (W): 101
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

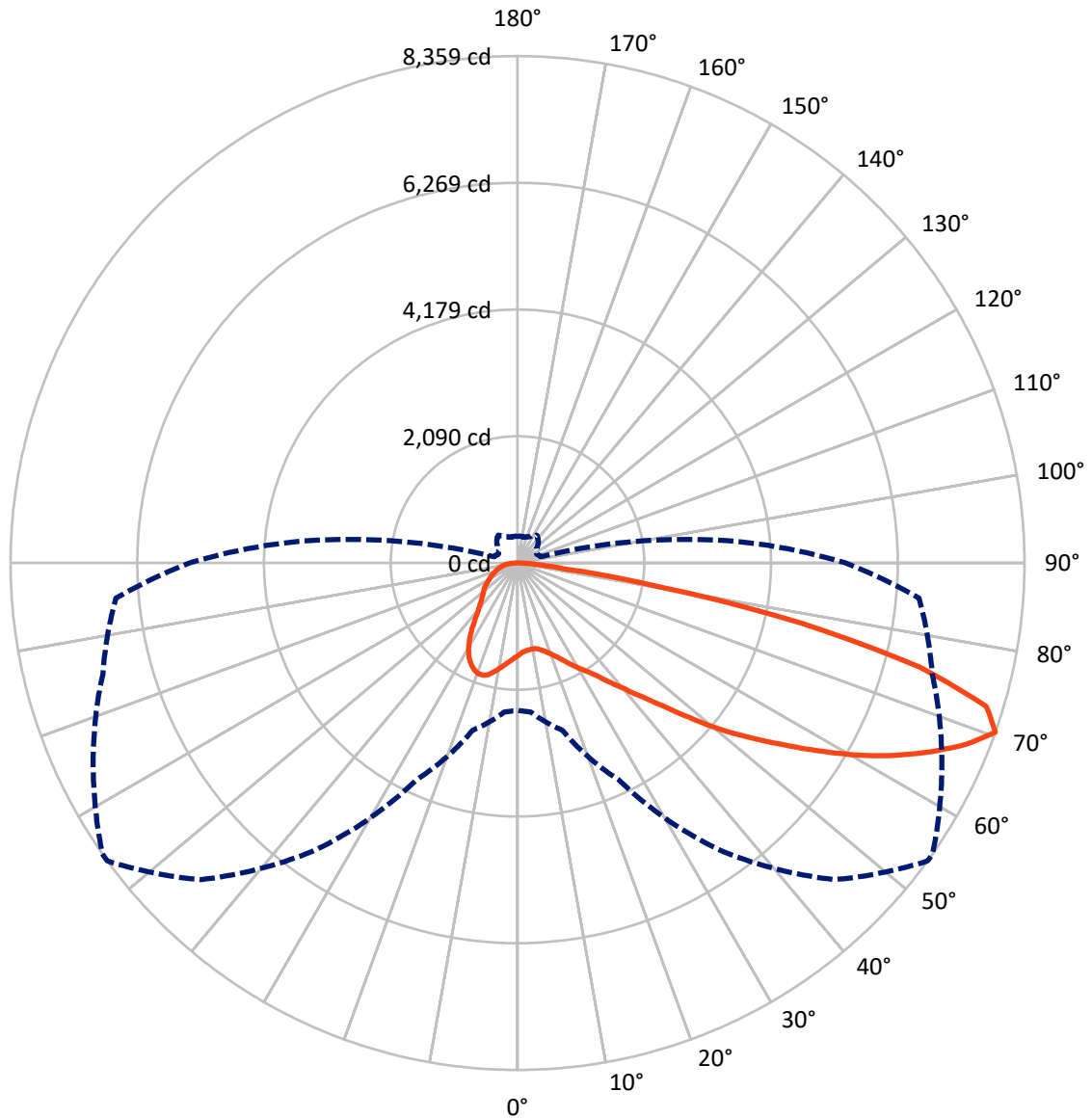


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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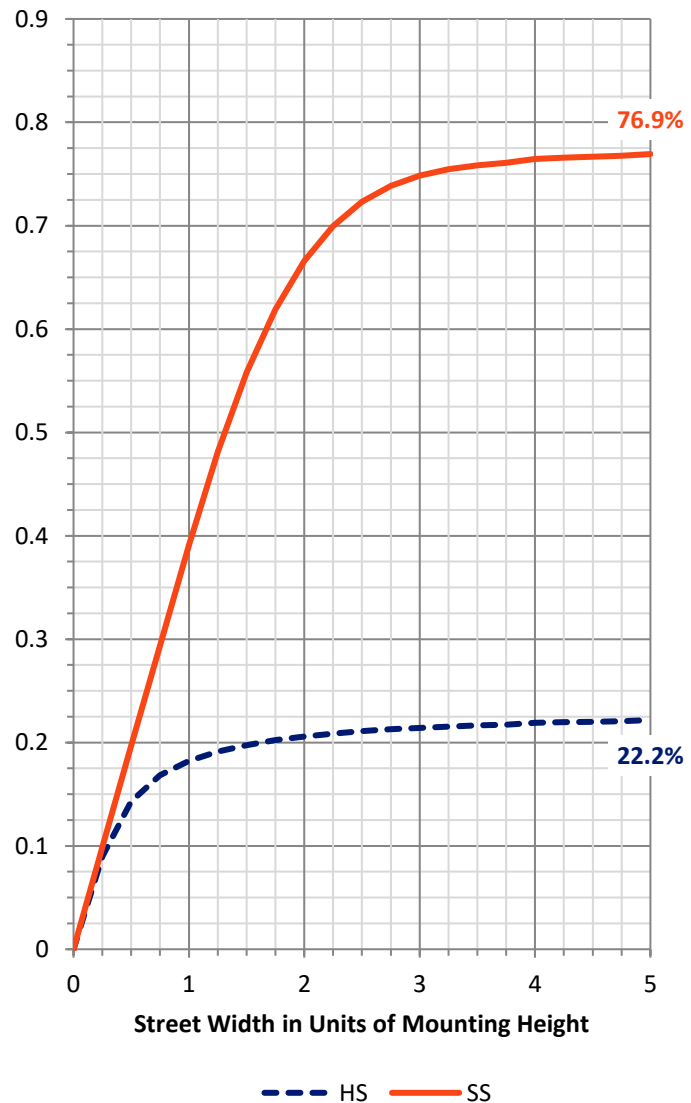
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3089.6	0.0	3089.6
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	10533.1	0.0	10533.1
	% Fixture	77.3	0.0	77.3
Total	Lumens	13622.6	0.0	13622.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	1.1
10°-20°	477.9	3.5
20°-30°	830.3	6.1
30°-40°	1213.4	8.9
40°-50°	1904.4	14.0
50°-60°	2928.5	21.5
60°-70°	3577.9	26.3
70°-80°	2218.3	16.3
80°-90°	322.3	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°	13622.6	100.0
0°-180°	13622.6	100.0



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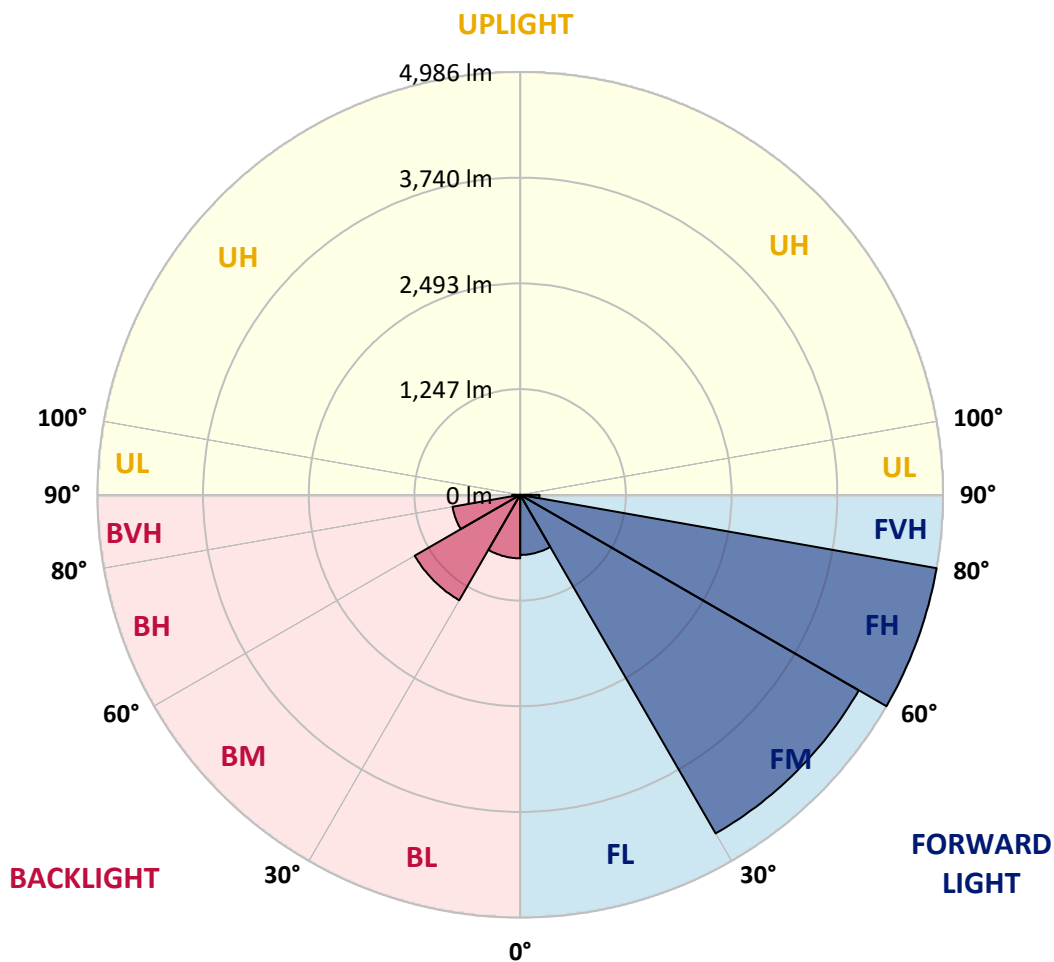
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	708.8	5.2			
FM	(30°-60°)	4610.6	33.8			
FH	(60°-80°)	4986.1	36.6			G2/5000
FVH	(80°-90°)	227.6	1.7			G3/500
BL	(0°-30°)	749.0	5.5	B2/1000		
BM	(30°-60°)	1435.7	10.5	B2/2500		
BH	(60°-80°)	810.2	5.9	B2/1000		G2/1000
BVH	(80°-90°)	94.7	0.7			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1
2.5°	1464.3	1459.2	1459.2	1466.7	1469.3	1476.7	1476.7	1479.2	1486.7	1499.1	1514.1
5°	1419.3	1416.8	1419.3	1429.3	1434.3	1449.2	1454.2	1456.8	1471.7	1491.7	1514.1
