

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: P214862

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214862
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
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 3040.2 lumens
Efficiency: N/A
Efficacy: 126.7 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

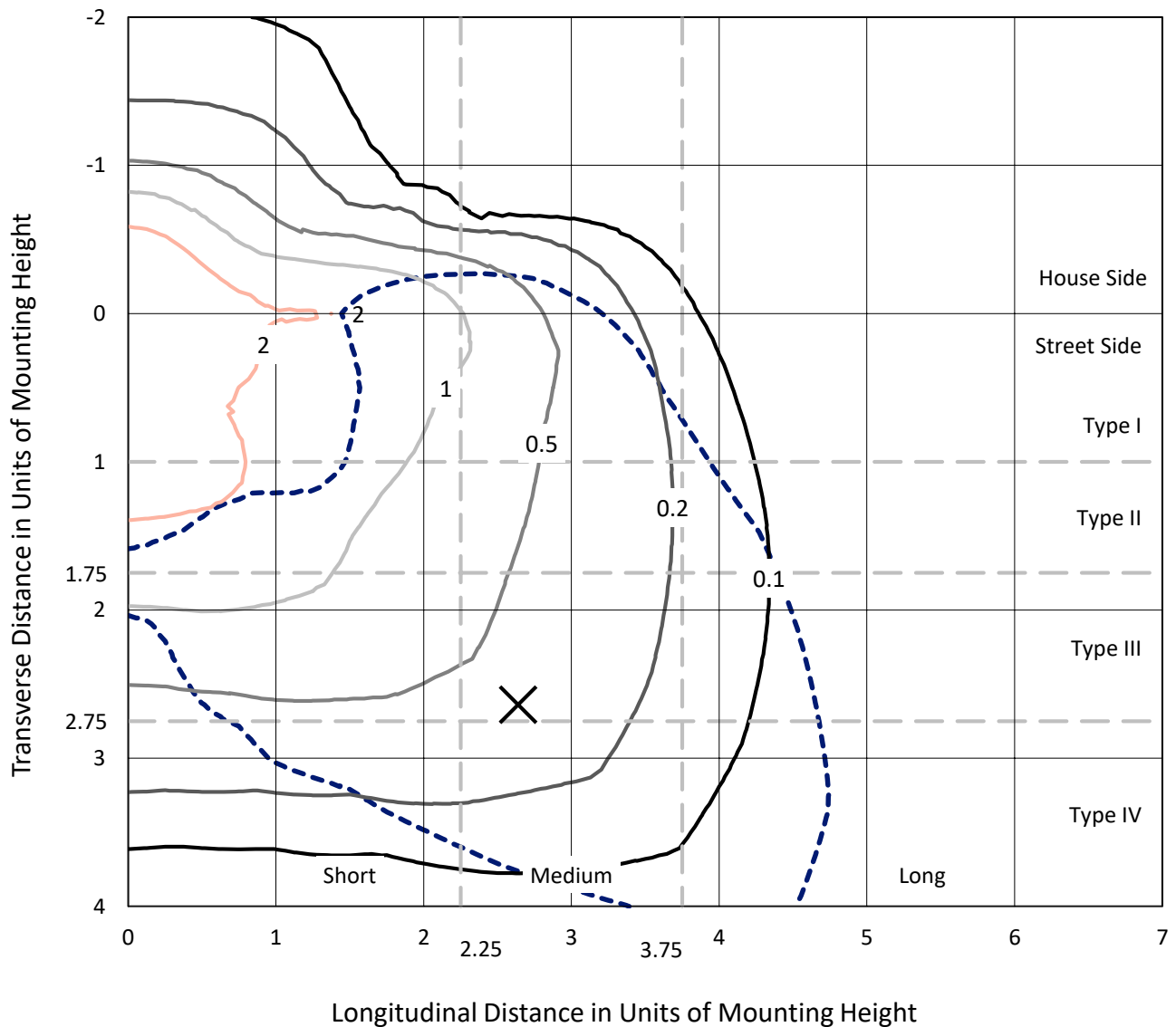


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

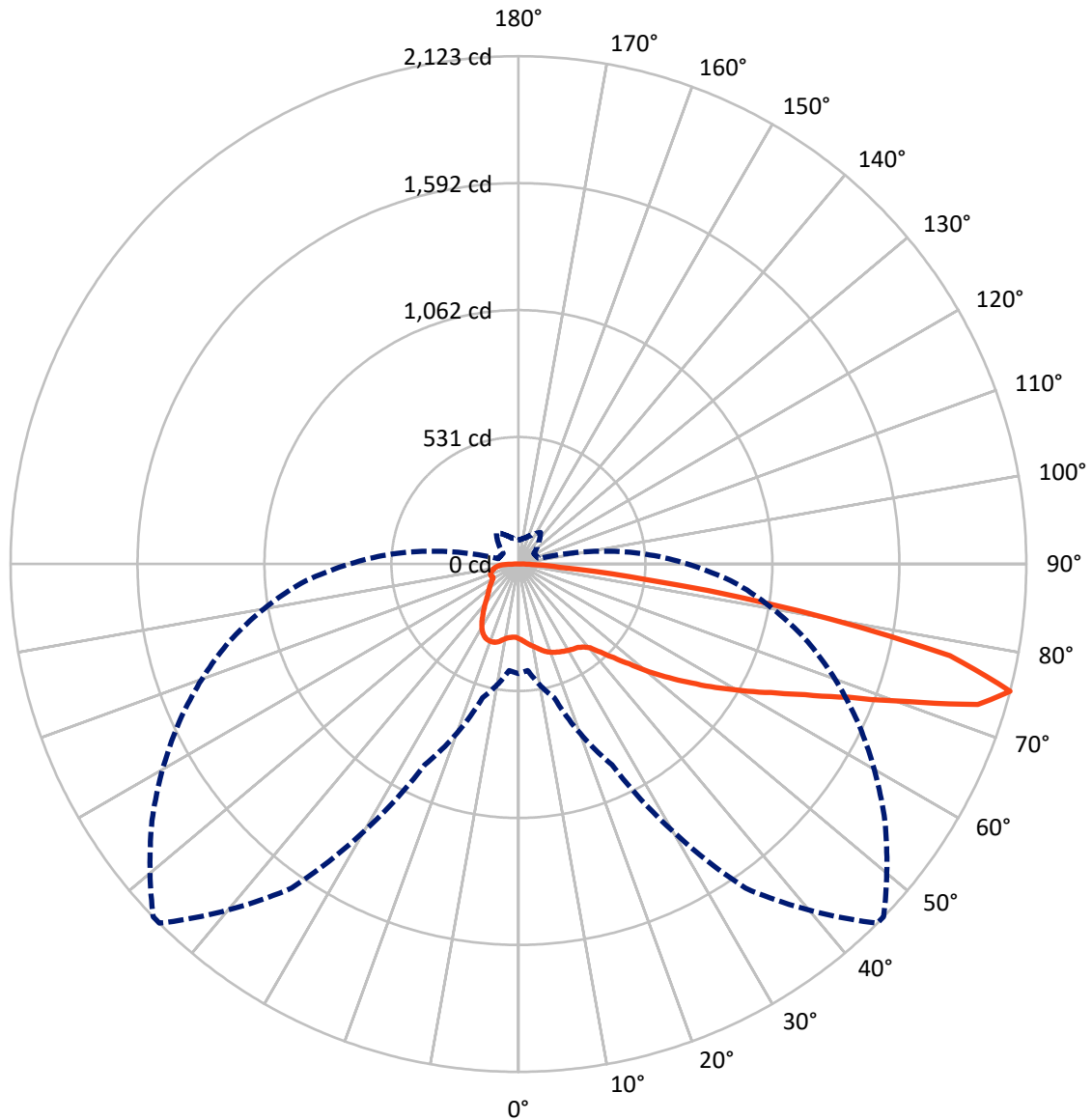


Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Medium - Non-Cutoff

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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	704.3	0.0	704.3
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	2335.9	0.0	2335.9
	% Fixture	76.8	0.0	76.8
Total	Lumens	3040.2	0.0	3040.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	1.0
10°-20°	100.1	3.3
20°-30°	171.8	5.6
30°-40°	240.2	7.9
40°-50°	352.4	11.6
50°-60°	548.9	18.1
60°-70°	789.8	26.0
70°-80°	688.0	22.6
80°-90°	118.2	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°	3040.2	100.0
0°-180°	3040.2	100.0

