

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: P400904

Luminaire Tested: **ENT-SA1A-727-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400904
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-727-U-T3
Description: ENTRI LED LUMINAIRE
(1) 70 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: 2328 lumens
Efficiency: N/A
Efficacy: 115.8 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

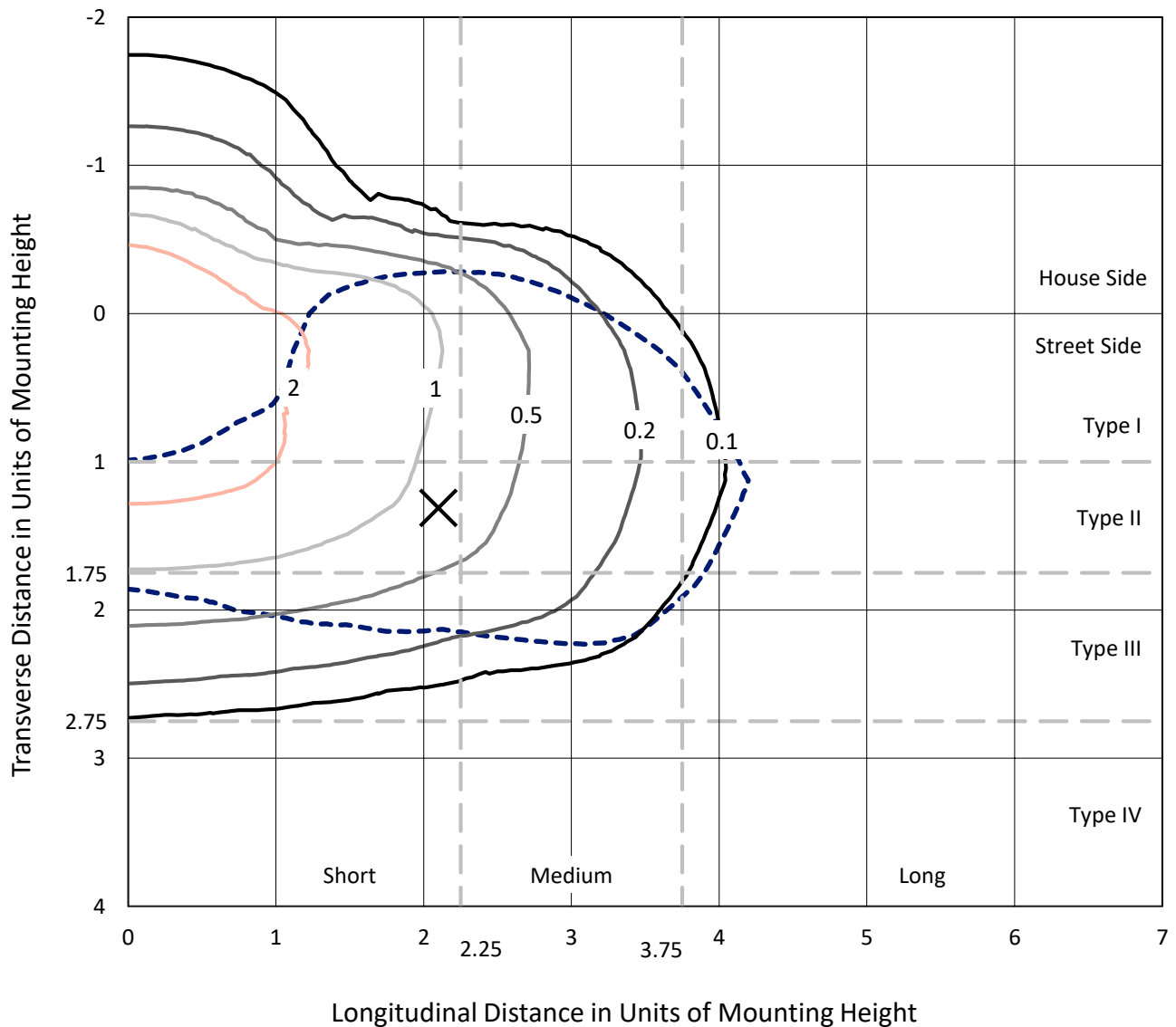
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

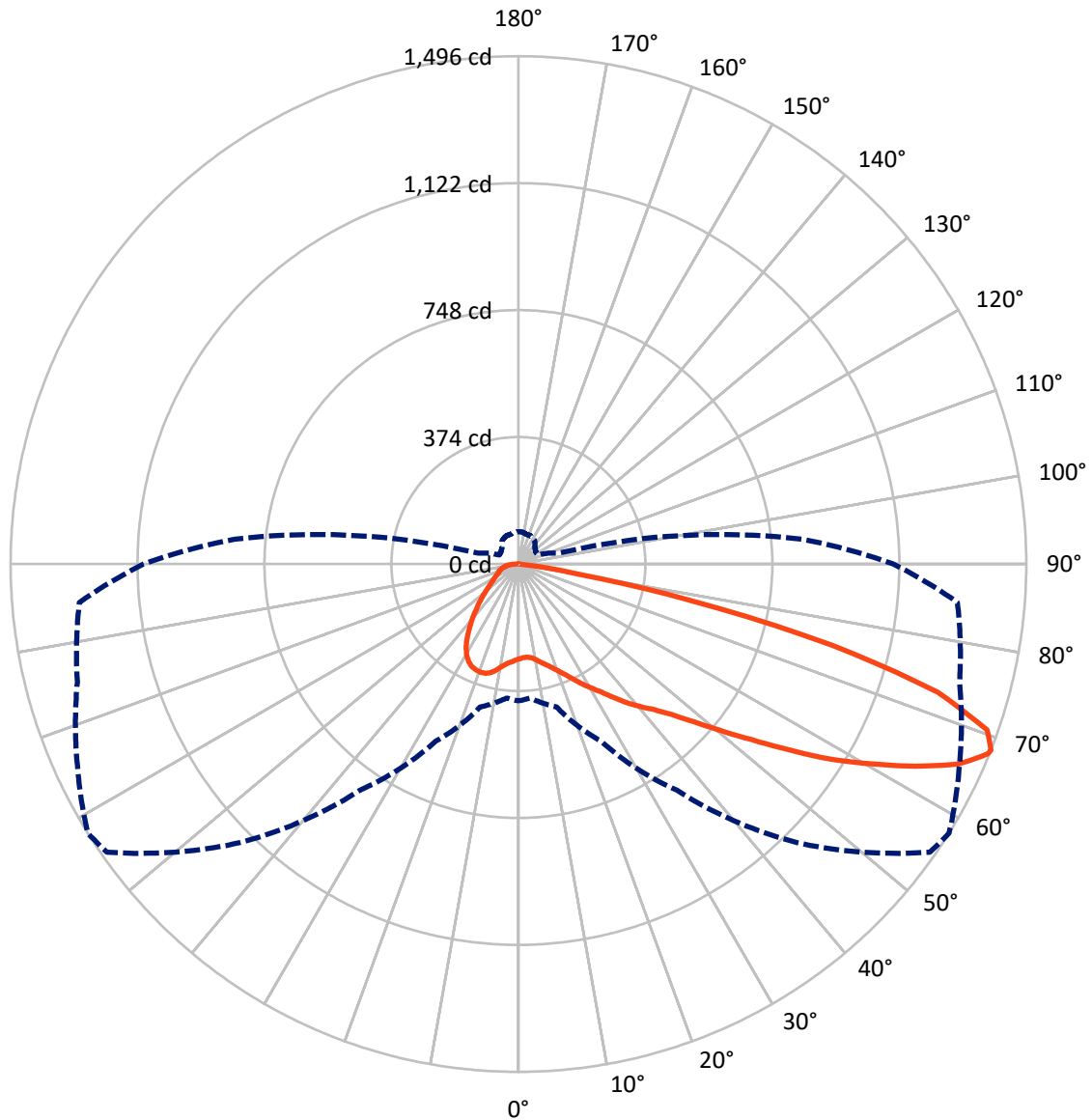
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 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	545.1	0.0	545.1
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	1782.9	0.0	1782.9
	% Fixture	76.6	0.0	76.6
Total	Lumens	2328.0	0.0	2328.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	1.2
10°-20°	90.1	3.9
20°-30°	162.0	7.0
30°-40°	237.9	10.2
40°-50°	349.0	15.0
50°-60°	521.6	22.4
60°-70°	609.9	26.2
70°-80°	300.7	12.9
80°-90°	29.4	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°	2328.0	100.0
0°-180°	2328.0	100.0



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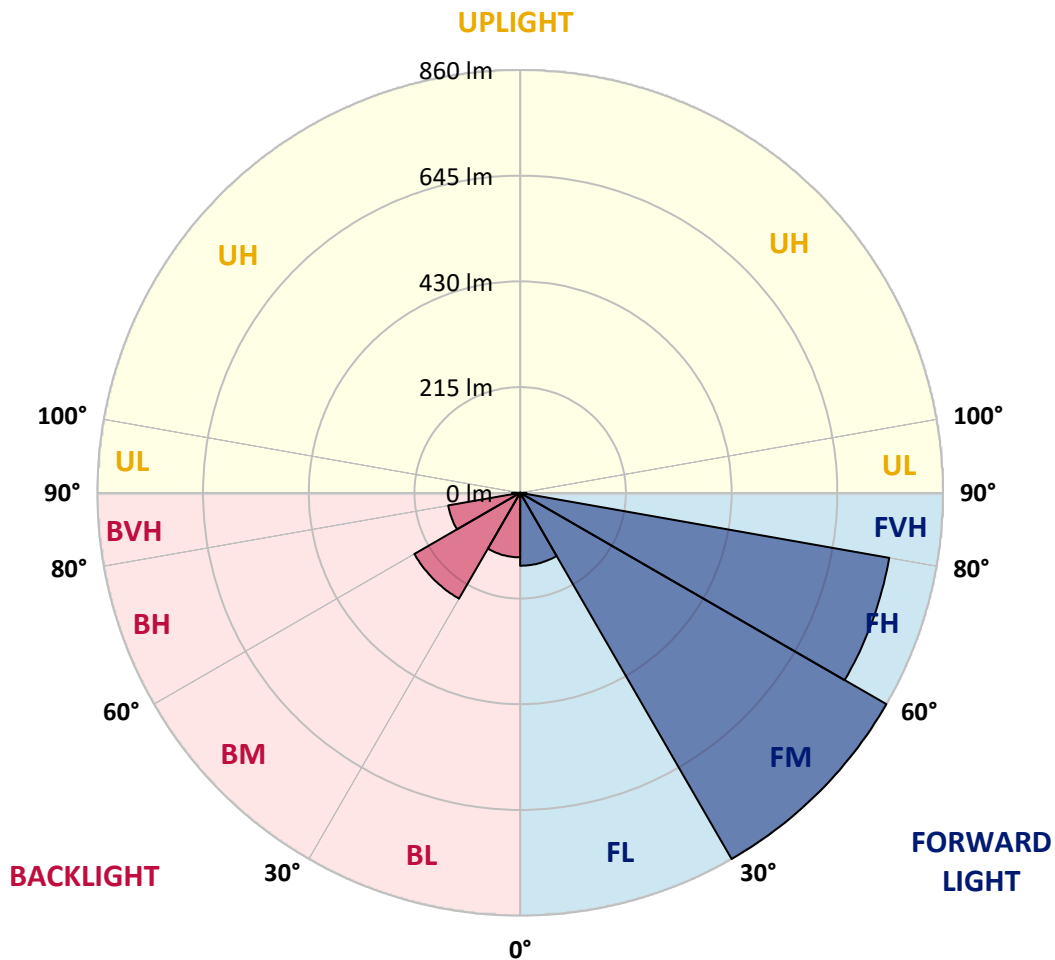
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	148.3	6.4			
FM (30°-60°)	859.9	36.9			
FH (60°-80°)	762.1	32.7			G1/1800
FVH (80°-90°)	12.6	0.5			G1/100
