

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: P234843

Luminaire Tested: **ARCH-M-AF48-160-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234843
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-8027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 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: 14343 lumens
Efficiency: N/A
Efficacy: 89.1 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

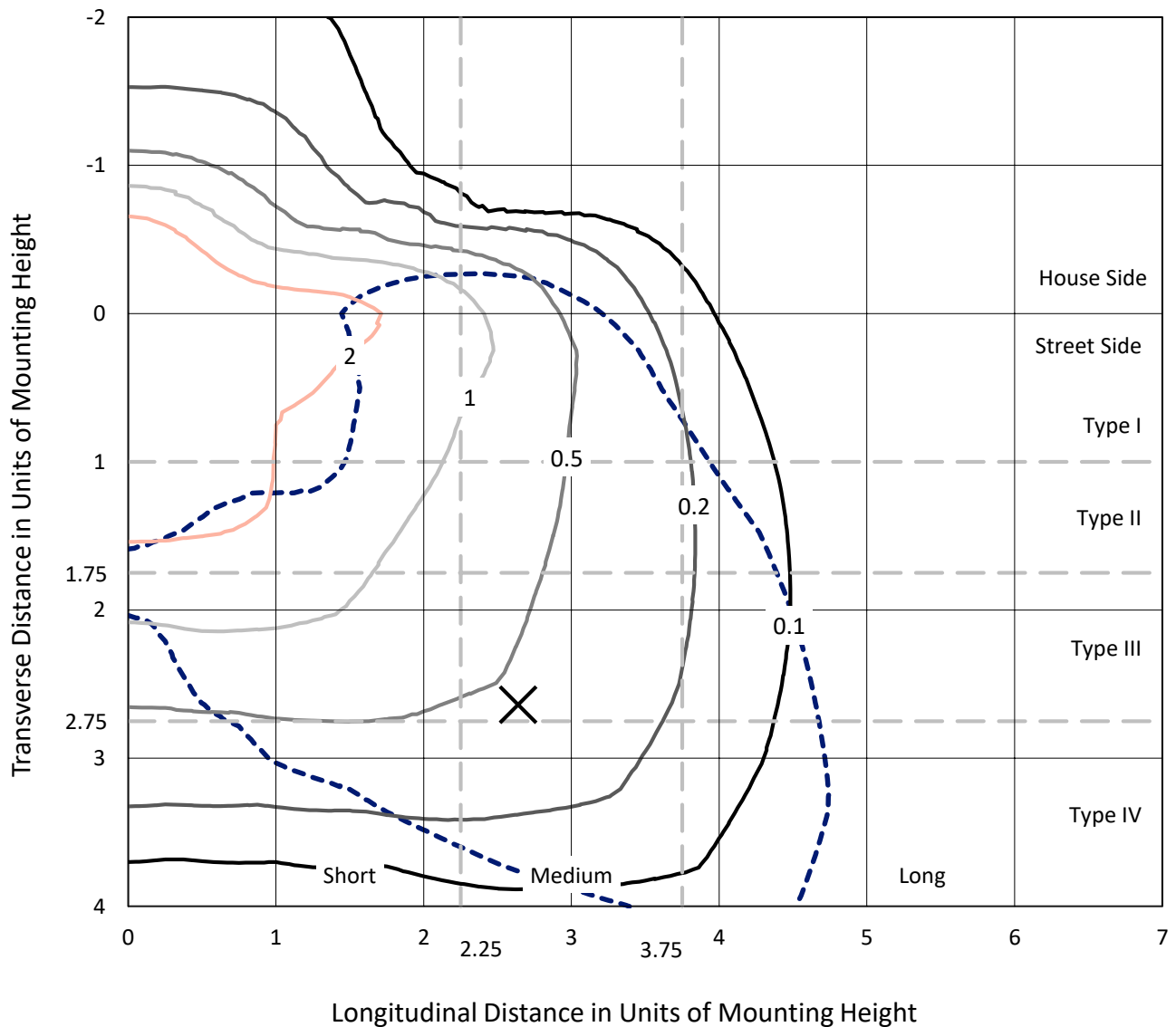


REPORT NUMBER: P234843

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T4W-8027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

