

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: P231015

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2R-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231015  
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-AF48-90-D-U-T2R-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10961 lumens  
Efficiency: N/A  
Efficacy: 119.1 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 - G2

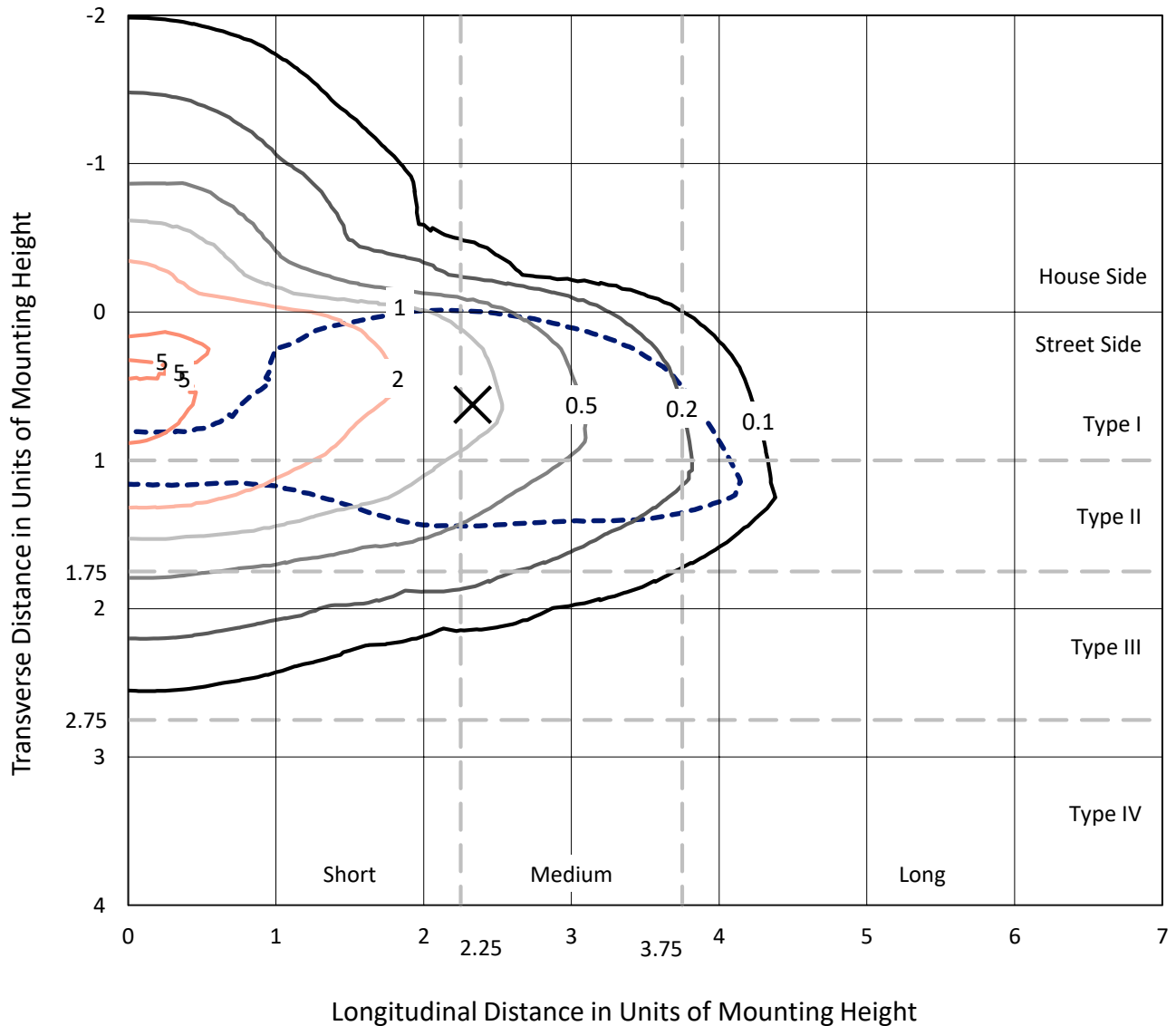
Input Watts (W): 92  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

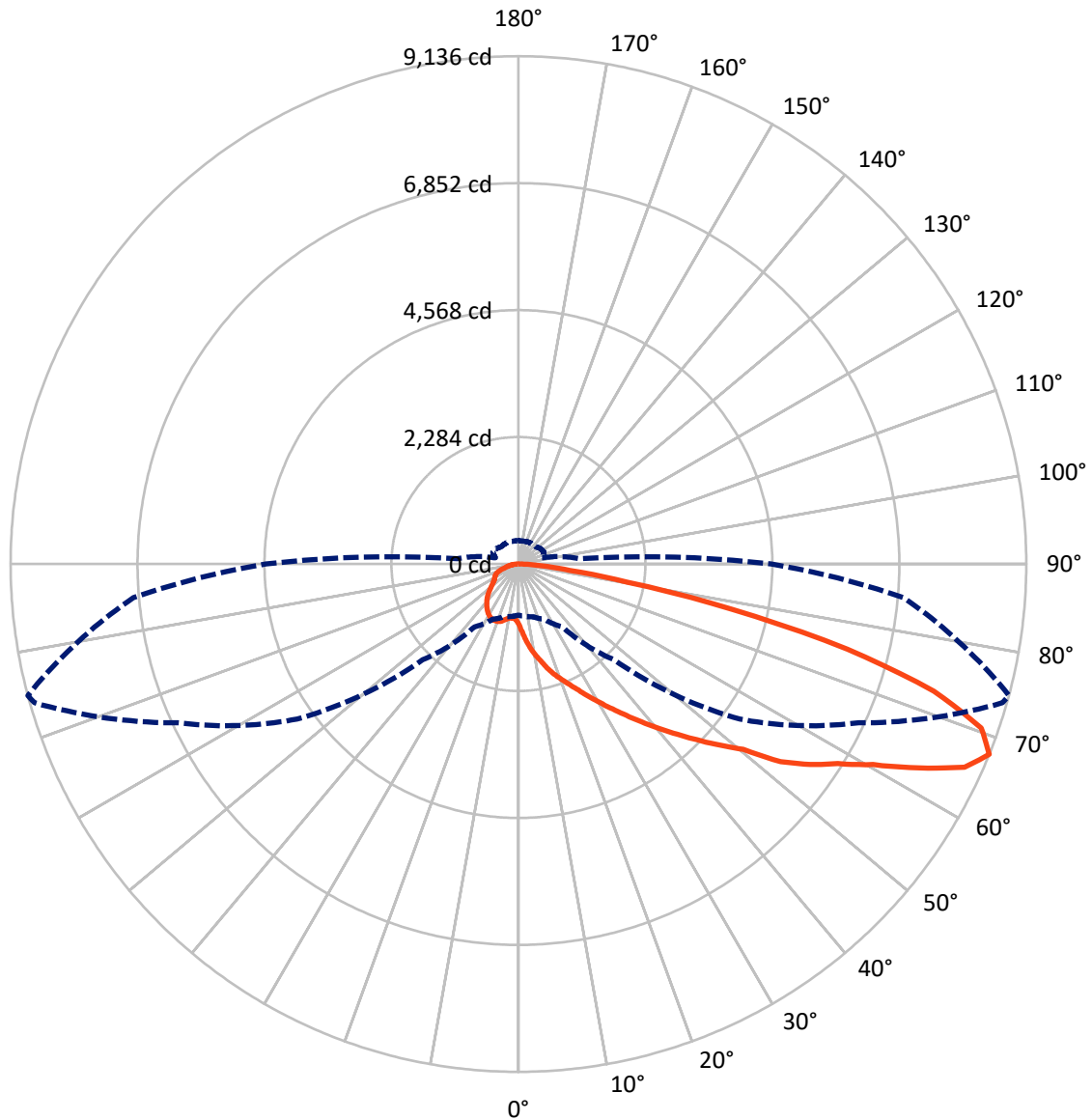
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.7 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
<b>House Side</b>	Lumens	1871.7	0.0	1871.7
	% Fixture	17.1	0.0	17.1
<b>Street Side</b>	Lumens	9089.3	0.0	9089.3
	% Fixture	82.9	0.0	82.9
<b>Total</b>	Lumens	10961.0	0.0	10961.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.6	1.2
10°-20°	461.1	4.2
20°-30°	841.0	7.7
30°-40°	1380.5	12.6
40°-50°	1996.4	18.2
50°-60°	2352.8	21.5
60°-70°	2286.3	20.9
70°-80°	1270.9	11.6
80°-90°	244.4	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°	10961.0	100.0
0°-180°	10961.0	100.0

**Coefficient of Utilization**



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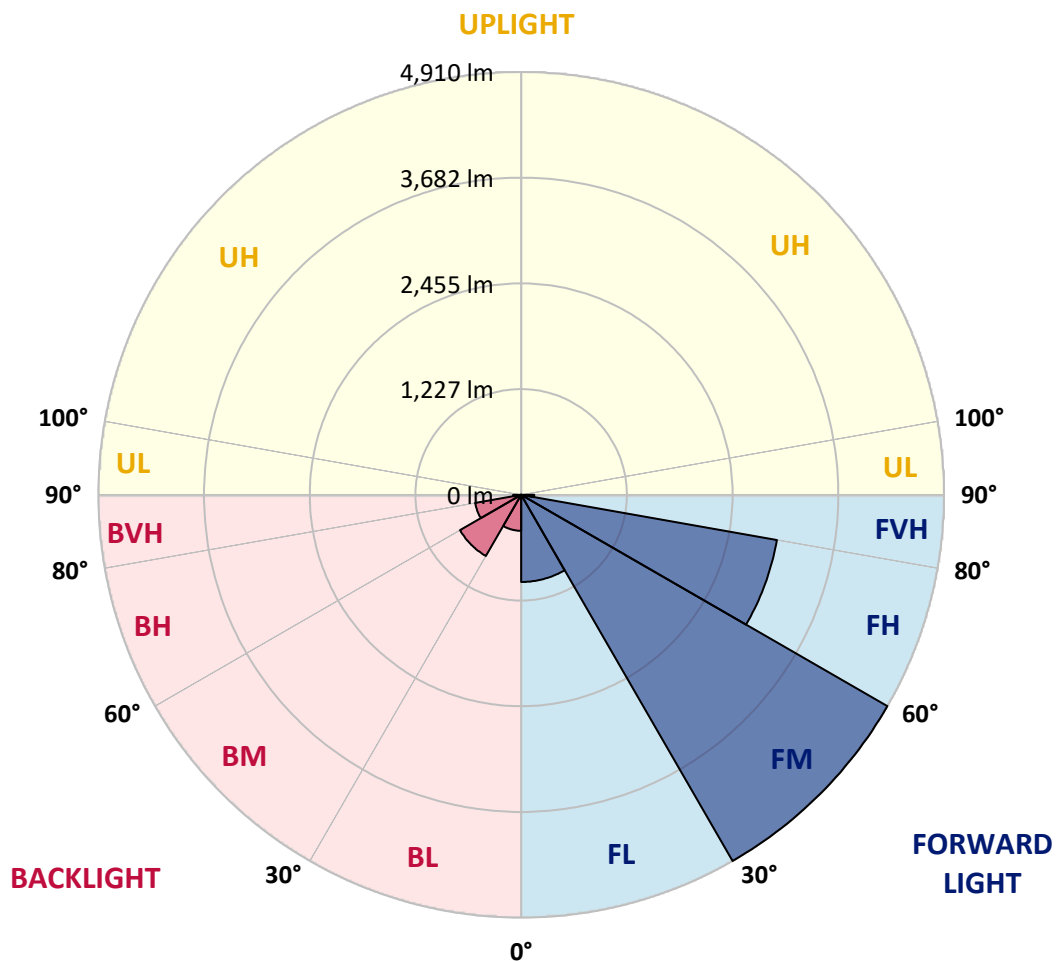
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1012.0	9.2			
FM (30°-60°)	4909.9	44.8			
FH (60°-80°)	3015.2	27.5			G2/5000
