

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: P400902

Luminaire Tested: **ENT-SA1A-727-U-T2**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400902  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1A-727-U-T2  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2275 lumens  
Efficiency: N/A  
Efficacy: 113.2 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

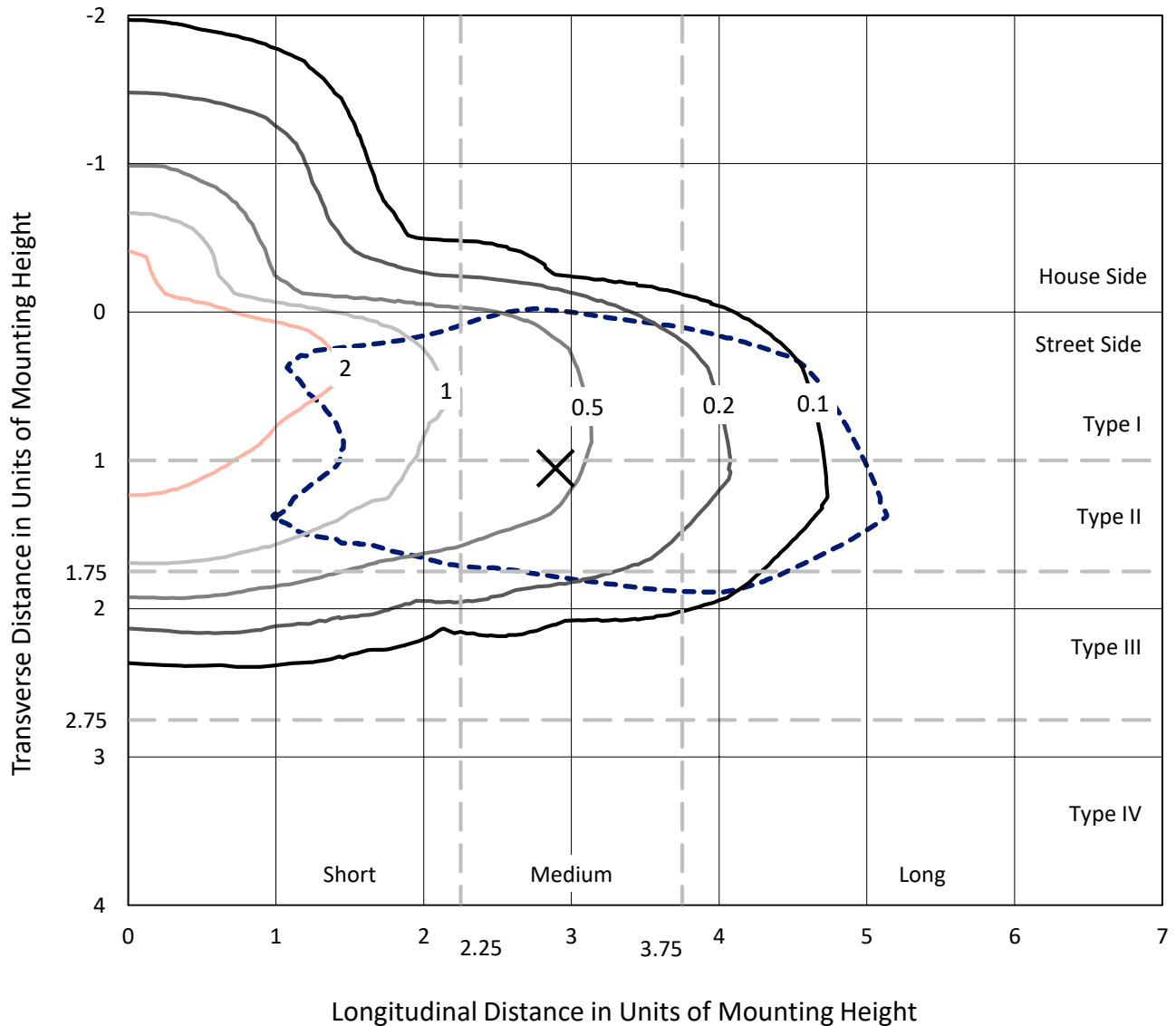
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

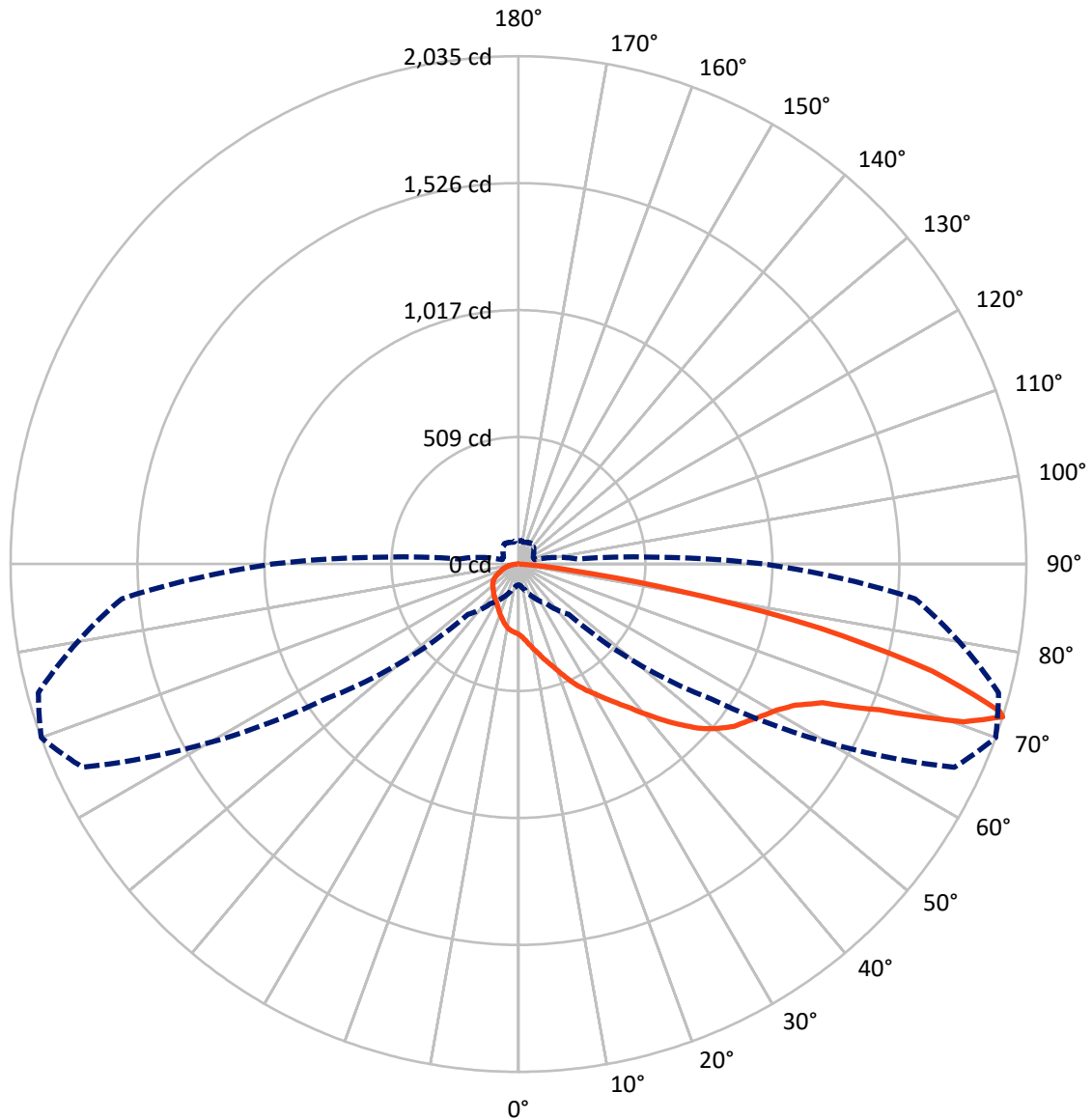
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	422.7	0.0	422.7
	% Fixture	18.6	0.0	18.6
<b>Street Side</b>	Lumens	1852.3	0.0	1852.3
	% Fixture	81.4	0.0	81.4
<b>Total</b>	Lumens	2275.0	0.0	2275.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.3	1.2
10°-20°	90.9	4.0
20°-30°	160.9	7.1
30°-40°	239.2	10.5
40°-50°	347.0	15.3
50°-60°	474.1	20.8
60°-70°	519.1	22.8
70°-80°	369.2	16.2
80°-90°	46.3	2.0
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°	2275.0	100.0
