

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: P234816

Luminaire Tested: **ARCH-M-AF48-150-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234816
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-T3-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 970mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13855 lumens
Efficiency: N/A
Efficacy: 91.8 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

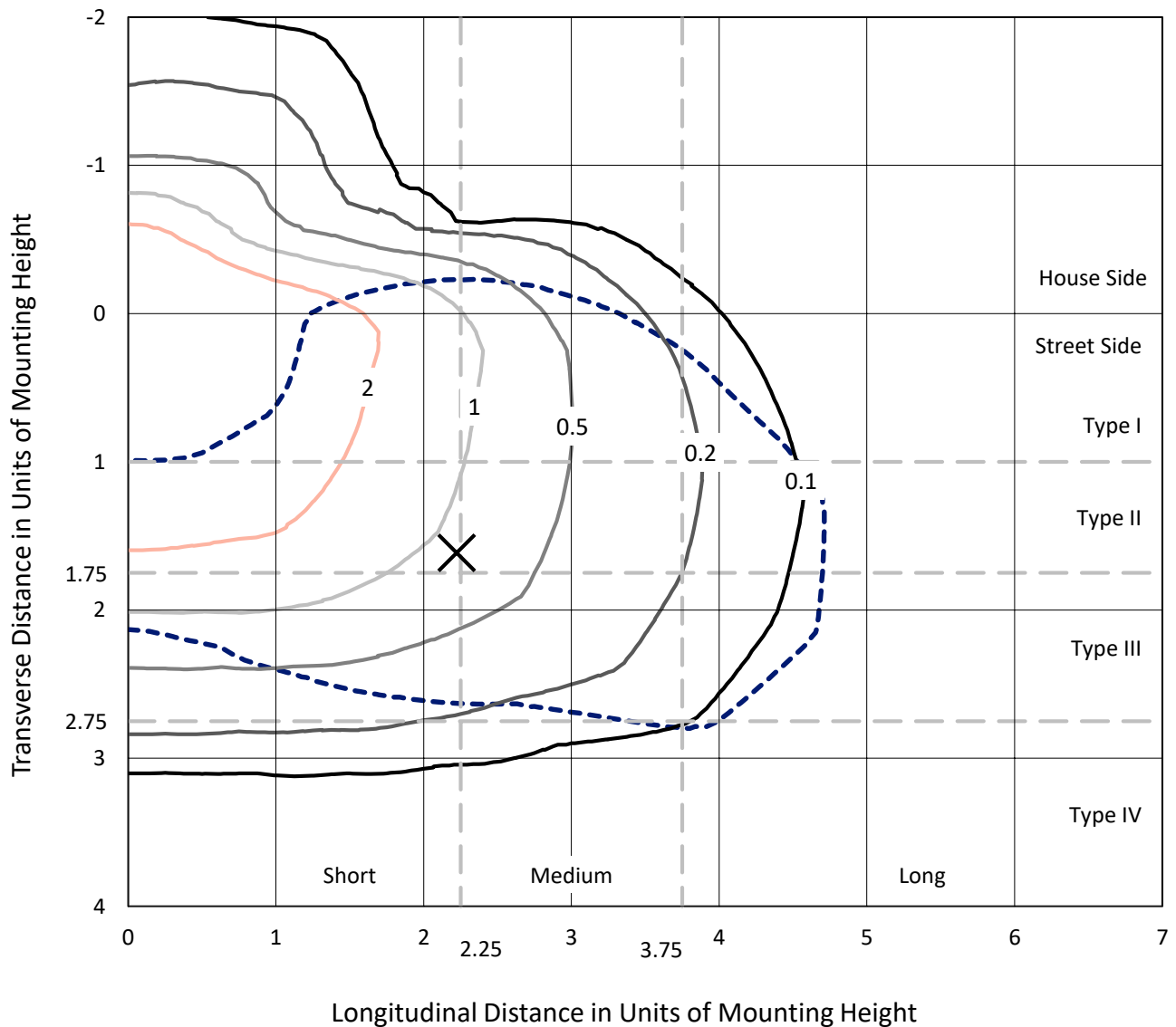
Input Watts (W): 151
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

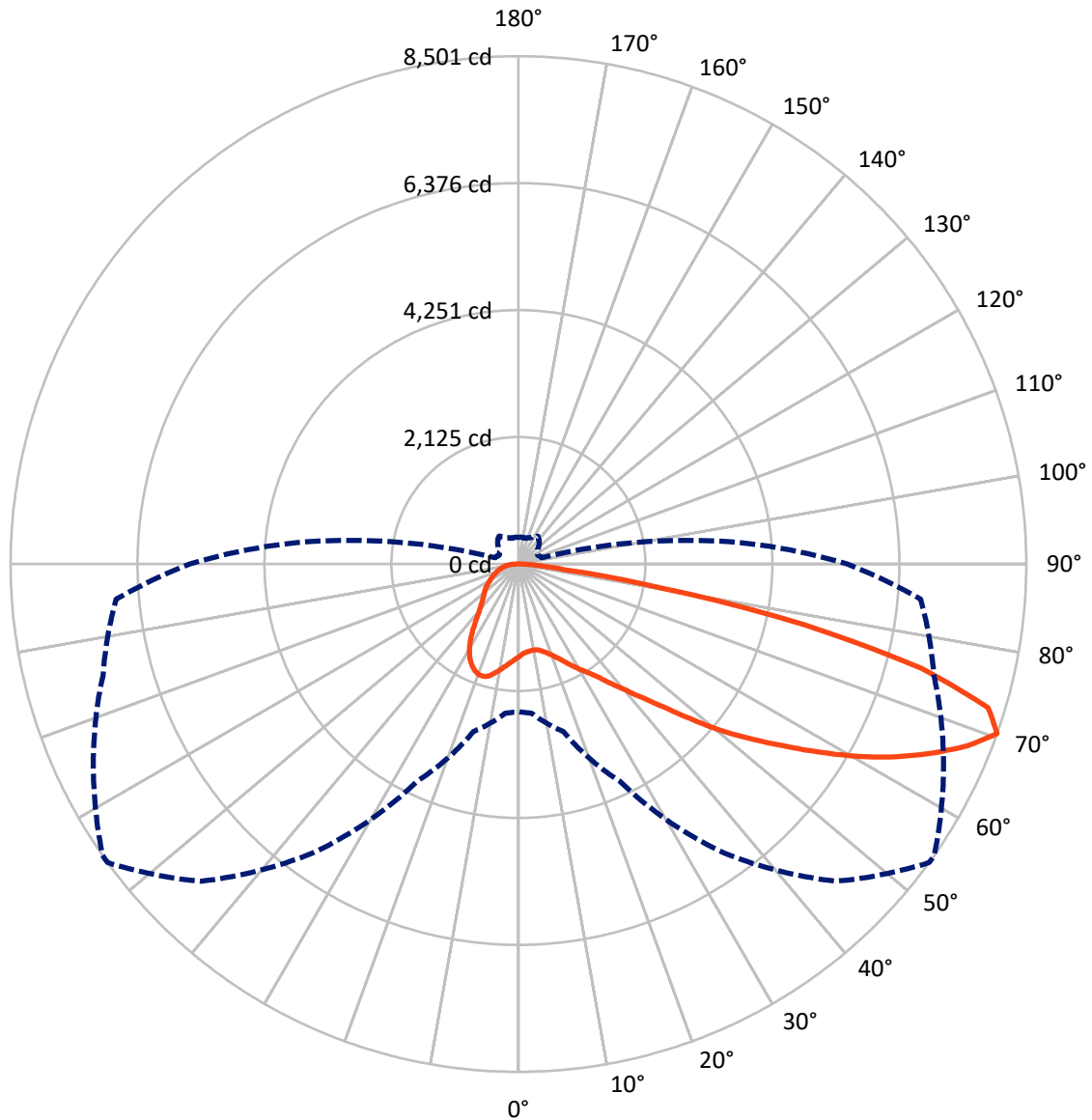
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 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	3142.3	0.0	3142.3
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	10712.7	0.0	10712.7
	% Fixture	77.3	0.0	77.3
Total	Lumens	13855.0	0.0	13855.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.1	1.1
10°-20°	486.1	3.5
20°-30°	844.5	6.1
30°-40°	1234.1	8.9
40°-50°	1936.9	14.0
50°-60°	2978.5	21.5
60°-70°	3639.0	26.3
70°-80°	2256.2	16.3
80°-90°	327.8	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°	13855.0	100.0
0°-180°	13855.0	100.0

Coefficient of Utilization



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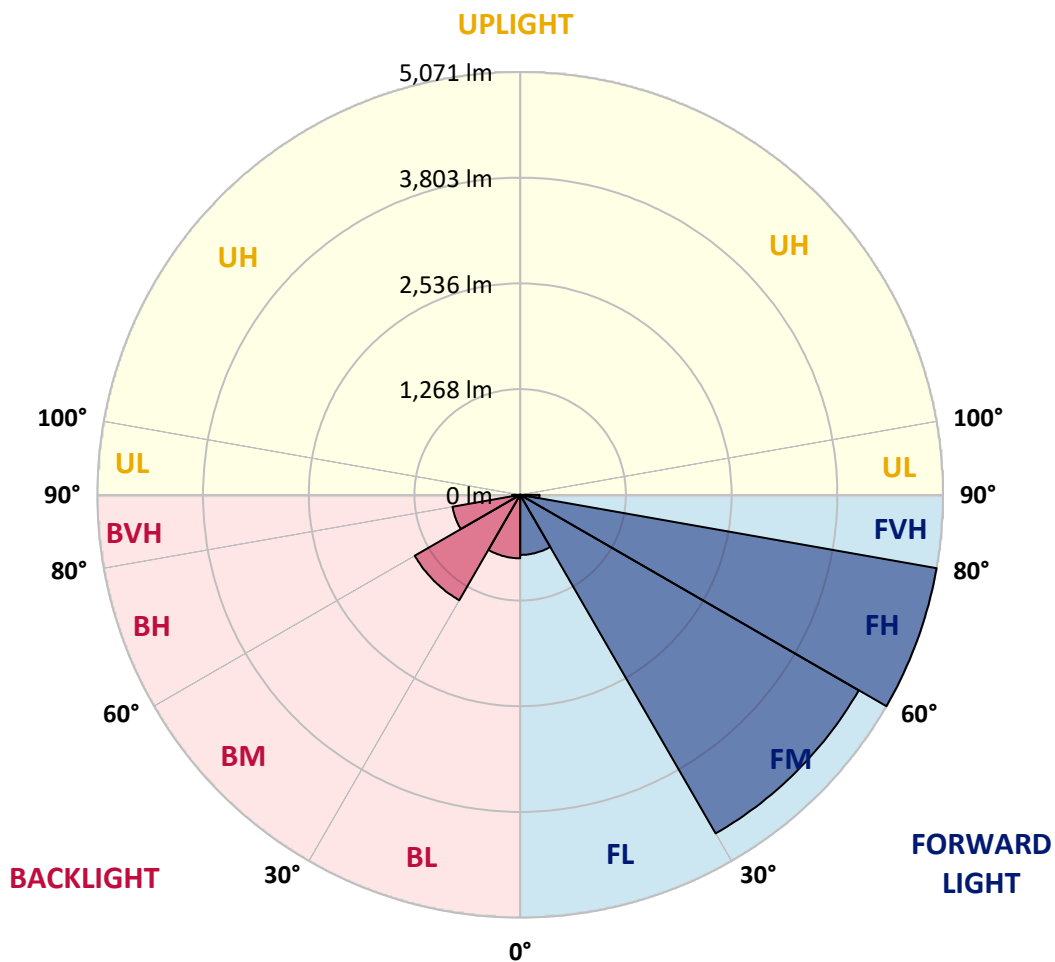
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	720.9	5.2			
FM	(30°-60°)	4689.3	33.8			
FH	(60°-80°)	5071.1	36.6			G3/7500
FVH	(80°-90°)	231.4	1.7			G3/500
BL	(0°-30°)	761.8	5.5	B2/1000		
