

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: P265830

Luminaire Tested: **ARCH-M-AF48-120-D-U-T4W-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265830  
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-7027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 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: 13211.7 lumens  
Efficiency: N/A  
Efficacy: 108.3 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

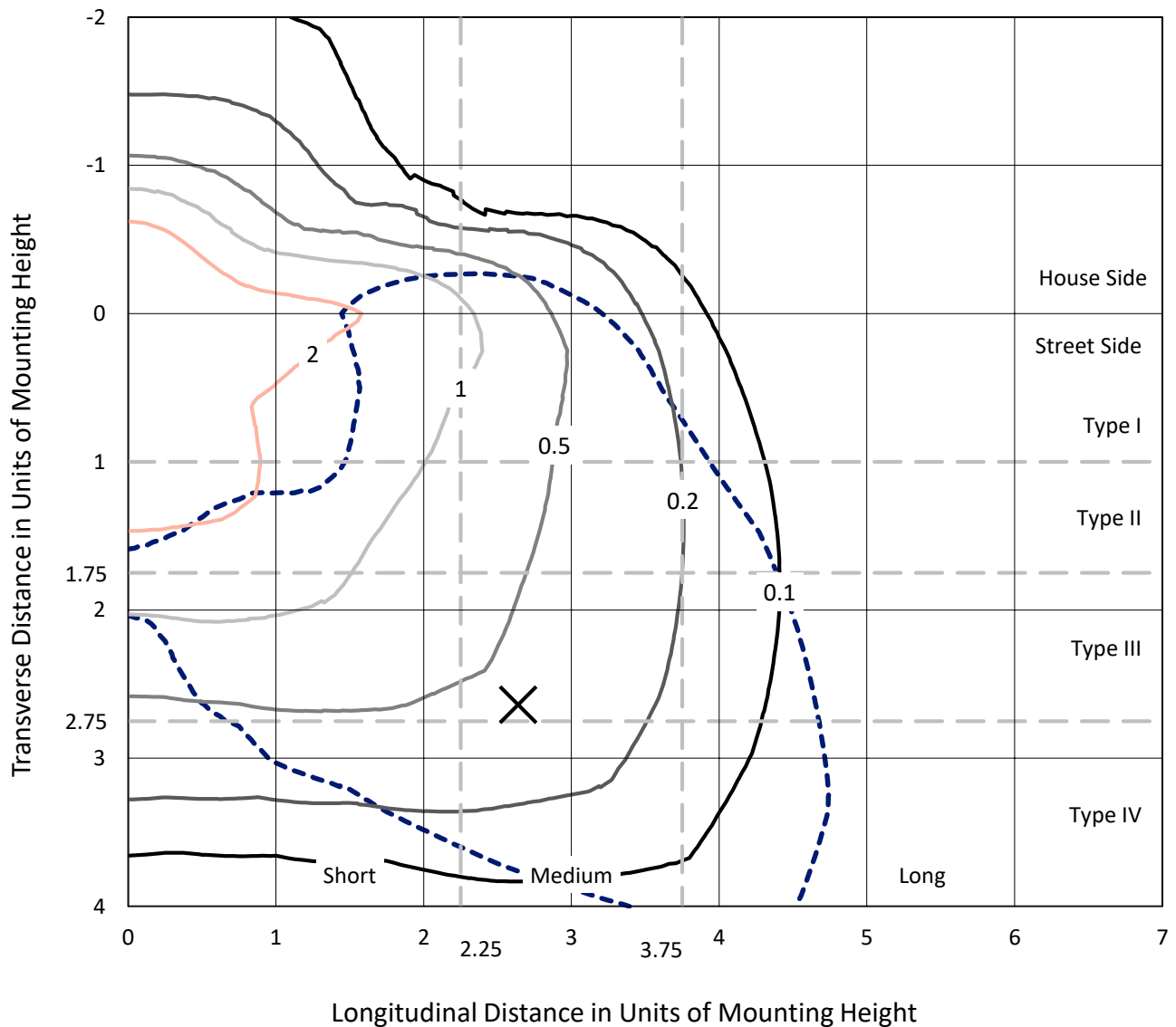


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

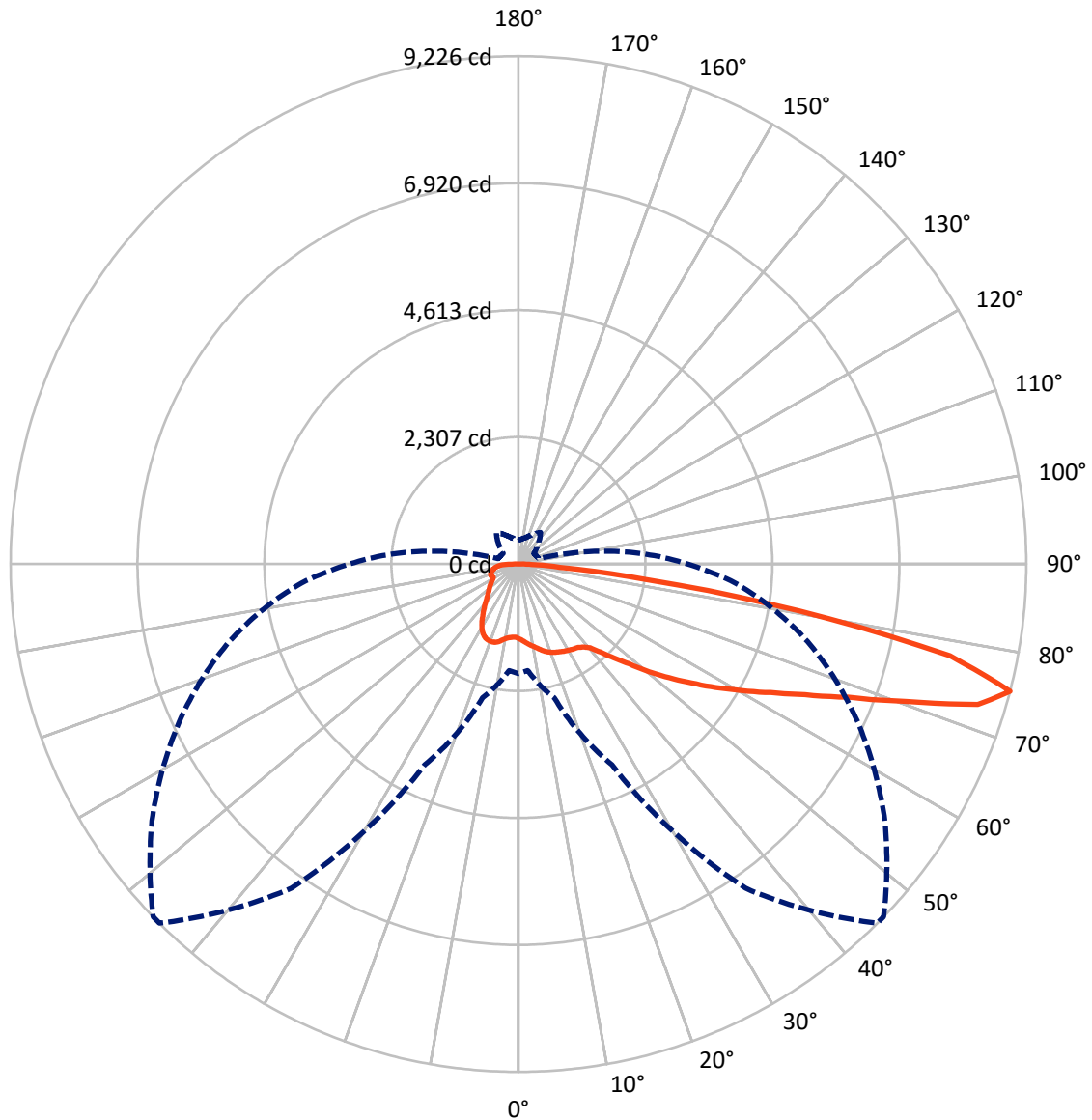


Based on 20 foot mounting height. Maximum calculated value = 4 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3060.6	0.0	3060.6
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	10151.1	0.0	10151.1
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	13211.7	0.0	13211.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.2	1.0
10°-20°	434.9	3.3
20°-30°	746.4	5.6
30°-40°	1043.9	7.9
40°-50°	1531.3	11.6
50°-60°	2385.3	18.1
60°-70°	3432.3	26.0
70°-80°	2989.9	22.6
80°-90°	513.5	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°	13211.7	100.0
0°-180°	13211.7	100.0



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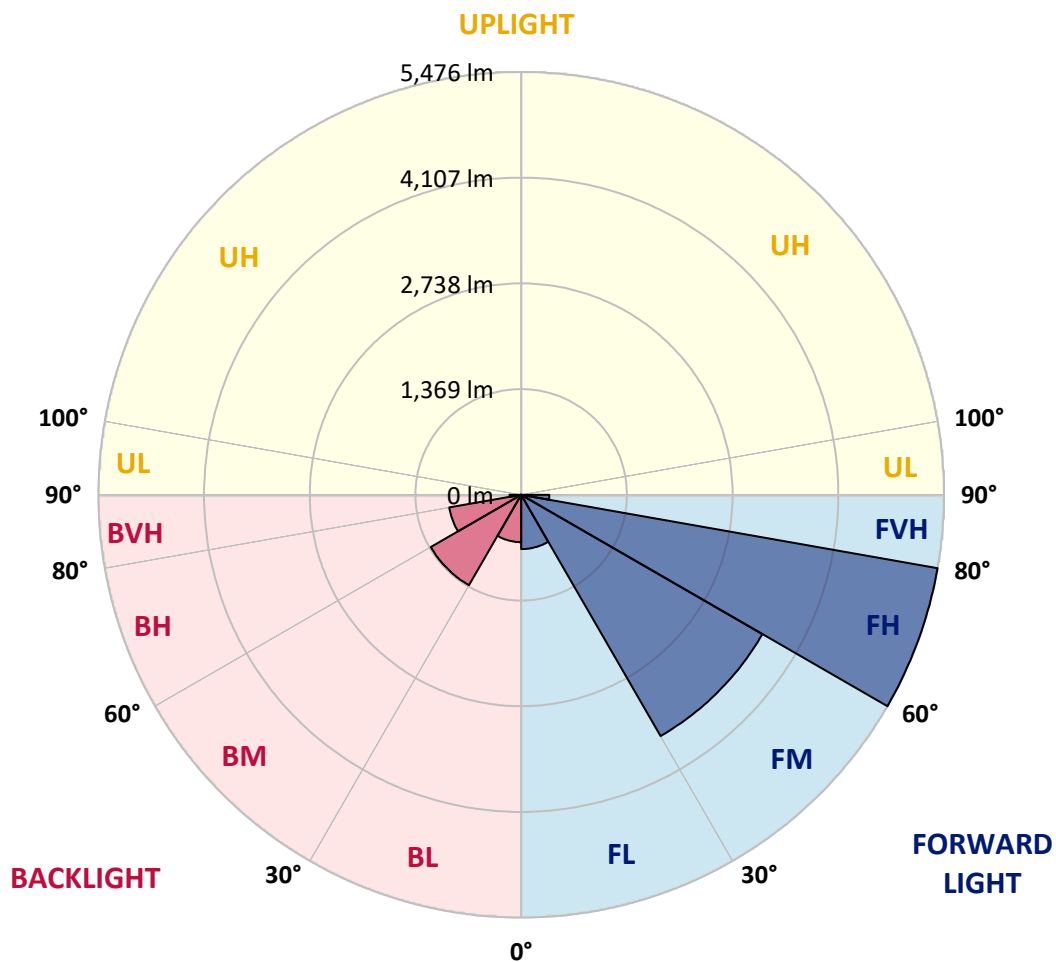
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	702.6	5.3			
FM	(30°-60°)	3607.9	27.3			
FH	(60°-80°)	5476.4	41.5			G3/7500
FVH	(80°-90°)	364.3	2.8			G3/500
BL	(0°-30°)	613.0	4.6	B2/1000		
