

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: P214848

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214848
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-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 2874.6 lumens
Efficiency: N/A
Efficacy: 119.8 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

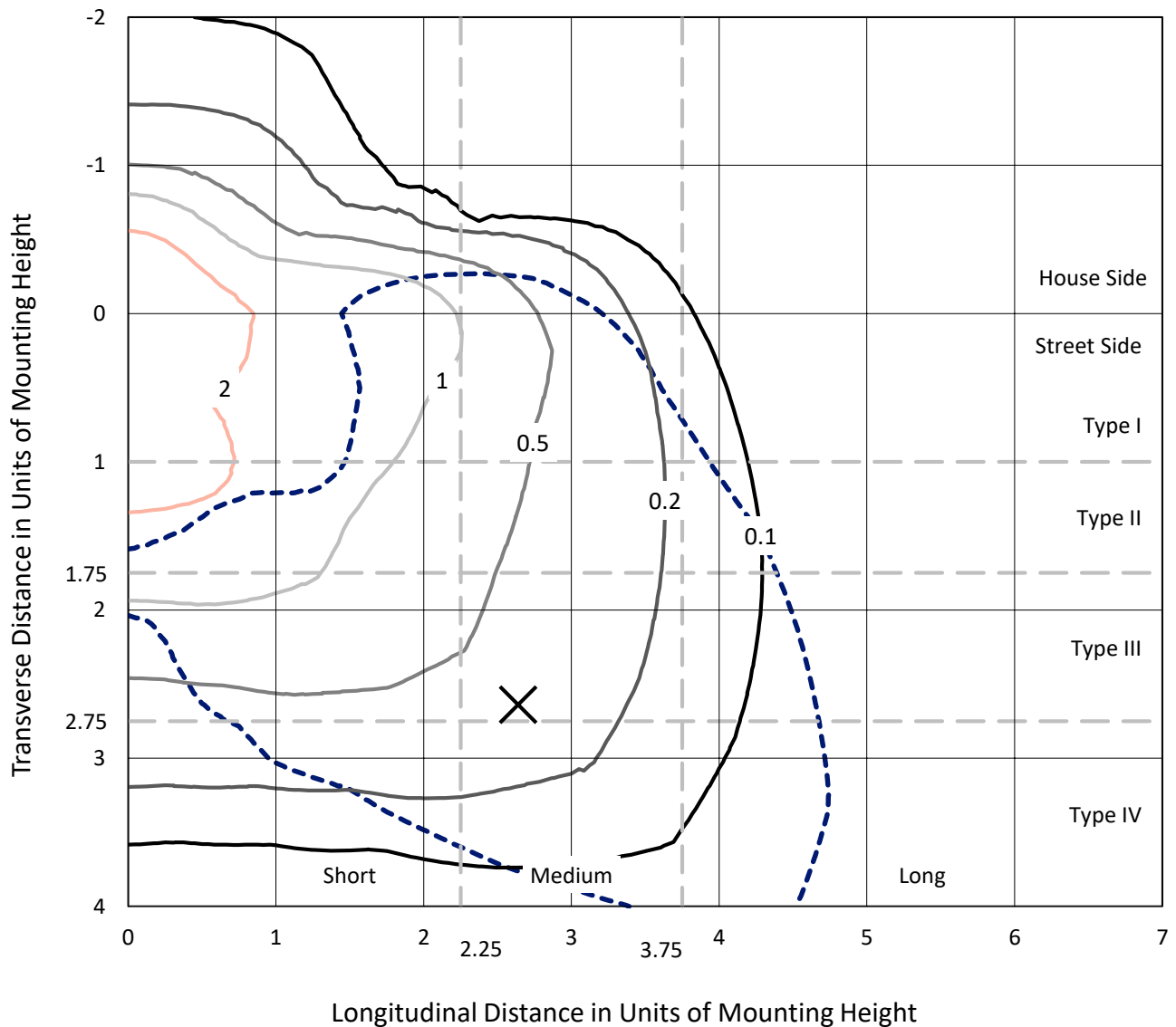


REPORT NUMBER: P214848

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

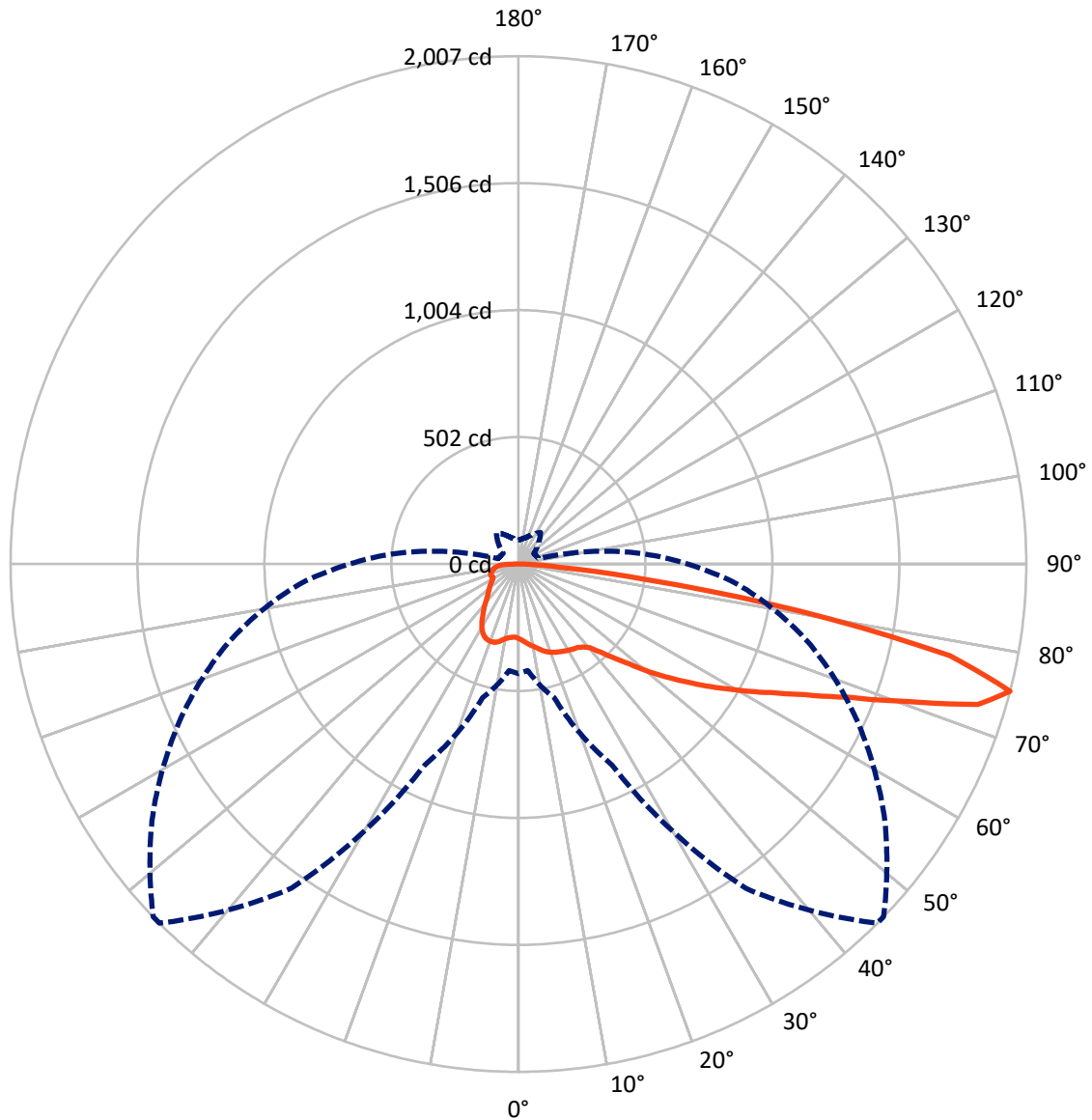


Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P214848

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	665.9	0.0	665.9
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	2208.7	0.0	2208.7
	% Fixture	76.8	0.0	76.8
Total	Lumens	2874.6	0.0	2874.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.2	1.0
10°-20°	94.6	3.3
20°-30°	162.4	5.6
30°-40°	227.1	7.9
40°-50°	333.2	11.6
50°-60°	519.0	18.1
60°-70°	746.8	26.0
70°-80°	650.5	22.6
80°-90°	111.7	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°	2874.6	100.0
0°-180°	2874.6	100.0



