

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: P234835

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234835  
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-AF48-80-D-U-T4W-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8597 lumens  
Efficiency: N/A  
Efficacy: 103.6 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): 83  
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

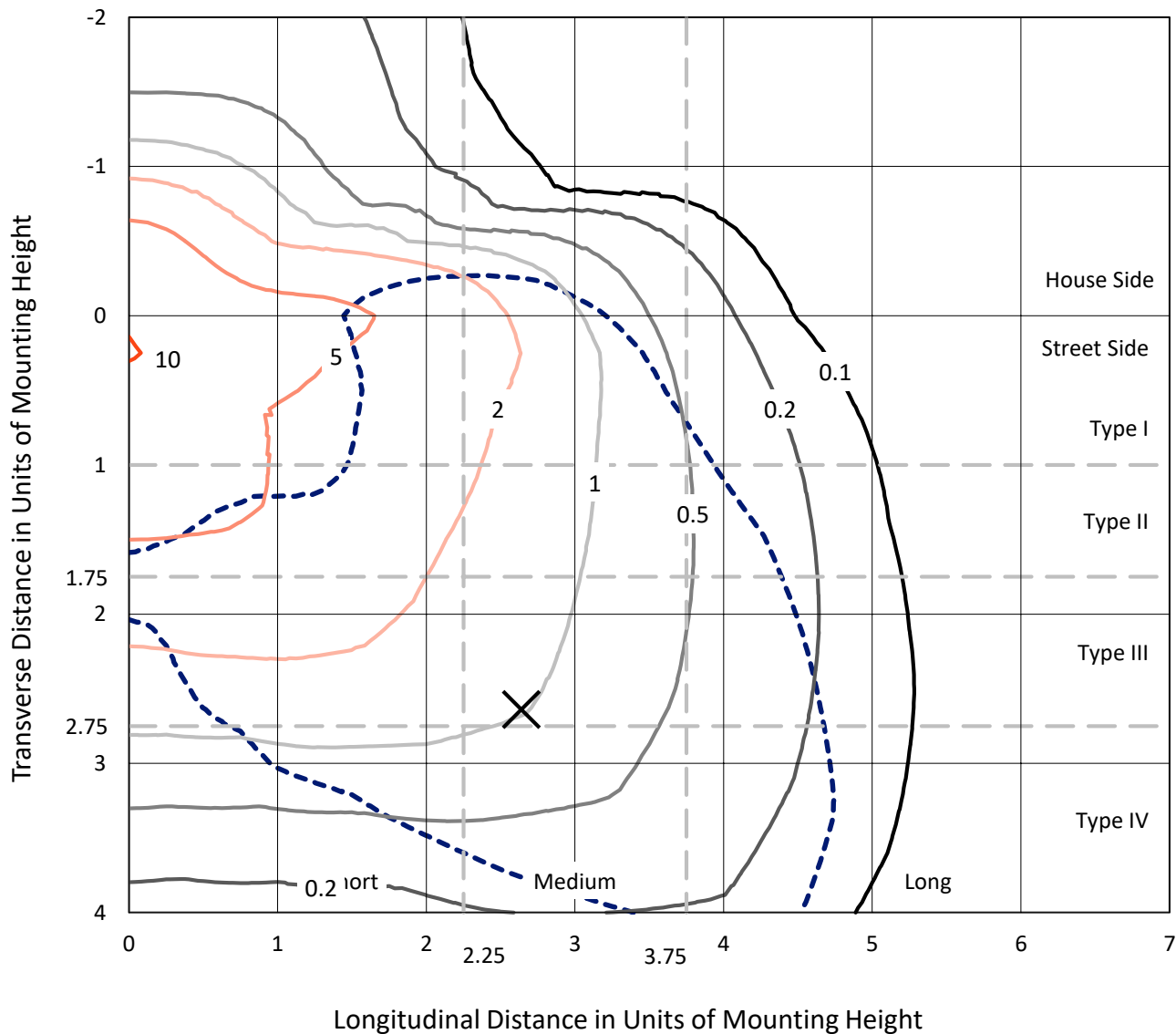


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

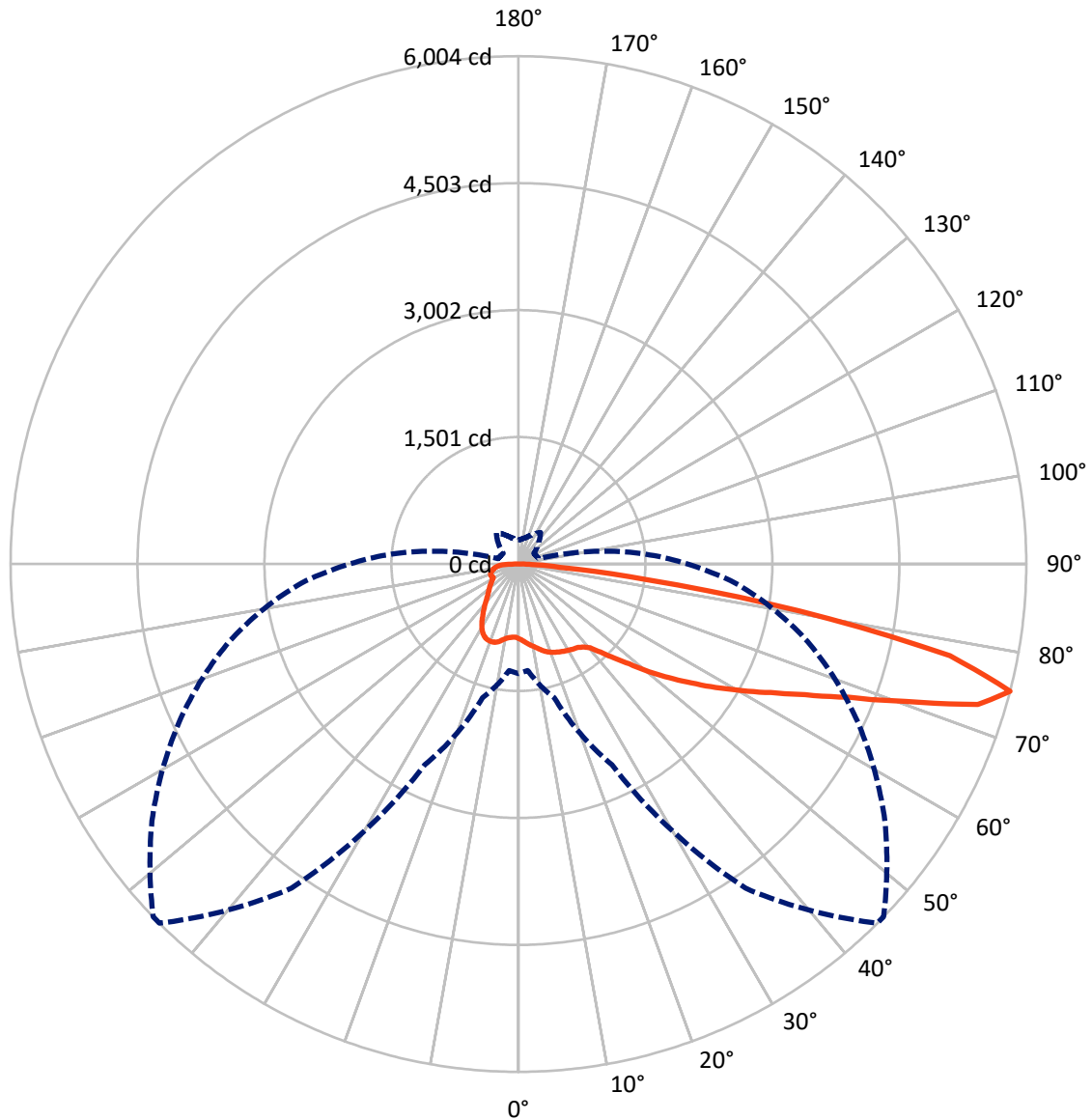


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc  
 Type IV - Medium - Non-Cutoff

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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	1991.6	0.0	1991.6
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	6605.4	0.0	6605.4
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	8597.0	0.0	8597.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.3	1.0
10°-20°	283.0	3.3
20°-30°	485.7	5.6
30°-40°	679.3	7.9
40°-50°	996.4	11.6
50°-60°	1552.2	18.1
60°-70°	2233.4	26.0
70°-80°	1945.6	22.6
80°-90°	334.1	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°	8597.0	100.0
0°-180°	8597.0	100.0



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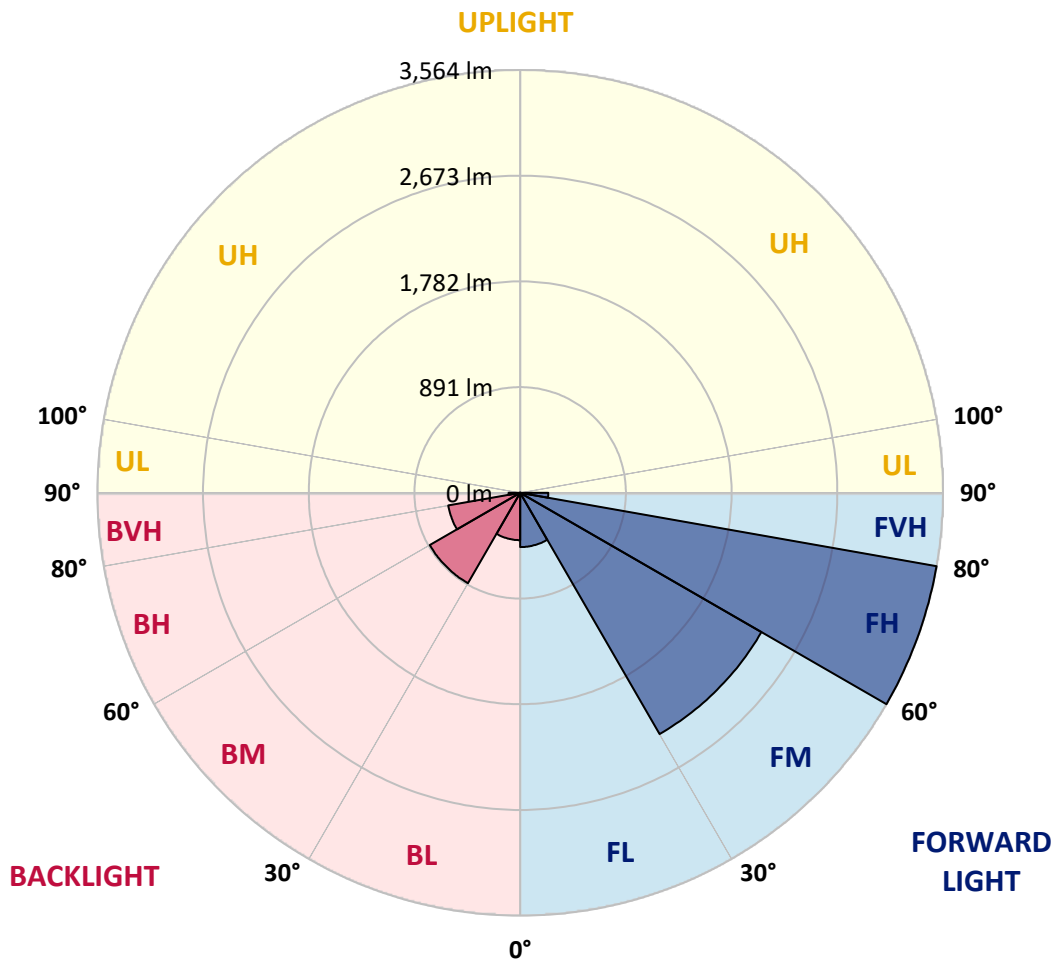
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	457.2	5.3			
FM	(30°-60°)	2347.7	27.3			
FH	(60°-80°)	3563.5	41.5			G2/5000