BM	(30°-60°)	1460.2	10.5	B2/2500		
BH	(60°-80°)	824.0	5.9	B2/1000		G2/1000
BVH	(80°-90°)	96.3	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°	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1
2.5°	1489.2	1484.1	1484.1	1491.7	1494.3	1501.9	1501.9	1504.4	1512.0	1524.7	1539.9
5°	1443.5	1441.0	1443.5	1453.7	1458.8	1474.0	1479.1	1481.6	1496.8	1517.1	1539.9
7.5°	1397.9	1395.3	1400.4	1415.6	1430.9	1453.7	1466.4	1468.9	1491.7	1519.7	1550.1
10°	1382.7	1380.1	1387.7	1400.4	1415.6	1441.0	1461.3	1463.8	1496.8	1529.8	1572.9
12.5°	1402.9	1400.4	1408.0	1420.7	1435.9	1453.7	1476.5	1479.1	1522.2	1565.3	1611.0
15°	1453.7	1453.7	1456.2	1463.8	1479.1	1494.3	1514.6	1517.1	1562.8	1613.5	1659.2
17.5°	1532.3	1527.3	1527.3	1524.7	1534.9	1542.5	1567.9	1570.4	1618.6	1664.3	1709.9
20°	1628.7	1626.2	1616.1	1603.4	1600.8	1605.9	1631.3	1633.8	1682.0	1720.1	1763.2
22.5°	1745.4	1748.0	1725.1	1697.2	1684.6	1692.2	1715.0	1717.5	1753.1	1786.0	1824.1
25°	1900.2	1892.6	1859.6	1819.0	1793.6	1793.6	1816.5	1816.5	1849.5	1869.8	1895.1
27.5°	2047.3	2032.1	2001.7	1943.3	1902.7	1910.3	1933.2	1933.2	1963.6	1971.2	1983.9
30°	2207.2	2192.0	2153.9	2080.3	2027.0	2022.0	2049.9	2047.3	2087.9	2085.4	2075.2
32.5°	2402.5	2394.9	2331.5	2237.6	2166.6	2148.8	2174.2	2176.7	2202.1	2194.5	2161.5
35°	2676.5	2674.0	2615.6	2450.7	2356.9	2323.9	2339.1	2339.1	2356.9	2336.6	2280.7
37.5°	3021.5	3026.6	2975.9	2732.3	2600.4	2544.6	2547.1	2544.6	2549.7	2526.8	2468.5
40°	3366.6	3379.3	3376.7	3082.4	2915.0	2818.6	2783.1	2778.0	2790.7	2780.5	2724.7