Coefficient of Utilization



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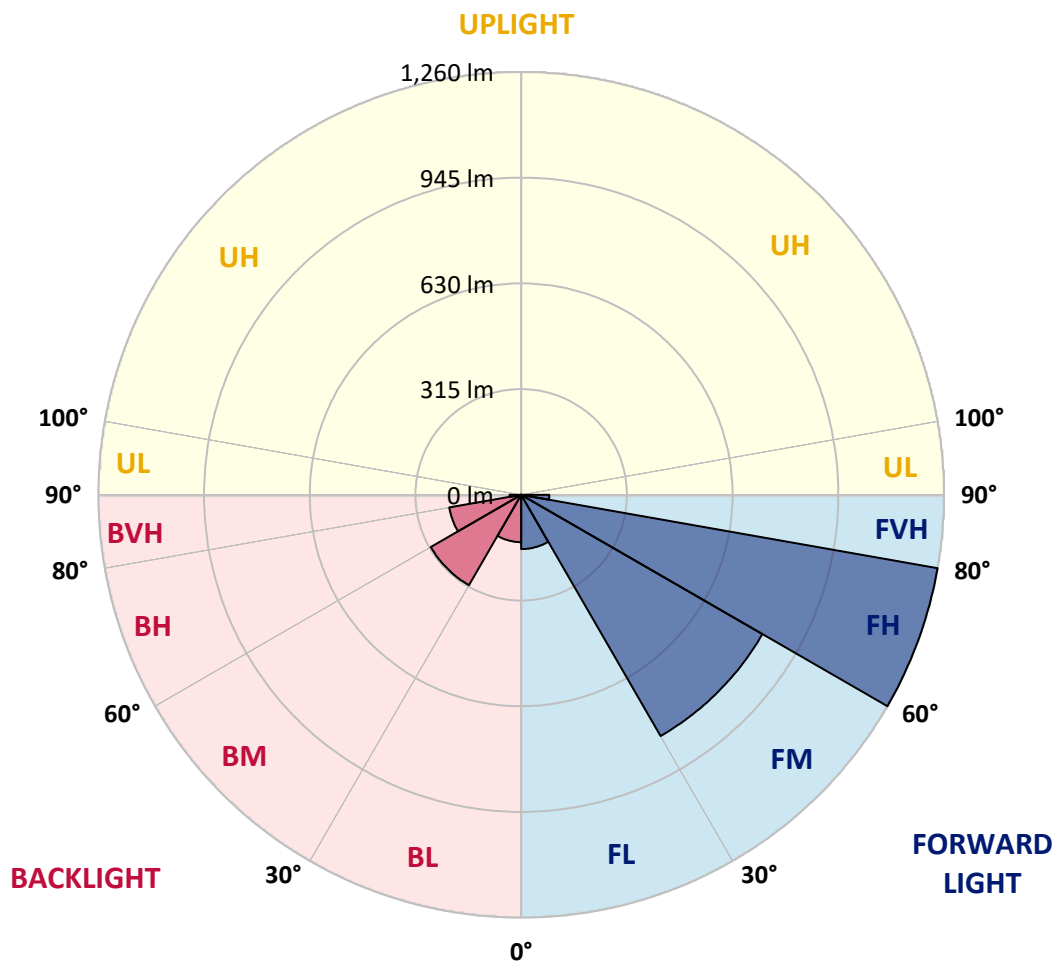
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	161.7	5.3			
FM	(30°-60°)	830.2	27.3			
FH	(60°-80°)	1260.2	41.5			G1/1800
FVH	(80°-90°)	83.8	2.8			G1/100
BL	(0°-30°)	141.1	4.6	B1/500		
BM	(30°-60°)	311.3	10.2	B1/1000		
BH	(60°-80°)	217.6	7.2	B1/500		G1/500
BVH	(80°-90°)	34.3	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°	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7
2.5°	327.0	324.7	324.7	322.9	322.9	320.0	318.8	318.1	315.2	313.4	311.7
5°	346.0	343.0	342.4	338.3	336.6	330.0	329.4	325.3	320.0	314.7	310.5
7.5°	363.1	361.3	358.3	354.2	348.9	340.6	340.0	333.6	324.7	317.6	311.7
10°	375.5	374.4	370.2	364.9	359.0	350.7	350.2	343.0	332.4	324.1	315.8
12.5°	390.4	388.5	383.2	376.1	369.6	361.9	361.3	355.5	343.6	333.0	322.3
15°	404.5	402.1	395.7	388.5	381.5	374.9	374.9	368.5	356.0	343.6	331.2
17.5°	411.6	410.4	404.0	396.2	390.4	385.6	385.0	379.1	366.6	353.6	340.0
20°	414.0	414.6	408.7	400.4	396.2	393.8	393.3	389.1	375.5	363.1	350.2
22.5°	413.4	415.1	410.4	401.5	400.4	400.4	400.4	395.7	385.0	372.6	359.6
25°	415.7	418.1	414.6	404.0	404.0	406.3	406.3	404.0	394.4	383.8	370.8
27.5°	424.0	425.9	422.9	408.1	408.7	412.2	411.6	412.2	406.3	396.2	383.2
30°	434.0	436.5	432.9	414.6	414.0	417.6	417.6	420.4	416.3	405.7	395.1
32.5°	461.2	460.7	449.5	421.7	419.9	423.4	423.4	426.4	424.0	415.7	405.7
35°	542.3	533.5	508.6	444.8	427.0	428.7	428.7	434.0	435.3	428.7	419.9
37.5°	625.1	622.2	603.2	506.3	453.0	440.0	439.4	447.1	452.5	447.1	441.2
40°	708.5	706.1	701.9	588.4	507.4	460.1	458.3	464.8	474.3	470.8	467.2
42.5°	785.9	784.8	788.9	669.4	576.6	503.3	498.0	490.3	503.9	502.7	502.7
45°	846.9	849.9	852.2	745.1	651.7	558.8	552.4	526.3	544.7	549.4	552.9
47.5°	881.2	883.5	891.8	819.1	726.8	623.3	618.6	576.0	600.3	614.5	624.5
