

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: P234712

Luminaire Tested: **ARCH-AF16-40-D-U-T3-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234712
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-AF16-40-D-U-T3-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3700 lumens
Efficiency: N/A
Efficacy: 88.1 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

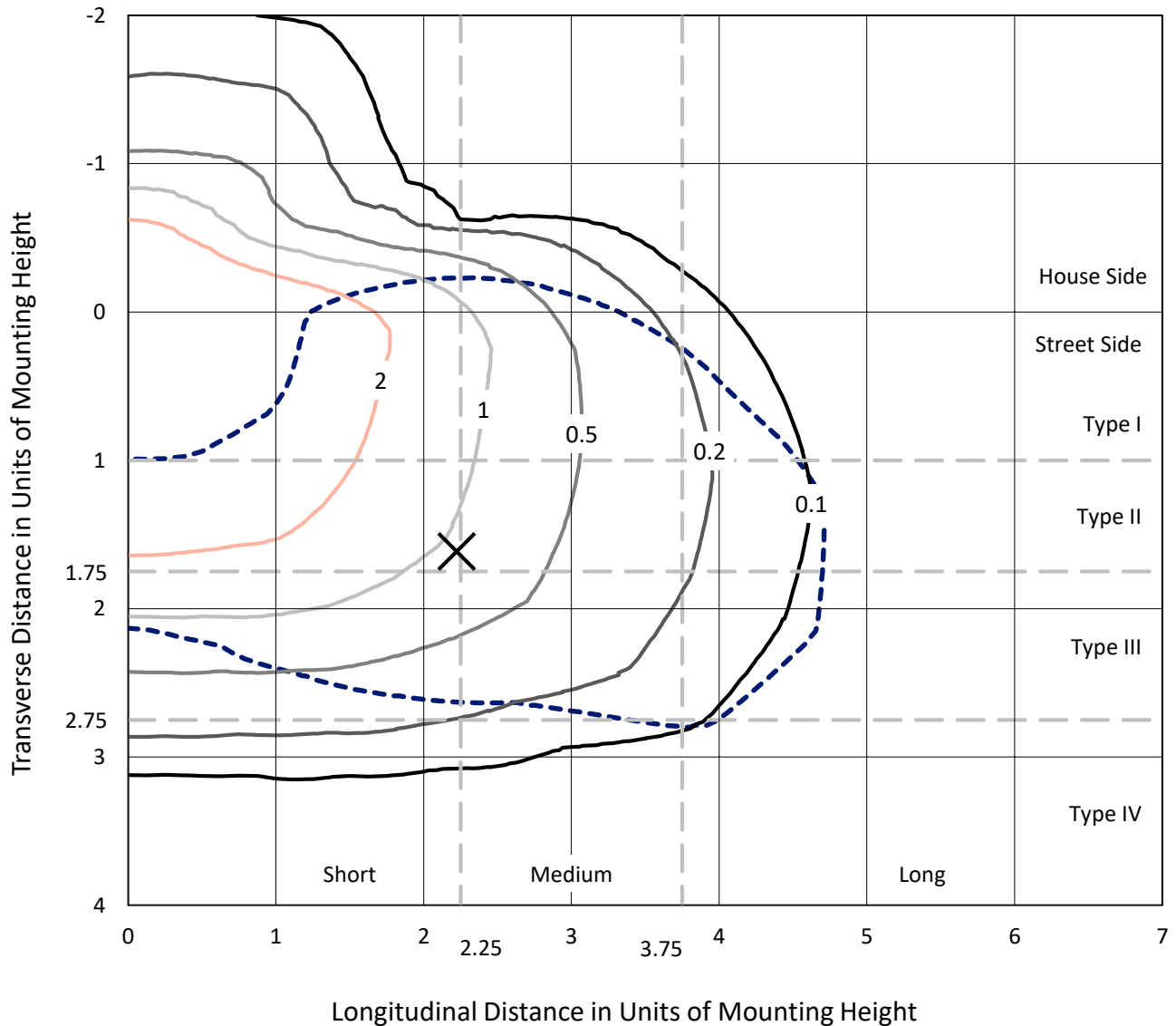
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P234712
 CATALOG NUMBER: ARCH-AF16-40-D-U-T3-8027

