

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: P214727

Luminaire Tested: **ARCH-AF24-20-D-U-T3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214727  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-20-D-U-T3  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2908.2 lumens  
Efficiency: N/A  
Efficacy: 138.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 21  
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

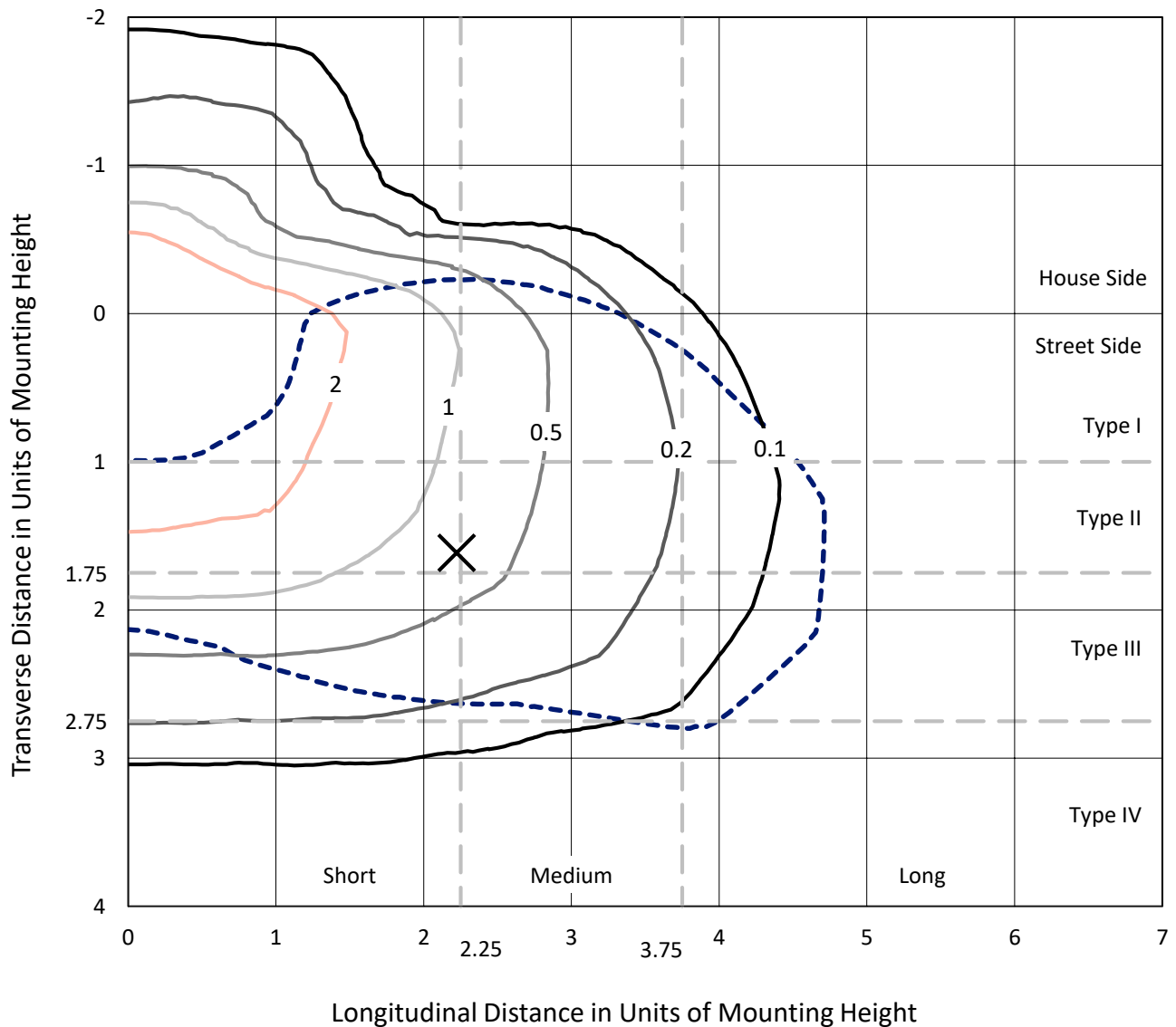


REPORT NUMBER: P214727

CATALOG NUMBER: ARCH-AF24-20-D-U-T3

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

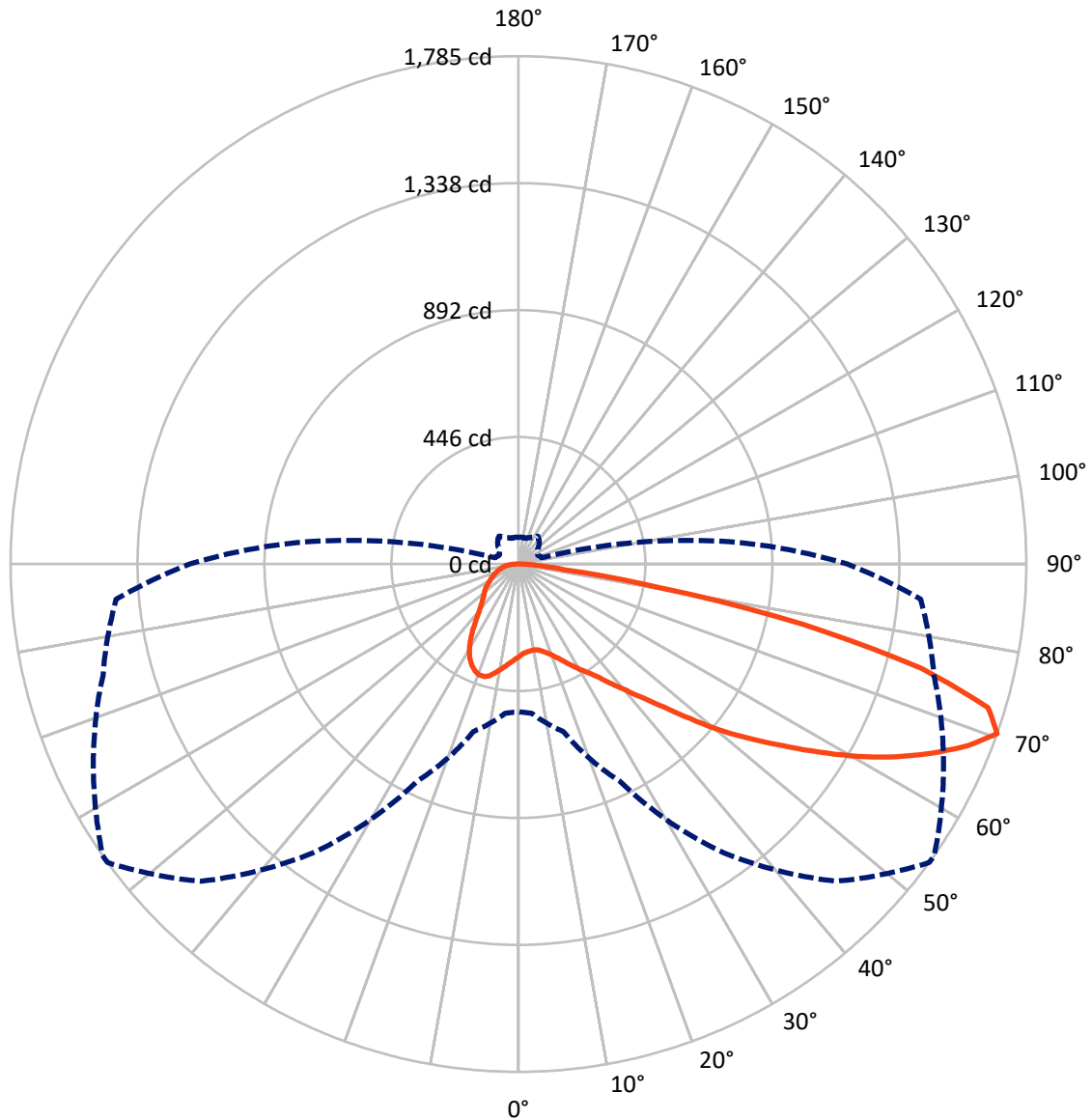


Based on 10 foot mounting height. Maximum calculated value = 3.8 fc  
 Type III - Short - Non-Cutoff

REPORT NUMBER: P214727

CATALOG NUMBER: ARCH-AF24-20-D-U-T3

### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



REPORT NUMBER: P214727

CATALOG NUMBER: ARCH-AF24-20-D-U-T3

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	659.6	0.0	659.6
	% Fixture	22.7	0.0	22.7
<b>Street Side</b>	Lumens	2248.7	0.0	2248.7
	% Fixture	77.3	0.0	77.3
<b>Total</b>	Lumens	2908.2	0.0	2908.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.9	1.1
10°-20°	102.0	3.5
20°-30°	177.3	6.1
30°-40°	259.0	8.9
40°-50°	406.6	14.0
50°-60°	625.2	21.5
60°-70°	763.8	26.3
70°-80°	473.6	16.3
80°-90°	68.8	2.4
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°	2908.2	100.0
0°-180°	2908.2	100.0

