

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: P231154

Luminaire Tested: **ARCH-M-AF48-50-D-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231154
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-M-AF48-50-D-U-T3-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 305mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6743 lumens
Efficiency: N/A
Efficacy: 140.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

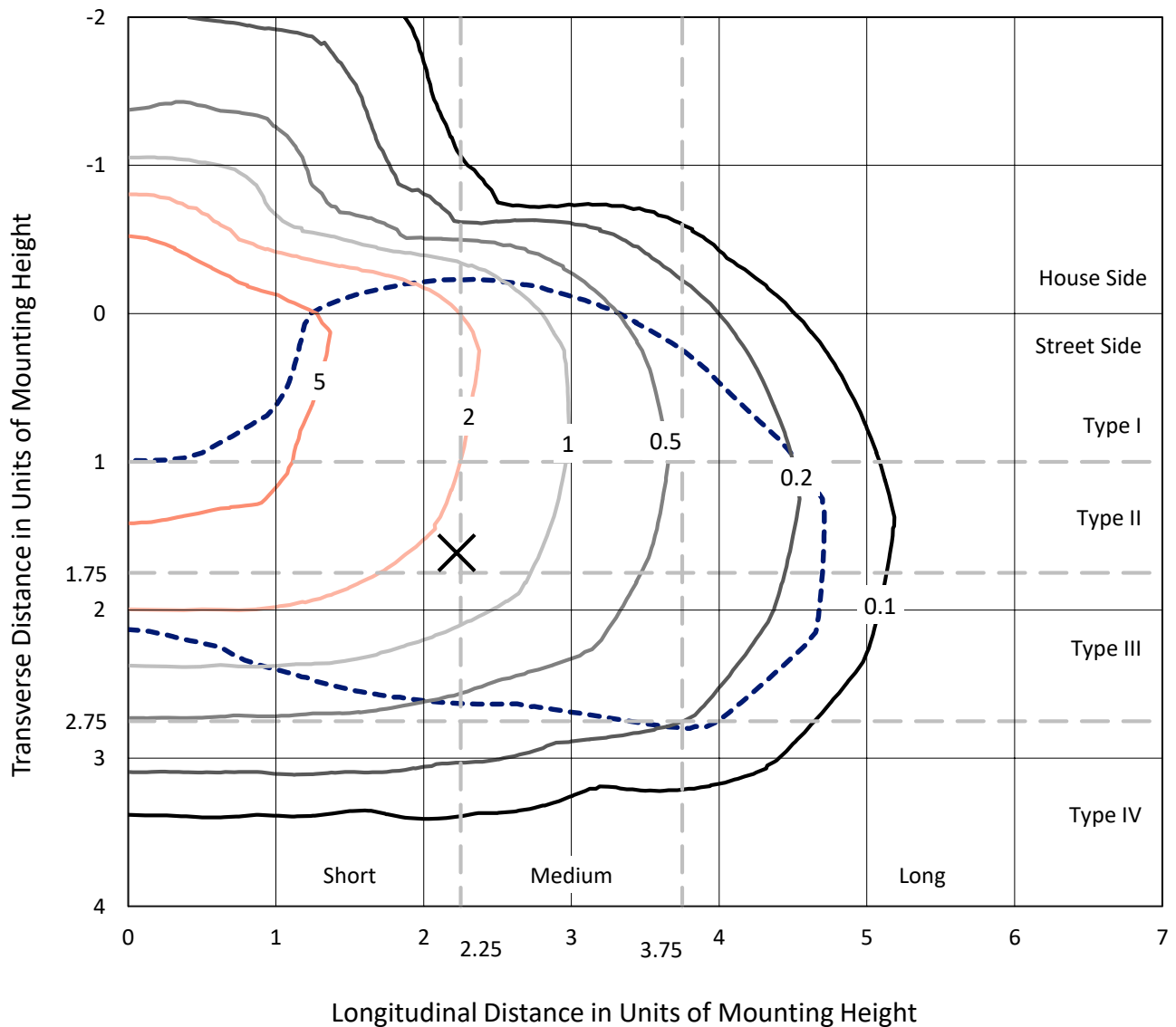
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

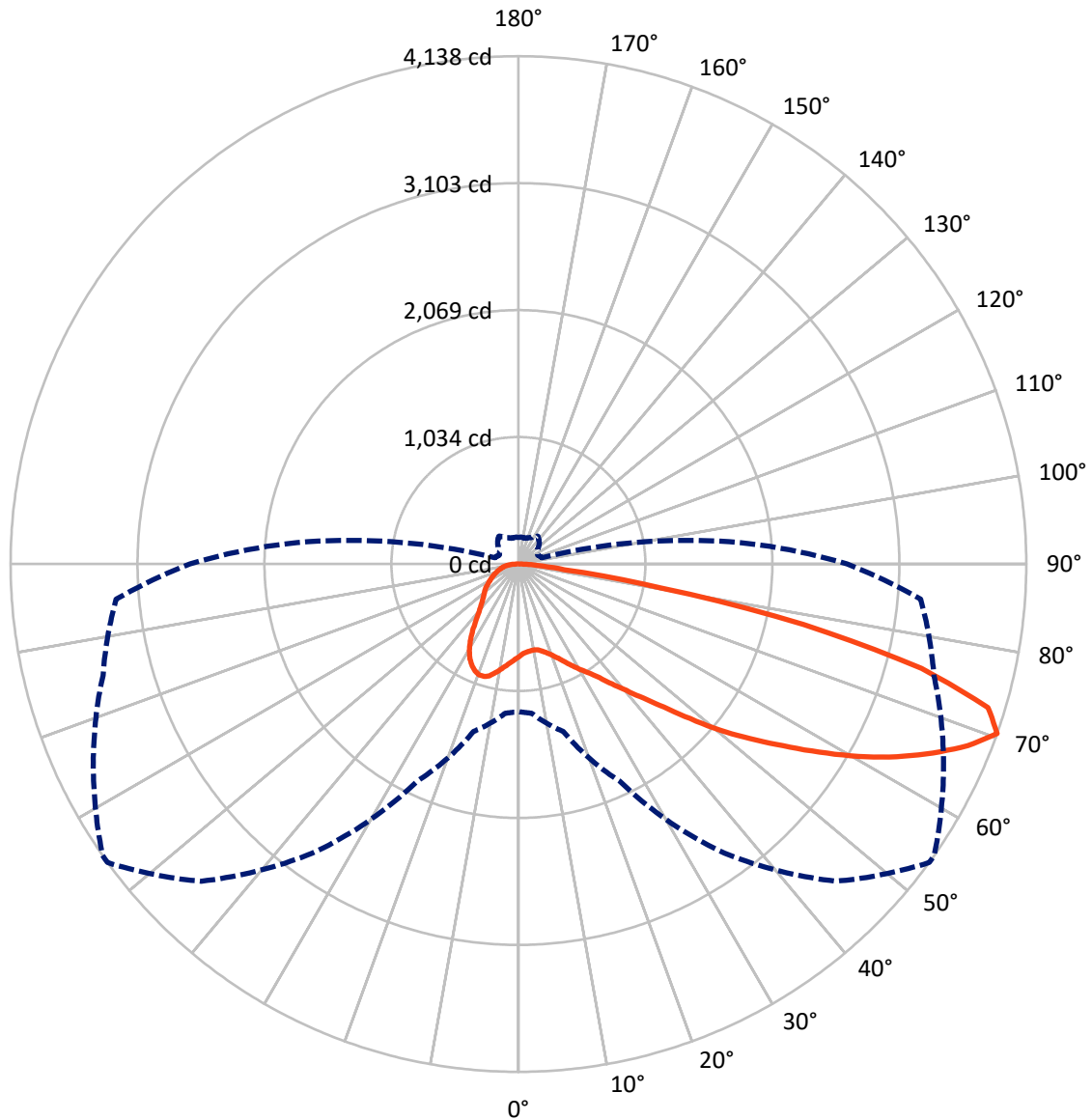
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 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
House Side	Lumens	1529.3	0.0	1529.3
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	5213.7	0.0	5213.7
	% Fixture	77.3	0.0	77.3
Total	Lumens	6743.0	0.0	6743.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	1.1
10°-20°	236.6	3.5
20°-30°	411.0	6.1
30°-40°	600.6	8.9
40°-50°	942.6	14.0
50°-60°	1449.6	21.5
60°-70°	1771.0	26.3
70°-80°	1098.0	16.3
80°-90°	159.5	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°	6743.0	100.0
0°-180°	6743.0	100.0

Coefficient of Utilization



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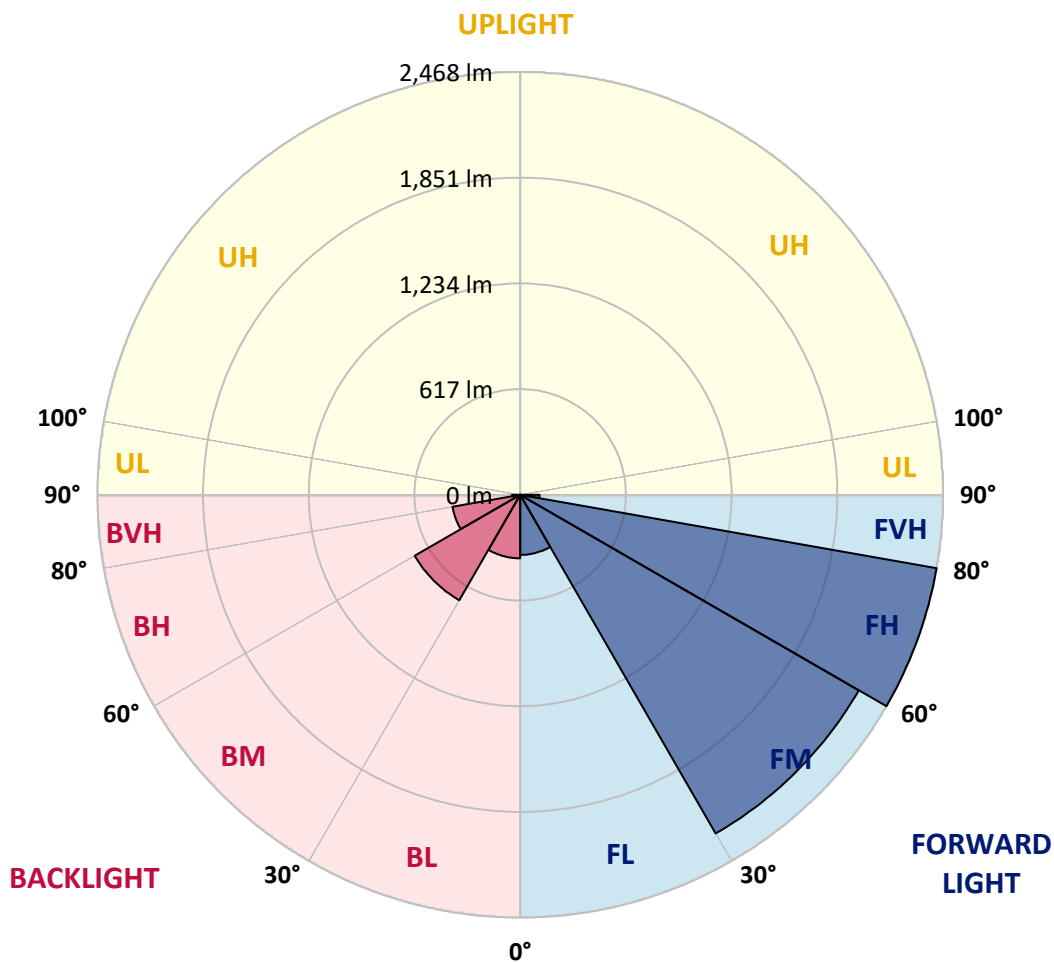
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	350.8	5.2			
FM	(30°-60°)	2282.2	33.8			
FH	(60°-80°)	2468.0	36.6			G2/5000
