

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: P231040

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231040
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11192 lumens
Efficiency: N/A
Efficacy: 134.8 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

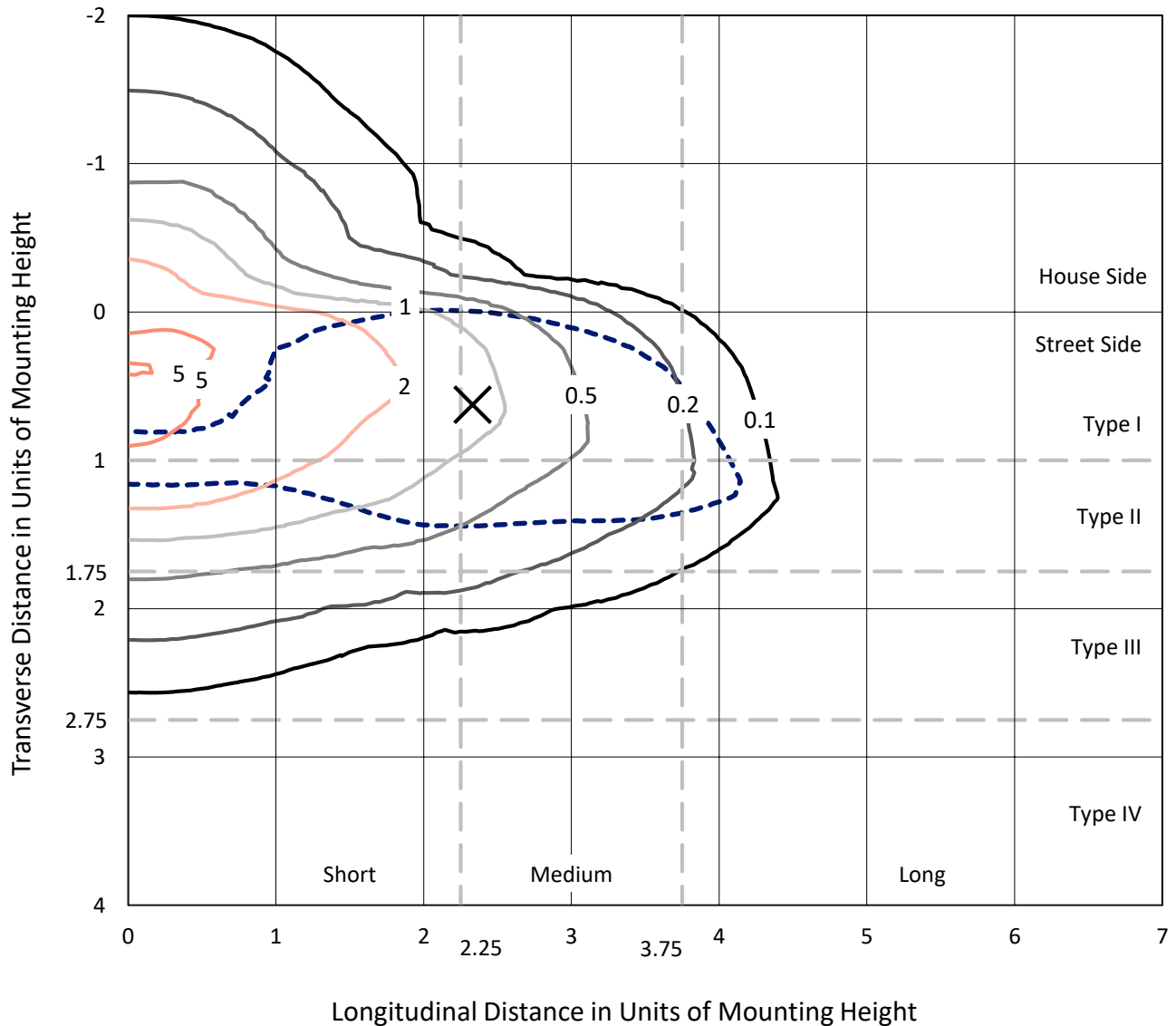
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

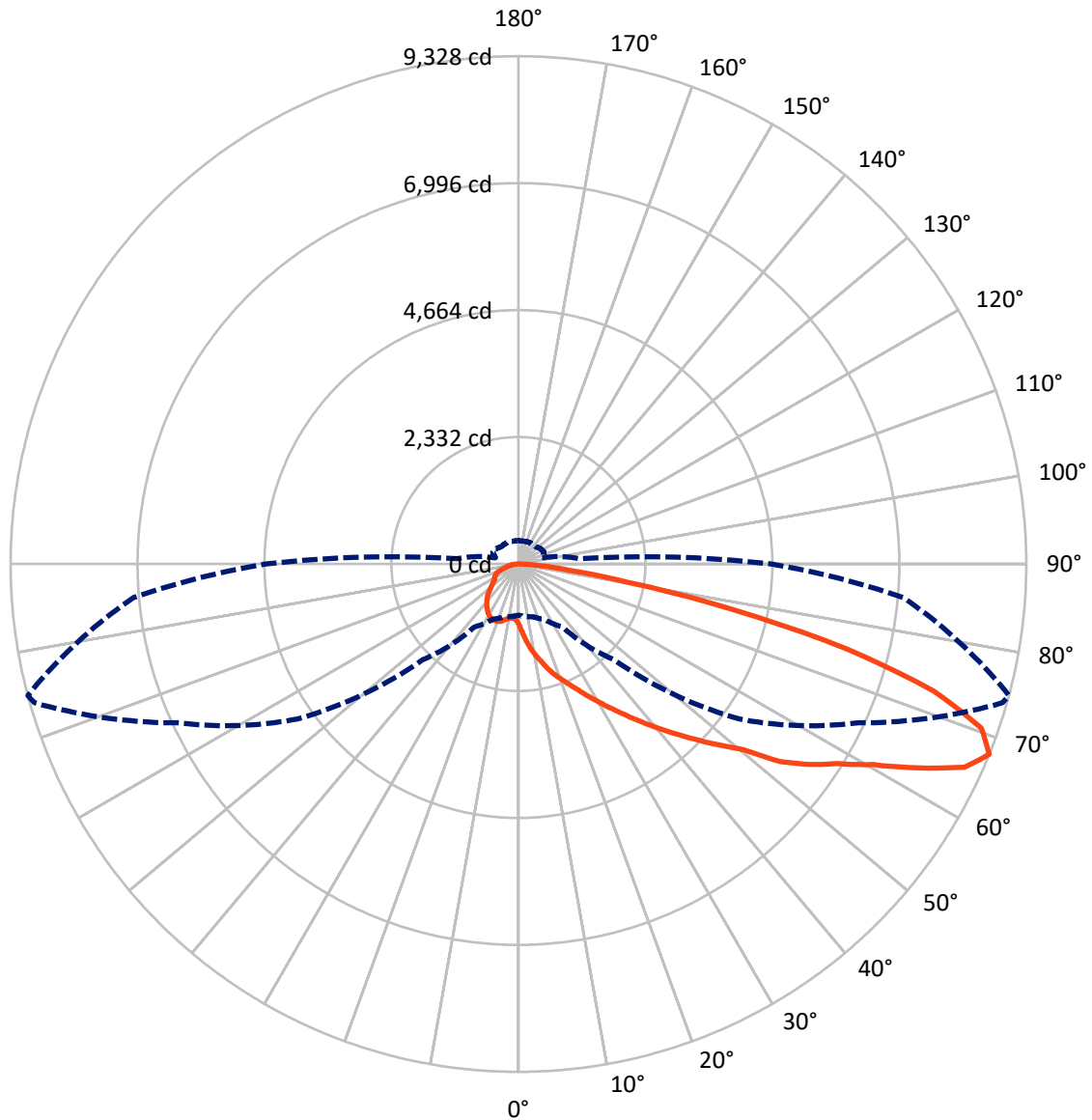
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.8 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1911.2	0.0	1911.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	9280.8	0.0	9280.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	11192.0	0.0	11192.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.3	1.2
10°-20°	470.8	4.2
20°-30°	858.8	7.7
30°-40°	1409.6	12.6
40°-50°	2038.5	18.2
50°-60°	2402.4	21.5
60°-70°	2334.5	20.9
70°-80°	1297.7	11.6
80°-90°	249.5	2.2
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°	11192.0	100.0
0°-180°	11192.0	100.0

Coefficient of Utilization



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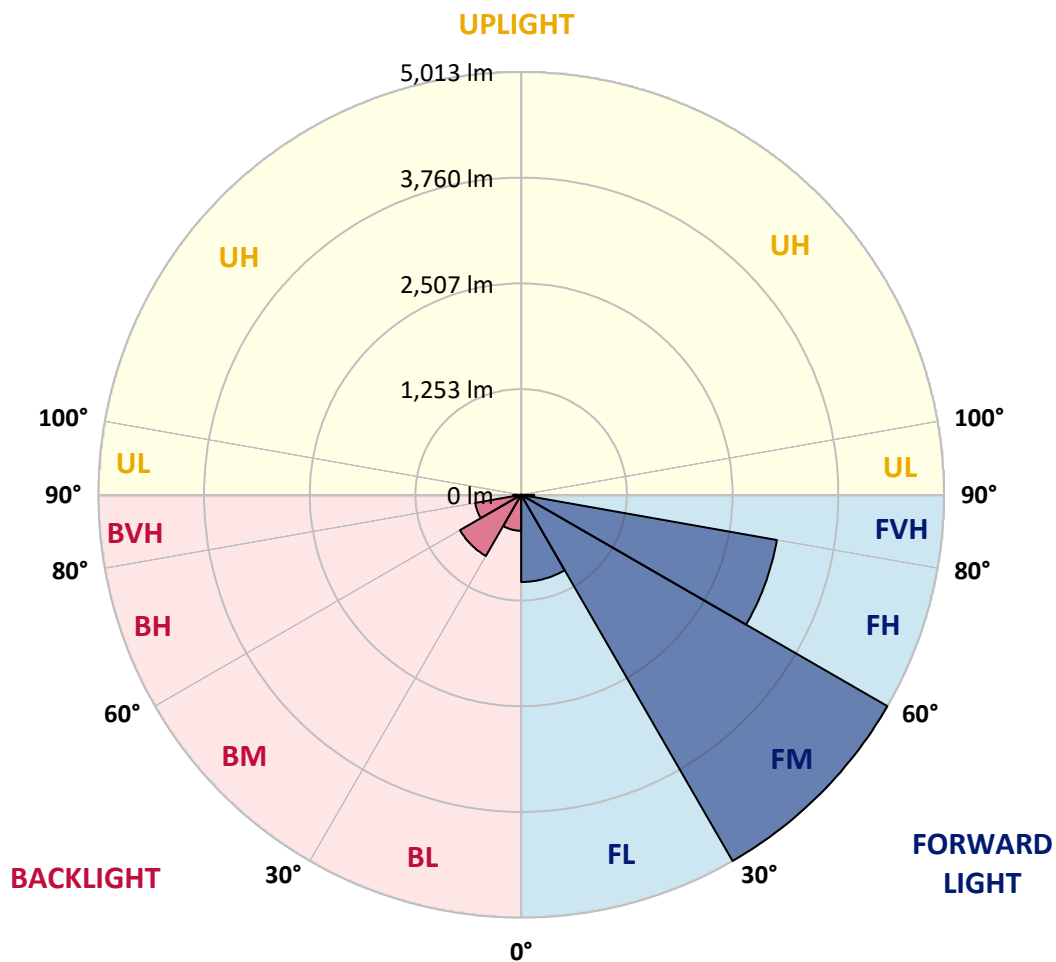
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1033.3	9.2			
FM	(30°-60°)	5013.4	44.8			
FH	(60°-80°)	3078.8	27.5			G2/5000
FVH	(80°-90°)	155.3	1.4			G2/225
BL	(0°-30°)	426.6	3.8	B1/500		
BM	(30°-60°)	837.0	7.5	B1/1000		
BH	(60°-80°)	553.4	4.9	B2/1000		G2/1000