**Coefficient of Utilization**



REPORT NUMBER: P214727

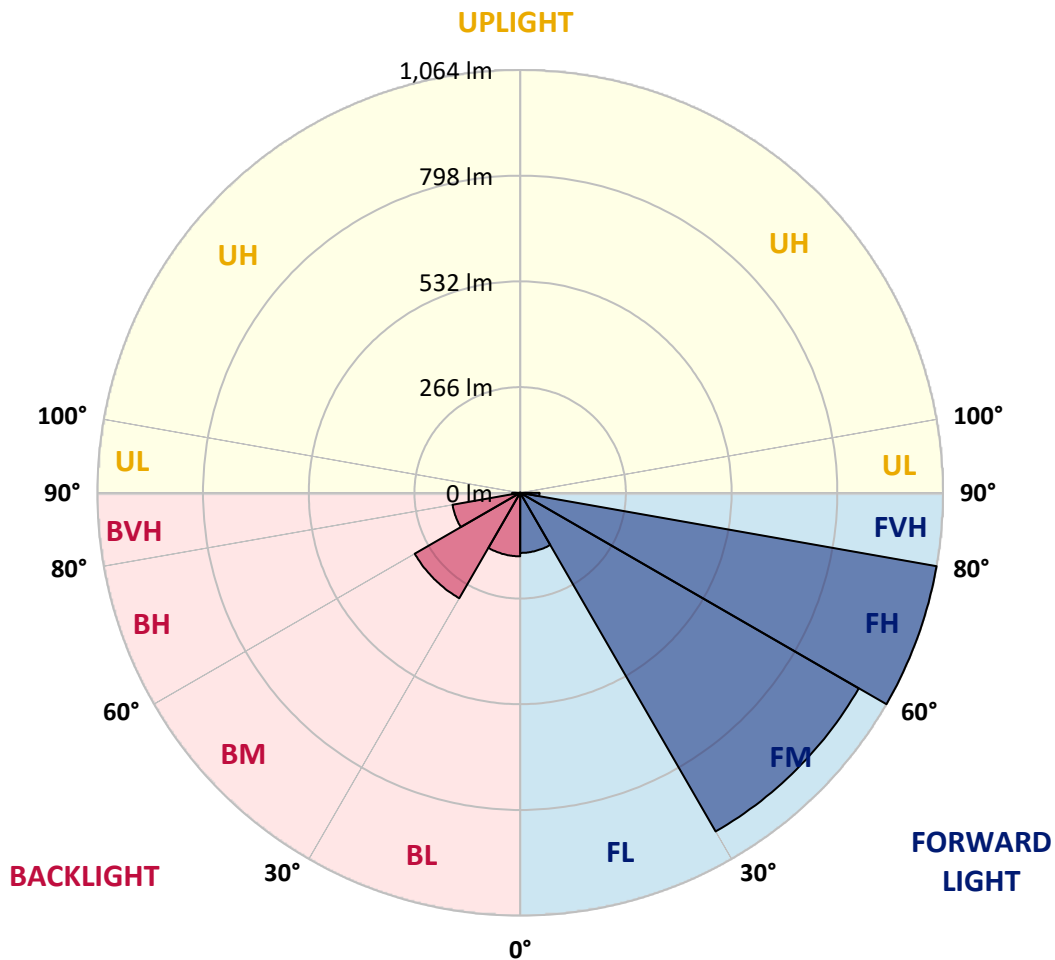
CATALOG NUMBER: ARCH-AF24-20-D-U-T3

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	151.3	5.2			
FM	(30°-60°)	984.3	33.8			
FH	(60°-80°)	1064.5	36.6			G1/1800
FVH	(80°-90°)	48.6	1.7			G1/100
BL	(0°-30°)	159.9	5.5	B1/500		
BM	(30°-60°)	306.5	10.5	B1/1000		
BH	(60°-80°)	173.0	5.9	B1/500		G1/500
BVH	(80°-90°)	20.2	0.7			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 III Short





