

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: P231278

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231278
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-AF48-120-D-U-T4W-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13461 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 122
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

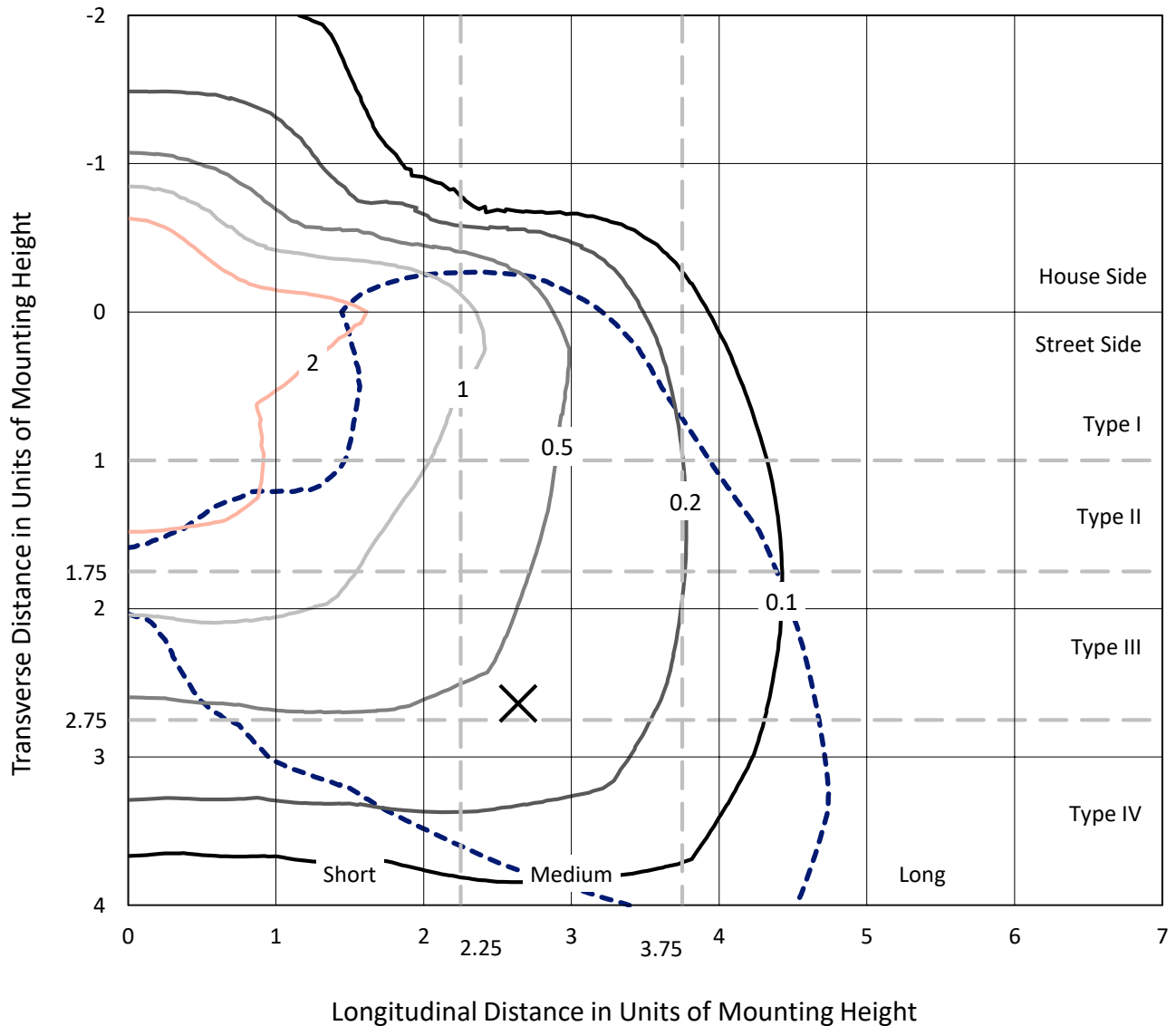


REPORT NUMBER: P231278

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T4W-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

