

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: P265981

Luminaire Tested: **ARCH-AF24-90-D-U-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265981  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-90-D-U-T3-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8528.1 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G2

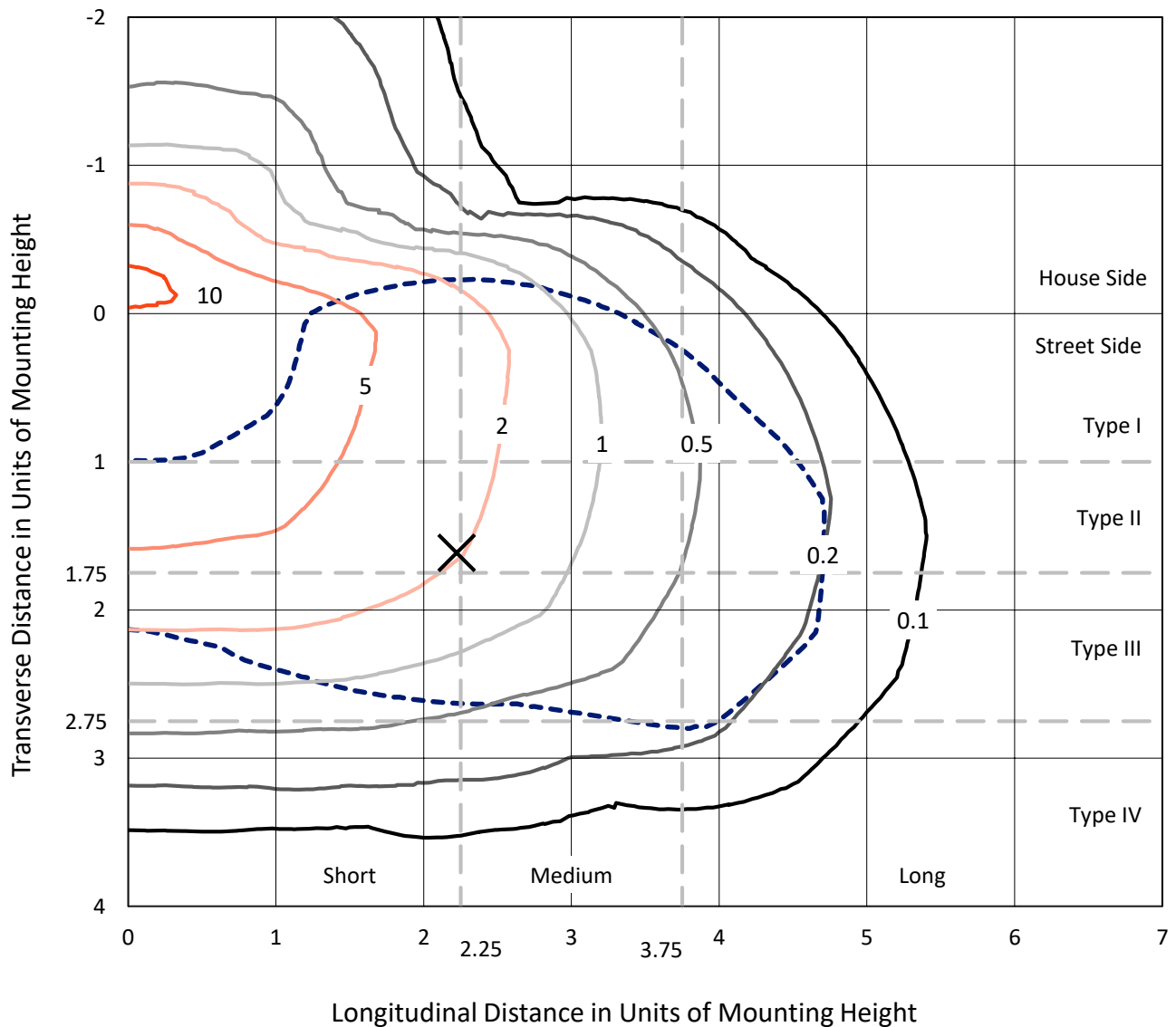
Input Watts (W): 94  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

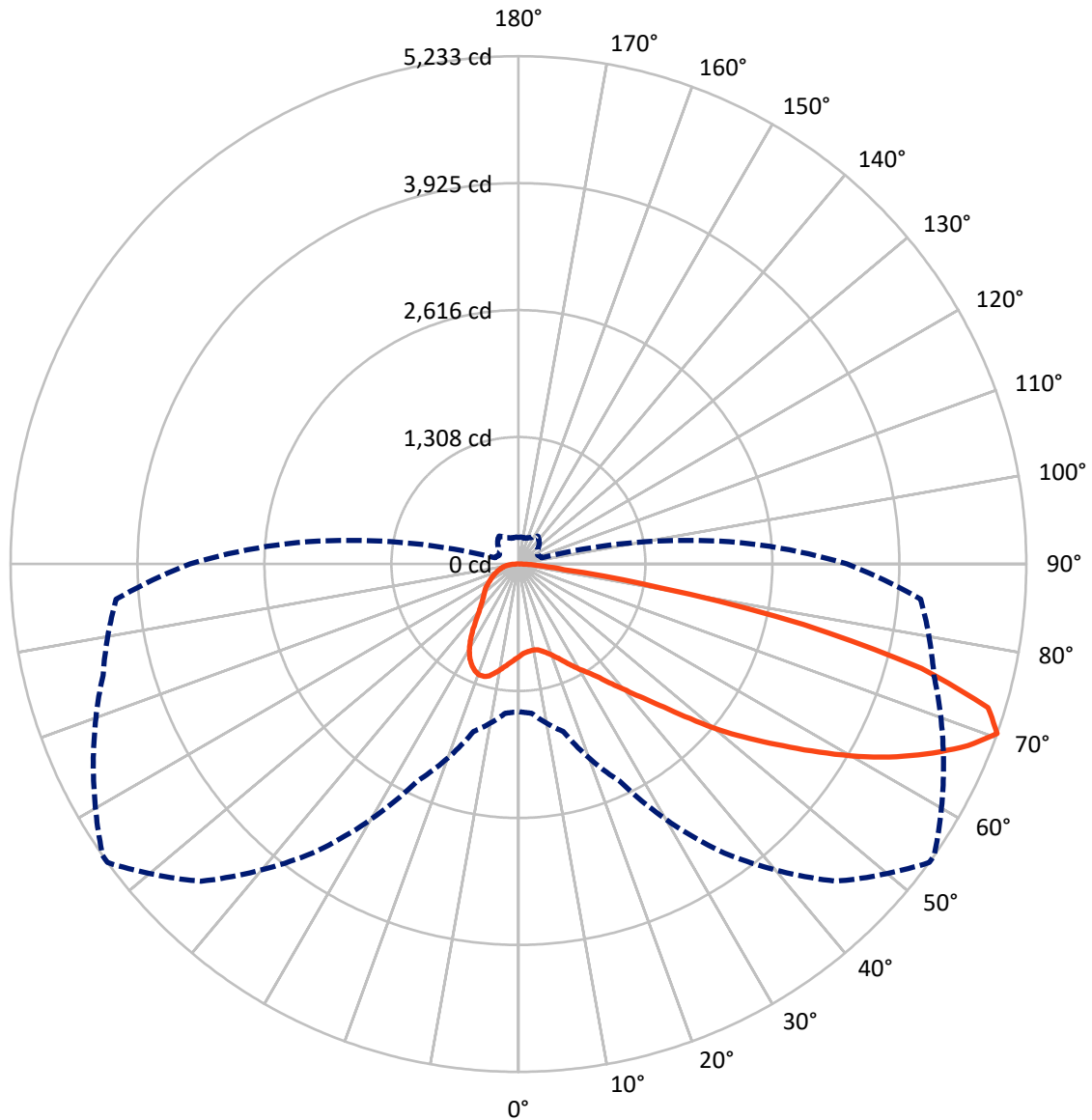
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.1 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1934.1	0.0	1934.1
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	6593.9	0.0	6593.9
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	8528.1	0.0	8528.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.6	1.1
10°-20°	299.2	3.5
20°-30°	519.8	6.1
30°-40°	759.6	8.9
40°-50°	1192.2	14.0
50°-60°	1833.3	21.5
60°-70°	2239.9	26.3
70°-80°	1388.7	16.3
80°-90°	201.7	2.4
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°	8528.1	100.0
0°-180°	8528.1	100.0



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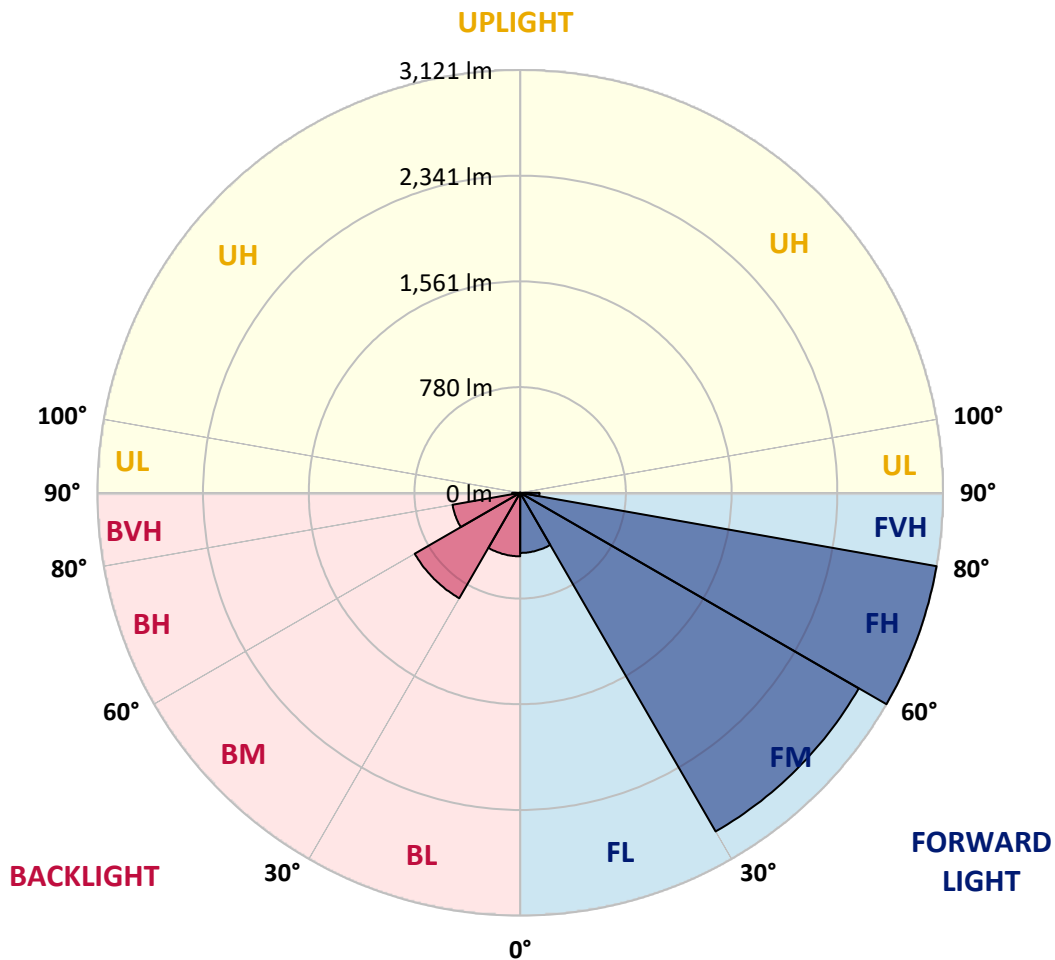
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	443.7	5.2			
FM	(30°-60°)	2886.4	33.8			
FH	(60°-80°)	3121.4	36.6			G2/5000
FVH	(80°-90°)	142.5	1.7			G2/225
BL	(0°-30°)	468.9	5.5	B1/500		
BM	(30°-60°)	898.8	10.5	B1/1000		
