

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: P231146

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231146
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-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11788 lumens
Efficiency: N/A
Efficacy: 116.7 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

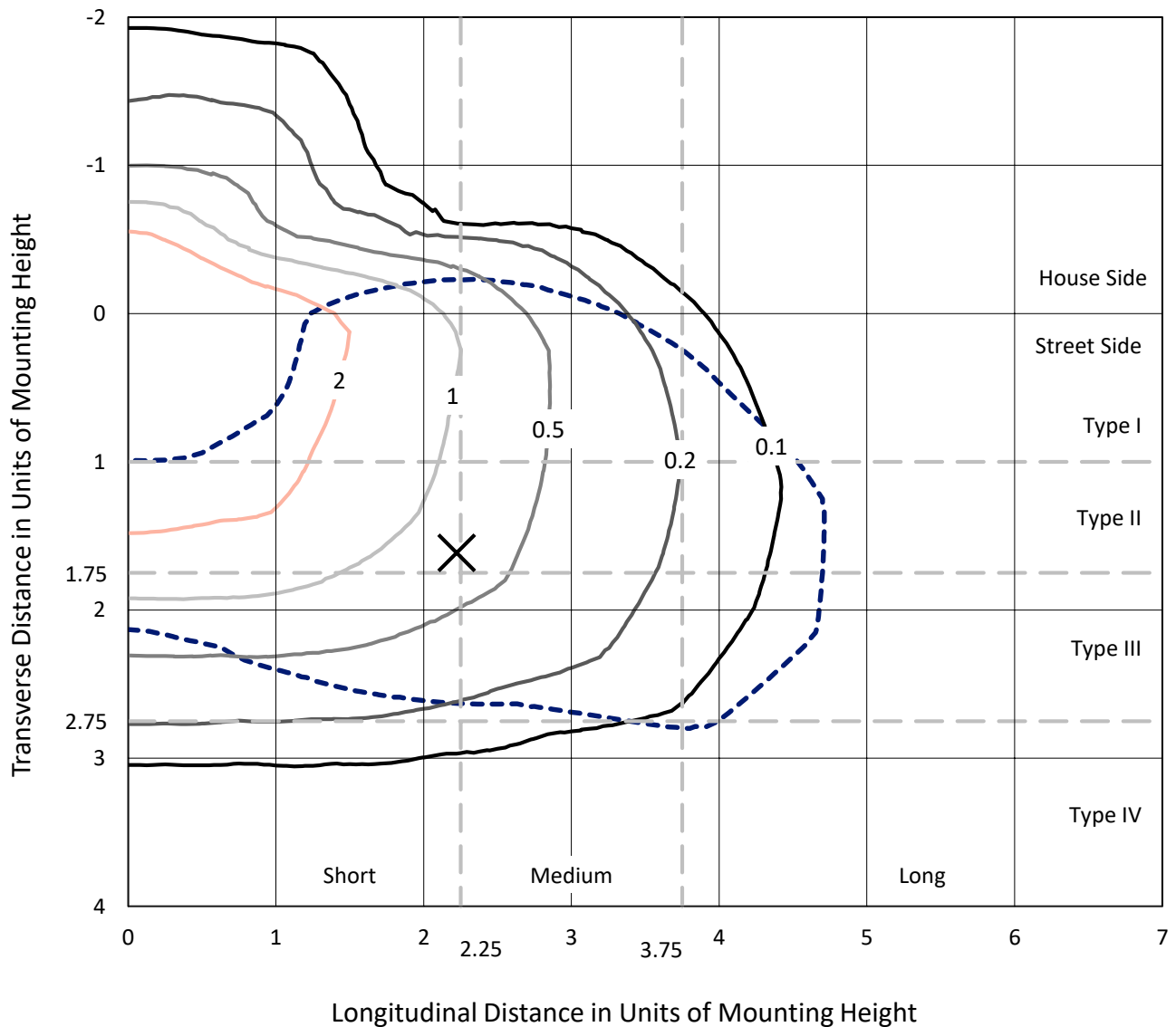
Input Watts (W): 101
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

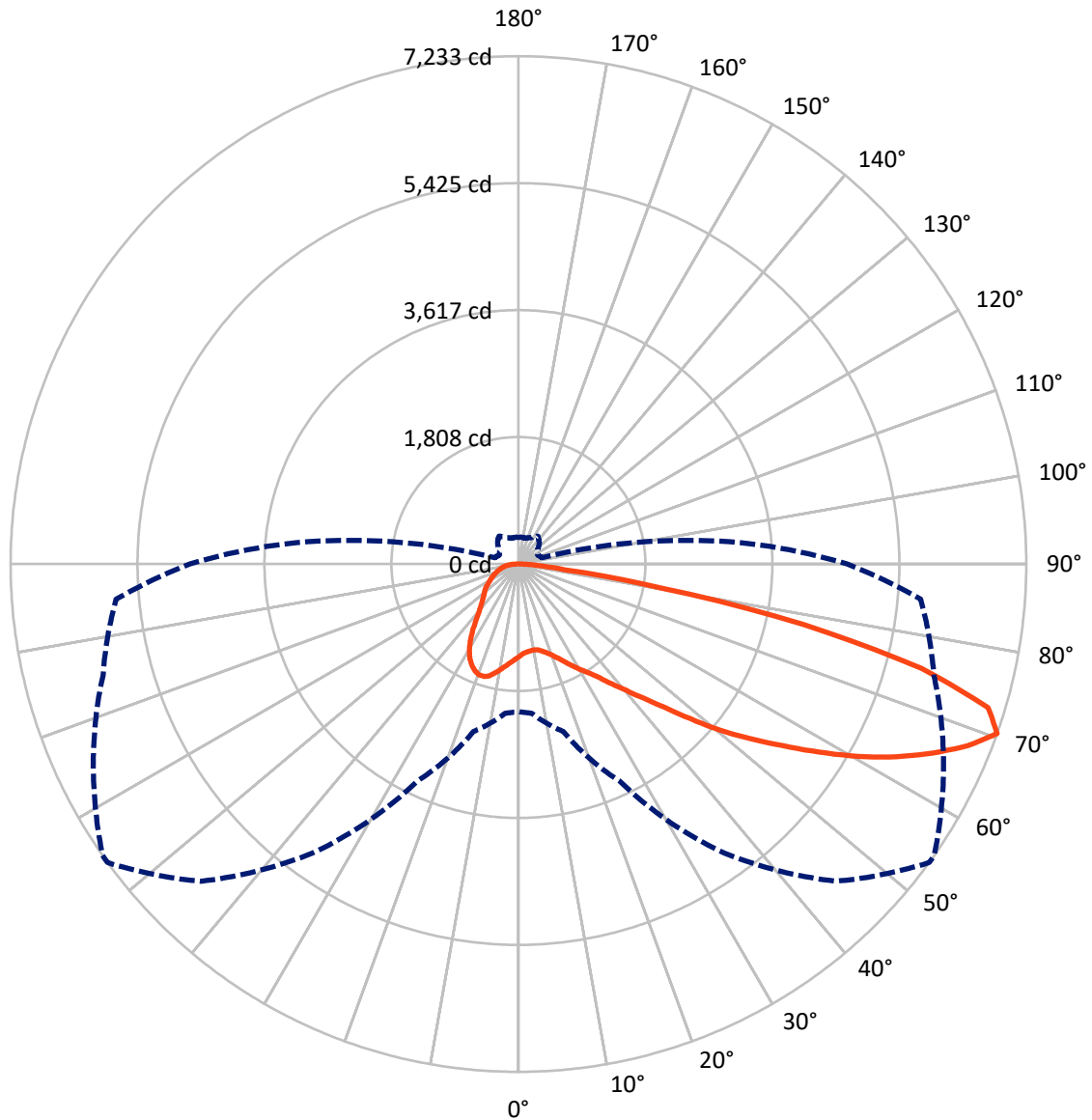
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.8 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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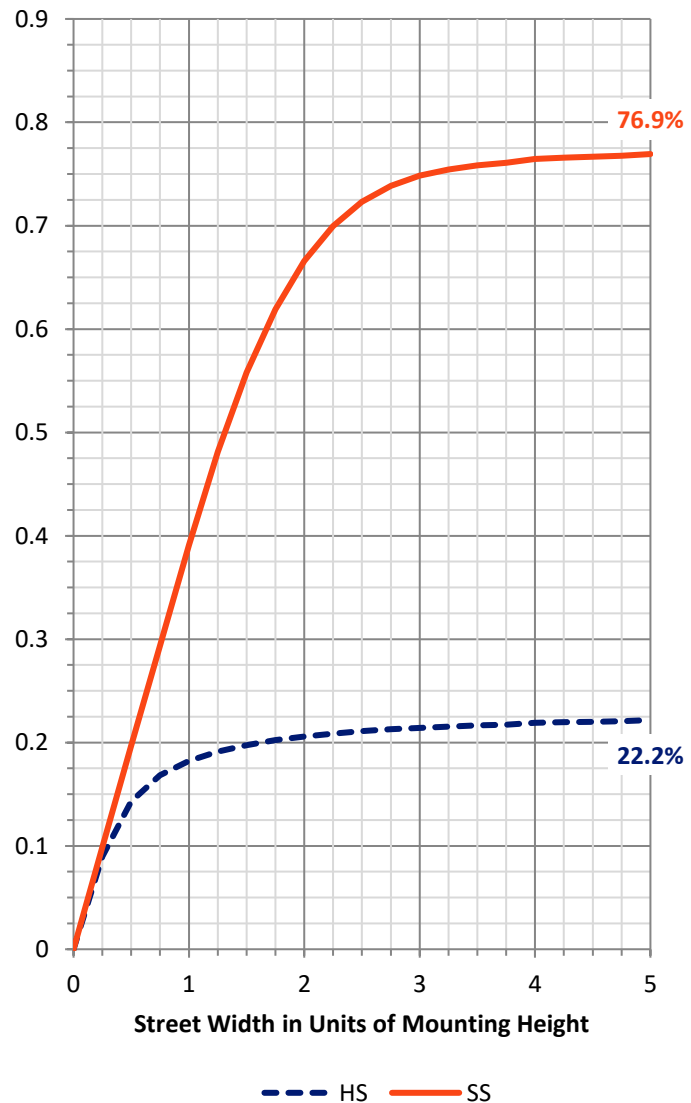
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2673.5	0.0	2673.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	9114.5	0.0	9114.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	11788.0	0.0	11788.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	1.1
10°-20°	413.6	3.5
20°-30°	718.5	6.1
30°-40°	1050.0	8.9
40°-50°	1647.9	14.0
50°-60°	2534.1	21.5
60°-70°	3096.1	26.3
70°-80°	1919.6	16.3
80°-90°	278.9	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°	11788.0	100.0
0°-180°	11788.0	100.0

Coefficient of Utilization