FVH (80°-90°)	152.1	1.4			G2/225
BL (0°-30°)	417.8	3.8	B1/500		
BM (30°-60°)	819.7	7.5	B1/1000		
BH (60°-80°)	542.0	4.9	B2/1000		G2/1000
BVH (80°-90°)	92.3	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1
2.5°	1539.8	1544.4	1535.2	1514.6	1484.8	1429.8	1381.7	1296.9	1221.3	1212.2	1132.0
5°	1810.2	1814.8	1803.3	1778.1	1746.1	1686.5	1620.0	1510.0	1388.6	1365.7	1196.1
7.5°	1995.8	1998.1	1984.4	1959.2	1933.9	1874.4	1807.9	1684.2	1535.2	1516.9	1278.6
10°	2153.9	2158.5	2140.2	2124.1	2096.6	2037.1	1968.3	1837.7	1684.2	1659.0	1363.4
12.5°	2300.6	2305.2	2293.7	2280.0	2270.8	2215.8	2140.2	1984.4	1819.4	1791.9	1464.2
15°	2399.1	2403.7	2406.0	2424.3	2435.8	2396.8	2321.2	2151.6	1966.0	1940.8	1583.4
17.5°	2371.6	2383.1	2417.4	2483.9	2554.9	2557.2	2495.3	2316.6	2110.4	2082.9	1704.8
20°	2291.4	2300.6	2341.8	2442.6	2582.4	2662.6	2658.0	2483.9	2245.6	2215.8	1817.1
22.5°	2357.9	2369.3	2369.3	2431.2	2568.7	2717.6	2777.2	2648.9	2380.8	2353.3	1929.4
25°	2642.0	2648.9	2600.7	2575.5	2626.0	2763.4	2875.7	2827.6	2545.8	2513.7	2050.8
27.5°	3038.4	3027.0	2967.4	2866.6	2811.6	2848.2	2962.8	2997.2	2735.9	2697.0	2176.8
30°	3432.5	3425.7	3356.9	3221.7	3098.0	3020.1	3059.0	3148.4	2942.2	2896.3	2298.3
32.5°	3801.4	3790.0	3714.4	3556.3	3416.5	3272.1	3196.5	3285.9	3162.1	3109.4	2433.5
35°	4140.6	4110.8	4035.2	3870.2	3725.8	3588.3	3402.7	3416.5	3400.5	3345.5	2582.4
37.5°	4415.5	4392.6	4310.1	4156.6	4003.1	3872.5	3677.7	3565.4	3657.1	3604.4	2754.3