BH	(60°-80°)	507.2	5.9	B2/1000		G2/1000
BVH	(80°-90°)	59.3	0.7			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1
2.5°	916.6	913.5	913.5	918.2	919.8	924.4	924.4	926.1	930.7	938.5	947.9
5°	888.6	886.9	888.6	894.8	897.9	907.3	910.4	912.0	921.3	933.8	947.9
7.5°	860.4	858.9	862.1	871.4	880.7	894.8	902.5	904.1	918.2	935.3	954.1
10°	851.1	849.4	854.2	862.1	871.4	886.9	899.5	901.0	921.3	941.7	968.2
12.5°	863.5	862.1	866.7	874.5	883.8	894.8	908.8	910.4	936.9	963.5	991.5
15°	894.8	894.8	896.4	901.0	910.4	919.8	932.3	933.8	961.9	993.2	1021.3
17.5°	943.2	940.0	940.0	938.5	944.7	949.5	965.0	966.7	996.3	1024.3	1052.5
20°	1002.5	1001.0	994.8	986.9	985.4	988.5	1004.0	1005.7	1035.3	1058.7	1085.3
22.5°	1074.4	1075.9	1061.8	1044.6	1036.9	1041.6	1055.6	1057.1	1079.0	1099.3	1122.8
25°	1169.7	1164.9	1144.6	1119.6	1104.0	1104.0	1118.1	1118.1	1138.4	1150.9	1166.4
27.5°	1260.2	1250.8	1232.0	1196.2	1171.2	1175.9	1190.0	1190.0	1208.7	1213.3	1221.2
30°	1358.5	1349.3	1325.8	1280.5	1247.7	1244.6	1261.8	1260.2	1285.1	1283.6	1277.4
32.5°	1478.8	1474.1	1435.1	1377.3	1333.5	1322.7	1338.3	1339.8	1355.5	1350.7	1330.5
35°	1647.4	1646.0	1610.0	1508.4	1450.8	1430.5	1439.8	1439.8	1450.8	1438.1	1403.8
37.5°	1859.9	1862.9	1831.7	1681.7	1600.6	1566.3	1567.8	1566.3	1569.3	1555.3	1519.5
40°	2072.2	2080.0	2078.5	1897.3	1794.3	1734.8	1713.1	1710.0	1717.6	1711.5	1677.1
42.5°	2351.8	2370.4	2326.7	2162.8	2047.1	1947.3	1888.0	1880.2	1897.3	1905.1	1872.3
