

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: P234738

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234738
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-AF16-20-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2309 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 24
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

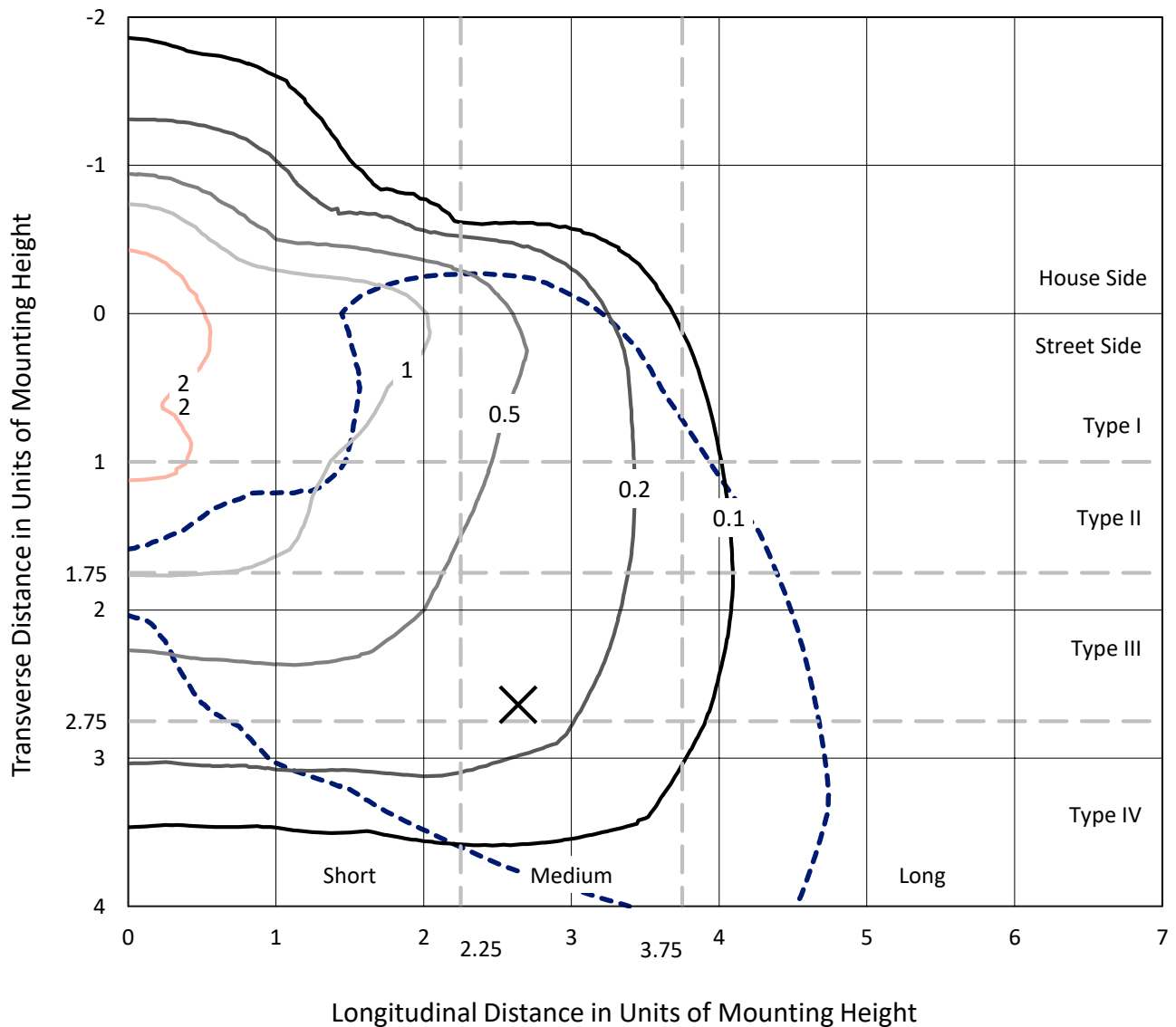


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

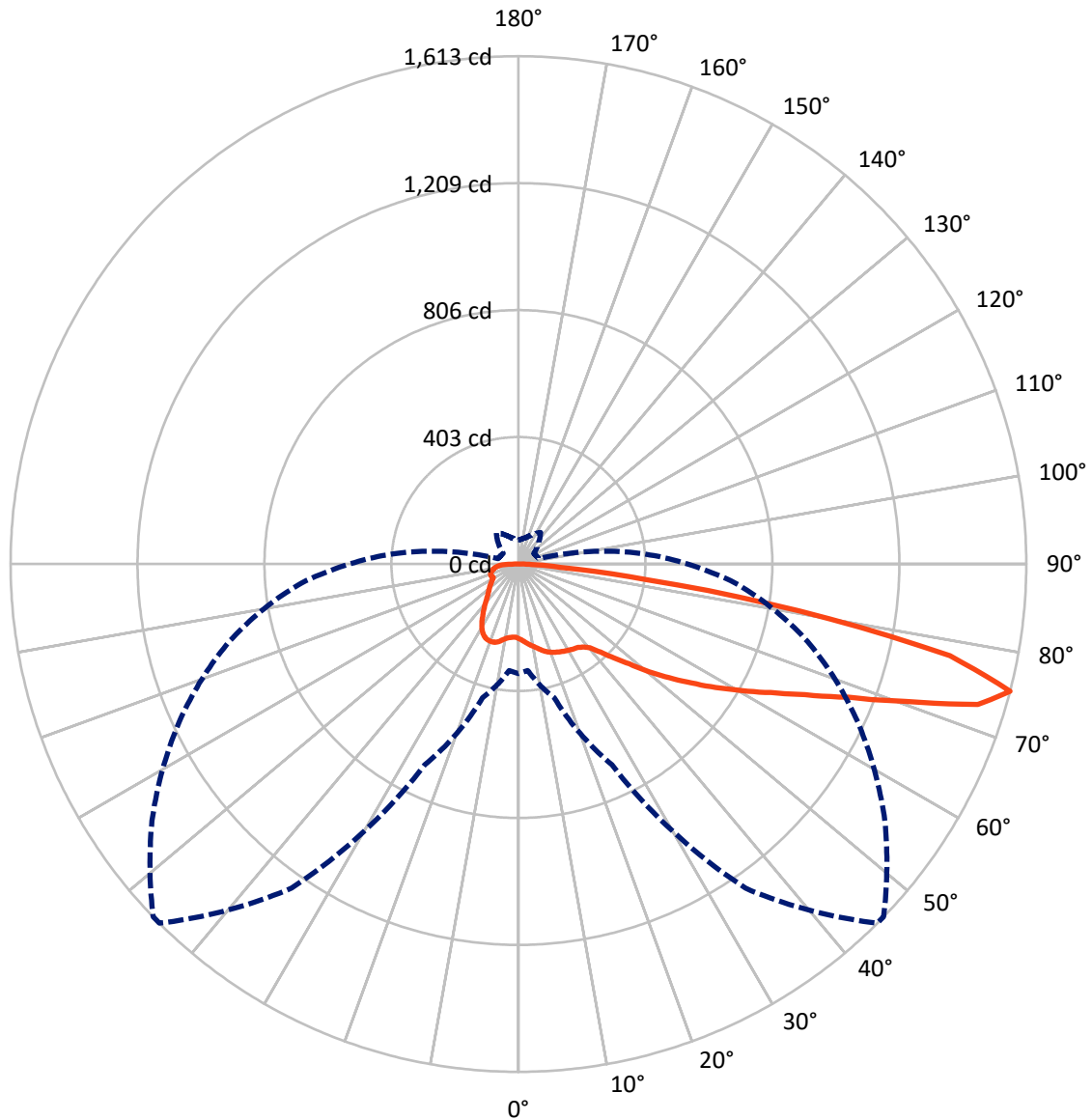


Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Medium - Non-Cutoff

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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	534.9	0.0	534.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	1774.1	0.0	1774.1
	% Fixture	76.8	0.0	76.8
Total	Lumens	2309.0	0.0	2309.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	1.0
10°-20°	76.0	3.3
20°-30°	130.4	5.6
30°-40°	182.4	7.9
40°-50°	267.6	11.6
50°-60°	416.9	18.1
60°-70°	599.9	26.0
70°-80°	522.5	22.6
80°-90°	89.7	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°	2309.0	100.0
0°-180°	2309.0	100.0