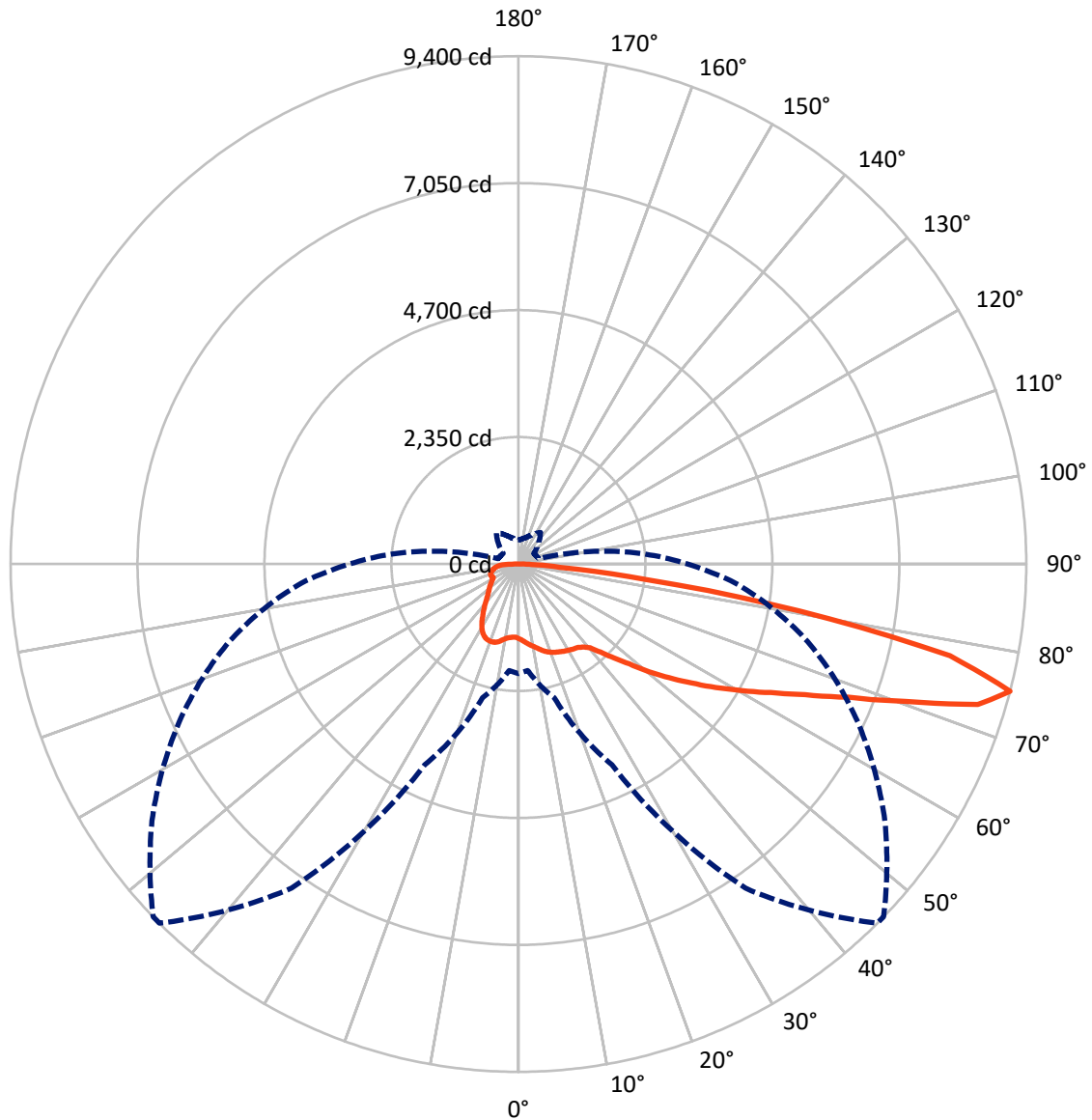


Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231278

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T4W-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P231278

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T4W-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3118.4	0.0	3118.4
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	10342.7	0.0	10342.7
	% Fixture	76.8	0.0	76.8
Total	Lumens	13461.0	0.0	13461.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.8	1.0
10°-20°	443.2	3.3
20°-30°	760.5	5.6
30°-40°	1063.6	7.9
40°-50°	1560.2	11.6
50°-60°	2430.3	18.1
60°-70°	3497.1	26.0
70°-80°	3046.3	22.6
80°-90°	523.2	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°	13461.0	100.0
0°-180°	13461.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231278

