

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: P231035

Luminaire Tested: **ARCH-M-AF48-160-D-U-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231035
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
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-T2R
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19101.6 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G3

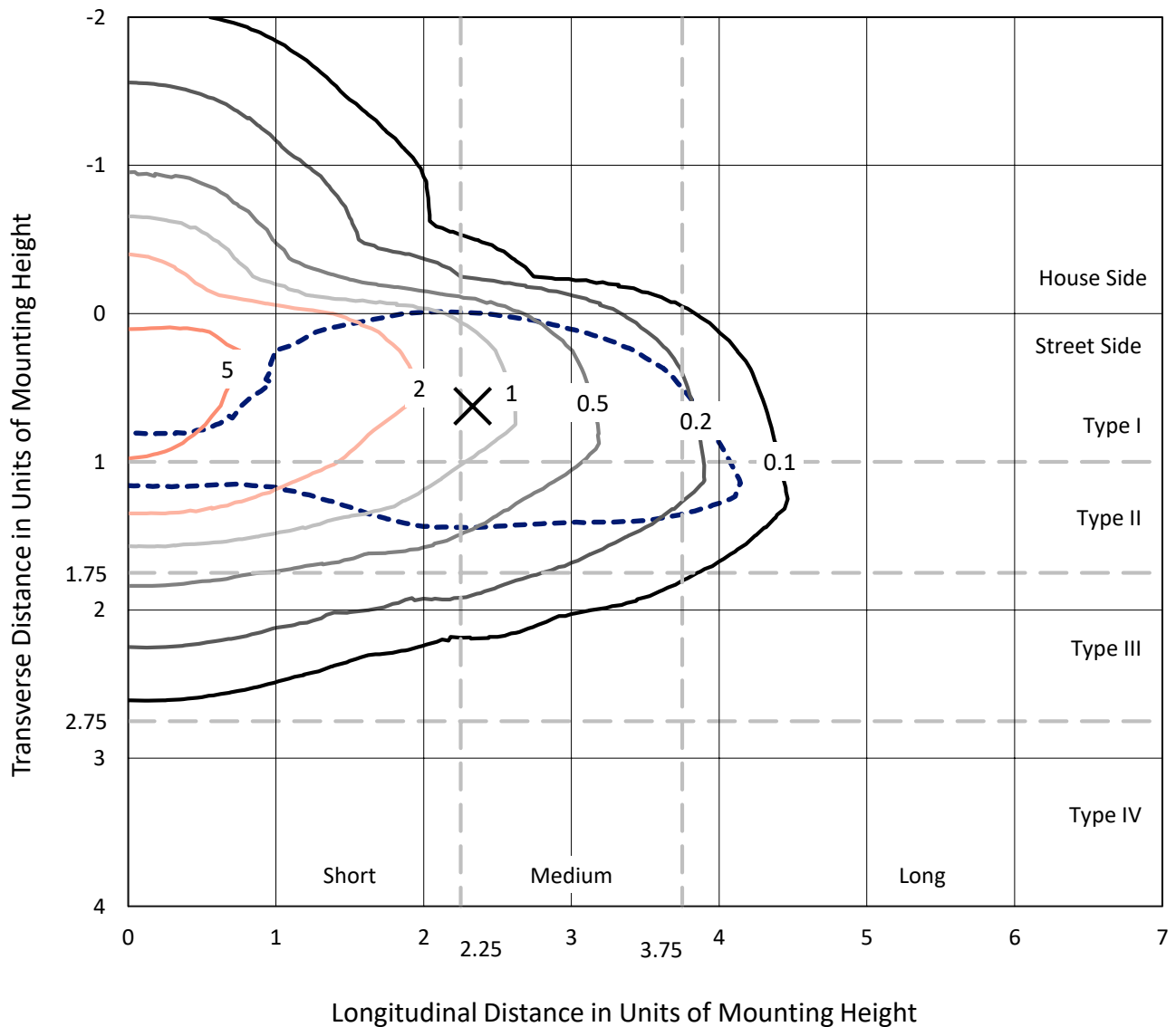
Input Watts (W): 161
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

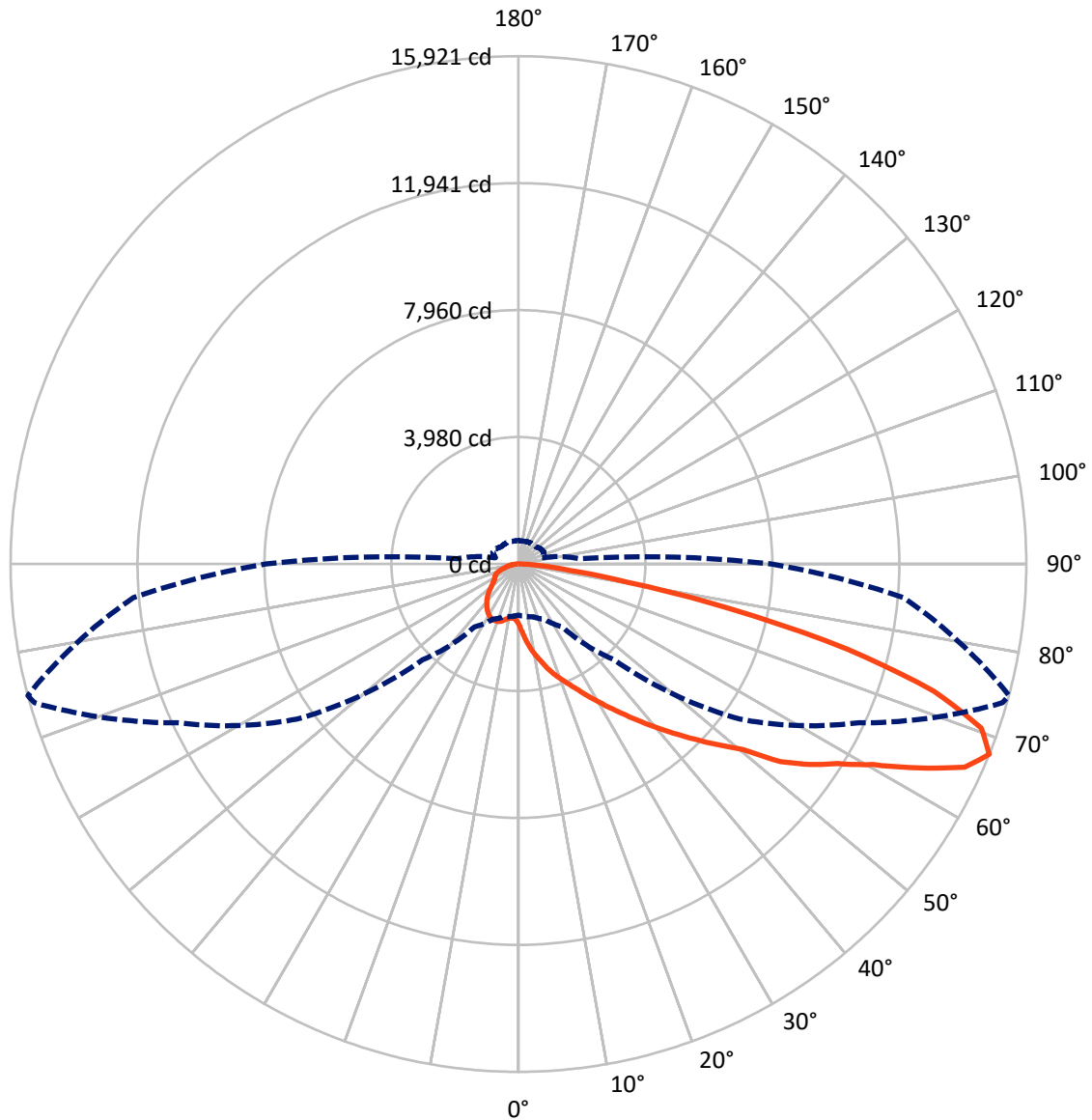


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3261.8	0.0	3261.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	15839.7	0.0	15839.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	19101.6	0.0	19101.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.4	1.2
10°-20°	803.6	4.2
20°-30°	1465.7	7.7
30°-40°	2405.8	12.6
40°-50°	3479.1	18.2
50°-60°	4100.1	21.5
60°-70°	3984.3	20.9
70°-80°	2214.7	11.6
80°-90°	425.9	2.2
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°	19101.6	100.0
0°-180°	19101.6	100.0



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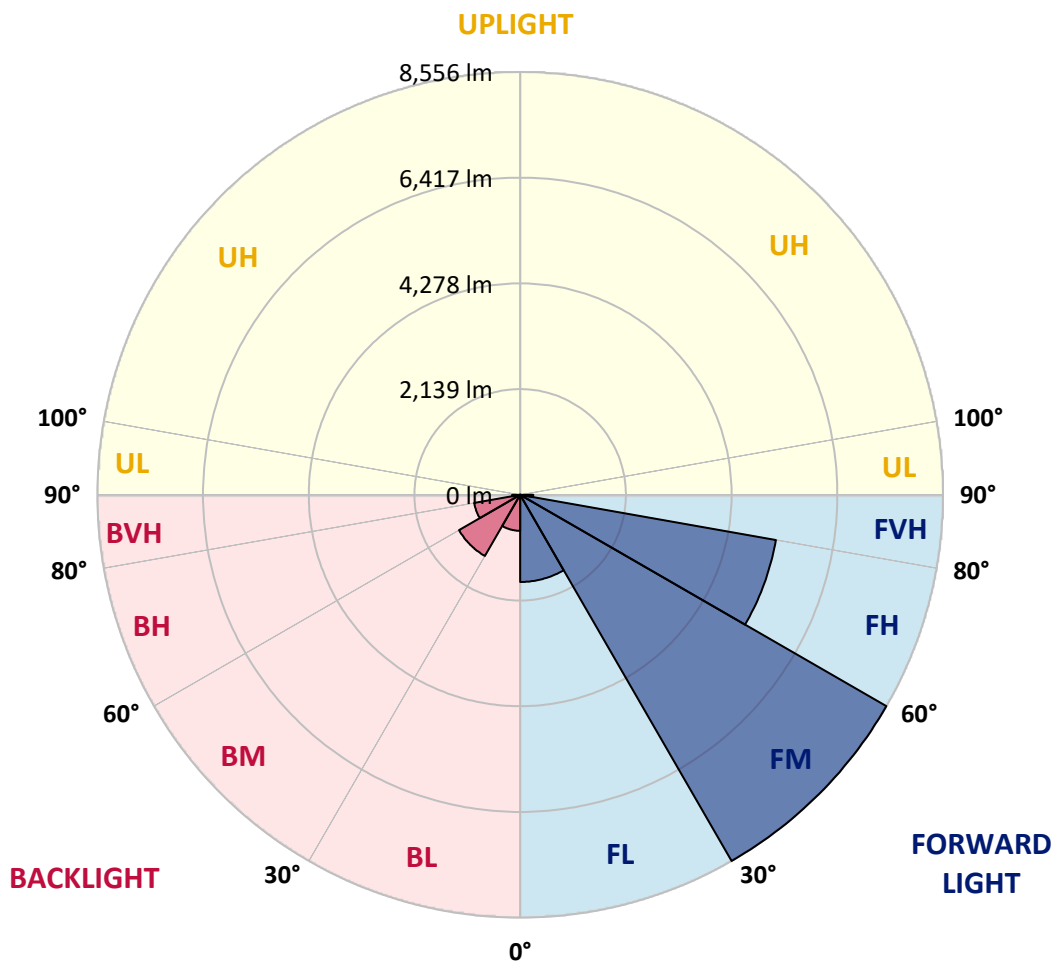
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1763.6	9.2			
FM	(30°-60°)	8556.5	44.8			
FH	(60°-80°)	5254.6	27.5			G3/7500
FVH	(80°-90°)	265.0	1.4			G3/500
BL	(0°-30°)	728.0	3.8	B2/1000		
BM	(30°-60°)	1428.5	7.5	B2/2500		
BH	(60°-80°)	944.5	4.9	B2/1000		G2/1000
