

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: P231280

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231280
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-AF48-140-D-U-T4W-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14963 lumens
Efficiency: N/A
Efficacy: 106.1 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

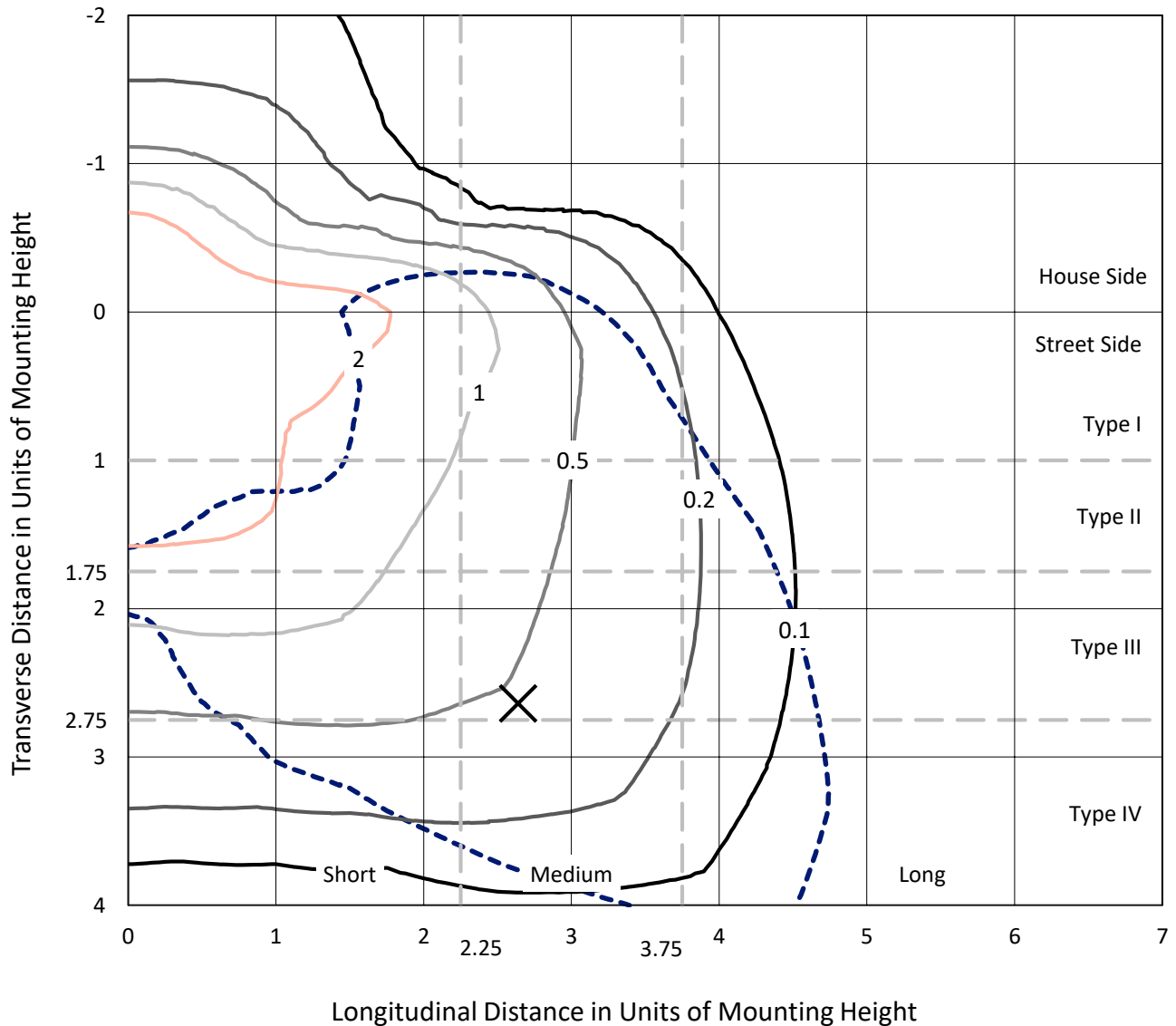
Input Watts (W): 141
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

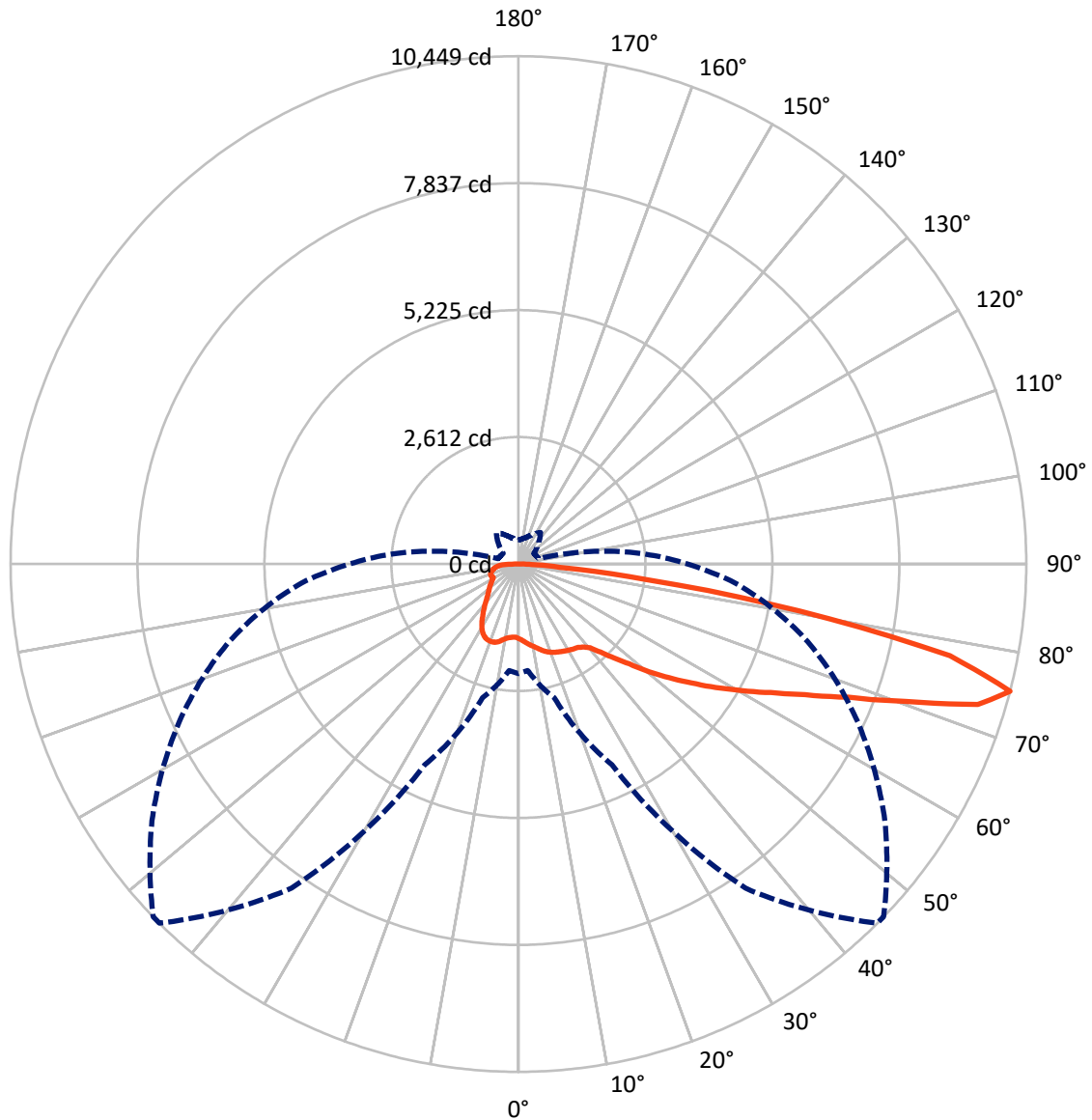
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 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	3466.3	0.0	3466.3
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	11496.7	0.0	11496.7
	% Fixture	76.8	0.0	76.8
Total	Lumens	14963.0	0.0	14963.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.0	1.0
10°-20°	492.6	3.3
20°-30°	845.3	5.6
30°-40°	1182.3	7.9
40°-50°	1734.3	11.6
50°-60°	2701.5	18.1
60°-70°	3887.3	26.0
70°-80°	3386.2	22.6
80°-90°	581.5	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°	14963.0	100.0
0°-180°	14963.0	100.0



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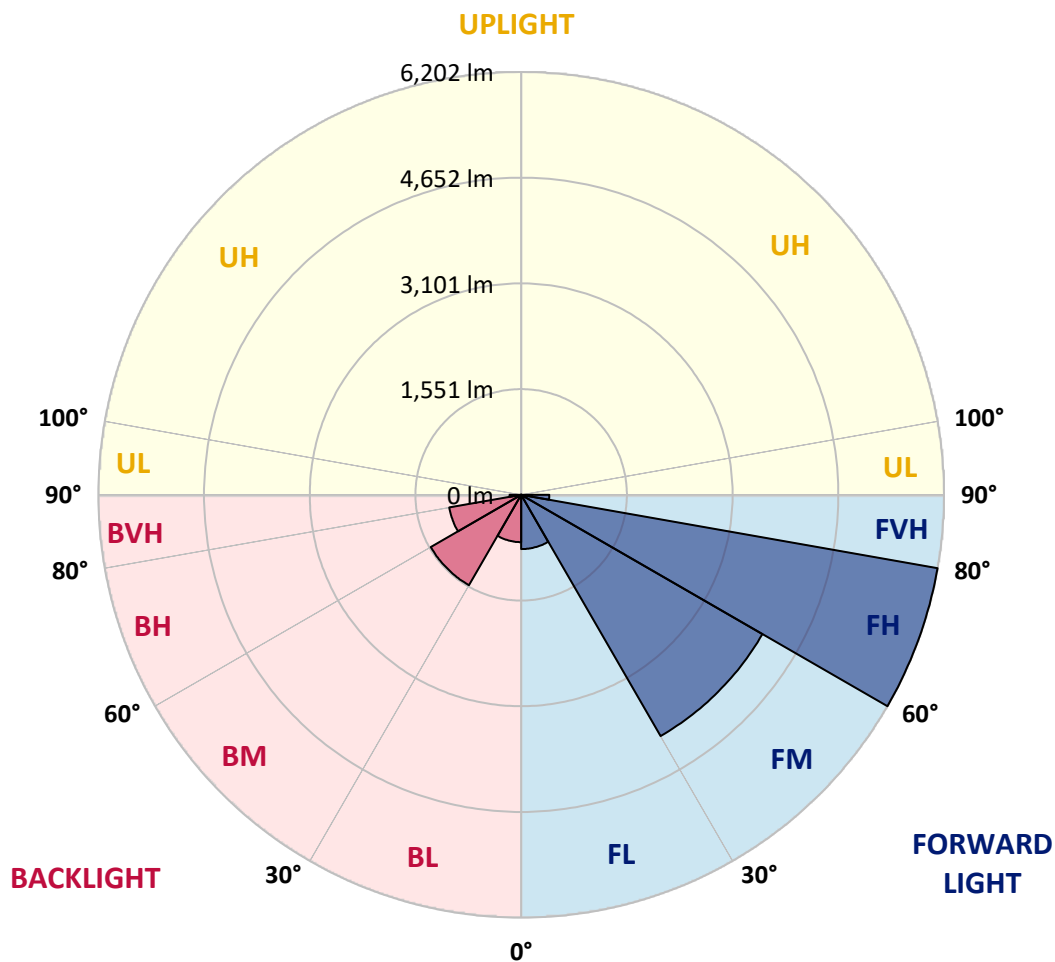
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	795.7	5.3			
FM	(30°-60°)	4086.1	27.3			
FH	(60°-80°)	6202.3	41.5			G3/7500
FVH	(80°-90°)	412.6	2.8			G3/500
BL	(0°-30°)	694.3	4.6	B2/1000		
BM	(30°-60°)	1531.9	10.2	B2/2500		
BH	(60°-80°)	1071.2	7.2	B3/2500		G3/2500
