

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: P214568

Luminaire Tested: **ARCH-AF16-20-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214568
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-AF16-20-D-U-T2R-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2897.5 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

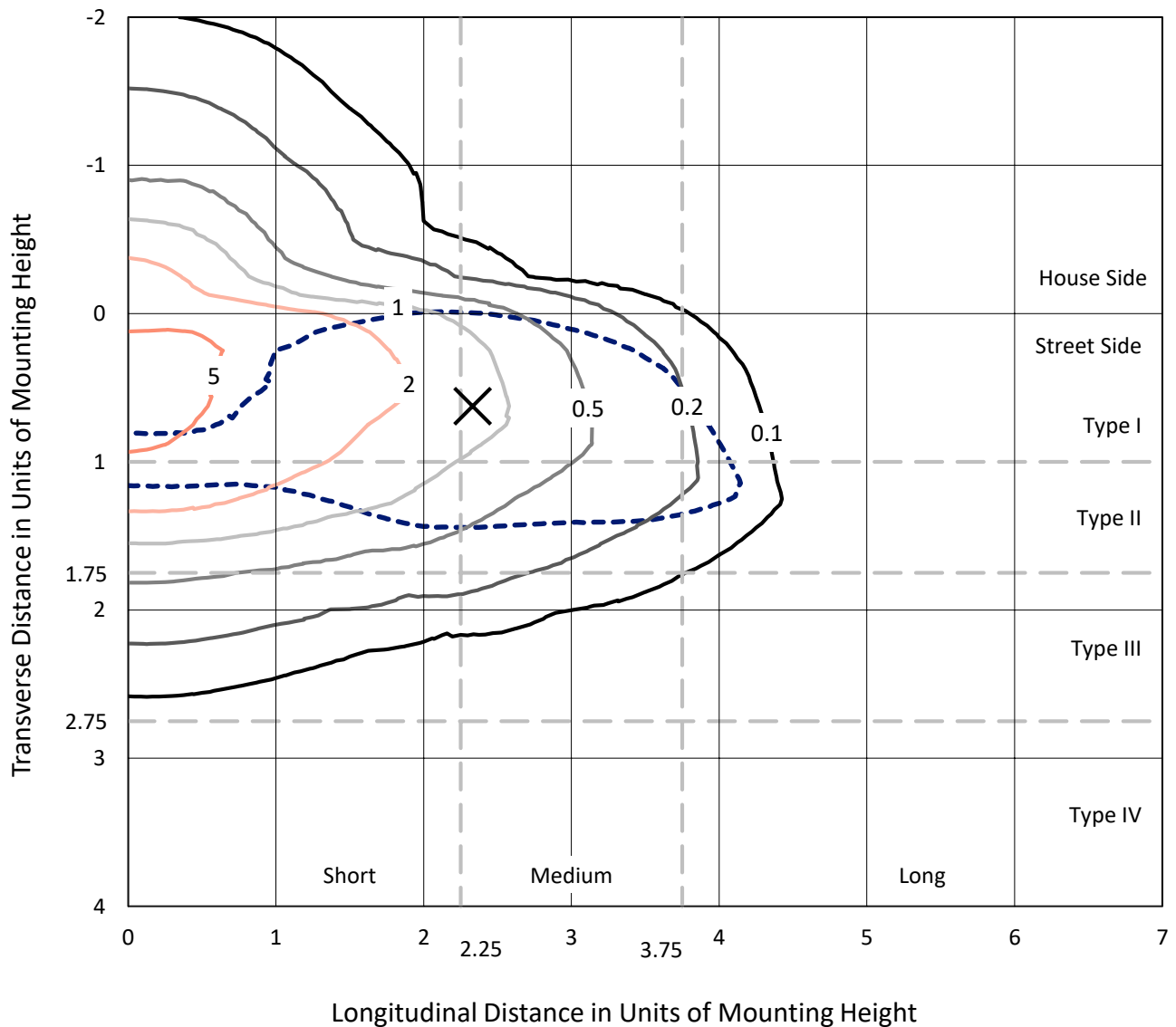
Input Watts (W): 24
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

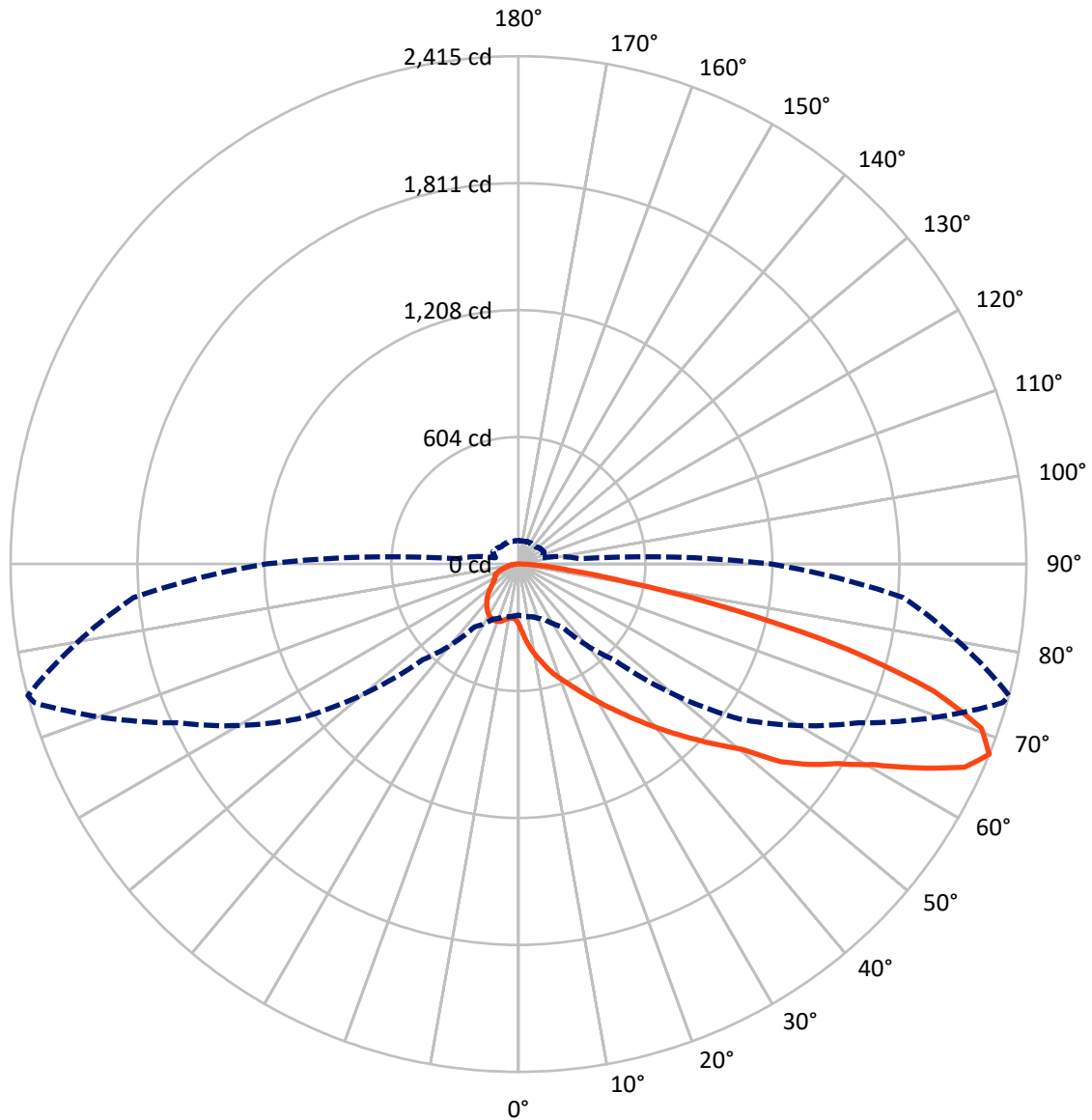
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 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	494.8	0.0	494.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	2402.8	0.0	2402.8
	% Fixture	82.9	0.0	82.9
Total	Lumens	2897.5	0.0	2897.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.7	1.2
10°-20°	121.9	4.2
20°-30°	222.3	7.7
30°-40°	364.9	12.6
40°-50°	527.8	18.2
50°-60°	622.0	21.5
60°-70°	604.4	20.9
70°-80°	336.0	11.6
80°-90°	64.6	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°	2897.5	100.0
0°-180°	2897.5	100.0



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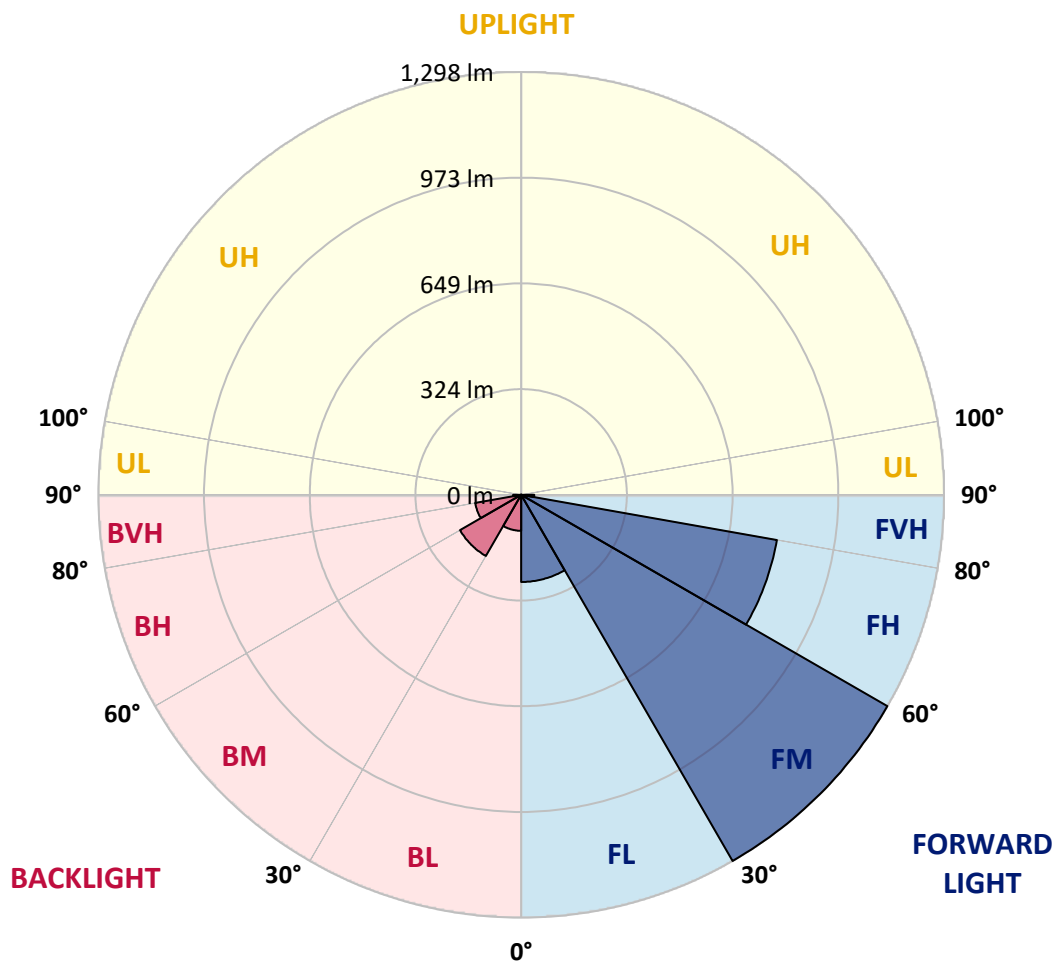
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	267.5	9.2			
FM (30°-60°)	1298.0	44.8			
FH (60°-80°)	797.1	27.5			G1/1800
FVH (80°-90°)	40.2	1.4			G1/100
BL (0°-30°)	110.4	3.8	B1/500		
