

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: P231273

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231273
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-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 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: 8757 lumens
Efficiency: N/A
Efficacy: 120.0 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

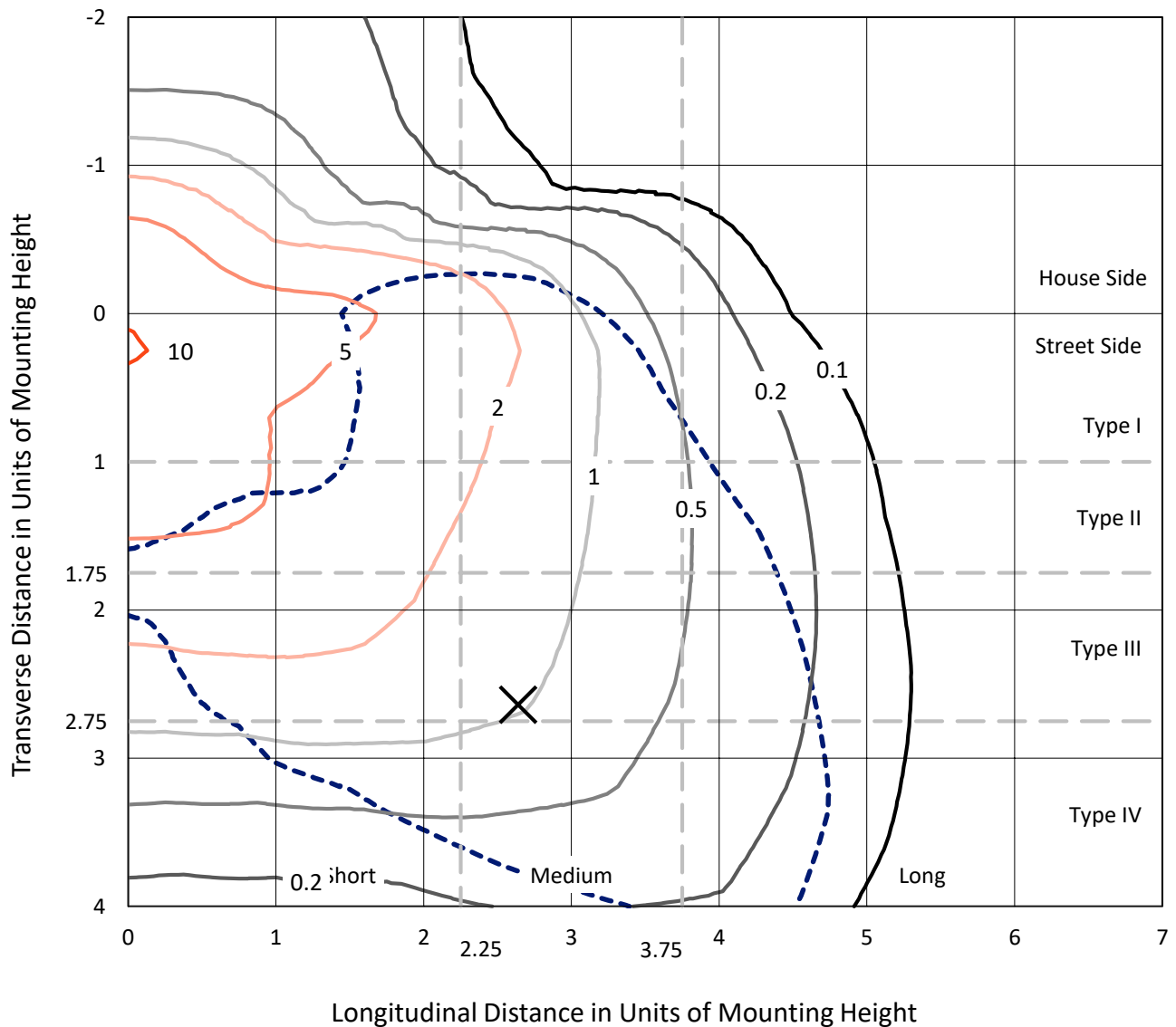


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

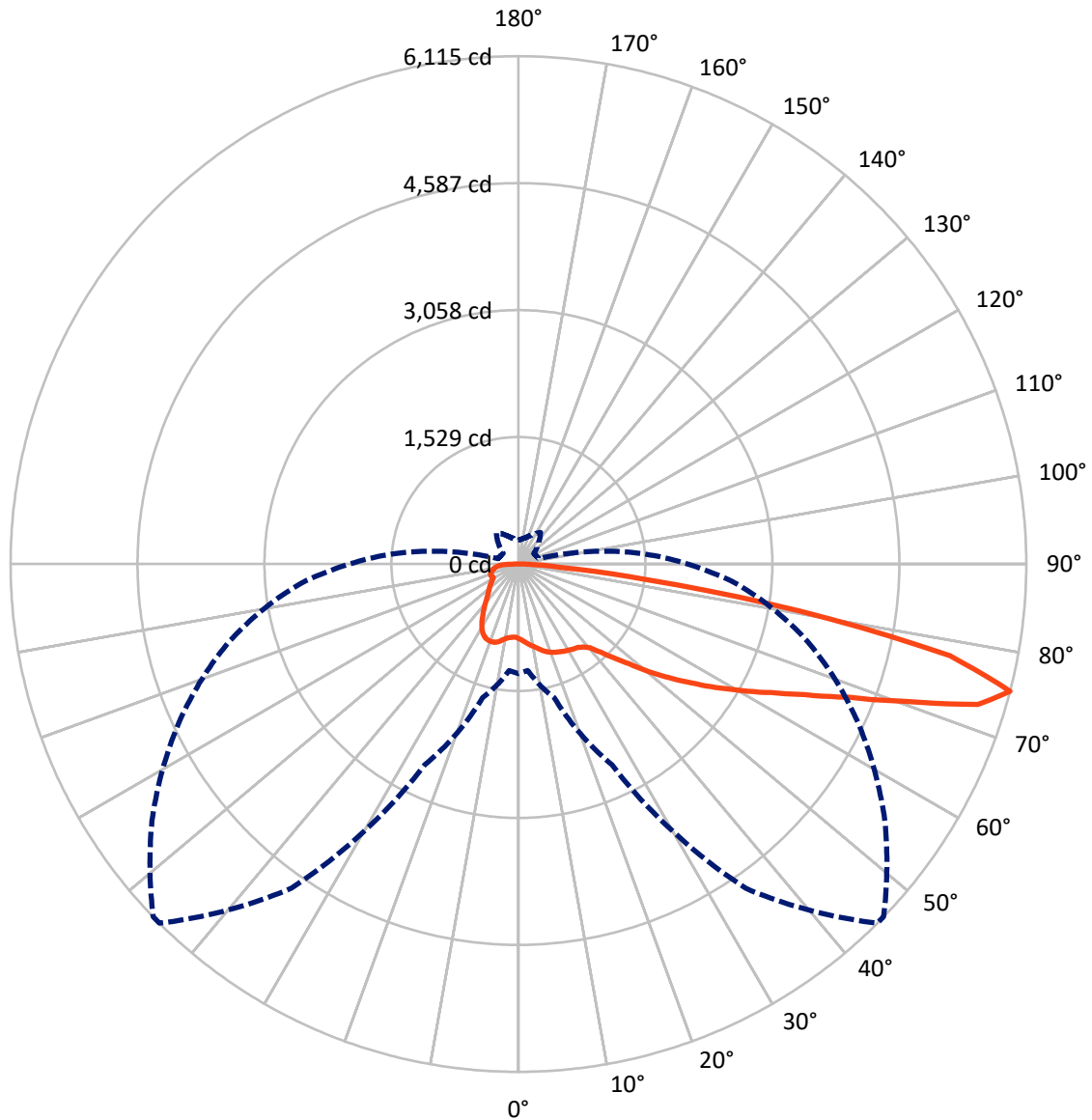


Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type IV - Medium - Non-Cutoff

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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
House Side	Lumens	2028.6	0.0	2028.6
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	6728.4	0.0	6728.4
	% Fixture	76.8	0.0	76.8
Total	Lumens	8757.0	0.0	8757.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	1.0
10°-20°	288.3	3.3
20°-30°	494.7	5.6
30°-40°	691.9	7.9
40°-50°	1015.0	11.6
50°-60°	1581.0	18.1
60°-70°	2275.0	26.0
70°-80°	1981.8	22.6
80°-90°	340.3	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°	8757.0	100.0
0°-180°	8757.0	100.0