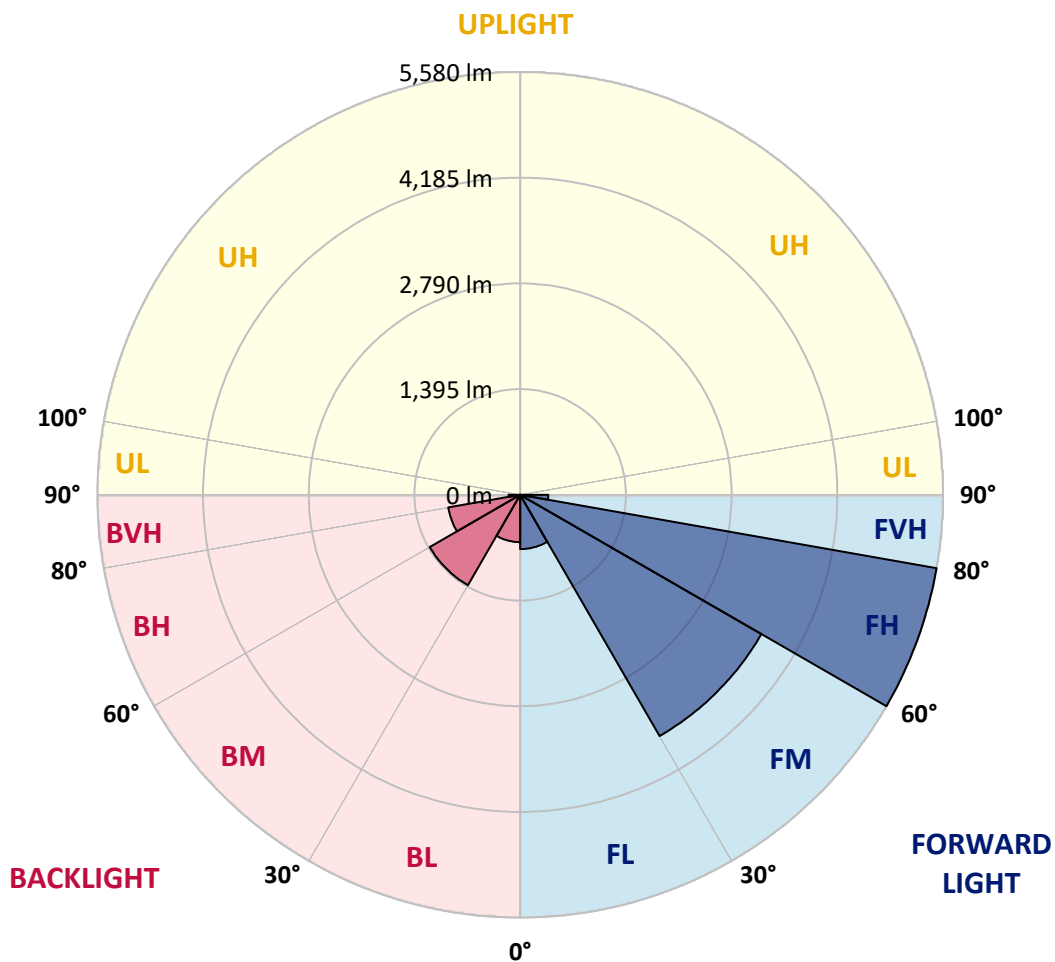
CATALOG NUMBER: ARCH-M-AF48-120-D-U-T4W-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	715.8	5.3			
FM	(30°-60°)	3675.9	27.3			
FH	(60°-80°)	5579.7	41.5			G3/7500
FVH	(80°-90°)	371.2	2.8			G3/500
BL	(0°-30°)	624.6	4.6	B2/1000		
BM	(30°-60°)	1378.1	10.2	B2/2500		
BH	(60°-80°)	963.7	7.2	B2/1000		G2/1000
BVH	(80°-90°)	152.0	1.1			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 IV Medium





