

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: P214861

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214861  
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-AF24-100-D-U-T4W-7030  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8724 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

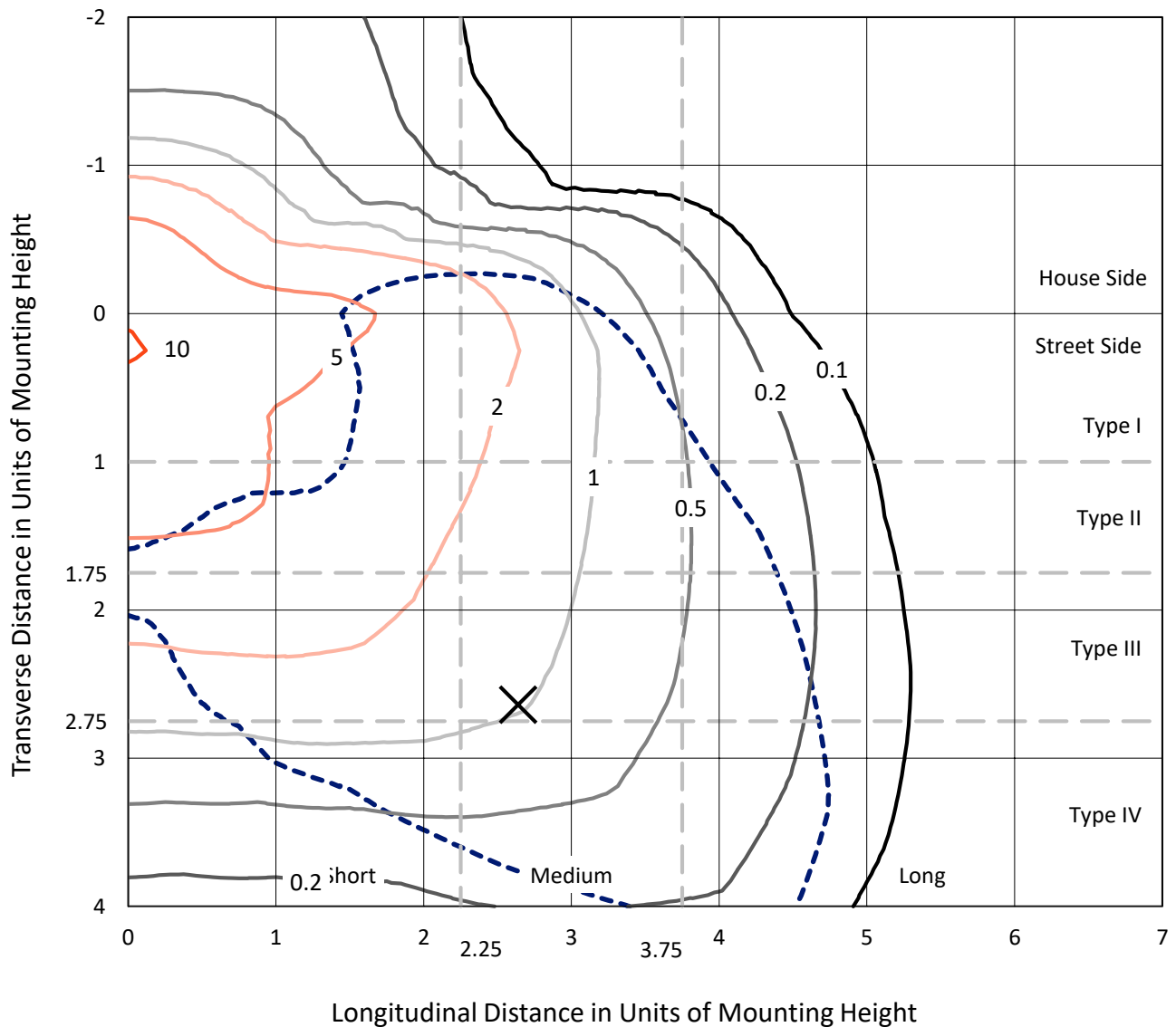
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

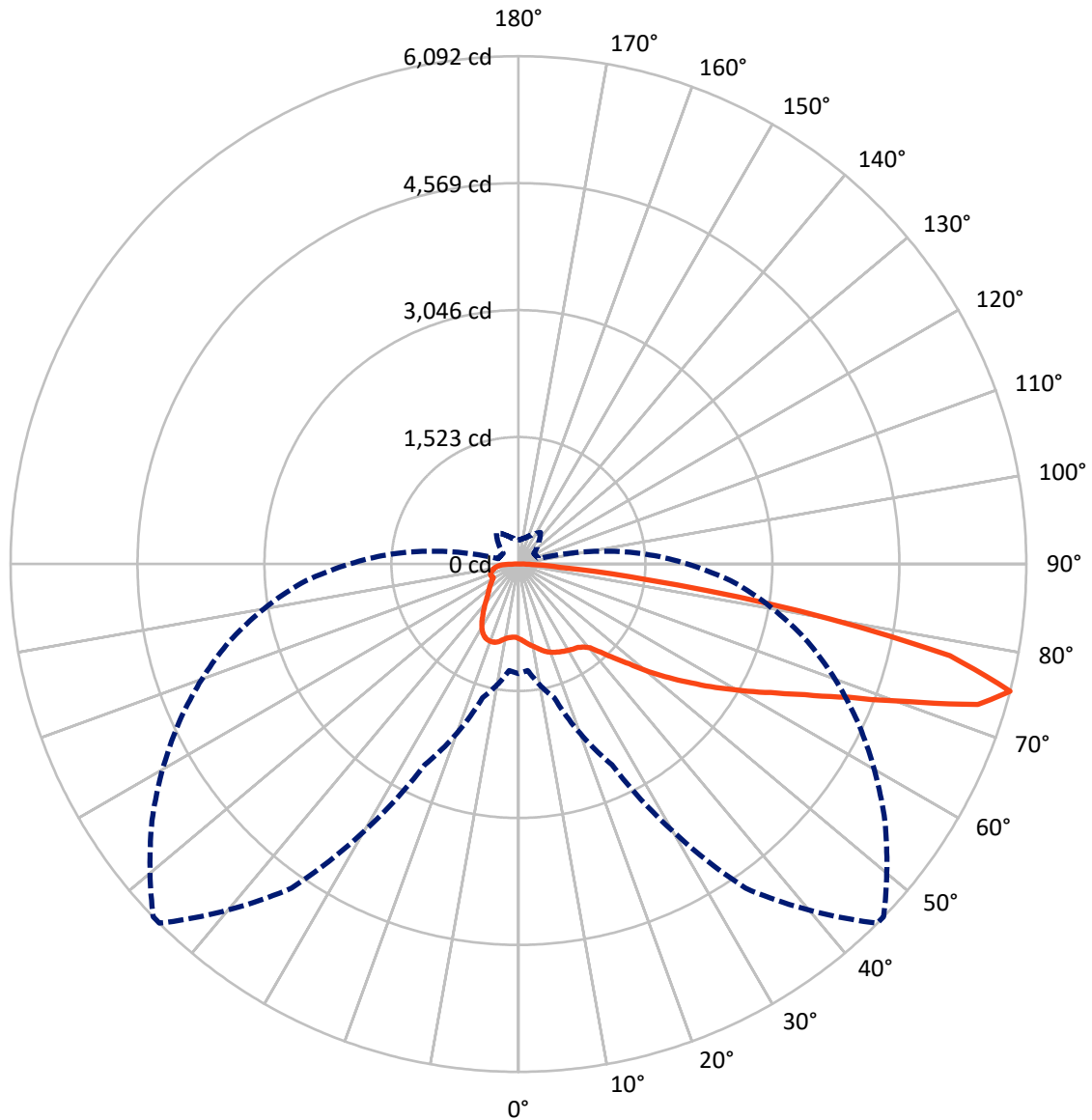
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 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	2021.0	0.0	2021.0
	% Fixture	23.2	0.0	23.2
<b>Street Side</b>	Lumens	6703.0	0.0	6703.0
	% Fixture	76.8	0.0	76.8
<b>Total</b>	Lumens	8724.0	0.0	8724.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.6	1.0
10°-20°	287.2	3.3
20°-30°	492.9	5.6
30°-40°	689.3	7.9
40°-50°	1011.1	11.6
50°-60°	1575.1	18.1
60°-70°	2266.4	26.0
70°-80°	1974.3	22.6
80°-90°	339.1	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°	8724.0	100.0
0°-180°	8724.0	100.0



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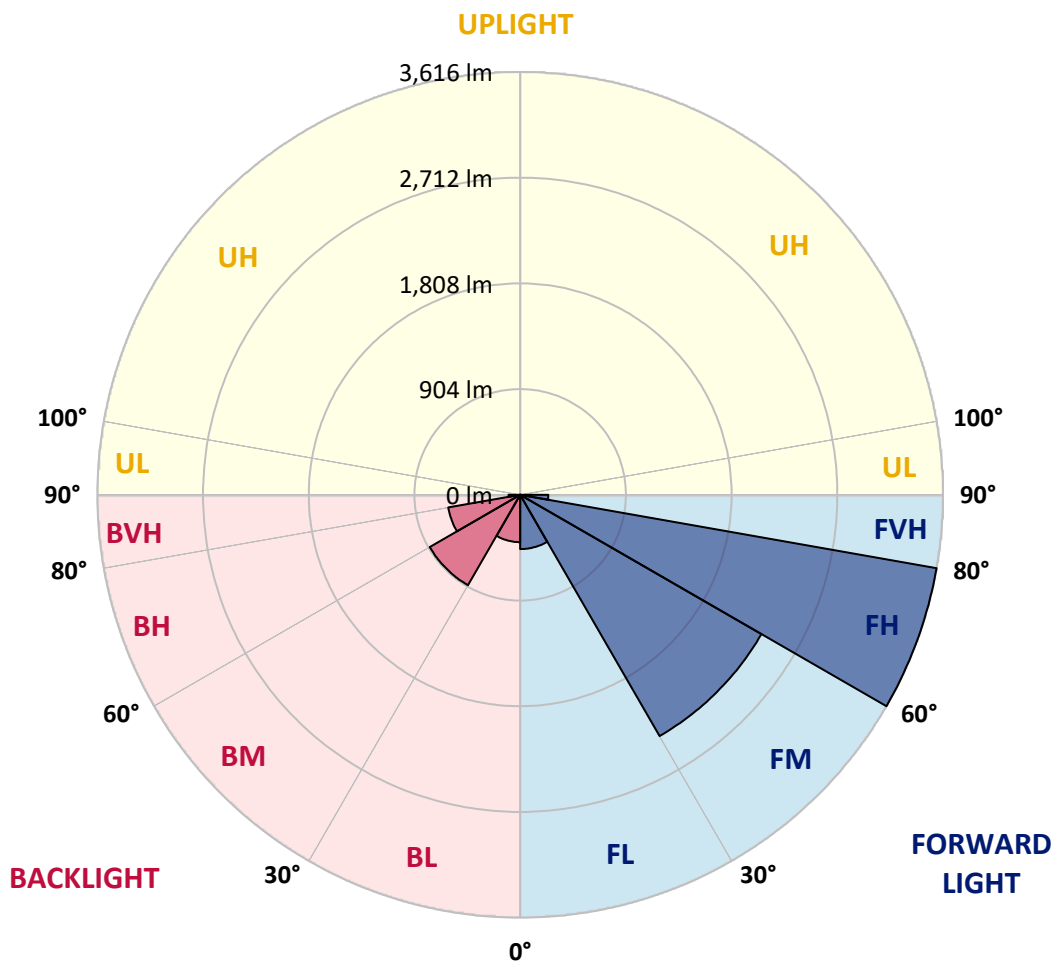
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	463.9	5.3			
FM	(30°-60°)	2382.4	27.3			
FH	(60°-80°)	3616.2	41.5			G2/5000
FVH	(80°-90°)	240.6	2.8			G3/500
BL	(0°-30°)	404.8	4.6	B1/500		
BM	(30°-60°)	893.2	10.2	B1/1000		
BH	(60°-80°)	624.6	7.2	B2/1000		G2/1000