Coefficient of Utilization



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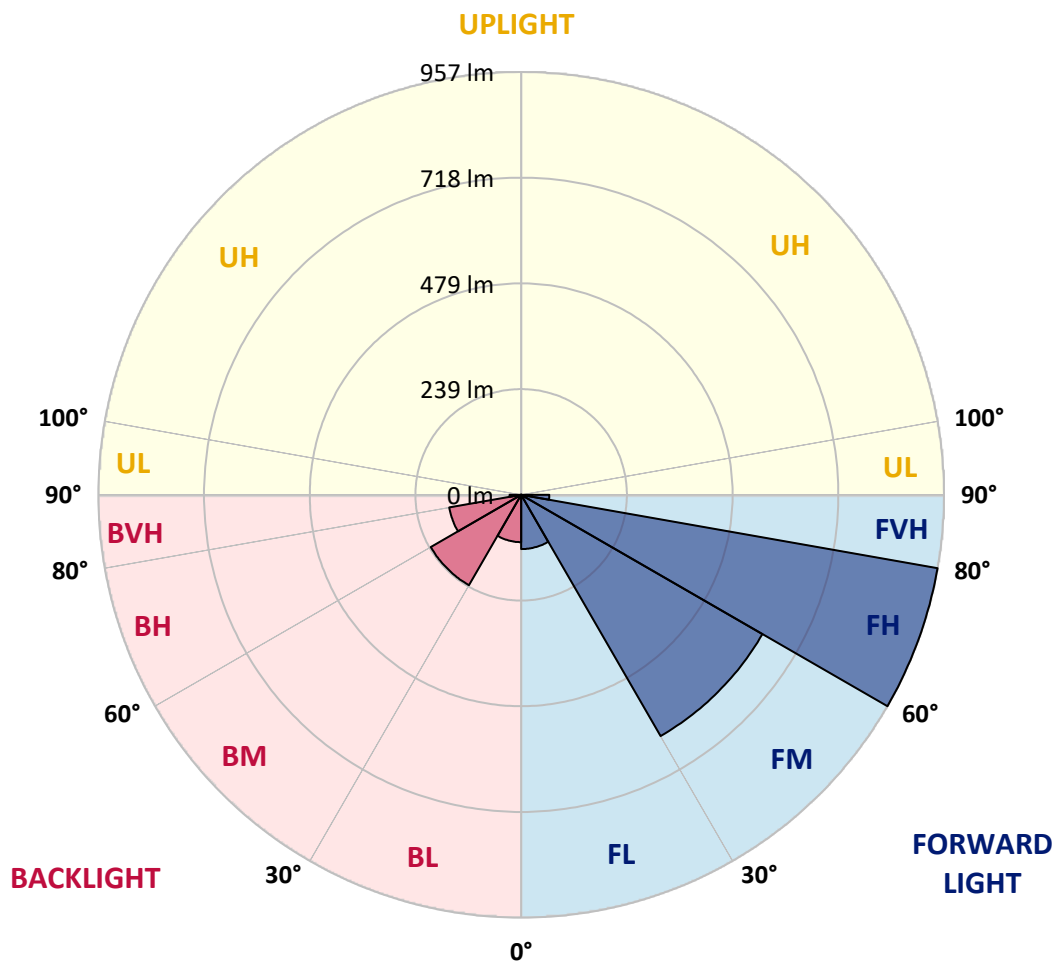
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	122.8	5.3			
FM (30°-60°)	630.5	27.3			
FH (60°-80°)	957.1	41.5			G1/1800
FVH (80°-90°)	63.7	2.8			G1/100
BL (0°-30°)	107.1	4.6	B0/110		
BM (30°-60°)	236.4	10.2	B1/1000		
BH (60°-80°)	165.3	7.2	B1/500		G1/500
BVH (80°-90°)	26.1	1.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7
2.5°	248.4	246.6	246.6	245.2	245.2	243.0	242.1	241.6	239.4	238.1	236.7
5°	262.8	260.5	260.1	256.9	255.6	250.6	250.2	247.0	243.0	239.0	235.8
7.5°	275.8	274.4	272.2	269.0	265.0	258.7	258.3	253.3	246.6	241.2	236.7
10°	285.2	284.3	281.2	277.1	272.6	266.3	265.9	260.5	252.4	246.1	239.8
12.5°	296.4	295.1	291.1	285.7	280.7	274.9	274.4	269.9	261.0	252.9	244.8
15°	307.2	305.4	300.5	295.1	289.7	284.8	284.8	279.8	270.4	261.0	251.5
17.5°	312.6	311.7	306.8	300.9	296.4	292.8	292.4	287.9	278.5	268.6	258.3
20°	314.4	314.9	310.4	304.1	300.9	299.1	298.7	295.5	285.2	275.8	265.9
22.5°	314.0	315.3	311.7	305.0	304.1	304.1	304.1	300.5	292.4	283.0	273.1
25°	315.8	317.6	314.9	306.8	306.8	308.6	308.6	306.8	299.6	291.5	281.6
27.5°	322.0	323.4	321.1	309.9	310.4	313.1	312.6	313.1	308.6	300.9	291.1
30°	329.7	331.5	328.8	314.9	314.4	317.1	317.1	319.3	316.2	308.1	300.0
32.5°	350.3	349.9	341.4	320.2	318.9	321.6	321.6	323.8	322.0	315.8	308.1
35°	411.9	405.1	386.3	337.8	324.3	325.6	325.6	329.7	330.6	325.6	318.9
37.5°	474.8	472.5	458.1	384.5	344.1	334.2	333.7	339.6	343.6	339.6	335.1
40°	538.1	536.3	533.1	446.9	385.4	349.4	348.1	353.0	360.2	357.5	354.8
42.5°	596.9	596.0	599.2	508.4	437.9	382.2	378.2	372.4	382.7	381.8	381.8
45°	643.2	645.4	647.2	565.9	495.0	424.5	419.5	399.7	413.7	417.3	420.0
47.5°	669.2	671.0	677.3	622.1	552.0	473.4	469.8	437.5	455.9	466.7	474.3