FVH	(80°-90°)	112.6	1.7			G2/225
BL	(0°-30°)	370.8	5.5	B1/500		
BM	(30°-60°)	710.6	10.5	B1/1000		
BH	(60°-80°)	401.0	5.9	B1/500		G1/500
BVH	(80°-90°)	46.9	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4
2.5°	724.8	722.3	722.3	726.0	727.2	730.9	730.9	732.2	735.9	742.1	749.5
5°	702.5	701.3	702.5	707.5	710.0	717.4	719.8	721.1	728.5	738.4	749.5
7.5°	680.3	679.1	681.6	689.0	696.4	707.5	713.7	714.9	726.0	739.6	754.4
10°	672.9	671.7	675.4	681.6	689.0	701.3	711.2	712.4	728.5	744.5	765.5
12.5°	682.8	681.6	685.3	691.4	698.8	707.5	718.6	719.8	740.8	761.8	784.0
15°	707.5	707.5	708.7	712.4	719.8	727.2	737.1	738.4	760.6	785.3	807.5
17.5°	745.8	743.3	743.3	742.1	747.0	750.7	763.0	764.3	787.7	810.0	832.2
20°	792.7	791.4	786.5	780.3	779.1	781.6	793.9	795.2	818.6	837.1	858.1
22.5°	849.5	850.7	839.6	826.0	819.8	823.5	834.7	835.9	853.2	869.2	887.8
25°	924.8	921.1	905.0	885.3	872.9	872.9	884.0	884.0	900.1	910.0	922.3
27.5°	996.4	989.0	974.2	945.8	926.0	929.7	940.8	940.8	955.7	959.4	965.5
30°	1074.2	1066.8	1048.3	1012.5	986.5	984.1	997.6	996.4	1016.2	1014.9	1010.0
32.5°	1169.3	1165.6	1134.7	1089.0	1054.4	1045.8	1058.1	1059.4	1071.7	1068.0	1052.0
35°	1302.6	1301.4	1273.0	1192.7	1147.0	1131.0	1138.4	1138.4	1147.0	1137.2	1110.0
37.5°	1470.5	1473.0	1448.3	1329.8	1265.6	1238.4	1239.6	1238.4	1240.9	1229.8	1201.4
40°	1638.5	1644.6	1643.4	1500.2	1418.7	1371.8	1354.5	1352.0	1358.2	1353.2	1326.1
