

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: P231292

Luminaire Tested: **ARCH-M-AF48-130-D-U-T4W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231292  
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-AF48-130-D-U-T4W  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16434.7 lumens  
Efficiency: N/A  
Efficacy: 125.5 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

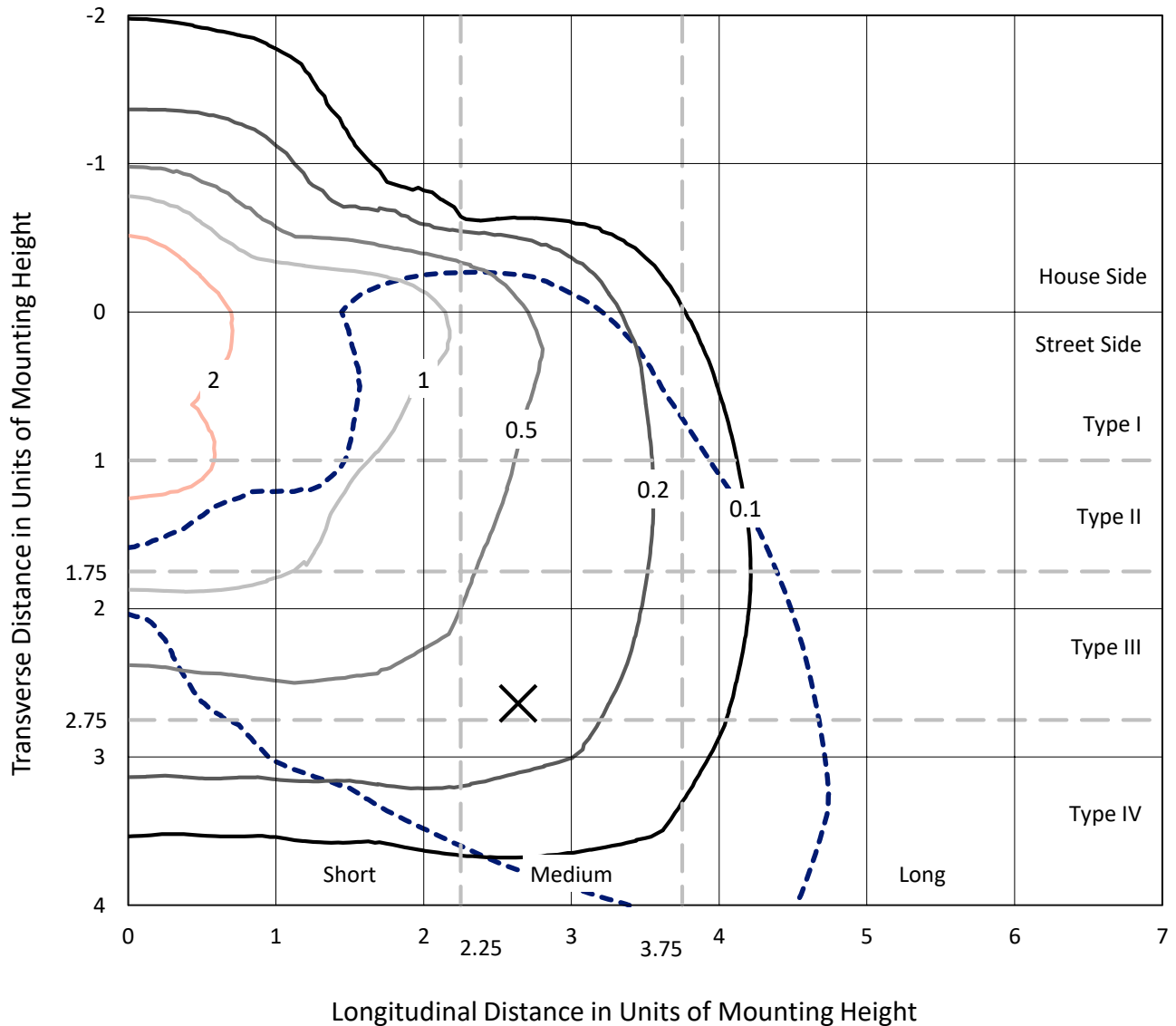
Input Watts (W): 131  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

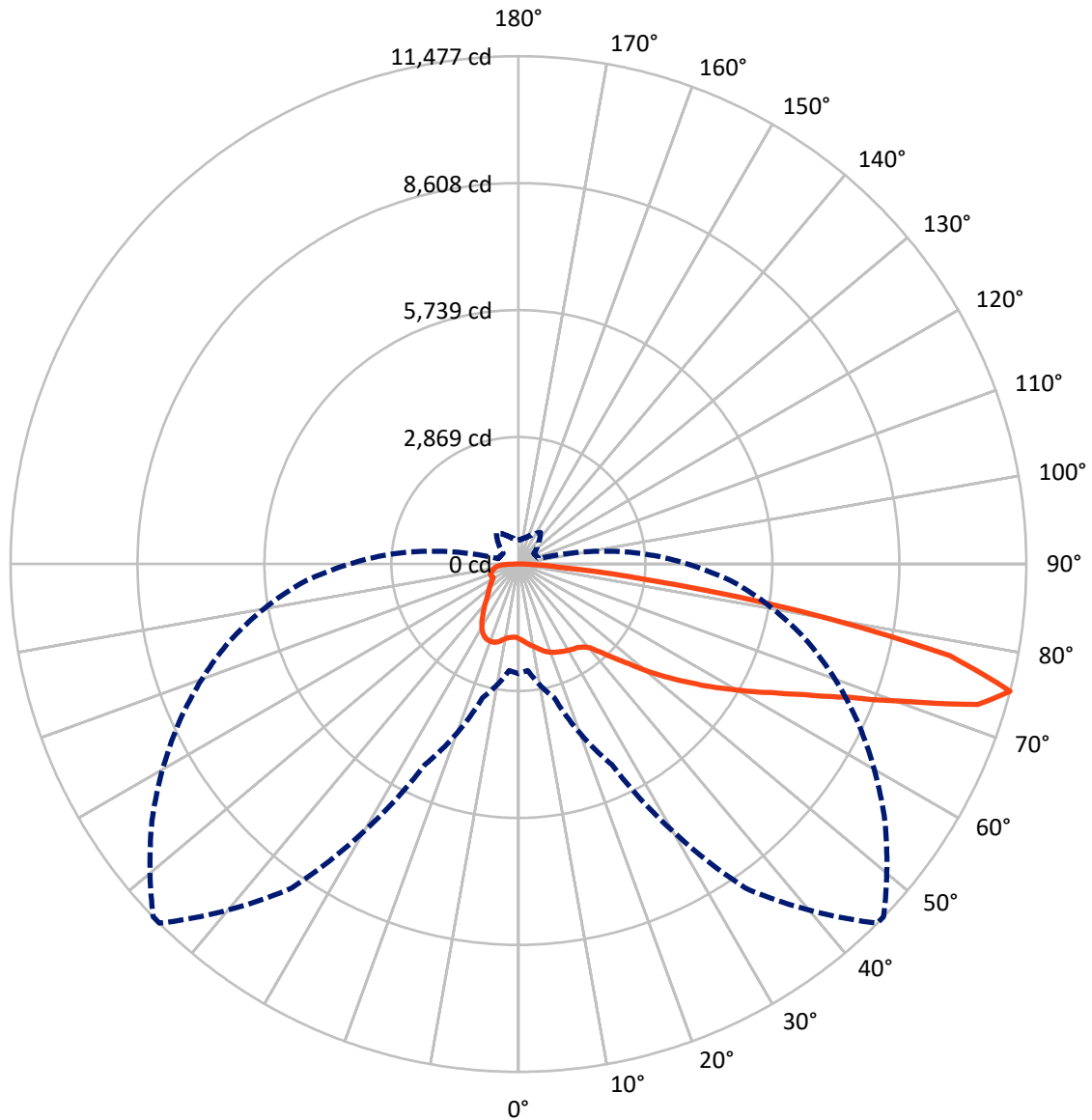
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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	3807.2	0.0	3807.2
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	12627.5	0.0	12627.5
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	16434.7	0.0	16434.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.0	1.0
10°-20°	541.1	3.3
20°-30°	928.5	5.6
30°-40°	1298.5	7.9
40°-50°	1904.8	11.6
50°-60°	2967.2	18.1
60°-70°	4269.6	26.0
70°-80°	3719.3	22.6
80°-90°	638.7	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°	16434.7	100.0
0°-180°	16434.7	100.0

**Coefficient of Utilization**



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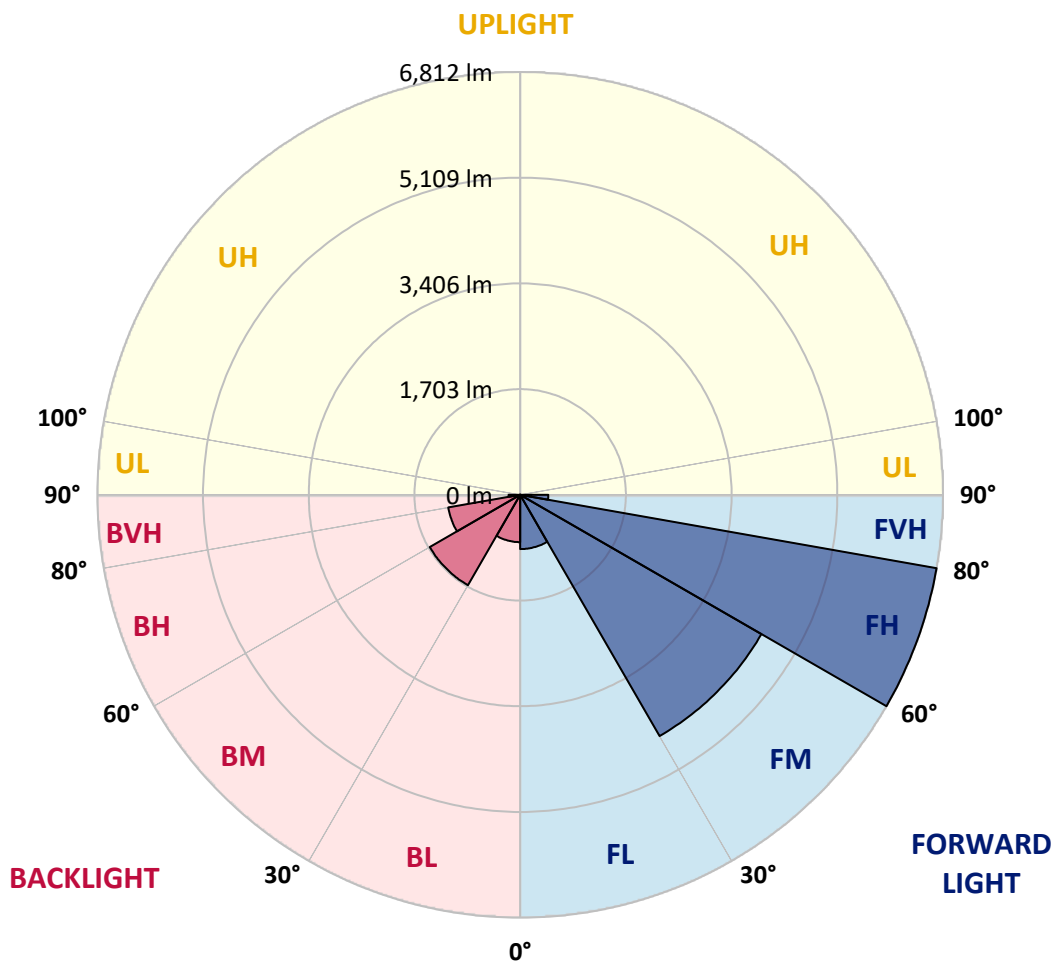
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	873.9	5.3			
FM (30°-60°)	4488.0	27.3			
FH (60°-80°)	6812.3	41.5			G3/7500
FVH (80°-90°)	453.2	2.8			G3/500
BL (0°-30°)	762.5	4.6	B2/1000		
BM (30°-60°)	1682.6	10.2	B2/2500		
