

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: P400906

Luminaire Tested: **ENT-SA1A-727-U-T4FT**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400906  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1A-727-U-T4FT  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2189 lumens  
Efficiency: N/A  
Efficacy: 108.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G1

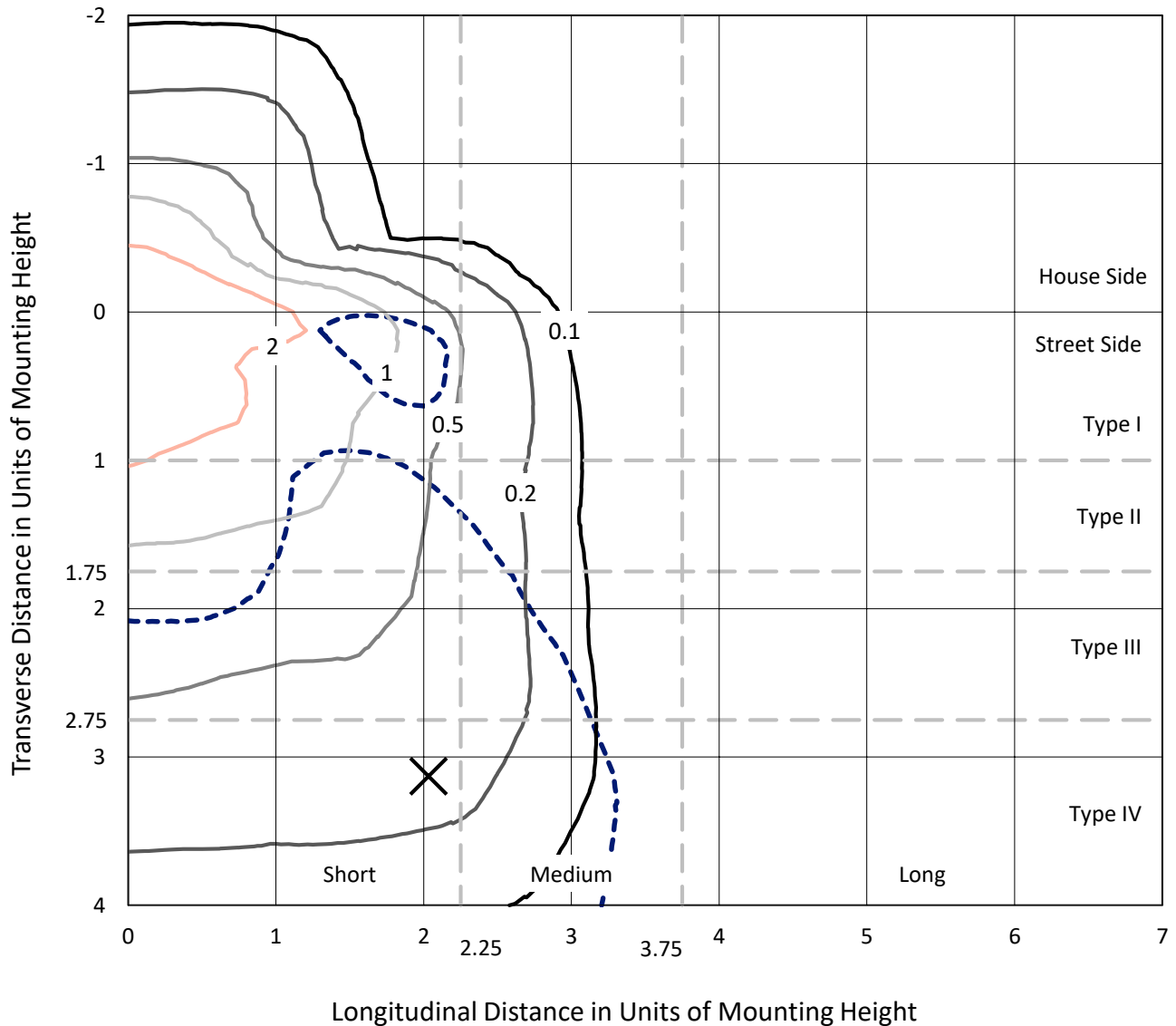
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

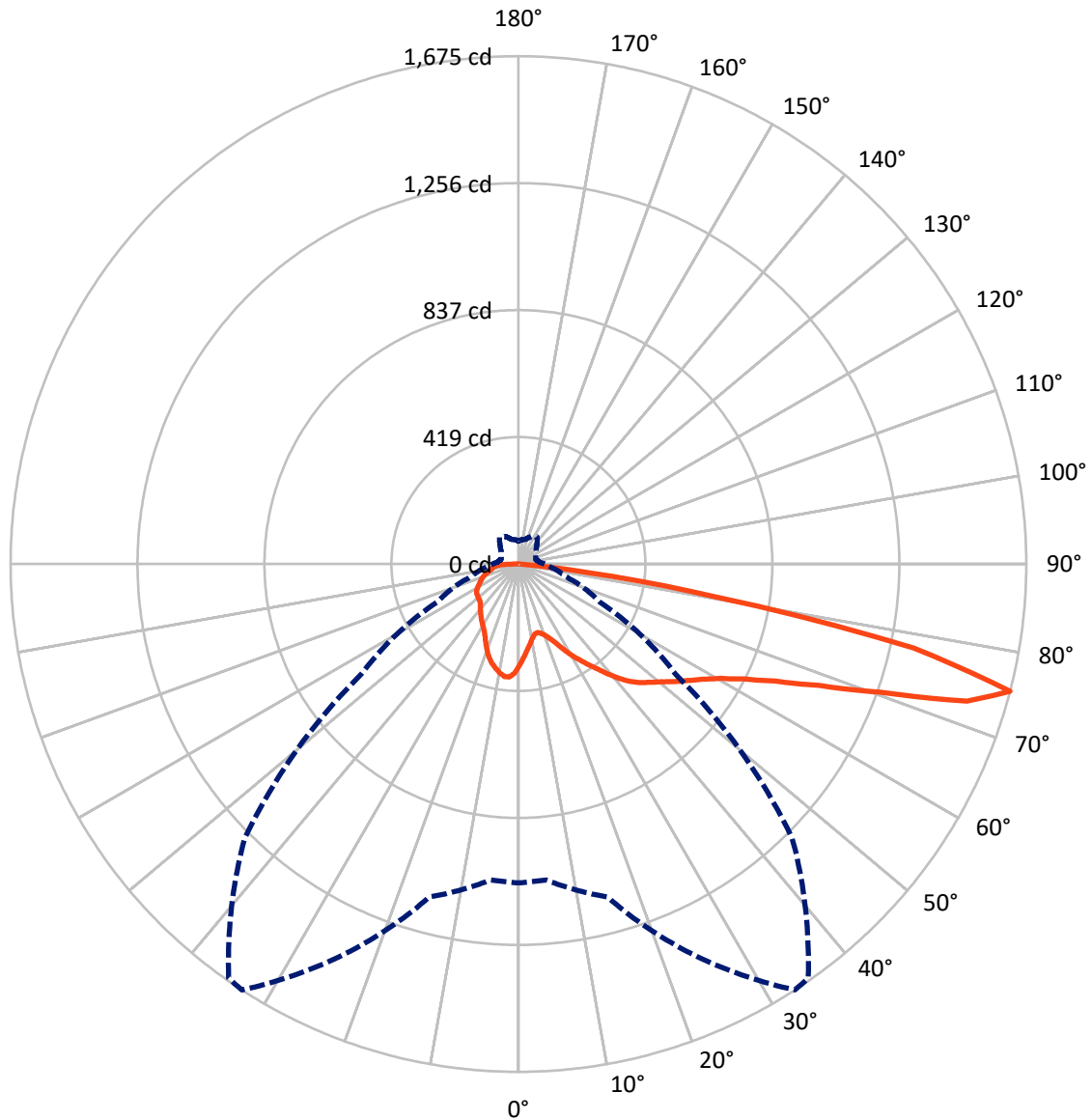
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	531.8	0.0	531.8
	% Fixture	24.3	0.0	24.3
<b>Street Side</b>	Lumens	1657.2	0.0	1657.2
	% Fixture	75.7	0.0	75.7
<b>Total</b>	Lumens	2189.0	0.0	2189.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.3	1.4
10°-20°	88.1	4.0
20°-30°	146.5	6.7
30°-40°	218.6	10.0
40°-50°	305.4	14.0
50°-60°	407.7	18.6
60°-70°	505.5	23.1
70°-80°	437.0	20.0
80°-90°	48.9	2.2
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°	2189.0	100.0
0°-180°	2189.0	100.0



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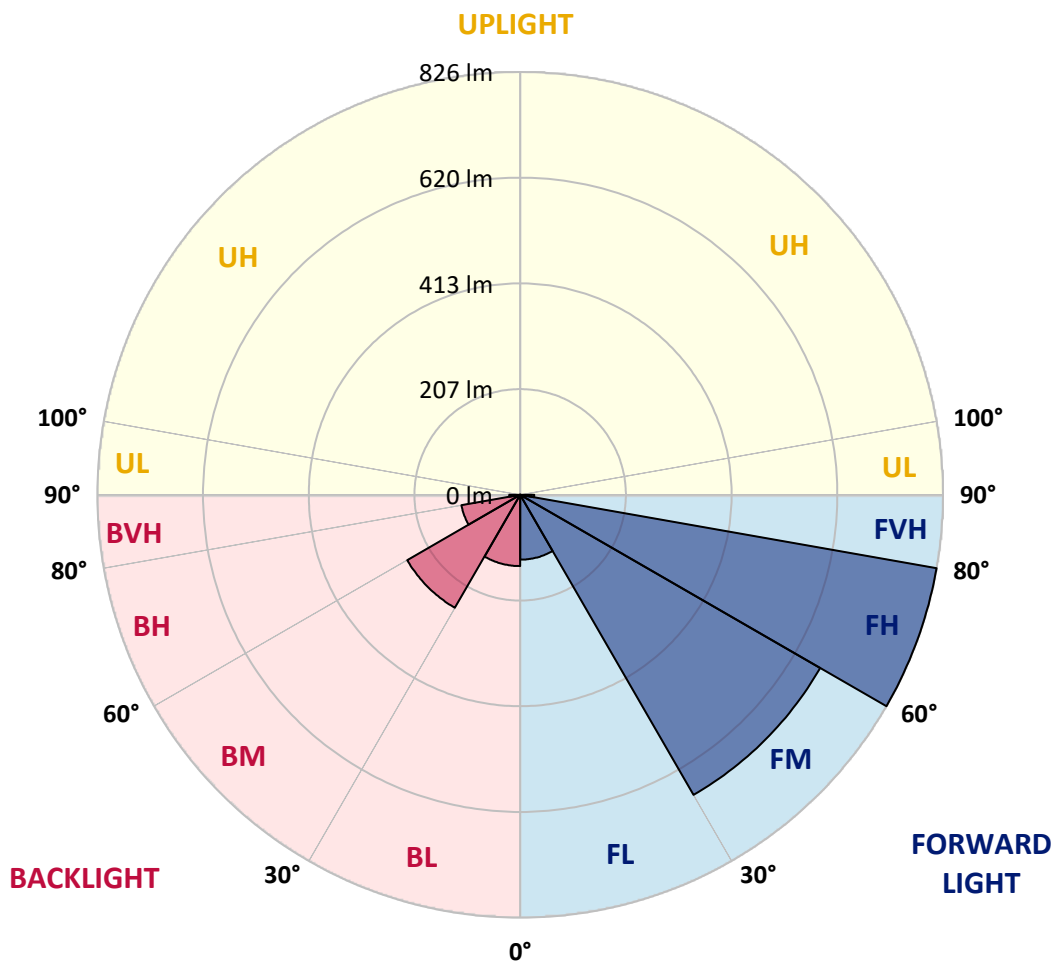
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	126.7	5.8			
FM	(30°-60°)	676.9	30.9			
FH	(60°-80°)	826.0	37.7			G1/1800
FVH	(80°-90°)	27.6	1.3			G1/100
BL	(0°-30°)	139.3	6.4	B1/500		
