

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: P231151

Luminaire Tested: **ARCH-M-AF48-150-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231151
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-AF48-150-D-U-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15785 lumens
Efficiency: N/A
Efficacy: 104.5 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

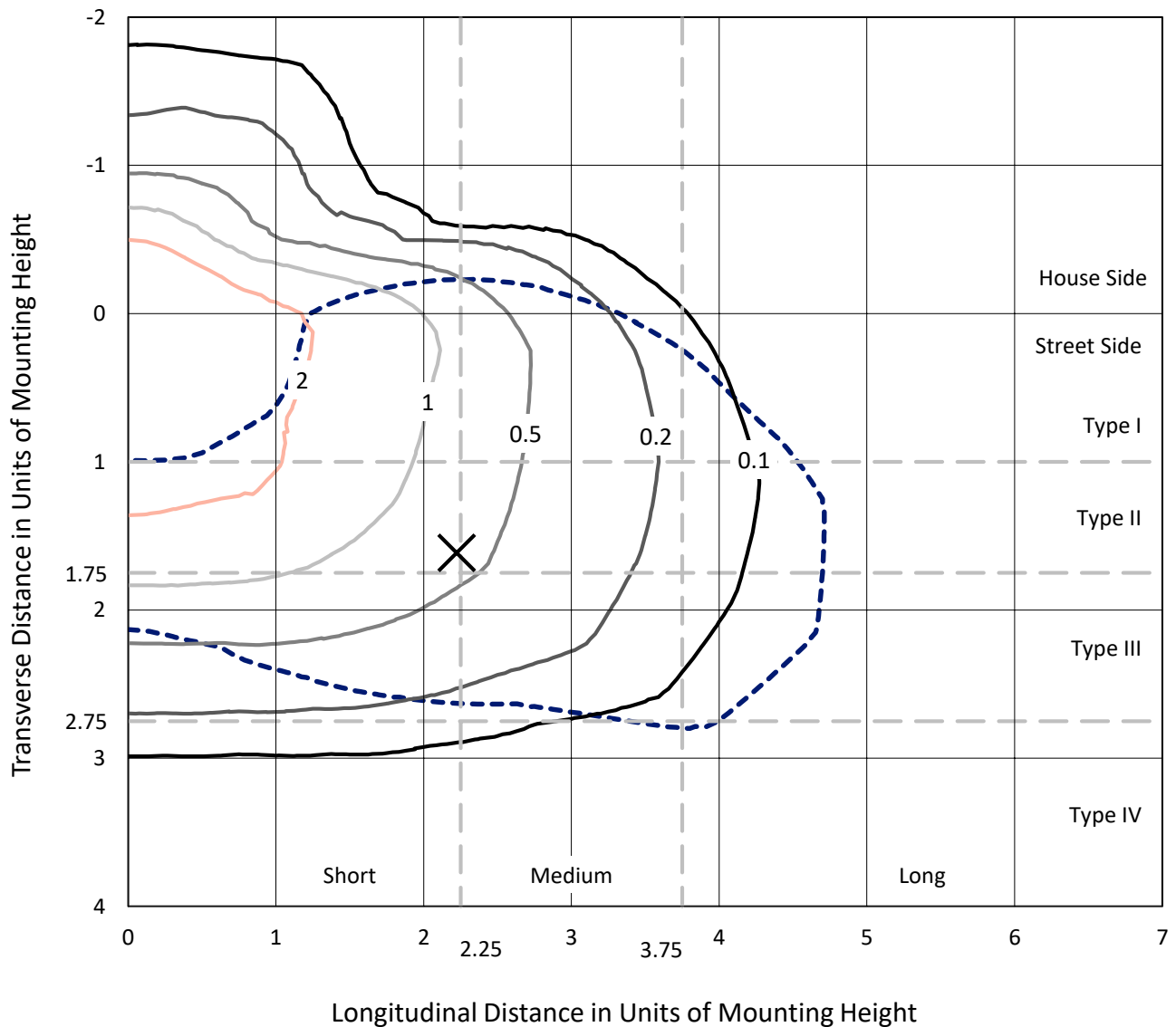
Input Watts (W): 151
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

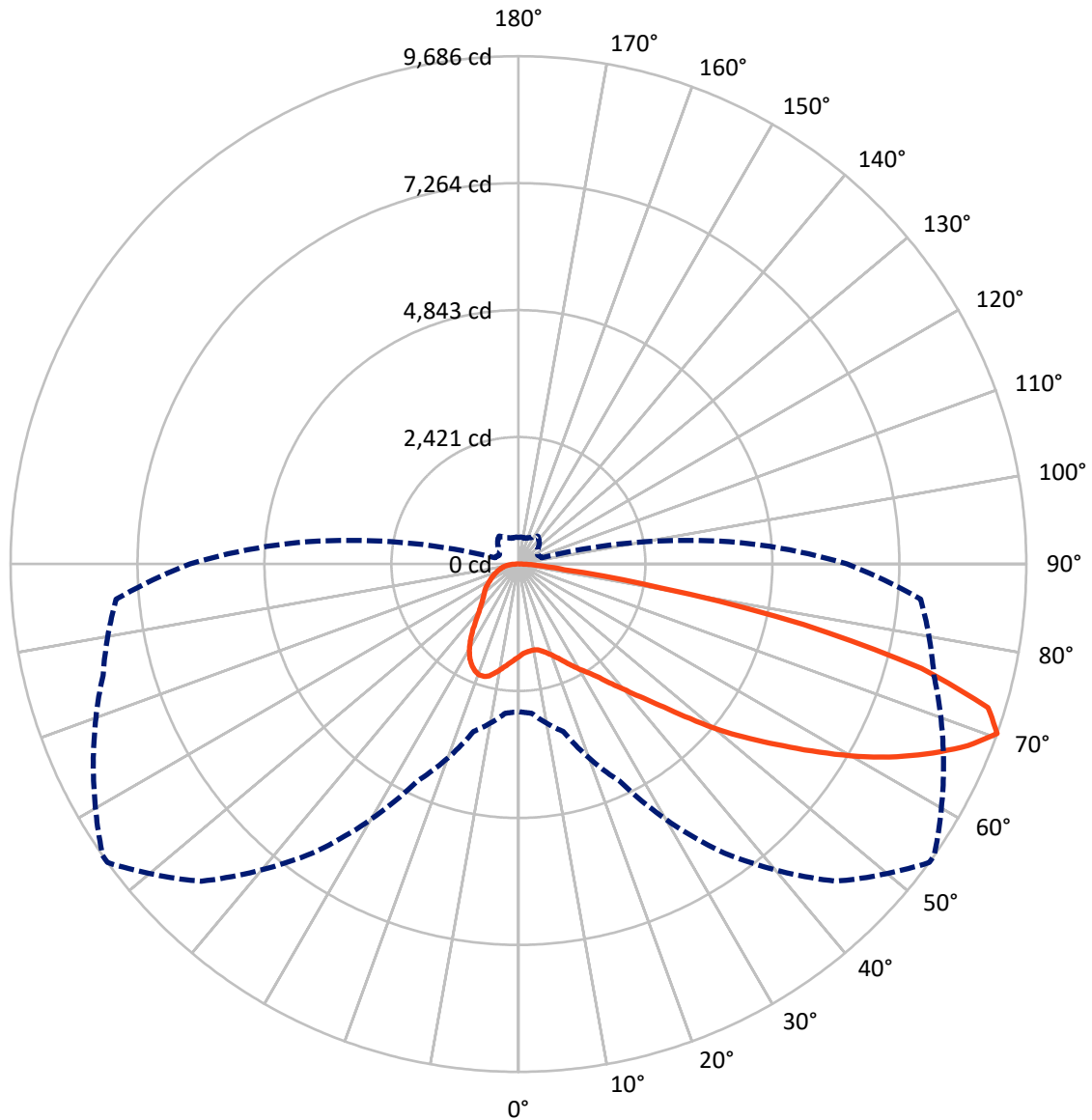
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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	3580.0	0.0	3580.0
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	12205.0	0.0	12205.0
	% Fixture	77.3	0.0	77.3
Total	Lumens	15785.0	0.0	15785.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.3	1.1
10°-20°	553.8	3.5
20°-30°	962.1	6.1
30°-40°	1406.0	8.9
40°-50°	2206.7	14.0
50°-60°	3393.4	21.5
60°-70°	4145.9	26.3
70°-80°	2570.5	16.3
80°-90°	373.4	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°	15785.0	100.0
0°-180°	15785.0	100.0

Coefficient of Utilization



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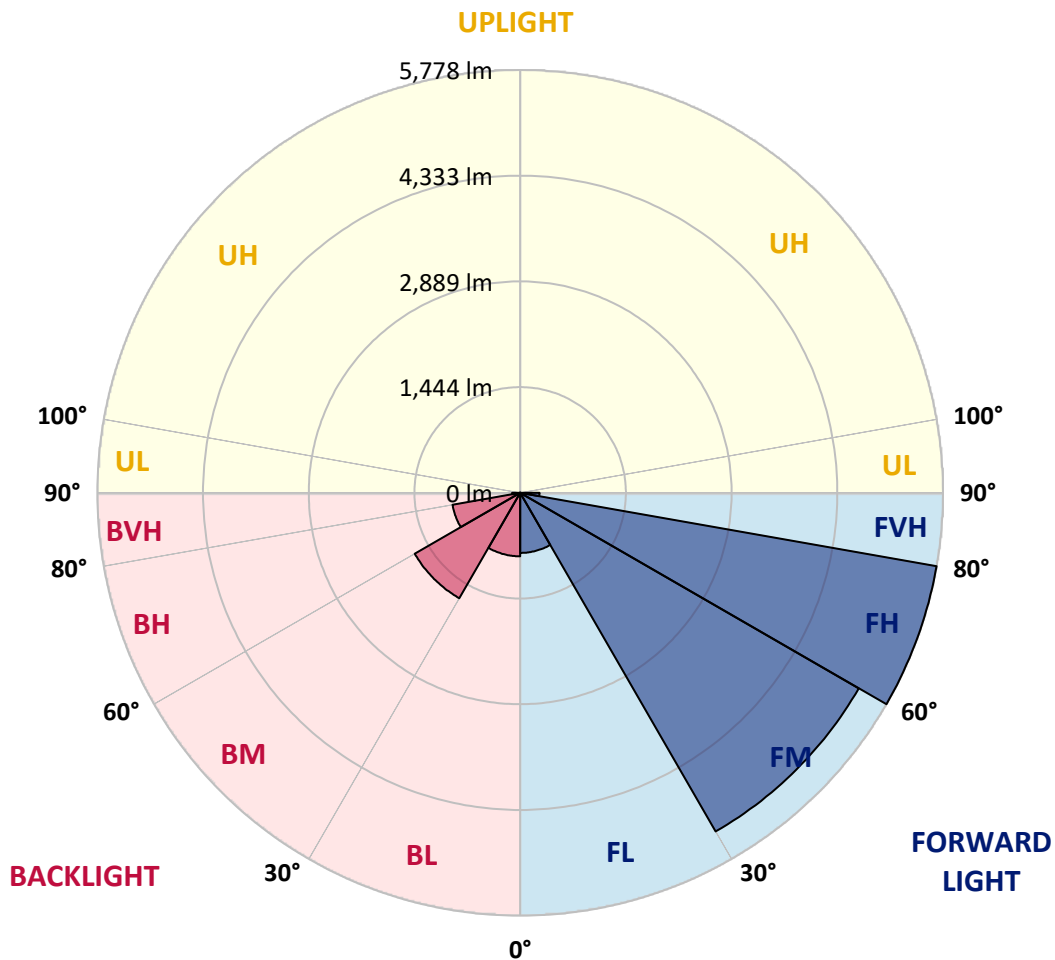
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	821.3	5.2			
FM	(30°-60°)	5342.5	33.8			
FH	(60°-80°)	5777.5	36.6			G3/7500
FVH	(80°-90°)	263.7	1.7			G3/500
BL	(0°-30°)	867.9	5.5	B2/1000		
BM	(30°-60°)	1663.6	10.5	B2/2500		