42.5°	1859.5	1874.3	1839.7	1710.1	1618.7	1539.7	1492.8	1486.6	1500.2	1506.3	1480.4
45°	2089.1	2084.2	2029.9	1936.0	1853.3	1752.0	1663.1	1653.3	1663.1	1681.7	1654.5
47.5°	2208.9	2205.2	2191.6	2144.7	2132.3	2016.3	1881.7	1873.0	1854.5	1880.5	1848.4
50°	2406.4	2410.1	2354.6	2349.6	2401.5	2337.3	2128.6	2108.9	2075.5	2096.5	2069.4
52.5°	2549.7	2533.6	2499.0	2542.3	2704.0	2669.4	2360.8	2352.1	2321.2	2316.3	2304.0
55°	2607.7	2607.7	2613.9	2713.9	2944.8	2899.1	2612.6	2621.3	2579.3	2544.7	2560.8
57.5°	2625.0	2632.4	2685.5	2850.9	3227.5	3078.1	2890.4	2902.8	2842.3	2773.2	2823.8
60°	2539.8	2562.0	2689.2	2928.7	3386.8	3268.3	3183.1	3186.8	3099.1	2997.9	3086.8
62.5°	2321.2	2348.4	2575.6	2960.8	3360.9	3463.4	3459.6	3468.3	3348.5	3222.6	3333.7
65°	2053.3	2080.5	2322.5	2870.7	3341.1	3602.9	3712.8	3736.2	3581.9	3412.7	3488.0
67.5°	1659.4	1695.3	1924.9	2567.0	3244.8	3717.7	3949.8	3974.5	3762.1	3511.5	3474.5
70°	1202.6	1219.9	1412.5	1950.8	2852.2	3654.7	4137.5	4136.3	3821.4	3504.1	3289.3
72.5°	579.1	592.7	759.3	1211.2	2039.7	3101.6	4001.7	4025.1	3739.9	3396.7	2865.8
75°	238.3	251.9	307.4	511.2	1070.5	2049.6	3391.7	3447.3	3396.7	3048.5	2242.2
77.5°	148.2	153.1	180.3	264.2	488.9	956.9	2374.3	2449.7	2691.7	2442.2	1480.4
80°	111.1	114.8	134.6	185.2	308.7	353.1	1179.1	1274.2	1631.0	1401.4	670.4
82.5°	92.6	93.8	107.4	134.6	209.9	202.5	377.8	421.0	760.6	534.6	230.9