BM	(30°-60°)	1352.6	10.2	B2/2500		
BH	(60°-80°)	945.8	7.2	B2/1000		G2/1000
BVH	(80°-90°)	149.2	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4
2.5°	1421.2	1411.0	1411.0	1403.2	1403.2	1390.3	1385.2	1382.6	1369.8	1362.1	1354.4
5°	1503.5	1490.6	1488.0	1470.0	1462.4	1434.1	1431.4	1413.6	1390.3	1367.2	1349.3
7.5°	1578.1	1570.2	1557.4	1539.4	1516.2	1480.2	1477.7	1449.4	1411.0	1380.1	1354.4
10°	1632.0	1626.8	1608.9	1585.7	1559.9	1524.1	1521.4	1490.6	1444.4	1408.4	1372.4
12.5°	1696.2	1688.5	1665.4	1634.6	1606.3	1572.8	1570.2	1544.5	1493.2	1446.9	1400.6
15°	1757.9	1747.7	1719.4	1688.5	1657.6	1629.3	1629.3	1601.0	1547.2	1493.2	1439.3
17.5°	1788.7	1783.6	1755.3	1722.0	1696.2	1675.7	1673.1	1647.4	1593.5	1536.9	1477.7
20°	1798.9	1801.6	1775.9	1739.8	1722.0	1711.6	1709.0	1691.1	1632.0	1578.1	1521.4
22.5°	1796.4	1804.2	1783.6	1745.0	1739.8	1739.8	1739.8	1719.4	1673.1	1619.0	1562.5
25°	1806.8	1817.0	1801.6	1755.3	1755.3	1765.6	1765.6	1755.3	1714.1	1668.0	1611.4
27.5°	1842.8	1850.4	1837.6	1773.3	1775.9	1791.3	1788.7	1791.3	1765.6	1722.0	1665.4
30°	1886.4	1896.6	1881.2	1801.6	1798.9	1814.4	1814.4	1827.2	1809.2	1763.1	1716.8
32.5°	2004.6	2002.1	1953.3	1832.5	1824.6	1840.1	1840.1	1852.9	1842.8	1806.8	1763.1
35°	2356.8	2318.2	2210.2	1932.7	1855.4	1863.3	1863.3	1886.4	1891.6	1863.3	1824.6
37.5°	2716.5	2703.7	2621.4	2199.9	1968.6	1912.1	1909.4	1942.9	1966.0	1942.9	1917.3
40°	3078.9	3068.6	3050.6	2557.1	2205.1	1999.4	1991.7	2020.0	2061.2	2045.7	2030.3
