

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: P231282

Luminaire Tested: **ARCH-M-AF48-160-D-U-T4W-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231282  
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-AF48-160-D-U-T4W-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16341 lumens  
Efficiency: N/A  
Efficacy: 101.5 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): 161  
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

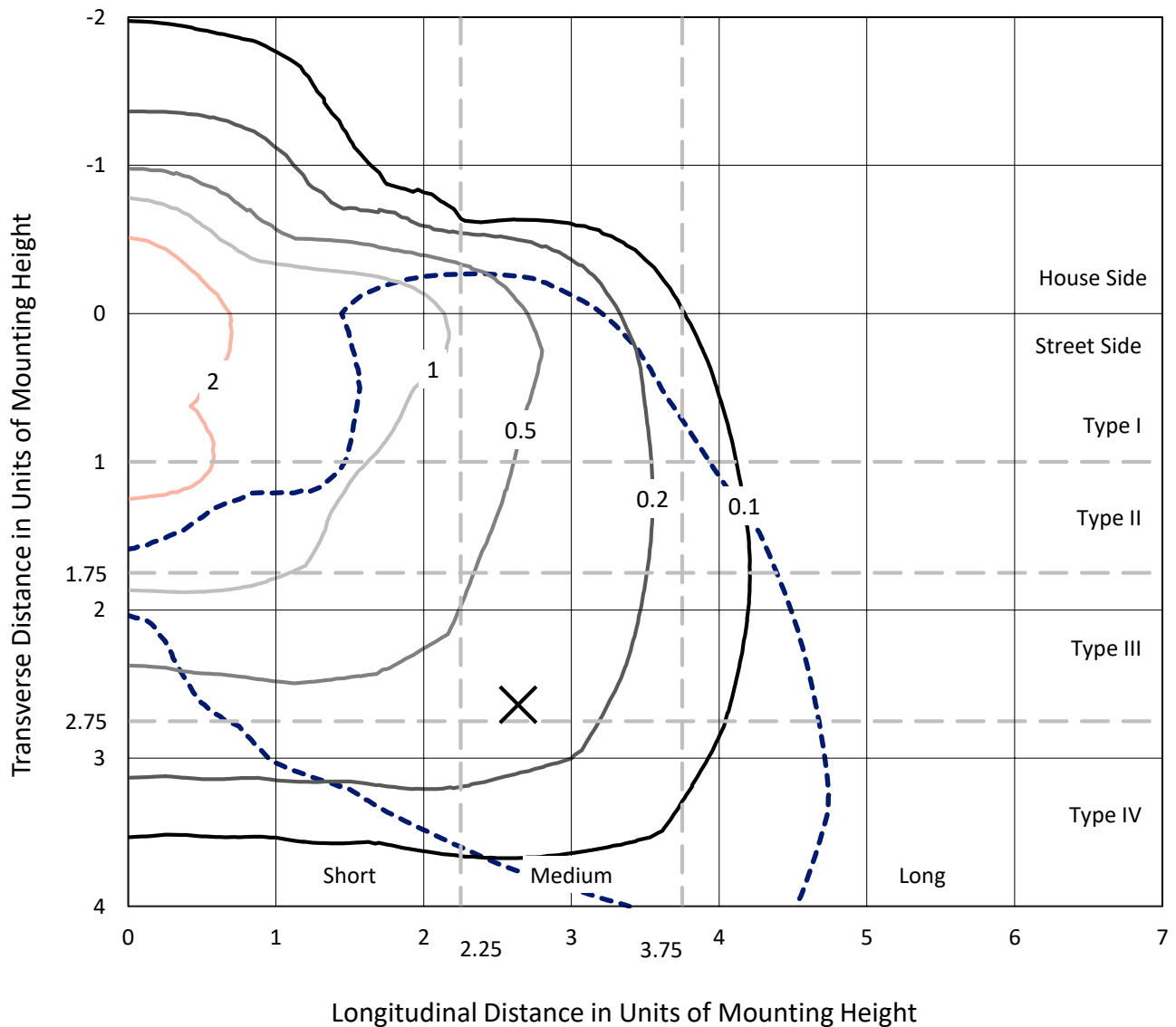


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### Iso-Footcandle Lines of Horizontal Illumination

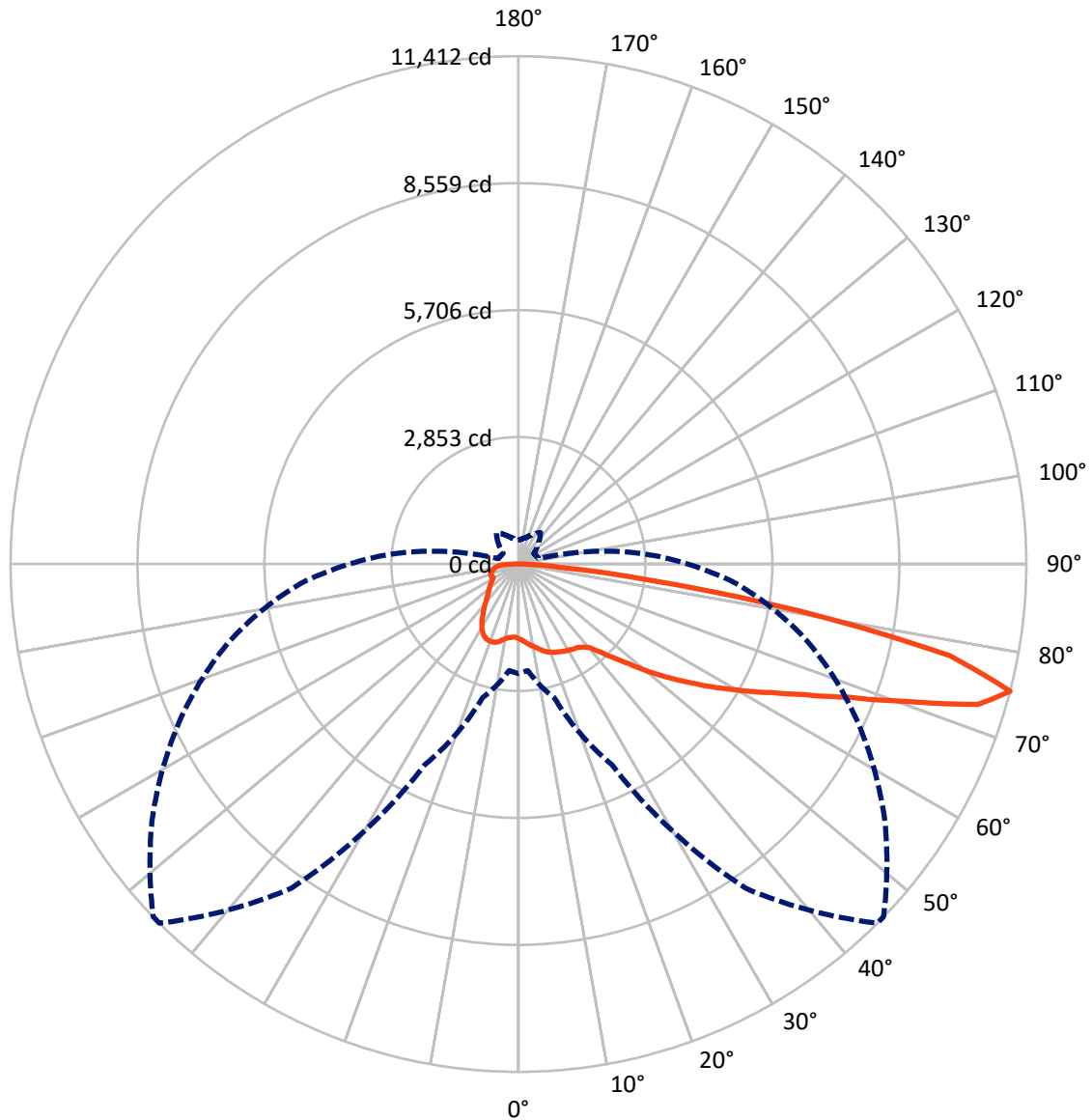
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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
<b>House Side</b>	Lumens	3785.5	0.0	3785.5
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	12555.5	0.0	12555.5
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	16341.0	0.0	16341.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.0	1.0
10°-20°	538.0	3.3
20°-30°	923.2	5.6
30°-40°	1291.1	7.9
40°-50°	1894.0	11.6
50°-60°	2950.3	18.1
60°-70°	4245.3	26.0
70°-80°	3698.1	22.6
80°-90°	635.1	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°	16341.0	100.0
0°-180°	16341.0	100.0

**Coefficient of Utilization**



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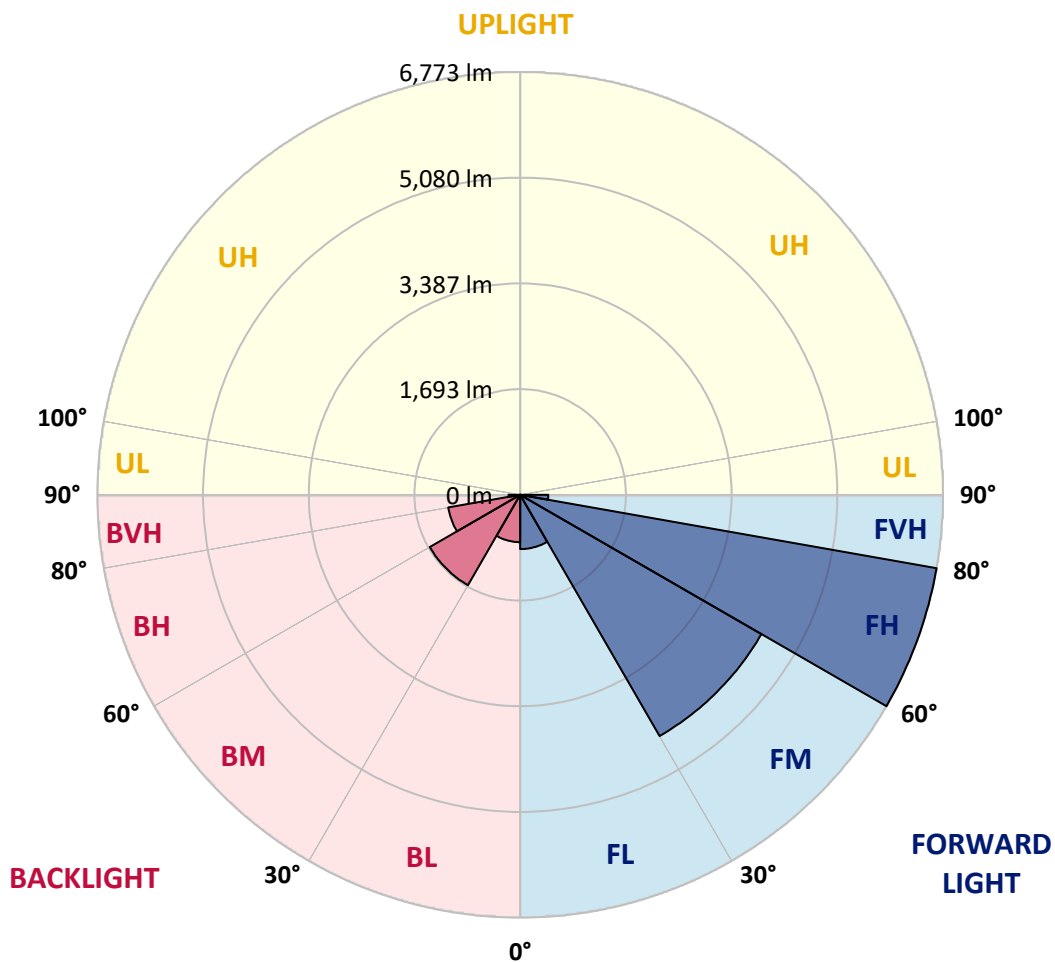
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	869.0	5.3			
FM	(30°-60°)	4462.4	27.3			
FH	(60°-80°)	6773.5	41.5			G3/7500
