

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: P234834

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234834  
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-AF48-70-D-U-T4W-8027  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7687 lumens  
Efficiency: N/A  
Efficacy: 105.3 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 - G2

Input Watts (W): 73  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

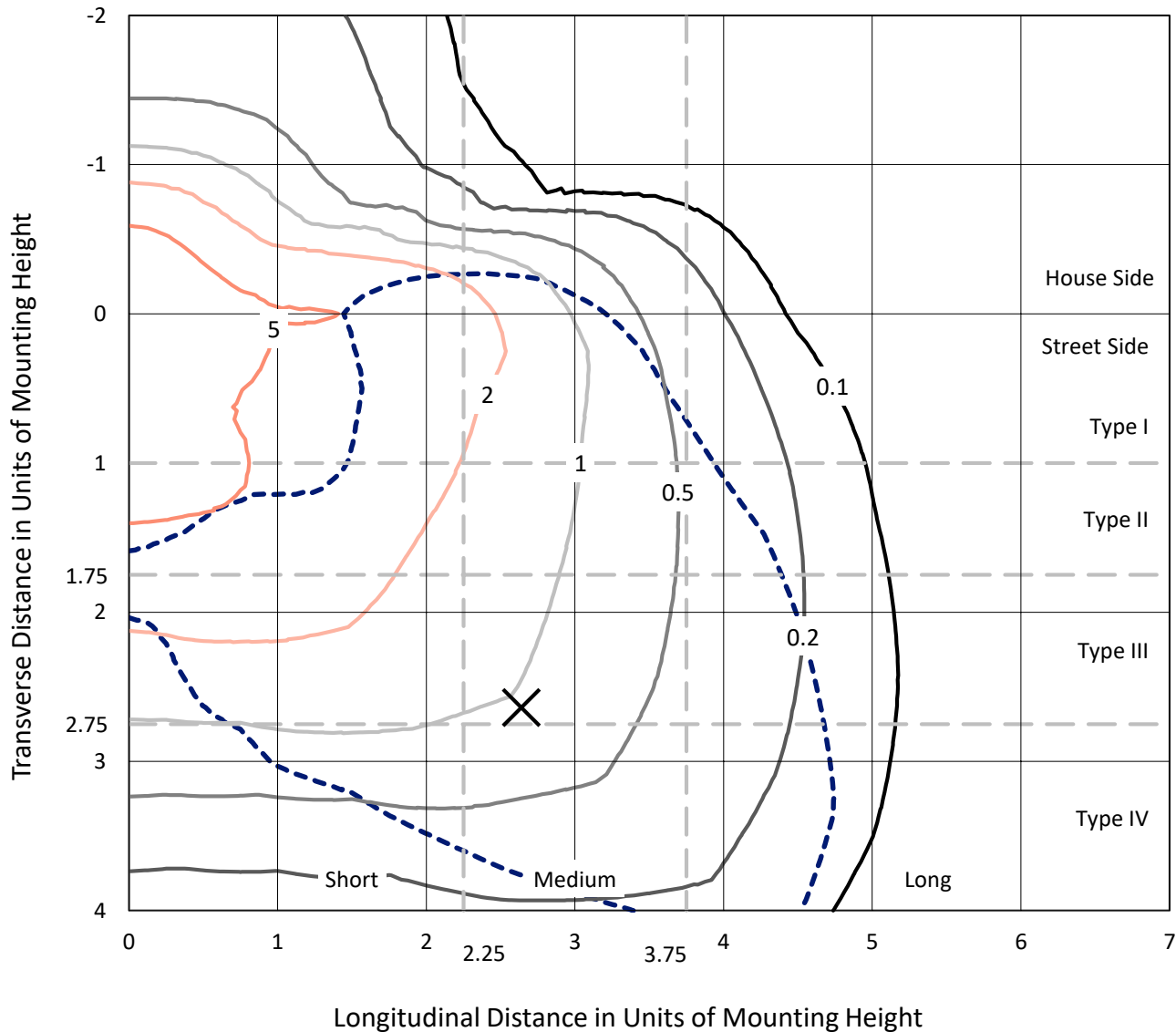


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

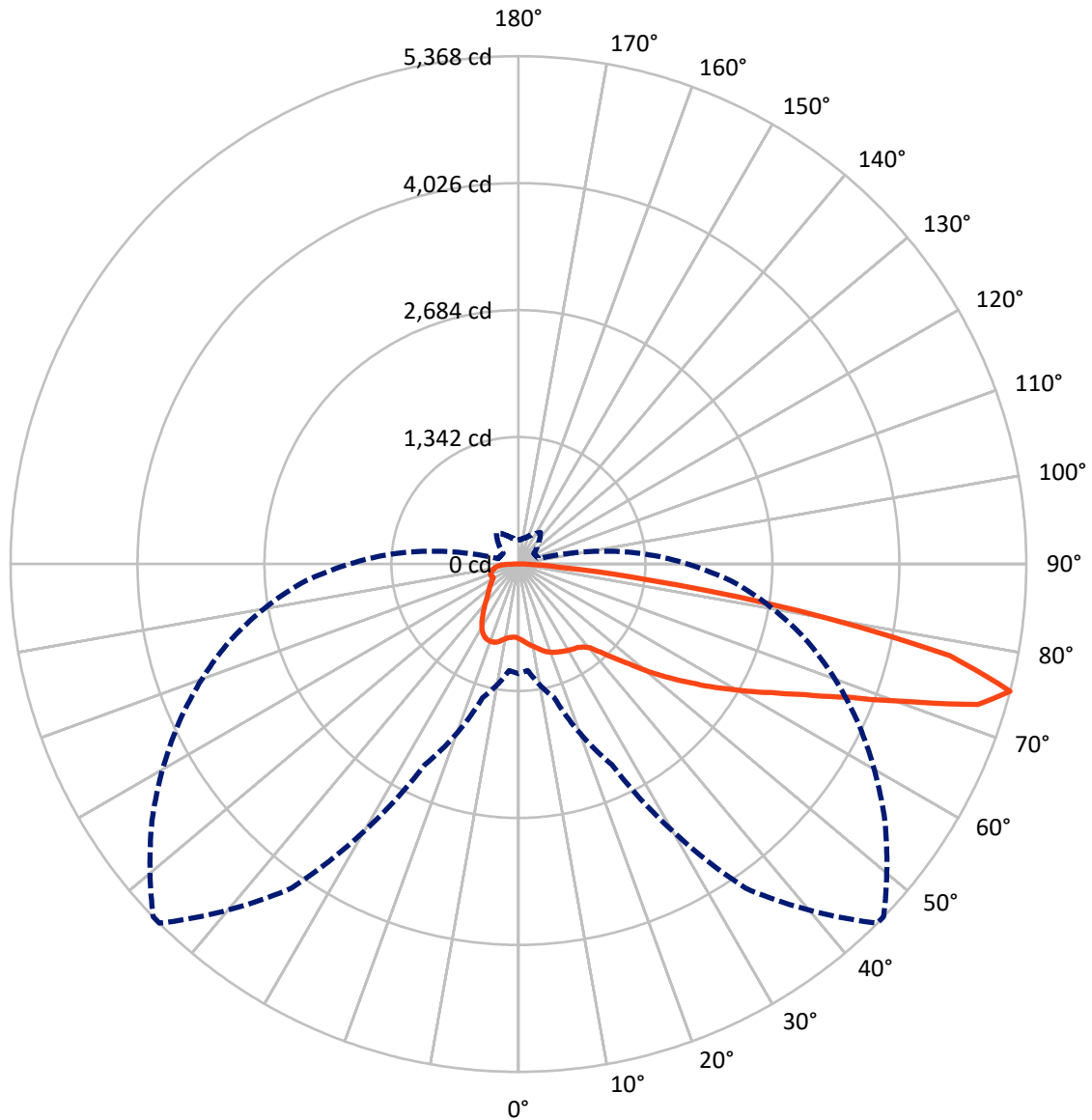


Based on 10 foot mounting height. Maximum calculated value = 9.2 fc  
 Type IV - Medium - Non-Cutoff

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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	1780.8	0.0	1780.8
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	5906.2	0.0	5906.2
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	7687.0	0.0	7687.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	1.0
10°-20°	253.1	3.3
20°-30°	434.3	5.6
30°-40°	607.4	7.9
40°-50°	890.9	11.6
50°-60°	1387.9	18.1
60°-70°	1997.0	26.0
70°-80°	1739.6	22.6
80°-90°	298.8	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°	7687.0	100.0
0°-180°	7687.0	100.0