BM	(30°-60°)	254.8	11.6	B1/1000		
BH	(60°-80°)	116.4	5.3	B1/500		G1/500
BVH	(80°-90°)	21.3	1.0			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
2.5°	304.2	304.9	306.8	309.1	310.4	310.4	314.0	318.2	323.4	327.9	332.8
5°	278.9	279.8	281.5	284.4	288.0	288.6	295.8	303.2	312.7	322.7	332.5
7.5°	253.8	255.8	259.0	262.9	268.5	269.8	279.8	289.9	302.9	318.2	334.1
10°	234.7	236.0	237.6	243.1	249.9	252.2	265.5	278.2	296.1	314.9	336.1
12.5°	229.5	229.5	229.5	232.1	237.6	239.5	253.5	269.8	289.9	312.7	339.0
15°	236.9	236.6	233.0	231.1	234.3	236.0	248.0	263.9	286.7	313.3	344.5
17.5°	253.8	252.9	244.4	237.9	240.2	241.2	249.0	262.6	285.7	315.9	352.6
20°	275.9	273.7	260.7	250.9	250.6	251.2	257.1	266.5	287.3	320.5	361.4
22.5°	305.2	303.9	284.7	269.8	267.2	267.2	269.8	275.6	291.5	325.7	373.4
25°	342.9	339.3	316.2	296.1	290.2	288.6	288.3	288.3	299.0	333.5	388.4
27.5°	381.6	377.3	353.9	326.6	318.8	315.9	310.7	306.8	308.8	341.9	406.3
30°	416.4	410.5	390.7	362.4	350.7	346.1	336.7	328.6	323.4	353.6	430.0
32.5°	435.5	433.3	419.6	393.9	380.6	378.6	363.0	352.3	343.2	368.9	461.9
35°	461.2	458.3	449.5	428.4	412.5	407.6	395.9	383.2	368.6	389.4	502.2
37.5°	484.9	483.3	480.1	465.4	448.5	443.7	432.9	419.6	399.8	419.6	547.3
40°	509.0	507.0	505.7	500.5	488.5	485.3	480.1	464.5	437.8	452.8	591.9