7.5°	1374.4	1372.0	1376.9	1391.9	1406.9	1429.3	1441.7	1444.3	1466.7	1494.1	1524.1
10°	1359.5	1356.9	1364.4	1376.9	1391.9	1416.8	1436.8	1439.3	1471.7	1504.1	1546.5
12.5°	1379.4	1376.9	1384.4	1396.8	1411.9	1429.3	1451.8	1454.2	1496.7	1539.0	1583.9
15°	1429.3	1429.3	1431.8	1439.3	1454.2	1469.3	1489.2	1491.7	1536.6	1586.5	1631.4
17.5°	1506.6	1501.7	1501.7	1499.1	1509.2	1516.6	1541.6	1544.0	1591.4	1636.3	1681.2
20°	1601.4	1599.0	1588.9	1576.5	1574.0	1578.9	1603.9	1606.4	1653.8	1691.2	1733.6
22.5°	1716.2	1718.7	1696.3	1668.7	1656.3	1663.8	1686.2	1688.7	1723.7	1756.1	1793.5
25°	1868.3	1860.8	1828.4	1788.5	1763.6	1763.6	1786.0	1786.0	1818.4	1838.4	1863.3
27.5°	2013.0	1998.0	1968.2	1910.8	1870.9	1878.3	1900.7	1900.7	1930.7	1938.2	1950.7
30°	2170.2	2155.2	2117.8	2045.4	1993.0	1988.1	2015.5	2013.0	2053.0	2050.4	2040.5
32.5°	2362.2	2354.7	2292.4	2200.1	2130.3	2112.8	2137.8	2140.2	2165.2	2157.7	2125.3
35°	2631.6	2629.1	2571.8	2409.7	2317.3	2284.9	2299.9	2299.9	2317.3	2297.3	2242.5
37.5°	2970.9	2975.9	2925.9	2686.5	2556.8	2501.9	2504.4	2501.9	2506.9	2484.4	2427.1
40°	3310.1	3322.5	3320.1	3030.7	2866.1	2771.3	2736.4	2731.4	2743.9	2733.9	2679.0
42.5°	3756.6	3786.6	3716.7	3454.8	3270.2	3110.6	3015.8	3003.3	3030.7	3043.2	2990.8
45°	4220.6	4210.6	4100.8	3911.3	3744.1	3539.6	3360.0	3340.0	3360.0	3397.4	3342.5
47.5°	4462.5	4455.1	4427.6	4332.8	4307.9	4073.4	3801.5	3784.1	3746.7	3799.0	3734.2