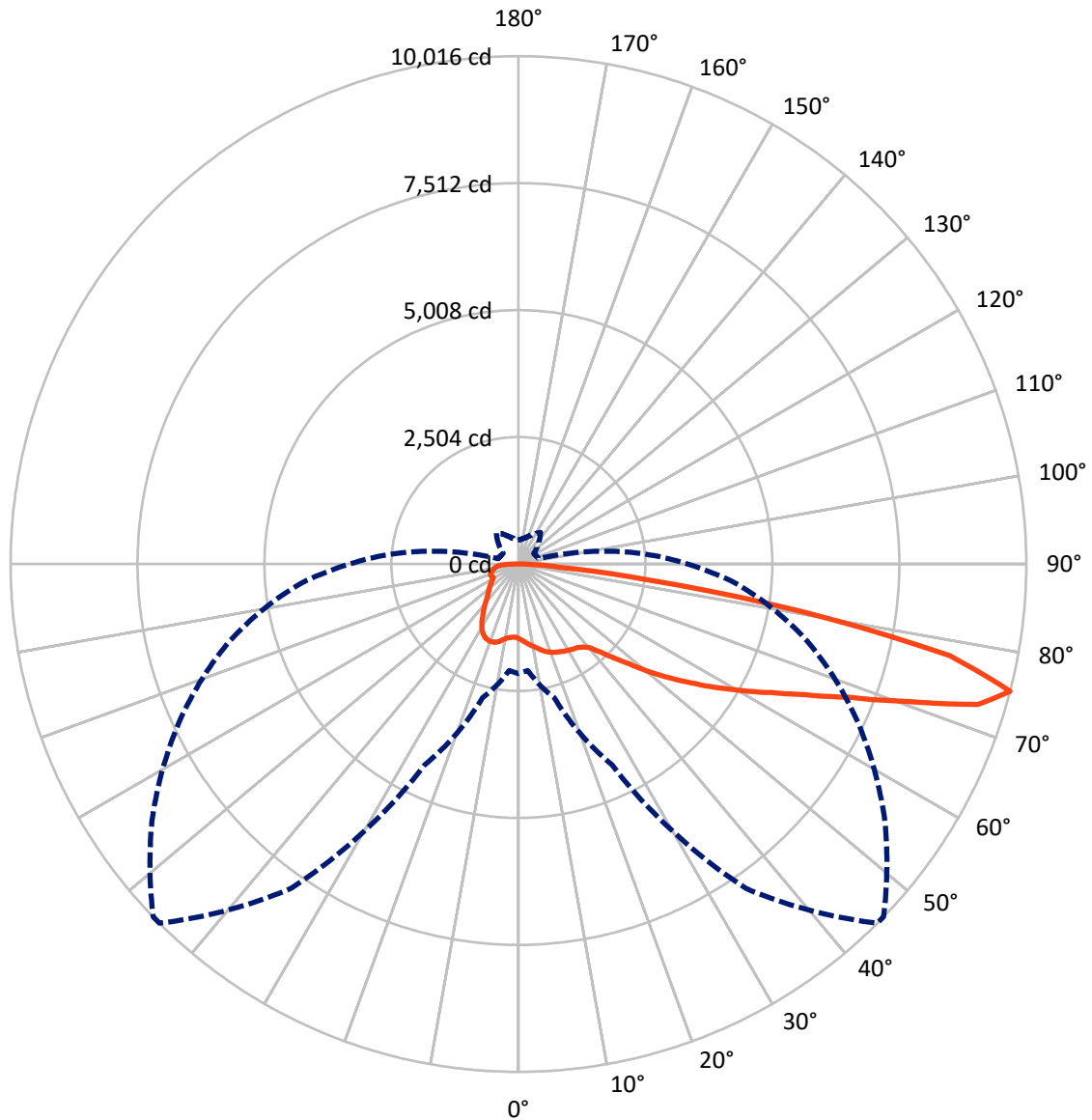


Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P234843

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T4W-8027

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P234843

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T4W-8027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3322.7	0.0	3322.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	11020.3	0.0	11020.3
	% Fixture	76.8	0.0	76.8
Total	Lumens	14343.0	0.0	14343.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.7	1.0
10°-20°	472.2	3.3
20°-30°	810.3	5.6
30°-40°	1133.3	7.9
40°-50°	1662.4	11.6
50°-60°	2589.6	18.1
60°-70°	3726.2	26.0
70°-80°	3245.9	22.6
80°-90°	557.4	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°	14343.0	100.0
0°-180°	14343.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234843

