

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: P214721

Luminaire Tested: **ARCH-AF24-100-D-U-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214721  
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-AF24-100-D-U-T3-7030  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8779 lumens  
Efficiency: N/A  
Efficacy: 91.4 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

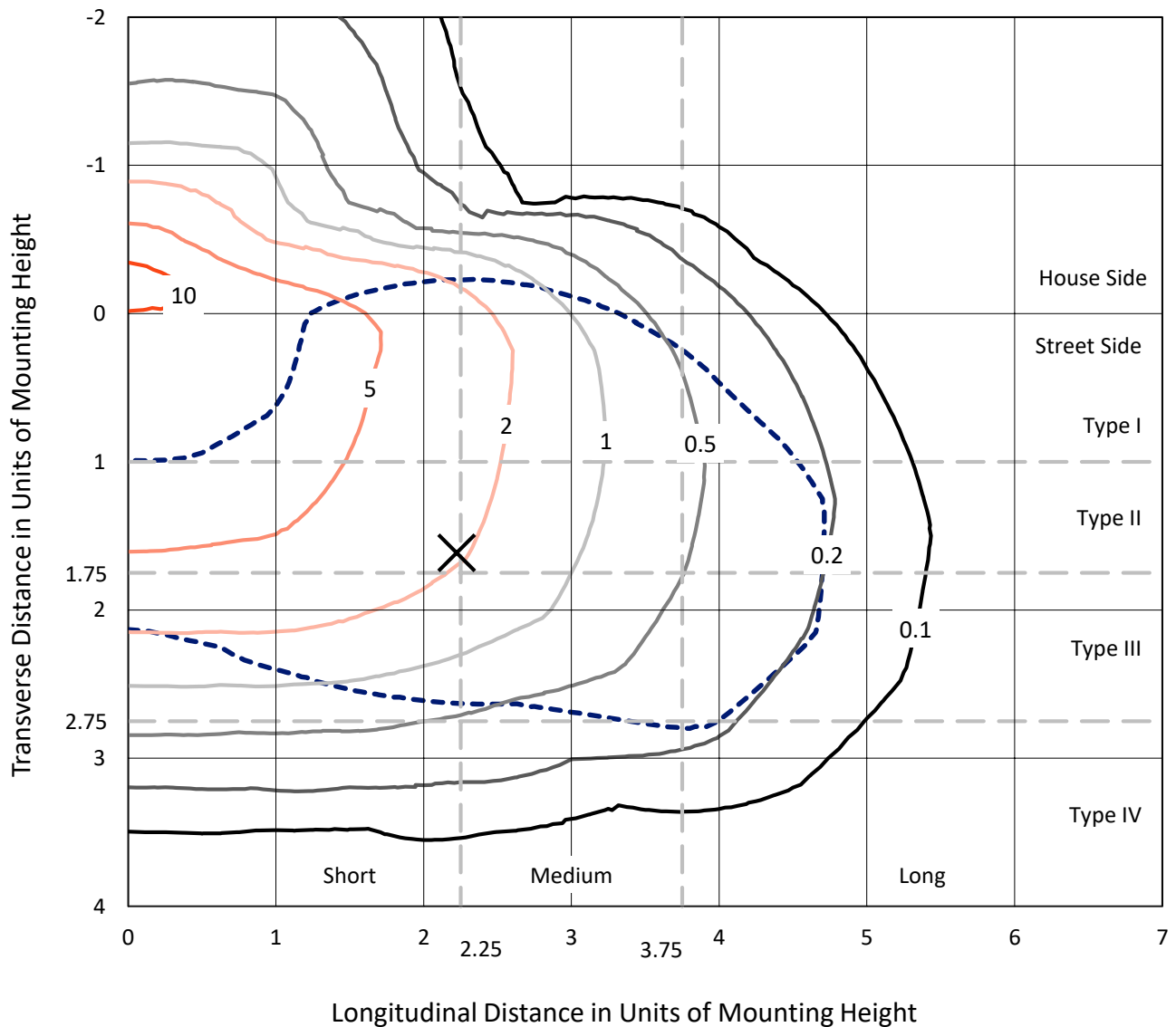
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