0°-180°	2275.0	100.0



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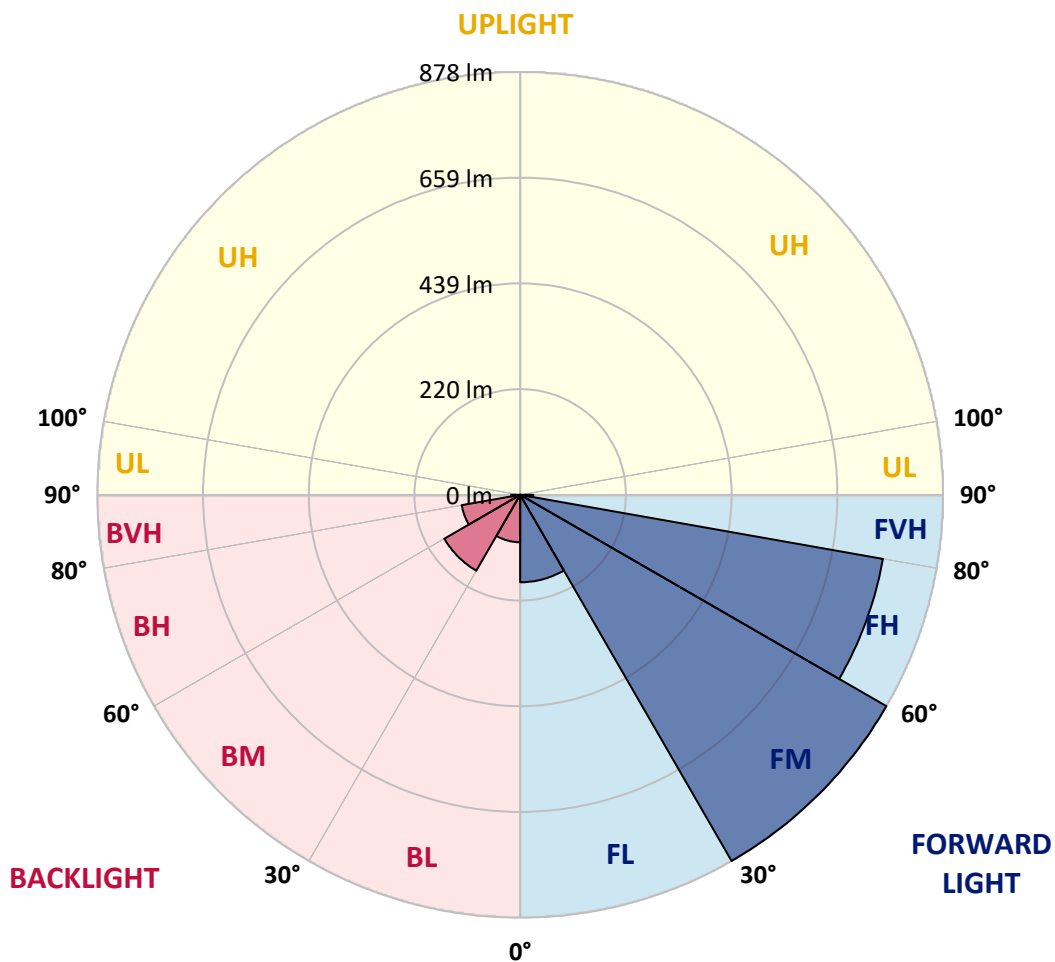
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	181.6	8.0			
FM	(30°-60°)	878.3	38.6			
FH	(60°-80°)	765.0	33.6			G1/1800
FVH	(80°-90°)	27.4	1.2			G1/100
BL	(0°-30°)	98.5	4.3	B0/110		
BM	(30°-60°)	182.0	8.0	B0/220		
BH	(60°-80°)	123.2	5.4	B1/500		G1/500
BVH	(80°-90°)	19.0	0.8			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°	70°	75°	85°
0°	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7
2.5°	313.3	311.6	312.0	309.0	307.4	303.5	299.3	294.7	292.5	290.8	285.3
5°	343.8	343.8	345.1	342.8	336.7	330.2	322.7	312.6	308.4	302.5	291.5
7.5°	369.2	369.8	369.8	369.2	363.6	356.5	346.7	334.4	327.6	319.1	301.9
10°	382.2	383.8	385.1	386.1	385.4	381.2	370.1	357.5	348.0	337.0	313.9
12.5°	388.7	389.3	391.6	396.5	400.4	403.6	395.5	380.5	371.1	357.8	326.9
15°	395.8	395.8	398.1	404.3	411.7	420.5	419.5	407.8	397.8	381.2	343.5