BVH	(80°-90°)	94.2	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0
2.5°	1572.3	1577.0	1567.6	1546.5	1516.1	1460.0	1410.8	1324.3	1247.1	1237.7	1155.8
5°	1848.4	1853.0	1841.3	1815.6	1782.9	1722.0	1654.2	1541.9	1417.9	1394.5	1221.3
7.5°	2037.9	2040.2	2026.2	2000.4	1974.7	1913.9	1846.0	1719.7	1567.6	1548.9	1305.6
10°	2199.3	2204.0	2185.3	2168.9	2140.8	2080.0	2009.8	1876.4	1719.7	1693.9	1392.1
12.5°	2349.1	2353.7	2342.0	2328.0	2318.6	2262.5	2185.3	2026.2	1857.7	1829.6	1495.1
15°	2449.7	2454.3	2456.7	2475.4	2487.1	2447.3	2370.1	2197.0	2007.5	1981.7	1616.7
17.5°	2421.6	2433.3	2468.4	2536.2	2608.8	2611.1	2547.9	2365.4	2154.9	2126.8	1740.7
20°	2339.7	2349.1	2391.2	2494.1	2636.8	2718.7	2714.1	2536.2	2292.9	2262.5	1855.4
22.5°	2407.6	2419.2	2419.2	2482.4	2622.8	2774.9	2835.7	2704.7	2430.9	2402.9	1970.0
25°	2697.7	2704.7	2655.6	2629.8	2681.3	2821.7	2936.3	2887.2	2599.4	2566.7	2094.0
27.5°	3102.4	3090.7	3029.9	2927.0	2870.8	2908.2	3025.2	3060.3	2793.6	2753.8	2222.7
30°	3504.9	3497.9	3427.7	3289.6	3163.3	3083.7	3123.5	3214.7	3004.2	2957.4	2346.7
32.5°	3881.6	3869.9	3792.7	3631.2	3488.5	3341.1	3263.9	3355.1	3228.8	3175.0	2484.8
35°	4227.8	4197.4	4120.2	3951.8	3804.4	3664.0	3474.5	3488.5	3472.1	3416.0	2636.8
37.5°	4508.6	4485.2	4401.0	4244.2	4087.5	3954.1	3755.2	3640.6	3734.2	3680.3	2812.3
40°	4756.6	4730.9	4644.3	4487.5	4342.5	4216.1	4059.4	3825.4	4029.0	3968.1	3008.9
