

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: P231152

Luminaire Tested: **ARCH-M-AF48-160-D-U-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231152  
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-AF48-160-D-U-T3-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16426 lumens  
Efficiency: N/A  
Efficacy: 102.0 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

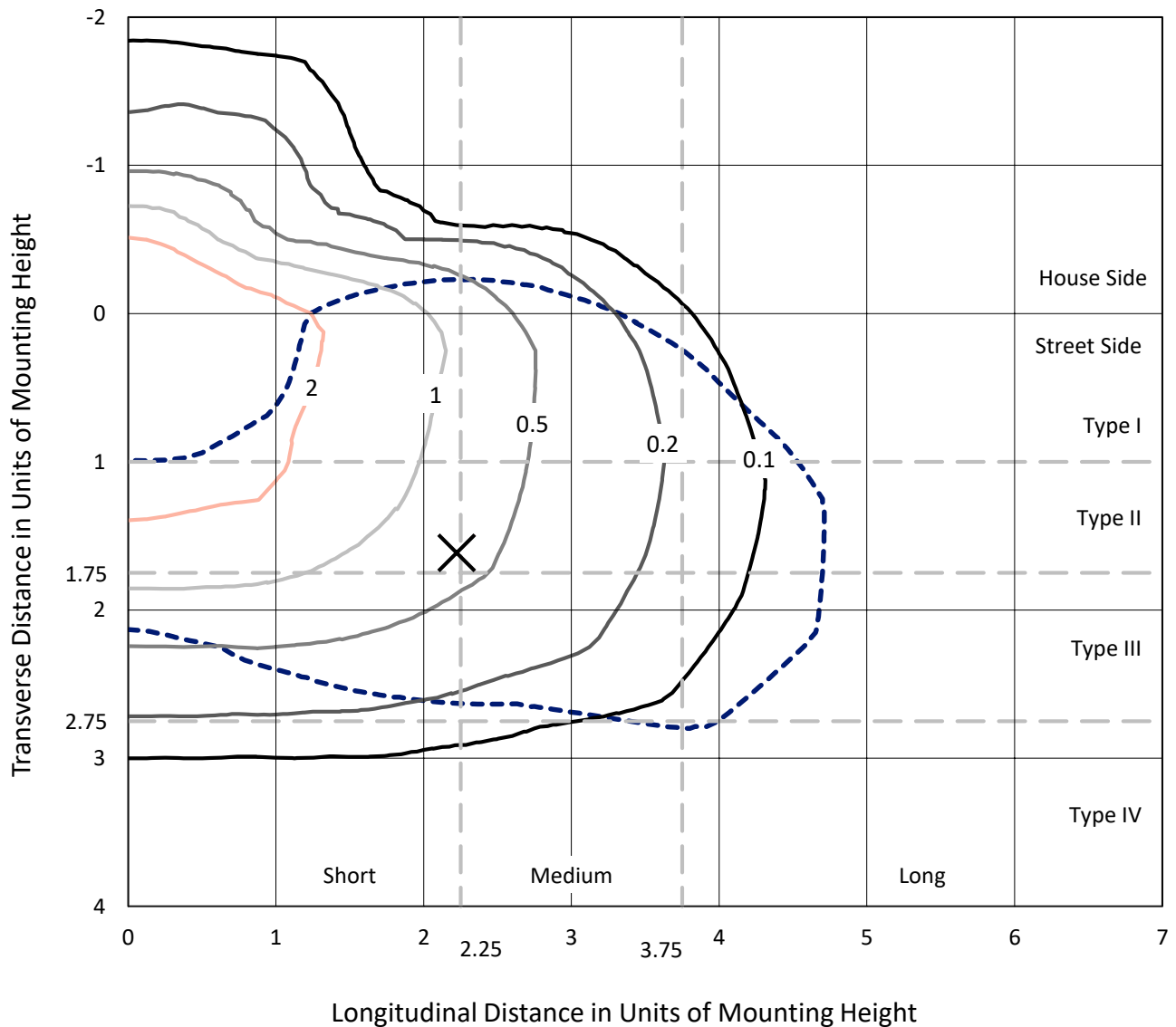
Input Watts (W): 161  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

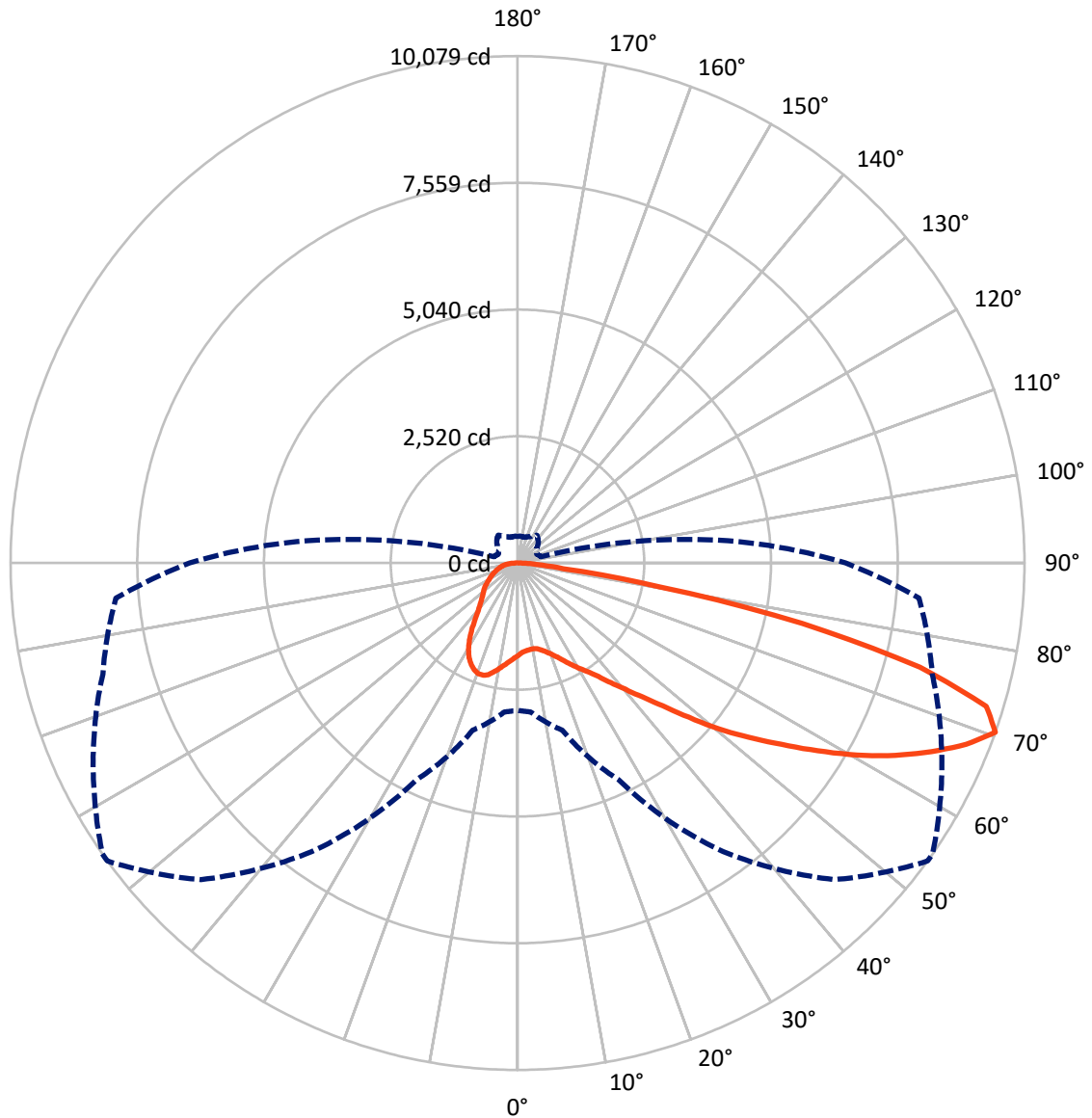
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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
<b>House Side</b>	Lumens	3725.4	0.0	3725.4
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	12700.6	0.0	12700.6
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	16426.0	0.0	16426.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.3	1.1
10°-20°	576.3	3.5
20°-30°	1001.2	6.1
30°-40°	1463.1	8.9
40°-50°	2296.3	14.0
50°-60°	3531.2	21.5
60°-70°	4314.2	26.3
70°-80°	2674.8	16.3
80°-90°	388.6	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°	16426.0	100.0
0°-180°	16426.0	100.0



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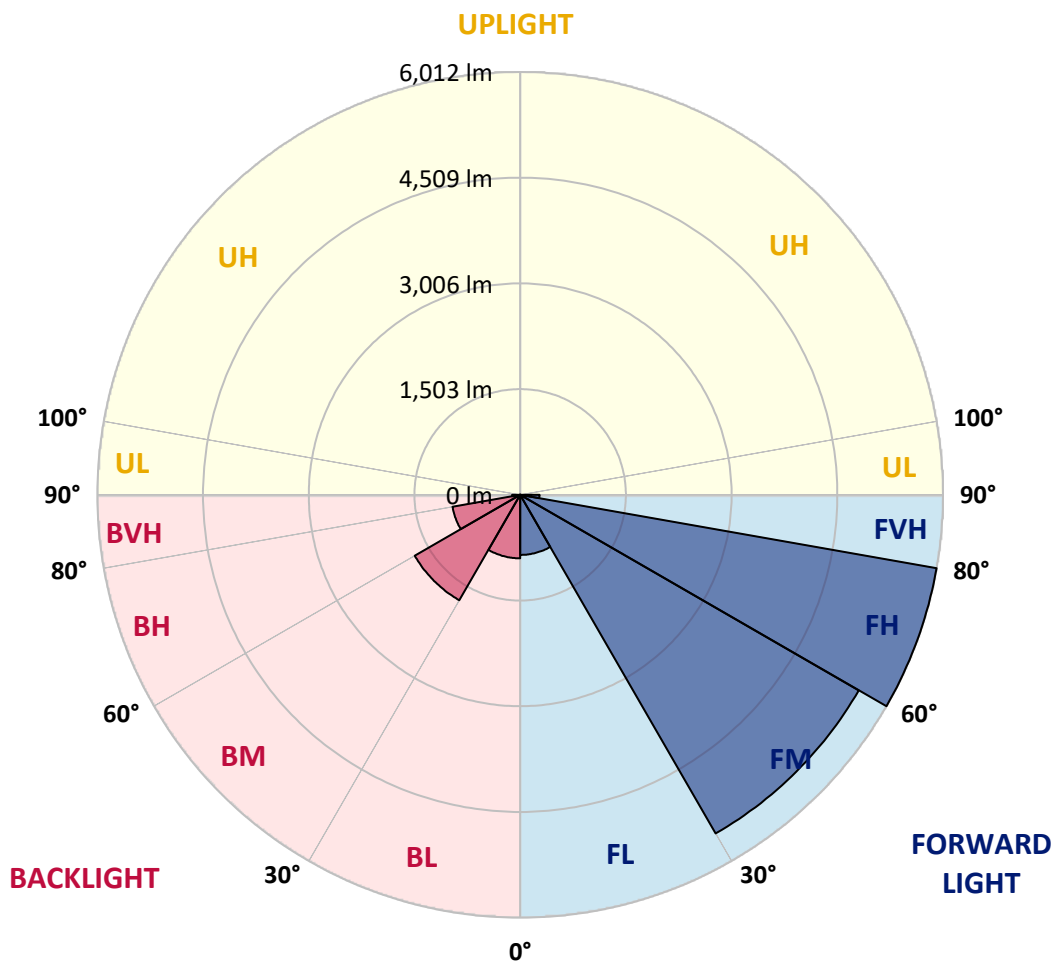
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	854.6	5.2			
FM	(30°-60°)	5559.4	33.8			
FH	(60°-80°)	6012.2	36.6			G3/7500
FVH	(80°-90°)	274.4	1.7			G3/500
BL	(0°-30°)	903.2	5.5	B2/1000		
BM	(30°-60°)	1731.1	10.5	B2/2500		