**Coefficient of Utilization**



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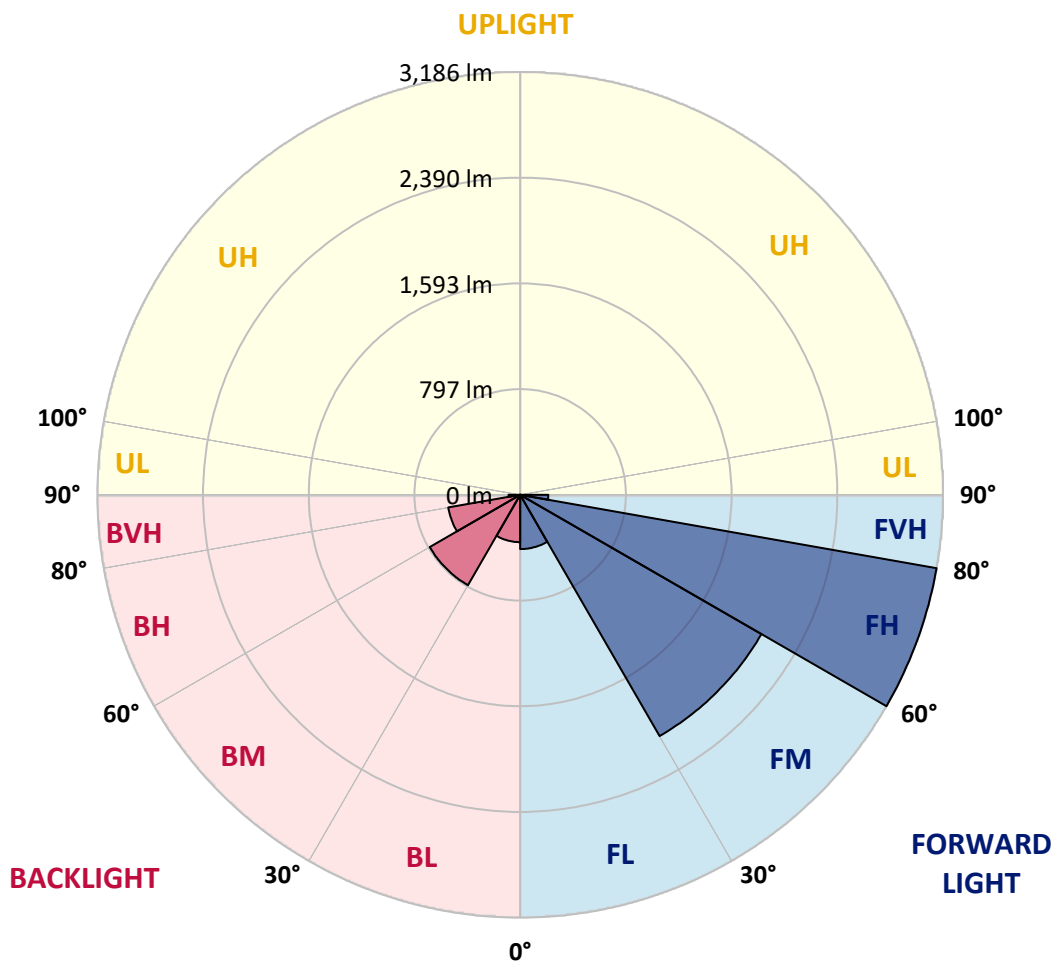
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	408.8	5.3			
FM	(30°-60°)	2099.2	27.3			
FH	(60°-80°)	3186.3	41.5			G2/5000
FVH	(80°-90°)	212.0	2.8			G2/225
BL	(0°-30°)	356.7	4.6	B1/500		
BM	(30°-60°)	787.0	10.2	B1/1000		
BH	(60°-80°)	550.3	7.2	B2/1000		G2/1000
BVH	(80°-90°)	86.8	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-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0
2.5°	826.9	820.9	820.9	816.4	816.4	809.0	806.0	804.5	797.0	792.5	788.0
5°	874.8	867.3	865.8	855.3	850.8	834.4	832.9	822.4	809.0	795.5	785.0
7.5°	918.1	913.6	906.2	895.7	882.2	861.3	859.8	843.4	820.9	803.0	788.0
10°	949.5	946.5	936.1	922.6	907.7	886.7	885.2	867.3	840.4	819.4	798.5
12.5°	986.9	982.4	969.0	951.0	934.6	915.1	913.6	898.7	868.8	841.9	814.9
15°	1022.8	1016.8	1000.4	982.4	964.5	948.0	948.0	931.6	900.2	868.8	837.4
17.5°	1040.7	1037.7	1021.3	1001.9	986.9	974.9	973.4	958.5	927.1	894.2	859.8
20°	1046.7	1048.2	1033.3	1012.3	1001.9	995.9	994.4	983.9	949.5	918.1	885.2
22.5°	1045.2	1049.7	1037.7	1015.3	1012.3	1012.3	1012.3	1000.4	973.4	942.0	909.1
25°	1051.2	1057.2	1048.2	1021.3	1021.3	1027.3	1027.3	1021.3	997.4	970.5	937.6
27.5°	1072.1	1076.6	1069.1	1031.8	1033.3	1042.2	1040.7	1042.2	1027.3	1001.9	969.0
30°	1097.6	1103.5	1094.6	1048.2	1046.7	1055.7	1055.7	1063.2	1052.7	1025.8	998.9
32.5°	1166.3	1164.8	1136.4	1066.2	1061.7	1070.6	1070.6	1078.1	1072.1	1051.2	1025.8
35°	1371.2	1348.8	1286.0	1124.5	1079.6	1084.1	1084.1	1097.6	1100.5	1084.1	1061.7
37.5°	1580.5	1573.1	1525.2	1280.0	1145.4	1112.5	1111.0	1130.5	1143.9	1130.5	1115.5
40°	1791.4	1785.4	1774.9	1487.8	1283.0	1163.3	1158.9	1175.3	1199.2	1190.3	1181.3
42.5°	1987.3	1984.3	1994.7	1692.7	1457.9	1272.5	1259.0	1239.6	1274.0	1271.0	1271.0
45°	2141.3	2148.8	2154.7	1884.1	1647.8	1413.1	1396.6	1330.8	1377.2	1389.1	1398.1
47.5°	2228.0	2234.0	2254.9	2071.0	1837.7	1576.1	1564.1	1456.4	1517.7	1553.6	1579.0
