

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: P231298

Luminaire Tested: **ARCH-M-AF48-60-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231298
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-AF48-60-D-U-T4W
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8878.2 lumens
Efficiency: N/A
Efficacy: 140.9 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

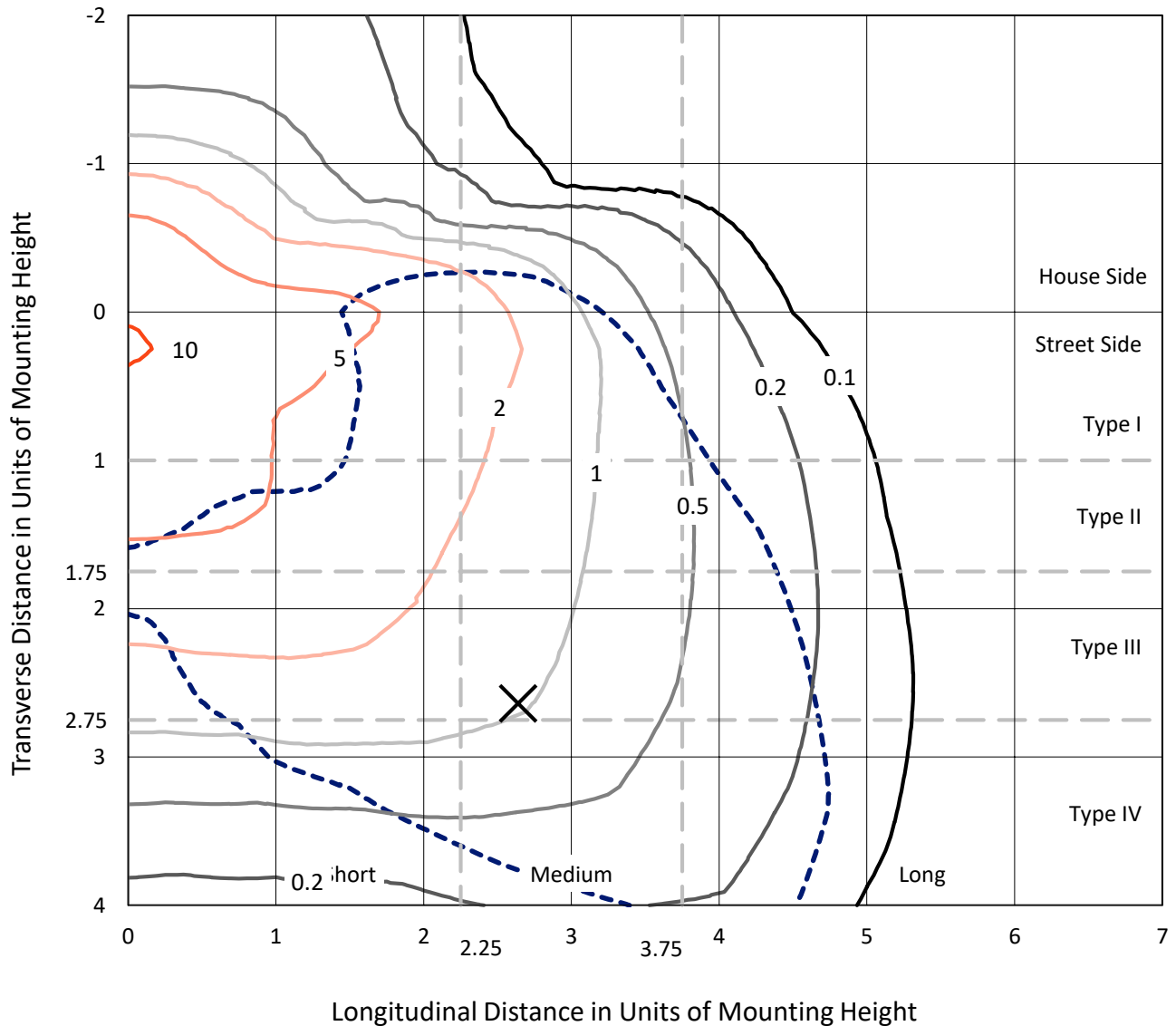
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

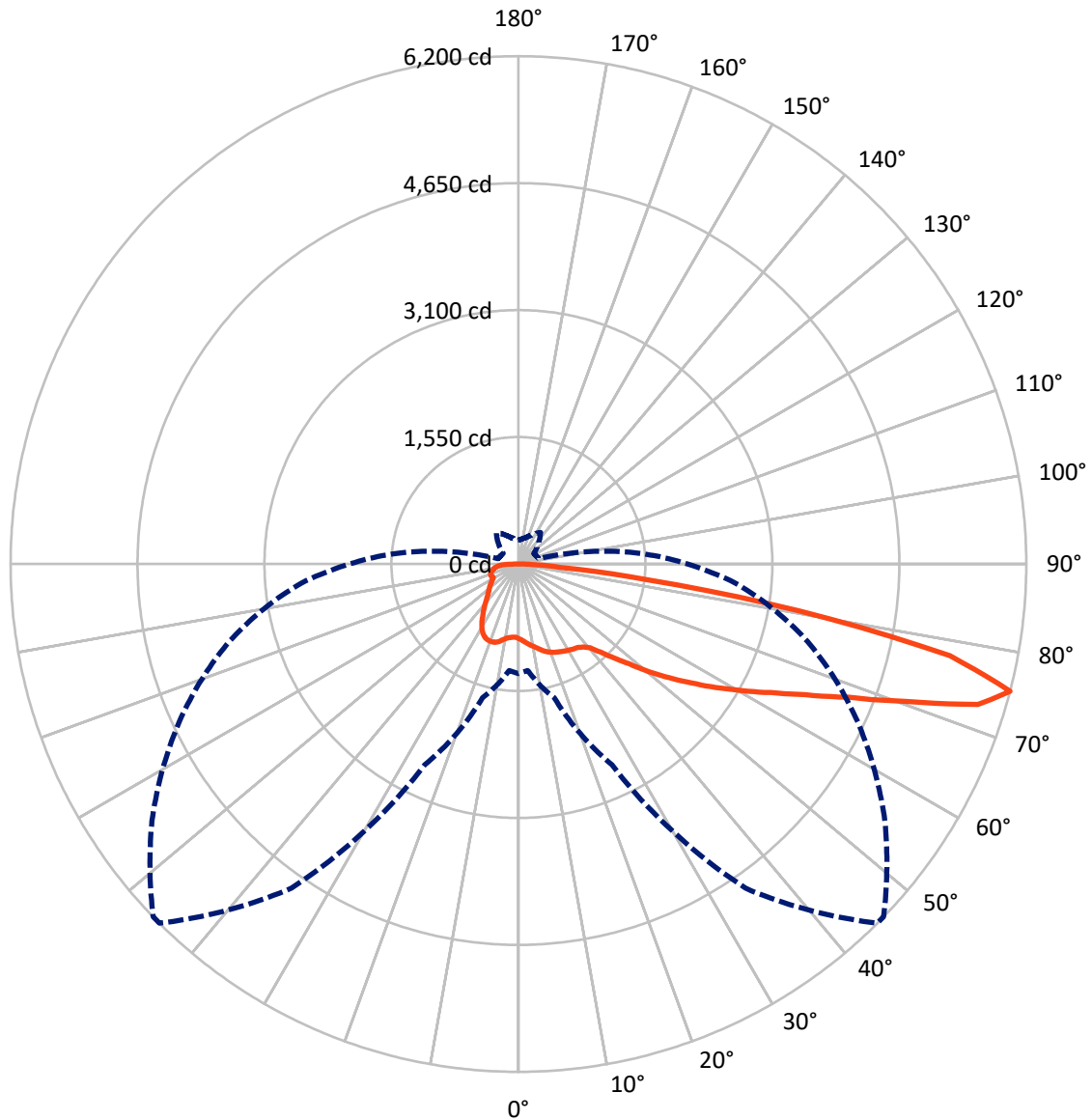


Based on 10 foot mounting height. Maximum calculated value = 10.6 fc
 Type IV - Medium - Non-Cutoff

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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	2056.7	0.0	2056.7
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	6821.5	0.0	6821.5
	% Fixture	76.8	0.0	76.8
Total	Lumens	8878.2	0.0	8878.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.2	1.0
10°-20°	292.3	3.3
20°-30°	501.6	5.6
30°-40°	701.5	7.9
40°-50°	1029.0	11.6
50°-60°	1602.9	18.1
60°-70°	2306.5	26.0
70°-80°	2009.2	22.6
80°-90°	345.1	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°	8878.2	100.0
0°-180°	8878.2	100.0



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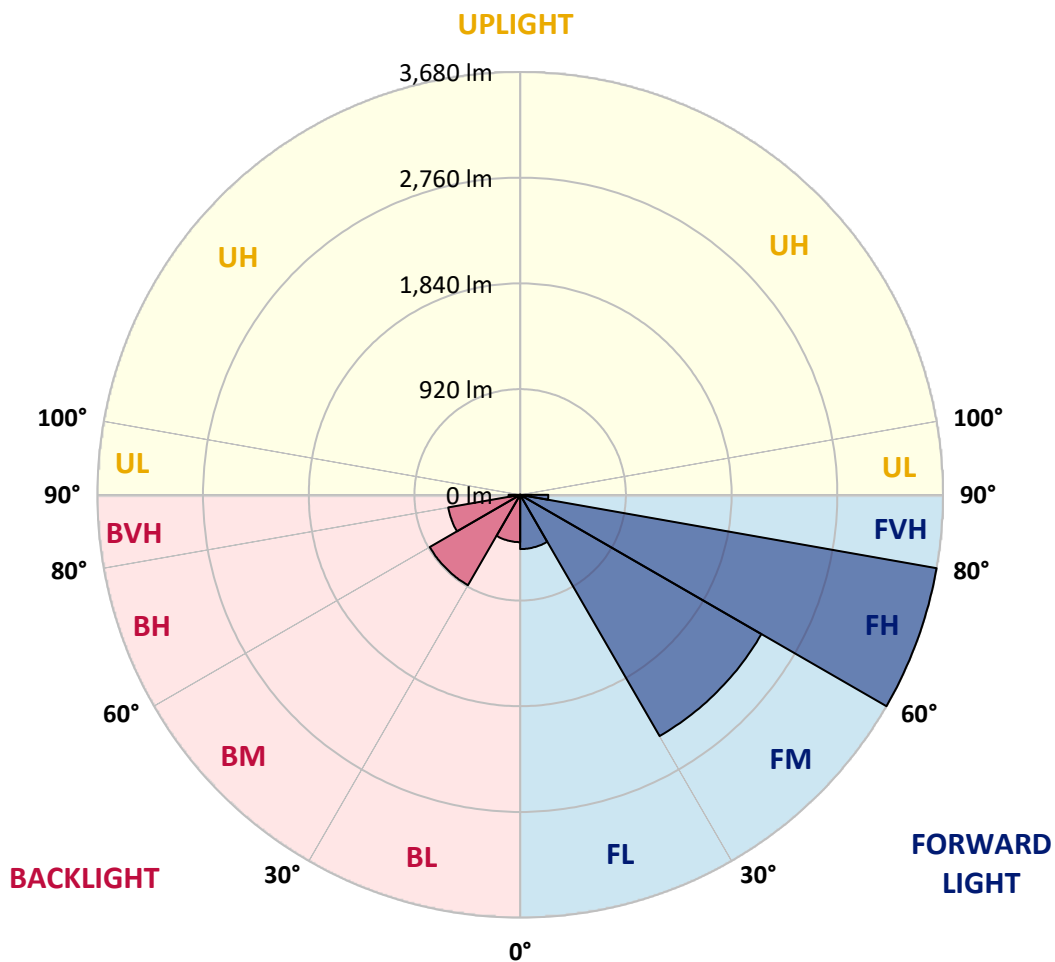
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	472.1	5.3			
FM	(30°-60°)	2424.5	27.3			
FH	(60°-80°)	3680.1	41.5			G2/5000
FVH	(80°-90°)	244.8	2.8			G3/500
