

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: P265875

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265875
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-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 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: 2582.3 lumens
Efficiency: N/A
Efficacy: 107.6 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

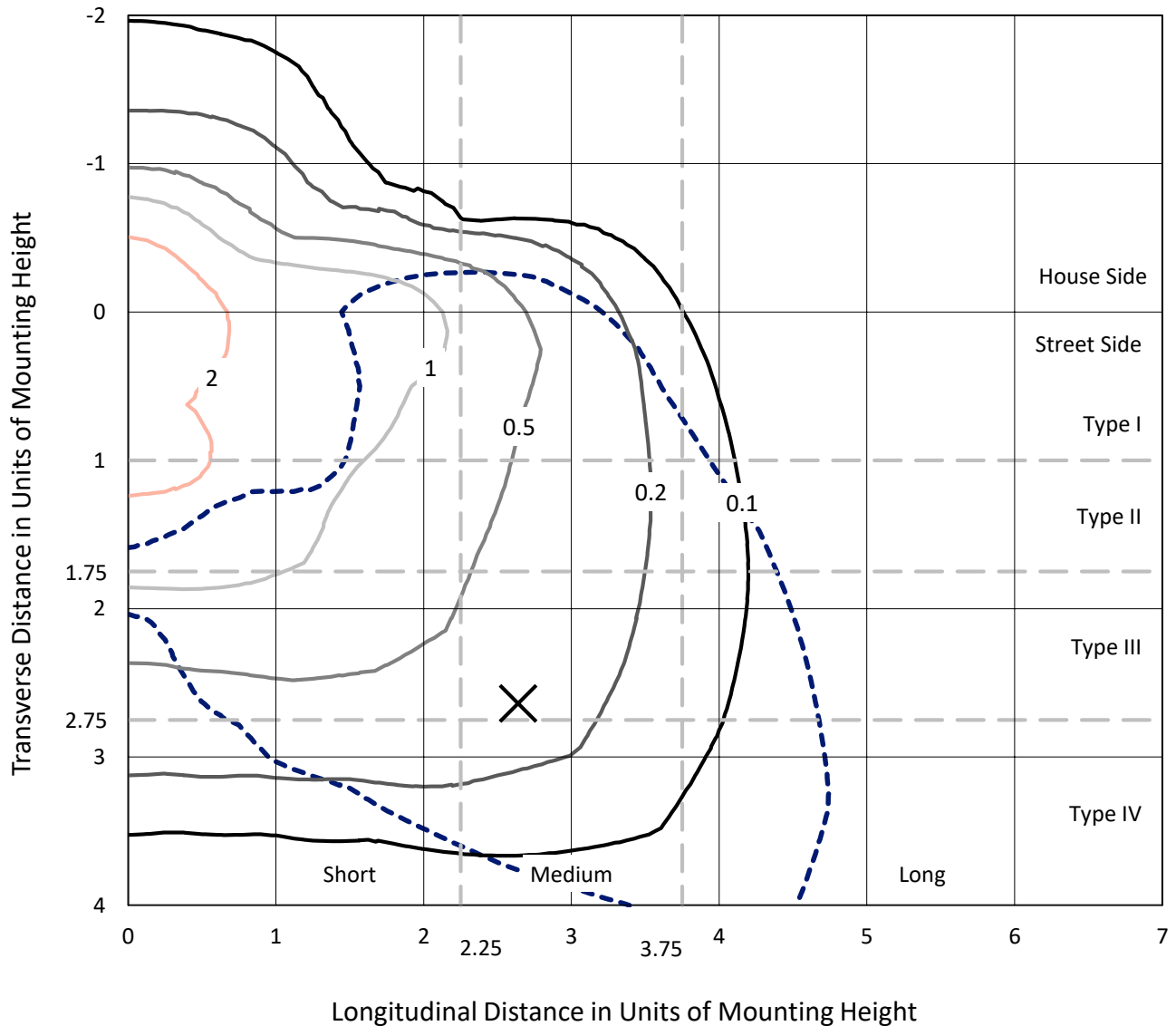


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

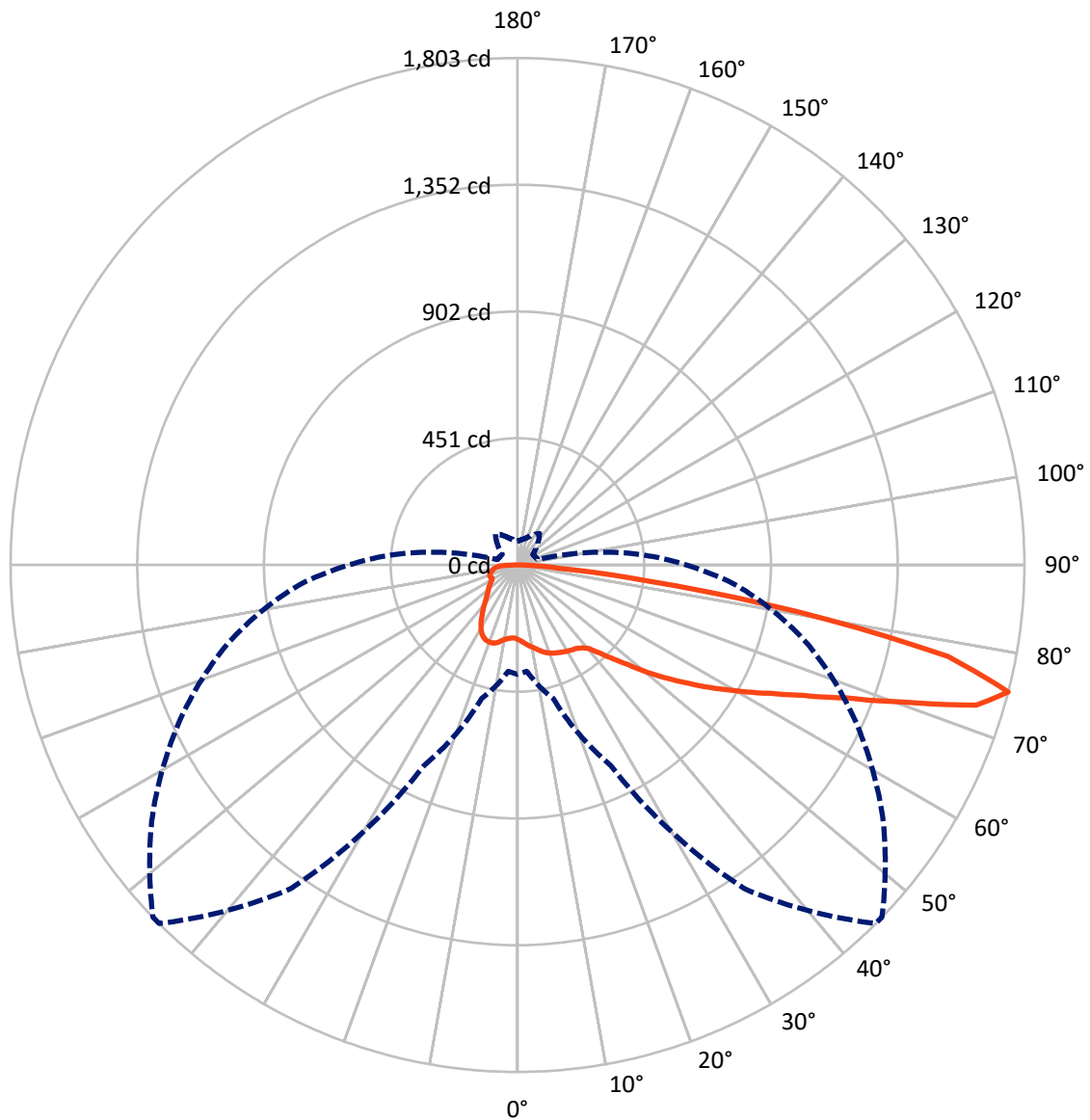


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Medium - Non-Cutoff

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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	598.2	0.0	598.2
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	1984.1	0.0	1984.1
	% Fixture	76.8	0.0	76.8
Total	Lumens	2582.3	0.0	2582.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	1.0
10°-20°	85.0	3.3
20°-30°	145.9	5.6
30°-40°	204.0	7.9
40°-50°	299.3	11.6
50°-60°	466.2	18.1
60°-70°	670.9	26.0
70°-80°	584.4	22.6
80°-90°	100.4	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°	2582.3	100.0
0°-180°	2582.3	100.0



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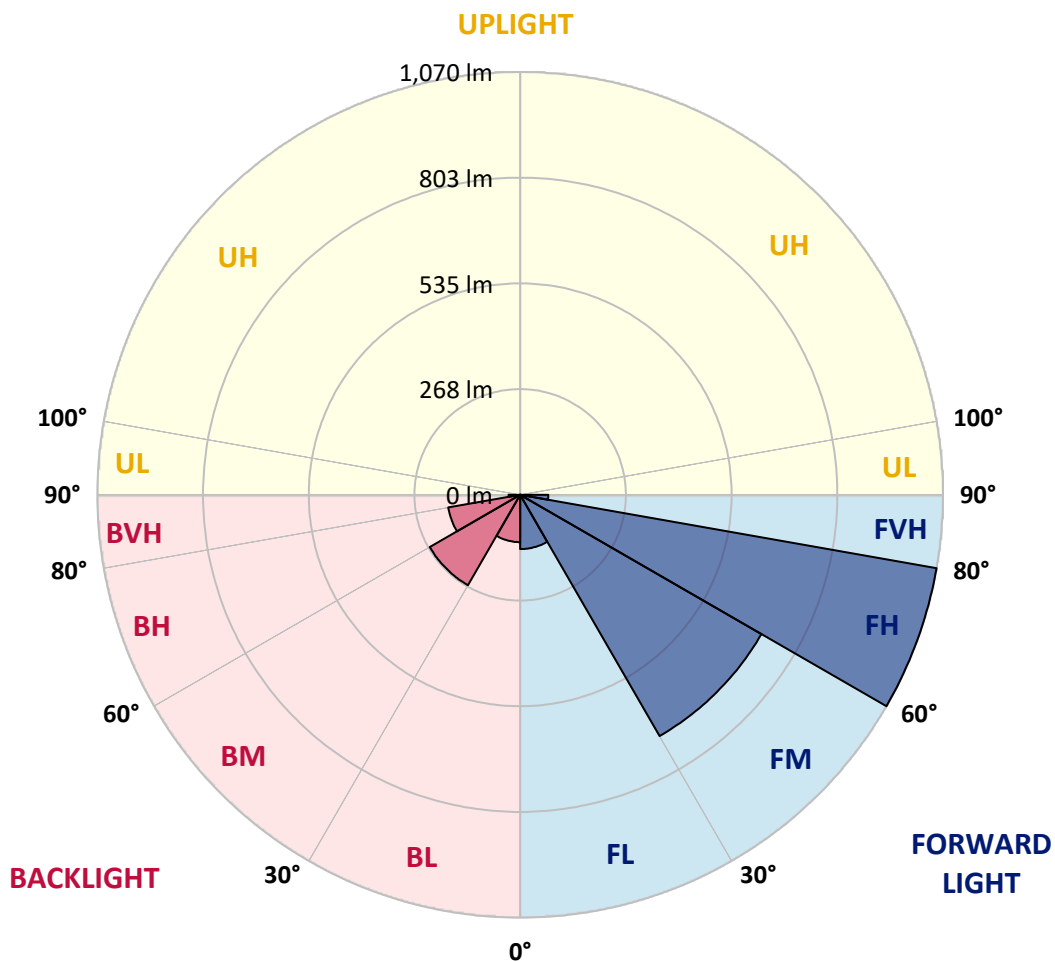
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	137.3	5.3			
FM	(30°-60°)	705.2	27.3			