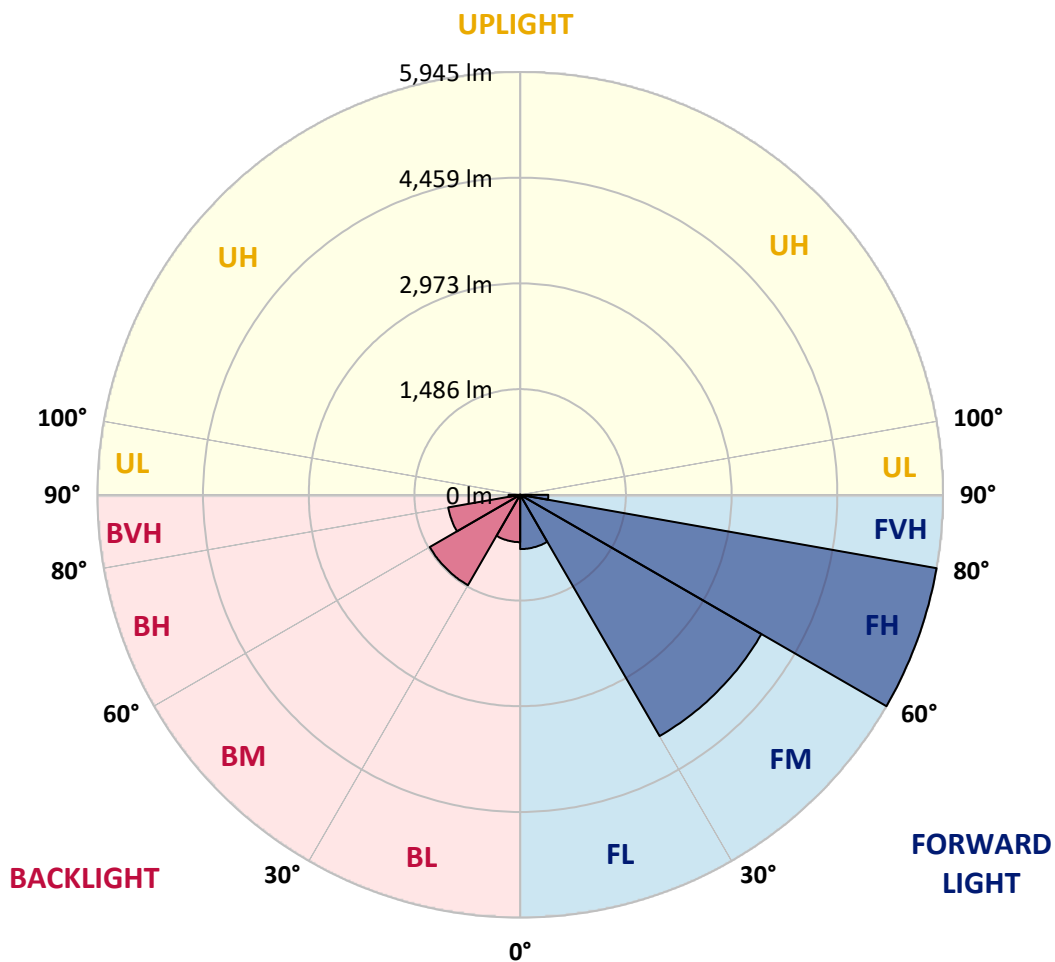
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	762.7	5.3			
FM	(30°-60°)	3916.8	27.3			
FH	(60°-80°)	5945.3	41.5			G3/7500
FVH	(80°-90°)	395.5	2.8			G3/500
BL	(0°-30°)	665.5	4.6	B2/1000		
BM	(30°-60°)	1468.4	10.2	B2/2500		
BH	(60°-80°)	1026.8	7.2	B3/2500		G3/2500
BVH	(80°-90°)	161.9	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