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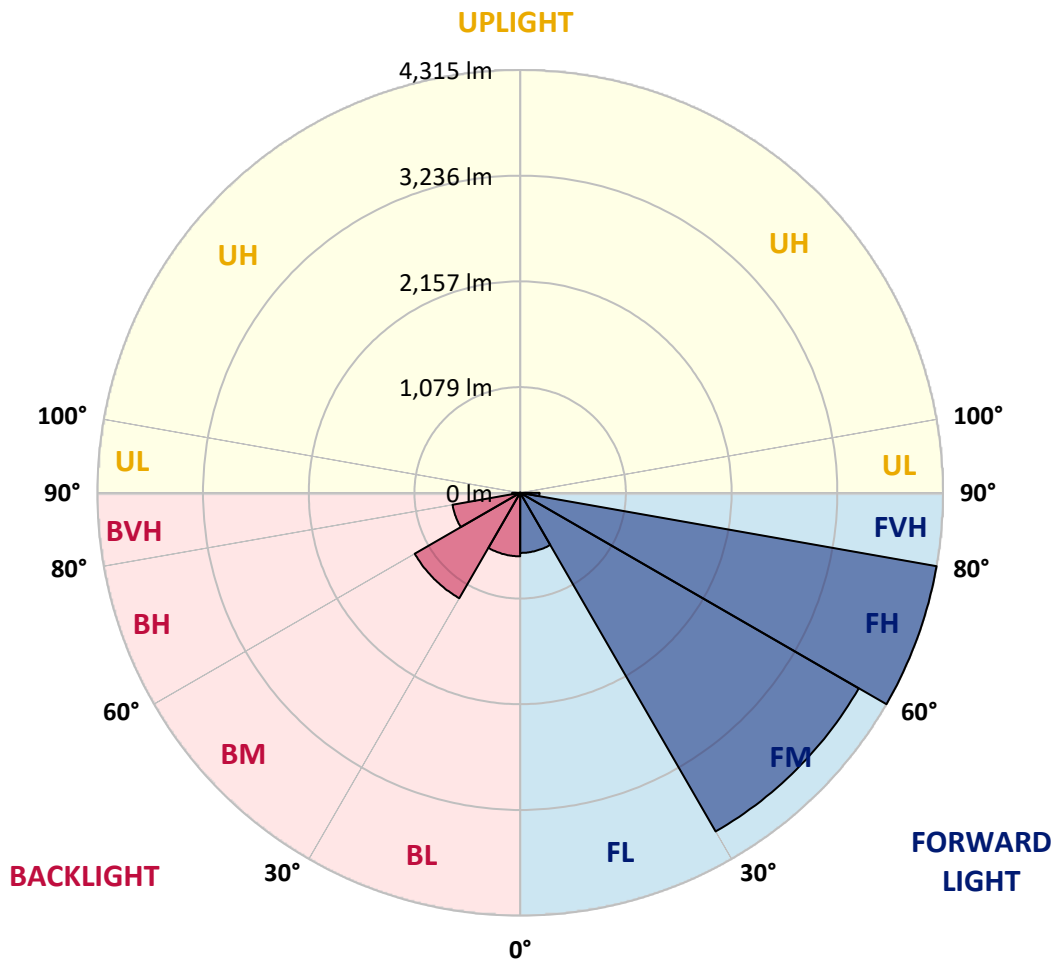
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	613.3	5.2			
FM	(30°-60°)	3989.7	33.8			
FH	(60°-80°)	4314.6	36.6			G2/5000
FVH	(80°-90°)	196.9	1.7			G2/225
BL	(0°-30°)	648.2	5.5	B2/1000		
BM	(30°-60°)	1242.3	10.5	B2/2500		
BH	(60°-80°)	701.1	5.9	B2/1000		G2/1000
BVH	(80°-90°)	81.9	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°	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8
2.5°	1267.0	1262.7	1262.7	1269.2	1271.4	1277.8	1277.8	1280.0	1286.5	1297.3	1310.2
5°	1228.2	1226.0	1228.2	1236.8	1241.1	1254.1	1258.4	1260.6	1273.5	1290.8	1310.2
7.5°	1189.3	1187.2	1191.5	1204.4	1217.4	1236.8	1247.6	1249.8	1269.2	1292.9	1318.8
10°	1176.4	1174.2	1180.7	1191.5	1204.4	1226.0	1243.3	1245.5	1273.5	1301.6	1338.3
12.5°	1193.6	1191.5	1198.0	1208.8	1221.7	1236.8	1256.2	1258.4	1295.1	1331.8	1370.6
15°	1236.8	1236.8	1239.0	1245.5	1258.4	1271.4	1288.6	1290.8	1329.6	1372.8	1411.7
17.5°	1303.7	1299.4	1299.4	1297.3	1305.9	1312.4	1333.9	1336.1	1377.1	1416.0	1454.8
20°	1385.8	1383.6	1375.0	1364.2	1362.0	1366.3	1387.9	1390.1	1431.1	1463.5	1500.2
22.5°	1485.0	1487.2	1467.8	1444.0	1433.2	1439.7	1459.1	1461.3	1491.5	1519.6	1552.0