42.5°	3820.7	3851.1	3780.1	3513.7	3326.0	3163.6	3067.2	3054.5	3082.4	3095.1	3041.8
45°	4292.6	4282.4	4170.8	3978.0	3808.0	3600.0	3417.3	3397.0	3417.3	3455.4	3399.6
47.5°	4538.7	4531.0	4503.1	4406.7	4381.4	4142.9	3866.4	3848.6	3810.5	3863.8	3797.9
50°	4944.6	4952.2	4838.0	4827.9	4934.4	4802.5	4373.8	4333.2	4264.7	4307.8	4252.0
52.5°	5238.9	5205.9	5134.8	5223.6	5556.0	5485.0	4850.7	4832.9	4769.5	4759.4	4734.0
55°	5358.1	5358.1	5370.8	5576.3	6050.7	5956.8	5368.2	5386.0	5299.8	5228.7	5261.7
57.5°	5393.6	5408.8	5517.9	5857.9	6631.7	6324.7	5939.1	5964.4	5840.1	5698.1	5802.1
60°	5218.6	5264.2	5525.5	6017.7	6958.9	6715.4	6540.3	6547.9	6367.8	6159.8	6342.4
62.5°	4769.5	4825.3	5292.1	6083.7	6905.7	7116.2	7108.6	7126.4	6880.3	6621.5	6849.8
65°	4219.0	4274.8	4772.1	5898.5	6865.1	7402.9	7628.7	7676.9	7359.8	7012.2	7167.0
67.5°	3409.7	3483.3	3955.2	5274.4	6667.2	7638.8	8115.8	8166.5	7730.2	7215.2	7139.1
70°	2471.0	2506.5	2902.3	4008.4	5860.4	7509.5	8501.4	8498.9	7852.0	7199.9	6758.5
72.5°	1189.8	1217.8	1560.2	2488.8	4191.1	6372.9	8222.4	8270.6	7684.5	6979.2	5888.3
75°	489.6	517.5	631.7	1050.3	2199.6	4211.4	6969.1	7083.2	6979.2	6263.8	4607.2
77.5°	304.4	314.6	370.4	542.9	1004.6	1966.2	4878.6	5033.4	5530.6	5018.1	3041.8
80°	228.3	235.9	276.5	380.5	634.2	725.6	2422.8	2618.2	3351.4	2879.5	1377.6
82.5°	190.3	192.8	220.7	276.5	431.3	416.1	776.3	865.1	1562.8	1098.5	474.4
85°	177.6	182.7	197.9	197.9	274.0	261.3	322.2	337.4	454.1	375.5	164.9