REPORT NUMBER: P234843

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T4W-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4
2.5°	1542.9	1531.7	1531.7	1523.4	1523.4	1509.4	1503.8	1501.1	1487.1	1478.7	1470.4
5°	1632.2	1618.2	1615.4	1595.9	1587.5	1556.9	1554.1	1534.5	1509.4	1484.3	1464.8
7.5°	1713.1	1704.7	1690.8	1671.2	1646.1	1607.1	1604.3	1573.6	1531.7	1498.3	1470.4
10°	1771.7	1766.1	1746.6	1721.5	1693.6	1654.5	1651.7	1618.2	1568.0	1529.0	1489.9
12.5°	1841.4	1833.1	1808.0	1774.5	1743.8	1707.5	1704.7	1676.8	1621.0	1570.8	1520.6
15°	1908.4	1897.2	1866.5	1833.1	1799.6	1768.9	1768.9	1738.2	1679.6	1621.0	1562.4
17.5°	1941.9	1936.3	1905.6	1869.3	1841.4	1819.1	1816.3	1788.4	1729.8	1668.5	1604.3
20°	1953.0	1955.8	1927.9	1888.9	1869.3	1858.2	1855.4	1835.9	1771.7	1713.1	1651.7
22.5°	1950.3	1958.6	1936.3	1894.4	1888.9	1888.9	1888.9	1866.5	1816.3	1757.7	1696.4
25°	1961.4	1972.6	1955.8	1905.6	1905.6	1916.8	1916.8	1905.6	1861.0	1810.7	1749.4
27.5°	2000.5	2008.8	1994.9	1925.1	1927.9	1944.7	1941.9	1944.7	1916.8	1869.3	1808.0
30°	2047.9	2059.1	2042.3	1955.8	1953.0	1969.8	1969.8	1983.7	1964.2	1914.0	1863.8
32.5°	2176.2	2173.5	2120.4	1989.3	1980.9	1997.7	1997.7	2011.6	2000.5	1961.4	1914.0
35°	2558.5	2516.6	2399.5	2098.1	2014.4	2022.8	2022.8	2047.9	2053.5	2022.8	1980.9
37.5°	2949.1	2935.1	2845.9	2388.3	2137.2	2075.8	2073.0	2109.3	2134.4	2109.3	2081.4
40°	3342.5	3331.3	3311.8	2776.1	2393.9	2170.7	2162.3	2193.0	2237.6	2220.9	2204.1
42.5°	3708.0	3702.4	3721.9	3158.3	2720.3	2374.3	2349.2	2313.0	2377.1	2371.6	2371.6
45°	3995.4	4009.3	4020.5	3515.5	3074.6	2636.6	2605.9	2483.2	2569.6	2592.0	2608.7
47.5°	4157.2	4168.3	4207.4	3864.2	3429.0	2940.7	2918.4	2717.5	2831.9	2898.9	2946.3
50°	4388.8	4358.1	4391.6	4204.6	3855.9	3336.9	3275.5	3032.8	3177.9	3295.1	3406.7
52.5°	4612.0	4561.7	4589.6	4598.0	4341.3	3724.7	3660.6	3403.9	3585.2	3769.4	3967.5
55°	4812.9	4810.1	4838.0	4980.3	4810.1	4140.4	4067.9	3814.0	4076.3	4274.4	4609.2
57.5°	4974.7	5002.6	5125.3	5423.9	5351.3	4592.4	4511.5	4291.1	4600.8	4798.9	5354.1
60°	5164.4	5209.0	5412.7	5800.5	5845.2	5066.7	4983.0	4824.0	5139.3	5340.2	6216.3
62.5°	5228.6	5292.7	5711.3	6196.7	6361.3	5585.7	5510.4	5404.3	5705.7	5887.0	7075.6
65°	4801.7	4924.5	5875.9	6400.4	6916.6	6210.7	6146.5	6054.4	6269.3	6389.2	7658.7
67.5°	4684.5	4740.3	5555.0	6693.4	7438.3	7014.2	6950.0	6791.0	6796.6	6746.4	7848.4
70°	4519.9	4581.3	5225.8	6913.8	8186.0	8113.5	8035.4	7566.6	7279.3	6975.1	7474.6
72.5°	3850.3	3830.8	4503.2	6319.5	8546.0	9475.0	9383.0	8400.9	7636.4	6777.1	6308.3
75°	2162.3	2106.5	2731.5	4372.0	7803.8	10016.3	10013.5	8822.2	7385.3	5903.8	4293.9
77.5°	627.8	611.0	901.2	1833.1	5253.7	8702.2	8808.2	7957.2	6163.2	4240.9	2357.6
80°	295.7	301.3	387.8	605.4	2243.2	5616.4	5920.5	5239.7	3682.9	1955.8	973.7
82.5°	186.9	189.7	265.1	390.6	948.6	2550.1	2801.2	2357.6	1459.2	845.4	429.7
85°	117.2	117.2	175.8	256.7	566.4	814.7	884.4	803.5	625.0	460.4	234.4
87.5°	64.2	64.2	106.0	147.9	309.7	262.3	270.6	320.9	390.6	281.8	117.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P234843

