

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: INVUE

Report Number: P401030

Luminaire Tested: **ENT-SA1A-827-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401030
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-827-U-T3
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2046 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

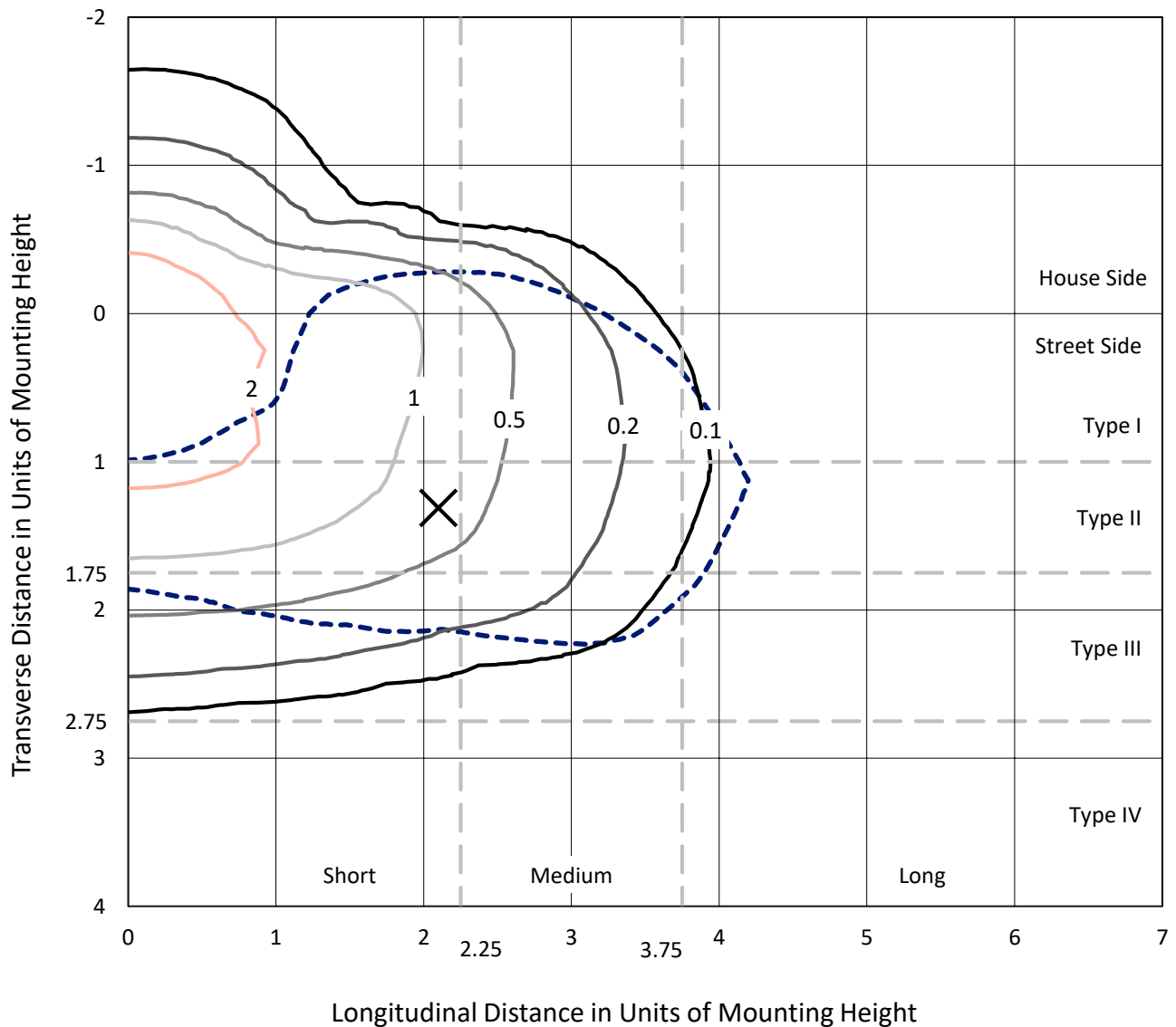
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

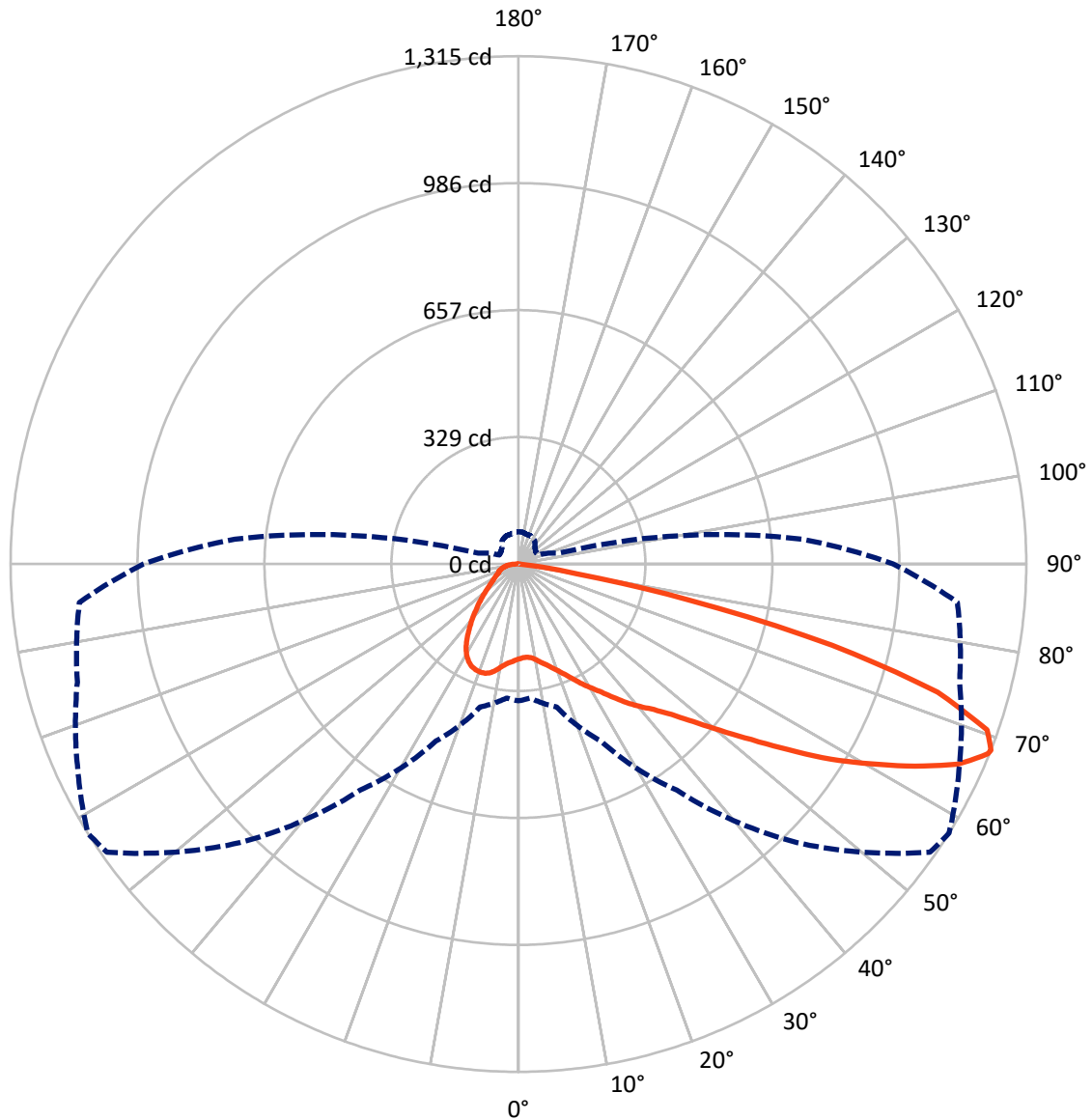
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	479.1	0.0	479.1
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	1566.9	0.0	1566.9
	% Fixture	76.6	0.0	76.6
Total	Lumens	2046.0	0.0	2046.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.2	1.2
10°-20°	79.2	3.9
20°-30°	142.3	7.0
30°-40°	209.1	10.2
40°-50°	306.7	15.0
50°-60°	458.4	22.4
60°-70°	536.0	26.2
70°-80°	264.3	12.9
80°-90°	25.8	1.3
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°	2046.0	100.0
0°-180°	2046.0	100.0



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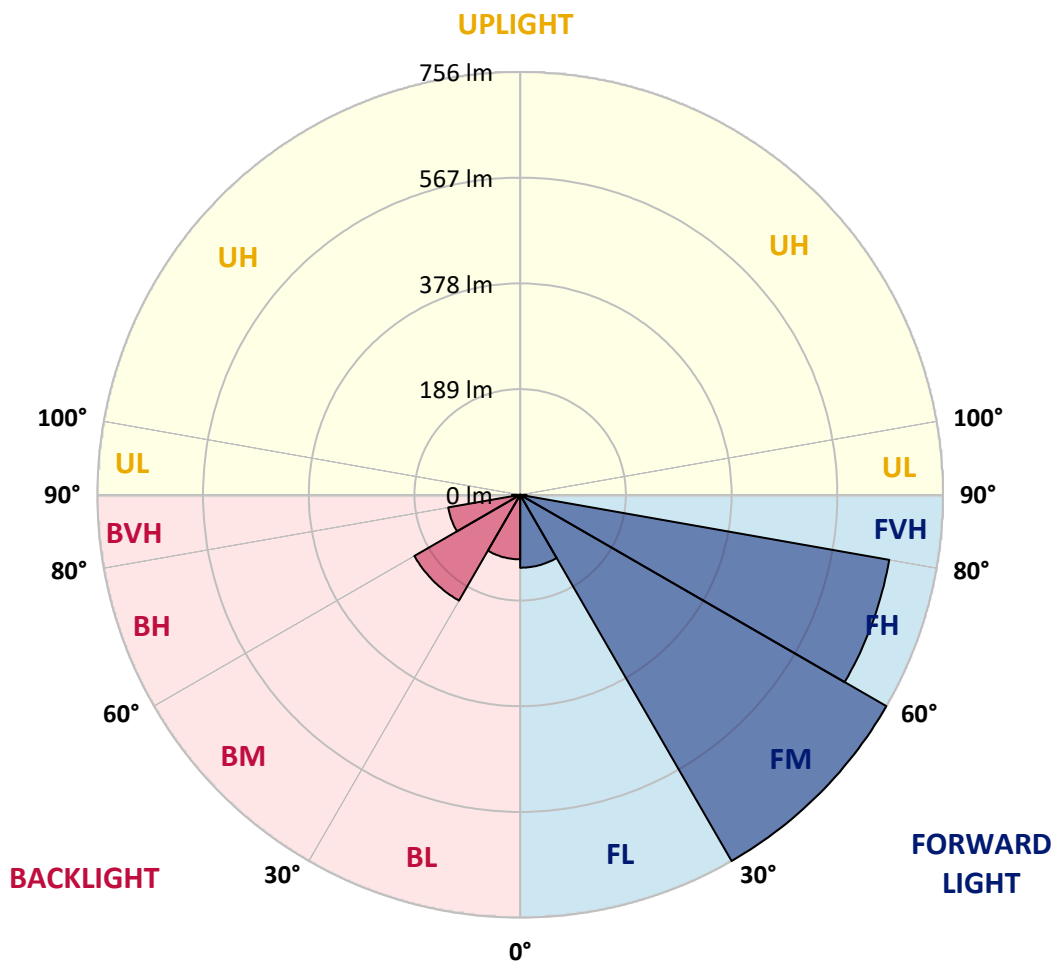
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	130.3	6.4			
FM (30°-60°)	755.7	36.9			
FH (60°-80°)	669.8	32.7			G1/1800
FVH (80°-90°)	11.1	0.5			G1/100
BL (0°-30°)	115.4	5.6	B1/500		
BM (30°-60°)	218.5	10.7	B0/220		