50°	930.3	923.7	930.9	891.2	817.3	707.3	694.3	642.8	673.6	698.5	722.1
52.5°	977.5	966.9	972.8	974.7	920.2	789.5	775.9	721.5	760.0	798.9	841.0
55°	1020.2	1019.6	1025.5	1055.7	1019.6	877.6	862.2	808.4	864.0	906.0	977.0
57.5°	1054.5	1060.4	1086.4	1149.7	1134.2	973.4	956.3	909.6	975.2	1017.2	1134.9
60°	1094.7	1104.2	1147.3	1229.5	1239.0	1074.0	1056.2	1022.5	1089.3	1131.9	1317.7
62.5°	1108.3	1121.9	1210.6	1313.5	1348.4	1184.0	1168.0	1145.5	1209.4	1247.8	1499.7
65°	1017.8	1043.8	1245.4	1356.6	1466.1	1316.4	1302.8	1283.3	1328.8	1354.3	1623.4
67.5°	993.0	1004.7	1177.4	1418.7	1576.7	1486.8	1473.2	1439.5	1440.6	1430.0	1663.6
70°	958.1	971.1	1107.7	1465.5	1735.1	1719.8	1703.2	1603.9	1542.9	1478.5	1584.3
72.5°	816.1	812.0	954.5	1339.6	1811.4	2008.4	1988.8	1780.7	1618.6	1436.5	1337.1
75°	458.3	446.5	579.0	926.7	1654.1	2123.1	2122.5	1870.0	1565.4	1251.4	910.1
77.5°	133.1	129.5	191.0	388.5	1113.6	1844.6	1867.0	1686.6	1306.4	899.0	499.7
80°	62.7	63.8	82.2	128.4	475.5	1190.5	1255.0	1110.6	780.6	414.6	206.4
82.5°	39.6	40.2	56.2	82.8	201.1	540.5	593.7	499.7	309.3	179.2	91.0
85°	24.9	24.9	37.2	54.4	120.1	172.7	187.5	170.3	132.5	97.6	49.7
87.5°	13.6	13.6	22.5	31.3	65.7	55.5	57.4	68.0	82.8	59.7	24.9
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°	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7	311.7
2.5°	311.1	309.9	308.1	307.5	306.9	306.4	306.9	308.1	306.9	306.9	307.5
5°	309.3	308.1	305.8	305.8	306.4	306.9	309.9	311.7	312.3	312.3	312.3
7.5°	309.3	307.5	305.8	306.4	307.5	309.9	314.7	317.6	320.0	320.5	320.5
10°	312.3	309.9	308.7	309.9	313.4	315.2	320.0	324.7	327.7	328.8	328.8
12.5°	317.6	315.2	315.2	317.6	322.3	324.7	328.8	332.4	335.9	337.7	337.7
15°	326.4	323.5	324.1	328.3	333.6	335.9	338.9	340.0	343.0	345.3	345.3
17.5°	334.7	331.7	333.0	337.7	341.3	342.4	344.2	343.6	344.7	346.6	347.2
20°	344.2	341.3	341.9	344.7	345.3	344.2	344.2	342.4	341.9	344.7	346.0
22.5°	353.6	350.7	350.2	348.3	345.3	342.4	340.6	338.9	337.7	340.6	341.9
