

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: P231172

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231172
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-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13317 lumens
Efficiency: N/A
Efficacy: 131.9 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 - G2

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



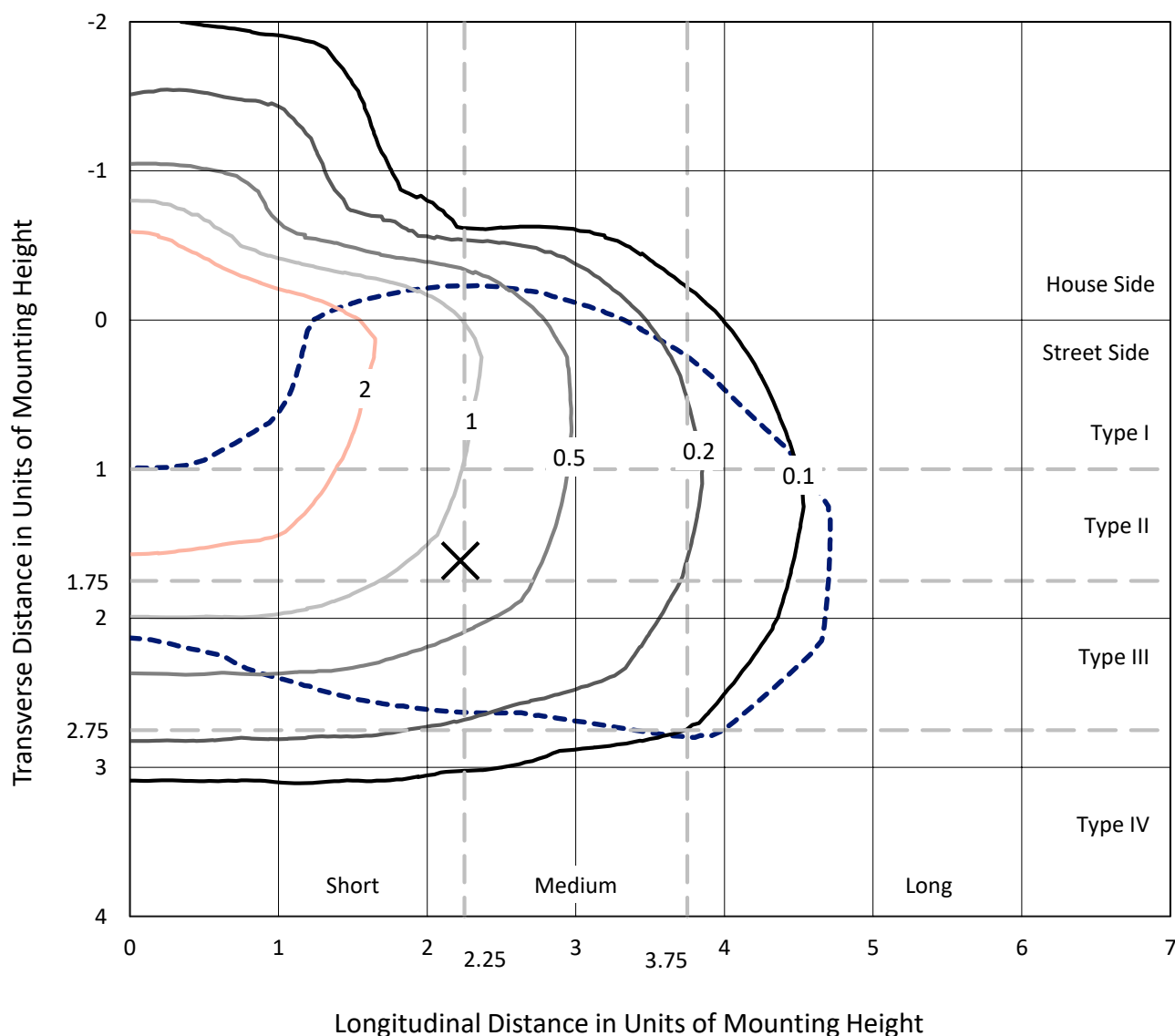
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

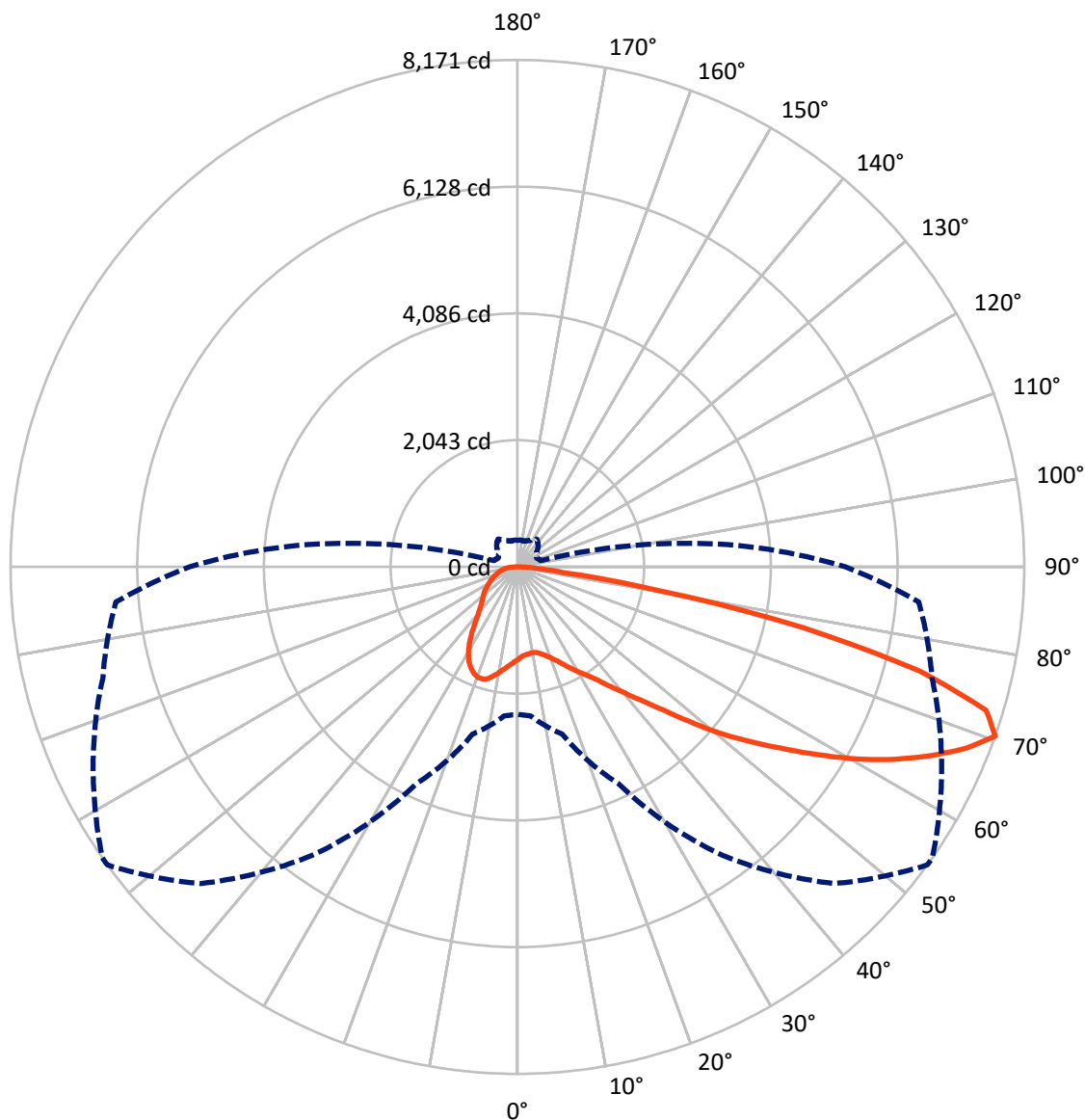


Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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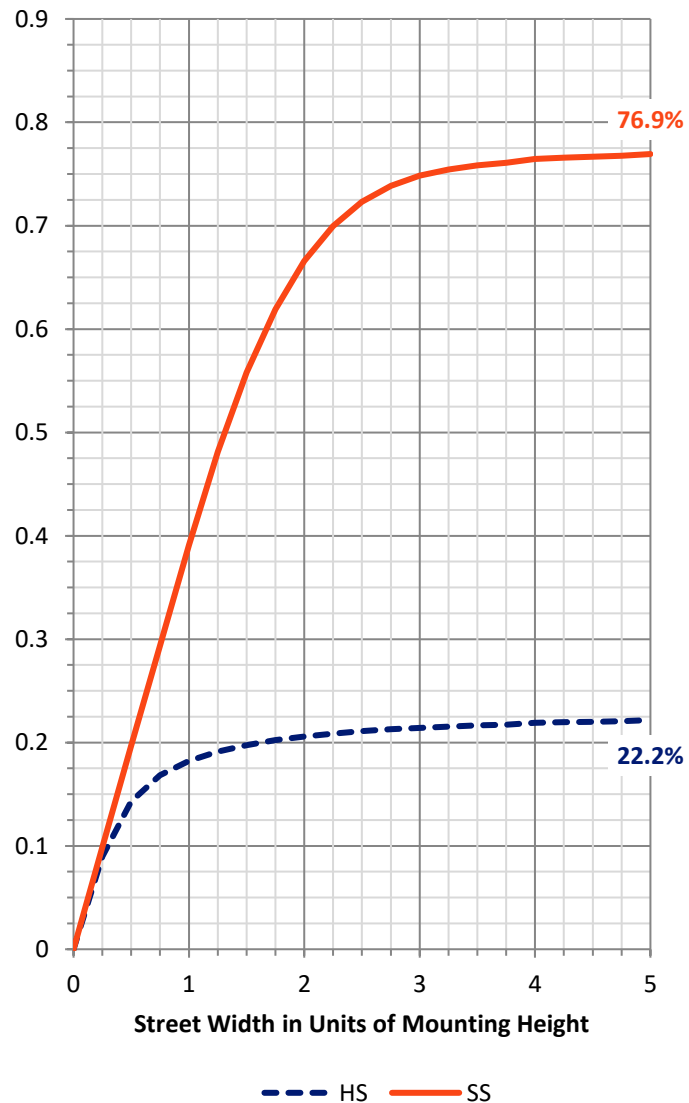
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3020.2	0.0	3020.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	10296.8	0.0	10296.8
	% Fixture	77.3	0.0	77.3
Total	Lumens	13317.0	0.0	13317.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.2	1.1
10°-20°	467.2	3.5
20°-30°	811.7	6.1
30°-40°	1186.2	8.9
40°-50°	1861.7	14.0
50°-60°	2862.8	21.5
60°-70°	3497.7	26.3
70°-80°	2168.6	16.3
80°-90°	315.0	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°	13317.0	100.0
0°-180°	13317.0	100.0

Coefficient of Utilization