BVH	(80°-90°)	168.9	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°	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9
2.5°	1609.6	1598.0	1598.0	1589.2	1589.2	1574.7	1568.8	1565.9	1551.4	1542.7	1533.9
5°	1702.7	1688.2	1685.3	1664.9	1656.2	1624.2	1621.2	1600.9	1574.7	1548.5	1528.1
7.5°	1787.1	1778.4	1763.9	1743.5	1717.3	1676.5	1673.6	1641.6	1598.0	1563.0	1533.9
10°	1848.3	1842.5	1822.1	1795.9	1766.8	1726.0	1723.1	1688.2	1635.8	1595.0	1554.3
12.5°	1921.0	1912.3	1886.1	1851.2	1819.2	1781.3	1778.4	1749.3	1691.1	1638.7	1586.3
15°	1990.9	1979.3	1947.2	1912.3	1877.4	1845.4	1845.4	1813.3	1752.2	1691.1	1630.0
17.5°	2025.8	2020.0	1988.0	1950.1	1921.0	1897.8	1894.8	1865.7	1804.6	1740.6	1673.6
20°	2037.5	2040.4	2011.3	1970.5	1950.1	1938.5	1935.6	1915.2	1848.3	1787.1	1723.1
22.5°	2034.6	2043.3	2020.0	1976.3	1970.5	1970.5	1970.5	1947.2	1894.8	1833.7	1769.7
25°	2046.2	2057.8	2040.4	1988.0	1988.0	1999.6	1999.6	1988.0	1941.4	1889.0	1825.0
27.5°	2086.9	2095.7	2081.1	2008.4	2011.3	2028.7	2025.8	2028.7	1999.6	1950.1	1886.1
30°	2136.4	2148.1	2130.6	2040.4	2037.5	2054.9	2054.9	2069.5	2049.1	1996.7	1944.3
32.5°	2270.3	2267.4	2212.1	2075.3	2066.6	2084.0	2084.0	2098.6	2086.9	2046.2	1996.7
35°	2669.1	2625.4	2503.2	2188.8	2101.5	2110.2	2110.2	2136.4	2142.2	2110.2	2066.6
37.5°	3076.6	3062.0	2968.9	2491.5	2229.6	2165.5	2162.6	2200.5	2226.7	2200.5	2171.4
40°	3487.0	3475.3	3455.0	2896.1	2497.3	2264.5	2255.8	2287.8	2334.4	2316.9	2299.4
