

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: P231149

Luminaire Tested: **ARCH-M-AF48-130-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231149
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-AF48-130-D-U-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14295 lumens
Efficiency: N/A
Efficacy: 109.1 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

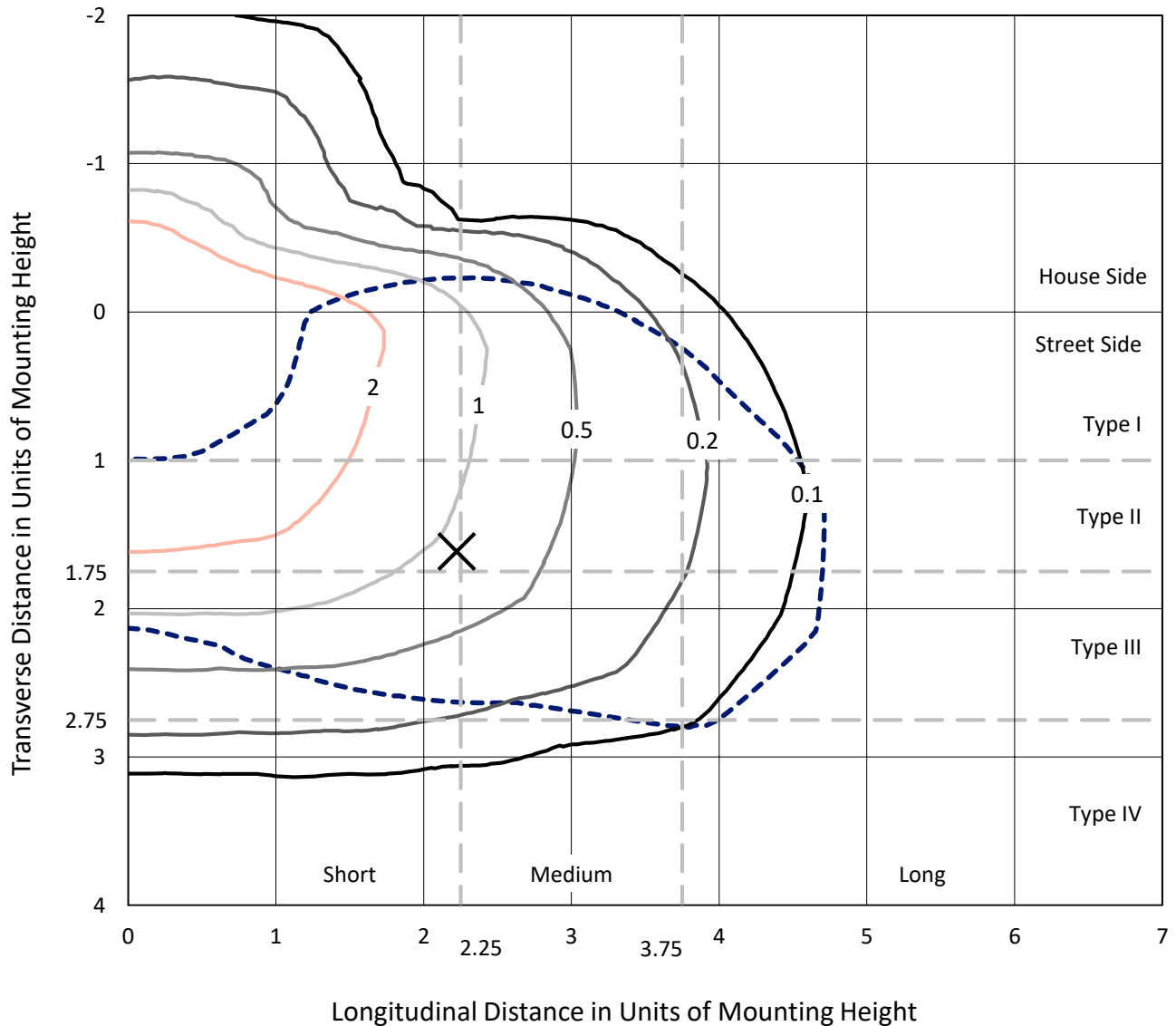
Input Watts (W): 131
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

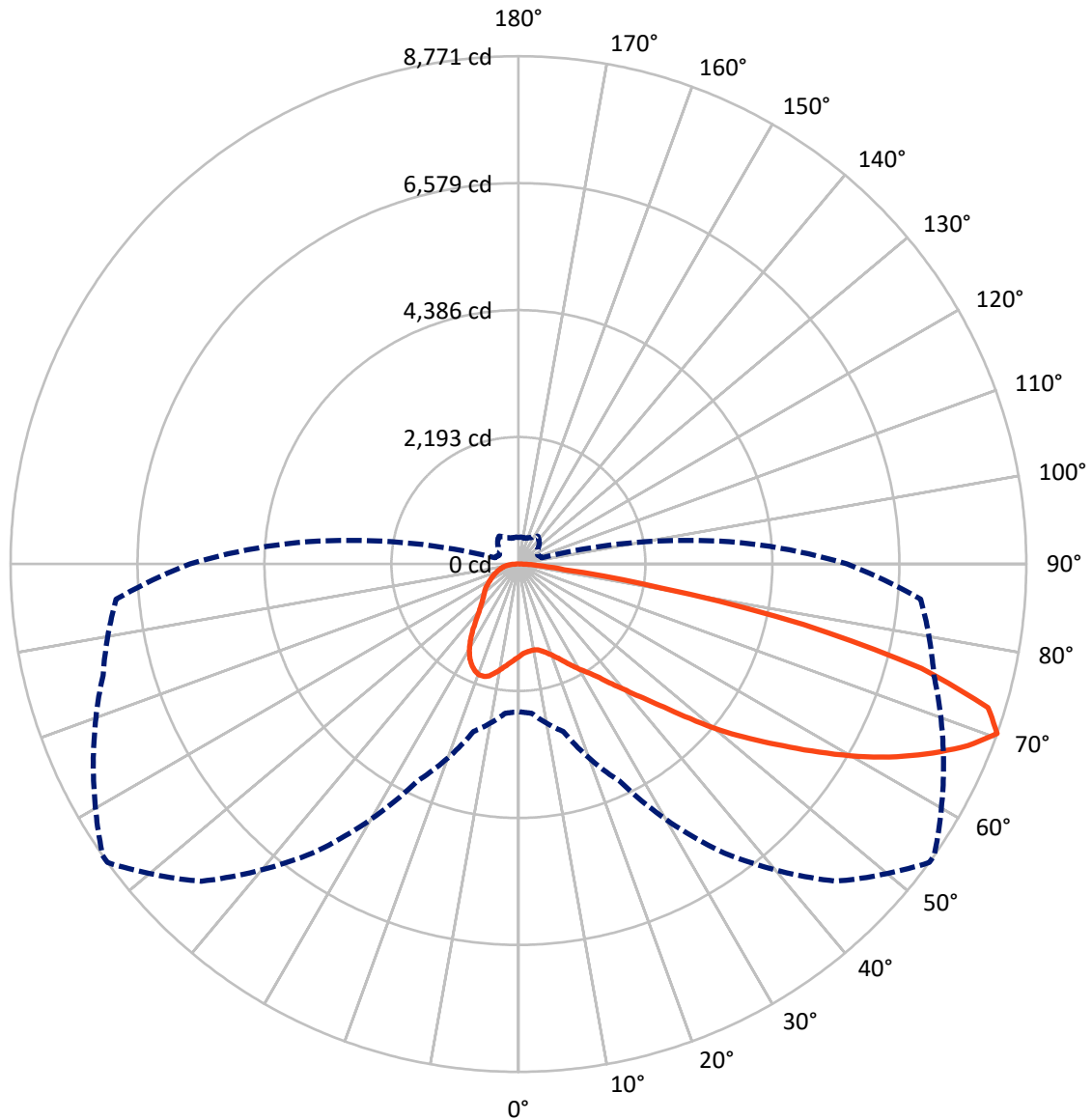
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.6 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	3242.1	0.0	3242.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	11052.9	0.0	11052.9
	% Fixture	77.3	0.0	77.3
Total	Lumens	14295.0	0.0	14295.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.0	1.1
10°-20°	501.5	3.5
20°-30°	871.3	6.1
30°-40°	1273.3	8.9
40°-50°	1998.4	14.0
50°-60°	3073.1	21.5
60°-70°	3754.5	26.3
70°-80°	2327.8	16.3
80°-90°	338.2	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°	14295.0	100.0
0°-180°	14295.0	100.0



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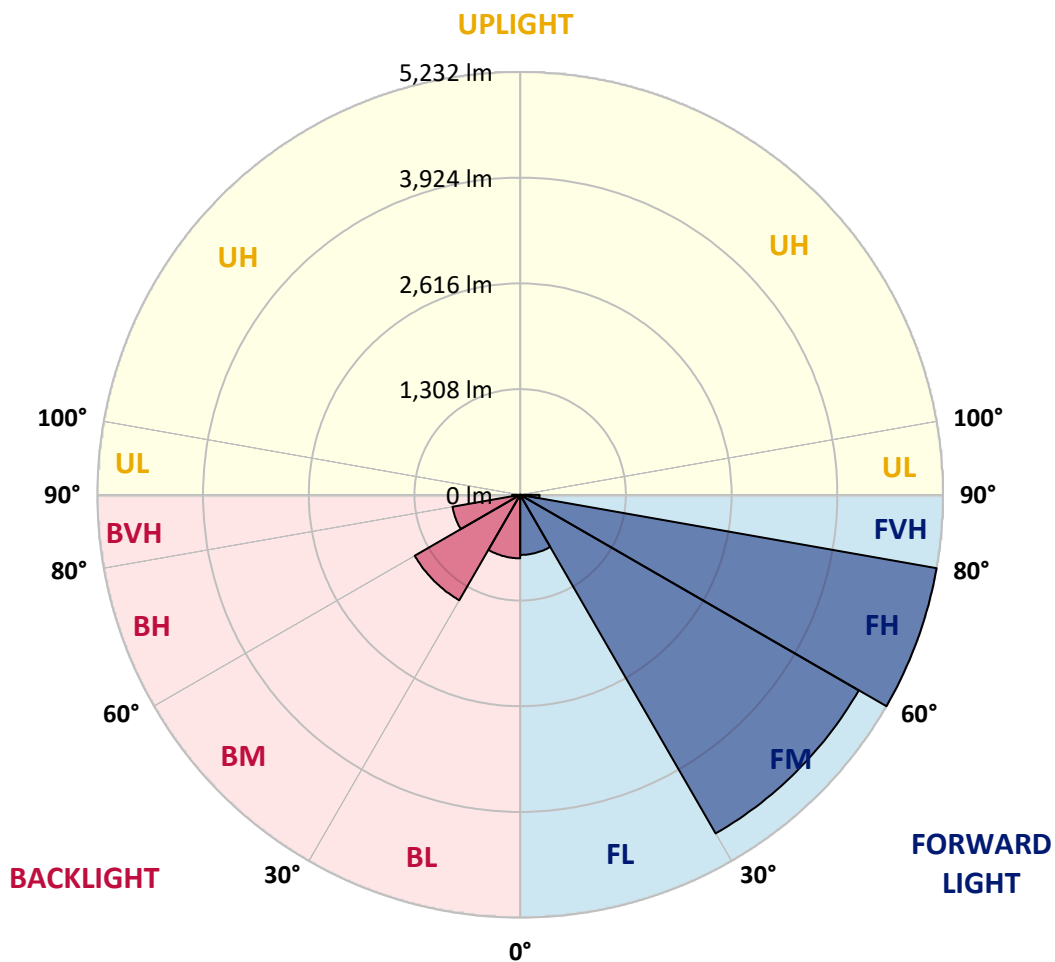
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	743.8	5.2			
FM	(30°-60°)	4838.2	33.8			
FH	(60°-80°)	5232.2	36.6			G3/7500
FVH	(80°-90°)	238.8	1.7			G3/500
BL	(0°-30°)	786.0	5.5	B2/1000		
BM	(30°-60°)	1506.5	10.5	B2/2500		
BH	(60°-80°)	850.2	5.9	B2/1000		G2/1000