FH	(60°-80°)	1070.4	41.5			G1/1800
FVH	(80°-90°)	71.2	2.8			G1/100
BL	(0°-30°)	119.8	4.6	B1/500		
BM	(30°-60°)	264.4	10.2	B1/1000		
BH	(60°-80°)	184.9	7.2	B1/500		G1/500
BVH	(80°-90°)	29.2	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°	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7
2.5°	277.8	275.8	275.8	274.3	274.3	271.7	270.7	270.2	267.8	266.3	264.7
5°	293.8	291.3	290.8	287.3	285.8	280.4	279.8	276.3	271.7	267.2	263.7
7.5°	308.4	307.0	304.3	300.9	296.4	289.3	288.9	283.3	275.8	269.8	264.7
10°	319.0	318.0	314.4	309.9	305.0	297.9	297.3	291.3	282.2	275.3	268.2
12.5°	331.6	329.9	325.5	319.4	314.0	307.4	307.0	301.9	291.9	282.7	273.8
15°	343.6	341.5	336.1	329.9	324.0	318.4	318.4	312.9	302.4	291.9	281.3
17.5°	349.6	348.6	343.2	336.5	331.6	327.5	327.1	322.0	311.4	300.5	288.9
20°	351.6	352.1	347.0	340.1	336.5	334.6	334.0	330.5	319.0	308.4	297.3
22.5°	351.1	352.7	348.6	341.0	340.1	340.1	340.1	336.1	327.1	316.5	305.5
25°	353.2	355.1	352.1	343.2	343.2	345.0	345.0	343.2	335.1	326.1	314.9
27.5°	360.2	361.7	359.1	346.6	347.0	350.1	349.6	350.1	345.0	336.5	325.5
30°	368.8	370.7	367.6	352.1	351.6	354.7	354.7	357.2	353.7	344.6	335.5
32.5°	391.8	391.3	381.8	358.2	356.6	359.6	359.6	362.1	360.2	353.2	344.6
35°	460.7	453.0	431.9	377.7	362.6	364.2	364.2	368.8	369.7	364.2	356.6
37.5°	531.0	528.5	512.4	430.0	384.7	373.8	373.2	379.8	384.2	379.8	374.8