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

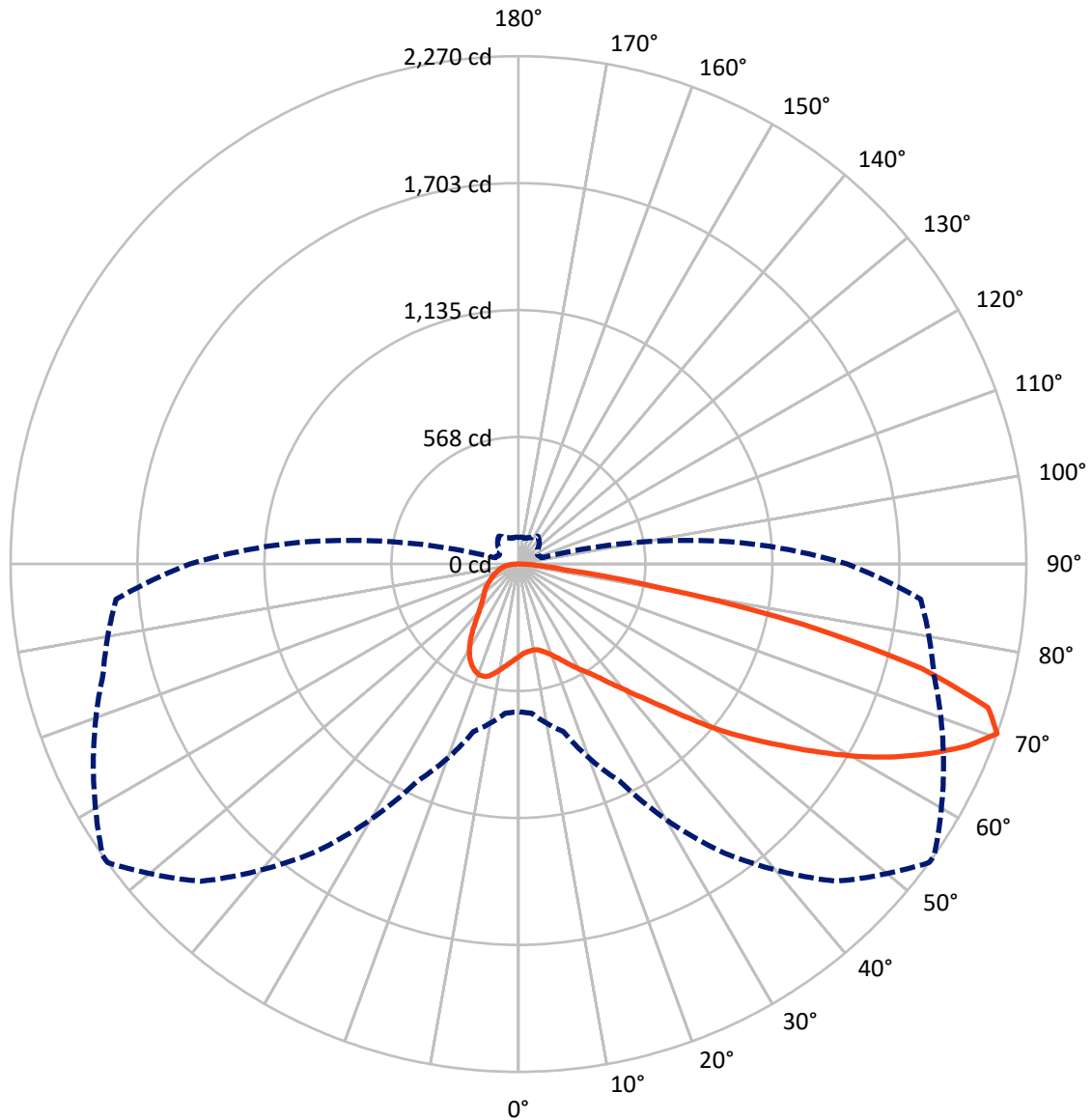


Based on 10 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P234712

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-8027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P234712

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-8027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	839.2	0.0	839.2
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	2860.9	0.0	2860.9
	% Fixture	77.3	0.0	77.3
Total	Lumens	3700.0	0.0	3700.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	1.1
10°-20°	129.8	3.5
20°-30°	225.5	6.1
30°-40°	329.6	8.9
40°-50°	517.2	14.0
50°-60°	795.4	21.5
60°-70°	971.8	26.3
70°-80°	602.5	16.3
80°-90°	87.5	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°	3700.0	100.0
0°-180°	3700.0	100.0