BVH	(80°-90°)	99.4	0.7			G1/100
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°	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3
2.5°	1536.5	1531.3	1531.3	1539.1	1541.7	1549.6	1549.6	1552.2	1560.1	1573.1	1588.9
5°	1489.4	1486.8	1489.4	1499.9	1505.1	1520.8	1526.0	1528.6	1544.4	1565.3	1588.9
7.5°	1442.3	1439.7	1444.9	1460.6	1476.3	1499.9	1512.9	1515.6	1539.1	1567.9	1599.3
10°	1426.6	1423.9	1431.8	1444.9	1460.6	1486.8	1507.7	1510.3	1544.4	1578.4	1622.9
12.5°	1447.5	1444.9	1452.7	1465.8	1481.5	1499.9	1523.4	1526.0	1570.5	1615.0	1662.1
15°	1499.9	1499.9	1502.5	1510.3	1526.0	1541.7	1562.7	1565.3	1612.4	1664.8	1711.9
17.5°	1581.0	1575.8	1575.8	1573.1	1583.6	1591.5	1617.6	1620.3	1670.0	1717.1	1764.2
20°	1680.5	1677.8	1667.4	1654.3	1651.7	1656.9	1683.1	1685.7	1735.4	1774.7	1819.2
22.5°	1800.9	1803.5	1779.9	1751.1	1738.1	1745.9	1769.5	1772.1	1808.7	1842.8	1882.0
25°	1960.5	1952.7	1918.7	1876.8	1850.6	1850.6	1874.2	1874.2	1908.2	1929.1	1955.3
27.5°	2112.4	2096.7	2065.2	2005.0	1963.2	1971.0	1994.6	1994.6	2026.0	2033.8	2046.9
30°	2277.3	2261.6	2222.3	2146.4	2091.4	2086.2	2115.0	2112.4	2154.2	2151.6	2141.2
32.5°	2478.8	2471.0	2405.5	2308.7	2235.4	2217.1	2243.2	2245.9	2272.0	2264.2	2230.2
35°	2761.5	2758.9	2698.7	2528.6	2431.7	2397.7	2413.4	2413.4	2431.7	2410.8	2353.2
37.5°	3117.5	3122.7	3070.4	2819.1	2683.0	2625.4	2628.0	2625.4	2630.6	2607.1	2546.9
40°	3473.5	3486.6	3484.0	3180.3	3007.6	2908.1	2871.5	2866.2	2879.3	2868.8	2811.2