FVH	(80°-90°)	237.1	2.8			G3/500
BL	(0°-30°)	398.9	4.6	B1/500		
BM	(30°-60°)	880.2	10.2	B1/1000		
BH	(60°-80°)	615.5	7.2	B2/1000		G2/1000
BVH	(80°-90°)	97.1	1.1			G1/100
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°	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3
2.5°	924.8	918.1	918.1	913.1	913.1	904.7	901.4	899.7	891.3	886.3	881.3
5°	978.3	969.9	968.3	956.6	951.6	933.2	931.5	919.8	904.7	889.7	878.0
7.5°	1026.8	1021.8	1013.4	1001.7	986.7	963.3	961.6	943.2	918.1	898.0	881.3
10°	1061.9	1058.6	1046.9	1031.8	1015.1	991.7	990.0	969.9	939.8	916.4	893.0
12.5°	1103.7	1098.7	1083.7	1063.6	1045.2	1023.5	1021.8	1005.1	971.6	941.5	911.4
15°	1143.9	1137.2	1118.8	1098.7	1078.6	1060.3	1060.3	1041.9	1006.7	971.6	936.5
17.5°	1163.9	1160.6	1142.2	1120.5	1103.7	1090.4	1088.7	1072.0	1036.8	1000.0	961.6
20°	1170.6	1172.3	1155.6	1132.2	1120.5	1113.8	1112.1	1100.4	1061.9	1026.8	990.0
22.5°	1169.0	1174.0	1160.6	1135.5	1132.2	1132.2	1132.2	1118.8	1088.7	1053.6	1016.8
25°	1175.6	1182.3	1172.3	1142.2	1142.2	1148.9	1148.9	1142.2	1115.4	1085.3	1048.5
27.5°	1199.1	1204.1	1195.7	1153.9	1155.6	1165.6	1163.9	1165.6	1148.9	1120.5	1083.7
30°	1227.5	1234.2	1224.1	1172.3	1170.6	1180.7	1180.7	1189.0	1177.3	1147.2	1117.1
32.5°	1304.4	1302.7	1271.0	1192.4	1187.3	1197.4	1197.4	1205.7	1199.1	1175.6	1147.2
35°	1533.5	1508.4	1438.2	1257.6	1207.4	1212.4	1212.4	1227.5	1230.8	1212.4	1187.3
37.5°	1767.6	1759.3	1705.8	1431.5	1281.0	1244.2	1242.5	1264.3	1279.3	1264.3	1247.6