40°	4658.4	4633.2	4548.4	4394.9	4252.9	4129.1	3975.6	3746.5	3945.8	3886.2	2946.8
42.5°	4841.7	4823.4	4754.7	4603.4	4466.0	4353.7	4278.1	3975.6	4246.0	4188.7	3157.6
45°	4940.3	4921.9	4885.3	4763.8	4637.8	4550.7	4557.6	4248.3	4559.9	4511.8	3407.3
47.5°	4818.8	4832.6	4864.7	4841.7	4763.8	4722.6	4807.4	4530.1	4910.5	4864.7	3677.7
50°	4493.5	4507.2	4635.5	4793.6	4821.1	4871.5	5031.9	4855.5	5281.7	5245.0	4012.3
52.5°	3693.8	3769.4	4124.5	4502.6	4761.5	4970.1	5281.7	5339.0	5907.3	5907.3	4603.4
55°	2790.9	2857.4	3263.0	3922.9	4530.1	4979.2	5465.0	5666.7	6358.7	6367.8	4912.8
57.5°	2261.6	2302.9	2502.2	3178.2	4044.3	4864.7	5682.7	5948.5	6734.4	6775.7	5311.5
60°	1835.4	1858.3	1988.9	2458.7	3373.0	4555.3	5838.5	6351.8	7270.6	7327.9	5820.2
62.5°	1475.7	1498.6	1585.7	1867.5	2646.6	3975.6	5811.0	6771.1	7985.6	8079.5	6487.0
65°	1177.8	1203.0	1260.3	1434.4	1961.4	3256.1	5529.2	6986.5	8725.7	8817.3	6929.2
67.5°	918.9	941.8	980.7	1095.3	1381.7	2435.8	4862.4	6759.7	9057.9	9135.8	6952.1
70°	694.3	705.8	737.8	811.2	987.6	1617.7	3806.0	5998.9	8760.1	8831.1	6493.9
72.5°	538.5	536.2	554.5	591.2	689.7	1113.6	2522.8	4878.4	7745.0	7818.3	5540.6
75°	440.0	437.7	449.1	460.6	499.5	747.0	1489.4	3673.1	6251.0	6111.2	4156.6
77.5°	371.2	368.9	380.4	382.7	398.7	515.6	847.8	2417.4	4170.4	3929.8	2341.8
80°	313.9	311.6	325.4	330.0	341.4	378.1	488.1	1308.4	2094.3	1984.4	1118.2
82.5°	236.0	245.2	270.4	281.8	295.6	279.6	302.5	577.4	971.6	928.0	485.8