REPORT NUMBER: P231278

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T4W-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9
2.5°	1448.0	1437.6	1437.6	1429.7	1429.7	1416.6	1411.4	1408.7	1395.7	1387.8	1379.9
5°	1531.8	1518.7	1516.1	1497.8	1489.9	1461.1	1458.5	1440.2	1416.6	1393.0	1374.7
7.5°	1607.8	1599.9	1586.8	1568.5	1544.9	1508.2	1505.6	1476.8	1437.6	1406.1	1379.9
10°	1662.7	1657.5	1639.2	1615.6	1589.4	1552.8	1550.1	1518.7	1471.6	1434.9	1398.3
12.5°	1728.2	1720.3	1696.8	1665.4	1636.6	1602.5	1599.9	1573.7	1521.3	1474.2	1427.1
15°	1791.0	1780.6	1751.8	1720.3	1688.9	1660.1	1660.1	1631.3	1576.3	1521.3	1466.4
17.5°	1822.5	1817.2	1788.4	1754.4	1728.2	1707.3	1704.6	1678.5	1623.5	1565.9	1505.6
20°	1832.9	1835.6	1809.4	1772.7	1754.4	1743.9	1741.3	1723.0	1662.7	1607.8	1550.1
22.5°	1830.3	1838.2	1817.2	1778.0	1772.7	1772.7	1772.7	1751.8	1704.6	1649.6	1592.0
25°	1840.8	1851.3	1835.6	1788.4	1788.4	1798.9	1798.9	1788.4	1746.5	1699.4	1641.8
27.5°	1877.5	1885.3	1872.2	1806.8	1809.4	1825.1	1822.5	1825.1	1798.9	1754.4	1696.8
30°	1922.0	1932.4	1916.7	1835.6	1832.9	1848.7	1848.7	1861.7	1843.4	1796.3	1749.2
32.5°	2042.4	2039.8	1990.1	1867.0	1859.1	1874.8	1874.8	1887.9	1877.5	1840.8	1796.3
35°	2401.2	2361.9	2251.9	1969.1	1890.5	1898.4	1898.4	1922.0	1927.2	1898.4	1859.1
37.5°	2767.7	2754.7	2670.9	2241.4	2005.8	1948.2	1945.5	1979.6	2003.1	1979.6	1953.4
40°	3136.9	3126.5	3108.1	2605.4	2246.7	2037.2	2029.3	2058.1	2100.0	2084.3	2068.6
42.5°	3480.0	3474.7	3493.1	2964.1	2553.0	2228.3	2204.8	2170.7	2231.0	2225.7	2225.7
45°	3749.7	3762.8	3773.2	3299.3	2885.6	2474.5	2445.7	2330.5	2411.6	2432.6	2448.3
47.5°	3901.5	3912.0	3948.7	3626.6	3218.1	2759.9	2738.9	2550.4	2657.8	2720.6	2765.1
50°	4118.9	4090.1	4121.5	3946.1	3618.8	3131.7	3074.1	2846.3	2982.5	3092.4	3197.2
52.5°	4328.4	4281.2	4307.4	4315.3	4074.4	3495.7	3435.5	3194.6	3364.8	3537.6	3723.5
55°	4516.9	4514.3	4540.5	4674.0	4514.3	3885.8	3817.8	3579.5	3825.6	4011.5	4325.7
57.5°	4668.8	4695.0	4810.2	5090.3	5022.3	4310.0	4234.1	4027.2	4317.9	4503.8	5024.9
60°	4846.8	4888.7	5079.9	5443.8	5485.7	4755.2	4676.6	4527.4	4823.3	5011.8	5834.0
62.5°	4907.0	4967.3	5360.0	5815.7	5970.2	5242.2	5171.5	5072.0	5354.8	5525.0	6640.5
65°	4506.4	4621.6	5514.5	6006.8	6491.2	5828.8	5768.5	5682.1	5883.7	5996.3	7187.8
67.5°	4396.4	4448.8	5213.4	6281.8	6980.9	6582.9	6522.7	6373.4	6378.6	6331.5	7365.8
70°	4242.0	4299.6	4904.4	6488.6	7682.6	7614.6	7541.2	7101.3	6831.6	6546.2	7014.9
72.5°	3613.5	3595.2	4226.2	5930.9	8020.4	8892.4	8806.0	7884.3	7166.8	6360.3	5920.4
75°	2029.3	1977.0	2563.5	4103.2	7323.9	9400.4	9397.8	8279.7	6931.1	5540.7	4029.9
77.5°	589.2	573.4	845.8	1720.3	4930.6	8167.1	8266.6	7467.9	5784.2	3980.1	2212.6
80°	277.6	282.8	364.0	568.2	2105.3	5271.0	5556.4	4917.5	3456.4	1835.6	913.9
82.5°	175.4	178.1	248.8	366.6	890.3	2393.3	2629.0	2212.6	1369.5	793.4	403.2
85°	110.0	110.0	165.0	240.9	531.6	764.6	830.1	754.1	586.5	432.1	220.0
87.5°	60.2	60.2	99.5	138.8	290.7	246.1	254.0	301.1	366.6	264.5	110.0
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: P231278