85°	86.4	88.9	96.3	96.3	133.3	127.2	156.8	164.2	221.0	182.7	80.3
87.5°	44.4	42.0	85.2	75.3	69.1	61.7	66.7	71.6	82.7	87.7	35.8
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°	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4	754.4
2.5°	751.9	755.6	761.8	768.0	775.4	784.0	789.0	795.2	800.1	797.6	796.4
5°	755.6	761.8	775.4	787.7	802.6	819.8	831.0	843.3	853.2	855.7	851.9
7.5°	761.8	772.9	791.4	813.7	833.4	855.7	872.9	890.2	902.6	905.0	905.0
10°	776.6	789.0	813.7	843.3	866.8	890.2	910.0	923.6	934.7	939.6	939.6
12.5°	797.6	812.4	842.1	877.9	903.8	926.0	937.1	943.3	948.3	953.2	954.4
15°	822.3	838.4	874.2	912.4	939.6	950.7	950.7	949.5	949.5	952.0	954.4
17.5°	847.0	864.3	901.3	942.1	959.4	953.2	944.6	940.8	938.4	937.1	940.8
20°	872.9	890.2	927.3	965.5	960.6	934.7	922.3	913.7	906.3	902.6	907.5
22.5°	901.3	917.4	955.7	981.6	944.6	905.0	881.6	868.0	855.7	848.2	853.2
25°	934.7	950.7	987.8	986.5	916.2	860.6	823.5	801.3	787.7	780.3	780.3
27.5°	974.2	987.8	1023.6	974.2	876.6	801.3	747.0	726.0	722.3	716.1	716.1
30°	1014.9	1026.0	1056.9	945.8	822.3	723.5	664.3	654.4	655.6	649.5	650.7
32.5°	1056.9	1068.0	1076.7	903.8	751.9	635.9	596.4	589.0	587.7	582.8	577.8
35°	1116.2	1132.2	1079.1	847.0	666.7	563.0	534.6	527.2	519.8	502.5	502.5
37.5°	1206.3	1223.6	1073.0	776.6	579.1	506.2	480.3	470.4	458.1	440.8	434.6
40°	1329.8	1329.8	1059.4	697.6	508.7	460.5	435.9	423.5	409.9	392.6	388.9