50°	4861.7	4869.1	4756.9	4746.9	4851.7	4721.9	4300.4	4260.5	4193.2	4235.5	4180.7
52.5°	5151.0	5118.5	5048.8	5136.0	5462.8	5393.0	4769.3	4751.9	4689.5	4679.6	4654.6
55°	5268.2	5268.2	5280.7	5482.8	5949.2	5856.9	5278.2	5295.7	5210.9	5141.0	5173.5
57.5°	5303.2	5318.1	5425.4	5759.6	6520.5	6218.6	5839.5	5864.4	5742.2	5602.5	5704.8
60°	5131.0	5175.9	5432.9	5916.7	6842.2	6602.7	6430.7	6438.1	6261.1	6056.5	6236.1
62.5°	4689.5	4744.4	5203.3	5981.6	6789.8	6996.9	6989.4	7006.9	6764.9	6510.5	6735.0
65°	4148.3	4203.1	4692.1	5799.5	6749.9	7278.7	7500.8	7548.1	7236.4	6894.6	7046.8
67.5°	3352.5	3424.8	3888.8	5186.0	6555.4	7510.7	7979.7	8029.6	7600.5	7094.2	7019.3
70°	2429.6	2464.5	2853.6	3941.2	5762.2	7383.6	8358.8	8356.4	7720.3	7079.2	6645.2
72.5°	1169.8	1197.4	1534.1	2447.0	4120.8	6266.0	8084.5	8131.8	7555.6	6862.2	5789.6
75°	481.4	508.8	621.1	1032.7	2162.7	4140.8	6852.2	6964.5	6862.2	6158.8	4529.9
77.5°	299.3	309.3	364.2	533.8	987.8	1933.2	4796.8	4948.9	5437.9	4934.0	2990.8
80°	224.5	232.0	271.9	374.2	623.6	713.4	2382.1	2574.3	3295.1	2831.2	1354.5
82.5°	187.1	189.6	217.0	271.9	424.0	409.1	763.3	850.6	1536.6	1080.1	466.5
85°	174.6	179.6	194.6	194.6	269.4	257.0	316.8	331.7	446.5	369.2	162.1
87.5°	89.8	84.8	172.2	152.1	139.7	124.7	134.7	144.6	167.2	177.1	72.3
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°	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1	1524.1