42.5°	3942.0	3973.4	3900.1	3625.3	3431.6	3264.1	3164.6	3151.5	3180.3	3193.4	3138.4
45°	4428.9	4418.4	4303.2	4104.3	3928.9	3714.3	3525.8	3504.9	3525.8	3565.1	3507.5
47.5°	4682.8	4674.9	4646.1	4546.7	4520.5	4274.5	3989.1	3970.8	3931.6	3986.5	3918.5
50°	5101.6	5109.5	4991.7	4981.2	5091.1	4955.0	4512.7	4470.8	4400.1	4444.6	4387.0
52.5°	5405.2	5371.2	5297.9	5389.5	5732.4	5659.1	5004.8	4986.4	4921.0	4910.5	4884.3
55°	5528.3	5528.3	5541.3	5753.4	6242.9	6146.0	5538.7	5557.1	5468.1	5394.8	5428.8
57.5°	5564.9	5580.6	5693.2	6043.9	6842.3	6525.5	6127.7	6153.9	6025.6	5879.0	5986.3
60°	5384.3	5431.4	5701.0	6208.8	7179.9	6928.6	6748.0	6755.9	6570.0	6355.4	6543.9
62.5°	4921.0	4978.6	5460.2	6276.9	7125.0	7342.2	7334.4	7352.7	7098.8	6831.8	7067.4
65°	4353.0	4410.6	4923.6	6085.8	7083.1	7638.0	7871.0	7920.7	7593.5	7234.9	7394.6
67.5°	3518.0	3593.9	4080.8	5441.9	6878.9	7881.4	8373.5	8425.9	7975.7	7444.3	7365.8
70°	2549.5	2586.1	2994.5	4135.7	6046.5	7747.9	8771.4	8768.8	8101.3	7428.6	6973.1
72.5°	1227.6	1256.4	1609.8	2567.8	4324.2	6575.3	8483.5	8533.2	7928.6	7200.9	6075.3
75°	505.2	534.0	651.8	1083.7	2269.4	4345.1	7190.4	7308.2	7200.9	6462.7	4753.5
77.5°	314.1	324.6	382.2	560.2	1036.5	2028.6	5033.5	5193.2	5706.3	5177.5	3138.4
80°	235.6	243.4	285.3	392.6	654.4	748.6	2499.8	2701.3	3457.8	2970.9	1421.3
82.5°	196.3	198.9	227.7	285.3	445.0	429.3	801.0	892.6	1612.4	1133.4	489.5
85°	183.2	188.5	204.2	204.2	282.7	269.6	332.4	348.1	468.5	387.4	170.1