45°	2642.2	2635.9	2567.3	2448.5	2343.9	2215.8	2103.4	2091.0	2103.4	2126.8	2092.5
47.5°	2793.6	2789.0	2771.8	2712.4	2696.8	2550.1	2379.8	2368.9	2345.5	2378.3	2337.7
50°	3043.5	3048.2	2977.9	2971.7	3037.3	2956.1	2692.1	2667.2	2624.9	2651.5	2617.2
52.5°	3224.6	3204.3	3160.6	3215.3	3419.8	3376.1	2985.7	2974.7	2935.8	2929.6	2913.9
55°	3298.0	3298.0	3305.9	3432.3	3724.4	3666.6	3304.2	3315.3	3262.1	3218.4	3238.7
57.5°	3319.9	3329.3	3396.4	3605.6	4082.0	3893.1	3655.7	3671.3	3594.7	3507.3	3571.3
60°	3212.2	3240.2	3401.2	3704.0	4283.4	4133.6	4025.8	4030.4	3919.6	3791.4	3903.9
62.5°	2935.8	2970.2	3257.4	3744.7	4250.6	4380.2	4375.6	4386.5	4235.0	4075.7	4216.3
65°	2596.9	2631.2	2937.3	3630.7	4225.5	4556.7	4695.6	4725.4	4530.2	4316.1	4411.4
67.5°	2098.8	2144.1	2434.4	3246.6	4103.7	4701.9	4995.5	5026.6	4758.1	4441.1	4394.2
70°	1521.0	1542.7	1786.4	2467.3	3607.2	4622.3	5232.8	5231.3	4833.2	4431.8	4160.1
72.5°	732.4	749.5	960.4	1531.9	2579.8	3922.7	5061.1	5090.8	4730.0	4295.9	3624.4
75°	301.4	318.5	388.8	646.5	1353.8	2592.1	4289.6	4360.0	4295.9	3855.5	2835.8
77.5°	187.3	193.7	228.0	334.2	618.5	1210.2	3002.9	3098.2	3404.2	3088.8	1872.3
80°	140.6	145.3	170.1	234.3	390.5	446.5	1491.2	1611.6	2062.9	1772.4	847.9
82.5°	117.0	118.7	135.9	170.1	265.4	256.0	477.9	532.4	961.9	676.2	291.9
85°	109.4	112.5	121.8	121.8	168.6	160.8	198.3	207.7	279.6	231.1	101.5
87.5°	56.2	53.1	107.7	95.3	87.5	78.2	84.4	90.5	104.7	110.9	45.3