BH (60°-80°)	1176.6	7.2	B3/2500		G3/2500
BVH (80°-90°)	185.6	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°	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8
2.5°	1767.9	1755.1	1755.1	1745.6	1745.6	1729.5	1723.2	1720.0	1703.9	1694.4	1684.8
5°	1870.3	1854.2	1851.0	1828.6	1819.1	1783.9	1780.7	1758.4	1729.5	1700.8	1678.4
7.5°	1962.9	1953.3	1937.4	1915.0	1886.2	1841.4	1838.2	1803.1	1755.1	1716.7	1684.8
10°	2030.0	2023.7	2001.3	1972.6	1940.5	1895.8	1892.6	1854.2	1796.7	1751.9	1707.2
12.5°	2109.9	2100.4	2071.6	2033.2	1998.1	1956.5	1953.3	1921.4	1857.5	1799.9	1742.3
15°	2186.8	2174.0	2138.8	2100.4	2062.1	2026.9	2026.9	1991.7	1924.6	1857.5	1790.3
17.5°	2225.1	2218.7	2183.5	2142.0	2109.9	2084.4	2081.2	2049.3	1982.1	1911.8	1838.2
20°	2237.9	2241.1	2209.1	2164.4	2142.0	2129.2	2126.0	2103.6	2030.0	1962.9	1892.6
22.5°	2234.6	2244.3	2218.7	2170.7	2164.4	2164.4	2164.4	2138.8	2081.2	2014.1	1943.7
25°	2247.4	2260.2	2241.1	2183.5	2183.5	2196.3	2196.3	2183.5	2132.3	2074.9	2004.5
27.5°	2292.2	2301.8	2285.8	2205.9	2209.1	2228.3	2225.1	2228.3	2196.3	2142.0	2071.6
30°	2346.5	2359.3	2340.2	2241.1	2237.9	2257.0	2257.0	2273.0	2250.7	2193.1	2135.5
32.5°	2493.6	2490.4	2429.7	2279.4	2269.8	2289.1	2289.1	2305.0	2292.2	2247.4	2193.1
35°	2931.6	2883.7	2749.4	2404.1	2308.2	2317.8	2317.8	2346.5	2353.0	2317.8	2269.8
37.5°	3379.2	3363.2	3260.9	2736.6	2448.8	2378.6	2375.3	2416.9	2445.7	2416.9	2384.9
40°	3829.9	3817.1	3794.7	3181.0	2742.9	2487.2	2477.6	2512.8	2563.9	2544.8	2525.6
