

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: P401198

Luminaire Tested: **ENT-SA1B-827-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-827-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2489 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.4
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

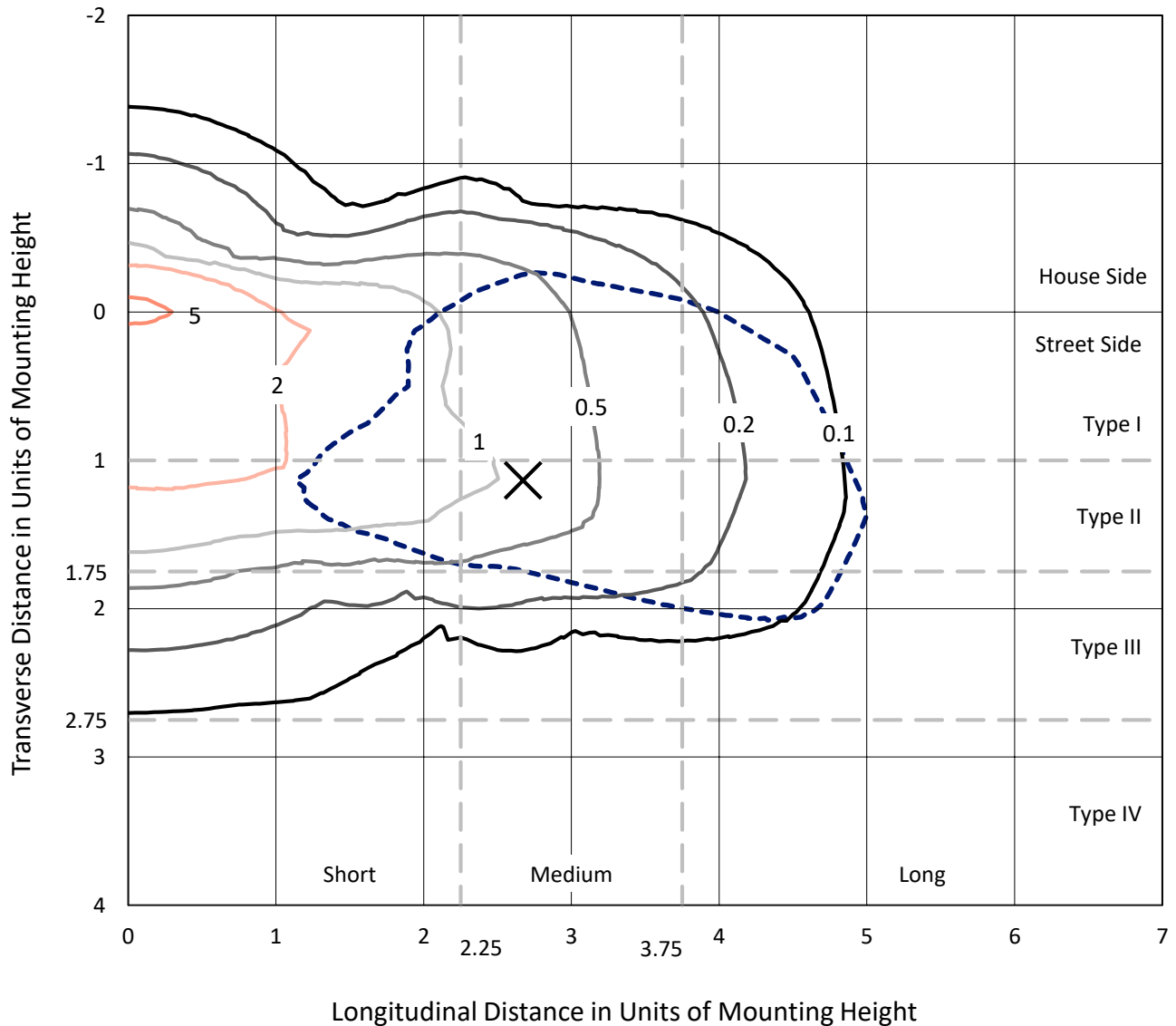


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Iso-Footcandle Lines of Horizontal Illumination

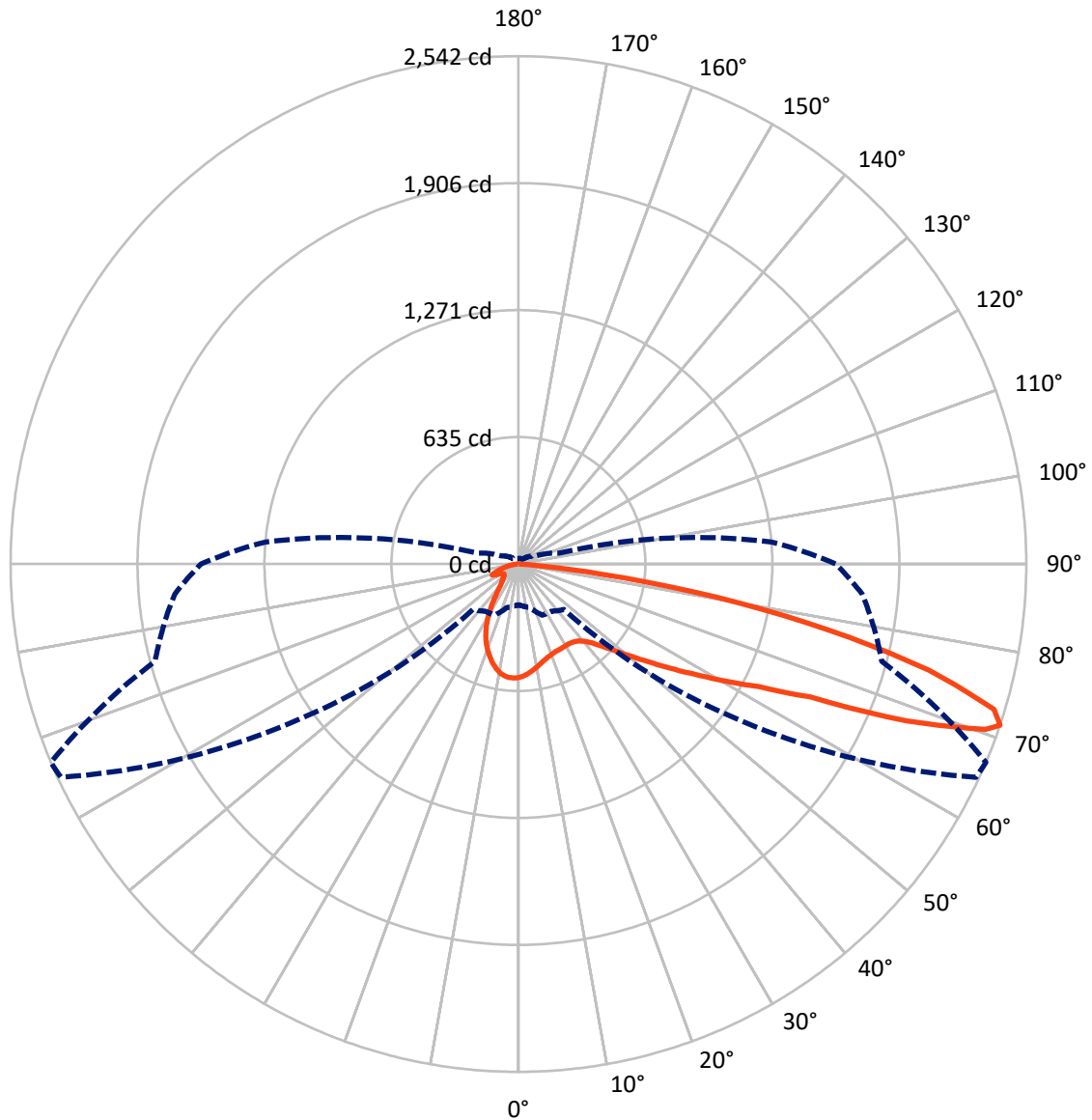
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	509.9	0.0	509.9
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	1979.1	0.0	1979.1
	% Fixture	79.5	0.0	79.5
Total	Lumens	2489.0	0.0	2489.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.3	2.0
10°-20°	123.6	5.0
20°-30°	166.9	6.7
30°-40°	219.8	8.8
40°-50°	313.0	12.6
50°-60°	478.2	19.2
60°-70°	597.1	24.0
70°-80°	482.0	19.4
80°-90°	58.1	2.3
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°	2489.0	100.0
0°-180°	2489.0	100.0



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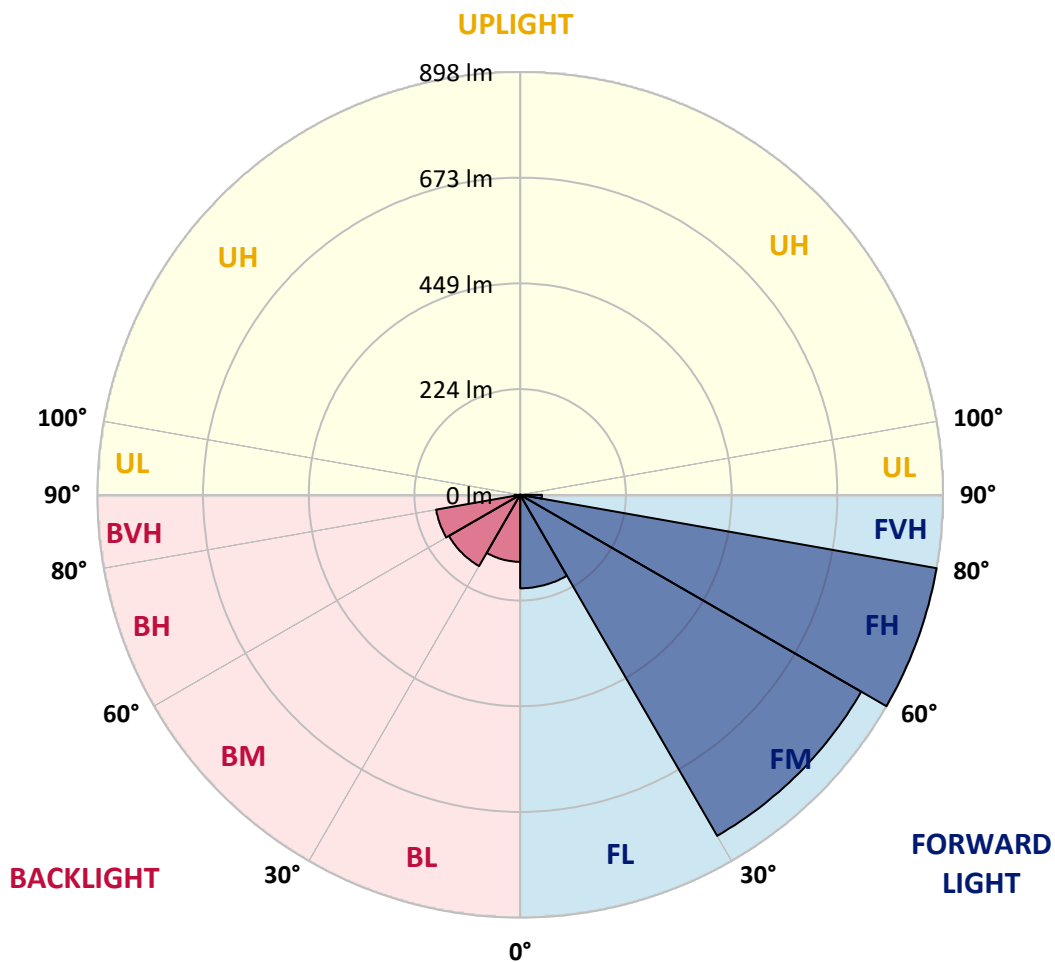
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	198.5	8.0			
FM	(30°-60°)	836.3	33.6			
FH	(60°-80°)	897.9	36.1			G1/1800
FVH	(80°-90°)	46.3	1.9			G1/100
BL	(0°-30°)	142.3	5.7	B1/500		
BM	(30°-60°)	174.7	7.0	B0/220		