BH	(60°-80°)	976.9	5.9	B2/1000		G2/1000
BVH	(80°-90°)	114.2	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°	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7
2.5°	1765.6	1759.5	1759.5	1768.6	1771.6	1780.6	1780.6	1783.6	1792.6	1807.7	1825.7
5°	1711.4	1708.4	1711.4	1723.4	1729.5	1747.5	1753.5	1756.5	1774.6	1798.6	1825.7
7.5°	1657.3	1654.3	1660.3	1678.3	1696.4	1723.4	1738.5	1741.5	1768.6	1801.6	1837.7
10°	1639.2	1636.2	1645.2	1660.3	1678.3	1708.4	1732.5	1735.5	1774.6	1813.7	1864.8
12.5°	1663.3	1660.3	1669.3	1684.3	1702.4	1723.4	1750.5	1753.5	1804.7	1855.8	1909.9
15°	1723.4	1723.4	1726.5	1735.5	1753.5	1771.6	1795.6	1798.6	1852.8	1912.9	1967.1
17.5°	1816.7	1810.7	1810.7	1807.7	1819.7	1828.7	1858.8	1861.8	1918.9	1973.1	2027.2
20°	1931.0	1928.0	1915.9	1900.9	1897.9	1903.9	1934.0	1937.0	1994.1	2039.3	2090.4
22.5°	2069.3	2072.3	2045.3	2012.2	1997.1	2006.2	2033.2	2036.2	2078.4	2117.5	2162.6
25°	2252.8	2243.8	2204.7	2156.6	2126.5	2126.5	2153.6	2153.6	2192.7	2216.7	2246.8
27.5°	2427.3	2409.2	2373.1	2303.9	2255.8	2264.8	2291.9	2291.9	2328.0	2337.0	2352.1
30°	2616.7	2598.7	2553.6	2466.4	2403.2	2397.2	2430.3	2427.3	2475.4	2472.4	2460.3
32.5°	2848.3	2839.3	2764.1	2652.8	2568.6	2547.6	2577.6	2580.7	2610.7	2601.7	2562.6
35°	3173.2	3170.2	3101.0	2905.5	2794.2	2755.1	2773.1	2773.1	2794.2	2770.1	2704.0
37.5°	3582.2	3588.3	3528.1	3239.4	3082.9	3016.8	3019.8	3016.8	3022.8	2995.7	2926.5
40°	3991.3	4006.3	4003.3	3654.4	3455.9	3341.6	3299.5	3293.5	3308.5	3296.5	3230.3