87.5°	91.3	86.3	175.1	154.8	142.1	126.8	137.0	147.1	170.0	180.1	73.6
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°	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1	1550.1
2.5°	1545.0	1552.6	1565.3	1578.0	1593.2	1611.0	1621.1	1633.8	1644.0	1638.9	1636.4
5°	1552.6	1565.3	1593.2	1618.6	1649.0	1684.6	1707.4	1732.8	1753.1	1758.1	1750.5
7.5°	1565.3	1588.1	1626.2	1671.9	1712.5	1758.1	1793.6	1829.2	1854.5	1859.6	1859.6
10°	1595.8	1621.1	1671.9	1732.8	1781.0	1829.2	1869.8	1897.7	1920.5	1930.6	1930.6
12.5°	1638.9	1669.3	1730.2	1803.8	1857.1	1902.7	1925.6	1938.3	1948.4	1958.5	1961.1
15°	1689.6	1722.6	1796.2	1874.8	1930.6	1953.5	1953.5	1950.9	1950.9	1956.0	1961.1
17.5°	1740.4	1775.9	1852.0	1935.7	1971.2	1958.5	1940.8	1933.2	1928.1	1925.6	1933.2
20°	1793.6	1829.2	1905.3	1983.9	1973.8	1920.5	1895.1	1877.4	1862.1	1854.5	1864.7
22.5°	1852.0	1885.0	1963.6	2016.9	1940.8	1859.6	1811.4	1783.5	1758.1	1742.9	1753.1
25°	1920.5	1953.5	2029.6	2027.0	1882.4	1768.3	1692.2	1646.5	1618.6	1603.4	1603.4
27.5°	2001.7	2029.6	2103.2	2001.7	1801.3	1646.5	1534.9	1491.7	1484.1	1471.4	1471.4
30°	2085.4	2108.2	2171.7	1943.3	1689.6	1486.7	1364.9	1344.6	1347.1	1334.5	1337.0
32.5°	2171.7	2194.5	2212.2	1857.1	1545.0	1306.5	1225.4	1210.1	1207.6	1197.5	1187.3
35°	2293.4	2326.4	2217.3	1740.4	1370.0	1156.9	1098.5	1083.3	1068.1	1032.6	1032.6
37.5°	2478.6	2514.1	2204.6	1595.8	1189.8	1040.2	986.9	966.6	941.2	905.7	893.0
40°	2732.3	2732.3	2176.7	1433.4	1045.2	946.3	895.6	870.2	842.3	806.8	799.1