BH	(60°-80°)	938.8	5.9	B2/1000		G2/1000
BVH	(80°-90°)	109.7	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°	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0
2.5°	1696.7	1690.9	1690.9	1699.5	1702.4	1711.1	1711.1	1714.0	1722.7	1737.1	1754.5
5°	1644.6	1641.7	1644.6	1656.2	1662.0	1679.3	1685.1	1688.0	1705.3	1728.4	1754.5
7.5°	1592.6	1589.7	1595.5	1612.8	1630.2	1656.2	1670.6	1673.5	1699.5	1731.3	1766.0
10°	1575.3	1572.4	1581.0	1595.5	1612.8	1641.7	1664.9	1667.7	1705.3	1742.9	1792.0
12.5°	1598.4	1595.5	1604.2	1618.6	1636.0	1656.2	1682.2	1685.1	1734.2	1783.4	1835.4
15°	1656.2	1656.2	1659.1	1667.7	1685.1	1702.4	1725.6	1728.4	1780.5	1838.3	1890.3
17.5°	1745.8	1740.0	1740.0	1737.1	1748.7	1757.4	1786.3	1789.1	1844.1	1896.1	1948.1
20°	1855.6	1852.7	1841.2	1826.7	1823.8	1829.6	1858.5	1861.4	1916.3	1959.7	2008.8
22.5°	1988.6	1991.5	1965.5	1933.7	1919.2	1927.9	1953.9	1956.8	1997.3	2034.8	2078.2
25°	2164.9	2156.2	2118.6	2072.4	2043.5	2043.5	2069.5	2069.5	2107.1	2130.2	2159.1
27.5°	2332.5	2315.2	2280.5	2214.0	2167.8	2176.5	2202.5	2202.5	2237.2	2245.8	2260.3
30°	2514.6	2497.3	2453.9	2370.1	2309.4	2303.6	2335.4	2332.5	2378.8	2375.9	2364.3
32.5°	2737.2	2728.5	2656.3	2549.3	2468.4	2448.2	2477.1	2479.9	2508.9	2500.2	2462.6
35°	3049.4	3046.5	2980.0	2792.1	2685.2	2647.6	2664.9	2664.9	2685.2	2662.0	2598.5
37.5°	3442.4	3448.2	3390.4	3112.9	2962.6	2899.1	2901.9	2899.1	2904.8	2878.8	2812.3
40°	3835.5	3850.0	3847.1	3511.8	3321.0	3211.2	3170.7	3165.0	3179.4	3167.9	3104.3