25°	1616.7	1610.2	1582.2	1547.6	1526.1	1526.1	1545.5	1545.5	1573.5	1590.8	1612.4
27.5°	1741.9	1729.0	1703.1	1653.4	1618.9	1625.3	1644.8	1644.8	1670.7	1677.1	1687.9
30°	1877.9	1864.9	1832.6	1770.0	1724.6	1720.3	1744.1	1741.9	1776.4	1774.3	1765.6
32.5°	2044.1	2037.6	1983.7	1903.8	1843.4	1828.2	1849.8	1852.0	1873.6	1867.1	1839.0
35°	2277.2	2275.1	2225.4	2085.1	2005.2	1977.2	1990.1	1990.1	2005.2	1988.0	1940.5
37.5°	2570.8	2575.1	2531.9	2324.7	2212.5	2165.0	2167.1	2165.0	2169.3	2149.9	2100.2
40°	2864.3	2875.1	2873.0	2622.6	2480.1	2398.1	2367.9	2363.5	2374.3	2365.7	2318.2
42.5°	3250.7	3276.6	3216.2	2989.5	2829.8	2691.6	2609.6	2598.8	2622.6	2633.4	2588.0
45°	3652.2	3643.5	3548.6	3384.5	3239.9	3062.9	2907.5	2890.2	2907.5	2939.9	2892.4
47.5°	3861.5	3855.1	3831.3	3749.3	3727.7	3524.8	3289.5	3274.4	3242.1	3287.4	3231.3
50°	4206.9	4213.4	4116.2	4107.6	4198.3	4086.0	3721.2	3686.7	3628.4	3665.1	3617.6
52.5°	4457.3	4429.2	4368.8	4444.3	4727.1	4666.7	4127.0	4111.9	4058.0	4049.3	4027.7
55°	4558.7	4558.7	4569.5	4744.4	5148.0	5068.1	4567.4	4582.5	4509.1	4448.7	4476.7
57.5°	4589.0	4601.9	4694.7	4984.0	5642.3	5381.1	5053.0	5074.6	4968.9	4848.0	4936.5
60°	4440.0	4478.9	4701.2	5119.9	5920.7	5713.5	5564.6	5571.1	5417.8	5240.8	5396.2