42.5°	4248.7	4242.4	4264.7	3619.0	3117.0	2720.6	2691.8	2650.3	2723.8	2717.4	2717.4
45°	4578.0	4594.0	4606.8	4028.2	3523.0	3021.1	2986.0	2845.2	2944.4	2969.9	2989.2
47.5°	4763.5	4776.3	4821.0	4427.7	3929.1	3369.6	3344.0	3113.9	3244.9	3321.6	3375.9
50°	5028.8	4993.6	5032.0	4817.8	4418.2	3823.6	3753.2	3475.1	3641.3	3775.6	3903.5
52.5°	5284.6	5227.0	5259.0	5268.6	4974.4	4268.0	4194.4	3900.3	4108.1	4319.1	4546.1
55°	5514.7	5511.6	5543.5	5706.5	5511.6	4744.2	4661.2	4370.3	4670.8	4897.7	5281.4
57.5°	5700.2	5732.1	5872.8	6214.8	6131.8	5262.2	5169.5	4916.9	5271.8	5498.8	6134.9
60°	5917.6	5968.7	6202.0	6646.4	6697.6	5805.7	5709.7	5527.5	5888.8	6119.0	7122.8
62.5°	5991.1	6064.6	6544.1	7100.4	7289.0	6400.3	6314.0	6192.5	6537.8	6745.5	8107.5
65°	5501.9	5642.6	6732.8	7333.8	7925.2	7116.4	7042.9	6937.3	7183.6	7321.1	8775.6
67.5°	5367.7	5431.7	6365.1	7669.5	8523.0	8037.1	7963.6	7781.4	7787.7	7730.2	8993.1
70°	5179.1	5249.4	5987.8	7922.0	9379.8	9296.8	9207.2	8670.1	8340.8	7992.4	8564.7
72.5°	4411.8	4389.4	5159.9	7241.1	9792.3	10856.9	10751.3	9626.0	8750.0	7765.4	7228.3
75°	2477.6	2413.7	3129.8	5009.6	8941.9	11477.1	11473.8	10108.8	8462.4	6764.8	4920.1
77.5°	719.3	700.1	1032.6	2100.4	6019.9	9971.3	10092.7	9117.7	7062.0	4859.3	2701.4
80°	338.9	345.2	444.4	693.8	2570.4	6435.5	6783.9	6003.9	4220.0	2241.1	1115.7
82.5°	214.2	217.4	303.7	447.5	1087.0	2922.1	3209.7	2701.4	1672.0	968.6	492.3
85°	134.3	134.3	201.4	294.1	649.0	933.5	1013.4	920.8	716.2	527.5	268.5