87.5°	94.2	89.0	180.6	159.7	146.6	130.9	141.3	151.8	175.4	185.8	75.9
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°	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3	1599.3
2.5°	1594.1	1601.9	1615.0	1628.1	1643.8	1662.1	1672.6	1685.7	1696.2	1690.9	1688.3
5°	1601.9	1615.0	1643.8	1670.0	1701.4	1738.1	1761.6	1787.8	1808.7	1814.0	1806.1
7.5°	1615.0	1638.6	1677.8	1725.0	1766.8	1814.0	1850.6	1887.3	1913.4	1918.7	1918.7
10°	1646.4	1672.6	1725.0	1787.8	1837.5	1887.3	1929.1	1957.9	1981.5	1992.0	1992.0
12.5°	1690.9	1722.3	1785.2	1861.1	1916.0	1963.2	1986.7	1999.8	2010.3	2020.7	2023.4
15°	1743.3	1777.3	1853.2	1934.4	1992.0	2015.5	2015.5	2012.9	2012.9	2018.1	2023.4
17.5°	1795.6	1832.3	1910.8	1997.2	2033.8	2020.7	2002.4	1994.6	1989.3	1986.7	1994.6
20°	1850.6	1887.3	1965.8	2046.9	2036.5	1981.5	1955.3	1937.0	1921.3	1913.4	1923.9
22.5°	1910.8	1944.8	2026.0	2081.0	2002.4	1918.7	1868.9	1840.1	1814.0	1798.3	1808.7
25°	1981.5	2015.5	2094.0	2091.4	1942.2	1824.4	1745.9	1698.8	1670.0	1654.3	1654.3
27.5°	2065.2	2094.0	2169.9	2065.2	1858.5	1698.8	1583.6	1539.1	1531.3	1518.2	1518.2
30°	2151.6	2175.2	2240.6	2005.0	1743.3	1533.9	1408.2	1387.3	1389.9	1376.8	1379.4
32.5°	2240.6	2264.2	2282.5	1916.0	1594.1	1348.0	1264.3	1248.6	1246.0	1235.5	1225.0
35°	2366.3	2400.3	2287.7	1795.6	1413.5	1193.6	1133.4	1117.7	1102.0	1065.3	1065.3
37.5°	2557.3	2594.0	2274.6	1646.4	1227.6	1073.2	1018.2	997.3	971.1	934.5	921.4
40°	2819.1	2819.1	2245.9	1478.9	1078.4	976.3	924.0	897.8	869.0	832.4	824.5