50°	706.5	701.6	707.0	676.9	620.7	537.2	527.3	488.2	511.6	530.5	548.4
52.5°	742.5	734.4	738.9	740.2	698.9	599.6	589.3	548.0	577.2	606.8	638.7
55°	774.8	774.3	778.8	801.7	774.3	666.5	654.9	614.0	656.2	688.1	742.0
57.5°	800.8	805.3	825.1	873.2	861.5	739.3	726.3	690.8	740.7	772.5	861.9
60°	831.4	838.6	871.4	933.8	941.0	815.7	802.2	776.6	827.3	859.7	1000.7
62.5°	841.7	852.0	919.4	997.6	1024.1	899.2	887.1	870.0	918.5	947.7	1139.1
65°	773.0	792.8	945.9	1030.4	1113.5	999.8	989.5	974.7	1009.3	1028.6	1232.9
67.5°	754.1	763.1	894.3	1077.5	1197.5	1129.2	1118.8	1093.2	1094.1	1086.1	1263.5
70°	727.6	737.5	841.3	1113.0	1317.8	1306.1	1293.6	1218.1	1171.8	1122.9	1203.3
72.5°	619.8	616.7	724.9	1017.3	1375.8	1525.3	1510.5	1352.4	1229.3	1091.0	1015.5
75°	348.1	339.1	439.7	703.8	1256.3	1612.5	1612.0	1420.2	1188.9	950.4	691.3
77.5°	101.1	98.4	145.1	295.1	845.8	1400.9	1418.0	1281.0	992.2	682.7	379.5
80°	47.6	48.5	62.4	97.5	361.1	904.2	953.1	843.5	592.9	314.9	156.8
82.5°	30.1	30.5	42.7	62.9	152.7	410.5	451.0	379.5	234.9	136.1	69.2
85°	18.9	18.9	28.3	41.3	91.2	131.2	142.4	129.4	100.6	74.1	37.7
87.5°	10.3	10.3	17.1	23.8	49.9	42.2	43.6	51.7	62.9	45.4	18.9
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°	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7	236.7
2.5°	236.3	235.4	234.0	233.6	233.1	232.7	233.1	234.0	233.1	233.1	233.6
5°	234.9	234.0	232.2	232.2	232.7	233.1	235.4	236.7	237.2	237.2	237.2
7.5°	234.9	233.6	232.2	232.7	233.6	235.4	239.0	241.2	243.0	243.4	243.4
10°	237.2	235.4	234.5	235.4	238.1	239.4	243.0	246.6	248.8	249.7	249.7
12.5°	241.2	239.4	239.4	241.2	244.8	246.6	249.7	252.4	255.1	256.5	256.5
15°	247.9	245.7	246.1	249.3	253.3	255.1	257.4	258.3	260.5	262.3	262.3
17.5°	254.2	252.0	252.9	256.5	259.2	260.1	261.4	261.0	261.9	263.2	263.7
20°	261.4	259.2	259.6	261.9	262.3	261.4	261.4	260.1	259.6	261.9	262.8