Coefficient of Utilization



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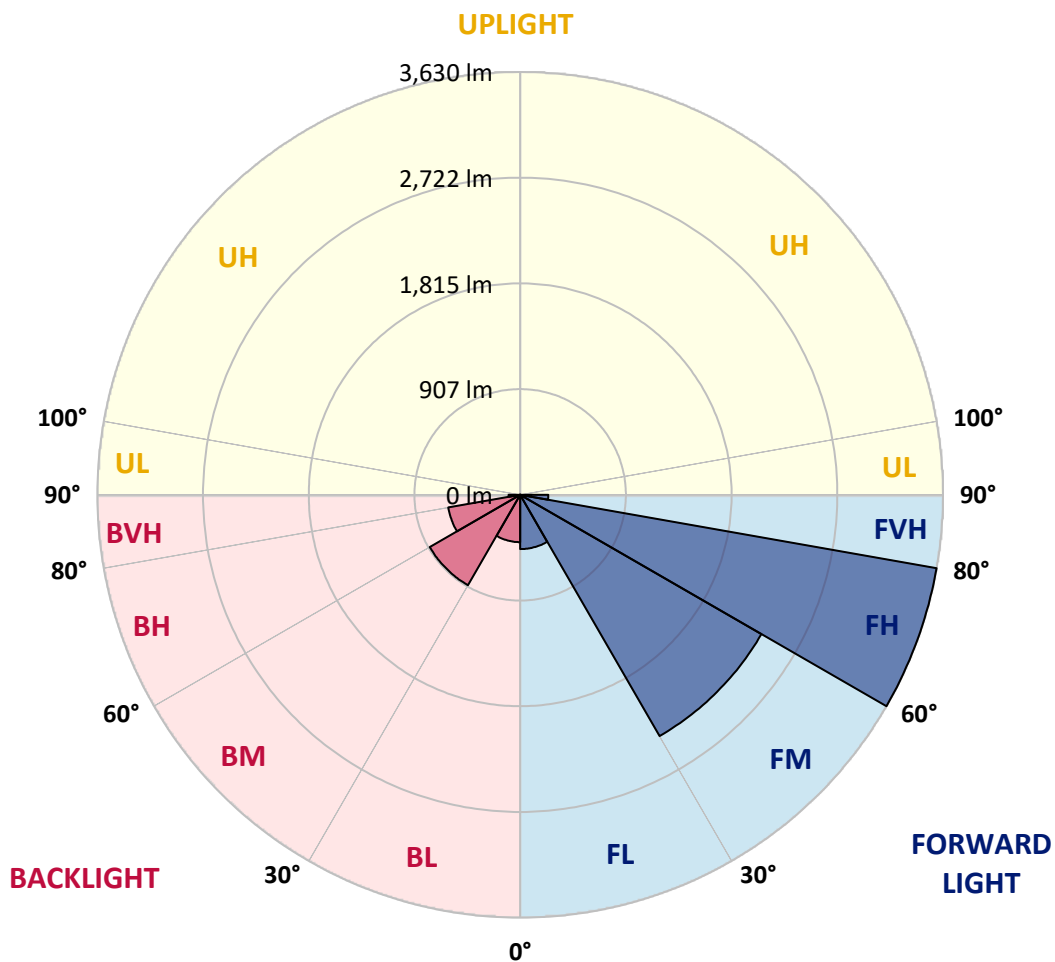
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	465.7	5.3			
FM	(30°-60°)	2391.4	27.3			
FH	(60°-80°)	3629.9	41.5			G2/5000
FVH	(80°-90°)	241.5	2.8			G3/500
BL	(0°-30°)	406.3	4.6	B1/500		
BM	(30°-60°)	896.5	10.2	B1/1000		
BH	(60°-80°)	626.9	7.2	B2/1000		G2/1000
BVH	(80°-90°)	98.9	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°	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7
2.5°	942.0	935.2	935.2	930.1	930.1	921.6	918.2	916.5	907.9	902.8	897.7
5°	996.5	988.0	986.3	974.4	969.3	950.5	948.8	936.9	921.6	906.2	894.3
7.5°	1045.9	1040.8	1032.3	1020.4	1005.0	981.2	979.5	960.7	935.2	914.8	897.7
10°	1081.7	1078.3	1066.4	1051.0	1034.0	1010.1	1008.4	988.0	957.3	933.5	909.6
12.5°	1124.3	1119.2	1103.8	1083.4	1064.7	1042.5	1040.8	1023.8	989.7	959.0	928.4
15°	1165.2	1158.3	1139.6	1119.2	1098.7	1080.0	1080.0	1061.2	1025.5	989.7	953.9
17.5°	1185.6	1182.2	1163.5	1141.3	1124.3	1110.6	1108.9	1091.9	1056.1	1018.7	979.5
20°	1192.4	1194.1	1177.1	1153.2	1141.3	1134.5	1132.8	1120.9	1081.7	1045.9	1008.4
22.5°	1190.7	1195.8	1182.2	1156.6	1153.2	1153.2	1153.2	1139.6	1108.9	1073.2	1035.7
25°	1197.5	1204.3	1194.1	1163.5	1163.5	1170.3	1170.3	1163.5	1136.2	1105.5	1068.1
27.5°	1221.4	1226.5	1218.0	1175.4	1177.1	1187.3	1185.6	1187.3	1170.3	1141.3	1103.8
30°	1250.3	1257.1	1246.9	1194.1	1192.4	1202.6	1202.6	1211.2	1199.2	1168.6	1137.9
32.5°	1328.7	1327.0	1294.6	1214.6	1209.4	1219.7	1219.7	1228.2	1221.4	1197.5	1168.6
35°	1562.1	1536.5	1465.0	1281.0	1229.9	1235.0	1235.0	1250.3	1253.7	1235.0	1209.4
37.5°	1800.5	1792.0	1737.5	1458.2	1304.8	1267.4	1265.7	1287.8	1303.1	1287.8	1270.8
40°	2040.7	2033.9	2022.0	1694.9	1461.6	1325.3	1320.2	1338.9	1366.2	1355.9	1345.7
42.5°	2263.9	2260.5	2272.4	1928.3	1660.9	1449.6	1434.3	1412.2	1451.3	1447.9	1447.9
45°	2439.3	2447.9	2454.7	2146.3	1877.2	1609.8	1591.0	1516.1	1568.9	1582.5	1592.7
47.5°	2538.1	2545.0	2568.8	2359.3	2093.5	1795.4	1781.8	1659.2	1729.0	1769.9	1798.8