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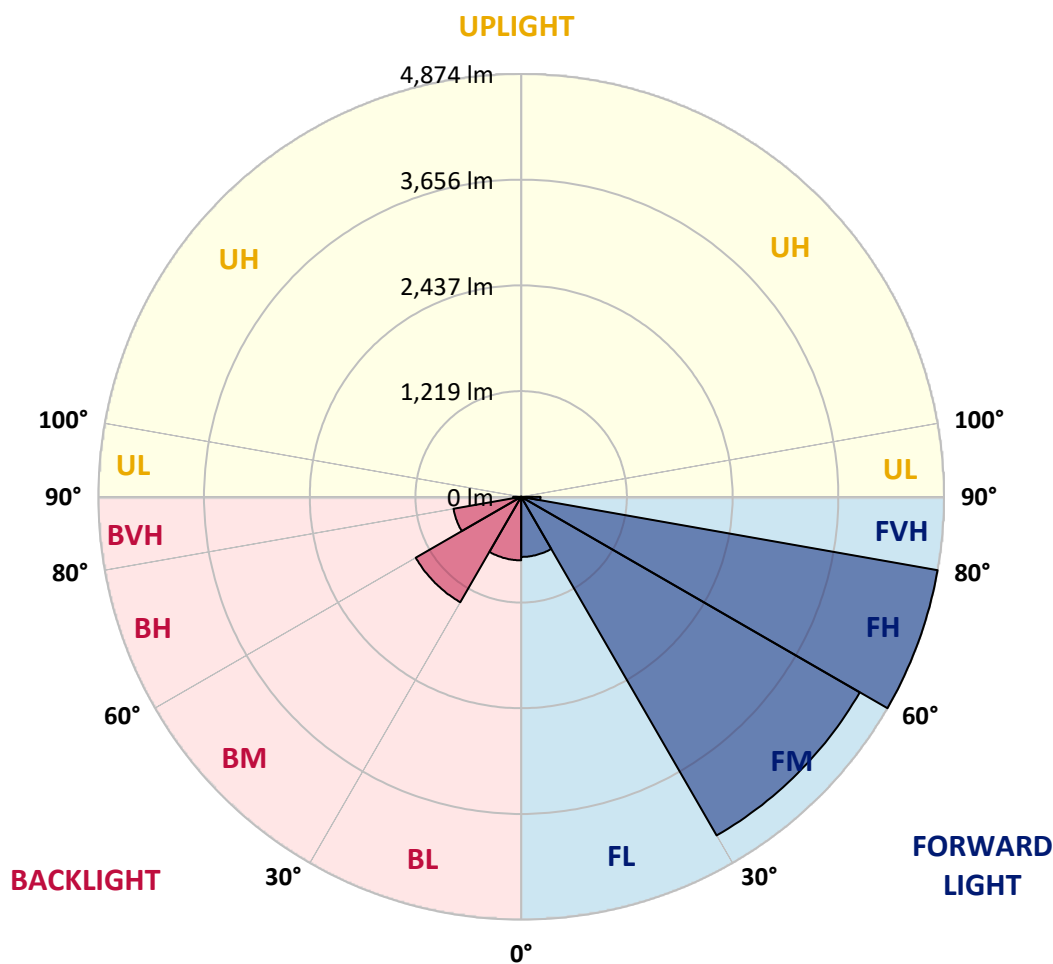
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	692.9	5.2			
FM	(30°-60°)	4507.2	33.8			
FH	(60°-80°)	4874.2	36.6			G2/5000
FVH	(80°-90°)	222.5	1.7			G2/225
BL	(0°-30°)	732.2	5.5	B2/1000		
BM	(30°-60°)	1403.5	10.5	B2/2500		
BH	(60°-80°)	792.0	5.9	B2/1000		G2/1000
BVH	(80°-90°)	92.6	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9
2.5°	1431.4	1426.5	1426.5	1433.8	1436.3	1443.6	1443.6	1446.0	1453.3	1465.5	1480.1
5°	1387.5	1385.0	1387.5	1397.2	1402.1	1416.7	1421.6	1424.1	1438.7	1458.2	1480.1
7.5°	1343.6	1341.2	1346.0	1360.7	1375.3	1397.2	1409.4	1411.9	1433.8	1460.6	1489.9
10°	1329.0	1326.5	1333.8	1346.0	1360.7	1385.0	1404.6	1407.0	1438.7	1470.4	1511.8
12.5°	1348.5	1346.0	1353.3	1365.5	1380.2	1397.2	1419.2	1421.6	1463.1	1504.5	1548.4
15°	1397.2	1397.2	1399.7	1407.0	1421.6	1436.3	1455.8	1458.2	1502.1	1550.9	1594.8
17.5°	1472.8	1468.0	1468.0	1465.5	1475.3	1482.6	1507.0	1509.4	1555.7	1599.6	1643.5
20°	1565.5	1563.1	1553.3	1541.1	1538.7	1543.5	1567.9	1570.4	1616.7	1653.3	1694.7
22.5°	1677.7	1680.1	1658.2	1631.3	1619.1	1626.5	1648.4	1650.8	1685.0	1716.7	1753.3
25°	1826.4	1819.1	1787.4	1748.4	1724.0	1724.0	1745.9	1745.9	1777.6	1797.2	1821.5