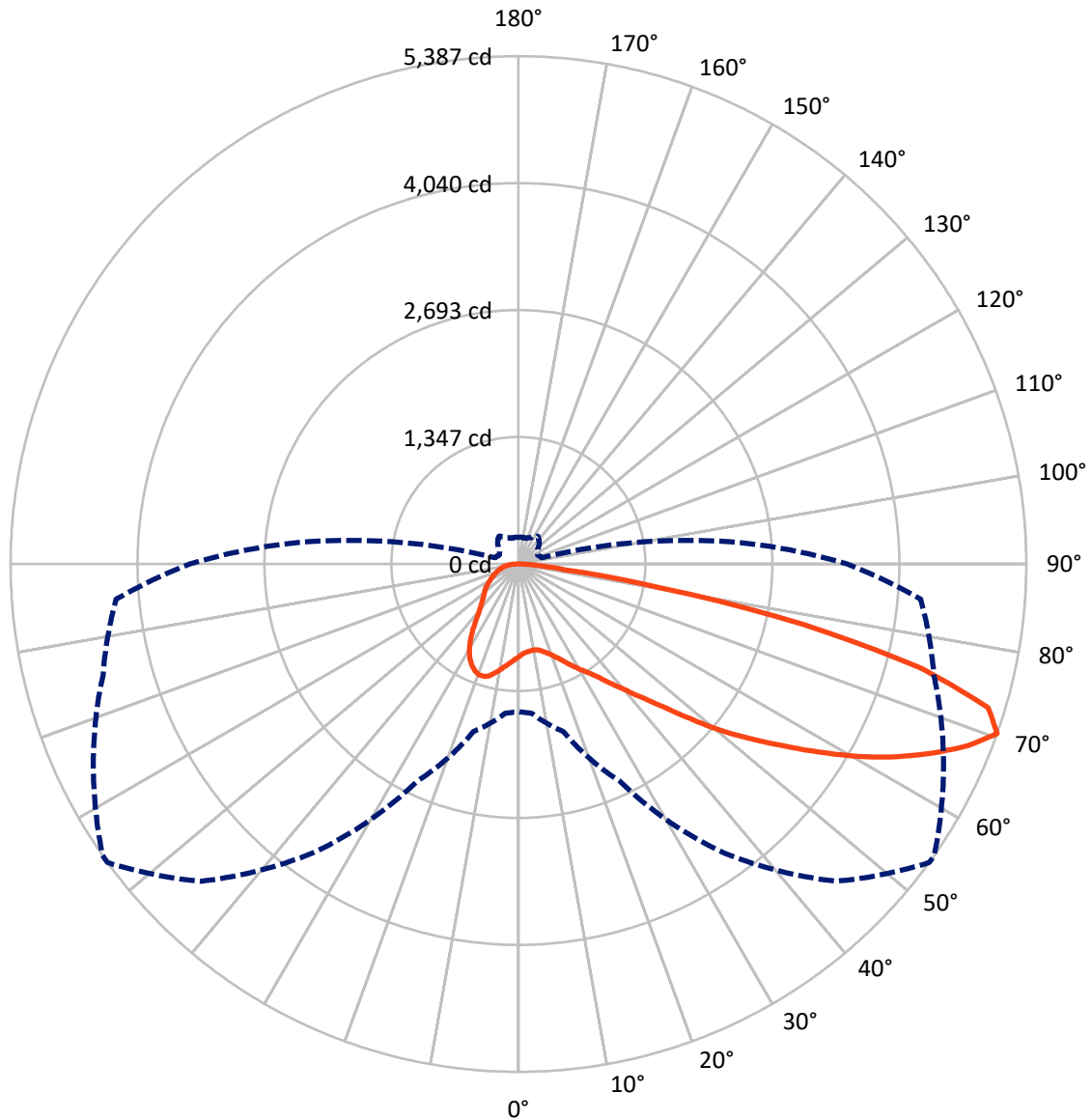
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.4 fc  
 Type III - Short - Non-Cutoff

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CATALOG NUMBER: ARCH-AF24-100-D-U-T3-7030

### Luminous Intensity Polar Plot



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

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CATALOG NUMBER: ARCH-AF24-100-D-U-T3-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1991.0	0.0	1991.0
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	6788.0	0.0	6788.0
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	8779.0	0.0	8779.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.4	1.1
10°-20°	308.0	3.5
20°-30°	535.1	6.1
30°-40°	782.0	8.9
40°-50°	1227.3	14.0
50°-60°	1887.3	21.5
60°-70°	2305.8	26.3
70°-80°	1429.6	16.3
80°-90°	207.7	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°	8779.0	100.0
0°-180°	8779.0	100.0