BM (30°-60°)	216.7	7.5	B0/220		
BH (60°-80°)	143.3	4.9	B1/500		G1/500
BVH (80°-90°)	24.4	0.8			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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2
2.5°	407.1	408.3	405.9	400.4	392.6	377.9	365.3	342.8	322.9	320.4	299.3
5°	478.5	479.7	476.7	470.1	461.6	445.8	428.3	399.3	367.1	361.0	316.2
7.5°	527.6	528.2	524.6	517.9	511.3	495.5	477.9	445.2	405.9	401.0	338.0
10°	569.4	570.6	565.8	561.5	554.3	538.5	520.3	485.7	445.2	438.5	360.4
12.5°	608.1	609.3	606.4	602.7	600.3	585.7	565.8	524.6	481.0	473.6	387.1
15°	634.2	635.5	636.0	641.0	643.9	633.6	613.6	568.8	519.7	513.1	418.6
17.5°	626.9	630.0	639.0	656.6	675.4	676.0	659.6	612.4	557.9	550.6	450.7
20°	605.8	608.1	619.1	645.7	682.7	703.8	702.6	656.6	593.6	585.7	480.3
22.5°	623.4	626.4	626.4	642.7	679.0	718.4	734.1	700.3	629.4	622.1	510.0
25°	698.3	700.3	687.5	680.8	694.2	730.5	760.2	747.5	672.9	664.6	542.2
27.5°	803.2	800.3	784.5	757.8	743.3	752.9	783.2	792.3	723.3	712.9	575.5
30°	907.4	905.5	887.4	851.6	819.0	798.3	808.6	832.3	777.8	765.7	607.6
32.5°	1004.9	1001.9	981.9	940.0	903.1	865.0	845.0	868.6	836.0	821.9	643.3
35°	1094.6	1086.7	1066.7	1023.1	985.0	948.6	899.5	903.1	898.8	884.4	682.7
37.5°	1167.2	1161.2	1139.3	1098.8	1058.1	1023.6	972.2	942.6	966.7	952.8	728.1
40°	1231.5	1224.8	1202.4	1161.8	1124.3	1091.5	1051.0	990.3	1043.1	1027.4	779.0