40°	601.8	599.8	596.3	499.7	430.9	390.9	389.2	394.9	402.9	399.8	396.8
42.5°	667.6	666.5	670.0	568.5	489.8	427.5	422.9	416.5	428.0	427.0	427.0
45°	719.4	721.8	723.9	632.9	553.5	474.7	469.2	447.0	462.6	466.7	469.6
47.5°	748.5	750.4	757.5	695.6	617.3	529.5	525.4	489.2	509.9	521.9	530.4
50°	790.1	784.6	790.7	757.0	694.2	600.7	589.6	546.0	572.1	593.2	613.4
52.5°	830.4	821.3	826.4	827.8	781.5	670.6	659.0	612.9	645.5	678.6	714.3
55°	866.4	866.0	870.9	896.7	866.0	745.5	732.4	686.7	733.8	769.6	829.9
57.5°	895.6	900.6	922.7	976.5	963.4	826.8	812.2	772.5	828.2	864.0	963.9
60°	929.7	937.8	974.5	1044.3	1052.4	912.1	897.1	868.5	925.3	961.5	1119.2
62.5°	941.3	952.9	1028.2	1115.7	1145.2	1005.7	992.1	973.0	1027.2	1059.9	1273.8
65°	864.4	886.5	1057.8	1152.3	1245.2	1118.2	1106.6	1090.1	1128.7	1150.3	1378.9
67.5°	843.4	853.4	1000.2	1205.0	1339.2	1262.7	1251.2	1222.7	1223.6	1214.6	1413.0
70°	813.8	824.9	940.9	1244.7	1473.8	1460.7	1446.7	1362.3	1310.5	1255.8	1345.8
72.5°	693.2	689.7	810.7	1137.8	1538.5	1705.8	1689.4	1512.4	1374.9	1220.1	1135.7
75°	389.2	379.3	491.7	787.2	1404.9	1803.3	1802.8	1588.4	1329.6	1063.0	773.0
77.5°	113.0	110.0	162.2	329.9	945.8	1566.7	1585.8	1432.5	1109.6	763.5	424.4
80°	53.3	54.3	69.8	109.1	403.9	1011.1	1065.8	943.3	663.0	352.1	175.3
82.5°	33.6	34.1	47.7	70.3	170.8	459.2	504.3	424.4	262.8	152.3	77.3