42.5°	3031.7	2960.7	2133.6	1268.5	938.7	882.9	837.2	809.3	776.3	735.7	730.7
45°	3381.8	3189.0	2072.7	1121.3	860.0	844.8	816.9	768.7	712.9	669.8	662.2
47.5°	3721.7	3394.5	2014.4	1017.3	794.1	829.6	806.8	725.6	649.5	588.6	581.0
50°	4094.7	3577.1	1945.9	931.1	743.3	819.4	794.1	662.2	578.4	535.3	530.2
52.5°	4467.6	3762.3	1872.3	839.7	700.2	799.1	763.6	616.5	575.9	517.5	509.9
55°	4860.9	3978.0	1786.0	738.3	649.5	758.6	723.0	613.9	593.7	517.5	499.8
57.5°	5243.9	4216.5	1646.5	639.3	593.7	697.7	707.8	598.7	555.6	512.5	492.2
60°	5667.6	4470.2	1415.6	555.6	545.5	646.9	687.5	565.7	512.5	497.2	487.1
62.5°	6007.6	4698.5	1106.1	497.2	504.9	606.3	662.2	545.5	494.7	482.0	479.5
65°	6154.7	4703.6	794.1	446.5	464.3	568.3	636.8	527.7	479.5	474.4	471.9
67.5°	6000.0	4444.8	558.1	398.3	421.1	532.8	603.8	509.9	464.3	466.8	461.7
70°	5500.2	3899.3	408.5	352.6	380.5	494.7	568.3	487.1	446.5	451.6	444.0
72.5°	4602.1	3039.3	327.3	314.6	347.6	454.1	532.8	461.7	418.6	421.1	405.9
75°	3399.6	2014.4	274.0	281.6	309.5	416.1	487.1	428.7	388.2	378.0	367.9
77.5°	2022.0	1035.1	225.8	246.1	276.5	370.4	436.4	388.2	355.2	337.4	329.8
80°	834.7	418.6	185.2	208.0	241.0	329.8	385.6	340.0	317.1	299.4	289.2
82.5°	332.3	205.5	147.1	170.0	203.0	286.7	337.4	299.4	276.5	263.8	235.9
85°	126.8	101.5	98.9	119.2	152.2	220.7	279.1	251.2	233.4	200.4	192.8
87.5°	50.7	45.7	45.7	58.4	86.3	139.5	200.4	175.1	182.7	144.6	147.1
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)