

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: P265785

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265785
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-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 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: 8594.8 lumens
Efficiency: N/A
Efficacy: 117.7 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): 73
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

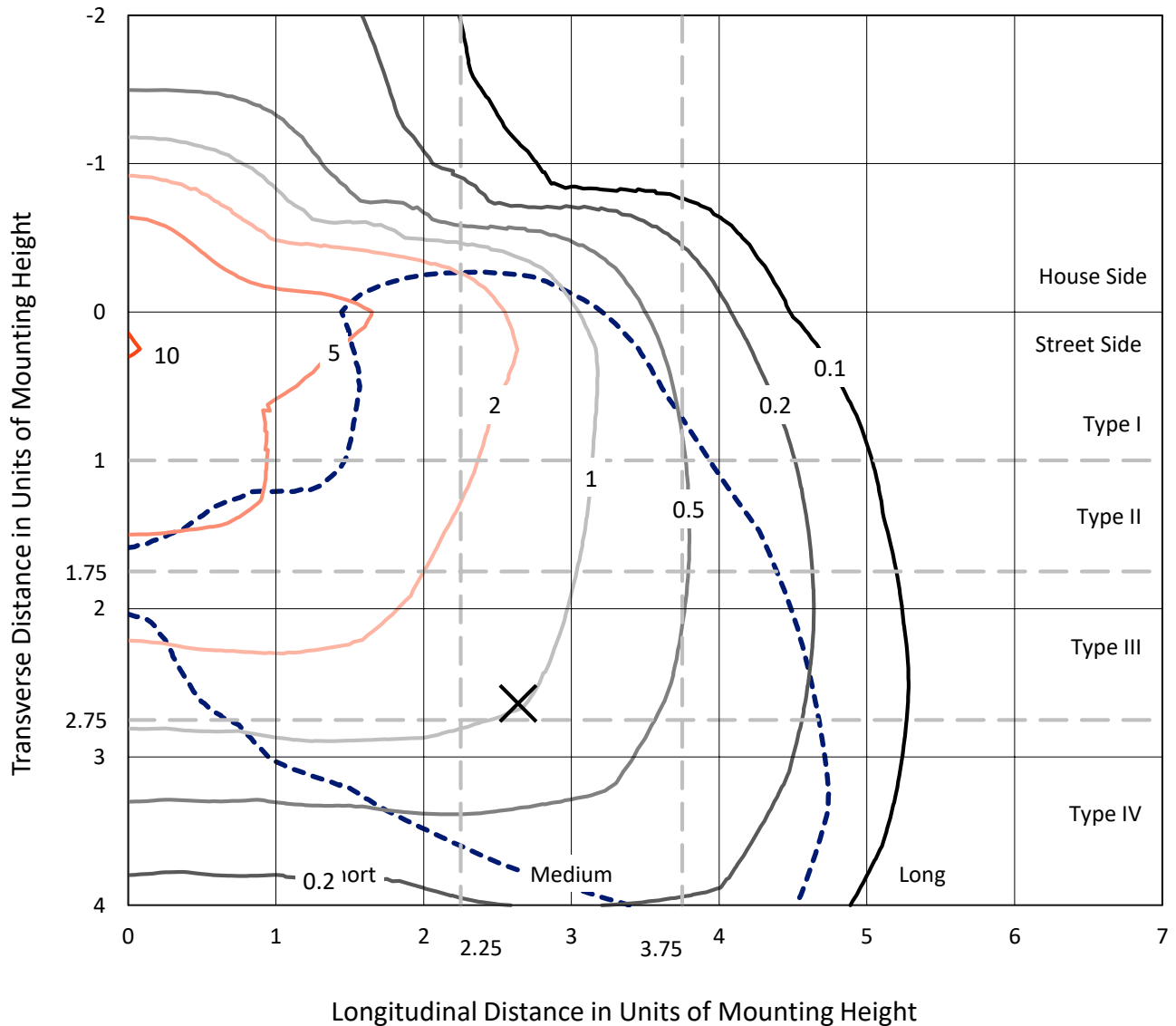


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

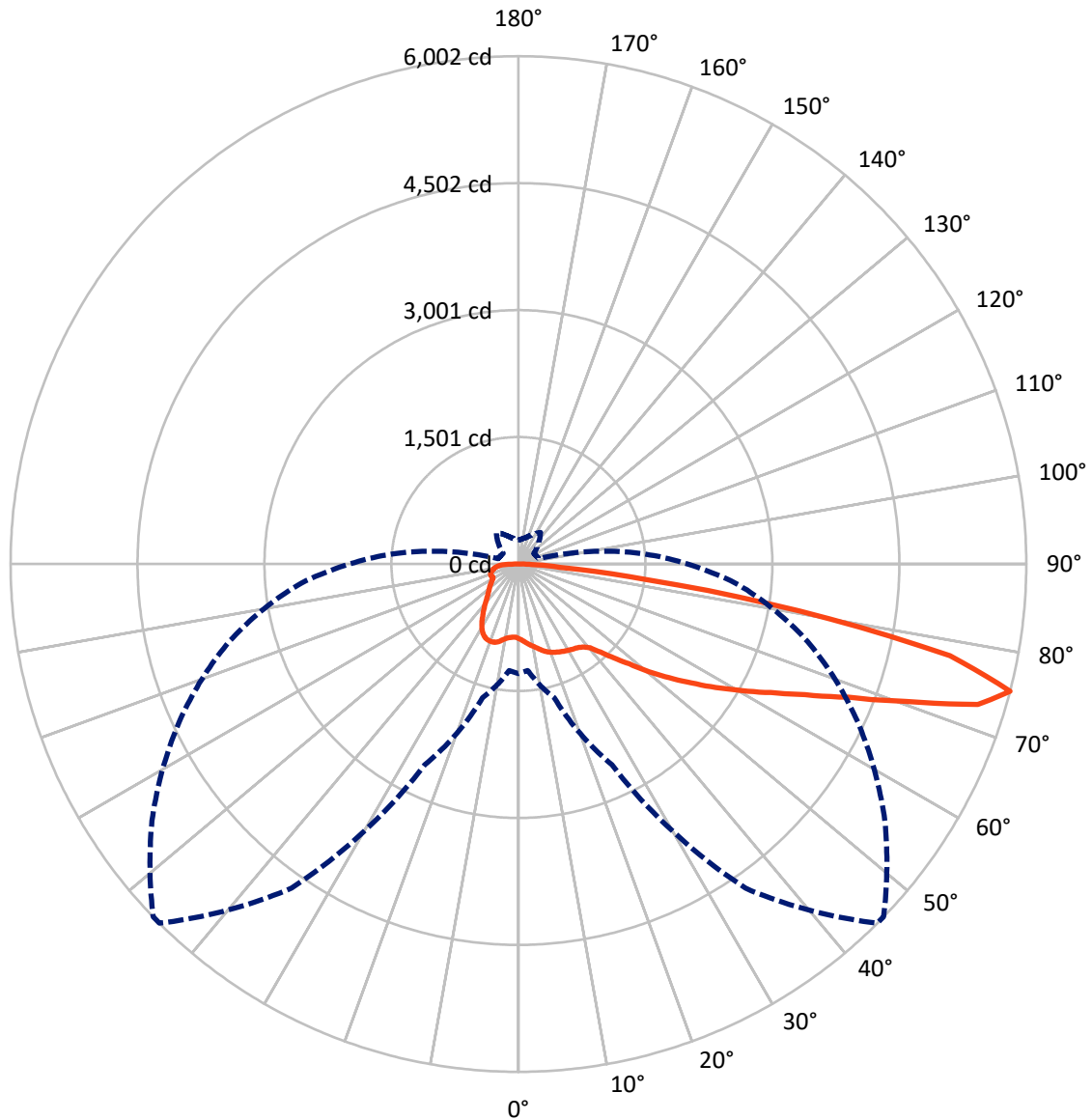


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc
 Type IV - Medium - Non-Cutoff

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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
House Side	Lumens	1991.1	0.0	1991.1
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	6603.8	0.0	6603.8
	% Fixture	76.8	0.0	76.8
Total	Lumens	8594.8	0.0	8594.8
	% 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°	485.6	5.6
30°-40°	679.1	7.9
40°-50°	996.2	11.6
50°-60°	1551.8	18.1
60°-70°	2232.9	26.0
70°-80°	1945.1	22.6
80°-90°	334.0	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°	8594.8	100.0
0°-180°	8594.8	100.0



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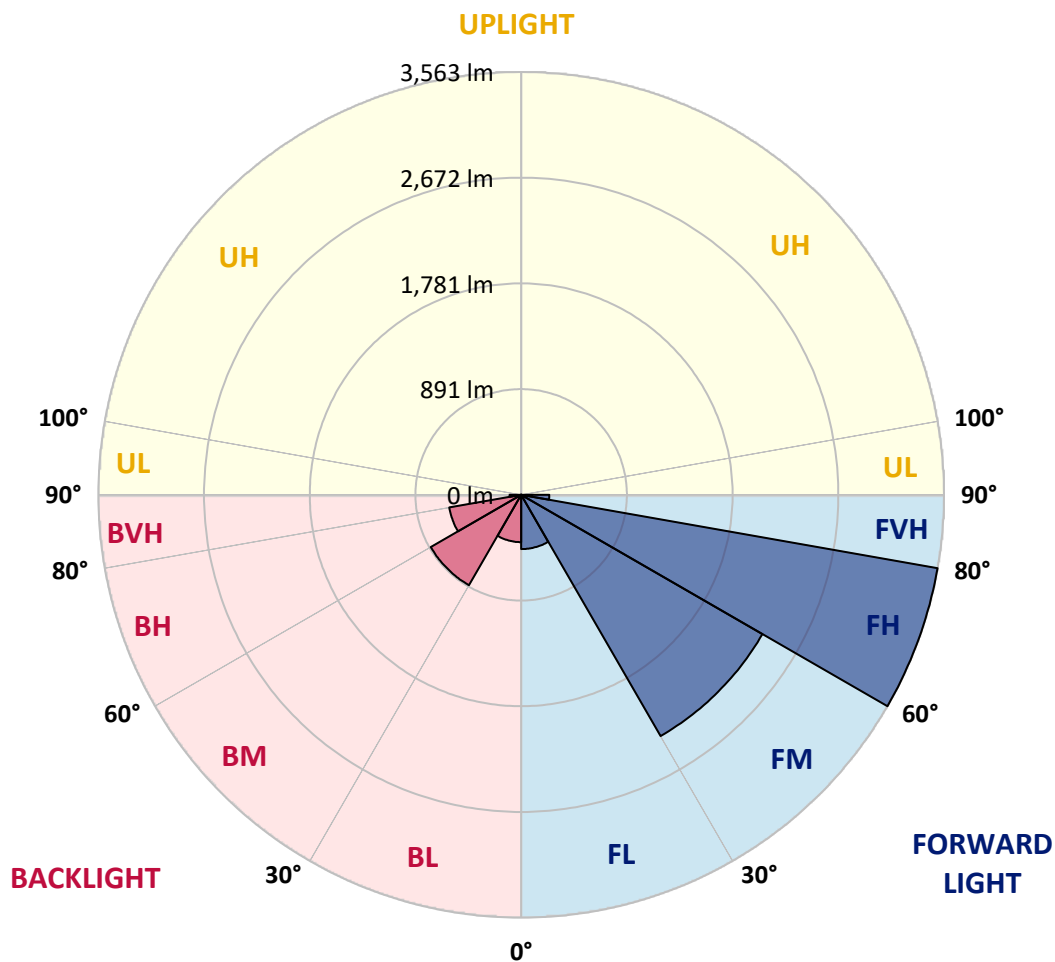
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	457.0	5.3			
FM	(30°-60°)	2347.1	27.3			
FH	(60°-80°)	3562.6	41.5			G2/5000