REPORT NUMBER: P214848

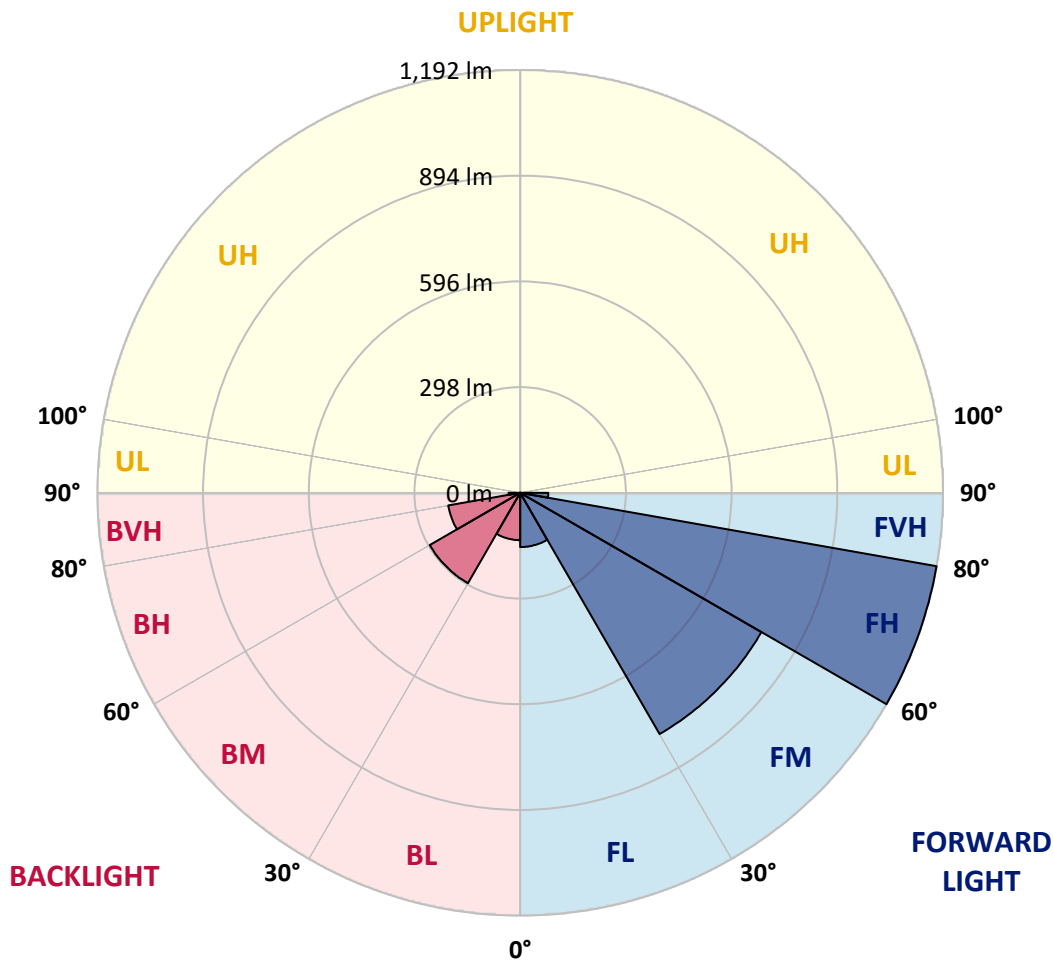
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	152.9	5.3			
FM	(30°-60°)	785.0	27.3			
FH	(60°-80°)	1191.5	41.5			G1/1800
FVH	(80°-90°)	79.3	2.8			G1/100
BL	(0°-30°)	133.4	4.6	B1/500		
BM	(30°-60°)	294.3	10.2	B1/1000		
BH	(60°-80°)	205.8	7.2	B1/500		G1/500
BVH	(80°-90°)	32.5	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