42.5°	4943.8	4925.1	4854.9	4700.5	4560.1	4445.4	4368.2	4059.4	4335.5	4277.0	3224.1
45°	5044.4	5025.7	4988.2	4864.2	4735.6	4646.6	4653.7	4337.8	4656.0	4606.9	3479.1
47.5°	4920.4	4934.4	4967.2	4943.8	4864.2	4822.1	4908.7	4625.6	5014.0	4967.2	3755.2
50°	4588.2	4602.2	4733.2	4894.7	4922.7	4974.2	5138.0	4957.8	5393.0	5355.6	4096.8
52.5°	3771.6	3848.8	4211.5	4597.5	4861.9	5074.8	5393.0	5451.5	6031.7	6031.7	4700.5
55°	2849.8	2917.6	3331.7	4005.6	4625.6	5084.2	5580.2	5786.1	6492.7	6502.0	5016.3
57.5°	2309.3	2351.4	2555.0	3245.2	4129.6	4967.2	5802.5	6073.9	6876.4	6918.5	5423.4
60°	1874.1	1897.5	2030.9	2510.5	3444.0	4651.3	5961.6	6485.6	7423.9	7482.4	5942.8
62.5°	1506.8	1530.2	1619.1	1906.9	2702.4	4059.4	5933.5	6913.8	8153.9	8249.8	6623.7
65°	1202.6	1228.3	1286.8	1464.7	2002.8	3324.7	5645.7	7133.7	8909.6	9003.2	7075.3
67.5°	938.2	961.6	1001.4	1118.4	1410.8	2487.1	4964.8	6902.1	9248.8	9328.4	7098.6
70°	708.9	720.6	753.4	828.3	1008.4	1651.8	3886.2	6125.3	8944.7	9017.2	6630.7
72.5°	549.8	547.5	566.2	603.6	704.2	1137.1	2576.0	4981.2	7908.2	7983.1	5657.4
75°	449.2	446.9	458.6	470.3	510.1	762.7	1520.8	3750.5	6382.7	6240.0	4244.2
77.5°	379.0	376.7	388.4	390.7	407.1	526.4	865.7	2468.4	4258.3	4012.6	2391.2
80°	320.5	318.2	332.2	336.9	348.6	386.1	498.4	1336.0	2138.5	2026.2	1141.8
82.5°	241.0	250.3	276.1	287.8	301.8	285.4	308.8	589.6	992.0	947.6	496.0
85°	117.0	138.0	208.2	231.6	248.0	180.2	210.6	278.4	446.9	425.8	201.2