FVH	(80°-90°)	450.6	2.8			G3/500
BL	(0°-30°)	758.2	4.6	B2/1000		
BM	(30°-60°)	1673.0	10.2	B2/2500		
BH	(60°-80°)	1169.8	7.2	B3/2500		G3/2500
BVH	(80°-90°)	184.5	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°	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2
2.5°	1757.8	1745.1	1745.1	1735.6	1735.6	1719.7	1713.3	1710.2	1694.3	1684.7	1675.2
5°	1859.6	1843.7	1840.5	1818.2	1808.7	1773.7	1770.5	1748.3	1719.7	1691.1	1668.8
7.5°	1951.7	1942.2	1926.3	1904.1	1875.4	1830.9	1827.8	1792.8	1745.1	1707.0	1675.2
10°	2018.5	2012.1	1989.9	1961.3	1929.5	1885.0	1881.8	1843.7	1786.4	1741.9	1697.4
12.5°	2098.0	2088.4	2059.8	2021.7	1986.7	1945.4	1942.2	1910.4	1846.8	1789.6	1732.4
15°	2174.2	2161.5	2126.6	2088.4	2050.3	2015.3	2015.3	1980.3	1913.6	1846.8	1780.1
17.5°	2212.4	2206.0	2171.1	2129.7	2098.0	2072.5	2069.3	2037.6	1970.8	1900.9	1827.8
20°	2225.1	2228.3	2196.5	2152.0	2129.7	2117.0	2113.8	2091.6	2018.5	1951.7	1881.8
22.5°	2221.9	2231.5	2206.0	2158.3	2152.0	2152.0	2152.0	2126.6	2069.3	2002.6	1932.7
25°	2234.6	2247.4	2228.3	2171.1	2171.1	2183.8	2183.8	2171.1	2120.2	2063.0	1993.1
27.5°	2279.1	2288.7	2272.8	2193.3	2196.5	2215.6	2212.4	2215.6	2183.8	2129.7	2059.8
30°	2333.2	2345.9	2326.8	2228.3	2225.1	2244.2	2244.2	2260.1	2237.8	2180.6	2123.4
32.5°	2479.4	2476.2	2415.8	2266.4	2256.9	2276.0	2276.0	2291.9	2279.1	2234.6	2180.6
35°	2914.9	2867.2	2733.7	2390.4	2295.0	2304.6	2304.6	2333.2	2339.5	2304.6	2256.9
37.5°	3359.9	3344.0	3242.3	2721.0	2434.9	2365.0	2361.8	2403.1	2431.7	2403.1	2371.3