50°	2352.1	2335.7	2353.6	2253.4	2066.5	1788.4	1755.5	1625.4	1703.2	1766.0	1825.8
52.5°	2471.7	2444.8	2459.8	2464.3	2326.7	1996.2	1961.8	1824.3	1921.5	2020.2	2126.3
55°	2579.4	2577.9	2592.9	2669.1	2577.9	2219.0	2180.2	2044.1	2184.6	2290.8	2470.2
57.5°	2666.1	2681.1	2746.9	2906.9	2868.0	2461.3	2417.9	2299.8	2465.8	2571.9	2869.5
60°	2767.8	2791.7	2900.9	3108.7	3132.7	2715.5	2670.6	2585.4	2754.4	2862.0	3331.5
62.5°	2802.2	2836.6	3060.9	3321.1	3409.3	2993.6	2953.2	2896.4	3057.9	3155.1	3792.1
65°	2573.4	2639.2	3149.1	3430.2	3706.9	3328.6	3294.2	3244.8	3360.0	3424.3	4104.6
67.5°	2510.6	2540.5	2977.2	3587.2	3986.5	3759.2	3724.8	3639.6	3642.6	3615.7	4206.3
70°	2422.4	2455.3	2800.7	3705.4	4387.2	4348.4	4306.5	4055.3	3901.3	3738.3	4005.9
72.5°	2063.5	2053.1	2413.4	3386.9	4580.1	5078.1	5028.7	4502.4	4092.7	3632.1	3380.9
75°	1158.9	1129.0	1463.9	2343.1	4182.4	5368.2	5366.7	4728.2	3958.1	3164.1	2301.3
77.5°	336.4	327.5	483.0	982.4	2815.7	4663.9	4720.7	4264.6	3303.1	2272.9	1263.5
80°	158.5	161.5	207.8	324.5	1202.2	3010.1	3173.0	2808.2	1973.8	1048.2	521.9
82.5°	100.2	101.7	142.1	209.3	508.4	1366.7	1501.3	1263.5	782.0	453.1	230.3
85°	62.8	62.8	94.2	137.6	303.5	436.6	474.0	430.6	334.9	246.7	125.6
87.5°	34.4	34.4	56.8	79.3	166.0	140.6	145.0	172.0	209.3	151.0	62.8
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°	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0
2.5°	786.5	783.5	779.1	777.6	776.1	774.6	776.1	779.1	776.1	776.1	777.6
5°	782.0	779.1	773.1	773.1	774.6	776.1	783.5	788.0	789.5	789.5	789.5
7.5°	782.0	777.6	773.1	774.6	777.6	783.5	795.5	803.0	809.0	810.5	810.5
10°	789.5	783.5	780.6	783.5	792.5	797.0	809.0	820.9	828.4	831.4	831.4
12.5°	803.0	797.0	797.0	803.0	814.9	820.9	831.4	840.4	849.3	853.8	853.8
15°	825.4	817.9	819.4	829.9	843.4	849.3	856.8	859.8	867.3	873.3	873.3
17.5°	846.3	838.9	841.9	853.8	862.8	865.8	870.3	868.8	871.8	876.2	877.7
20°	870.3	862.8	864.3	871.8	873.3	870.3	870.3	865.8	864.3	871.8	874.8