42.5°	544.1	539.9	526.2	525.9	526.9	529.5	529.8	512.6	479.4	494.0	630.9
45°	589.9	578.2	547.7	546.7	558.1	564.9	581.5	566.8	522.6	536.3	674.4
47.5°	613.3	601.3	569.8	567.8	582.8	592.8	633.8	619.5	567.5	583.7	719.6
50°	624.7	616.9	589.3	595.4	610.7	620.5	683.5	672.1	614.0	635.1	776.5
52.5°	640.6	627.6	608.1	621.1	643.9	653.9	728.0	726.1	653.3	691.0	838.9
55°	635.1	628.3	631.8	649.4	678.0	692.9	772.9	772.9	693.3	750.8	900.6
57.5°	639.6	635.1	664.7	680.3	716.3	737.8	826.9	812.5	727.1	800.8	942.2
60°	678.3	665.3	688.4	719.3	765.7	786.5	888.6	854.2	754.7	844.1	949.7
62.5°	746.6	736.2	738.4	773.9	834.0	858.1	949.7	890.9	773.2	862.3	921.8
65°	859.7	854.8	826.9	848.3	931.2	953.0	1026.1	922.7	768.0	848.6	848.0
67.5°	1011.8	992.3	954.6	973.8	1069.3	1091.4	1118.1	934.8	734.2	767.0	681.6
70°	1137.9	1121.6	1104.4	1154.8	1264.7	1276.7	1213.9	923.4	652.0	600.3	457.0
72.5°	1218.2	1206.5	1222.4	1370.6	1546.4	1523.7	1308.5	843.8	508.7	367.6	228.5
75°	1051.4	1045.9	1136.9	1437.6	1674.8	1666.4	1275.7	631.5	295.1	161.9	104.0
77.5°	528.8	588.9	684.8	1019.9	1332.6	1334.2	929.6	303.6	124.2	90.7	71.5
80°	148.9	150.8	228.5	420.6	665.3	708.9	351.7	103.0	70.9	67.6	53.3
82.5°	35.4	32.8	58.5	124.5	223.3	232.4	105.6	37.1	39.7	42.3	32.8
85°	0.3	0.3	0.3	0.3	0.3	0.7	3.9	3.9	9.4	12.0	9.4