BH	(60°-80°)	181.2	7.3	B1/500		G1/500
BVH	(80°-90°)	11.8	0.5			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6
2.5°	535.3	537.8	538.2	543.2	545.0	550.7	553.9	559.3	560.0	563.3	565.4
5°	500.6	500.9	503.1	507.4	514.2	524.6	532.4	545.7	548.2	557.5	565.8
7.5°	469.4	471.2	474.8	481.2	489.1	501.3	513.5	531.7	535.3	550.4	566.1
10°	448.2	450.0	452.9	460.1	467.9	481.6	496.3	517.4	521.3	542.1	565.0
12.5°	431.4	433.2	435.3	443.2	451.8	465.4	480.5	504.1	508.1	532.1	562.5
15°	420.3	420.7	423.5	430.0	439.6	452.9	467.9	492.3	497.0	524.2	561.8
17.5°	413.5	414.2	416.7	421.7	430.3	443.2	457.9	482.6	488.0	517.8	562.2
20°	413.8	414.6	416.0	417.8	423.9	435.0	450.4	475.5	480.8	513.8	564.7
22.5°	421.4	421.7	422.1	419.6	421.7	429.6	444.7	470.5	476.2	512.0	567.6
25°	435.7	435.7	435.0	429.3	424.6	427.8	441.4	468.7	474.4	510.6	570.4
27.5°	455.4	456.8	453.3	446.5	435.7	430.3	440.7	467.2	473.0	510.6	571.9
30°	482.3	483.0	481.6	472.6	455.0	440.4	442.9	466.2	471.9	509.9	572.2
32.5°	509.5	511.7	513.5	505.6	484.4	458.3	451.5	467.6	472.6	509.5	571.1
35°	537.1	538.5	547.1	545.7	522.8	485.1	465.4	473.3	477.6	511.3	571.9
37.5°	560.8	564.0	576.5	586.2	568.3	521.7	489.4	485.9	488.4	520.3	575.8
40°	586.2	590.8	609.5	627.8	619.9	567.6	523.5	508.4	507.7	536.7	585.5
42.5°	614.9	620.2	644.2	670.8	673.3	626.0	569.0	540.3	539.6	565.0	606.6