FVH	(80°-90°)	237.0	2.8			G3/500
BL	(0°-30°)	398.8	4.6	B1/500		
BM	(30°-60°)	879.9	10.2	B1/1000		
BH	(60°-80°)	615.3	7.2	B2/1000		G2/1000
BVH	(80°-90°)	97.0	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°	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1
2.5°	924.5	917.9	917.9	912.9	912.9	904.6	901.2	899.6	891.1	886.1	881.1
5°	978.1	969.7	968.1	956.3	951.3	932.9	931.3	919.5	904.6	889.4	877.7
7.5°	1026.6	1021.6	1013.2	1001.5	986.3	963.1	961.4	943.0	917.9	897.9	881.1
10°	1061.6	1058.4	1046.6	1031.6	1014.8	991.4	989.8	969.7	939.5	916.2	892.7
12.5°	1103.5	1098.4	1083.4	1063.4	1045.0	1023.2	1021.6	1004.8	971.3	941.2	911.2
15°	1143.6	1136.8	1118.5	1098.4	1078.3	1060.0	1060.0	1041.6	1006.6	971.3	936.3
17.5°	1163.7	1160.3	1141.9	1120.1	1103.5	1090.1	1088.3	1071.7	1036.6	999.9	961.4
20°	1170.3	1172.0	1155.3	1131.9	1120.1	1113.4	1111.8	1100.2	1061.6	1026.6	989.8
22.5°	1168.7	1173.6	1160.3	1135.2	1131.9	1131.9	1131.9	1118.5	1088.3	1053.4	1016.5
25°	1175.3	1182.0	1172.0	1141.9	1141.9	1148.7	1148.7	1141.9	1115.2	1085.1	1048.3
27.5°	1198.8	1203.8	1195.5	1153.7	1155.3	1165.3	1163.7	1165.3	1148.7	1120.1	1083.4
30°	1227.2	1233.8	1223.9	1172.0	1170.3	1180.4	1180.4	1188.7	1177.0	1147.0	1116.9
32.5°	1304.1	1302.5	1270.7	1192.1	1187.0	1197.1	1197.1	1205.4	1198.8	1175.3	1147.0
35°	1533.1	1508.1	1437.8	1257.3	1207.1	1212.2	1212.2	1227.2	1230.5	1212.2	1187.0
37.5°	1767.1	1758.8	1705.3	1431.2	1280.7	1244.0	1242.3	1263.9	1278.9	1263.9	1247.2
