

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: P401018

Luminaire Tested: **ENT-SA1A-827-U-SL2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401018
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-SA1A-827-U-SL2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 350mA 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: 1985 lumens
Efficiency: N/A
Efficacy: 98.8 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

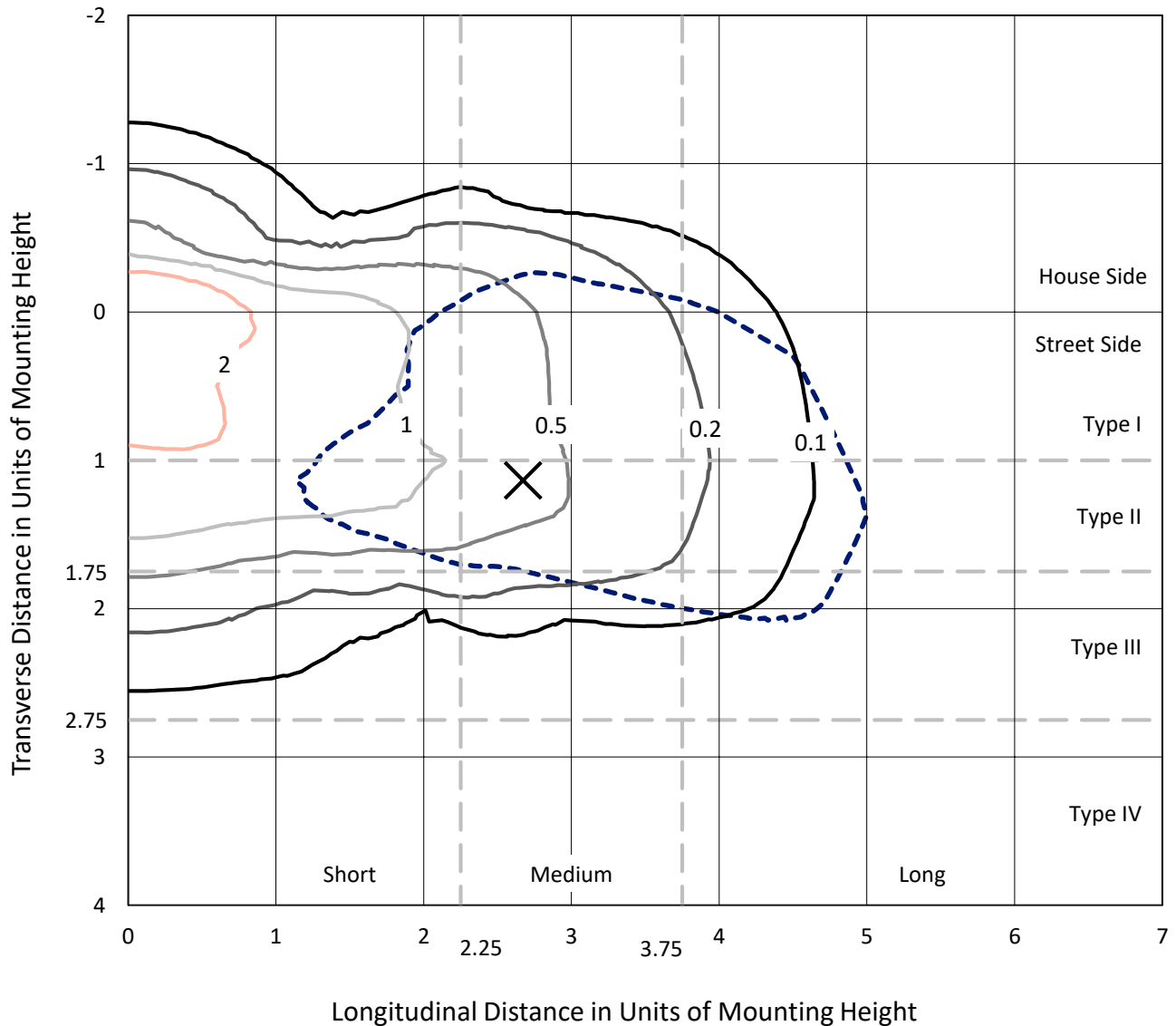
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

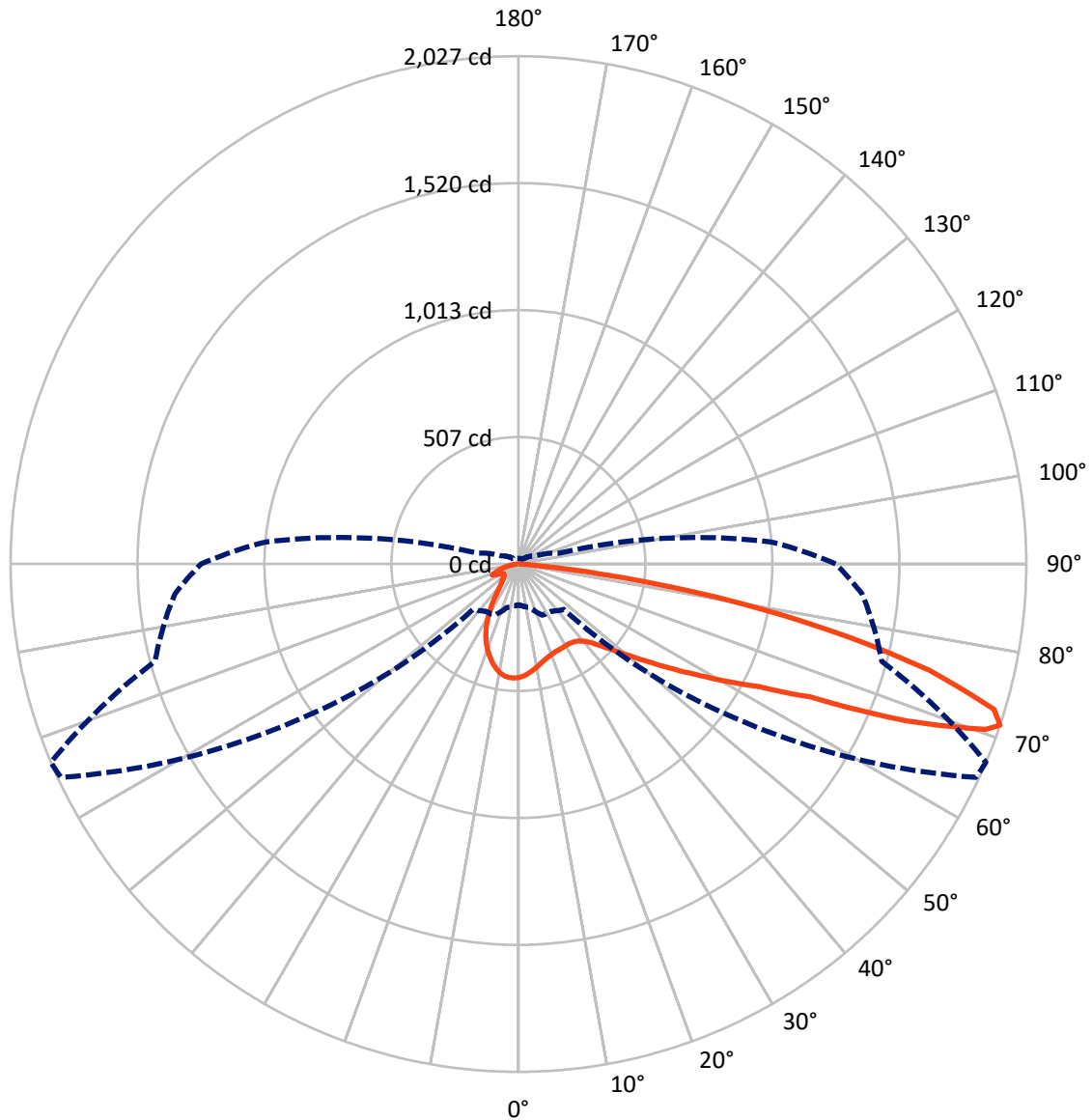
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.5 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	406.7	0.0	406.7
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	1578.3	0.0	1578.3
	% Fixture	79.5	0.0	79.5
Total	Lumens	1985.0	0.0	1985.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	2.0
10°-20°	98.6	5.0
20°-30°	133.1	6.7
30°-40°	175.3	8.8
40°-50°	249.7	12.6
50°-60°	381.4	19.2
60°-70°	476.2	24.0
70°-80°	384.4	19.4
80°-90°	46.3	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°	1985.0	100.0
0°-180°	1985.0	100.0



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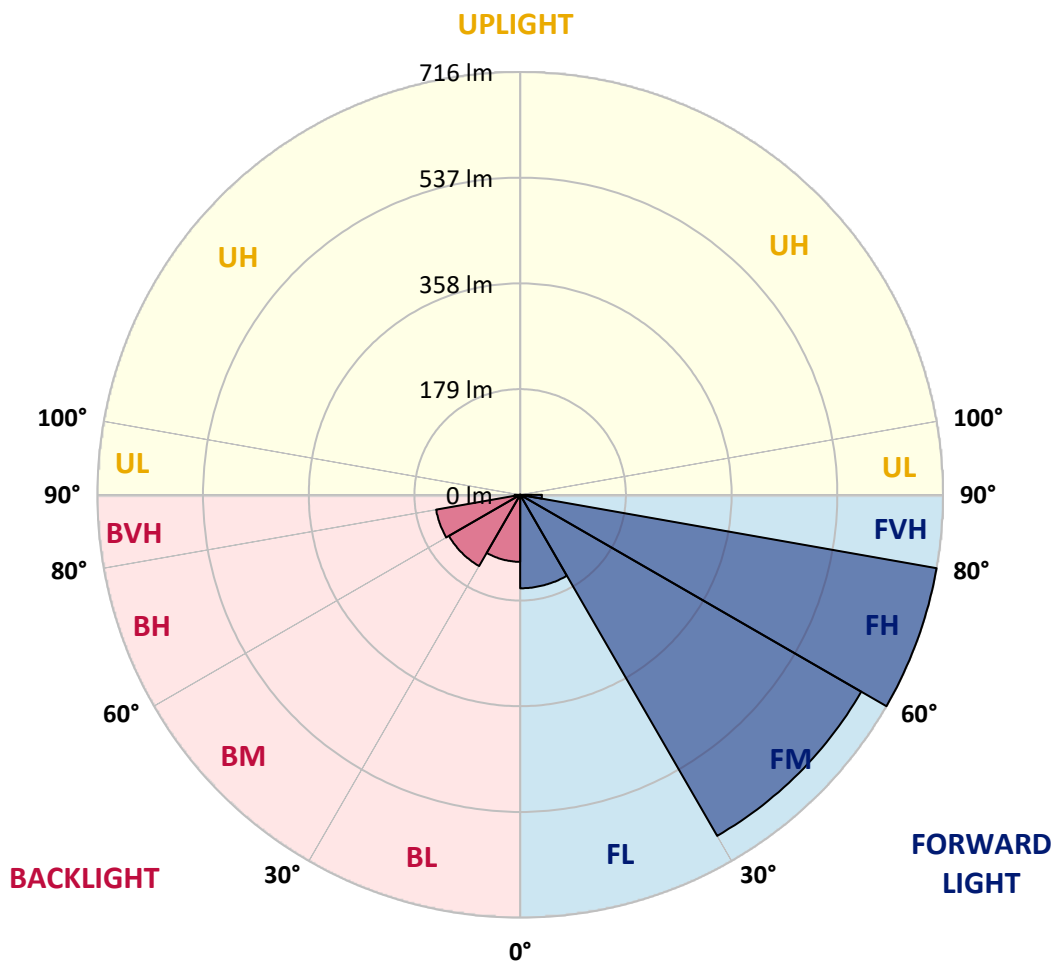
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	158.3	8.0			
FM	(30°-60°)	667.0	33.6			
FH	(60°-80°)	716.1	36.1			G1/1800