17.5°	400.4	401.7	405.9	412.4	422.8	437.4	444.9	438.4	425.4	407.8	361.4
20°	397.8	398.7	407.2	419.9	433.2	452.0	470.9	470.9	458.5	438.4	381.2
22.5°	402.6	404.3	410.1	422.1	440.3	464.7	495.6	506.3	495.6	473.5	404.3
25°	421.5	420.8	425.7	430.6	446.2	476.4	516.7	544.3	534.6	510.2	426.7
27.5°	448.8	448.8	451.4	451.0	456.6	486.1	535.2	577.8	569.7	540.4	445.2
30°	480.3	480.9	480.3	480.0	479.0	499.5	551.8	607.7	603.5	574.5	462.1
32.5°	518.6	520.3	517.7	511.2	507.3	518.6	565.8	641.2	642.5	608.3	478.7
35°	566.7	569.3	559.6	550.2	540.4	545.6	582.0	672.7	685.7	646.7	498.8
37.5°	614.8	619.1	617.4	592.1	578.4	578.1	606.1	712.0	733.8	696.7	527.4
40°	655.4	659.0	661.0	637.9	619.1	618.4	641.5	752.9	792.9	754.2	561.2
42.5°	682.4	685.7	691.5	677.9	660.3	668.4	680.5	793.6	856.6	824.4	602.8
45°	711.7	714.3	717.8	710.0	700.9	724.3	729.9	838.7	920.3	899.8	651.5
47.5°	742.9	745.5	747.4	741.6	738.3	771.1	778.3	884.9	984.6	977.8	699.0
50°	777.3	778.3	780.2	777.3	778.3	813.7	818.3	925.5	1035.7	1059.1	748.4