22.5°	894.2	886.7	885.2	880.7	873.3	865.8	861.3	856.8	853.8	861.3	864.3
25°	922.6	912.1	904.7	885.2	865.8	852.3	846.3	843.4	841.9	849.3	852.3
27.5°	954.0	943.5	921.1	879.2	847.8	825.4	820.9	820.9	823.9	828.4	831.4
30°	983.9	973.4	933.1	865.8	816.4	783.5	779.1	783.5	791.0	795.5	800.0
32.5°	1013.8	1003.4	940.5	844.8	770.1	728.2	725.2	732.7	744.7	747.7	750.6
35°	1054.2	1043.7	949.5	814.9	711.8	666.9	663.9	668.4	678.9	683.4	687.8
37.5°	1111.0	1105.0	963.0	782.0	657.9	608.6	599.6	596.6	602.6	601.1	607.1
40°	1185.8	1190.3	986.9	738.7	605.6	554.8	535.3	526.3	520.4	508.4	514.4
42.5°	1294.9	1297.9	1013.8	689.3	560.7	503.9	478.5	462.0	450.1	430.6	433.6
45°	1454.9	1429.5	1045.2	637.0	520.4	463.5	433.6	414.2	397.8	381.3	382.8
47.5°	1667.3	1589.5	1079.6	593.6	480.0	430.6	403.7	381.3	361.9	348.4	349.9
50°	1928.9	1788.4	1114.0	553.3	439.6	405.2	381.3	357.4	337.9	324.5	323.0
52.5°	2274.4	2027.6	1136.4	508.4	399.2	382.8	361.9	339.4	315.5	299.1	297.6
55°	2633.2	2305.8	1155.9	454.6	360.4	357.4	346.9	321.5	293.1	272.1	269.2
57.5°	3028.0	2603.3	1170.8	402.2	330.5	336.4	333.5	303.5	272.1	252.7	251.2
60°	3386.9	2911.4	1123.0	355.9	303.5	315.5	318.5	293.1	276.6	281.1	282.6
62.5°	3748.7	3149.1	940.5	321.5	285.6	302.1	327.5	326.0	318.5	326.0	327.5
65°	3878.8	3198.5	666.9	293.1	267.7	308.0	355.9	352.9	318.5	305.0	302.1
67.5°	3805.6	3051.9	448.6	270.7	254.2	315.5	385.8	352.9	306.5	288.6	282.6
70°	3457.1	2691.6	329.0	248.2	242.2	314.0	402.2	351.4	300.6	281.1	273.6
72.5°	2757.3	2077.0	264.7	227.3	224.3	306.5	411.2	348.4	294.6	273.6	264.7
75°	1785.4	1291.9	222.8	206.4	197.4	294.6	406.7	339.4	287.1	260.2	254.2
77.5°	828.4	556.3	189.9	182.4	172.0	276.6	393.3	321.5	270.7	245.2	237.8
80°	385.8	263.2	160.0	158.5	154.0	261.7	375.3	300.6	251.2	230.3	218.3
82.5°	206.4	158.5	130.1	130.1	134.6	243.7	352.9	275.1	225.8	215.3	183.9
85°	109.2	91.2	94.2	101.7	115.1	215.3	323.0	248.2	197.4	164.5	160.0
87.5°	55.3	58.3	58.3	68.8	88.2	175.0	266.2	204.9	167.5	134.6	131.6
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)