85°	114.6	135.2	203.9	226.8	242.9	176.4	206.2	272.7	437.7	417.0	197.1
87.5°	39.0	34.4	121.4	144.4	158.1	80.2	114.6	151.2	181.0	165.0	61.9
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°	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1	1086.1
2.5°	1097.6	1063.2	1012.8	973.8	948.6	928.0	918.9	916.6	912.0	909.7	909.7
5°	1120.5	1058.6	980.7	939.5	928.0	918.9	923.4	925.7	925.7	925.7	925.7
7.5°	1154.9	1067.8	973.8	946.4	944.1	944.1	957.8	964.7	969.3	969.3	969.3
10°	1200.7	1083.8	985.3	962.4	969.3	973.8	989.9	999.1	1003.6	1005.9	1008.2
12.5°	1262.6	1118.2	1008.2	989.9	999.1	1001.3	1012.8	1017.4	1022.0	1024.3	1024.3
15°	1345.1	1168.6	1044.9	1022.0	1024.3	1022.0	1022.0	1017.4	1015.1	1015.1	1019.7
17.5°	1429.8	1216.7	1077.0	1044.9	1035.7	1017.4	1003.6	992.2	985.3	980.7	983.0
20°	1514.6	1260.3	1095.3	1049.5	1024.3	994.5	969.3	953.2	944.1	934.9	939.5
22.5°	1599.4	1301.5	1102.2	1035.7	999.1	955.5	928.0	902.8	882.2	868.4	870.7
25°	1693.4	1347.3	1102.2	1019.7	964.7	918.9	884.5	843.2	813.5	802.0	806.6
27.5°	1787.3	1386.3	1090.7	989.9	925.7	879.9	829.5	781.4	763.0	756.2	758.5
30°	1881.2	1416.1	1065.5	953.2	884.5	834.1	767.6	735.5	712.6	694.3	696.6
32.5°	1975.2	1436.7	1031.1	907.4	840.9	776.8	721.8	685.1	643.9	621.0	623.3
35°	2082.9	1452.8	989.9	861.6	792.8	726.4	685.1	625.6	582.0	563.7	559.1
37.5°	2195.2	1464.2	946.4	811.2	744.7	689.7	648.5	575.1	533.9	508.7	506.4
40°	2316.6	1468.8	893.6	758.5	698.9	666.8	600.3	545.4	474.3	458.3	458.3