87.5°	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0
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°	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4	335.4
2.5°	335.1	338.3	343.5	348.1	352.0	354.9	359.5	360.1	361.4	362.1	362.7
5°	338.0	344.2	353.9	362.4	368.2	369.9	373.8	373.4	373.8	373.8	373.4
7.5°	341.9	350.4	364.0	373.4	376.7	375.7	374.7	371.2	368.2	366.9	365.3
10°	346.8	356.5	372.5	379.3	377.7	372.5	366.3	359.8	354.6	352.0	351.3
12.5°	351.7	364.3	379.3	381.2	374.7	365.3	354.9	347.8	340.9	337.4	337.4
15°	359.8	373.8	384.8	380.9	369.2	357.2	342.9	333.1	325.3	320.5	320.1
17.5°	369.5	384.5	390.7	379.3	362.4	345.5	328.3	315.6	305.5	300.6	297.7
20°	381.6	395.5	393.6	374.1	352.3	331.5	310.1	294.8	284.4	279.2	278.2
22.5°	395.2	406.9	394.6	365.6	338.7	312.0	288.6	273.3	266.5	262.6	262.9
25°	411.8	420.9	394.9	355.6	319.2	286.3	265.9	258.7	257.7	256.1	256.8
27.5°	432.6	435.5	393.6	341.9	294.1	259.4	247.3	250.3	252.9	251.9	252.5
30°	457.3	453.1	390.7	322.1	263.3	234.7	235.3	241.8	245.4	244.4	244.7
32.5°	486.2	470.6	385.1	298.0	234.0	219.7	224.9	231.4	235.0	235.0	235.3
35°	518.7	491.8	374.4	266.8	213.5	210.6	215.2	220.4	222.6	221.3	222.3
37.5°	552.9	510.0	357.2	232.1	198.3	203.5	206.1	207.4	207.0	205.1	204.1
40°	584.7	524.3	326.3	197.6	185.6	196.0	197.3	193.7	189.5	185.9	183.6