FVH	(80°-90°)	37.0	1.9			G1/100
BL	(0°-30°)	113.5	5.7	B1/500		
BM	(30°-60°)	139.3	7.0	B0/220		
BH	(60°-80°)	144.5	7.3	B1/500		G1/500
BVH	(80°-90°)	9.4	0.5			G0/10
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°	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6
2.5°	426.9	428.9	429.2	433.2	434.6	439.2	441.8	446.1	446.6	449.2	450.9
5°	399.2	399.5	401.2	404.6	410.1	418.3	424.6	435.2	437.2	444.6	451.2
7.5°	374.3	375.8	378.6	383.8	390.1	399.8	409.5	424.1	426.9	438.9	451.5
10°	357.5	358.9	361.2	366.9	373.2	384.1	395.8	412.6	415.8	432.3	450.6
12.5°	344.0	345.5	347.2	353.5	360.3	371.2	383.2	402.1	405.2	424.3	448.6
15°	335.2	335.5	337.8	342.9	350.6	361.2	373.2	392.6	396.3	418.1	448.1
17.5°	329.8	330.3	332.3	336.3	343.2	353.5	365.2	384.9	389.2	412.9	448.3
20°	330.0	330.6	331.8	333.2	338.0	346.9	359.2	379.2	383.5	409.8	450.3
22.5°	336.0	336.3	336.6	334.6	336.3	342.6	354.6	375.2	379.8	408.3	452.6
25°	347.5	347.5	346.9	342.3	338.6	341.2	352.0	373.8	378.3	407.2	454.9
27.5°	363.2	364.3	361.5	356.0	347.5	343.2	351.5	372.6	377.2	407.2	456.1
30°	384.6	385.2	384.1	376.9	362.9	351.2	353.2	371.8	376.3	406.6	456.3
32.5°	406.3	408.1	409.5	403.2	386.3	365.5	360.0	372.9	376.9	406.3	455.5
35°	428.3	429.5	436.3	435.2	416.9	386.9	371.2	377.5	380.9	407.8	456.1
37.5°	447.2	449.8	459.8	467.5	453.2	416.1	390.3	387.5	389.5	414.9	459.2