REPORT NUMBER: P214721

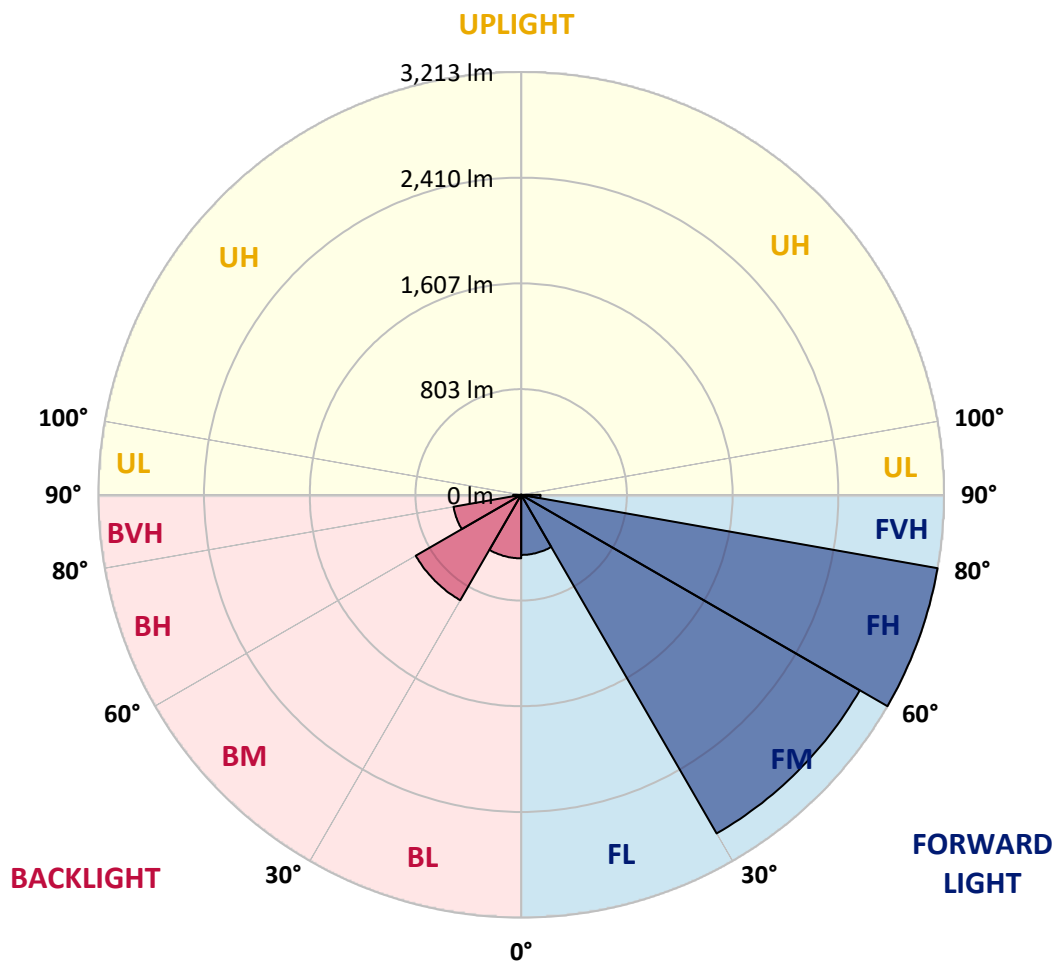
CATALOG NUMBER: ARCH-AF24-100-D-U-T3-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	456.8	5.2			
FM	(30°-60°)	2971.3	33.8			
FH	(60°-80°)	3213.2	36.6			G2/5000
FVH	(80°-90°)	146.6	1.7			G2/225
BL	(0°-30°)	482.7	5.5	B1/500		
BM	(30°-60°)	925.2	10.5	B1/1000		
BH	(60°-80°)	522.1	5.9	B2/1000		G2/1000
BVH	(80°-90°)	61.0	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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CATALOG NUMBER: ARCH-AF24-100-D-U-T3-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2
2.5°	943.6	940.4	940.4	945.2	946.8	951.6	951.6	953.3	958.1	966.1	975.8
5°	914.7	913.1	914.7	921.1	924.3	934.0	937.2	938.8	948.4	961.3	975.8
7.5°	885.7	884.1	887.3	897.0	906.6	921.1	929.1	930.8	945.2	962.9	982.2
10°	876.1	874.5	879.3	887.3	897.0	913.1	925.9	927.5	948.4	969.3	996.7
12.5°	889.0	887.3	892.2	900.2	909.9	921.1	935.6	937.2	964.5	991.8	1020.8
15°	921.1	921.1	922.7	927.5	937.2	946.8	959.7	961.3	990.2	1022.4	1051.3
17.5°	970.9	967.7	967.7	966.1	972.5	977.4	993.4	995.1	1025.6	1054.5	1083.5
20°	1032.0	1030.4	1024.0	1016.0	1014.3	1017.6	1033.6	1035.2	1065.8	1089.9	1117.2
22.5°	1106.0	1107.6	1093.1	1075.4	1067.4	1072.2	1086.7	1088.3	1110.8	1131.7	1155.8
25°	1204.0	1199.2	1178.3	1152.6	1136.5	1136.5	1151.0	1151.0	1171.9	1184.7	1200.8
27.5°	1297.3	1287.6	1268.3	1231.4	1205.6	1210.5	1224.9	1224.9	1244.2	1249.0	1257.1
30°	1398.5	1388.9	1364.8	1318.2	1284.4	1281.2	1298.9	1297.3	1323.0	1321.4	1314.9
32.5°	1522.3	1517.5	1477.3	1417.8	1372.8	1361.6	1377.6	1379.2	1395.3	1390.5	1369.6
35°	1695.9	1694.3	1657.3	1552.9	1493.4	1472.5	1482.1	1482.1	1493.4	1480.5	1445.2