REPORT NUMBER: P214848

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7
2.5°	309.2	307.0	307.0	305.3	305.3	302.5	301.4	300.8	298.1	296.4	294.7
5°	327.1	324.3	323.7	319.8	318.2	312.1	311.5	307.6	302.5	297.5	293.6
7.5°	343.3	341.7	338.8	335.0	330.0	322.1	321.6	315.4	307.0	300.3	294.7
10°	355.1	354.0	350.0	345.0	339.5	331.6	331.0	324.3	314.2	306.5	298.6
12.5°	369.1	367.3	362.3	355.6	349.5	342.2	341.7	336.1	324.9	314.7	304.8
15°	382.5	380.2	374.1	367.3	360.7	354.5	354.5	348.3	336.6	324.9	313.1
17.5°	389.2	388.1	382.0	374.6	369.1	364.6	364.1	358.5	346.7	334.5	321.6
20°	391.4	392.0	386.3	378.6	374.6	372.5	371.8	367.9	355.1	343.3	331.0
22.5°	390.8	392.6	388.1	379.6	378.6	378.6	378.6	374.1	364.1	352.3	340.1
25°	393.2	395.3	392.0	382.0	382.0	384.1	384.1	382.0	373.0	363.0	350.6
27.5°	401.0	402.6	399.8	385.8	386.3	389.7	389.2	389.7	384.1	374.6	362.3
30°	410.5	412.7	409.2	392.0	391.4	394.8	394.8	397.6	393.7	383.6	373.5
32.5°	436.2	435.6	425.0	398.7	397.0	400.3	400.3	403.1	401.0	393.2	383.6
35°	512.8	504.3	480.8	420.5	403.7	405.4	405.4	410.5	411.6	405.4	397.0
37.5°	591.1	588.3	570.4	478.7	428.3	416.1	415.5	422.8	427.7	422.8	417.2
40°	669.9	667.7	663.8	556.3	479.7	435.1	433.3	439.6	448.5	445.1	441.7
42.5°	743.2	742.0	745.9	632.9	545.2	475.9	470.8	463.6	476.4	475.3	475.3
45°	800.8	803.5	805.8	704.6	616.2	528.4	522.3	497.6	515.0	519.5	522.8
47.5°	833.2	835.4	843.3	774.4	687.2	589.4	584.9	544.6	567.6	581.0	590.5
50°	879.6	873.4	880.2	842.7	772.8	668.7	656.4	607.8	636.9	660.4	682.8
52.5°	924.4	914.3	919.9	921.5	870.0	746.5	733.6	682.3	718.6	755.4	795.2
55°	964.5	964.0	969.5	998.2	964.0	829.9	815.3	764.4	816.9	856.7	923.8
57.5°	997.0	1002.6	1027.2	1087.0	1072.5	920.4	904.2	860.0	922.0	961.8	1073.0
60°	1035.0	1044.0	1084.8	1162.5	1171.5	1015.4	998.7	966.8	1030.0	1070.3	1245.9
62.5°	1047.9	1060.8	1144.6	1242.0	1274.9	1119.5	1104.4	1083.1	1143.5	1179.9	1418.0
65°	962.3	986.9	1177.6	1282.8	1386.2	1244.8	1231.9	1213.5	1256.5	1280.5	1535.0
67.5°	938.9	950.0	1113.4	1341.4	1490.8	1405.7	1392.9	1361.1	1362.1	1352.1	1573.0
70°	905.9	918.3	1047.4	1385.6	1640.6	1626.1	1610.5	1516.5	1458.9	1398.0	1498.1
72.5°	771.7	767.8	902.5	1266.6	1712.7	1898.9	1880.6	1683.6	1530.5	1358.2	1264.3
75°	433.3	422.2	547.4	876.3	1564.0	2007.4	2006.9	1768.2	1480.1	1183.3	860.5
77.5°	125.8	122.5	180.6	367.3	1052.9	1744.1	1765.3	1594.7	1235.2	849.9	472.5
80°	59.3	60.4	77.7	121.4	449.6	1125.6	1186.5	1050.1	738.1	392.0	195.1
82.5°	37.4	38.0	53.1	78.3	190.1	511.2	561.4	472.5	292.5	169.5	86.1
85°	23.5	23.5	35.2	51.5	113.5	163.3	177.2	161.0	125.2	92.3	47.0
87.5°	12.9	12.9	21.2	29.6	62.1	52.6	54.2	64.4	78.3	56.5	23.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P214848