40°	3808.1	3795.4	3773.1	3162.8	2727.3	2473.0	2463.5	2498.5	2549.3	2530.3	2511.2
42.5°	4224.5	4218.2	4240.4	3598.3	3099.3	2705.1	2676.5	2635.2	2708.3	2701.9	2701.9
45°	4551.9	4567.8	4580.5	4005.2	3502.9	3003.9	2968.9	2829.1	2927.6	2953.0	2972.1
47.5°	4736.3	4749.0	4793.5	4402.5	3906.6	3350.4	3324.9	3096.1	3226.4	3302.7	3356.7
50°	5000.1	4965.2	5003.3	4790.3	4393.0	3801.7	3731.8	3455.3	3620.6	3754.1	3881.2
52.5°	5254.4	5197.2	5229.0	5238.5	4946.1	4243.6	4170.5	3878.0	4084.7	4294.4	4520.1
55°	5483.3	5480.1	5511.9	5674.0	5480.1	4717.2	4634.6	4345.3	4644.1	4869.8	5251.2
57.5°	5667.7	5699.4	5839.3	6179.4	6096.8	5232.2	5140.0	4888.9	5241.7	5467.4	6100.0
60°	5883.8	5934.7	6166.7	6608.6	6659.4	5772.6	5677.2	5496.0	5855.2	6084.1	7082.2
62.5°	5956.9	6030.0	6506.8	7059.9	7247.5	6363.8	6278.0	6157.2	6500.5	6707.1	8061.2
65°	5470.6	5610.4	6694.4	7292.0	7880.0	7075.8	7002.7	6897.8	7142.6	7279.3	8725.6
67.5°	5337.1	5400.6	6328.8	7625.7	8474.5	7991.3	7918.2	7737.0	7743.4	7686.1	8941.7
70°	5149.5	5219.5	5953.7	7876.9	9326.4	9243.7	9154.7	8620.7	8293.3	7946.8	8515.8
72.5°	4386.6	4364.4	5130.5	7199.8	9736.4	10794.9	10690.0	9571.1	8700.2	7721.1	7187.1
75°	2463.5	2399.9	3112.0	4981.1	8890.9	11411.6	11408.4	10051.1	8414.1	6726.2	4892.0
77.5°	715.2	696.1	1026.7	2088.4	5985.5	9914.4	10035.2	9065.7	7021.8	4831.7	2686.0
80°	336.9	343.3	441.8	689.8	2555.7	6398.8	6745.2	5969.6	4195.9	2228.3	1109.4
82.5°	213.0	216.2	302.0	445.0	1080.8	2905.3	3191.4	2686.0	1662.5	963.2	489.5