37.5°	1914.6	1917.8	1885.6	1731.3	1647.7	1612.3	1613.9	1612.3	1615.6	1601.1	1564.1
40°	2133.2	2141.2	2139.6	1953.1	1847.0	1786.0	1763.4	1760.2	1768.3	1761.8	1726.5
42.5°	2420.9	2440.2	2395.2	2226.4	2107.5	2004.6	1943.5	1935.5	1953.1	1961.2	1927.4
45°	2719.9	2713.5	2642.8	2520.6	2412.9	2281.1	2165.3	2152.5	2165.3	2189.4	2154.1
47.5°	2875.8	2871.0	2853.3	2792.3	2776.2	2625.1	2449.9	2438.6	2414.5	2448.2	2406.5
50°	3133.1	3137.9	3065.5	3059.1	3126.6	3043.0	2771.4	2745.6	2702.2	2729.6	2694.2
52.5°	3319.5	3298.6	3253.6	3309.9	3520.5	3475.5	3073.6	3062.3	3022.1	3015.7	2999.6
55°	3395.1	3395.1	3403.1	3533.3	3833.9	3774.4	3401.5	3412.8	3358.1	3313.1	3334.0
57.5°	3417.6	3427.2	3496.3	3711.8	4202.0	4007.5	3763.2	3779.3	3700.5	3610.5	3676.4
60°	3306.7	3335.6	3501.2	3813.0	4409.4	4255.1	4144.2	4149.0	4034.9	3903.1	4018.8
62.5°	3022.1	3057.5	3353.3	3854.8	4375.7	4509.1	4504.3	4515.5	4359.6	4195.6	4340.3
65°	2673.3	2708.7	3023.7	3737.5	4349.9	4690.7	4833.8	4864.3	4663.4	4443.2	4541.2
67.5°	2160.5	2207.1	2506.1	3342.0	4224.6	4840.2	5142.4	5174.6	4898.1	4571.8	4523.6
70°	1565.7	1588.2	1839.0	2539.9	3713.4	4758.2	5386.8	5385.2	4975.3	4562.1	4282.4
72.5°	753.9	771.6	988.6	1577.0	2655.6	4038.1	5210.0	5240.5	4869.2	4422.3	3731.0
75°	310.3	327.9	400.3	665.5	1393.7	2668.5	4415.8	4488.2	4422.3	3969.0	2919.3
77.5°	192.9	199.3	234.7	344.0	636.6	1245.8	3091.3	3189.3	3504.4	3179.7	1927.4
80°	144.7	149.5	175.2	241.1	401.9	459.7	1535.2	1659.0	2123.5	1824.5	872.9
82.5°	120.6	122.2	139.9	175.2	273.3	263.6	491.9	548.2	990.2	696.1	300.6
85°	112.5	115.7	125.4	125.4	173.6	165.6	204.2	213.8	287.7	237.9	104.5
87.5°	57.9	54.7	110.9	98.1	90.0	80.4	86.8	93.2	107.7	114.1	46.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P214721