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°	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1	954.1
2.5°	950.9	955.6	963.5	971.2	980.7	991.5	997.8	1005.7	1011.9	1008.7	1007.2
5°	955.6	963.5	980.7	996.3	1015.1	1036.9	1050.9	1066.6	1079.0	1082.2	1077.4
7.5°	963.5	977.5	1001.0	1029.1	1054.0	1082.2	1104.0	1125.8	1141.4	1144.6	1144.6
10°	982.2	997.8	1029.1	1066.6	1096.2	1125.8	1150.9	1168.1	1182.1	1188.4	1188.4
12.5°	1008.7	1027.5	1065.0	1110.2	1143.1	1171.2	1185.3	1193.0	1199.2	1205.5	1207.1
15°	1040.0	1060.3	1105.6	1154.1	1188.4	1202.4	1202.4	1200.9	1200.9	1204.0	1207.1
17.5°	1071.3	1093.1	1139.9	1191.5	1213.3	1205.5	1194.6	1190.0	1186.8	1185.3	1190.0
20°	1104.0	1125.8	1172.7	1221.2	1214.9	1182.1	1166.4	1155.6	1146.1	1141.4	1147.8
22.5°	1139.9	1160.3	1208.7	1241.5	1194.6	1144.6	1114.9	1097.8	1082.2	1072.8	1079.0
25°	1182.1	1202.4	1249.3	1247.7	1158.6	1088.4	1041.6	1013.5	996.3	986.9	986.9
27.5°	1232.0	1249.3	1294.5	1232.0	1108.7	1013.5	944.7	918.2	913.5	905.8	905.8
30°	1283.6	1297.7	1336.7	1196.2	1040.0	915.1	840.2	827.6	829.1	821.4	822.9
32.5°	1336.7	1350.7	1361.7	1143.1	950.9	804.3	754.2	744.9	743.3	737.1	730.9
35°	1411.6	1432.0	1364.9	1071.3	843.2	712.0	676.2	666.8	657.4	635.6	635.6
37.5°	1525.6	1547.5	1357.0	982.2	732.4	640.2	607.4	594.9	579.3	557.5	549.7
40°	1681.7	1681.7	1339.8	882.2	643.4	582.6	551.2	535.6	518.4	496.6	491.9