42.5°	1280.0	1275.0	1256.9	1216.9	1180.5	1150.9	1131.0	1051.0	1122.4	1107.3	834.7
45°	1305.9	1301.2	1291.5	1259.3	1226.0	1203.0	1204.8	1123.0	1205.4	1192.7	900.8
47.5°	1273.9	1277.5	1286.0	1280.0	1259.3	1248.4	1270.8	1197.6	1298.1	1286.0	972.2
50°	1187.8	1191.5	1225.5	1267.2	1274.5	1287.8	1330.2	1283.6	1396.3	1386.5	1060.7
52.5°	976.4	996.5	1090.3	1190.3	1258.7	1313.9	1396.3	1411.4	1561.7	1561.7	1216.9
55°	737.8	755.3	862.6	1037.0	1197.6	1316.2	1444.7	1498.0	1681.0	1683.3	1298.6
57.5°	597.8	608.8	661.4	840.2	1069.1	1286.0	1502.2	1572.5	1780.3	1791.2	1404.1
60°	485.2	491.2	525.7	650.0	891.7	1204.2	1543.4	1679.1	1922.0	1937.1	1538.6
62.5°	390.0	396.2	419.1	493.7	699.6	1051.0	1536.1	1790.0	2111.0	2135.8	1714.9
65°	311.4	318.1	333.1	379.2	518.6	860.8	1461.7	1846.9	2306.7	2330.8	1831.7
67.5°	242.9	249.0	259.3	289.5	365.3	643.9	1285.3	1786.9	2394.5	2415.0	1837.8
70°	183.5	186.7	195.0	214.4	261.0	427.6	1006.2	1585.8	2315.8	2334.6	1716.7
72.5°	142.4	141.7	146.6	156.2	182.4	294.4	666.9	1289.6	2047.4	2066.7	1464.6
75°	116.3	115.7	118.8	121.8	132.1	197.4	393.8	971.0	1652.4	1615.5	1098.8
77.5°	98.2	97.6	100.5	101.2	105.4	136.2	224.1	639.0	1102.4	1038.8	619.1
80°	83.0	82.4	86.0	87.2	90.2	100.0	129.0	346.0	553.6	524.6	295.5
82.5°	62.4	64.8	71.4	74.6	78.1	73.9	80.0	152.6	256.9	245.3	128.4
85°	30.3	35.7	53.9	60.0	64.3	46.7	54.5	72.1	115.7	110.3	52.1