BVH	(80°-90°)	160.8	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8
2.5°	2683.4	2691.4	2675.4	2639.5	2587.6	2491.8	2407.9	2260.1	2128.4	2112.4	1972.7
5°	3154.7	3162.7	3142.6	3098.7	3042.9	2939.0	2823.2	2631.5	2419.9	2380.0	2084.5
7.5°	3478.0	3482.0	3458.1	3414.2	3370.2	3266.5	3150.6	2935.1	2675.4	2643.5	2228.2
10°	3753.6	3761.6	3729.7	3701.6	3653.8	3549.9	3430.2	3202.6	2935.1	2891.1	2375.9
12.5°	4009.1	4017.1	3997.2	3973.2	3957.3	3861.4	3729.7	3458.1	3170.6	3122.7	2551.6
15°	4180.9	4188.9	4192.9	4224.8	4244.7	4176.9	4045.2	3749.6	3426.2	3382.3	2759.3
17.5°	4132.9	4153.0	4212.8	4328.6	4452.4	4456.4	4348.6	4037.1	3677.7	3629.8	2971.0
20°	3993.2	4009.1	4081.1	4256.7	4500.4	4640.1	4632.1	4328.6	3913.3	3861.4	3166.6
22.5°	4109.0	4128.9	4128.9	4236.8	4476.3	4736.0	4839.8	4616.2	4149.0	4101.0	3362.2
25°	4604.2	4616.2	4532.3	4488.4	4576.2	4815.8	5011.4	4927.7	4436.4	4380.6	3573.9
27.5°	5295.0	5275.1	5171.2	4995.5	4899.6	4963.6	5163.2	5223.1	4767.9	4699.9	3793.5
30°	5981.8	5969.8	5850.1	5614.5	5398.8	5263.1	5330.9	5486.7	5127.2	5047.4	4005.2
32.5°	6624.7	6604.8	6473.0	6197.4	5953.9	5702.3	5570.5	5726.3	5510.6	5418.8	4240.7
35°	7215.7	7163.8	7032.1	6744.5	6493.0	6253.4	5929.9	5953.9	5926.0	5830.1	4500.4
37.5°	7694.9	7654.9	7511.2	7243.6	6976.1	6748.5	6409.1	6213.4	6373.2	6281.3	4799.8
40°	8118.1	8074.3	7926.5	7658.9	7411.4	7195.7	6928.2	6528.9	6876.3	6772.4	5135.2
42.5°	8437.6	8405.7	8285.9	8022.4	7782.7	7587.1	7455.3	6928.2	7399.4	7299.6	5502.7