45°	648.5	653.6	686.2	717.7	733.1	691.2	624.9	585.5	585.8	604.5	640.3
47.5°	690.1	698.0	729.5	769.6	797.2	764.6	692.6	648.5	645.7	663.9	695.5
50°	748.5	755.0	781.1	820.2	868.5	853.5	777.9	724.5	722.3	730.9	769.3
52.5°	809.8	811.9	824.5	865.0	946.3	961.3	882.9	818.7	810.5	815.1	861.0
55°	813.4	818.0	826.3	877.5	1016.2	1090.7	998.6	929.8	919.1	915.8	965.3
57.5°	738.8	746.4	757.1	823.4	1019.0	1240.1	1163.1	1059.5	1040.2	1024.0	1076.7
60°	580.8	590.5	610.2	691.5	946.3	1325.4	1437.5	1205.0	1187.8	1133.0	1185.6
62.5°	419.9	423.9	442.9	479.4	751.0	1330.4	1723.5	1394.9	1352.2	1239.0	1279.5
65°	338.2	344.7	350.4	350.1	444.7	1179.9	1913.4	1732.8	1604.1	1357.6	1382.7
67.5°	278.8	280.9	294.9	319.3	302.4	728.8	1932.3	2226.5	2096.1	1517.4	1505.2
70°	232.9	233.6	247.6	291.3	289.5	376.2	1620.3	2510.7	2479.1	1779.7	1696.9
71°	203.9	210.0	225.4	282.0	288.1	321.4	1376.6	2525.7	2541.5	1882.5	1726.7
72.5°	160.5	160.5	182.4	258.7	290.6	296.7	1014.4	2443.7	2489.2	1999.4	1675.1
75°	94.2	93.5	105.3	180.2	297.0	295.6	553.9	2030.9	2123.0	2020.5	1550.4
77.5°	53.0	54.1	60.6	100.3	235.8	283.8	318.2	1478.7	1587.3	1690.1	1311.0
80°	24.4	25.8	30.5	48.7	139.0	245.1	227.2	960.3	1001.5	1015.8	619.5
82.5°	6.4	7.2	9.3	18.6	53.7	167.0	168.0	402.0	415.3	240.1	132.9
