

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: P400940

Luminaire Tested: **ENT-SA1A-735-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400940
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-735-U-T3
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2614 lumens
Efficiency: N/A
Efficacy: 130.1 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

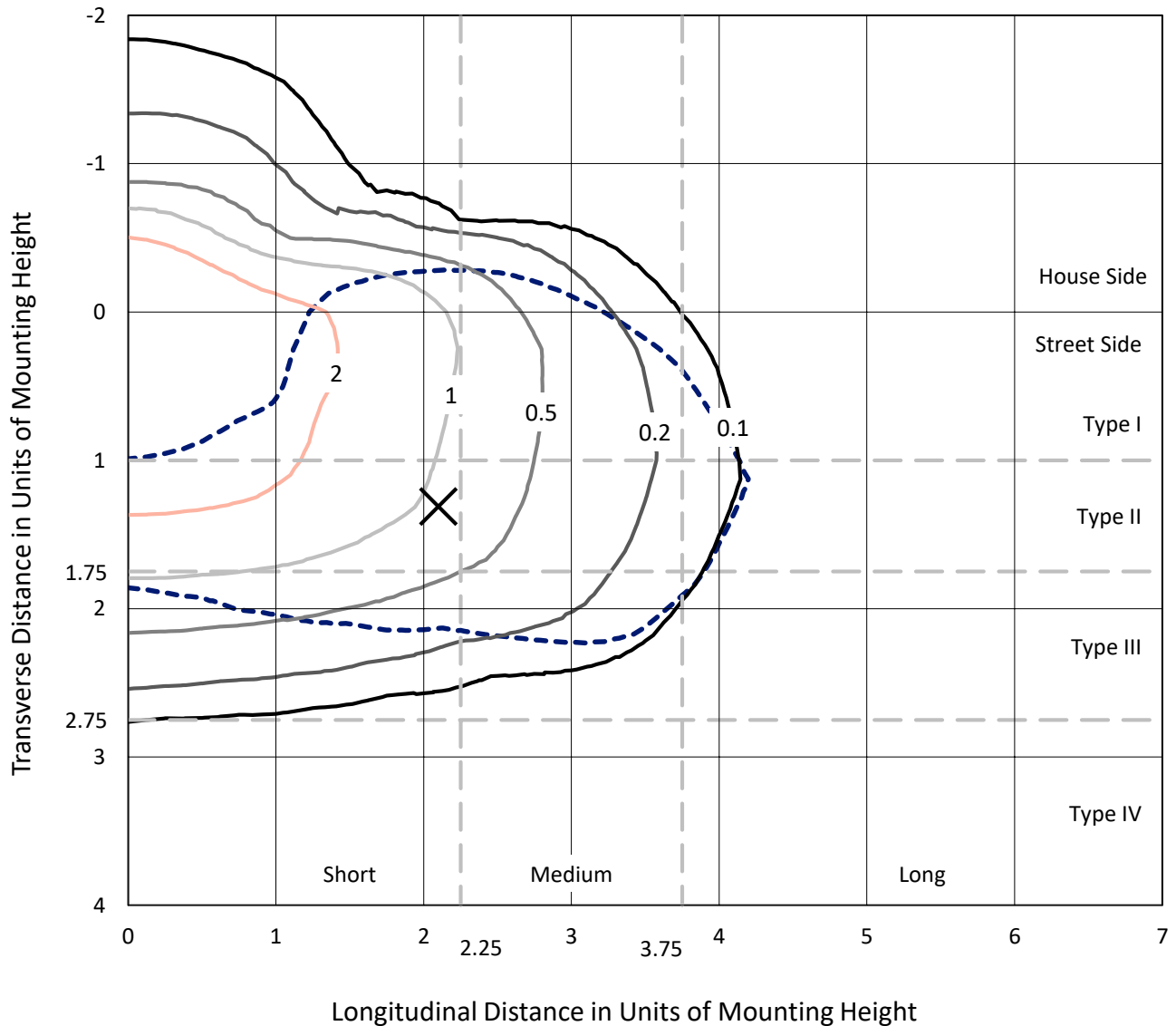
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

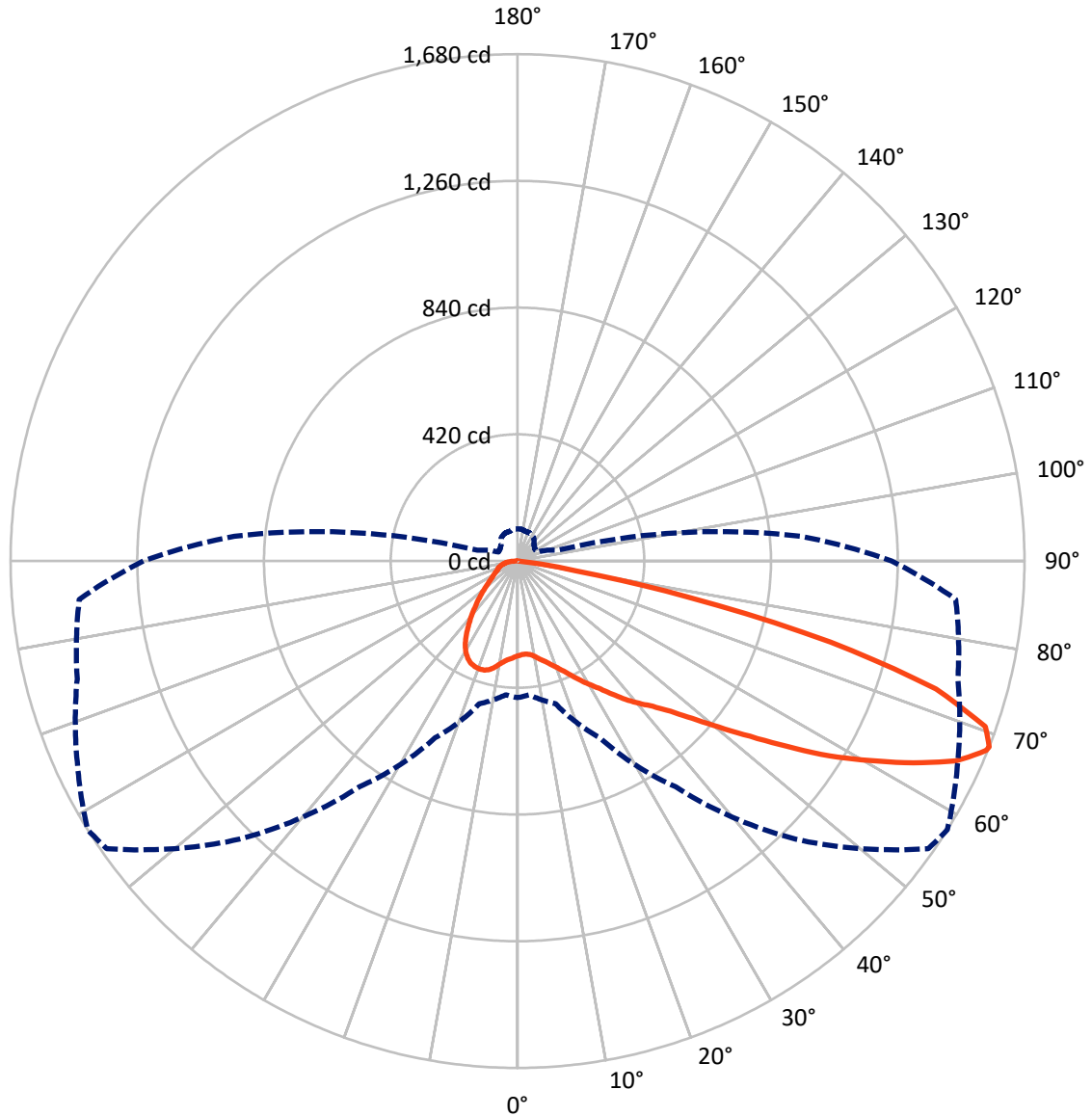
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 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	612.1	0.0	612.1
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	2002.0	0.0	2002.0
	% Fixture	76.6	0.0	76.6
Total	Lumens	2614.0	0.0	2614.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	1.2
10°-20°	101.1	3.9
20°-30°	181.9	7.0
30°-40°	267.2	10.2
40°-50°	391.8	15.0
50°-60°	585.7	22.4
60°-70°	684.8	26.2
70°-80°	337.7	12.9
80°-90°	33.0	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°	2614.0	100.0
0°-180°	2614.0	100.0



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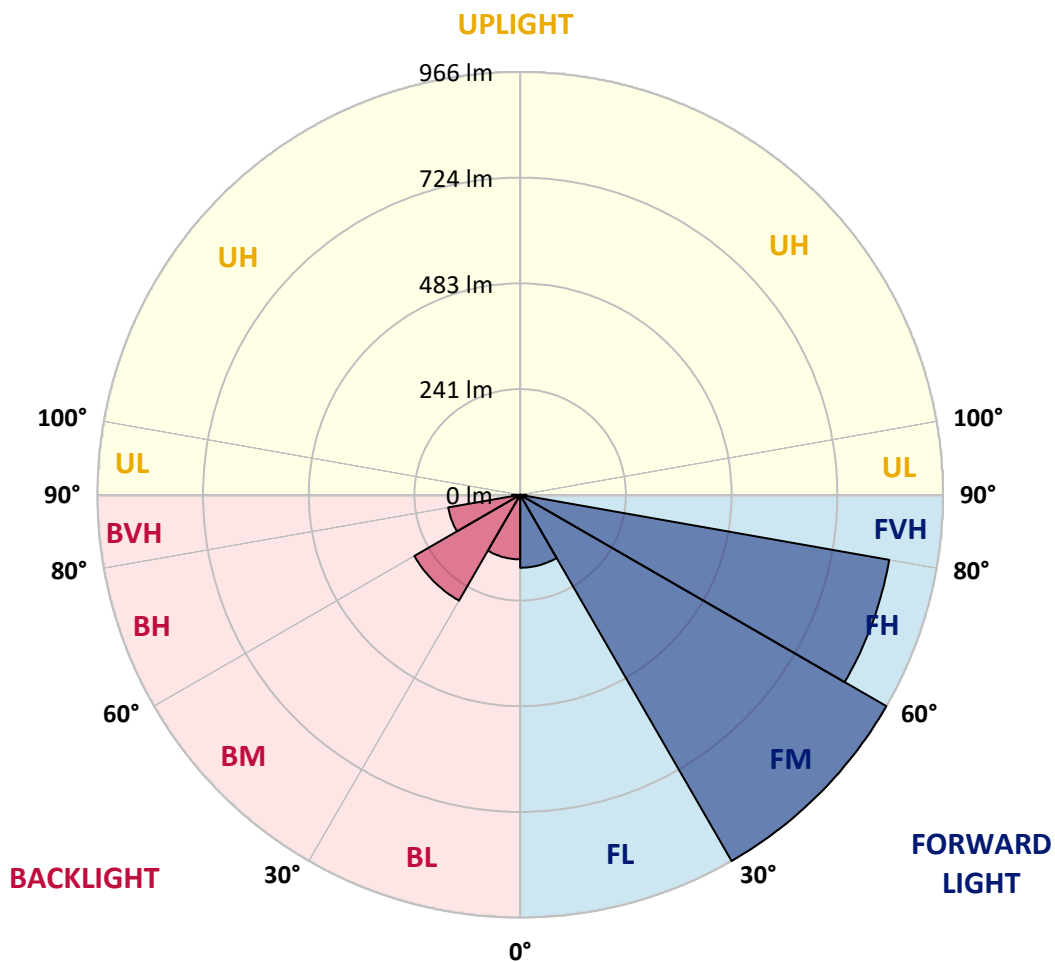
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	166.5	6.4			
FM (30°-60°)	965.5	36.9			
FH (60°-80°)	855.7	32.7			G1/1800
FVH (80°-90°)	14.2	0.5			G1/100
BL (0°-30°)	147.4	5.6	B1/500		