45°	8609.4	8577.4	8513.5	8301.9	8082.2	7930.5	7942.5	7403.4	7946.5	7862.6	5937.9
47.5°	8397.7	8421.6	8477.6	8437.6	8301.9	8229.9	8377.8	7894.5	8557.4	8477.6	6409.1
50°	7830.7	7854.6	8078.2	8353.8	8401.7	8489.6	8769.0	8461.6	9204.3	9140.5	6992.1
52.5°	6437.0	6568.8	7187.8	7846.6	8297.9	8661.2	9204.3	9304.1	10294.5	10294.5	8022.4
55°	4863.7	4979.5	5686.3	6836.4	7894.5	8677.2	9523.8	9875.2	11081.1	11097.1	8561.4
57.5°	3941.3	4013.1	4360.5	5538.6	7048.0	8477.6	9903.2	10366.4	11736.0	11807.9	9256.3
60°	3198.6	3238.5	3466.1	4284.7	5878.0	7938.5	10174.7	11069.1	12670.5	12770.2	10142.8
62.5°	2571.6	2611.6	2763.3	3254.4	4612.2	6928.2	10126.8	11799.9	13916.3	14080.0	11304.7
65°	2052.6	2096.4	2196.3	2499.8	3418.2	5674.3	9635.6	12175.3	15206.1	15365.8	12075.4
67.5°	1601.2	1641.2	1709.0	1908.7	2407.9	4244.7	8473.6	11780.0	15785.2	15920.9	12115.4
70°	1209.9	1229.9	1285.8	1413.6	1721.1	2819.2	6632.7	10454.3	15266.0	15389.8	11316.7
72.5°	938.4	934.4	966.4	1030.2	1202.0	1940.7	4396.5	8501.5	13497.0	13624.8	9655.5
75°	766.7	762.7	782.7	802.6	870.5	1301.8	2595.5	6401.1	10893.4	10649.8	7243.6
77.5°	646.9	642.9	662.9	666.9	694.8	898.5	1477.4	4212.8	7267.7	6848.3	4081.1
80°	547.1	543.1	567.0	575.0	594.9	658.9	850.6	2280.2	3649.8	3458.1	1948.7
82.5°	411.3	427.3	471.2	491.1	515.2	487.1	527.1	1006.3	1693.1	1617.3	846.6
85°	199.7	235.6	355.4	395.4	423.3	307.5	359.4	475.2	762.7	726.8	343.4
87.5°	67.9	59.9	211.6	251.5	275.5	139.7	199.7	263.5	315.5	287.6	107.8