42.5°	609.1	531.7	283.4	172.6	173.6	187.5	188.5	181.4	173.2	167.7	166.4
45°	634.1	534.3	240.8	152.4	160.6	179.1	181.7	171.9	160.9	154.4	153.4
47.5°	662.7	540.8	198.9	138.5	149.5	173.2	177.5	165.4	153.1	143.3	141.7
50°	701.1	553.2	167.4	127.7	141.7	170.3	176.2	160.2	144.6	133.9	132.6
52.5°	749.8	571.4	138.1	119.3	135.5	165.8	174.2	155.0	138.5	125.5	123.5
55°	791.7	578.2	119.3	112.1	129.0	160.2	172.6	153.1	131.6	117.0	114.7
57.5°	810.9	558.7	106.0	105.0	122.2	153.4	169.3	146.6	124.2	112.8	110.8
60°	802.1	510.3	95.9	98.5	114.4	144.6	160.9	140.1	119.0	109.5	107.6
62.5°	763.1	454.4	88.4	92.3	105.6	133.6	151.1	134.2	114.4	106.0	103.4
65°	694.6	392.9	82.9	86.8	97.8	122.9	143.3	127.4	109.2	100.8	98.5
67.5°	566.8	312.7	77.0	81.3	91.3	114.1	136.2	121.9	103.4	97.8	95.9
70°	375.1	210.3	71.5	75.7	84.8	105.6	128.7	116.0	97.8	94.3	91.7
72.5°	172.3	113.1	65.7	69.9	77.4	96.2	119.3	107.3	90.4	88.1	84.2
75°	85.2	69.6	58.5	62.4	68.3	84.8	108.2	99.8	83.5	79.6	75.1
77.5°	62.1	52.0	50.4	54.3	59.2	75.1	96.5	92.0	76.7	71.2	68.6
80°	46.2	40.3	42.3	46.2	50.7	67.9	90.4	86.1	70.9	65.3	63.4
82.5°	28.3	27.0	32.5	37.1	42.6	62.4	86.1	78.7	63.7	58.5	56.2
85°	8.1	9.8	16.6	24.1	30.2	50.4	80.3	68.9	53.6	44.9	43.2
87.5°	0.0	1.0	5.2	11.1	17.9	33.5	61.8	54.0	41.0	33.2	31.9
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)