62.5°	4058.0	4105.5	4502.6	5176.1	5875.4	6054.6	6048.1	6063.2	5853.8	5633.7	5827.9
65°	3589.6	3637.1	4060.1	5018.5	5840.9	6298.5	6490.6	6531.6	6261.8	5966.1	6097.7
67.5°	2901.0	2963.6	3365.1	4487.5	5672.5	6499.2	6905.0	6948.2	6576.9	6138.8	6074.0
70°	2102.4	2132.6	2469.3	3410.4	4986.1	6389.1	7233.1	7231.0	6680.5	6125.8	5750.2
72.5°	1012.3	1036.1	1327.5	2117.5	3565.8	5422.1	6995.7	7036.7	6538.1	5938.0	5009.9
75°	416.6	440.3	537.5	893.6	1871.4	3583.1	5929.4	6026.5	5938.0	5329.3	3919.8
77.5°	259.0	267.7	315.1	461.9	854.8	1672.8	4150.8	4282.4	4705.5	4269.5	2588.0
80°	194.3	200.7	235.3	323.8	539.6	617.3	2061.4	2227.6	2851.4	2449.9	1172.1
82.5°	161.9	164.0	187.8	235.3	366.9	354.0	660.5	736.0	1329.6	934.6	403.6
85°	151.1	155.4	168.4	168.4	233.1	222.3	274.1	287.1	386.4	319.5	140.3
87.5°	77.7	73.4	148.9	131.7	120.9	107.9	116.6	125.2	144.6	153.3	62.6
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°	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8	1318.8
2.5°	1314.5	1321.0	1331.8	1342.6	1355.5	1370.6	1379.3	1390.1	1398.7	1394.4	1392.2
5°	1321.0	1331.8	1355.5	1377.1	1403.0	1433.2	1452.7	1474.3	1491.5	1495.8	1489.4
7.5°	1331.8	1351.2	1383.6	1422.4	1457.0	1495.8	1526.1	1556.3	1577.9	1582.2	1582.2