40°	467.5	471.2	486.1	500.6	494.4	452.6	417.5	405.5	404.9	428.1	466.9
42.5°	490.4	494.6	513.8	534.9	536.9	499.2	453.8	430.9	430.3	450.6	483.8
45°	517.2	521.2	547.2	572.4	584.7	551.2	498.4	466.9	467.2	482.1	510.6
47.5°	550.4	556.6	581.8	613.8	635.8	609.8	552.4	517.2	514.9	529.5	554.6
50°	596.9	602.1	622.9	654.1	692.7	680.7	620.4	577.8	576.1	582.9	613.5
52.5°	645.8	647.5	657.5	689.8	754.7	766.7	704.1	652.9	646.4	650.1	686.7
55°	648.7	652.4	658.9	699.8	810.4	869.8	796.4	741.5	733.0	730.4	769.8
57.5°	589.2	595.2	603.8	656.7	812.7	989.0	927.6	845.0	829.5	816.7	858.7
60°	463.2	470.9	486.6	551.5	754.7	1057.0	1146.4	961.0	947.3	903.6	945.6
62.5°	334.9	338.0	353.2	382.3	598.9	1061.0	1374.5	1112.4	1078.4	988.1	1020.4
65°	269.8	274.9	279.5	279.2	354.6	941.0	1525.9	1381.9	1279.3	1082.7	1102.7
67.5°	222.3	224.0	235.2	254.6	241.2	581.2	1541.1	1775.7	1671.7	1210.2	1200.4
70°	185.7	186.3	197.5	232.3	230.9	300.0	1292.2	2002.3	1977.1	1419.3	1353.3
71°	162.6	167.5	179.7	224.9	229.7	256.3	1097.9	2014.3	2026.8	1501.3	1377.0
72.5°	128.0	128.0	145.4	206.3	231.7	236.6	809.0	1948.8	1985.1	1594.5	1335.9
75°	75.2	74.6	84.0	143.7	236.9	235.7	441.8	1619.6	1693.1	1611.4	1236.5
77.5°	42.3	43.1	48.3	80.0	188.0	226.3	253.7	1179.3	1265.9	1347.9	1045.6
80°	19.4	20.6	24.3	38.9	110.9	195.5	181.2	765.8	798.7	810.1	494.1