BL (0°-30°)	131.3	5.6	B1/500		
BM (30°-60°)	248.6	10.7	B1/1000		
BH (60°-80°)	148.5	6.4	B1/500		G1/500
BVH (80°-90°)	16.7	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°	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6
2.5°	272.7	272.7	273.7	274.0	274.7	275.3	276.0	276.3	277.3	278.6	279.2
5°	270.5	270.8	271.4	271.8	272.7	274.0	275.0	275.7	277.3	279.9	281.5
7.5°	275.7	276.6	277.0	277.3	277.6	278.6	278.6	278.9	280.5	283.1	285.4
10°	284.1	284.8	285.7	286.7	287.7	288.3	286.4	286.7	287.4	290.0	293.2
12.5°	294.8	294.8	295.2	296.5	297.4	299.4	297.4	297.4	297.4	299.7	303.6
15°	306.9	306.2	306.2	307.5	307.8	309.1	308.2	308.2	309.5	311.7	315.6
17.5°	320.5	321.5	320.5	319.9	318.9	319.5	320.2	320.8	323.4	327.0	329.3
20°	340.3	342.0	341.3	338.7	334.5	332.5	334.8	336.1	341.3	345.6	345.9
22.5°	371.9	370.9	369.9	365.4	356.9	351.7	352.1	354.0	362.1	368.6	365.4
25°	401.1	402.1	402.1	395.6	384.6	373.8	374.8	375.8	383.9	389.8	381.0
27.5°	436.6	435.9	435.6	426.8	413.5	403.1	397.6	400.2	406.0	408.3	391.4
30°	473.3	475.9	473.3	461.0	448.3	434.9	423.9	423.2	426.2	425.8	403.7
32.5°	517.5	515.2	514.3	500.0	484.0	466.5	452.5	450.2	448.6	446.3	418.4
35°	551.6	554.6	554.6	542.2	523.4	506.1	484.4	482.4	478.5	471.0	437.5
37.5°	592.0	591.3	593.6	579.3	560.4	543.8	523.7	518.2	509.4	498.3	460.3
40°	631.3	632.9	638.1	620.9	603.7	590.7	562.0	552.0	538.6	528.6	493.5