10°	1357.7	1379.3	1422.4	1474.3	1515.3	1556.3	1590.8	1614.6	1634.0	1642.6	1642.6
12.5°	1394.4	1420.3	1472.1	1534.7	1580.0	1618.9	1638.3	1649.1	1657.7	1666.4	1668.5
15°	1437.6	1465.6	1528.2	1595.1	1642.6	1662.0	1662.0	1659.9	1659.9	1664.2	1668.5
17.5°	1480.7	1510.9	1575.7	1646.9	1677.1	1666.4	1651.2	1644.8	1640.5	1638.3	1644.8
20°	1526.1	1556.3	1621.0	1687.9	1679.3	1634.0	1612.4	1597.3	1584.3	1577.9	1586.5
22.5°	1575.7	1603.8	1670.7	1716.0	1651.2	1582.2	1541.2	1517.4	1495.8	1482.9	1491.5
25°	1634.0	1662.0	1726.8	1724.6	1601.6	1504.5	1439.7	1400.9	1377.1	1364.2	1364.2
27.5°	1703.1	1726.8	1789.4	1703.1	1532.5	1400.9	1305.9	1269.2	1262.7	1251.9	1251.9
30°	1774.3	1793.7	1847.7	1653.4	1437.6	1264.9	1161.3	1144.0	1146.2	1135.4	1137.5
32.5°	1847.7	1867.1	1882.2	1580.0	1314.5	1111.6	1042.6	1029.6	1027.4	1018.8	1010.2
35°	1951.3	1979.3	1886.5	1480.7	1165.6	984.3	934.6	921.7	908.7	878.5	878.5
37.5°	2108.8	2139.1	1875.7	1357.7	1012.3	885.0	839.7	822.4	800.8	770.6	759.8
40°	2324.7	2324.7	1852.0	1219.5	889.3	805.1	761.9	740.4	716.6	686.4	679.9
42.5°	2579.4	2519.0	1815.3	1079.2	798.6	751.2	712.3	688.6	660.5	626.0	621.6
45°	2877.3	2713.2	1763.5	954.1	731.7	718.8	695.0	654.0	606.5	569.8	563.4
47.5°	3166.5	2888.1	1713.8	865.6	675.6	705.8	686.4	617.3	552.6	500.8	494.3