42.5°	4352.9	4387.6	4306.7	4003.2	3789.3	3604.3	3494.5	3480.0	3511.8	3526.3	3465.6
45°	4890.5	4879.0	4751.8	4532.1	4338.5	4101.5	3893.3	3870.2	3893.3	3936.7	3873.1
47.5°	5170.9	5162.2	5130.4	5020.6	4991.7	4720.0	4404.9	4384.7	4341.4	4402.1	4326.9
50°	5633.4	5642.0	5512.0	5500.4	5621.8	5471.5	4983.0	4936.8	4858.7	4907.9	4844.3
52.5°	5968.6	5931.1	5850.1	5951.3	6329.9	6249.0	5526.4	5506.2	5433.9	5422.4	5393.5
55°	6104.5	6104.5	6118.9	6353.1	6893.6	6786.6	6116.0	6136.3	6038.0	5957.1	5994.6
57.5°	6144.9	6162.3	6286.6	6673.9	7555.5	7205.7	6766.4	6795.3	6653.7	6491.8	6610.3
60°	5945.5	5997.5	6295.2	6856.0	7928.3	7650.8	7451.4	7460.1	7254.9	7017.8	7226.0
62.5°	5433.9	5497.5	6029.3	6931.1	7867.6	8107.5	8098.8	8119.1	7838.7	7543.9	7804.0
65°	4806.7	4870.3	5436.8	6720.1	7821.4	8434.1	8691.4	8746.3	8385.0	7989.0	8165.3
67.5°	3884.7	3968.5	4506.1	6009.1	7595.9	8702.9	9246.3	9304.1	8807.0	8220.2	8133.5
70°	2815.2	2855.7	3306.6	4566.8	6676.8	8555.5	9685.7	9682.8	8945.7	8202.9	7700.0
72.5°	1355.6	1387.4	1777.6	2835.5	4774.9	7260.6	9367.7	9422.6	8755.0	7951.4	6708.6
75°	557.8	589.6	719.7	1196.6	2506.0	4798.0	7939.9	8069.9	7951.4	7136.4	5248.9
77.5°	346.8	358.4	422.0	618.5	1144.6	2240.0	5558.2	5734.5	6301.0	5717.2	3465.6
80°	260.1	268.8	315.1	433.6	722.6	826.6	2760.3	2982.9	3818.2	3280.6	1569.5
82.5°	216.8	219.7	251.5	315.1	491.4	474.0	884.5	985.6	1780.5	1251.5	540.5
85°	202.3	208.1	225.4	225.4	312.2	297.7	367.1	384.4	517.4	427.8	187.9