85°	21.1	21.1	31.6	46.3	102.0	146.7	159.2	144.6	112.5	82.9	42.2
87.5°	11.6	11.6	19.0	26.6	55.8	47.3	48.7	57.9	70.3	50.8	21.1
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°	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7	264.7
2.5°	264.2	263.3	261.6	261.1	260.7	260.1	260.7	261.6	260.7	260.7	261.1
5°	262.8	261.6	259.7	259.7	260.1	260.7	263.3	264.7	265.2	265.2	265.2
7.5°	262.8	261.1	259.7	260.1	261.1	263.3	267.2	269.8	271.7	272.2	272.2
10°	265.2	263.3	262.2	263.3	266.3	267.8	271.7	275.8	278.3	279.4	279.4
12.5°	269.8	267.8	267.8	269.8	273.8	275.8	279.4	282.2	285.3	286.7	286.7
15°	277.2	274.8	275.3	278.7	283.3	285.3	287.8	288.9	291.3	293.3	293.3
17.5°	284.4	281.8	282.7	286.7	289.9	290.8	292.4	291.9	292.8	294.4	294.9
20°	292.4	289.9	290.3	292.8	293.3	292.4	292.4	290.8	290.3	292.8	293.8
22.5°	300.5	297.9	297.3	295.8	293.3	290.8	289.3	287.8	286.7	289.3	290.3
25°	309.9	306.4	303.8	297.3	290.8	286.3	284.4	283.3	282.7	285.3	286.3
27.5°	320.4	316.9	309.5	295.4	284.9	277.2	275.8	275.8	276.8	278.3	279.4
30°	330.5	327.1	313.5	290.8	274.3	263.3	261.6	263.3	265.7	267.2	268.8
32.5°	340.5	337.0	315.9	283.9	258.7	244.6	243.6	246.1	250.2	251.2	252.2
35°	354.1	350.6	319.0	273.8	239.0	224.0	223.0	224.5	228.1	229.5	231.0
37.5°	373.2	371.2	323.5	262.8	221.1	204.5	201.4	200.4	202.5	201.8	203.9
40°	398.4	399.8	331.6	248.1	203.5	186.4	179.8	176.8	174.8	170.8	172.8