87.5°	73.6	73.6	121.5	169.4	354.9	300.5	310.1	367.6	447.5	322.8	134.3
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°	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8	1684.8
2.5°	1681.6	1675.2	1665.6	1662.4	1659.2	1656.1	1659.2	1665.6	1659.2	1659.2	1662.4
5°	1672.0	1665.6	1652.8	1652.8	1656.1	1659.2	1675.2	1684.8	1688.0	1688.0	1688.0
7.5°	1672.0	1662.4	1652.8	1656.1	1662.4	1675.2	1700.8	1716.7	1729.5	1732.8	1732.8
10°	1688.0	1675.2	1668.8	1675.2	1694.4	1703.9	1729.5	1755.1	1771.1	1777.5	1777.5
12.5°	1716.7	1703.9	1703.9	1716.7	1742.3	1755.1	1777.5	1796.7	1815.8	1825.5	1825.5
15°	1764.7	1748.7	1751.9	1774.3	1803.1	1815.8	1831.9	1838.2	1854.2	1867.0	1867.0
17.5°	1809.5	1793.5	1799.9	1825.5	1844.7	1851.0	1860.6	1857.5	1863.8	1873.4	1876.6
20°	1860.6	1844.7	1847.9	1863.8	1867.0	1860.6	1860.6	1851.0	1847.9	1863.8	1870.3
22.5°	1911.8	1895.8	1892.6	1883.0	1867.0	1851.0	1841.4	1831.9	1825.5	1841.4	1847.9
25°	1972.6	1950.2	1934.2	1892.6	1851.0	1822.3	1809.5	1803.1	1799.9	1815.8	1822.3
27.5°	2039.7	2017.3	1969.3	1879.8	1812.7	1764.7	1755.1	1755.1	1761.5	1771.1	1777.5
30°	2103.6	2081.2	1994.9	1851.0	1745.6	1675.2	1665.6	1675.2	1691.1	1700.8	1710.4
32.5°	2167.5	2145.1	2010.9	1806.3	1646.4	1556.9	1550.5	1566.5	1592.1	1598.5	1604.9
35°	2253.9	2231.5	2030.0	1742.3	1521.7	1425.8	1419.4	1429.1	1451.5	1461.0	1470.6
37.5°	2375.3	2362.5	2058.8	1672.0	1406.7	1301.2	1282.0	1275.6	1288.4	1285.1	1297.9
40°	2535.2	2544.8	2109.9	1579.3	1294.7	1186.1	1144.5	1125.3	1112.6	1087.0	1099.8