BM (30°-60°)	279.1	10.7	B1/1000		
BH (60°-80°)	166.8	6.4	B1/500		G1/500
BVH (80°-90°)	18.8	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°	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9
2.5°	306.2	306.2	307.3	307.7	308.4	309.2	309.9	310.3	311.4	312.8	313.5
5°	303.7	304.1	304.8	305.1	306.2	307.7	308.8	309.5	311.4	314.3	316.1
7.5°	309.5	310.6	311.0	311.4	311.7	312.8	312.8	313.2	315.0	317.9	320.5
10°	319.0	319.7	320.8	321.9	323.0	323.8	321.6	321.9	322.7	325.6	329.2
12.5°	331.1	331.1	331.4	332.9	334.0	336.2	334.0	334.0	334.0	336.5	340.9
15°	344.6	343.8	343.8	345.3	345.7	347.1	346.0	346.0	347.5	350.0	354.4
17.5°	359.9	361.0	359.9	359.2	358.1	358.8	359.5	360.3	363.2	367.2	369.8
20°	382.2	384.0	383.3	380.3	375.6	373.4	376.0	377.4	383.3	388.0	388.4
22.5°	417.6	416.5	415.4	410.3	400.8	394.9	395.3	397.5	406.6	413.9	410.3
25°	450.4	451.5	451.5	444.2	431.8	419.8	420.9	421.9	431.1	437.6	427.8
27.5°	490.2	489.5	489.1	479.3	464.3	452.6	446.4	449.3	455.9	458.4	439.5
30°	531.5	534.4	531.5	517.6	503.3	488.4	476.0	475.2	478.5	478.2	453.3
32.5°	581.1	578.5	577.4	561.4	543.5	523.8	508.1	505.5	503.7	501.2	469.8
35°	619.4	622.7	622.7	608.8	587.7	568.3	543.9	541.7	537.3	528.9	491.3
37.5°	664.7	663.9	666.5	650.4	629.3	610.7	588.0	581.8	572.0	559.6	516.8
40°	708.8	710.7	716.5	697.2	677.8	663.2	631.1	619.8	604.8	593.5	554.1