42.5°	684.9	687.2	689.2	674.8	654.4	642.7	598.5	585.8	578.3	576.4	537.3
45°	749.9	753.8	755.5	742.5	730.8	702.8	644.3	632.6	624.5	632.9	597.2
47.5°	812.4	810.4	817.9	817.6	818.9	785.4	710.3	692.7	684.9	706.4	665.7
50°	847.5	850.4	866.6	883.2	906.3	882.2	786.7	769.1	760.0	786.7	746.4
52.5°	865.7	869.6	891.3	937.8	986.9	975.5	878.7	859.2	851.4	877.4	832.8
55°	867.3	869.6	898.8	971.0	1048.4	1051.9	983.7	965.1	954.4	971.3	927.1
57.5°	840.3	833.5	883.9	975.9	1087.7	1131.6	1099.1	1085.7	1055.5	1073.7	1044.1
60°	792.2	799.0	848.4	955.7	1104.3	1193.7	1214.8	1194.6	1159.5	1167.0	1170.3
62.5°	719.4	728.2	779.5	908.9	1090.9	1246.3	1321.7	1311.7	1264.5	1260.6	1266.5
65°	615.7	610.5	667.7	806.5	1027.9	1263.9	1426.7	1422.5	1366.3	1320.4	1322.7
67.5°	444.0	439.2	479.2	622.5	857.2	1198.5	1482.6	1492.1	1427.7	1346.8	1311.7
68°	403.1	396.3	436.2	575.4	813.3	1160.8	1479.7	1496.0	1432.3	1345.1	1298.0
70°	232.1	221.0	259.7	375.5	598.8	977.2	1419.9	1464.8	1421.5	1313.6	1208.6
72.5°	72.8	72.8	100.4	151.8	293.9	618.3	1214.8	1291.2	1300.3	1194.0	1004.5
75°	45.5	45.5	52.3	71.8	117.0	262.3	838.0	954.4	1033.1	1005.1	732.4
77.5°	30.9	30.2	34.8	44.5	65.3	84.2	420.6	516.9	631.9	686.2	428.4
80°	16.9	17.2	21.5	26.7	37.1	39.0	123.5	174.6	278.3	326.0	162.5
82.5°	9.8	9.4	10.4	11.7	16.3	16.9	35.4	43.6	72.8	67.6	43.6