CATALOG NUMBER: ARCH-AF16-20-D-U-T4W-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7	294.7
2.5°	294.1	293.1	291.2	290.7	290.2	289.6	290.2	291.2	290.2	290.2	290.7
5°	292.5	291.2	289.1	289.1	289.6	290.2	293.1	294.7	295.2	295.2	295.2
7.5°	292.5	290.7	289.1	289.6	290.7	293.1	297.5	300.3	302.5	303.0	303.0
10°	295.2	293.1	291.9	293.1	296.4	298.1	302.5	307.0	309.8	311.0	311.0
12.5°	300.3	298.1	298.1	300.3	304.8	307.0	311.0	314.2	317.6	319.2	319.2
15°	308.6	305.9	306.5	310.3	315.4	317.6	320.4	321.6	324.3	326.5	326.5
17.5°	316.6	313.7	314.7	319.2	322.7	323.7	325.5	324.9	326.0	327.7	328.3
20°	325.5	322.7	323.2	326.0	326.5	325.5	325.5	323.7	323.2	326.0	327.1
22.5°	334.5	331.6	331.0	329.3	326.5	323.7	322.1	320.4	319.2	322.1	323.2
25°	345.0	341.1	338.2	331.0	323.7	318.7	316.6	315.4	314.7	317.6	318.7
27.5°	356.7	352.8	344.5	328.8	317.1	308.6	307.0	307.0	308.1	309.8	311.0
30°	367.9	364.1	349.0	323.7	305.3	293.1	291.2	293.1	295.8	297.5	299.2
32.5°	379.1	375.2	351.7	316.0	288.0	272.3	271.2	274.0	278.5	279.6	280.7
35°	394.2	390.3	355.1	304.8	266.1	249.4	248.2	249.9	253.9	255.5	257.2
37.5°	415.5	413.2	360.1	292.5	246.1	227.6	224.2	223.1	225.4	224.7	227.0
40°	443.5	445.1	369.1	276.2	226.5	207.5	200.2	196.8	194.6	190.1	192.4
42.5°	484.2	485.3	379.1	257.8	209.7	188.5	178.9	172.7	168.3	161.0	162.1
45°	544.1	534.6	390.8	238.1	194.6	173.4	162.1	154.9	148.7	142.6	143.1
47.5°	623.5	594.4	403.7	222.1	179.5	161.0	151.0	142.6	135.4	130.2	130.9
50°	721.3	668.7	416.6	206.9	164.4	151.6	142.6	133.7	126.4	121.4	120.7
52.5°	850.5	758.3	425.0	190.1	149.2	143.1	135.4	127.0	118.0	111.9	111.2
55°	984.8	862.3	432.2	170.0	134.7	133.7	129.7	120.1	109.6	101.7	100.6
57.5°	1132.4	973.5	437.8	150.4	123.6	125.8	124.7	113.5	101.7	94.5	94.0
60°	1266.6	1088.8	420.0	133.1	113.5	118.0	119.1	109.6	103.5	105.1	105.7
62.5°	1401.9	1177.6	351.7	120.1	106.8	113.0	122.5	122.0	119.1	122.0	122.5
65°	1450.5	1196.1	249.4	109.6	100.1	115.2	133.1	131.9	119.1	114.0	113.0
67.5°	1423.1	1141.3	167.7	101.2	95.0	118.0	144.2	131.9	114.6	107.9	105.7
70°	1292.9	1006.5	123.0	92.9	90.5	117.5	150.4	131.4	112.4	105.1	102.3
72.5°	1031.1	776.8	99.0	85.0	83.9	114.6	153.7	130.2	110.2	102.3	99.0
75°	667.7	483.2	83.4	77.1	73.9	110.2	152.1	127.0	107.4	97.4	95.0
77.5°	309.8	208.0	71.0	68.2	64.4	103.5	147.1	120.1	101.2	91.7	88.9
80°	144.2	98.5	59.9	59.3	57.6	97.9	140.4	112.4	94.0	86.1	81.6
82.5°	77.1	59.3	48.6	48.6	50.4	91.1	131.9	102.9	84.4	80.6	68.9
85°	40.9	34.1	35.2	38.0	43.0	80.6	120.7	92.9	73.9	61.5	59.9
87.5°	20.6	21.9	21.9	25.6	33.0	65.4	99.5	76.6	62.6	50.4	49.1
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)