40°	2003.4	1996.8	1985.0	1664.0	1434.9	1301.1	1296.1	1314.4	1341.2	1331.2	1321.1
42.5°	2222.5	2219.2	2230.9	1893.1	1630.5	1423.1	1408.1	1386.4	1424.8	1421.5	1421.5
45°	2394.8	2403.1	2409.8	2107.1	1842.9	1580.3	1562.0	1488.4	1540.2	1553.6	1563.6
47.5°	2491.8	2498.5	2521.9	2316.2	2055.3	1762.6	1749.3	1628.8	1697.4	1737.5	1766.0
50°	2630.6	2612.2	2632.2	2520.2	2311.2	2000.1	1963.3	1817.8	1904.8	1975.0	2041.9
52.5°	2764.4	2734.2	2751.0	2756.0	2602.1	2232.6	2194.1	2040.2	2148.9	2259.3	2378.0
55°	2884.8	2883.1	2899.8	2985.1	2883.1	2481.7	2438.2	2286.1	2443.3	2562.0	2762.7
57.5°	2981.8	2998.5	3072.1	3251.0	3207.5	2752.6	2704.1	2572.0	2757.7	2876.4	3209.2
60°	3095.5	3122.2	3244.3	3476.8	3503.5	3036.9	2986.8	2891.4	3080.4	3200.8	3725.9
62.5°	3133.9	3172.4	3423.2	3714.2	3812.9	3348.0	3302.8	3239.3	3419.9	3528.6	4241.0
65°	2878.1	2951.7	3521.9	3836.3	4145.7	3722.6	3684.1	3628.9	3757.7	3829.6	4590.5
67.5°	2807.8	2841.3	3329.6	4011.9	4458.4	4204.2	4165.8	4070.4	4073.8	4043.7	4704.2
70°	2709.2	2746.0	3132.3	4144.0	4906.6	4863.1	4816.3	4535.3	4363.1	4180.8	4480.2
72.5°	2307.8	2296.1	2699.1	3787.8	5122.3	5679.2	5624.0	5035.4	4577.1	4062.1	3781.1
75°	1296.1	1262.6	1637.2	2620.5	4677.5	6003.6	6002.0	5287.9	4426.6	3538.6	2573.7
77.5°	376.3	366.2	540.2	1098.7	3149.0	5216.0	5279.5	4769.5	3694.2	2541.9	1413.1
80°	177.3	180.6	232.5	362.9	1344.5	3366.4	3548.7	3140.6	2207.5	1172.3	583.6