BH (60°-80°)	130.5	6.4	B1/500		G1/500
BVH (80°-90°)	14.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7
2.5°	239.7	239.7	240.6	240.8	241.4	242.0	242.6	242.8	243.7	244.8	245.4
5°	237.7	238.0	238.6	238.8	239.7	240.8	241.7	242.3	243.7	246.0	247.4
7.5°	242.3	243.1	243.4	243.7	244.0	244.8	244.8	245.1	246.6	248.8	250.8
10°	249.7	250.3	251.1	252.0	252.8	253.4	251.7	252.0	252.6	254.8	257.7
12.5°	259.1	259.1	259.4	260.6	261.4	263.1	261.4	261.4	261.4	263.4	266.8
15°	269.7	269.1	269.1	270.3	270.6	271.7	270.8	270.8	272.0	274.0	277.4
17.5°	281.7	282.6	281.7	281.1	280.3	280.8	281.4	282.0	284.3	287.4	289.4
20°	299.1	300.6	300.0	297.7	294.0	292.3	294.3	295.4	300.0	303.7	304.0
22.5°	326.8	326.0	325.1	321.1	313.7	309.1	309.4	311.1	318.3	324.0	321.1
25°	352.5	353.4	353.4	347.7	338.0	328.5	329.4	330.3	337.4	342.5	334.8
27.5°	383.7	383.1	382.8	375.1	363.4	354.3	349.4	351.7	356.8	358.8	344.0
30°	416.0	418.3	416.0	405.1	394.0	382.3	372.5	372.0	374.5	374.3	354.8
32.5°	454.8	452.8	452.0	439.4	425.4	410.0	397.7	395.7	394.3	392.3	367.7
35°	484.8	487.4	487.4	476.5	460.0	444.8	425.7	424.0	420.5	414.0	384.5
37.5°	520.2	519.7	521.7	509.1	492.5	478.0	460.3	455.4	447.7	438.0	404.5
40°	554.8	556.2	560.8	545.7	530.5	519.1	494.0	485.1	473.4	464.5	433.7
42.5°	602.0	604.0	605.7	593.1	575.1	564.8	526.0	514.8	508.2	506.5	472.3