BL	(0°-30°)	411.9	4.6	B1/500		
BM	(30°-60°)	909.0	10.2	B1/1000		
BH	(60°-80°)	635.6	7.2	B2/1000		G2/1000
BVH	(80°-90°)	100.2	1.1			G2/225
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°	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1
2.5°	955.0	948.2	948.2	943.0	943.0	934.4	930.9	929.1	920.6	915.3	910.1
5°	1010.3	1001.7	999.9	987.9	982.6	963.7	962.0	949.9	934.4	918.8	906.6
7.5°	1060.4	1055.2	1046.6	1034.5	1019.0	994.7	993.1	974.1	948.2	927.4	910.1
10°	1096.7	1093.2	1081.2	1065.6	1048.3	1024.1	1022.4	1001.7	970.6	946.4	922.2
12.5°	1139.9	1134.7	1119.1	1098.3	1079.4	1056.9	1055.2	1038.0	1003.4	972.3	941.2
15°	1181.3	1174.3	1155.4	1134.7	1113.9	1095.0	1095.0	1075.9	1039.6	1003.4	967.1
17.5°	1202.0	1198.6	1179.6	1157.1	1139.9	1126.1	1124.3	1107.0	1070.7	1032.8	993.1
20°	1208.9	1210.7	1193.4	1169.2	1157.1	1150.2	1148.5	1136.4	1096.7	1060.4	1022.4
22.5°	1207.2	1212.4	1198.6	1172.6	1169.2	1169.2	1169.2	1155.4	1124.3	1088.0	1050.1
25°	1214.1	1221.0	1210.7	1179.6	1179.6	1186.4	1186.4	1179.6	1151.9	1120.8	1082.8
27.5°	1238.3	1243.5	1234.8	1191.6	1193.4	1203.7	1202.0	1203.7	1186.4	1157.1	1119.1
30°	1267.6	1274.5	1264.2	1210.7	1208.9	1219.3	1219.3	1228.0	1215.8	1184.8	1153.7
32.5°	1347.1	1345.4	1312.5	1231.3	1226.2	1236.5	1236.5	1245.1	1238.3	1214.1	1184.8
35°	1583.6	1557.7	1485.2	1298.7	1246.9	1252.1	1252.1	1267.6	1271.1	1252.1	1226.2
37.5°	1825.5	1816.9	1761.5	1478.4	1322.9	1284.9	1283.2	1305.6	1321.1	1305.6	1288.4