BVH	(80°-90°)	98.5	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°	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3
2.5°	938.5	931.7	931.7	926.6	926.6	918.1	914.7	913.0	904.5	899.4	894.3
5°	992.8	984.3	982.6	970.7	965.6	946.9	945.2	933.4	918.1	902.8	890.9
7.5°	1042.0	1036.9	1028.4	1016.5	1001.2	977.5	975.8	957.1	931.7	911.3	894.3
10°	1077.6	1074.2	1062.3	1047.1	1030.1	1006.3	1004.6	984.3	953.7	930.0	906.2
12.5°	1120.0	1114.9	1099.7	1079.3	1060.6	1038.6	1036.9	1019.9	986.0	955.4	924.9
15°	1160.8	1154.0	1135.3	1114.9	1094.6	1075.9	1075.9	1057.2	1021.6	986.0	950.3
17.5°	1181.1	1177.7	1159.1	1137.0	1120.0	1106.5	1104.8	1087.8	1052.2	1014.8	975.8
20°	1187.9	1189.6	1172.6	1148.9	1137.0	1130.2	1128.5	1116.6	1077.6	1042.0	1004.6
22.5°	1186.2	1191.3	1177.7	1152.3	1148.9	1148.9	1148.9	1135.3	1104.8	1069.1	1031.8
25°	1193.0	1199.8	1189.6	1159.1	1159.1	1165.9	1165.9	1159.1	1131.9	1101.4	1064.0
27.5°	1216.8	1221.9	1213.4	1170.9	1172.6	1182.8	1181.1	1182.8	1165.9	1137.0	1099.7
30°	1245.6	1252.4	1242.2	1189.6	1187.9	1198.1	1198.1	1206.6	1194.7	1164.2	1133.6
32.5°	1323.7	1322.0	1289.7	1210.0	1204.9	1215.1	1215.1	1223.6	1216.8	1193.0	1164.2
35°	1556.2	1530.7	1459.4	1276.2	1225.3	1230.3	1230.3	1245.6	1249.0	1230.3	1204.9
37.5°	1793.8	1785.3	1731.0	1452.7	1299.9	1262.6	1260.9	1283.0	1298.2	1283.0	1266.0
40°	2033.0	2026.3	2014.4	1688.5	1456.1	1320.3	1315.2	1333.9	1361.0	1350.8	1340.7