87.5°	10.3	9.1	32.1	38.1	41.8	21.2	30.3	40.0	47.8	43.6	16.4
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°	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2	287.2
2.5°	290.2	281.1	267.6	257.5	250.7	245.3	242.9	242.3	241.1	240.5	240.5
5°	296.2	279.8	259.3	248.3	245.3	242.9	244.0	244.7	244.7	244.7	244.7
7.5°	305.3	282.3	257.5	250.2	249.5	249.5	253.2	255.0	256.2	256.2	256.2
10°	317.4	286.5	260.5	254.3	256.2	257.5	261.6	264.1	265.3	265.9	266.5
12.5°	333.8	295.5	266.5	261.6	264.1	264.7	267.6	269.0	270.2	270.8	270.8
15°	355.5	308.8	276.2	270.2	270.8	270.2	270.2	269.0	268.3	268.3	269.6
17.5°	377.9	321.7	284.7	276.2	273.8	269.0	265.3	262.3	260.5	259.3	259.8
20°	400.4	333.1	289.5	277.4	270.8	262.9	256.2	252.0	249.5	247.2	248.3
22.5°	422.9	344.0	291.4	273.8	264.1	252.6	245.3	238.6	233.2	229.6	230.2
25°	447.6	356.1	291.4	269.6	255.0	242.9	233.9	222.9	215.0	212.0	213.2
27.5°	472.4	366.4	288.3	261.6	244.7	232.6	219.3	206.6	201.7	200.0	200.5
30°	497.3	374.3	281.7	252.0	233.9	220.4	202.9	194.5	188.4	183.5	184.1
32.5°	522.1	379.7	272.6	239.9	222.4	205.3	190.7	181.2	170.2	164.1	164.8
35°	550.6	384.0	261.6	227.8	209.6	192.0	181.2	165.4	153.8	149.0	147.8
37.5°	580.2	387.1	250.2	214.4	196.8	182.4	171.4	152.1	141.2	134.5	133.9
40°	612.4	388.3	236.2	200.5	184.7	176.2	158.8	144.1	125.4	121.2	121.2