82.5°	112.0	113.7	158.9	234.1	568.6	1528.5	1679.0	1413.1	874.6	506.7	257.5
85°	70.2	70.2	105.4	153.9	339.5	488.3	530.1	481.6	374.6	275.9	140.5
87.5°	38.5	38.5	63.5	88.6	185.6	157.2	162.2	192.3	234.1	168.9	70.2
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°	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3	881.3
2.5°	879.6	876.3	871.3	869.6	867.9	866.3	867.9	871.3	867.9	867.9	869.6
5°	874.6	871.3	864.6	864.6	866.3	867.9	876.3	881.3	883.0	883.0	883.0
7.5°	874.6	869.6	864.6	866.3	869.6	876.3	889.7	898.0	904.7	906.4	906.4
10°	883.0	876.3	873.0	876.3	886.3	891.3	904.7	918.1	926.5	929.8	929.8
12.5°	898.0	891.3	891.3	898.0	911.4	918.1	929.8	939.8	949.9	954.9	954.9
15°	923.1	914.8	916.4	928.1	943.2	949.9	958.2	961.6	969.9	976.6	976.6
17.5°	946.5	938.2	941.5	954.9	964.9	968.3	973.3	971.6	975.0	980.0	981.7
20°	973.3	964.9	966.6	975.0	976.6	973.3	973.3	968.3	966.6	975.0	978.3
22.5°	1000.0	991.7	990.0	985.0	976.6	968.3	963.3	958.2	954.9	963.3	966.6
25°	1031.8	1020.1	1011.8	990.0	968.3	953.2	946.5	943.2	941.5	949.9	953.2
27.5°	1066.9	1055.2	1030.2	983.3	948.2	923.1	918.1	918.1	921.5	926.5	929.8
30°	1100.4	1088.7	1043.5	968.3	913.1	876.3	871.3	876.3	884.7	889.7	894.7
32.5°	1133.8	1122.1	1051.9	944.9	861.2	814.4	811.1	819.4	832.8	836.2	839.5
35°	1179.0	1167.3	1061.9	911.4	796.0	745.9	742.5	747.5	759.2	764.3	769.3
37.5°	1242.5	1235.8	1077.0	874.6	735.8	680.6	670.6	667.3	673.9	672.3	679.0
40°	1326.2	1331.2	1103.7	826.1	677.3	620.4	598.7	588.7	582.0	568.6	575.3