42.5°	3868.3	3862.5	3882.8	3294.9	2837.9	2477.0	2450.8	2412.9	2479.9	2474.1	2474.1
45°	4168.1	4182.6	4194.3	3667.4	3207.6	2750.6	2718.6	2590.5	2680.7	2704.0	2721.5
47.5°	4336.9	4348.5	4389.3	4031.3	3577.2	3067.8	3044.6	2835.0	2954.3	3024.2	3073.7
50°	4578.5	4546.5	4581.4	4386.4	4022.5	3481.2	3417.1	3163.9	3315.2	3437.5	3553.9
52.5°	4811.3	4758.9	4788.0	4796.8	4529.0	3885.7	3818.8	3551.0	3740.2	3932.3	4139.0
55°	5020.9	5018.0	5047.1	5195.5	5018.0	4319.4	4243.7	3978.9	4252.5	4459.1	4808.4
57.5°	5189.7	5218.8	5346.9	5658.3	5582.7	4791.0	4706.5	4476.6	4799.7	5006.3	5585.6
60°	5387.6	5434.2	5646.7	6051.3	6097.8	5285.8	5198.4	5032.5	5361.4	5571.0	6485.0
62.5°	5454.6	5521.5	5958.1	6464.6	6636.3	5827.1	5748.6	5638.0	5952.3	6141.5	7381.4
65°	5009.3	5137.3	6129.9	6677.1	7215.5	6479.1	6412.2	6316.1	6540.3	6665.4	7989.8
67.5°	4887.0	4945.2	5795.1	6982.7	7759.8	7317.4	7250.5	7084.6	7090.4	7038.0	8187.7
70°	4715.3	4779.3	5451.7	7212.6	8539.9	8464.2	8382.7	7893.7	7593.9	7276.7	7797.7
72.5°	4016.7	3996.3	4697.8	6592.7	8915.4	9884.6	9788.6	8764.0	7966.5	7070.0	6581.0
75°	2255.8	2197.6	2849.5	4561.0	8141.1	10449.3	10446.4	9203.5	7704.5	6159.0	4479.5
77.5°	654.9	637.4	940.1	1912.3	5480.8	9078.4	9189.0	8301.2	6429.7	4424.2	2459.5
80°	308.5	314.4	404.6	631.6	2340.2	5859.2	6176.4	5466.2	3842.1	2040.4	1015.8
82.5°	195.0	197.9	276.5	407.5	989.6	2660.3	2922.3	2459.5	1522.3	881.9	448.2
85°	122.2	122.2	183.4	267.8	590.9	849.9	922.7	838.3	652.0	480.3	244.5
87.5°	66.9	66.9	110.6	154.3	323.1	273.6	282.3	334.7	407.5	294.0	122.2