25°	364.9	360.8	357.8	350.2	342.4	337.1	334.7	333.6	333.0	335.9	337.1
27.5°	377.3	373.2	364.3	347.7	335.3	326.4	324.7	324.7	325.8	327.7	328.8
30°	389.1	385.0	369.1	342.4	322.9	309.9	308.1	309.9	312.8	314.7	316.4
32.5°	401.0	396.8	371.9	334.1	304.5	288.0	286.8	289.8	294.5	295.7	296.9
35°	417.0	412.8	375.5	322.3	281.5	263.7	262.6	264.3	268.5	270.3	272.0
37.5°	439.4	437.0	380.8	309.3	260.2	240.7	237.1	236.0	238.3	237.7	240.1
40°	469.0	470.8	390.4	292.2	239.5	219.4	211.8	208.2	205.8	201.1	203.5
42.5°	512.2	513.3	401.0	272.6	221.8	199.3	189.2	182.7	178.0	170.3	171.5
45°	575.4	565.4	413.4	252.0	205.8	183.3	171.5	163.8	157.3	150.8	151.4
47.5°	659.4	628.6	427.0	234.8	189.9	170.3	159.7	150.8	143.1	137.8	138.4
50°	762.9	707.3	440.6	218.8	173.9	160.3	150.8	141.4	133.7	128.4	127.8
52.5°	899.5	801.9	449.5	201.1	157.9	151.4	143.1	134.2	124.8	118.3	117.6
55°	1041.5	912.0	457.2	179.8	142.5	141.4	137.2	127.2	115.9	107.6	106.5
57.5°	1197.6	1029.6	463.1	159.1	130.7	133.1	131.9	120.1	107.6	99.9	99.3
60°	1339.6	1151.4	444.2	140.8	120.1	124.8	125.9	115.9	109.5	111.2	111.8
62.5°	1482.7	1245.4	371.9	127.2	112.9	119.5	129.5	128.9	125.9	128.9	129.5
65°	1534.1	1265.0	263.7	115.9	105.9	121.8	140.8	139.5	125.9	120.6	119.5
67.5°	1505.1	1207.1	177.4	107.0	100.6	124.8	152.6	139.5	121.2	114.2	111.8
70°	1367.3	1064.5	130.1	98.2	95.9	124.2	159.1	139.0	118.9	111.2	108.2
72.5°	1090.6	821.4	104.6	89.9	88.7	121.2	162.6	137.8	116.5	108.2	104.6
75°	706.1	511.0	88.1	81.6	78.1	116.5	160.9	134.2	113.5	102.9	100.6
77.5°	327.7	220.0	75.1	72.1	68.0	109.5	155.5	127.2	107.0	97.0	94.0
80°	152.6	104.1	63.3	62.7	60.9	103.5	148.4	118.9	99.3	91.0	86.3
82.5°	81.6	62.7	51.5	51.5	53.2	96.4	139.5	108.8	89.3	85.2	72.7
85°	43.2	36.1	37.2	40.2	45.5	85.2	127.8	98.2	78.1	65.1	63.3
87.5°	21.9	23.0	23.0	27.2	34.9	69.2	105.3	81.0	66.3	53.2	52.1
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)