42.5°	2461.0	1466.5	840.9	705.8	648.5	614.1	566.0	540.8	478.9	462.9	453.7
45°	2626.0	1466.5	783.7	643.9	598.1	547.6	527.0	511.0	469.7	476.6	481.2
47.5°	2813.8	1461.9	714.9	593.5	556.8	513.3	501.8	467.4	451.4	456.0	460.6
50°	3072.8	1468.8	653.1	552.2	527.0	490.4	476.6	458.3	451.4	453.7	451.4
52.5°	3432.5	1445.9	593.5	527.0	504.1	456.0	456.0	453.7	456.0	453.7	453.7
55°	3629.6	1395.5	549.9	513.3	488.1	440.0	449.1	453.7	458.3	456.0	456.0
57.5°	3909.1	1361.1	515.6	504.1	478.9	435.4	444.5	453.7	456.0	453.7	453.7
60°	4239.1	1338.2	492.7	506.4	472.0	435.4	446.8	453.7	451.4	449.1	449.1
62.5°	4621.8	1329.0	476.6	513.3	465.2	437.7	446.8	453.7	444.5	442.2	442.2
65°	4766.1	1246.5	456.0	517.9	469.7	437.7	444.5	446.8	435.4	433.1	430.8
67.5°	4543.9	1104.5	426.2	508.7	483.5	437.7	437.7	435.4	421.6	419.3	414.7
70°	4046.6	916.6	380.4	478.9	492.7	440.0	428.5	417.0	403.3	403.3	394.1
72.5°	3313.4	721.8	320.8	426.2	485.8	446.8	410.2	394.1	378.1	378.1	368.9
75°	2387.6	538.5	256.6	355.2	456.0	444.5	387.2	366.6	348.3	346.0	334.5
77.5°	1361.1	378.1	208.5	277.3	405.6	433.1	366.6	334.5	313.9	307.0	300.2
80°	698.9	254.3	169.6	217.7	336.8	401.0	350.6	297.9	275.0	263.5	252.1
82.5°	332.3	169.6	130.6	160.4	254.3	350.6	330.0	256.6	231.4	217.7	203.9
85°	148.9	100.8	87.1	103.1	181.0	272.7	291.0	210.8	181.0	226.8	167.3
87.5°	48.1	45.8	45.8	48.1	87.1	119.2	213.1	155.8	144.4	119.2	100.8
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)