Coefficient of Utilization



REPORT NUMBER: P234712

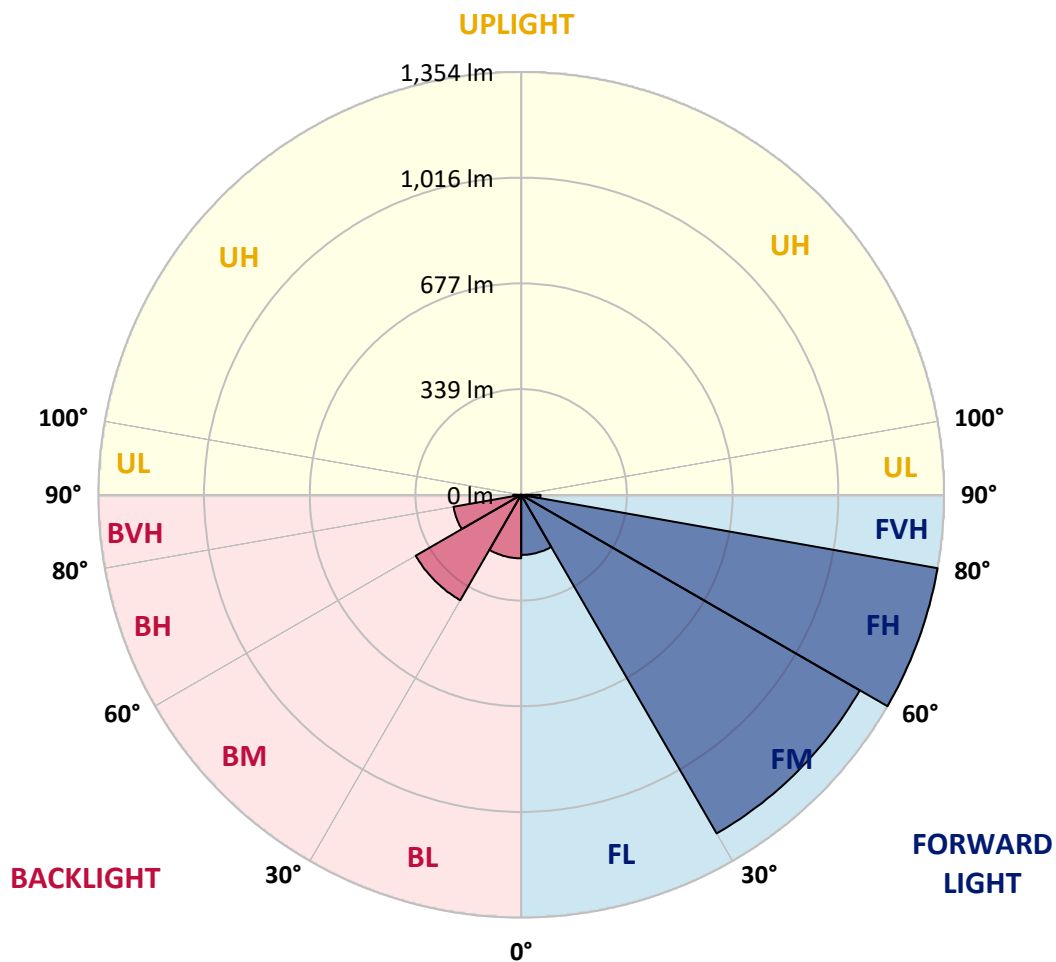
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	192.5	5.2			
FM	(30°-60°)	1252.3	33.8			
FH	(60°-80°)	1354.3	36.6			G1/1800
FVH	(80°-90°)	61.8	1.7			G1/100
BL	(0°-30°)	203.4	5.5	B1/500		
BM	(30°-60°)	389.9	10.5	B1/1000		
BH	(60°-80°)	220.1	5.9	B1/500		G1/500
BVH	(80°-90°)	25.7	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: P234712