42.5°	769.1	771.6	773.8	757.8	734.8	721.6	672.0	657.7	649.3	647.2	603.4
45°	842.1	846.5	848.3	833.7	820.5	789.1	723.4	710.3	701.2	710.7	670.5
47.5°	912.2	910.0	918.4	918.0	919.5	881.9	797.5	777.8	769.1	793.2	747.5
50°	951.6	954.9	973.1	991.7	1017.6	990.6	883.3	863.6	853.4	883.3	838.1
52.5°	972.0	976.4	1000.8	1053.0	1108.2	1095.4	986.6	964.7	956.0	985.2	935.1
55°	973.8	976.4	1009.2	1090.3	1177.1	1181.2	1104.5	1083.7	1071.7	1090.6	1041.0
57.5°	943.5	935.9	992.5	1095.8	1221.3	1270.6	1234.1	1219.1	1185.2	1205.6	1172.4
60°	889.5	897.2	952.7	1073.1	1239.9	1340.3	1364.0	1341.4	1302.0	1310.4	1314.0
62.5°	807.8	817.6	875.3	1020.6	1225.0	1399.4	1484.1	1472.8	1419.9	1415.5	1422.1
65°	691.3	685.5	749.7	905.6	1154.2	1419.1	1602.0	1597.3	1534.1	1482.7	1485.2
67.5°	498.6	493.1	538.0	699.0	962.5	1345.8	1664.8	1675.4	1603.1	1512.2	1472.8
68°	452.6	444.9	489.8	646.1	913.2	1303.4	1661.5	1679.8	1608.2	1510.4	1457.5
70°	260.6	248.2	291.6	421.6	672.3	1097.2	1594.4	1644.7	1596.2	1475.0	1357.1
72.5°	81.8	81.8	112.8	170.5	330.0	694.2	1364.0	1449.8	1460.0	1340.7	1127.9
75°	51.1	51.1	58.8	80.7	131.4	294.6	941.0	1071.7	1160.0	1128.6	822.4
77.5°	34.7	33.9	39.1	50.0	73.4	94.5	472.3	580.4	709.6	770.5	481.1
80°	19.0	19.3	24.1	29.9	41.6	43.8	138.7	196.0	312.4	366.1	182.5
82.5°	11.0	10.6	11.7	13.1	18.3	19.0	39.8	48.9	81.8	75.9	48.9
85°	0.0	0.4	0.4	0.4	0.7	1.8	5.1	7.7	12.4	17.2	12.0