82.5°	5.1	5.7	7.4	14.9	42.9	133.2	134.0	320.6	331.2	191.5	106.0
85°	0.0	0.0	0.0	0.0	0.6	16.3	38.0	57.7	48.0	25.4	21.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.6	0.9	1.1	1.1	1.1	1.4
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°	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6	452.6
2.5°	452.3	453.5	455.5	455.2	454.6	451.2	453.2	451.2	450.9	450.1	450.3
5°	453.5	455.2	456.3	453.8	449.5	442.1	439.5	432.9	428.6	426.3	425.2
7.5°	455.2	456.3	455.8	448.6	437.5	423.5	411.5	402.1	392.1	390.3	389.8
10°	455.2	456.3	451.8	438.1	418.9	396.9	378.6	363.2	347.8	342.0	342.9
12.5°	454.1	454.6	444.1	422.1	394.3	364.3	338.6	313.2	293.5	281.5	279.2
15°	453.2	452.3	433.8	402.1	365.2	328.0	289.2	254.9	231.5	215.7	213.7
17.5°	453.2	450.1	421.5	379.2	333.5	282.3	230.9	193.7	167.7	158.6	158.3
20°	453.8	446.9	408.3	355.5	294.0	228.0	172.3	140.6	130.9	129.4	129.7
22.5°	454.3	442.6	394.1	328.6	250.0	170.0	123.2	111.7	112.6	116.0	115.7
25°	453.8	436.9	377.2	298.6	202.0	122.6	99.4	96.6	101.7	105.7	106.9
27.5°	452.3	429.5	359.2	262.9	154.0	96.6	86.9	86.6	91.7	95.4	95.2
30°	448.1	420.6	338.3	225.2	111.2	82.3	78.3	79.2	82.6	86.0	86.0
32.5°	443.5	410.6	316.3	184.0	85.4	74.6	73.2	73.4	75.7	78.3	78.0
35°	438.6	400.9	293.8	141.2	74.9	70.0	69.4	69.2	70.0	70.6	70.6
37.5°	435.8	392.3	268.9	106.3	69.2	67.2	66.0	64.9	64.6	64.0	63.4