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°	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9	1533.9
2.5°	1531.0	1525.2	1516.5	1513.5	1510.6	1507.7	1510.6	1516.5	1510.6	1510.6	1513.5
5°	1522.3	1516.5	1504.8	1504.8	1507.7	1510.6	1525.2	1533.9	1536.8	1536.8	1536.8
7.5°	1522.3	1513.5	1504.8	1507.7	1513.5	1525.2	1548.5	1563.0	1574.7	1577.6	1577.6
10°	1536.8	1525.2	1519.4	1525.2	1542.7	1551.4	1574.7	1598.0	1612.5	1618.3	1618.3
12.5°	1563.0	1551.4	1551.4	1563.0	1586.3	1598.0	1618.3	1635.8	1653.3	1662.0	1662.0
15°	1606.7	1592.1	1595.0	1615.4	1641.6	1653.3	1667.8	1673.6	1688.2	1699.8	1699.8
17.5°	1647.4	1632.9	1638.7	1662.0	1679.5	1685.3	1694.0	1691.1	1696.9	1705.6	1708.6
20°	1694.0	1679.5	1682.4	1696.9	1699.8	1694.0	1694.0	1685.3	1682.4	1696.9	1702.7
22.5°	1740.6	1726.0	1723.1	1714.4	1699.8	1685.3	1676.5	1667.8	1662.0	1676.5	1682.4
25°	1795.9	1775.5	1761.0	1723.1	1685.3	1659.1	1647.4	1641.6	1638.7	1653.3	1659.1
27.5°	1857.0	1836.6	1793.0	1711.5	1650.3	1606.7	1598.0	1598.0	1603.8	1612.5	1618.3
30°	1915.2	1894.8	1816.3	1685.3	1589.2	1525.2	1516.5	1525.2	1539.7	1548.5	1557.2
32.5°	1973.4	1953.1	1830.8	1644.5	1499.0	1417.5	1411.7	1426.2	1449.5	1455.3	1461.2
35°	2052.0	2031.6	1848.3	1586.3	1385.5	1298.2	1292.3	1301.1	1321.4	1330.2	1338.9
37.5°	2162.6	2151.0	1874.5	1522.3	1280.7	1184.6	1167.2	1161.4	1173.0	1170.1	1181.7
40°	2308.2	2316.9	1921.0	1437.9	1178.8	1079.9	1042.0	1024.6	1012.9	989.6	1001.3