42.5°	1448.2	1451.6	1133.8	770.9	627.1	563.6	535.1	516.7	503.4	481.6	485.0
45°	1627.2	1598.7	1169.0	712.4	582.0	518.4	485.0	463.2	444.8	426.4	428.1
47.5°	1864.6	1777.7	1207.4	663.9	536.8	481.6	451.5	426.4	404.7	389.7	391.3
50°	2157.3	2000.1	1245.9	618.8	491.7	453.2	426.4	399.7	377.9	362.9	361.2
52.5°	2543.6	2267.7	1271.0	568.6	446.5	428.1	404.7	379.6	352.9	334.5	332.8
55°	2945.0	2578.7	1292.7	508.4	403.0	399.7	388.0	359.5	327.8	304.4	301.0
57.5°	3386.5	2911.5	1309.4	449.9	369.6	376.3	372.9	339.5	304.4	282.6	281.0
60°	3787.8	3256.0	1255.9	398.0	339.5	352.9	356.2	327.8	309.4	314.4	316.1
62.5°	4192.5	3521.9	1051.9	359.5	319.4	337.8	366.2	364.6	356.2	364.6	366.2
65°	4338.0	3577.1	745.9	327.8	299.3	344.5	398.0	394.7	356.2	341.2	337.8
67.5°	4256.1	3413.2	501.7	302.7	284.3	352.9	431.5	394.7	342.8	322.8	316.1
70°	3866.4	3010.2	367.9	277.6	270.9	351.2	449.9	393.0	336.1	314.4	306.0
72.5°	3083.8	2322.9	296.0	254.2	250.8	342.8	459.9	389.7	329.4	306.0	296.0
75°	1996.8	1444.9	249.2	230.8	220.7	329.4	454.9	379.6	321.1	291.0	284.3
77.5°	926.5	622.1	212.4	204.0	192.3	309.4	439.8	359.5	302.7	274.3	265.9
80°	431.5	294.3	178.9	177.3	172.2	292.7	419.8	336.1	281.0	257.5	244.2
82.5°	230.8	177.3	145.5	145.5	150.5	272.6	394.7	307.7	252.5	240.8	205.7
85°	122.1	102.0	105.4	113.7	128.8	240.8	361.2	277.6	220.7	184.0	178.9
87.5°	61.9	65.2	65.2	76.9	98.7	195.7	297.7	229.1	187.3	150.5	147.2
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)