40°	2069.0	2062.1	2050.0	1718.4	1481.7	1343.6	1338.4	1357.5	1385.1	1374.7	1364.3
42.5°	2295.2	2291.7	2303.9	1955.0	1683.9	1469.7	1454.1	1431.7	1471.4	1467.9	1467.9
45°	2473.1	2481.8	2488.6	2176.0	1903.2	1632.0	1613.0	1537.1	1590.6	1604.4	1614.7
47.5°	2573.2	2580.2	2604.3	2392.0	2122.5	1820.2	1806.4	1682.1	1752.9	1794.4	1823.7
50°	2716.7	2697.6	2718.3	2602.6	2386.7	2065.5	2027.5	1877.3	1967.0	2039.7	2108.7
52.5°	2854.7	2823.7	2840.9	2846.2	2687.3	2305.5	2265.8	2107.0	2219.2	2333.2	2455.8
55°	2979.1	2977.4	2994.7	3082.8	2977.4	2562.9	2518.0	2360.9	2523.2	2645.8	2853.0
57.5°	3079.3	3096.6	3172.6	3357.3	3312.4	2842.7	2792.6	2656.2	2847.9	2970.4	3314.2
60°	3196.7	3224.3	3350.5	3590.5	3618.1	3136.3	3084.5	2986.0	3181.2	3305.6	3847.8
62.5°	3236.4	3276.2	3535.2	3835.8	3937.6	3457.5	3410.8	3345.3	3531.7	3644.1	4379.8
65°	2972.2	3048.2	3637.1	3961.8	4281.3	3844.4	3804.7	3747.7	3880.7	3954.8	4740.7
67.5°	2899.7	2934.2	3438.5	4143.2	4604.2	4341.7	4302.0	4203.6	4207.0	4175.9	4858.1
70°	2797.8	2835.7	3234.7	4279.5	5067.1	5022.2	4973.8	4683.7	4505.8	4317.6	4626.7
72.5°	2383.3	2371.2	2787.4	3911.7	5289.9	5865.0	5808.0	5200.1	4726.9	4194.9	3904.8
75°	1338.4	1303.9	1690.7	2706.2	4830.5	6200.0	6198.3	5460.8	4571.5	3654.4	2657.9
77.5°	388.6	378.2	557.8	1134.7	3252.0	5386.6	5452.2	4925.5	3815.0	2625.1	1459.3
80°	183.1	186.5	240.1	374.8	1388.6	3476.5	3664.7	3243.4	2279.6	1210.7	602.7
82.5°	115.7	117.4	164.1	241.8	587.2	1578.5	1733.9	1459.3	903.3	523.2	266.0