42.5°	2255.4	2252.0	2263.8	1921.0	1654.6	1444.2	1428.9	1406.8	1445.9	1442.5	1442.5
45°	2430.1	2438.6	2445.4	2138.3	1870.1	1603.7	1585.0	1510.4	1563.0	1576.5	1586.7
47.5°	2528.6	2535.4	2559.1	2350.4	2085.6	1788.7	1775.1	1652.9	1722.5	1763.2	1792.1
50°	2669.4	2650.8	2671.1	2557.4	2345.3	2029.6	1992.3	1844.7	1932.9	2004.2	2072.1
52.5°	2805.2	2774.6	2791.6	2796.7	2640.6	2265.5	2226.5	2070.4	2180.7	2292.7	2413.2
55°	2927.4	2925.7	2942.6	3029.2	2925.7	2518.4	2474.3	2319.8	2479.4	2599.8	2803.5
57.5°	3025.8	3042.8	3117.4	3299.0	3254.9	2793.3	2744.1	2610.0	2798.4	2918.9	3256.6
60°	3141.2	3168.4	3292.2	3528.1	3555.3	3081.8	3030.9	2934.2	3125.9	3248.1	3781.0
62.5°	3180.2	3219.3	3473.8	3769.1	3869.2	3397.5	3351.6	3287.1	3470.4	3580.7	4303.7
65°	2920.6	2995.3	3573.9	3893.0	4206.9	3777.6	3738.6	3682.6	3813.2	3886.2	4658.3
67.5°	2849.3	2883.3	3378.8	4071.2	4524.3	4266.3	4227.3	4130.6	4134.0	4103.4	4773.7
70°	2749.2	2786.5	3178.5	4205.2	4979.1	4935.0	4887.4	4602.3	4427.5	4242.6	4546.3
72.5°	2341.9	2330.0	2739.0	3843.8	5198.0	5763.1	5707.1	5109.8	4644.8	4122.1	3837.0
75°	1315.2	1281.3	1661.4	2659.2	4746.6	6092.3	6090.6	5366.0	4492.0	3590.9	2611.7
77.5°	381.8	371.6	548.1	1114.9	3195.5	5293.0	5357.5	4839.9	3748.7	2579.5	1434.0
80°	179.9	183.3	235.9	368.3	1364.4	3416.1	3601.1	3187.0	2240.1	1189.6	592.3
82.5°	113.7	115.4	161.2	237.6	577.0	1551.1	1703.8	1434.0	887.5	514.2	261.3
85°	71.3	71.3	106.9	156.1	344.5	495.5	538.0	488.7	380.1	280.0	142.6