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°	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8	1892.8
2.5°	1912.7	1852.9	1765.0	1697.1	1653.2	1617.3	1601.2	1597.2	1589.3	1585.3	1585.3
5°	1952.7	1844.9	1709.0	1637.2	1617.3	1601.2	1609.3	1613.3	1613.3	1613.3	1613.3
7.5°	2012.6	1860.8	1697.1	1649.2	1645.2	1645.2	1669.1	1681.1	1689.1	1689.1	1689.1
10°	2092.4	1888.8	1717.1	1677.1	1689.1	1697.1	1725.1	1741.1	1749.0	1753.0	1757.0
12.5°	2200.3	1948.7	1757.0	1725.1	1741.1	1745.1	1765.0	1773.0	1781.0	1784.9	1784.9
15°	2344.0	2036.5	1820.9	1781.0	1784.9	1781.0	1781.0	1773.0	1769.0	1769.0	1777.0
17.5°	2491.8	2120.4	1876.8	1820.9	1804.9	1773.0	1749.0	1729.1	1717.1	1709.0	1713.0
20°	2639.5	2196.3	1908.7	1828.9	1784.9	1733.1	1689.1	1661.2	1645.2	1629.3	1637.2
22.5°	2787.2	2268.2	1920.7	1804.9	1741.1	1665.2	1617.3	1573.3	1537.4	1513.5	1517.4
25°	2951.0	2348.0	1920.7	1777.0	1681.1	1601.2	1541.4	1469.5	1417.6	1397.7	1405.6
27.5°	3114.7	2415.9	1900.7	1725.1	1613.3	1533.4	1445.5	1361.6	1329.7	1317.8	1321.8
30°	3278.5	2467.8	1856.9	1661.2	1541.4	1453.5	1337.7	1281.9	1241.9	1209.9	1213.9
32.5°	3442.1	2503.8	1796.9	1581.3	1465.5	1353.7	1257.8	1194.0	1122.1	1082.2	1086.2
35°	3629.8	2531.7	1725.1	1501.5	1381.6	1265.8	1194.0	1090.2	1014.3	982.3	974.4
37.5°	3825.5	2551.6	1649.2	1413.6	1297.8	1202.0	1130.1	1002.3	930.4	886.5	882.5
40°	4037.1	2559.6	1557.3	1321.8	1217.9	1162.1	1046.2	950.4	826.5	798.6	798.6