85°	72.5	72.5	108.8	158.9	350.6	504.3	547.5	497.4	386.9	285.0	145.1
87.5°	39.7	39.7	65.7	91.6	191.7	162.3	167.6	198.7	241.8	174.4	72.5
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°	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1	910.1
2.5°	908.4	905.0	899.8	898.0	896.3	894.6	896.3	899.8	896.3	896.3	898.0
5°	903.3	899.8	892.8	892.8	894.6	896.3	905.0	910.1	911.9	911.9	911.9
7.5°	903.3	898.0	892.8	894.6	898.0	905.0	918.8	927.4	934.4	936.0	936.0
10°	911.9	905.0	901.5	905.0	915.3	920.6	934.4	948.2	956.8	960.2	960.2
12.5°	927.4	920.6	920.6	927.4	941.2	948.2	960.2	970.6	980.9	986.1	986.1
15°	953.3	944.7	946.4	958.5	974.1	980.9	989.6	993.1	1001.7	1008.6	1008.6
17.5°	977.5	968.8	972.3	986.1	996.5	999.9	1005.2	1003.4	1006.9	1012.0	1013.7
20°	1005.2	996.5	998.2	1006.9	1008.6	1005.2	1005.2	999.9	998.2	1006.9	1010.3
22.5°	1032.8	1024.1	1022.4	1017.2	1008.6	999.9	994.7	989.6	986.1	994.7	998.2
25°	1065.6	1053.4	1044.8	1022.4	999.9	984.4	977.5	974.1	972.3	980.9	984.4
27.5°	1101.8	1089.7	1063.9	1015.5	979.3	953.3	948.2	948.2	951.5	956.8	960.2
30°	1136.4	1124.3	1077.7	999.9	943.0	905.0	899.8	905.0	913.6	918.8	923.9
32.5°	1171.0	1158.8	1086.3	975.8	889.5	841.1	837.6	846.3	860.1	863.5	867.0
35°	1217.5	1205.4	1096.7	941.2	822.0	770.3	766.8	772.0	784.1	789.2	794.4
37.5°	1283.2	1276.2	1112.2	903.3	759.8	702.9	692.5	689.1	696.0	694.3	701.1
40°	1369.5	1374.7	1139.9	853.1	699.5	640.7	618.3	607.9	601.0	587.2	594.1