87.5°	39.0	39.0	64.5	89.9	188.4	159.5	164.6	195.2	237.6	171.4	71.3
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°	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3	894.3
2.5°	892.6	889.2	884.2	882.5	880.8	879.1	880.8	884.2	880.8	880.8	882.5
5°	887.5	884.2	877.4	877.4	879.1	880.8	889.2	894.3	896.0	896.0	896.0
7.5°	887.5	882.5	877.4	879.1	882.5	889.2	902.8	911.3	918.1	919.8	919.8
10°	896.0	889.2	885.8	889.2	899.4	904.5	918.1	931.7	940.2	943.5	943.5
12.5°	911.3	904.5	904.5	911.3	924.9	931.7	943.5	953.7	963.9	969.0	969.0
15°	936.8	928.3	930.0	941.9	957.1	963.9	972.4	975.8	984.3	991.1	991.1
17.5°	960.5	952.0	955.4	969.0	979.2	982.6	987.7	986.0	989.4	994.5	996.2
20°	987.7	979.2	980.9	989.4	991.1	987.7	987.7	982.6	980.9	989.4	992.8
22.5°	1014.8	1006.3	1004.6	999.5	991.1	982.6	977.5	972.4	969.0	977.5	980.9
25°	1047.1	1035.2	1026.7	1004.6	982.6	967.3	960.5	957.1	955.4	963.9	967.3
27.5°	1082.7	1070.8	1045.4	997.9	962.2	936.8	931.7	931.7	935.1	940.2	943.5
30°	1116.6	1104.8	1058.9	982.6	926.6	889.2	884.2	889.2	897.7	902.8	907.9
32.5°	1150.6	1138.7	1067.4	958.8	874.0	826.5	823.1	831.5	845.1	848.5	851.9
35°	1196.4	1184.5	1077.6	924.9	807.8	756.9	753.5	758.6	770.5	775.5	780.6
37.5°	1260.9	1254.1	1092.9	887.5	746.7	690.7	680.5	677.1	683.9	682.2	689.0
40°	1345.7	1350.8	1120.0	838.3	687.3	629.6	607.5	597.4	590.6	577.0	583.8