27.5°	1967.8	1953.2	1924.0	1867.9	1828.9	1836.2	1858.1	1858.1	1887.4	1894.7	1906.9
30°	2121.5	2106.8	2070.3	1999.5	1948.3	1943.5	1970.3	1967.8	2006.9	2004.4	1994.7
32.5°	2309.2	2301.9	2241.0	2150.7	2082.5	2065.4	2089.8	2092.2	2116.6	2109.3	2077.6
35°	2572.6	2570.1	2514.1	2355.6	2265.3	2233.6	2248.3	2248.3	2265.3	2245.8	2192.2
37.5°	2904.2	2909.1	2860.3	2626.2	2499.4	2445.8	2448.2	2445.8	2450.7	2428.7	2372.6
40°	3235.8	3248.0	3245.6	2962.7	2801.8	2709.1	2675.0	2670.1	2682.3	2672.6	2618.9
42.5°	3672.3	3701.6	3633.3	3377.3	3196.8	3040.8	2948.1	2935.9	2962.7	2974.9	2923.7
45°	4125.9	4116.1	4008.8	3823.5	3660.1	3460.2	3284.6	3265.1	3284.6	3321.2	3267.5
47.5°	4362.4	4355.1	4328.3	4235.6	4211.2	3982.0	3716.2	3699.2	3662.6	3713.8	3650.4
50°	4752.6	4759.9	4650.2	4640.4	4742.8	4616.0	4203.9	4164.9	4099.1	4140.5	4086.9
52.5°	5035.4	5003.7	4935.5	5020.8	5340.2	5272.0	4662.3	4645.3	4584.3	4574.6	4550.2
55°	5150.0	5150.0	5162.2	5359.8	5815.7	5725.5	5159.8	5176.9	5094.0	5025.7	5057.4
57.5°	5184.2	5198.8	5303.7	5630.4	6374.2	6079.1	5708.5	5732.8	5613.4	5476.8	5576.8
60°	5015.9	5059.8	5311.0	5784.0	6688.7	6454.6	6286.4	6293.7	6120.6	5920.6	6096.2
62.5°	4584.3	4638.0	5086.6	5847.4	6637.5	6839.9	6832.6	6849.7	6613.1	6364.4	6583.9