42.5°	435.0	435.9	340.5	231.6	188.4	169.3	160.7	155.1	151.2	144.6	145.6
45°	488.8	480.2	351.1	213.9	174.8	155.8	145.6	139.1	133.6	128.1	128.5
47.5°	560.1	534.0	362.6	199.5	161.2	144.6	135.6	128.1	121.6	117.0	117.6
50°	647.9	600.7	374.2	185.9	147.7	136.2	128.1	120.1	113.5	109.1	108.4
52.5°	764.0	681.2	381.8	170.8	134.0	128.5	121.6	114.1	106.0	100.5	99.9
55°	884.7	774.6	388.2	152.7	121.0	120.1	116.5	107.9	98.5	91.4	90.4
57.5°	1017.2	874.5	393.3	135.1	111.0	113.0	112.0	102.0	91.4	84.9	84.4
60°	1137.8	978.1	377.3	119.6	102.0	106.0	107.0	98.5	93.0	94.4	95.0
62.5°	1259.3	1057.8	315.9	107.9	95.9	101.5	110.0	109.6	107.0	109.6	110.0
65°	1303.0	1074.5	224.0	98.5	89.9	103.5	119.6	118.5	107.0	102.4	101.5
67.5°	1278.4	1025.2	150.6	90.9	85.3	106.0	129.5	118.5	102.9	96.9	95.0
70°	1161.4	904.1	110.5	83.5	81.3	105.6	135.1	118.0	101.0	94.4	91.9
72.5°	926.2	697.8	88.9	76.4	75.4	102.9	138.1	117.0	99.0	91.9	88.9
75°	599.8	434.1	74.9	69.3	66.4	99.0	136.6	114.1	96.5	87.5	85.3
77.5°	278.3	186.8	63.8	61.3	57.9	93.0	132.1	107.9	90.9	82.4	79.9
80°	129.5	88.5	53.8	53.3	51.7	87.9	126.1	101.0	84.4	77.3	73.3
82.5°	69.3	53.3	43.7	43.7	45.3	81.8	118.5	92.4	75.8	72.4	61.9
85°	36.7	30.6	31.6	34.1	38.6	72.4	108.4	83.5	66.4	55.2	53.8
87.5°	18.5	19.7	19.7	23.0	29.6	58.7	89.4	68.8	56.2	45.3	44.1
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)