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.7	0.7	0.7	1.1
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°	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9	313.9
2.5°	314.3	315.4	317.2	318.7	319.4	318.7	321.2	320.8	321.6	321.6	322.3
5°	317.6	319.0	322.3	324.1	326.0	326.7	329.6	330.3	331.8	332.5	332.2
7.5°	322.3	324.1	328.1	331.4	334.0	335.8	340.6	342.7	344.9	345.7	346.4
10°	331.1	333.6	338.0	342.0	345.7	348.2	352.2	355.2	357.3	358.1	358.8
12.5°	342.7	345.7	351.1	356.6	360.6	362.1	361.7	361.0	361.0	360.6	361.0
15°	356.2	359.2	366.1	371.2	371.6	366.8	360.3	357.0	356.2	356.2	356.6
17.5°	371.9	375.6	380.0	382.9	376.0	364.3	356.6	353.3	352.6	352.2	351.5
20°	389.8	392.0	393.5	389.8	374.5	361.0	352.2	347.5	343.8	343.5	342.0
22.5°	408.8	408.1	406.3	393.1	370.5	353.3	341.3	332.5	327.8	327.4	326.0
25°	422.7	419.8	414.3	393.8	363.2	340.9	323.8	309.9	303.7	300.8	301.5
27.5°	431.8	425.6	416.1	390.2	350.4	321.9	297.8	279.6	270.5	269.0	270.1
30°	442.8	432.9	417.6	381.1	332.2	295.3	263.9	245.6	240.5	238.0	238.7
32.5°	455.9	443.1	422.3	367.2	309.2	264.3	230.3	217.5	211.7	207.0	208.4
35°	473.0	457.0	430.0	347.5	280.0	231.4	206.2	194.5	184.0	178.9	179.2
37.5°	493.1	474.9	436.5	324.5	248.2	206.6	185.4	171.6	158.4	148.6	146.7
40°	525.2	510.3	442.0	298.9	217.9	186.2	165.0	149.3	136.9	127.0	125.9