45°	659.1	662.5	664.0	652.5	642.2	617.7	566.2	556.0	548.8	556.2	524.8
47.5°	713.9	712.2	718.8	718.5	719.7	690.2	624.2	608.8	602.0	620.8	585.1
50°	744.8	747.4	761.7	776.2	796.5	775.4	691.4	676.0	668.0	691.4	656.0
52.5°	760.8	764.2	783.4	824.2	867.4	857.4	772.2	755.1	748.2	771.1	731.9
55°	762.2	764.2	789.9	853.4	921.4	924.5	864.5	848.2	838.8	853.7	814.8
57.5°	738.5	732.5	776.8	857.7	955.9	994.5	965.9	954.2	927.6	943.6	917.6
60°	696.2	702.2	745.7	839.9	970.5	1049.1	1067.6	1049.9	1019.1	1025.6	1028.5
62.5°	632.2	640.0	685.1	798.8	958.8	1095.4	1161.6	1152.8	1111.3	1107.9	1113.1
65°	541.1	536.5	586.8	708.8	903.4	1110.8	1253.9	1250.2	1200.8	1160.5	1162.5
67.5°	390.3	386.0	421.1	547.1	753.4	1053.4	1303.1	1311.3	1254.8	1183.6	1152.8
68°	354.3	348.3	383.4	505.7	714.8	1020.2	1300.5	1314.8	1258.8	1182.2	1140.8
70°	204.0	194.3	228.3	330.0	526.2	858.8	1247.9	1287.3	1249.3	1154.5	1062.2
72.5°	64.0	64.0	88.3	133.4	258.3	543.4	1067.6	1134.8	1142.8	1049.4	882.8
75°	40.0	40.0	46.0	63.1	102.8	230.6	736.5	838.8	907.9	883.4	643.7
77.5°	27.1	26.6	30.6	39.1	57.4	74.0	369.7	454.3	555.4	603.1	376.5
80°	14.9	15.1	18.9	23.4	32.6	34.3	108.6	153.4	244.6	286.6	142.8
82.5°	8.6	8.3	9.1	10.3	14.3	14.9	31.1	38.3	64.0	59.4	38.3
85°	0.0	0.3	0.3	0.3	0.6	1.4	4.0	6.0	9.7	13.4	9.4