85°	0.0	0.3	0.3	0.3	0.7	1.6	4.6	6.8	11.1	15.3	10.7
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.7	0.7	0.7	0.7	1.0
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°	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6
2.5°	279.9	280.9	282.5	283.8	284.4	283.8	286.1	285.7	286.4	286.4	287.0
5°	282.8	284.1	287.0	288.7	290.3	290.9	293.5	294.2	295.5	296.1	295.8
7.5°	287.0	288.7	292.2	295.2	297.4	299.1	303.3	305.2	307.2	307.8	308.5
10°	294.8	297.1	301.0	304.6	307.8	310.1	313.7	316.3	318.2	318.9	319.5
12.5°	305.2	307.8	312.7	317.6	321.2	322.5	322.1	321.5	321.5	321.2	321.5
15°	317.3	319.9	326.0	330.6	330.9	326.7	320.8	317.9	317.3	317.3	317.6
17.5°	331.2	334.5	338.4	341.0	334.8	324.4	317.6	314.7	314.0	313.7	313.0
20°	347.2	349.1	350.4	347.2	333.5	321.5	313.7	309.5	306.2	305.9	304.6
22.5°	364.1	363.4	361.8	350.1	329.9	314.7	303.9	296.1	291.9	291.6	290.3
25°	376.4	373.8	369.0	350.8	323.4	303.6	288.3	276.0	270.5	267.9	268.5
27.5°	384.6	379.0	370.6	347.5	312.1	286.7	265.3	249.0	240.9	239.6	240.6
30°	394.3	385.5	371.9	339.4	295.8	263.0	235.0	218.8	214.2	211.9	212.6
32.5°	406.0	394.6	376.1	327.0	275.3	235.4	205.1	193.7	188.5	184.3	185.6
35°	421.3	407.0	382.9	309.5	249.3	206.1	183.7	173.3	163.8	159.3	159.6
37.5°	439.2	422.9	388.8	289.0	221.0	184.0	165.1	152.8	141.1	132.3	130.7
40°	467.8	454.4	393.7	266.2	194.1	165.8	146.9	133.0	121.9	113.1	112.1