42.5°	578.9	553.0	442.4	268.3	192.0	168.6	148.2	131.0	117.2	108.8	108.4
45°	642.0	601.9	434.7	235.4	169.4	151.1	133.2	113.9	105.9	100.4	99.6
47.5°	716.9	658.1	417.9	204.8	150.0	134.0	117.9	106.2	100.4	96.4	96.4
50°	802.3	724.2	401.1	178.5	131.4	120.1	109.1	102.9	98.6	94.9	94.5
52.5°	898.6	802.3	395.7	151.8	116.1	107.3	106.2	100.4	96.7	94.2	93.4
55°	1013.6	889.9	400.8	131.0	104.0	102.2	104.4	99.6	97.1	93.1	92.0
57.5°	1146.5	975.3	395.3	113.5	95.6	97.5	102.2	99.6	97.5	92.3	90.9
60°	1271.7	1051.6	358.1	98.9	87.6	91.6	99.3	96.4	93.1	92.0	91.3
62.5°	1338.8	1076.4	285.4	87.6	81.4	85.8	94.5	90.9	88.7	91.3	91.6
65°	1339.6	1048.3	209.9	79.2	76.3	80.7	89.8	88.7	90.2	96.0	97.1
67.5°	1265.1	962.9	148.2	71.5	71.2	76.7	92.0	99.3	100.4	106.2	106.2
68°	1239.6	941.7	137.6	70.4	70.1	76.7	93.8	101.1	101.8	107.3	106.9
70°	1099.4	796.1	99.6	66.1	68.3	82.1	103.7	106.2	101.8	108.0	107.7
72.5°	859.2	588.8	74.5	61.3	65.0	81.0	104.4	101.8	95.3	96.7	94.9
75°	580.7	375.2	61.3	56.2	57.7	68.6	94.9	96.0	88.3	86.9	84.7
77.5°	304.1	175.9	49.6	50.0	51.5	59.5	84.7	87.2	80.3	75.9	75.2
80°	112.1	69.7	40.5	44.2	44.9	52.2	72.6	76.7	70.1	66.8	66.1
82.5°	40.9	34.7	33.6	38.7	38.0	44.5	63.5	66.4	59.5	56.2	54.4
85°	11.3	12.8	21.2	30.3	29.6	34.7	51.1	53.7	47.8	39.4	38.3
87.5°	0.7	2.6	8.4	17.9	18.6	21.5	36.9	40.5	35.4	29.2	28.8
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)