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.6	0.6	0.6	0.6	0.9
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°	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7	245.7
2.5°	246.0	246.8	248.3	249.4	250.0	249.4	251.4	251.1	251.7	251.7	252.3
5°	248.6	249.7	252.3	253.7	255.1	255.7	258.0	258.6	259.7	260.3	260.0
7.5°	252.3	253.7	256.8	259.4	261.4	262.8	266.6	268.3	270.0	270.6	271.1
10°	259.1	261.1	264.6	267.7	270.6	272.6	275.7	278.0	279.7	280.3	280.8
12.5°	268.3	270.6	274.8	279.1	282.3	283.4	283.1	282.6	282.6	282.3	282.6
15°	278.8	281.1	286.6	290.6	290.8	287.1	282.0	279.4	278.8	278.8	279.1
17.5°	291.1	294.0	297.4	299.7	294.3	285.1	279.1	276.6	276.0	275.7	275.1
20°	305.1	306.8	308.0	305.1	293.1	282.6	275.7	272.0	269.1	268.8	267.7
22.5°	320.0	319.4	318.0	307.7	290.0	276.6	267.1	260.3	256.6	256.3	255.1
25°	330.8	328.5	324.3	308.3	284.3	266.8	253.4	242.6	237.7	235.4	236.0
27.5°	338.0	333.1	325.7	305.4	274.3	252.0	233.1	218.8	211.7	210.6	211.4
30°	346.5	338.8	326.8	298.3	260.0	231.1	206.6	192.3	188.3	186.3	186.8
32.5°	356.8	346.8	330.5	287.4	242.0	206.8	180.3	170.3	165.7	162.0	163.1
35°	370.3	357.7	336.5	272.0	219.1	181.1	161.4	152.3	144.0	140.0	140.3
37.5°	386.0	371.7	341.7	254.0	194.3	161.7	145.1	134.3	124.0	116.3	114.8
40°	411.1	399.4	346.0	234.0	170.6	145.7	129.1	116.8	107.1	99.4	98.6