42.5°	1469.6	1473.0	1150.6	782.3	636.4	571.9	543.0	524.4	510.8	488.7	492.1
45°	1651.2	1622.4	1186.2	722.9	590.6	526.1	492.1	470.1	451.4	432.7	434.4
47.5°	1892.2	1803.9	1225.3	673.7	544.7	488.7	458.2	432.7	410.7	395.4	397.1
50°	2189.2	2029.6	1264.3	627.9	498.9	459.9	432.7	405.6	383.5	368.3	366.6
52.5°	2581.2	2301.2	1289.7	577.0	453.1	434.4	410.7	385.2	358.1	339.4	337.7
55°	2988.5	2616.8	1311.8	515.9	409.0	405.6	393.7	364.9	332.6	308.9	305.5
57.5°	3436.5	2954.5	1328.8	456.5	375.0	381.8	378.4	344.5	308.9	286.8	285.1
60°	3843.8	3304.1	1274.5	403.9	344.5	358.1	361.5	332.6	314.0	319.0	320.7
62.5°	4254.4	3573.9	1067.4	364.9	324.1	342.8	371.6	370.0	361.5	370.0	371.6
65°	4402.1	3629.9	756.9	332.6	303.8	349.6	403.9	400.5	361.5	346.2	342.8
67.5°	4318.9	3463.6	509.1	307.2	288.5	358.1	437.8	400.5	347.9	327.5	320.7
70°	3923.5	3054.7	373.3	281.7	274.9	356.4	456.5	398.8	341.1	319.0	310.6
72.5°	3129.3	2357.2	300.4	257.9	254.6	347.9	466.7	395.4	334.3	310.6	300.4
75°	2026.3	1466.2	252.9	234.2	224.0	334.3	461.6	385.2	325.8	295.3	288.5
77.5°	940.2	631.3	215.5	207.0	195.2	314.0	446.3	364.9	307.2	278.3	269.8
80°	437.8	298.7	181.6	179.9	174.8	297.0	426.0	341.1	285.1	261.3	247.8
82.5°	234.2	179.9	147.6	147.6	152.7	276.6	400.5	312.3	256.3	244.4	208.7
85°	123.9	103.5	106.9	115.4	130.7	244.4	366.6	281.7	224.0	186.7	181.6
87.5°	62.8	66.2	66.2	78.1	100.1	198.6	302.1	232.5	190.1	152.7	149.3
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)