85°	0.0	0.0	0.0	0.0	0.7	20.4	47.7	72.4	60.2	31.9	27.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.7	1.1	1.4	1.4	1.4	1.8
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°	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6	567.6
2.5°	567.2	568.6	571.1	570.8	570.1	565.8	568.3	565.8	565.4	564.3	564.7
5°	568.6	570.8	572.2	569.0	563.6	554.3	551.1	542.8	537.5	534.6	533.2
7.5°	570.8	572.2	571.5	562.5	548.6	531.0	516.0	504.1	491.6	489.4	488.7
10°	570.8	572.2	566.5	549.3	525.3	497.7	474.8	455.4	436.1	428.9	430.0
12.5°	569.3	570.1	556.8	529.2	494.5	456.8	424.6	392.7	368.0	352.9	350.1
15°	568.3	567.2	543.9	504.1	457.9	411.3	362.6	319.6	290.2	270.5	268.0
17.5°	568.3	564.3	528.5	475.5	418.1	354.0	289.5	242.9	210.3	198.9	198.5
20°	569.0	560.4	512.0	445.7	368.7	285.9	216.1	176.3	164.1	162.3	162.7
22.5°	569.7	555.0	494.1	412.1	313.5	213.2	154.4	140.1	141.2	145.5	145.1
25°	569.0	547.9	473.0	374.4	253.3	153.7	124.7	121.1	127.6	132.6	134.0
27.5°	567.2	538.5	450.4	329.6	193.1	121.1	108.9	108.6	115.0	119.7	119.3
30°	561.8	527.4	424.2	282.3	139.4	103.2	98.2	99.3	103.6	107.9	107.9
32.5°	556.1	514.9	396.6	230.7	107.1	93.5	91.7	92.1	95.0	98.2	97.8
35°	550.0	502.7	368.3	177.0	93.9	87.8	87.1	86.7	87.8	88.5	88.5
37.5°	546.4	492.0	337.2	133.3	86.7	84.2	82.8	81.3	81.0	80.3	79.5
40°	547.9	484.8	307.1	103.2	82.4	80.3	78.1	76.0	74.5	73.8	73.5