42.5°	2520.6	2526.5	1973.4	1341.8	1091.5	980.9	931.4	899.4	876.1	838.3	844.1
45°	2832.1	2782.6	2034.6	1239.9	1012.9	902.3	844.1	806.3	774.2	742.2	745.1
47.5°	3245.4	3094.0	2101.5	1155.5	934.3	838.3	785.9	742.2	704.4	678.2	681.1
50°	3754.8	3481.2	2168.4	1076.9	855.7	788.8	742.2	695.6	657.8	631.6	628.7
52.5°	4427.1	3946.9	2212.1	989.6	777.1	745.1	704.4	660.7	614.2	582.1	579.2
55°	5125.7	4488.2	2249.9	884.8	701.5	695.6	675.3	625.8	570.5	529.7	523.9
57.5°	5894.1	5067.5	2279.0	783.0	643.3	654.9	649.1	590.9	529.7	491.9	489.0
60°	6592.7	5667.1	2185.9	692.7	590.9	614.2	620.0	570.5	538.5	547.2	550.1
62.5°	7297.0	6129.9	1830.8	625.8	555.9	588.0	637.4	634.5	620.0	634.5	637.4
65°	7550.3	6225.9	1298.2	570.5	521.0	599.6	692.7	686.9	620.0	593.8	588.0
67.5°	7407.6	5940.7	873.2	526.8	494.8	614.2	751.0	686.9	596.7	561.8	550.1
70°	6729.5	5239.2	640.3	483.2	471.5	611.2	783.0	684.0	585.0	547.2	532.7
72.5°	5367.3	4042.9	515.2	442.4	436.6	596.7	800.4	678.2	573.4	532.7	515.2
75°	3475.3	2514.8	433.7	401.7	384.2	573.4	791.7	660.7	558.8	506.5	494.8
77.5°	1612.5	1082.8	369.7	355.1	334.7	538.5	765.5	625.8	526.8	477.3	462.8
80°	751.0	512.3	311.4	308.5	299.8	509.4	730.6	585.0	489.0	448.2	425.0
82.5°	401.7	308.5	253.2	253.2	262.0	474.4	686.9	535.6	439.5	419.1	358.0
85°	212.5	177.6	183.4	197.9	224.1	419.1	628.7	483.2	384.2	320.2	311.4
87.5°	107.7	113.5	113.5	133.9	171.7	340.5	518.1	398.8	326.0	262.0	256.1
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)