40°	2003.0	1996.3	1984.5	1663.5	1434.6	1300.7	1295.7	1314.1	1340.9	1330.7	1320.8
42.5°	2222.0	2218.6	2230.3	1892.5	1630.2	1422.7	1407.7	1386.1	1424.4	1421.1	1421.1
45°	2394.2	2402.5	2409.3	2106.5	1842.5	1579.9	1561.6	1488.0	1539.9	1553.2	1563.2
47.5°	2491.1	2497.8	2521.3	2315.7	2054.8	1762.1	1748.8	1628.4	1697.0	1737.1	1765.4
50°	2629.9	2611.6	2631.6	2519.6	2310.6	1999.5	1962.7	1817.4	1904.2	1974.6	2041.4
52.5°	2763.6	2733.5	2750.3	2755.3	2601.5	2232.0	2193.5	2039.7	2148.3	2258.8	2377.5
55°	2884.0	2882.3	2899.1	2984.3	2882.3	2481.1	2437.6	2285.5	2442.6	2561.3	2762.0
57.5°	2980.9	2997.7	3071.2	3250.2	3206.7	2752.0	2703.4	2571.4	2757.0	2875.7	3208.3
60°	3094.8	3121.4	3243.5	3475.9	3502.6	3036.2	2986.1	2890.7	3079.7	3200.0	3725.0
62.5°	3133.2	3171.6	3422.5	3713.4	3812.0	3347.2	3302.0	3238.5	3418.9	3527.7	4239.9
65°	2877.4	2950.9	3521.0	3835.4	4144.6	3721.7	3683.2	3628.1	3756.7	3828.7	4589.4
67.5°	2807.2	2840.6	3328.8	4010.9	4457.3	4203.2	4164.7	4069.4	4072.7	4042.6	4703.0
70°	2708.5	2745.3	3131.5	4143.0	4905.4	4861.8	4815.1	4534.1	4362.0	4179.8	4478.9
72.5°	2307.2	2295.4	2698.5	3786.9	5121.1	5677.7	5622.6	5034.1	4576.0	4061.1	3780.2
75°	1295.7	1262.3	1636.8	2619.8	4676.2	6002.1	6000.5	5286.5	4425.5	3537.7	2573.0
77.5°	376.2	366.1	540.1	1098.4	3148.2	5214.8	5278.3	4768.3	3693.2	2541.2	1412.8
80°	177.2	180.6	232.4	362.7	1344.3	3365.5	3547.8	3139.8	2207.0	1172.0	583.4