42.5°	3415.5	3410.3	3428.4	2909.3	2505.7	2187.1	2163.9	2130.5	2189.7	2184.5	2184.5
45°	3680.3	3693.1	3703.4	3238.2	2832.1	2428.7	2400.5	2287.4	2366.9	2387.5	2403.0
47.5°	3829.3	3839.5	3875.6	3559.4	3158.5	2708.7	2688.2	2503.1	2608.6	2670.2	2713.9
50°	4042.6	4014.3	4045.2	3873.0	3551.8	3073.7	3017.1	2793.5	2927.2	3035.2	3138.0
52.5°	4248.3	4201.9	4227.7	4235.4	3999.0	3430.9	3371.9	3135.4	3302.4	3472.0	3654.6
55°	4433.2	4430.7	4456.4	4587.5	4430.7	3813.8	3747.1	3513.2	3754.7	3937.2	4245.6
57.5°	4582.3	4608.0	4721.1	4996.1	4929.3	4230.2	4155.6	3952.6	4237.9	4420.4	4931.9
60°	4757.1	4798.1	4985.9	5342.9	5384.1	4667.1	4590.0	4443.6	4734.0	4918.9	5725.9
62.5°	4816.2	4875.3	5260.7	5708.0	5859.6	5145.1	5075.8	4978.0	5255.7	5422.7	6517.6
65°	4423.0	4536.0	5412.4	5895.5	6371.0	5720.9	5661.7	5576.9	5774.8	5885.2	7054.7
67.5°	4315.0	4366.4	5116.8	6165.4	6851.6	6461.0	6402.0	6255.3	6260.5	6214.2	7229.4
70°	4163.5	4220.0	4813.6	6368.4	7540.4	7473.5	7401.6	6969.8	6705.0	6424.9	6885.0
72.5°	3546.6	3528.6	4148.0	5821.0	7871.8	8727.8	8643.0	7738.3	7034.1	6242.5	5810.7
75°	1991.7	1940.3	2516.1	4027.2	7188.2	9226.3	9223.7	8126.3	6802.8	5438.1	3955.2
77.5°	578.2	562.8	830.2	1688.5	4839.3	8015.8	8113.5	7329.6	5677.1	3906.4	2171.7
80°	272.5	277.5	357.3	557.7	2066.3	5173.3	5453.5	4826.5	3392.4	1801.6	897.0
82.5°	172.1	174.8	244.2	359.9	873.8	2349.0	2580.3	2171.7	1344.1	778.7	395.8
85°	107.9	107.9	162.0	236.4	521.7	750.4	814.8	740.2	575.6	424.1	216.0