50°	2679.5	2660.8	2681.2	2567.1	2354.2	2037.3	1999.8	1851.6	1940.2	2011.8	2079.9
52.5°	2815.8	2785.1	2802.2	2807.3	2650.6	2274.1	2234.9	2078.2	2188.9	2301.4	2422.3
55°	2938.4	2936.7	2953.8	3040.7	2936.7	2527.9	2483.6	2328.6	2488.7	2609.7	2814.1
57.5°	3037.2	3054.3	3129.2	3311.5	3267.2	2803.9	2754.5	2619.9	2809.0	2929.9	3268.9
60°	3153.1	3180.3	3304.7	3541.5	3568.7	3093.5	3042.4	2945.3	3137.8	3260.4	3795.3
62.5°	3192.3	3231.4	3487.0	3783.4	3883.9	3410.3	3364.3	3299.6	3483.5	3594.3	4319.9
65°	2931.6	3006.6	3587.5	3907.7	4222.8	3791.9	3752.7	3696.5	3827.6	3900.9	4676.0
67.5°	2860.1	2894.2	3391.6	4086.6	4541.4	4282.5	4243.3	4146.2	4149.6	4118.9	4791.8
70°	2759.6	2797.1	3190.6	4221.1	4997.9	4953.6	4905.9	4619.7	4444.3	4258.6	4563.5
72.5°	2350.8	2338.8	2749.4	3858.3	5217.7	5784.9	5728.7	5129.1	4662.3	4137.7	3851.5
75°	1320.2	1286.1	1667.7	2669.3	4764.5	6115.4	6113.7	5386.3	4509.0	3604.5	2621.6
77.5°	383.3	373.1	550.2	1119.2	3207.6	5313.1	5377.8	4858.2	3762.9	2589.2	1439.4
80°	180.6	184.0	236.8	369.6	1369.6	3429.0	3614.7	3199.1	2248.6	1194.1	594.5
82.5°	114.1	115.8	161.8	238.5	579.2	1557.0	1710.3	1439.4	890.9	516.1	262.3
85°	71.5	71.5	107.3	156.7	345.8	497.4	540.0	490.6	381.6	281.1	143.1
87.5°	39.2	39.2	64.7	90.3	189.1	160.1	165.2	195.9	238.5	172.0	71.5
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°	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7	897.7
2.5°	896.0	892.6	887.5	885.8	884.1	882.4	884.1	887.5	884.1	884.1	885.8
5°	890.9	887.5	880.7	880.7	882.4	884.1	892.6	897.7	899.4	899.4	899.4
7.5°	890.9	885.8	880.7	882.4	885.8	892.6	906.2	914.8	921.6	923.3	923.3
10°	899.4	892.6	889.2	892.6	902.8	907.9	921.6	935.2	943.7	947.1	947.1
12.5°	914.8	907.9	907.9	914.8	928.4	935.2	947.1	957.3	967.6	972.7	972.7
15°	940.3	931.8	933.5	945.4	960.7	967.6	976.1	979.5	988.0	994.8	994.8
17.5°	964.2	955.6	959.0	972.7	982.9	986.3	991.4	989.7	993.1	998.2	999.9
20°	991.4	982.9	984.6	993.1	994.8	991.4	991.4	986.3	984.6	993.1	996.5