50°	3483.8	3043.5	1655.6	792.2	632.4	697.2	675.6	563.4	492.1	455.4	451.1
52.5°	3801.1	3201.0	1593.0	714.5	595.7	679.9	649.7	524.5	490.0	440.3	433.9
55°	4135.7	3384.5	1519.6	628.1	552.6	645.4	615.2	522.4	505.1	440.3	425.2
57.5°	4461.6	3587.4	1400.9	543.9	505.1	593.6	602.2	509.4	472.7	436.0	418.7
60°	4822.1	3803.3	1204.4	472.7	464.1	550.4	585.0	481.3	436.0	423.1	414.4
62.5°	5111.3	3997.5	941.1	423.1	429.5	515.9	563.4	464.1	420.9	410.1	408.0
65°	5236.5	4001.8	675.6	379.9	395.0	483.5	541.8	449.0	408.0	403.6	401.5
67.5°	5104.8	3781.7	474.9	338.9	358.3	453.3	513.7	433.9	395.0	397.2	392.8
70°	4679.6	3317.6	347.5	300.0	323.8	420.9	483.5	414.4	379.9	384.2	377.7
72.5°	3915.5	2585.9	278.4	267.7	295.7	386.4	453.3	392.8	356.2	358.3	345.4
75°	2892.4	1713.8	233.1	239.6	263.3	354.0	414.4	364.8	330.2	321.6	313.0
77.5°	1720.3	880.7	192.1	209.4	235.3	315.1	371.3	330.2	302.2	287.1	280.6
80°	710.1	356.2	157.6	177.0	205.1	280.6	328.1	289.2	269.8	254.7	246.1
82.5°	282.8	174.8	125.2	144.6	172.7	243.9	287.1	254.7	235.3	224.5	200.7
85°	107.9	86.3	84.2	101.4	129.5	187.8	237.4	213.7	198.6	170.5	164.0
87.5°	43.2	38.9	38.9	49.6	73.4	118.7	170.5	148.9	155.4	123.0	125.2
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)