REPORT NUMBER: P214727

CATALOG NUMBER: ARCH-AF24-20-D-U-T3

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4
2.5°	312.6	311.5	311.5	313.1	313.6	315.3	315.3	315.8	317.4	320.1	323.3
5°	303.0	302.5	303.0	305.1	306.2	309.4	310.5	311.0	314.1	318.4	323.3
7.5°	293.4	292.9	294.0	297.2	300.3	305.1	307.8	308.3	313.1	319.0	325.4
10°	290.2	289.7	291.3	294.0	297.2	302.5	306.8	307.3	314.1	321.1	330.2
12.5°	294.5	294.0	295.5	298.2	301.4	305.1	310.0	310.5	319.5	328.6	338.2
15°	305.1	305.1	305.7	307.3	310.5	313.6	317.9	318.4	328.1	338.7	348.3
17.5°	321.6	320.6	320.6	320.1	322.2	323.8	329.1	329.6	339.7	349.3	359.0
20°	341.9	341.4	339.2	336.6	336.0	337.1	342.4	343.0	353.0	361.1	370.1
22.5°	366.4	366.9	362.1	356.3	353.6	355.2	360.0	360.5	368.0	374.9	382.9
25°	398.8	397.3	390.4	381.9	376.4	376.4	381.3	381.3	388.2	392.5	397.8
27.5°	429.7	426.6	420.1	408.0	399.4	401.0	405.8	405.8	412.1	413.8	416.4
30°	463.3	460.1	452.1	436.7	425.4	424.4	430.3	429.7	438.2	437.7	435.6
32.5°	504.3	502.7	489.4	469.7	454.8	451.0	456.3	457.0	462.3	460.6	453.7
35°	561.8	561.3	549.0	514.4	494.7	487.8	491.0	491.0	494.7	490.5	478.7
37.5°	634.2	635.4	624.6	573.6	545.8	534.1	534.7	534.1	535.2	530.4	518.1
40°	706.7	709.3	708.8	647.0	611.8	591.7	584.2	583.1	585.7	583.7	571.9
42.5°	802.0	808.3	793.5	737.5	698.2	664.1	643.8	641.2	647.0	649.7	638.5
45°	901.0	898.9	875.4	835.0	799.3	755.7	717.3	713.1	717.3	725.3	713.6
47.5°	952.7	951.1	945.2	925.0	919.6	869.6	811.6	807.8	799.8	811.0	797.2
50°	1037.9	1039.5	1015.5	1013.4	1035.7	1008.1	918.1	909.6	895.2	904.2	892.5
52.5°	1099.7	1092.7	1077.9	1096.5	1166.3	1151.3	1018.1	1014.5	1001.2	999.0	993.7
55°	1124.7	1124.7	1127.4	1170.5	1270.1	1250.4	1126.8	1130.6	1112.5	1097.5	1104.5
57.5°	1132.2	1135.4	1158.3	1229.6	1392.0	1327.6	1246.7	1252.0	1225.9	1196.0	1217.9
60°	1095.4	1105.0	1159.8	1263.1	1460.8	1409.6	1372.9	1374.4	1336.7	1293.0	1331.3
62.5°	1001.2	1012.8	1110.8	1277.1	1449.5	1493.7	1492.2	1495.9	1444.2	1389.9	1437.9
65°	885.6	897.3	1001.7	1238.1	1441.0	1554.0	1601.3	1611.5	1544.9	1471.9	1504.4
67.5°	715.8	731.2	830.2	1107.1	1399.5	1603.5	1703.5	1714.2	1622.6	1514.5	1498.5
70°	518.6	526.1	609.2	841.4	1230.1	1576.3	1784.5	1783.9	1648.2	1511.3	1418.6
72.5°	249.8	255.6	327.5	522.4	879.7	1337.7	1725.9	1736.0	1613.0	1465.0	1236.0
75°	102.8	108.6	132.6	220.4	461.7	884.0	1462.8	1486.9	1465.0	1314.8	967.1
77.5°	63.9	66.1	77.7	114.0	210.8	412.7	1024.1	1056.5	1160.9	1053.3	638.5
80°	48.0	49.5	58.0	79.9	133.1	152.3	508.6	549.5	703.5	604.5	289.2
82.5°	39.9	40.5	46.3	58.0	90.5	87.4	163.0	181.6	328.1	230.6	99.5
85°	37.2	38.4	41.5	41.5	57.5	54.8	67.6	70.8	95.3	78.8	34.6
87.5°	19.1	18.1	36.7	32.5	29.9	26.6	28.7	30.9	35.7	37.8	15.4
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: P214727