87.5°	39.8	35.1	124.0	147.4	161.4	81.9	117.0	154.4	184.8	168.5	63.2
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°	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0	1109.0
2.5°	1120.7	1085.6	1034.1	994.4	968.6	947.6	938.2	935.9	931.2	928.9	928.9
5°	1144.1	1080.9	1001.4	959.3	947.6	938.2	942.9	945.2	945.2	945.2	945.2
7.5°	1179.2	1090.3	994.4	966.3	964.0	964.0	978.0	985.0	989.7	989.7	989.7
10°	1226.0	1106.7	1006.1	982.7	989.7	994.4	1010.8	1020.1	1024.8	1027.1	1029.5
12.5°	1289.2	1141.8	1029.5	1010.8	1020.1	1022.4	1034.1	1038.8	1043.5	1045.8	1045.8
15°	1373.4	1193.2	1066.9	1043.5	1045.8	1043.5	1043.5	1038.8	1036.5	1036.5	1041.2
17.5°	1460.0	1242.4	1099.7	1066.9	1057.5	1038.8	1024.8	1013.1	1006.1	1001.4	1003.7
20°	1546.5	1286.8	1118.4	1071.6	1045.8	1015.4	989.7	973.3	964.0	954.6	959.3
22.5°	1633.1	1328.9	1125.4	1057.5	1020.1	975.7	947.6	921.8	900.8	886.7	889.1
25°	1729.0	1375.7	1125.4	1041.2	985.0	938.2	903.1	861.0	830.6	818.9	823.6
27.5°	1825.0	1415.5	1113.7	1010.8	945.2	898.4	847.0	797.8	779.1	772.1	774.4
30°	1920.9	1445.9	1088.0	973.3	903.1	851.7	783.8	751.0	727.6	708.9	711.3
32.5°	2016.8	1467.0	1052.9	926.5	858.7	793.2	737.0	699.6	657.5	634.1	636.4
35°	2126.8	1483.4	1010.8	879.7	809.5	741.7	699.6	638.7	594.3	575.6	570.9
37.5°	2241.4	1495.1	966.3	828.3	760.4	704.2	662.1	587.3	545.1	519.4	517.1
40°	2365.4	1499.7	912.5	774.4	713.6	680.9	613.0	556.8	484.3	467.9	467.9