42.5°	515.6	492.5	394.0	238.9	171.0	150.2	132.0	116.7	104.3	96.9	96.5
45°	571.8	536.0	387.2	209.7	150.8	134.6	118.7	101.4	94.3	89.4	88.7
47.5°	638.4	586.1	372.2	182.4	133.6	119.3	105.0	94.6	89.4	85.8	85.8
50°	714.5	644.9	357.3	159.0	117.0	106.9	97.2	91.7	87.8	84.5	84.2
52.5°	800.3	714.5	352.4	135.2	103.4	95.6	94.6	89.4	86.1	83.9	83.2
55°	902.7	792.5	356.9	116.7	92.6	91.0	93.0	88.7	86.5	82.9	81.9
57.5°	1021.0	868.6	352.1	101.1	85.2	86.8	91.0	88.7	86.8	82.2	80.9
60°	1132.5	936.5	318.9	88.1	78.0	81.6	88.4	85.8	82.9	81.9	81.3
62.5°	1192.4	958.6	254.2	78.0	72.5	76.4	84.2	80.9	79.0	81.3	81.6
65°	1193.0	933.6	186.9	70.5	67.9	71.8	80.0	79.0	80.3	85.5	86.5
67.5°	1126.7	857.5	132.0	63.7	63.4	68.3	81.9	88.4	89.4	94.6	94.6
68°	1103.9	838.7	122.6	62.7	62.4	68.3	83.5	90.0	90.7	95.6	95.2
70°	979.1	709.0	88.7	58.8	60.8	73.1	92.3	94.6	90.7	96.2	95.9
72.5°	765.2	524.3	66.3	54.6	57.9	72.2	93.0	90.7	84.8	86.1	84.5
75°	517.2	334.2	54.6	50.1	51.4	61.1	84.5	85.5	78.7	77.4	75.4
77.5°	270.8	156.7	44.2	44.5	45.8	53.0	75.4	77.7	71.5	67.6	67.0
80°	99.8	62.1	36.1	39.3	40.0	46.5	64.7	68.3	62.4	59.5	58.8
82.5°	36.4	30.9	29.9	34.5	33.8	39.7	56.6	59.2	53.0	50.1	48.4
85°	10.1	11.4	18.9	27.0	26.3	30.9	45.5	47.8	42.6	35.1	34.1
87.5°	0.7	2.3	7.5	15.9	16.6	19.2	32.8	36.1	31.5	26.0	25.7
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)