22.5°	1018.7	1010.1	1008.4	1003.3	994.8	986.3	981.2	976.1	972.7	981.2	984.6
25°	1051.0	1039.1	1030.6	1008.4	986.3	971.0	964.2	960.7	959.0	967.6	971.0
27.5°	1086.8	1074.9	1049.3	1001.6	965.9	940.3	935.2	935.2	938.6	943.7	947.1
30°	1120.9	1108.9	1063.0	986.3	930.1	892.6	887.5	892.6	901.1	906.2	911.3
32.5°	1154.9	1143.0	1071.5	962.4	877.3	829.6	826.2	834.7	848.3	851.7	855.1
35°	1200.9	1189.0	1081.7	928.4	810.8	759.7	756.3	761.4	773.4	778.5	783.6
37.5°	1265.7	1258.8	1097.0	890.9	749.5	693.3	683.1	679.7	686.5	684.8	691.6
40°	1350.8	1355.9	1124.3	841.5	689.9	632.0	609.8	599.6	592.8	579.2	586.0
42.5°	1475.2	1478.6	1154.9	785.3	638.8	574.1	545.1	526.4	512.7	490.6	494.0
45°	1657.5	1628.5	1190.7	725.7	592.8	528.1	494.0	471.9	453.1	434.4	436.1
47.5°	1899.3	1810.8	1229.9	676.3	546.8	490.6	459.9	434.4	412.2	396.9	398.6
50°	2197.4	2037.3	1269.1	630.3	500.8	461.6	434.4	407.1	385.0	369.6	367.9
52.5°	2590.9	2309.9	1294.6	579.2	454.8	436.1	412.2	386.7	359.4	340.7	339.0
55°	2999.8	2626.7	1316.8	517.8	410.5	407.1	395.2	366.2	333.9	310.0	306.6
57.5°	3449.5	2965.7	1333.8	458.2	376.5	383.3	379.9	345.8	310.0	287.9	286.2
60°	3858.3	3316.6	1279.3	405.4	345.8	359.4	362.8	333.9	315.1	320.2	322.0
62.5°	4270.5	3587.5	1071.5	366.2	325.4	344.1	373.1	371.4	362.8	371.4	373.1
65°	4418.7	3643.7	759.7	333.9	304.9	350.9	405.4	402.0	362.8	347.5	344.1
67.5°	4335.3	3476.7	511.0	308.3	289.6	359.4	439.5	402.0	349.2	328.8	322.0
70°	3938.4	3066.2	374.8	282.8	276.0	357.7	458.2	400.3	342.4	320.2	311.7
72.5°	3141.2	2366.1	301.5	258.9	255.5	349.2	468.4	396.9	335.6	311.7	301.5
75°	2033.9	1471.8	253.8	235.1	224.9	335.6	463.3	386.7	327.1	296.4	289.6
77.5°	943.7	633.7	216.3	207.8	195.9	315.1	448.0	366.2	308.3	279.4	270.8
80°	439.5	299.8	182.3	180.6	175.5	298.1	427.6	342.4	286.2	262.3	248.7
82.5°	235.1	180.6	148.2	148.2	153.3	277.7	402.0	313.4	257.2	245.3	209.5
85°	124.4	103.9	107.3	115.8	131.2	245.3	367.9	282.8	224.9	187.4	182.3
87.5°	63.0	66.4	66.4	78.4	100.5	199.3	303.2	233.4	190.8	153.3	149.9
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)