22.5°	268.6	266.3	265.9	264.6	262.3	260.1	258.7	257.4	256.5	258.7	259.6
25°	277.1	274.0	271.7	265.9	260.1	256.0	254.2	253.3	252.9	255.1	256.0
27.5°	286.6	283.4	276.7	264.1	254.7	247.9	246.6	246.6	247.5	248.8	249.7
30°	295.5	292.4	280.3	260.1	245.2	235.4	234.0	235.4	237.6	239.0	240.3
32.5°	304.5	301.4	282.5	253.8	231.3	218.7	217.8	220.1	223.7	224.6	225.5
35°	316.7	313.5	285.2	244.8	213.8	200.3	199.4	200.8	203.9	205.3	206.6
37.5°	333.7	331.9	289.3	234.9	197.6	182.8	180.1	179.2	181.0	180.6	182.4
40°	356.2	357.5	296.4	221.9	181.9	166.6	160.8	158.1	156.3	152.7	154.5
42.5°	389.0	389.9	304.5	207.1	168.4	151.4	143.7	138.8	135.2	129.4	130.3
45°	437.0	429.4	314.0	191.3	156.3	139.2	130.3	124.4	119.5	114.5	115.0
47.5°	500.8	477.5	324.3	178.3	144.2	129.4	121.3	114.5	108.7	104.7	105.1
50°	579.4	537.2	334.6	166.2	132.1	121.7	114.5	107.3	101.5	97.5	97.0
52.5°	683.2	609.1	341.4	152.7	119.9	115.0	108.7	102.0	94.8	89.8	89.4
55°	791.0	692.6	347.2	136.5	108.2	107.3	104.2	96.6	88.0	81.7	80.8
57.5°	909.5	782.0	351.7	120.8	99.3	101.1	100.2	91.2	81.7	75.9	75.5
60°	1017.3	874.5	337.3	106.9	91.2	94.8	95.7	88.0	83.1	84.4	84.9
62.5°	1126.0	945.9	282.5	96.6	85.8	90.7	98.4	97.9	95.7	97.9	98.4
65°	1165.1	960.7	200.3	88.0	80.4	92.5	106.9	106.0	95.7	91.6	90.7
67.5°	1143.1	916.7	134.7	81.3	76.4	94.8	115.9	106.0	92.1	86.7	84.9
70°	1038.4	808.5	98.8	74.6	72.8	94.3	120.8	105.6	90.3	84.4	82.2
72.5°	828.2	623.9	79.5	68.3	67.4	92.1	123.5	104.7	88.5	82.2	79.5
75°	536.3	388.1	66.9	62.0	59.3	88.5	122.2	102.0	86.2	78.2	76.4
77.5°	248.8	167.1	57.0	54.8	51.7	83.1	118.1	96.6	81.3	73.7	71.4
80°	115.9	79.1	48.1	47.6	46.3	78.6	112.7	90.3	75.5	69.2	65.6
82.5°	62.0	47.6	39.1	39.1	40.4	73.2	106.0	82.6	67.8	64.7	55.2
85°	32.8	27.4	28.3	30.5	34.6	64.7	97.0	74.6	59.3	49.4	48.1
87.5°	16.6	17.5	17.5	20.7	26.5	52.6	79.9	61.5	50.3	40.4	39.5
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)