42.5°	2768.5	2775.0	2167.5	1473.8	1198.9	1077.4	1023.1	987.9	962.3	920.8	927.1
45°	3110.6	3056.3	2234.6	1361.9	1112.6	991.0	927.1	885.6	850.4	815.2	818.5
47.5°	3564.6	3398.3	2308.2	1269.2	1026.2	920.8	863.2	815.2	773.7	744.9	748.1
50°	4124.0	3823.6	2381.7	1182.8	939.9	866.3	815.2	764.0	722.5	693.8	690.5
52.5°	4862.6	4335.1	2429.7	1087.0	853.6	818.5	773.7	725.7	674.5	639.3	636.2
55°	5629.8	4929.7	2471.2	971.9	770.5	764.0	741.7	687.3	626.6	581.9	575.4
57.5°	6473.8	5565.9	2503.3	860.0	706.6	719.3	712.9	649.0	581.9	540.3	537.0
60°	7241.1	6224.5	2400.9	760.9	649.0	674.5	681.0	626.6	591.5	601.0	604.3
62.5°	8014.7	6732.8	2010.9	687.3	610.6	645.8	700.1	696.9	681.0	696.9	700.1
65°	8292.9	6838.3	1425.8	626.6	572.2	658.6	760.9	754.5	681.0	652.1	645.8
67.5°	8136.2	6525.0	959.1	578.7	543.5	674.5	824.8	754.5	655.4	617.0	604.3
70°	7391.3	5754.5	703.3	530.7	517.9	671.4	860.0	751.3	642.6	601.0	585.0
72.5°	5895.2	4440.5	565.9	485.9	479.6	655.4	879.1	744.9	629.8	585.0	565.9
75°	3817.1	2762.2	476.4	441.2	422.0	629.8	869.6	725.7	613.8	556.3	543.5
77.5°	1771.1	1189.3	406.0	390.1	367.6	591.5	840.8	687.3	578.7	524.3	508.3
80°	824.8	562.6	342.1	338.9	329.3	559.5	802.4	642.6	537.0	492.3	466.8
82.5°	441.2	338.9	278.1	278.1	287.8	521.1	754.5	588.2	482.7	460.3	393.2
85°	233.3	195.0	201.4	217.4	246.1	460.3	690.5	530.7	422.0	351.7	342.1
87.5°	118.3	124.7	124.7	147.1	188.6	374.1	569.1	438.0	358.0	287.8	281.3
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)