42.5°	1495.6	1499.0	1171.0	796.2	647.6	582.0	552.6	533.7	519.9	497.4	500.8
45°	1680.4	1651.0	1207.2	735.7	601.0	535.4	500.8	478.4	459.4	440.4	442.1
47.5°	1925.6	1835.8	1246.9	685.6	554.3	497.4	466.3	440.4	418.0	402.4	404.2
50°	2227.9	2065.5	1286.7	639.0	507.8	468.0	440.4	412.8	390.4	374.8	373.1
52.5°	2626.8	2341.8	1312.5	587.2	461.1	442.1	418.0	392.0	364.4	345.5	343.7
55°	3041.3	2663.0	1335.0	525.0	416.2	412.8	400.7	371.3	338.5	314.4	310.9
57.5°	3497.3	3006.8	1352.2	464.5	381.7	388.6	385.1	350.6	314.4	291.8	290.1
60°	3911.7	3362.5	1297.0	411.0	350.6	364.4	367.9	338.5	319.5	324.7	326.4
62.5°	4329.6	3637.1	1086.3	371.3	329.9	348.8	378.2	376.4	367.9	376.4	378.2
65°	4479.9	3694.1	770.3	338.5	309.1	355.8	411.0	407.5	367.9	352.3	348.8
67.5°	4395.3	3524.9	518.1	312.6	293.6	364.4	445.6	407.5	354.0	333.3	326.4
70°	3992.9	3108.6	379.9	286.7	279.8	362.6	464.5	405.8	347.1	324.7	316.1
72.5°	3184.7	2398.8	305.7	262.5	259.0	354.0	475.0	402.4	340.2	316.1	305.7
75°	2062.1	1492.2	257.4	238.3	228.0	340.2	469.7	392.0	331.5	300.5	293.6
77.5°	956.8	642.4	219.3	210.7	198.7	319.5	454.2	371.3	312.6	283.3	274.6
80°	445.6	303.9	184.7	183.1	177.9	302.2	433.5	347.1	290.1	266.0	252.2
82.5°	238.3	183.1	150.3	150.3	155.4	281.5	407.5	317.7	260.8	248.7	212.5
85°	126.0	105.4	108.8	117.4	133.0	248.7	373.1	286.7	228.0	190.0	184.7
87.5°	63.9	67.3	67.3	79.5	101.9	202.0	307.4	236.6	193.4	155.4	152.0
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)