65°	4055.2	4108.8	4586.8	5669.4	6598.5	7115.4	7332.5	7378.8	7074.0	6739.9	6888.7
67.5°	3277.3	3348.0	3801.6	5069.6	6408.3	7342.2	7800.7	7849.4	7430.0	6935.0	6861.8
70°	2375.1	2409.2	2789.6	3852.8	5632.9	7217.9	8171.3	8168.9	7547.1	6920.4	6496.1
72.5°	1143.6	1170.5	1499.7	2392.1	4028.3	6125.4	7903.1	7949.4	7386.1	6708.2	5659.7
75°	470.6	497.4	607.2	1009.5	2114.2	4047.9	6698.5	6808.2	6708.2	6020.6	4428.3
77.5°	292.6	302.4	356.0	521.8	965.6	1889.8	4689.2	4837.9	5315.9	4823.3	2923.7
80°	219.5	226.8	265.8	365.8	609.6	697.4	2328.7	2516.5	3221.2	2767.7	1324.1
82.5°	182.9	185.3	212.1	265.8	414.5	399.9	746.2	831.5	1502.1	1055.9	456.0
85°	170.7	175.6	190.2	190.2	263.4	251.2	309.7	324.3	436.5	360.9	158.5
87.5°	87.8	82.9	168.3	148.7	136.6	121.9	131.7	141.4	163.4	173.1	70.7
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°	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9	1489.9
2.5°	1485.0	1492.3	1504.5	1516.7	1531.4	1548.4	1558.2	1570.4	1580.1	1575.2	1572.8
5°	1492.3	1504.5	1531.4	1555.7	1585.0	1619.1	1641.1	1665.5	1685.0	1689.9	1682.5
7.5°	1504.5	1526.5	1563.1	1606.9	1646.0	1689.9	1724.0	1758.1	1782.5	1787.4	1787.4
10°	1533.8	1558.2	1606.9	1665.5	1711.8	1758.1	1797.2	1824.0	1845.9	1855.7	1855.7