87.5°	104.1	98.3	199.4	176.3	161.9	144.5	156.1	167.6	193.7	205.2	83.8
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°	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0	1766.0
2.5°	1760.2	1768.9	1783.4	1797.8	1815.2	1835.4	1847.0	1861.4	1873.0	1867.2	1864.3
5°	1768.9	1783.4	1815.2	1844.1	1878.7	1919.2	1945.2	1974.1	1997.3	2003.0	1994.4
7.5°	1783.4	1809.4	1852.7	1904.8	1951.0	2003.0	2043.5	2084.0	2112.9	2118.6	2118.6
10°	1818.0	1847.0	1904.8	1974.1	2029.0	2084.0	2130.2	2162.0	2188.0	2199.6	2199.6
12.5°	1867.2	1901.9	1971.2	2055.1	2115.8	2167.8	2193.8	2208.3	2219.8	2231.4	2234.3
15°	1925.0	1962.6	2046.4	2136.0	2199.6	2225.6	2225.6	2222.7	2222.7	2228.5	2234.3
17.5°	1982.8	2023.3	2110.0	2205.4	2245.8	2231.4	2211.1	2202.5	2196.7	2193.8	2202.5
20°	2043.5	2084.0	2170.7	2260.3	2248.7	2188.0	2159.1	2138.9	2121.5	2112.9	2124.4
22.5°	2110.0	2147.6	2237.2	2297.9	2211.1	2118.6	2063.7	2031.9	2003.0	1985.7	1997.3
25°	2188.0	2225.6	2312.3	2309.4	2144.7	2014.6	1927.9	1875.9	1844.1	1826.7	1826.7
27.5°	2280.5	2312.3	2396.1	2280.5	2052.2	1875.9	1748.7	1699.5	1690.9	1676.4	1676.4
30°	2375.9	2401.9	2474.2	2214.0	1925.0	1693.8	1555.0	1531.9	1534.8	1520.3	1523.2
32.5°	2474.2	2500.2	2520.4	2115.8	1760.2	1488.5	1396.1	1378.7	1375.8	1364.3	1352.7
35°	2612.9	2650.5	2526.2	1982.8	1560.8	1318.0	1251.5	1234.2	1216.9	1176.4	1176.4
37.5°	2823.9	2864.4	2511.7	1818.0	1355.6	1185.1	1124.4	1101.2	1072.3	1031.9	1017.4
40°	3112.9	3112.9	2479.9	1633.1	1190.8	1078.1	1020.3	991.4	959.6	919.1	910.5