42.5°	2512.8	1497.4	858.7	720.6	662.1	627.0	577.9	552.2	489.0	472.6	463.3
45°	2681.3	1497.4	800.2	657.5	610.7	559.2	538.1	521.8	479.6	486.7	491.3
47.5°	2873.2	1492.7	730.0	606.0	568.5	524.1	512.4	477.3	460.9	465.6	470.3
50°	3137.5	1499.7	666.8	563.9	538.1	500.7	486.7	467.9	460.9	463.3	460.9
52.5°	3504.9	1476.4	606.0	538.1	514.7	465.6	465.6	463.3	465.6	463.3	463.3
55°	3706.1	1424.9	561.5	524.1	498.4	449.2	458.6	463.3	467.9	465.6	465.6
57.5°	3991.5	1389.8	526.4	514.7	489.0	444.5	453.9	463.3	465.6	463.3	463.3
60°	4328.4	1366.4	503.0	517.1	482.0	444.5	456.2	463.3	460.9	458.6	458.6
62.5°	4719.2	1357.0	486.7	524.1	475.0	446.9	456.2	463.3	453.9	451.6	451.6
65°	4866.6	1272.8	465.6	528.8	479.6	446.9	453.9	456.2	444.5	442.2	439.9
67.5°	4639.6	1127.7	435.2	519.4	493.7	446.9	446.9	444.5	430.5	428.2	423.5
70°	4131.9	935.9	388.4	489.0	503.0	449.2	437.5	425.8	411.8	411.8	402.4
72.5°	3383.2	737.0	327.6	435.2	496.0	456.2	418.8	402.4	386.1	386.1	376.7
75°	2438.0	549.8	262.0	362.7	465.6	453.9	395.4	374.4	355.6	353.3	341.6
77.5°	1389.8	386.1	212.9	283.1	414.1	442.2	374.4	341.6	320.5	313.5	306.5
80°	713.6	259.7	173.1	222.3	343.9	409.4	358.0	304.2	280.8	269.1	257.4
82.5°	339.3	173.1	133.4	163.8	259.7	358.0	336.9	262.0	236.3	222.3	208.2
85°	152.1	102.9	88.9	105.3	184.8	278.4	297.1	215.3	184.8	231.6	170.8
87.5°	49.1	46.8	46.8	49.1	88.9	121.7	217.6	159.1	147.4	121.7	102.9
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)