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0
2.5°	397.7	396.3	396.3	398.4	399.1	401.1	401.1	401.8	403.8	407.2	411.2
5°	385.5	384.8	385.5	388.2	389.6	393.6	395.0	395.7	399.7	405.1	411.2
7.5°	373.3	372.6	374.0	378.0	382.1	388.2	391.6	392.3	398.4	405.8	414.0
10°	369.2	368.6	370.6	374.0	378.0	384.8	390.2	390.9	399.7	408.5	420.1
12.5°	374.7	374.0	376.0	379.4	383.5	388.2	394.3	395.0	406.5	418.0	430.2
15°	388.2	388.2	388.9	390.9	395.0	399.1	404.5	405.1	417.3	430.9	443.1
17.5°	409.2	407.9	407.9	407.2	409.9	411.9	418.7	419.4	432.2	444.4	456.6
20°	435.0	434.3	431.6	428.2	427.5	428.9	435.6	436.3	449.2	459.3	470.9
22.5°	466.1	466.8	460.7	453.3	449.9	451.9	458.0	458.7	468.2	477.0	487.1
25°	507.5	505.4	496.6	485.8	479.0	479.0	485.1	485.1	493.9	499.3	506.1
27.5°	546.7	542.7	534.6	519.0	508.1	510.2	516.3	516.3	524.4	526.4	529.8
30°	589.4	585.4	575.2	555.6	541.3	540.0	547.4	546.7	557.6	556.9	554.2
32.5°	641.6	639.6	622.6	597.6	578.6	573.8	580.6	581.3	588.1	586.0	577.2
35°	714.8	714.1	698.5	654.5	629.4	620.6	624.7	624.7	629.4	624.0	609.1
37.5°	806.9	808.3	794.7	729.7	694.4	679.5	680.2	679.5	680.9	674.8	659.2
40°	899.0	902.4	901.8	823.2	778.5	752.7	743.2	741.9	745.3	742.5	727.6
42.5°	1020.3	1028.5	1009.5	938.3	888.2	844.8	819.1	815.7	823.2	826.6	812.3
45°	1146.3	1143.6	1113.8	1062.3	1016.9	961.4	912.6	907.2	912.6	922.8	907.9
47.5°	1212.1	1210.0	1202.6	1176.8	1170.1	1106.4	1032.5	1027.8	1017.6	1031.8	1014.2
50°	1320.5	1322.5	1292.0	1289.3	1317.7	1282.5	1168.0	1157.2	1138.9	1150.4	1135.5
52.5°	1399.0	1390.2	1371.3	1395.0	1483.7	1464.8	1295.4	1290.6	1273.7	1271.0	1264.2
55°	1430.9	1430.9	1434.3	1489.2	1615.8	1590.8	1433.6	1438.3	1415.3	1396.3	1405.1
57.5°	1440.4	1444.4	1473.6	1564.4	1771.0	1689.0	1586.0	1592.8	1559.6	1521.7	1549.5
60°	1393.6	1405.8	1475.6	1607.0	1858.4	1793.4	1746.6	1748.6	1700.5	1645.0	1693.8
62.5°	1273.7	1288.6	1413.3	1624.7	1844.2	1900.4	1898.4	1903.1	1837.4	1768.3	1829.3
65°	1126.7	1141.6	1274.4	1575.2	1833.3	1977.0	2037.3	2050.1	1965.4	1872.6	1914.0
67.5°	910.6	930.2	1056.2	1408.5	1780.5	2040.0	2167.3	2180.9	2064.4	1926.8	1906.5
70°	659.9	669.4	775.1	1070.5	1565.0	2005.4	2270.3	2269.6	2096.9	1922.8	1804.9
72.5°	317.7	325.2	416.7	664.6	1119.2	1701.9	2195.8	2208.7	2052.2	1863.8	1572.5
75°	130.8	138.2	168.7	280.5	587.4	1124.7	1861.1	1891.6	1863.8	1672.8	1230.3
77.5°	81.3	84.0	98.9	145.0	268.3	525.1	1302.8	1344.2	1477.0	1340.1	812.3
80°	61.0	63.0	73.8	101.6	169.4	193.8	647.0	699.2	895.0	769.0	367.9
82.5°	50.8	51.5	58.9	73.8	115.2	111.1	207.3	231.0	417.3	293.4	126.7
85°	47.4	48.8	52.8	52.8	73.2	69.8	86.0	90.1	121.3	100.3	44.0
87.5°	24.4	23.0	46.7	41.3	37.9	33.9	36.6	39.3	45.4	48.1	19.6
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: P234712