85°	133.5	133.5	200.3	292.4	645.3	928.2	1007.7	915.5	712.0	524.5	267.0
87.5°	73.1	73.1	120.8	168.5	352.8	298.8	308.3	365.6	445.0	321.1	133.5
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°	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2	1675.2
2.5°	1672.0	1665.6	1656.1	1652.9	1649.8	1646.6	1649.8	1656.1	1649.8	1649.8	1652.9
5°	1662.5	1656.1	1643.4	1643.4	1646.6	1649.8	1665.6	1675.2	1678.4	1678.4	1678.4
7.5°	1662.5	1652.9	1643.4	1646.6	1652.9	1665.6	1691.1	1707.0	1719.7	1722.9	1722.9
10°	1678.4	1665.6	1659.3	1665.6	1684.7	1694.3	1719.7	1745.1	1761.0	1767.4	1767.4
12.5°	1707.0	1694.3	1694.3	1707.0	1732.4	1745.1	1767.4	1786.4	1805.5	1815.0	1815.0
15°	1754.7	1738.8	1741.9	1764.2	1792.8	1805.5	1821.4	1827.8	1843.7	1856.4	1856.4
17.5°	1799.2	1783.3	1789.6	1815.0	1834.1	1840.5	1850.0	1846.8	1853.2	1862.7	1865.9
20°	1850.0	1834.1	1837.3	1853.2	1856.4	1850.0	1850.0	1840.5	1837.3	1853.2	1859.6
22.5°	1900.9	1885.0	1881.8	1872.3	1856.4	1840.5	1830.9	1821.4	1815.0	1830.9	1837.3
25°	1961.3	1939.0	1923.1	1881.8	1840.5	1811.9	1799.2	1792.8	1789.6	1805.5	1811.9
27.5°	2028.0	2005.8	1958.1	1869.1	1802.3	1754.7	1745.1	1745.1	1751.5	1761.0	1767.4
30°	2091.6	2069.3	1983.5	1840.5	1735.6	1665.6	1656.1	1665.6	1681.5	1691.1	1700.6
32.5°	2155.2	2132.9	1999.4	1796.0	1637.0	1548.0	1541.7	1557.6	1583.0	1589.4	1595.7
35°	2241.0	2218.7	2018.5	1732.4	1513.1	1417.7	1411.4	1420.9	1443.1	1452.7	1462.2
37.5°	2361.8	2349.1	2047.1	1662.5	1398.6	1293.7	1274.7	1268.3	1281.0	1277.8	1290.6