2.5°	1519.1	1526.5	1539.0	1551.5	1566.5	1583.9	1594.0	1606.4	1616.4	1611.4	1608.9
5°	1526.5	1539.0	1566.5	1591.4	1621.4	1656.3	1678.8	1703.7	1723.7	1728.7	1721.1
7.5°	1539.0	1561.5	1599.0	1643.8	1683.8	1728.7	1763.6	1798.4	1823.4	1828.4	1828.4
10°	1569.0	1594.0	1643.8	1703.7	1751.1	1798.4	1838.4	1865.9	1888.3	1898.3	1898.3
12.5°	1611.4	1641.3	1701.2	1773.6	1826.0	1870.9	1893.3	1905.8	1915.7	1925.7	1928.2
15°	1661.3	1693.7	1766.0	1843.4	1898.3	1920.7	1920.7	1918.2	1918.2	1923.2	1928.2
17.5°	1711.2	1746.1	1821.0	1903.3	1938.2	1925.7	1908.2	1900.7	1895.7	1893.3	1900.7
20°	1763.6	1798.4	1873.3	1950.7	1940.6	1888.3	1863.3	1845.9	1830.9	1823.4	1833.4
22.5°	1821.0	1853.4	1930.7	1983.1	1908.2	1828.4	1781.1	1753.5	1728.7	1713.6	1723.7
25°	1888.3	1920.7	1995.6	1993.0	1850.8	1738.6	1663.8	1618.9	1591.4	1576.5	1576.5
27.5°	1968.2	1995.6	2067.9	1968.2	1771.0	1618.9	1509.2	1466.7	1459.2	1446.8	1446.8
30°	2050.4	2072.9	2135.2	1910.8	1661.3	1461.7	1342.0	1322.1	1324.5	1312.0	1314.6
32.5°	2135.2	2157.7	2175.1	1826.0	1519.1	1284.6	1204.8	1189.8	1187.3	1177.4	1167.4
35°	2255.0	2287.4	2180.1	1711.2	1347.0	1137.4	1080.1	1065.1	1050.2	1015.3	1015.3
37.5°	2437.1	2472.0	2167.6	1569.0	1169.8	1022.7	970.4	950.4	925.5	890.5	878.0
40°	2686.5	2686.5	2140.2	1409.3	1027.7	930.4	880.6	855.6	828.2	793.2	785.7
42.5°	2980.9	2911.0	2097.9	1247.2	922.9	868.1	823.2	795.8	763.3	723.4	718.4