42.5°	3454.0	3373.1	2430.8	1445.2	1069.4	1005.9	953.8	922.0	884.5	838.2	832.4
45°	3852.9	3633.2	2361.4	1277.5	979.8	962.5	930.7	875.8	812.2	763.1	754.4
47.5°	4240.2	3867.3	2295.0	1159.0	904.7	945.2	919.1	826.6	739.9	670.6	661.9
50°	4665.1	4075.4	2216.9	1060.8	846.9	933.6	904.7	754.4	659.0	609.9	604.1
52.5°	5090.0	4286.4	2133.1	956.7	797.7	910.5	870.0	702.4	656.1	589.6	581.0
55°	5538.0	4532.1	2034.8	841.1	739.9	864.2	823.8	699.5	676.3	589.6	569.4
57.5°	5974.4	4803.8	1875.9	728.4	676.3	794.9	806.4	682.1	633.0	583.9	560.7
60°	6457.1	5092.9	1612.8	633.0	621.4	737.0	783.3	644.6	583.9	566.5	555.0
62.5°	6844.4	5353.0	1260.2	566.5	575.2	690.8	754.4	621.4	563.6	549.2	546.3
65°	7012.1	5358.8	904.7	508.7	528.9	647.4	725.5	601.2	546.3	540.5	537.6
67.5°	6835.8	5063.9	635.9	453.8	479.8	607.0	687.9	581.0	528.9	531.8	526.0
70°	6266.3	4442.5	465.4	401.8	433.6	563.6	647.4	555.0	508.7	514.5	505.8
72.5°	5243.2	3462.7	372.9	358.4	396.0	517.4	607.0	526.0	476.9	479.8	462.5
75°	3873.1	2295.0	312.2	320.8	352.6	474.0	555.0	488.5	442.2	430.7	419.1
77.5°	2303.6	1179.3	257.2	280.4	315.1	422.0	497.1	442.2	404.7	384.4	375.7
80°	950.9	476.9	211.0	237.0	274.6	375.7	439.3	387.3	361.3	341.1	329.5
82.5°	378.6	234.1	167.6	193.7	231.2	326.6	384.4	341.1	315.1	300.6	268.8
85°	144.5	115.6	112.7	135.8	173.4	251.5	317.9	286.1	265.9	228.3	219.7
87.5°	57.8	52.0	52.0	66.5	98.3	159.0	228.3	199.4	208.1	164.8	167.6
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)