CATALOG NUMBER: ARCH-AF24-100-D-U-T3-7030

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2	982.2
2.5°	979.0	983.8	991.8	999.9	1009.5	1020.8	1027.2	1035.2	1041.7	1038.5	1036.8
5°	983.8	991.8	1009.5	1025.6	1044.9	1067.4	1081.9	1097.9	1110.8	1114.0	1109.2
7.5°	991.8	1006.3	1030.4	1059.4	1085.1	1114.0	1136.5	1159.0	1175.1	1178.3	1178.3
10°	1011.1	1027.2	1059.4	1097.9	1128.5	1159.0	1184.7	1202.4	1216.9	1223.3	1223.3
12.5°	1038.5	1057.7	1096.3	1142.9	1176.7	1205.6	1220.1	1228.1	1234.6	1241.0	1242.6
15°	1070.6	1091.5	1138.1	1188.0	1223.3	1237.8	1237.8	1236.2	1236.2	1239.4	1242.6
17.5°	1102.8	1125.3	1173.5	1226.5	1249.0	1241.0	1229.8	1224.9	1221.7	1220.1	1224.9
20°	1136.5	1159.0	1207.2	1257.1	1250.6	1216.9	1200.8	1189.6	1179.9	1175.1	1181.5
22.5°	1173.5	1194.4	1244.2	1278.0	1229.8	1178.3	1147.8	1130.1	1114.0	1104.4	1110.8
25°	1216.9	1237.8	1286.0	1284.4	1192.8	1120.4	1072.2	1043.3	1025.6	1016.0	1016.0
27.5°	1268.3	1286.0	1332.6	1268.3	1141.3	1043.3	972.5	945.2	940.4	932.4	932.4
30°	1321.4	1335.8	1376.0	1231.4	1070.6	942.0	864.8	852.0	853.6	845.6	847.2
32.5°	1376.0	1390.5	1401.8	1176.7	979.0	827.9	776.4	766.8	765.2	758.7	752.3
35°	1453.2	1474.1	1405.0	1102.8	868.1	733.0	696.1	686.4	676.8	654.3	654.3
37.5°	1570.5	1593.0	1396.9	1011.1	753.9	659.1	625.3	612.5	596.4	573.9	565.8
40°	1731.3	1731.3	1379.2	908.2	662.3	599.6	567.5	551.4	533.7	511.2	506.4
42.5°	1921.0	1876.0	1351.9	803.8	594.8	559.4	530.5	512.8	491.9	466.2	463.0
45°	2142.8	2020.6	1313.3	710.5	544.9	535.3	517.6	487.1	451.7	424.4	419.6
47.5°	2358.2	2150.9	1276.4	644.6	503.2	525.7	511.2	459.7	411.5	372.9	368.1
50°	2594.5	2266.6	1233.0	590.0	471.0	519.2	503.2	419.6	366.5	339.2	336.0
52.5°	2830.8	2383.9	1186.3	532.1	443.7	506.4	483.9	390.6	364.9	327.9	323.1
55°	3080.0	2520.6	1131.7	467.8	411.5	480.6	458.1	389.0	376.2	327.9	316.7
57.5°	3322.7	2671.7	1043.3	405.1	376.2	442.1	448.5	379.4	352.0	324.7	311.9
60°	3591.2	2832.4	897.0	352.0	345.6	409.9	435.6	358.5	324.7	315.1	308.6
62.5°	3806.6	2977.1	700.9	315.1	319.9	384.2	419.6	345.6	313.5	305.4	303.8
65°	3899.8	2980.3	503.2	282.9	294.2	360.1	403.5	334.4	303.8	300.6	299.0
67.5°	3801.8	2816.4	353.7	252.4	266.8	337.6	382.6	323.1	294.2	295.8	292.6
70°	3485.1	2470.8	258.8	223.4	241.1	313.5	360.1	308.6	282.9	286.1	281.3
72.5°	2916.0	1925.8	207.4	199.3	220.2	287.7	337.6	292.6	265.2	266.8	257.2
75°	2154.1	1276.4	173.6	178.4	196.1	263.6	308.6	271.7	246.0	239.5	233.1
77.5°	1281.2	655.9	143.1	155.9	175.2	234.7	276.5	246.0	225.1	213.8	209.0
80°	528.9	265.2	117.3	131.8	152.7	209.0	244.3	215.4	200.9	189.7	183.3
82.5°	210.6	130.2	93.2	107.7	128.6	181.6	213.8	189.7	175.2	167.2	149.5
85°	80.4	64.3	62.7	75.6	96.5	139.9	176.8	159.1	147.9	127.0	122.2
87.5°	32.2	28.9	28.9	37.0	54.7	88.4	127.0	110.9	115.7	91.6	93.2
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)