12.5°	1575.2	1604.5	1663.0	1733.8	1785.0	1828.9	1850.8	1863.0	1872.7	1882.5	1884.9
15°	1624.0	1655.7	1726.4	1802.0	1855.7	1877.6	1877.6	1875.2	1875.2	1880.1	1884.9
17.5°	1672.8	1706.9	1780.1	1860.6	1894.7	1882.5	1865.4	1858.1	1853.2	1850.8	1858.1
20°	1724.0	1758.1	1831.3	1906.9	1897.1	1845.9	1821.5	1804.5	1789.8	1782.5	1792.3
22.5°	1780.1	1811.8	1887.4	1938.6	1865.4	1787.4	1741.1	1714.2	1689.9	1675.2	1685.0
25°	1845.9	1877.6	1950.8	1948.3	1809.3	1699.6	1626.5	1582.6	1555.7	1541.1	1541.1
27.5°	1924.0	1950.8	2021.5	1924.0	1731.3	1582.6	1475.3	1433.8	1426.5	1414.3	1414.3
30°	2004.4	2026.4	2087.3	1867.9	1624.0	1428.9	1311.9	1292.4	1294.8	1282.6	1285.1
32.5°	2087.3	2109.3	2126.3	1785.0	1485.0	1255.8	1177.8	1163.1	1160.7	1151.0	1141.2
35°	2204.4	2236.1	2131.2	1672.8	1316.8	1111.9	1055.9	1041.2	1026.6	992.5	992.5
37.5°	2382.4	2416.5	2119.0	1533.8	1143.6	999.8	948.6	929.1	904.7	870.5	858.3
40°	2626.2	2626.2	2092.2	1377.7	1004.6	909.5	860.8	836.4	809.6	775.4	768.1
42.5°	2914.0	2845.7	2050.8	1219.2	902.2	848.6	804.7	777.9	746.2	707.2	702.3
45°	3250.5	3065.2	1992.2	1077.8	826.6	812.0	785.2	738.9	685.2	643.8	636.4
47.5°	3577.2	3262.7	1936.1	977.8	763.2	797.4	775.4	697.4	624.2	565.7	558.4