42.5°	3128.0	3054.7	2201.4	1308.8	968.5	910.9	863.8	835.0	801.0	759.1	753.9
45°	3489.2	3290.3	2138.5	1157.0	887.3	871.6	842.9	793.1	735.5	691.0	683.2
47.5°	3839.9	3502.3	2078.3	1049.6	819.3	855.9	832.4	748.6	670.1	607.3	599.4
50°	4224.7	3690.7	2007.7	960.6	766.9	845.5	819.3	683.2	596.8	552.3	547.1
52.5°	4609.5	3881.8	1931.8	866.4	722.4	824.5	787.9	636.1	594.2	534.0	526.1
55°	5015.2	4104.3	1842.8	761.7	670.1	782.6	746.0	633.4	612.5	534.0	515.7
57.5°	5410.5	4350.4	1698.8	659.6	612.5	719.8	730.3	617.7	573.2	528.7	507.8
60°	5847.6	4612.1	1460.6	573.2	562.8	667.5	709.4	583.7	528.7	513.0	502.6
62.5°	6198.4	4847.7	1141.3	513.0	520.9	625.6	683.2	562.8	510.4	497.3	494.7
65°	6350.2	4852.9	819.3	460.7	479.0	586.3	657.0	544.4	494.7	489.5	486.9
67.5°	6190.5	4585.9	575.9	411.0	434.5	549.7	623.0	526.1	479.0	481.6	476.4
70°	5674.8	4023.2	421.4	363.8	392.6	510.4	586.3	502.6	460.7	465.9	458.1
72.5°	4748.2	3135.8	337.7	324.6	358.6	468.5	549.7	476.4	431.9	434.5	418.8
75°	3507.5	2078.3	282.7	290.5	319.3	429.3	502.6	442.4	400.5	390.0	379.5
77.5°	2086.2	1068.0	233.0	253.9	285.3	382.2	450.2	400.5	366.5	348.1	340.3
80°	861.2	431.9	191.1	214.6	248.7	340.3	397.9	350.8	327.2	308.9	298.4
82.5°	342.9	212.0	151.8	175.4	209.4	295.8	348.1	308.9	285.3	272.2	243.4
85°	130.9	104.7	102.1	123.0	157.1	227.7	287.9	259.1	240.8	206.8	198.9
87.5°	52.4	47.1	47.1	60.2	89.0	144.0	206.8	180.6	188.5	149.2	151.8
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)