42.5°	4529.7	4565.8	4481.6	4165.7	3943.2	3750.7	3636.4	3621.3	3654.4	3669.5	3606.3
45°	5089.1	5077.1	4944.7	4716.2	4514.6	4268.0	4051.4	4027.4	4051.4	4096.6	4030.4
47.5°	5380.9	5371.8	5338.8	5224.5	5194.4	4911.7	4583.8	4562.8	4517.6	4580.8	4502.6
50°	5862.1	5871.1	5735.8	5723.8	5850.1	5693.7	5185.4	5137.2	5056.0	5107.2	5041.0
52.5°	6211.0	6171.9	6087.7	6193.0	6587.0	6502.8	5750.8	5729.8	5654.6	5642.5	5612.5
55°	6352.4	6352.4	6367.4	6611.0	7173.5	7062.2	6364.4	6385.5	6283.2	6199.0	6238.1
57.5°	6394.5	6412.5	6541.9	6944.9	7862.3	7498.3	7041.2	7071.2	6923.8	6755.4	6878.7
60°	6186.9	6241.1	6550.9	7134.4	8250.3	7961.5	7754.0	7763.0	7549.5	7302.8	7519.4
62.5°	5654.6	5720.7	6274.2	7212.6	8187.1	8436.7	8427.7	8448.8	8157.0	7850.2	8120.9
65°	5001.9	5068.1	5657.6	6993.0	8139.0	8776.6	9044.3	9101.5	8725.5	8313.4	8496.9
67.5°	4042.4	4129.6	4689.1	6253.1	7904.4	9056.3	9621.8	9682.0	9164.6	8554.1	8463.8
70°	2929.6	2971.7	3440.9	4752.3	6947.9	8903.0	10079.0	10076.0	9309.0	8536.0	8012.7
72.5°	1410.6	1443.7	1849.8	2950.6	4968.8	7555.5	9748.1	9805.3	9110.5	8274.3	6981.0
75°	580.5	613.6	748.9	1245.2	2607.7	4992.9	8262.3	8397.6	8274.3	7426.1	5462.1
77.5°	360.9	373.0	439.1	643.7	1191.1	2331.0	5783.9	5967.4	6556.9	5949.3	3606.3
80°	270.7	279.7	327.8	451.2	751.9	860.2	2872.4	3104.0	3973.2	3413.8	1633.2
82.5°	225.6	228.6	261.7	327.8	511.3	493.3	920.4	1025.6	1852.8	1302.4	562.4
85°	210.5	216.6	234.6	234.6	324.8	309.8	382.0	400.0	538.4	445.1	195.5