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T4W-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9	1379.9
2.5°	1377.3	1372.1	1364.2	1361.6	1359.0	1356.4	1359.0	1364.2	1359.0	1359.0	1361.6
5°	1369.5	1364.2	1353.8	1353.8	1356.4	1359.0	1372.1	1379.9	1382.6	1382.6	1382.6
7.5°	1369.5	1361.6	1353.8	1356.4	1361.6	1372.1	1393.0	1406.1	1416.6	1419.2	1419.2
10°	1382.6	1372.1	1366.9	1372.1	1387.8	1395.7	1416.6	1437.6	1450.6	1455.9	1455.9
12.5°	1406.1	1395.7	1395.7	1406.1	1427.1	1437.6	1455.9	1471.6	1487.3	1495.2	1495.2
15°	1445.4	1432.3	1434.9	1453.3	1476.8	1487.3	1500.4	1505.6	1518.7	1529.2	1529.2
17.5°	1482.1	1469.0	1474.2	1495.2	1510.9	1516.1	1524.0	1521.3	1526.6	1534.4	1537.1
20°	1524.0	1510.9	1513.5	1526.6	1529.2	1524.0	1524.0	1516.1	1513.5	1526.6	1531.8
22.5°	1565.9	1552.8	1550.1	1542.3	1529.2	1516.1	1508.2	1500.4	1495.2	1508.2	1513.5
25°	1615.6	1597.3	1584.2	1550.1	1516.1	1492.5	1482.1	1476.8	1474.2	1487.3	1492.5
27.5°	1670.6	1652.3	1613.0	1539.7	1484.7	1445.4	1437.6	1437.6	1442.8	1450.6	1455.9
30°	1723.0	1704.6	1633.9	1516.1	1429.7	1372.1	1364.2	1372.1	1385.2	1393.0	1400.9
32.5°	1775.3	1757.0	1647.0	1479.4	1348.5	1275.2	1270.0	1283.1	1304.0	1309.2	1314.5
35°	1846.0	1827.7	1662.7	1427.1	1246.4	1167.8	1162.6	1170.5	1188.8	1196.6	1204.5
37.5°	1945.5	1935.1	1686.3	1369.5	1152.1	1065.7	1050.0	1044.8	1055.3	1052.6	1063.1
40°	2076.5	2084.3	1728.2	1293.5	1060.5	971.5	937.4	921.7	911.2	890.3	900.8
42.5°	2267.6	2272.8	1775.3	1207.1	981.9	882.4	837.9	809.1	788.2	754.1	759.4
45°	2547.8	2503.3	1830.3	1115.5	911.2	811.7	759.4	725.3	696.5	667.7	670.3
47.5°	2919.6	2783.5	1890.5	1039.5	840.5	754.1	707.0	667.7	633.7	610.1	612.7
50°	3377.9	3131.7	1950.8	968.8	769.8	709.6	667.7	625.8	591.8	568.2	565.6
52.5°	3982.7	3550.7	1990.1	890.3	699.1	670.3	633.7	594.4	552.5	523.7	521.1
55°	4611.2	4037.7	2024.1	796.0	631.1	625.8	607.5	563.0	513.2	476.6	471.3
57.5°	5302.4	4558.8	2050.3	704.4	578.7	589.2	583.9	531.6	476.6	442.5	439.9
60°	5930.9	5098.2	1966.5	623.2	531.6	552.5	557.7	513.2	484.4	492.3	494.9
62.5°	6564.6	5514.5	1647.0	563.0	500.1	528.9	573.4	570.8	557.7	570.8	573.4
65°	6792.4	5600.9	1167.8	513.2	468.7	539.4	623.2	618.0	557.7	534.2	528.9
67.5°	6664.1	5344.3	785.5	473.9	445.1	552.5	675.6	618.0	536.8	505.4	494.9
70°	6053.9	4713.3	576.1	434.7	424.2	549.9	704.4	615.3	526.3	492.3	479.2
72.5°	4828.5	3637.1	463.5	398.0	392.8	536.8	720.1	610.1	515.8	479.2	463.5
75°	3126.5	2262.4	390.2	361.4	345.6	515.8	712.2	594.4	502.7	455.6	445.1
77.5°	1450.6	974.1	332.5	319.5	301.1	484.4	688.7	563.0	473.9	429.4	416.3
80°	675.6	460.9	280.2	277.6	269.7	458.2	657.2	526.3	439.9	403.2	382.3
82.5°	361.4	277.6	227.8	227.8	235.7	426.8	618.0	481.8	395.4	377.1	322.1
85°	191.1	159.7	165.0	178.1	201.6	377.1	565.6	434.7	345.6	288.0	280.2
87.5°	96.9	102.1	102.1	120.5	154.5	306.4	466.1	358.7	293.3	235.7	230.4
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)