42.5°	4288.7	2555.6	1465.5	1229.9	1130.1	1070.2	986.3	942.4	834.6	806.6	790.6
45°	4576.2	2555.6	1365.6	1122.1	1042.2	954.4	918.4	890.5	818.6	830.6	838.6
47.5°	4903.6	2547.7	1245.9	1034.2	970.4	894.5	874.5	814.6	786.6	794.6	802.6
50°	5354.8	2559.6	1138.0	962.4	918.4	854.6	830.6	798.6	786.6	790.6	786.6
52.5°	5981.8	2519.7	1034.2	918.4	878.5	794.6	794.6	790.6	794.6	790.6	790.6
55°	6325.2	2431.9	958.4	894.5	850.6	766.7	782.7	790.6	798.6	794.6	794.6
57.5°	6812.4	2371.9	898.5	878.5	834.6	758.7	774.7	790.6	794.6	790.6	790.6
60°	7387.4	2332.0	858.6	882.5	822.6	758.7	778.7	790.6	786.6	782.7	782.7
62.5°	8054.3	2316.1	830.6	894.5	810.6	762.7	778.7	790.6	774.7	770.7	770.7
65°	8305.8	2172.3	794.6	902.4	818.6	762.7	774.7	778.7	758.7	754.7	750.7
67.5°	7918.6	1924.7	742.8	886.5	842.6	762.7	762.7	758.7	734.8	730.8	722.8
70°	7052.0	1597.2	662.9	834.6	858.6	766.7	746.8	726.8	702.8	702.8	686.8
72.5°	5774.1	1257.8	559.0	742.8	846.6	778.7	714.7	686.8	658.9	658.9	642.9
75°	4161.0	938.4	447.2	619.0	794.6	774.7	674.8	638.9	606.9	602.9	583.0
77.5°	2371.9	658.9	363.4	483.1	706.8	754.7	638.9	583.0	547.1	535.1	523.1
80°	1217.9	443.2	295.5	379.3	587.0	698.8	611.0	519.1	479.2	459.2	439.3
82.5°	579.0	295.5	227.6	279.6	443.2	611.0	575.0	447.2	403.3	379.3	355.4
85°	259.5	175.7	151.7	179.7	315.5	475.2	507.2	367.3	315.5	395.4	291.5
87.5°	83.9	79.9	79.9	83.9	151.7	207.7	371.3	271.5	251.5	207.7	175.7
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)