42.5°	1475.5	1440.9	1038.4	617.4	456.8	429.7	407.5	393.9	377.8	358.1	355.6
45°	1645.9	1552.0	1008.8	545.7	418.6	411.2	397.6	374.1	347.0	326.0	322.3
47.5°	1811.3	1652.0	980.4	495.1	386.5	403.7	392.6	353.1	316.1	286.5	282.7
50°	1992.8	1740.9	947.0	453.1	361.8	398.8	386.5	322.3	281.5	260.5	258.1
52.5°	2174.3	1831.1	911.2	408.7	340.8	388.9	371.6	300.0	280.3	251.9	248.2
55°	2365.7	1936.0	869.2	359.3	316.1	369.2	351.9	298.8	288.9	251.9	243.2
57.5°	2552.1	2052.1	801.3	311.1	288.9	339.5	344.5	291.4	270.4	249.4	239.5
60°	2758.3	2175.6	689.0	270.4	265.5	314.9	334.6	275.3	249.4	242.0	237.1
62.5°	2923.8	2286.7	538.3	242.0	245.7	295.1	322.3	265.5	240.8	234.6	233.4
65°	2995.4	2289.1	386.5	217.3	226.0	276.6	309.9	256.8	233.4	230.9	229.7
67.5°	2920.1	2163.2	271.6	193.8	205.0	259.3	293.9	248.2	226.0	227.2	224.7
70°	2676.8	1897.7	198.8	171.6	185.2	240.8	276.6	237.1	217.3	219.8	216.1
72.5°	2239.8	1479.2	159.3	153.1	169.2	221.0	259.3	224.7	203.7	205.0	197.6
75°	1654.5	980.4	133.3	137.1	150.6	202.5	237.1	208.7	188.9	184.0	179.0
77.5°	984.1	503.8	109.9	119.8	134.6	180.3	212.4	188.9	172.9	164.2	160.5
80°	406.2	203.7	90.1	101.2	117.3	160.5	187.7	165.5	154.3	145.7	140.8
82.5°	161.7	100.0	71.6	82.7	98.8	139.5	164.2	145.7	134.6	128.4	114.8
85°	61.7	49.4	48.2	58.0	74.1	107.4	135.8	122.2	113.6	97.5	93.8
87.5°	24.7	22.2	22.2	28.4	42.0	67.9	97.5	85.2	88.9	70.4	71.6
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)