50°	3935.7	3438.2	1870.3	894.9	714.5	787.6	763.2	636.4	556.0	514.5	509.6
52.5°	4294.1	3616.2	1799.6	807.1	673.0	768.1	734.0	592.5	553.5	497.4	490.1
55°	4672.1	3823.5	1716.7	709.6	624.2	729.1	695.0	590.1	570.6	497.4	480.4
57.5°	5040.3	4052.7	1582.6	614.5	570.6	670.6	680.3	575.5	534.0	492.6	473.1
60°	5447.5	4296.6	1360.7	534.0	524.3	621.8	660.8	543.8	492.6	477.9	468.2
62.5°	5774.3	4516.0	1063.2	477.9	485.3	582.8	636.4	524.3	475.5	463.3	460.9
65°	5915.7	4520.9	763.2	429.2	446.2	546.2	612.1	507.2	460.9	456.0	453.6
67.5°	5767.0	4272.2	536.5	382.8	404.8	512.1	580.4	490.1	446.2	448.7	443.8
70°	5286.6	3747.9	392.6	338.9	365.8	475.5	546.2	468.2	429.2	434.0	426.7
72.5°	4423.4	2921.3	314.6	302.4	334.1	436.5	512.1	443.8	402.3	404.8	390.2
75°	3267.5	1936.1	263.4	270.7	297.5	399.9	468.2	412.1	373.1	363.3	353.6
77.5°	1943.5	994.9	217.0	236.5	265.8	356.0	419.4	373.1	341.4	324.3	317.0
80°	802.3	402.3	178.0	200.0	231.7	317.0	370.6	326.8	304.8	287.7	278.0
82.5°	319.4	197.5	141.4	163.4	195.1	275.5	324.3	287.7	265.8	253.6	226.8
85°	121.9	97.5	95.1	114.6	146.3	212.1	268.2	241.4	224.3	192.6	185.3
87.5°	48.8	43.9	43.9	56.1	82.9	134.1	192.6	168.3	175.6	139.0	141.4
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)