87.5°	59.1	59.1	97.6	136.3	285.3	241.6	249.3	295.5	359.9	259.6	107.9
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°	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4	1354.4
2.5°	1351.8	1346.6	1339.0	1336.4	1333.9	1331.3	1333.9	1339.0	1333.9	1333.9	1336.4
5°	1344.1	1339.0	1328.8	1328.8	1331.3	1333.9	1346.6	1354.4	1357.0	1357.0	1357.0
7.5°	1344.1	1336.4	1328.8	1331.3	1336.4	1346.6	1367.2	1380.1	1390.3	1392.9	1392.9
10°	1357.0	1346.6	1341.6	1346.6	1362.1	1369.8	1390.3	1411.0	1423.8	1428.9	1428.9
12.5°	1380.1	1369.8	1369.8	1380.1	1400.6	1411.0	1428.9	1444.4	1459.7	1467.6	1467.6
15°	1418.7	1405.8	1408.4	1426.4	1449.4	1459.7	1472.6	1477.7	1490.6	1500.9	1500.9
17.5°	1454.6	1441.8	1446.9	1467.6	1482.9	1488.0	1495.8	1493.2	1498.4	1506.0	1508.7
20°	1495.8	1482.9	1485.4	1498.4	1500.9	1495.8	1495.8	1488.0	1485.4	1498.4	1503.5
22.5°	1536.9	1524.1	1521.4	1513.7	1500.9	1488.0	1480.2	1472.6	1467.6	1480.2	1485.4
25°	1585.7	1567.7	1554.8	1521.4	1488.0	1464.9	1454.6	1449.4	1446.9	1459.7	1464.9
27.5°	1639.6	1621.7	1583.2	1511.2	1457.2	1418.7	1411.0	1411.0	1416.1	1423.8	1428.9
30°	1691.1	1673.1	1603.7	1488.0	1403.2	1346.6	1339.0	1346.6	1359.6	1367.2	1374.9
32.5°	1742.4	1724.4	1616.5	1452.0	1323.6	1251.6	1246.5	1259.3	1279.8	1284.9	1290.1
35°	1811.8	1793.8	1632.0	1400.6	1223.3	1146.1	1141.0	1148.8	1166.8	1174.4	1182.2
37.5°	1909.4	1899.2	1655.0	1344.1	1130.7	1045.9	1030.5	1025.4	1035.7	1033.1	1043.4
40°	2038.1	2045.7	1696.2	1269.6	1040.9	953.6	920.0	904.7	894.4	873.8	884.1