87.5°	108.3	102.3	207.5	183.5	168.4	150.4	162.4	174.4	201.5	213.6	87.2
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°	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7	1837.7
2.5°	1831.7	1840.7	1855.8	1870.8	1888.9	1909.9	1922.0	1937.0	1949.0	1943.0	1940.0
5°	1840.7	1855.8	1888.9	1918.9	1955.0	1997.1	2024.2	2054.3	2078.4	2084.4	2075.4
7.5°	1855.8	1882.9	1928.0	1982.1	2030.2	2084.4	2126.5	2168.6	2198.7	2204.7	2204.7
10°	1891.9	1922.0	1982.1	2054.3	2111.4	2168.6	2216.7	2249.8	2276.9	2288.9	2288.9
12.5°	1943.0	1979.1	2051.3	2138.5	2201.7	2255.8	2282.9	2297.9	2310.0	2322.0	2325.0
15°	2003.2	2042.3	2129.5	2222.7	2288.9	2316.0	2316.0	2313.0	2313.0	2319.0	2325.0
17.5°	2063.3	2105.4	2195.7	2294.9	2337.0	2322.0	2300.9	2291.9	2285.9	2282.9	2291.9
20°	2126.5	2168.6	2258.8	2352.1	2340.0	2276.9	2246.8	2225.7	2207.7	2198.7	2210.7
22.5°	2195.7	2234.8	2328.0	2391.2	2300.9	2204.7	2147.5	2114.5	2084.4	2066.3	2078.4
25°	2276.9	2316.0	2406.2	2403.2	2231.8	2096.4	2006.2	1952.0	1918.9	1900.9	1900.9
27.5°	2373.1	2406.2	2493.4	2373.1	2135.5	1952.0	1819.7	1768.6	1759.5	1744.5	1744.5
30°	2472.4	2499.4	2574.6	2303.9	2003.2	1762.5	1618.2	1594.1	1597.1	1582.1	1585.1
32.5°	2574.6	2601.7	2622.8	2201.7	1831.7	1549.0	1452.7	1434.7	1431.7	1419.7	1407.6
35°	2719.0	2758.1	2628.8	2063.3	1624.2	1371.5	1302.4	1284.3	1266.3	1224.2	1224.2
37.5°	2938.6	2980.7	2613.7	1891.9	1410.6	1233.2	1170.0	1146.0	1115.9	1073.8	1058.7
40°	3239.4	3239.4	2580.7	1699.4	1239.2	1121.9	1061.7	1031.7	998.6	956.5	947.4