42.5°	650.5	387.7	222.4	186.7	171.4	162.4	149.5	142.9	126.6	122.4	119.9
45°	694.2	387.7	207.1	170.2	158.1	144.8	139.3	135.1	124.2	125.9	127.2
47.5°	743.8	386.4	189.0	156.9	147.2	135.7	132.6	123.6	119.3	120.5	121.8
50°	812.4	388.3	172.6	146.0	139.3	129.6	125.9	121.2	119.3	119.9	119.3
52.5°	907.4	382.2	156.9	139.3	133.3	120.5	120.5	119.9	120.5	119.9	119.9
55°	959.6	368.9	145.5	135.7	129.0	116.3	118.8	119.9	121.2	120.5	120.5
57.5°	1033.4	359.8	136.2	133.3	126.6	115.0	117.6	119.9	120.5	119.9	119.9
60°	1120.6	353.8	130.2	133.9	124.8	115.0	118.1	119.9	119.3	118.8	118.8
62.5°	1221.7	351.4	125.9	135.7	122.9	115.7	118.1	119.9	117.6	116.9	116.9
65°	1260.0	329.5	120.5	136.9	124.2	115.7	117.6	118.1	115.0	114.5	113.8
67.5°	1201.2	291.9	112.6	134.5	127.9	115.7	115.7	115.0	111.5	110.9	109.6
70°	1069.7	242.3	100.5	126.6	130.2	116.3	113.3	110.3	106.6	106.6	104.3
72.5°	875.9	190.7	84.7	112.6	128.4	118.1	108.3	104.3	100.0	100.0	97.6
75°	631.2	142.4	67.8	93.9	120.5	117.6	102.3	96.9	92.1	91.4	88.4
77.5°	359.8	100.0	55.1	73.3	107.2	114.5	96.9	88.4	83.0	81.2	79.3
80°	184.7	67.2	44.8	57.6	89.0	106.0	92.7	78.7	72.6	69.7	66.6
82.5°	87.9	44.8	34.5	42.4	67.2	92.7	87.2	67.8	61.1	57.6	53.9
85°	39.4	26.7	23.1	27.2	47.8	72.1	76.9	55.7	47.8	60.0	44.2
87.5°	12.7	12.1	12.1	12.7	23.1	31.4	56.4	41.2	38.1	31.4	26.7
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)