42.5°	1866.0	1822.3	1313.3	780.7	577.8	543.5	515.3	498.1	477.9	452.8	449.7
45°	2081.6	1962.8	1275.9	690.2	529.5	519.9	502.8	473.1	438.8	412.2	407.7
47.5°	2290.9	2089.4	1239.9	626.2	488.8	510.6	496.6	446.5	399.7	362.2	357.5
50°	2520.4	2201.8	1197.7	573.1	457.5	504.4	488.8	407.7	356.1	329.5	326.4
52.5°	2749.9	2315.8	1152.4	516.9	430.9	491.9	470.1	379.4	354.6	318.5	313.9
55°	2992.0	2448.5	1099.3	454.5	399.7	466.8	445.0	377.8	365.4	318.5	307.6
57.5°	3227.8	2595.4	1013.5	393.5	365.4	429.4	435.7	368.6	342.0	315.5	303.0
60°	3488.6	2751.5	871.4	342.0	335.7	398.2	423.2	348.3	315.5	306.1	299.9
62.5°	3697.9	2892.1	680.8	306.1	310.8	373.2	407.7	335.7	304.5	296.7	295.2
65°	3788.4	2895.1	488.8	274.8	285.8	349.8	392.0	324.7	295.2	291.9	290.4
67.5°	3693.1	2735.9	343.5	245.1	259.3	327.9	371.7	313.9	285.8	287.4	284.3
70°	3385.5	2400.1	251.4	217.1	234.3	304.5	349.8	299.9	274.8	277.9	273.3
72.5°	2832.6	1870.8	201.4	193.7	213.9	279.6	327.9	284.3	257.6	259.3	249.9
75°	2092.5	1239.9	168.6	173.4	190.5	256.0	299.9	263.9	238.9	232.8	226.5
77.5°	1244.6	637.1	139.0	151.5	170.1	228.0	268.7	238.9	218.6	207.7	202.9
80°	513.8	257.6	113.9	128.1	148.3	202.9	237.3	209.2	195.2	184.2	178.0
82.5°	204.5	126.5	90.5	104.7	125.0	176.4	207.7	184.2	170.1	162.5	145.3
85°	78.2	62.4	60.9	73.4	93.8	135.9	171.8	154.6	143.6	123.3	118.7
87.5°	31.3	28.0	28.0	35.9	53.1	85.9	123.3	107.7	112.5	89.0	90.5
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)