42.5°	3594.3	3510.0	2529.5	1503.9	1112.9	1046.7	992.6	959.5	920.4	872.2	866.2
45°	4009.3	3780.7	2457.3	1329.4	1019.6	1001.6	968.5	911.3	845.2	794.0	785.0
47.5°	4412.4	4024.4	2388.2	1206.1	941.4	983.5	956.5	860.2	770.0	697.8	688.8
50°	4854.5	4240.9	2306.9	1103.8	881.3	971.5	941.4	785.0	685.8	634.6	628.6
52.5°	5296.7	4460.5	2219.7	995.6	830.1	947.4	905.3	730.9	682.8	613.6	604.6
55°	5762.9	4716.2	2117.5	875.3	770.0	899.3	857.2	727.9	703.8	613.6	592.5
57.5°	6217.0	4998.9	1952.0	758.0	703.8	827.1	839.2	709.8	658.7	607.6	583.5
60°	6719.3	5299.7	1678.3	658.7	646.7	767.0	815.1	670.7	607.6	589.5	577.5
62.5°	7122.4	5570.4	1311.4	589.5	598.5	718.9	785.0	646.7	586.5	571.5	568.5
65°	7296.8	5576.4	941.4	529.4	550.4	673.7	754.9	625.6	568.5	562.4	559.4
67.5°	7113.3	5269.6	661.7	472.2	499.3	631.6	715.8	604.6	550.4	553.4	547.4
70°	6520.8	4622.9	484.2	418.1	451.2	586.5	673.7	577.5	529.4	535.4	526.4
72.5°	5456.1	3603.3	388.0	373.0	412.1	538.4	631.6	547.4	496.3	499.3	481.2
75°	4030.4	2388.2	324.8	333.9	366.9	493.3	577.5	508.3	460.2	448.2	436.1
77.5°	2397.2	1227.2	267.7	291.8	327.8	439.1	517.3	460.2	421.1	400.0	391.0
80°	989.6	496.3	219.6	246.6	285.7	391.0	457.2	403.0	376.0	354.9	342.9
82.5°	394.0	243.6	174.4	201.5	240.6	339.9	400.0	354.9	327.8	312.8	279.7
85°	150.4	120.3	117.3	141.4	180.5	261.7	330.9	297.8	276.7	237.6	228.6
87.5°	60.2	54.1	54.1	69.2	102.3	165.4	237.6	207.5	216.6	171.4	174.4
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)