45°	3325.1	3135.5	2037.9	1102.5	845.6	830.6	803.2	755.9	700.9	658.6	651.0
47.5°	3659.3	3337.6	1980.5	1000.2	780.7	815.7	793.2	713.4	638.5	578.7	571.2
50°	4026.0	3517.1	1913.2	915.4	730.9	805.7	780.7	651.0	568.8	526.3	521.3
52.5°	4392.7	3699.2	1840.9	825.6	688.4	785.7	750.8	606.1	566.2	508.8	501.3
55°	4779.3	3911.3	1756.1	725.9	638.5	745.8	711.0	603.6	583.7	508.8	491.4
57.5°	5156.0	4145.7	1618.9	628.6	583.7	686.0	695.9	588.7	546.3	503.9	484.0
60°	5572.5	4395.2	1391.9	546.3	536.3	636.1	676.0	556.3	503.9	488.9	478.9
62.5°	5906.8	4619.6	1087.6	488.9	496.4	596.2	651.0	536.3	486.4	473.9	471.5
65°	6051.5	4624.7	780.7	439.1	456.4	558.7	626.1	518.8	471.5	466.5	464.0
67.5°	5899.4	4370.3	548.8	391.6	414.1	523.9	593.7	501.3	456.4	459.0	454.0
70°	5407.9	3833.9	401.6	346.7	374.2	486.4	558.7	478.9	439.1	444.0	436.5
72.5°	4524.9	2988.3	321.8	309.3	341.8	446.5	523.9	454.0	411.5	414.1	399.2
75°	3342.5	1980.5	269.4	276.9	304.3	409.1	478.9	421.6	381.7	371.6	361.7
77.5°	1988.1	1017.7	222.0	241.9	271.9	364.2	429.0	381.7	349.2	331.7	324.3
80°	820.7	411.5	182.1	204.6	237.0	324.3	379.1	334.3	311.8	294.3	284.4
82.5°	326.7	202.0	144.6	167.2	199.6	281.8	331.7	294.3	271.9	259.4	232.0
85°	124.7	99.7	97.3	117.2	149.7	217.0	274.4	246.9	229.4	197.0	189.6
87.5°	49.9	44.9	44.9	57.4	84.8	137.2	197.0	172.2	179.6	142.2	144.6
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)