40°	2520.7	2530.3	2098.0	1570.3	1287.4	1179.3	1138.0	1118.9	1106.2	1080.8	1093.5
42.5°	2752.8	2759.1	2155.2	1465.4	1192.0	1071.2	1017.2	982.2	956.8	915.5	921.8
45°	3092.9	3038.9	2221.9	1354.1	1106.2	985.4	921.8	880.5	845.5	810.6	813.8
47.5°	3544.3	3379.0	2295.0	1262.0	1020.4	915.5	858.3	810.6	769.2	740.6	743.8
50°	4100.5	3801.7	2368.1	1176.1	934.5	861.4	810.6	759.7	718.4	689.8	686.6
52.5°	4834.8	4310.3	2415.8	1080.8	848.7	813.8	769.2	721.6	670.7	635.7	632.6
55°	5597.7	4901.6	2457.1	966.3	766.1	759.7	737.5	683.4	623.0	578.5	572.2
57.5°	6436.9	5534.1	2488.9	855.1	702.5	715.2	708.9	645.3	578.5	537.2	534.0
60°	7199.8	6189.0	2387.2	756.5	645.3	670.7	677.1	623.0	588.1	597.6	600.8
62.5°	7969.0	6694.4	1999.4	683.4	607.1	642.1	696.1	693.0	677.1	693.0	696.1
65°	8245.6	6799.3	1417.7	623.0	569.0	654.8	756.5	750.2	677.1	648.5	642.1
67.5°	8089.8	6487.8	953.6	575.3	540.4	670.7	820.1	750.2	651.6	613.5	600.8
70°	7349.2	5721.7	699.3	527.7	515.0	667.5	855.1	747.0	638.9	597.6	581.7
72.5°	5861.6	4415.2	562.6	483.2	476.8	651.6	874.1	740.6	626.2	581.7	562.6
75°	3795.4	2746.4	473.6	438.7	419.6	626.2	864.6	721.6	610.3	553.1	540.4
77.5°	1761.0	1182.5	403.7	387.8	365.6	588.1	836.0	683.4	575.3	521.3	505.4
80°	820.1	559.5	340.1	336.9	327.4	556.3	797.9	638.9	534.0	489.5	464.1
82.5°	438.7	336.9	276.5	276.5	286.1	518.1	750.2	584.9	480.0	457.7	391.0
85°	232.0	193.9	200.3	216.2	244.8	457.7	686.6	527.7	419.6	349.7	340.1
87.5°	117.6	124.0	124.0	146.2	187.5	371.9	565.8	435.5	356.0	286.1	279.7
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)