40°	436.9	386.6	244.9	82.3	65.7	64.0	62.3	60.6	59.4	58.9	58.6
42.5°	444.9	384.9	218.3	70.9	62.6	61.2	58.9	56.0	54.9	54.9	54.6
45°	463.5	390.1	193.5	65.2	59.7	58.0	54.3	52.3	51.4	51.7	51.7
47.5°	492.6	404.6	171.2	62.3	57.7	55.2	50.9	48.9	48.3	48.6	48.6
50°	536.4	432.1	148.3	59.7	55.4	52.0	48.3	46.0	45.1	45.1	45.1
52.5°	600.4	477.2	131.7	58.0	53.4	49.4	45.7	43.1	42.0	42.0	41.7
55°	678.4	536.1	125.4	56.9	50.9	47.1	43.1	40.6	38.9	38.3	38.6
57.5°	763.8	612.4	134.6	56.6	48.0	44.6	40.6	37.4	35.7	35.4	35.1
60°	851.8	688.1	160.9	55.2	45.7	41.4	37.7	34.9	33.1	32.6	32.3
62.5°	927.8	763.5	204.3	54.0	44.0	38.6	34.6	32.0	30.6	29.7	29.7
65°	1019.6	850.1	270.6	55.4	43.1	35.7	31.7	29.4	28.3	27.4	27.4
67.5°	1144.7	978.4	320.9	62.3	45.1	33.4	28.6	26.9	26.0	25.4	25.4
70°	1267.9	1050.4	223.2	73.2	50.3	31.4	25.7	24.6	24.0	23.4	23.4
71°	1266.2	1011.9	167.7	75.7	52.0	30.9	24.6	23.7	23.1	22.9	22.6
72.5°	1202.7	919.8	120.3	73.4	51.1	29.1	23.1	22.3	21.7	21.7	21.4
75°	1078.7	810.7	94.0	61.4	42.9	26.0	20.6	20.0	19.4	19.1	19.4
77.5°	883.8	648.7	74.0	48.6	32.6	21.4	18.3	17.4	17.1	16.9	17.1
80°	406.1	282.6	54.0	37.7	24.3	17.1	15.4	15.1	14.9	14.6	14.6
82.5°	97.7	79.2	28.9	25.1	16.6	13.1	12.3	12.3	12.3	12.0	12.0
85°	21.4	21.4	11.7	11.7	10.0	9.1	9.7	9.7	9.7	9.1	9.1
87.5°	1.1	3.4	3.7	5.4	5.7	5.4	6.6	6.9	6.6	6.3	6.0
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)