CATALOG NUMBER: ARCH-AF24-20-D-U-T3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4	325.4
2.5°	324.3	325.9	328.6	331.2	334.4	338.2	340.3	343.0	345.0	344.0	343.5
5°	325.9	328.6	334.4	339.7	346.2	353.6	358.4	363.8	368.0	369.1	367.4
7.5°	328.6	333.4	341.4	351.0	359.5	369.1	376.4	383.9	389.2	390.4	390.4
10°	334.9	340.3	351.0	363.8	373.8	383.9	392.5	398.3	403.1	405.3	405.3
12.5°	344.0	350.4	363.1	378.6	389.8	399.4	404.2	406.8	409.0	411.1	411.6
15°	354.7	361.6	377.1	393.5	405.3	410.0	410.0	409.5	409.5	410.6	411.6
17.5°	365.3	372.8	388.7	406.3	413.8	411.1	407.3	405.8	404.7	404.2	405.8
20°	376.4	383.9	400.0	416.4	414.3	403.1	397.8	394.0	390.9	389.2	391.4
22.5°	388.7	395.7	412.1	423.4	407.3	390.4	380.2	374.4	369.1	365.8	368.0
25°	403.1	410.0	426.1	425.4	395.2	371.1	355.2	345.7	339.7	336.6	336.6
27.5°	420.1	426.1	441.5	420.1	378.1	345.7	322.2	313.1	311.5	308.8	308.8
30°	437.7	442.5	455.8	408.0	354.7	312.1	286.5	282.2	282.7	280.1	280.6
32.5°	455.8	460.6	464.3	389.8	324.3	274.3	257.2	254.0	253.5	251.3	249.2
35°	481.4	488.4	465.4	365.3	287.6	242.8	230.6	227.4	224.2	216.8	216.8
37.5°	520.3	527.7	462.8	334.9	249.8	218.3	207.1	202.9	197.5	190.1	187.4
40°	573.6	573.6	457.0	300.8	219.4	198.7	188.0	182.7	176.8	169.3	167.8
42.5°	636.4	621.4	447.8	266.3	197.0	185.4	175.7	169.9	163.0	154.5	153.3
45°	709.8	669.4	435.1	235.4	180.6	177.4	171.4	161.3	149.7	140.6	139.0
47.5°	781.2	712.5	422.8	213.6	166.6	174.1	169.3	152.3	136.4	123.6	121.9
50°	859.5	750.8	408.5	195.5	156.0	172.0	166.6	139.0	121.4	112.3	111.3
52.5°	937.7	789.7	393.0	176.3	147.0	167.8	160.3	129.4	120.9	108.6	107.0
55°	1020.3	835.0	374.9	155.0	136.4	159.3	151.8	128.9	124.6	108.6	105.0
57.5°	1100.7	885.1	345.7	134.2	124.6	146.5	148.5	125.7	116.6	107.6	103.3
60°	1189.7	938.4	297.2	116.6	114.5	135.7	144.3	118.8	107.6	104.3	102.3
62.5°	1261.0	986.2	232.2	104.3	106.0	127.3	139.0	114.5	103.8	101.2	100.7
65°	1291.9	987.4	166.6	93.7	97.5	119.3	133.7	110.8	100.7	99.5	99.0
67.5°	1259.5	933.0	117.1	83.6	88.4	111.8	126.7	107.0	97.5	98.0	96.9
70°	1154.5	818.5	85.7	74.1	79.9	103.8	119.3	102.3	93.7	94.8	93.2
72.5°	966.0	638.0	68.7	66.1	72.9	95.3	111.8	96.9	87.9	88.4	85.2
75°	713.6	422.8	57.5	59.1	65.0	87.4	102.3	90.0	81.4	79.4	77.2
77.5°	424.4	217.3	47.4	51.7	58.0	77.7	91.6	81.4	74.6	70.8	69.3
80°	175.2	87.9	38.9	43.7	50.6	69.3	80.9	71.4	66.6	62.8	60.7
82.5°	69.8	43.2	30.9	35.7	42.6	60.1	70.8	62.8	58.0	55.3	49.5
85°	26.6	21.3	20.8	25.1	31.9	46.3	58.6	52.7	49.0	42.0	40.5
87.5°	10.6	9.6	9.6	12.3	18.1	29.3	42.0	36.7	38.4	30.4	30.9
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)