82.5°	112.0	113.6	158.8	234.1	568.4	1528.1	1678.7	1412.8	874.4	506.6	257.5
85°	70.2	70.2	105.3	153.8	339.4	488.1	530.0	481.5	374.6	275.9	140.4
87.5°	38.4	38.4	63.5	88.7	185.6	157.2	162.1	192.2	234.1	168.8	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°	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1	881.1
2.5°	879.4	876.0	871.0	869.4	867.8	866.1	867.8	871.0	867.8	867.8	869.4
5°	874.4	871.0	864.3	864.3	866.1	867.8	876.0	881.1	882.8	882.8	882.8
7.5°	874.4	869.4	864.3	866.1	869.4	876.0	889.4	897.9	904.6	906.2	906.2
10°	882.8	876.0	872.8	876.0	886.1	891.1	904.6	917.9	926.2	929.6	929.6
12.5°	897.9	891.1	891.1	897.9	911.2	917.9	929.6	939.5	949.7	954.7	954.7
15°	922.9	914.6	916.2	927.9	943.0	949.7	958.0	961.4	969.7	976.4	976.4
17.5°	946.4	937.9	941.2	954.7	964.7	968.1	973.0	971.3	974.8	979.7	981.4
20°	973.0	964.7	966.3	974.8	976.4	973.0	973.0	968.1	966.3	974.8	978.1
22.5°	999.9	991.4	989.8	984.7	976.4	968.1	963.1	958.0	954.7	963.1	966.3
25°	1031.6	1019.8	1011.5	989.8	968.1	953.0	946.4	943.0	941.2	949.7	953.0
27.5°	1066.6	1055.0	1029.8	983.0	948.0	922.9	917.9	917.9	921.2	926.2	929.6
30°	1100.2	1088.3	1043.3	968.1	912.9	876.0	871.0	876.0	884.4	889.4	894.4
32.5°	1133.5	1121.9	1051.6	944.6	861.0	814.3	810.9	819.3	832.5	836.0	839.2
35°	1178.7	1167.0	1061.6	911.2	795.8	745.7	742.3	747.3	759.1	764.1	769.0
37.5°	1242.3	1235.4	1076.7	874.4	735.6	680.5	670.5	667.1	673.8	672.1	678.8
40°	1325.8	1330.7	1103.5	825.9	677.1	620.3	598.5	588.5	581.8	568.4	575.2