42.5°	557.9	482.6	273.7	88.9	78.5	76.7	73.8	70.2	68.8	68.8	68.4
45°	581.2	489.1	242.6	81.7	74.9	72.7	68.1	65.6	64.5	64.9	64.9
47.5°	617.7	507.4	214.6	78.1	72.4	69.2	63.8	61.3	60.6	60.9	60.9
50°	672.5	541.8	186.0	74.9	69.5	65.2	60.6	57.7	56.6	56.6	56.6
52.5°	752.8	598.4	165.2	72.7	67.0	62.0	57.3	54.1	52.7	52.7	52.3
55°	850.6	672.2	157.3	71.3	63.8	59.1	54.1	50.9	48.7	48.0	48.4
57.5°	957.8	767.9	168.8	70.9	60.2	55.9	50.9	46.9	44.8	44.4	44.1
60°	1068.1	862.8	201.7	69.2	57.3	52.0	47.3	43.7	41.6	40.8	40.5
62.5°	1163.4	957.4	256.2	67.7	55.2	48.4	43.4	40.1	38.3	37.3	37.3
65°	1278.4	1066.0	339.3	69.5	54.1	44.8	39.8	36.9	35.5	34.4	34.4
67.5°	1435.4	1226.8	402.4	78.1	56.6	41.9	35.8	33.7	32.6	31.9	31.9
70°	1589.8	1317.1	279.8	91.7	63.1	39.4	32.2	30.8	30.1	29.4	29.4
71°	1587.7	1268.8	210.3	95.0	65.2	38.7	30.8	29.7	29.0	28.7	28.3
72.5°	1508.1	1153.4	150.8	92.1	64.1	36.5	29.0	27.9	27.2	27.2	26.9
75°	1352.6	1016.5	117.9	77.0	53.7	32.6	25.8	25.1	24.4	24.0	24.4
77.5°	1108.2	813.4	92.8	60.9	40.8	26.9	22.9	21.9	21.5	21.1	21.5
80°	509.2	354.4	67.7	47.3	30.5	21.5	19.3	19.0	18.6	18.3	18.3
82.5°	122.5	99.3	36.2	31.5	20.8	16.5	15.4	15.4	15.4	15.0	15.0
85°	26.9	26.9	14.7	14.7	12.5	11.5	12.2	12.2	12.2	11.5	11.5
87.5°	1.4	4.3	4.7	6.8	7.2	6.8	8.2	8.6	8.2	7.9	7.5
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)