CATALOG NUMBER: ARCH-AF16-40-D-U-T3-8027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0
2.5°	412.6	414.6	418.0	421.4	425.5	430.2	432.9	436.3	439.0	437.7	437.0
5°	414.6	418.0	425.5	432.2	440.4	449.9	456.0	462.7	468.2	469.5	467.5
7.5°	418.0	424.1	434.3	446.5	457.3	469.5	479.0	488.5	495.3	496.6	496.6
10°	426.2	432.9	446.5	462.7	475.6	488.5	499.3	506.8	512.9	515.6	515.6
12.5°	437.7	445.8	462.1	481.7	495.9	508.1	514.2	517.6	520.3	523.0	523.7
15°	451.2	460.0	479.7	500.7	515.6	521.7	521.7	521.0	521.0	522.4	523.7
17.5°	464.8	474.3	494.6	516.9	526.4	523.0	518.3	516.3	514.9	514.2	516.3
20°	479.0	488.5	508.8	529.8	527.1	512.9	506.1	501.4	497.3	495.3	498.0
22.5°	494.6	503.4	524.4	538.6	518.3	496.6	483.7	476.3	469.5	465.4	468.2
25°	512.9	521.7	542.0	541.3	502.7	472.2	451.9	439.7	432.2	428.2	428.2
27.5°	534.6	542.0	561.7	534.6	481.0	439.7	409.9	398.4	396.3	393.0	393.0
30°	556.9	563.0	579.9	519.0	451.2	397.0	364.5	359.1	359.8	356.4	357.0
32.5°	579.9	586.0	590.8	495.9	412.6	348.9	327.2	323.2	322.5	319.8	317.1
35°	612.5	621.3	592.1	464.8	365.9	308.9	293.4	289.3	285.2	275.7	275.7
37.5°	661.9	671.4	588.8	426.2	317.7	277.8	263.5	258.1	251.4	241.9	238.5
40°	729.7	729.7	581.3	382.8	279.1	252.7	239.2	232.4	224.9	215.4	213.4
42.5°	809.6	790.6	569.8	338.8	250.7	235.8	223.6	216.1	207.3	196.5	195.1
45°	903.1	851.6	553.5	299.5	229.7	225.6	218.2	205.3	190.4	178.9	176.8
47.5°	993.9	906.5	537.9	271.7	212.1	221.5	215.4	193.8	173.4	157.2	155.1
50°	1093.5	955.3	519.6	248.6	198.5	218.8	212.1	176.8	154.5	143.0	141.6
52.5°	1193.1	1004.7	500.0	224.3	187.0	213.4	203.9	164.6	153.8	138.2	136.2
55°	1298.1	1062.3	477.0	197.2	173.4	202.6	193.1	164.0	158.5	138.2	133.5
57.5°	1400.4	1126.0	439.7	170.7	158.5	186.3	189.0	159.9	148.4	136.9	131.4
60°	1513.5	1193.8	378.0	148.4	145.7	172.8	183.6	151.1	136.9	132.8	130.1
62.5°	1604.3	1254.7	295.4	132.8	134.8	161.9	176.8	145.7	132.1	128.7	128.0
65°	1643.6	1256.1	212.1	119.2	124.0	151.8	170.1	140.9	128.0	126.7	126.0
67.5°	1602.3	1187.0	149.1	106.4	112.5	142.3	161.2	136.2	124.0	124.7	123.3
70°	1468.8	1041.3	109.1	94.2	101.6	132.1	151.8	130.1	119.2	120.6	118.6
72.5°	1229.0	811.7	87.4	84.0	92.8	121.3	142.3	123.3	111.8	112.5	108.4
75°	907.9	537.9	73.2	75.2	82.7	111.1	130.1	114.5	103.7	100.9	98.2
77.5°	540.0	276.4	60.3	65.7	73.8	98.9	116.5	103.7	94.9	90.1	88.1
80°	222.9	111.8	49.5	55.6	64.4	88.1	103.0	90.8	84.7	79.9	77.2
82.5°	88.8	54.9	39.3	45.4	54.2	76.6	90.1	79.9	73.8	70.5	63.0
85°	33.9	27.1	26.4	31.8	40.7	58.9	74.5	67.1	62.3	53.5	51.5
87.5°	13.6	12.2	12.2	15.6	23.0	37.3	53.5	46.7	48.8	38.6	39.3
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)