42.5°	453.1	432.8	346.3	210.0	150.3	132.0	116.0	102.6	91.7	85.1	84.9
45°	502.5	471.1	340.3	184.3	132.6	118.3	104.3	89.1	82.9	78.6	78.0
47.5°	561.1	515.1	327.1	160.3	117.4	104.8	92.3	83.1	78.6	75.4	75.4
50°	628.0	566.8	314.0	139.7	102.8	94.0	85.4	80.6	77.1	74.3	74.0
52.5°	703.4	628.0	309.7	118.8	90.9	84.0	83.1	78.6	75.7	73.7	73.1
55°	793.4	696.5	313.7	102.6	81.4	80.0	81.7	78.0	76.0	72.9	72.0
57.5°	897.4	763.4	309.4	88.9	74.9	76.3	80.0	78.0	76.3	72.3	71.1
60°	995.4	823.1	280.3	77.4	68.6	71.7	77.7	75.4	72.9	72.0	71.4
62.5°	1047.9	842.5	223.4	68.6	63.7	67.1	74.0	71.1	69.4	71.4	71.7
65°	1048.5	820.5	164.3	62.0	59.7	63.1	70.3	69.4	70.6	75.1	76.0
67.5°	990.2	753.7	116.0	56.0	55.7	60.0	72.0	77.7	78.6	83.1	83.1
68°	970.2	737.1	107.7	55.1	54.9	60.0	73.4	79.1	79.7	84.0	83.7
70°	860.5	623.1	78.0	51.7	53.4	64.3	81.1	83.1	79.7	84.6	84.3
72.5°	672.5	460.8	58.3	48.0	50.9	63.4	81.7	79.7	74.6	75.7	74.3
75°	454.5	293.7	48.0	44.0	45.1	53.7	74.3	75.1	69.1	68.0	66.3
77.5°	238.0	137.7	38.9	39.1	40.3	46.6	66.3	68.3	62.9	59.4	58.9
80°	87.7	54.6	31.7	34.6	35.1	40.9	56.9	60.0	54.9	52.3	51.7
82.5°	32.0	27.1	26.3	30.3	29.7	34.9	49.7	52.0	46.6	44.0	42.6
85°	8.9	10.0	16.6	23.7	23.1	27.1	40.0	42.0	37.4	30.9	30.0
87.5°	0.6	2.0	6.6	14.0	14.6	16.9	28.9	31.7	27.7	22.9	22.6
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)