42.5°	2225.6	2230.8	1742.4	1184.8	963.7	866.1	822.4	794.1	773.6	740.2	745.4
45°	2500.6	2457.0	1796.4	1094.9	894.4	796.6	745.4	711.8	683.6	655.4	657.9
47.5°	2865.6	2731.9	1855.4	1020.3	825.0	740.2	693.9	655.4	621.9	598.8	601.3
50°	3315.4	3073.7	1914.6	950.9	755.6	696.5	655.4	614.3	580.8	557.7	555.2
52.5°	3909.0	3485.0	1953.3	873.8	686.1	657.9	621.9	583.4	542.2	514.0	511.5
55°	4525.8	3963.0	1986.6	781.3	619.4	614.3	596.3	552.5	503.7	467.7	462.5
57.5°	5204.2	4474.4	2012.4	691.3	568.0	578.2	573.1	521.7	467.7	434.3	431.7
60°	5821.0	5003.7	1930.1	611.7	521.7	542.2	547.3	503.7	475.5	483.2	485.8
62.5°	6443.1	5412.4	1616.5	552.5	490.8	519.1	562.8	560.3	547.3	560.3	562.8
65°	6666.6	5497.2	1146.1	503.7	460.0	529.5	611.7	606.5	547.3	524.3	519.1
67.5°	6540.6	5245.4	770.9	465.1	436.8	542.2	663.0	606.5	526.9	496.0	485.8
70°	5941.7	4626.0	565.5	426.6	416.4	539.7	691.3	603.9	516.5	483.2	470.4
72.5°	4739.1	3569.8	454.9	390.7	385.6	526.9	706.7	598.8	506.3	470.4	454.9
75°	3068.6	2220.5	382.9	354.7	339.2	506.3	699.1	583.4	493.3	447.1	436.8
77.5°	1423.8	956.1	326.4	313.6	295.5	475.5	676.0	552.5	465.1	421.5	408.5
80°	663.0	452.3	275.1	272.5	264.7	449.7	645.1	516.5	431.7	395.8	375.2
82.5°	354.7	272.5	223.6	223.6	231.4	418.9	606.5	472.9	388.1	370.1	316.2
85°	187.6	156.8	162.0	174.8	197.8	370.1	555.2	426.6	339.2	282.6	275.1
87.5°	95.1	100.3	100.3	118.2	151.6	300.8	457.4	352.0	287.8	231.4	226.2
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)