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T4W-8027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4	1470.4
2.5°	1467.6	1462.0	1453.6	1450.8	1448.0	1445.3	1448.0	1453.6	1448.0	1448.0	1450.8
5°	1459.2	1453.6	1442.5	1442.5	1445.3	1448.0	1462.0	1470.4	1473.2	1473.2	1473.2
7.5°	1459.2	1450.8	1442.5	1445.3	1450.8	1462.0	1484.3	1498.3	1509.4	1512.2	1512.2
10°	1473.2	1462.0	1456.4	1462.0	1478.7	1487.1	1509.4	1531.7	1545.7	1551.3	1551.3
12.5°	1498.3	1487.1	1487.1	1498.3	1520.6	1531.7	1551.3	1568.0	1584.8	1593.1	1593.1
15°	1540.1	1526.2	1529.0	1548.5	1573.6	1584.8	1598.7	1604.3	1618.2	1629.4	1629.4
17.5°	1579.2	1565.2	1570.8	1593.1	1609.9	1615.4	1623.8	1621.0	1626.6	1635.0	1637.8
20°	1623.8	1609.9	1612.7	1626.6	1629.4	1623.8	1623.8	1615.4	1612.7	1626.6	1632.2
22.5°	1668.5	1654.5	1651.7	1643.3	1629.4	1615.4	1607.1	1598.7	1593.1	1607.1	1612.7
25°	1721.5	1701.9	1688.0	1651.7	1615.4	1590.3	1579.2	1573.6	1570.8	1584.8	1590.3
27.5°	1780.1	1760.5	1718.7	1640.6	1582.0	1540.1	1531.7	1531.7	1537.3	1545.7	1551.3
30°	1835.9	1816.3	1741.0	1615.4	1523.4	1462.0	1453.6	1462.0	1475.9	1484.3	1492.7
32.5°	1891.7	1872.1	1754.9	1576.4	1436.9	1358.8	1353.2	1367.1	1389.4	1395.0	1400.6
35°	1967.0	1947.5	1771.7	1520.6	1328.1	1244.4	1238.8	1247.2	1266.7	1275.1	1283.4
37.5°	2073.0	2061.9	1796.8	1459.2	1227.6	1135.6	1118.8	1113.2	1124.4	1121.6	1132.8
40°	2212.5	2220.9	1841.4	1378.3	1130.0	1035.1	998.8	982.1	970.9	948.6	959.8
42.5°	2416.2	2421.8	1891.7	1286.2	1046.3	940.2	892.8	862.1	839.8	803.5	809.1
45°	2714.7	2667.3	1950.3	1188.6	970.9	864.9	809.1	772.8	742.2	711.5	714.3
47.5°	3110.9	2965.8	2014.4	1107.7	895.6	803.5	753.3	711.5	675.2	650.1	652.9
50°	3599.2	3336.9	2078.6	1032.3	820.3	756.1	711.5	666.8	630.6	605.4	602.7
52.5°	4243.7	3783.3	2120.4	948.6	744.9	714.3	675.2	633.3	588.7	558.0	555.2
55°	4913.3	4302.3	2156.7	848.2	672.4	666.8	647.3	599.9	546.9	507.8	502.2
57.5°	5649.9	4857.5	2184.6	750.5	616.6	627.8	622.2	566.4	507.8	471.5	468.7
60°	6319.5	5432.2	2095.3	664.0	566.4	588.7	594.3	546.9	516.2	524.5	527.3
62.5°	6994.7	5875.9	1754.9	599.9	532.9	563.6	611.0	608.2	594.3	608.2	611.0
65°	7237.4	5967.9	1244.4	546.9	499.4	574.8	664.0	658.5	594.3	569.2	563.6
67.5°	7100.7	5694.5	837.0	505.0	474.3	588.7	719.8	658.5	572.0	538.5	527.3
70°	6450.6	5022.1	613.8	463.1	452.0	585.9	750.5	655.7	560.8	524.5	510.6
72.5°	5144.9	3875.4	493.8	424.1	418.5	572.0	767.3	650.1	549.6	510.6	493.8
75°	3331.3	2410.6	415.7	385.0	368.3	549.6	758.9	633.3	535.7	485.5	474.3
77.5°	1545.7	1037.9	354.3	340.4	320.9	516.2	733.8	599.9	505.0	457.6	443.6
80°	719.8	491.1	298.5	295.7	287.4	488.3	700.3	560.8	468.7	429.7	407.3
82.5°	385.0	295.7	242.7	242.7	251.1	454.8	658.5	513.4	421.3	401.8	343.2
85°	203.7	170.2	175.8	189.7	214.8	401.8	602.7	463.1	368.3	306.9	298.5
87.5°	103.2	108.8	108.8	128.3	164.6	326.4	496.6	382.2	312.5	251.1	245.5
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)