42.5°	1447.9	1451.2	1133.5	770.7	626.9	563.4	535.0	516.6	503.2	481.5	484.8
45°	1626.8	1598.4	1168.7	712.3	581.8	518.3	484.8	463.2	444.8	426.3	428.0
47.5°	1864.2	1777.2	1207.1	663.8	536.6	481.5	451.4	426.3	404.5	389.5	391.2
50°	2156.7	1999.5	1245.6	618.7	491.6	453.0	426.3	399.6	377.8	362.7	361.1
52.5°	2542.9	2267.1	1270.7	568.4	446.4	428.0	404.5	379.5	352.8	334.3	332.7
55°	2944.3	2578.0	1292.4	508.3	402.9	399.6	387.9	359.4	327.7	304.3	300.9
57.5°	3385.6	2910.8	1309.1	449.7	369.6	376.2	372.8	339.4	304.3	282.5	280.9
60°	3786.9	3255.2	1255.7	397.9	339.4	352.8	356.1	327.7	309.2	314.2	316.1
62.5°	4191.4	3521.0	1051.6	359.4	319.3	337.8	366.1	364.5	356.1	364.5	366.1
65°	4336.8	3576.2	745.7	327.7	299.2	344.4	397.9	394.5	356.1	341.0	337.8
67.5°	4255.0	3412.3	501.6	302.5	284.3	352.8	431.4	394.5	342.8	322.8	316.1
70°	3865.4	3009.4	367.9	277.5	270.8	351.1	449.7	392.9	336.1	314.2	306.0
72.5°	3083.1	2322.3	295.9	254.1	250.7	342.8	459.8	389.5	329.4	306.0	295.9
75°	1996.3	1444.6	249.1	230.8	220.8	329.4	454.7	379.5	321.1	291.0	284.3
77.5°	926.2	621.9	212.3	203.9	192.2	309.2	439.7	359.4	302.5	274.3	265.8
80°	431.4	294.3	178.9	177.2	172.2	292.6	419.7	336.1	280.9	257.5	244.1
82.5°	230.8	177.2	145.4	145.4	150.5	272.5	394.5	307.6	252.5	240.7	205.6
85°	122.1	102.0	105.3	113.6	128.7	240.7	361.1	277.5	220.8	184.0	178.9
87.5°	61.9	65.1	65.1	77.0	98.6	195.7	297.6	229.1	187.2	150.5	147.1
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)