52.5°	836.5	837.8	838.4	824.4	819.6	840.7	850.4	968.7	1080.5	1126.6	791.9
55°	883.2	887.8	908.3	899.2	887.5	859.9	877.1	1003.5	1112.3	1189.7	837.4
57.5°	844.9	855.3	906.3	949.2	982.0	916.1	908.6	1039.2	1149.1	1244.0	890.4
60°	733.4	748.7	822.8	912.2	1018.4	1045.1	973.3	1083.7	1189.0	1300.5	947.3
62.5°	508.6	524.2	626.5	769.2	957.0	1118.8	1150.4	1162.7	1244.6	1358.3	1021.4
65°	243.7	259.6	344.1	494.6	755.9	1071.4	1356.7	1326.5	1338.2	1431.8	1130.5
67.5°	155.0	163.5	196.6	269.4	439.7	834.5	1430.8	1652.8	1559.8	1601.1	1347.9
70°	113.4	115.4	144.0	186.5	260.9	487.4	1263.5	1965.0	1892.3	1887.7	1610.2
72°	83.8	87.1	109.2	148.8	193.0	285.0	940.1	1927.0	2034.6	1991.4	1594.6
72.5°	79.0	81.6	100.7	140.7	182.3	250.2	842.3	1882.8	2017.0	1994.3	1564.7
75°	57.5	59.5	68.9	100.1	141.0	144.9	449.7	1445.1	1712.9	1904.0	1418.5
77.5°	39.6	40.9	45.8	61.4	96.5	98.1	190.8	986.6	1236.2	1522.4	1090.9
80°	24.0	24.7	27.6	33.5	61.4	58.2	78.6	515.7	645.1	827.7	506.0
82.5°	10.1	10.4	12.0	13.3	26.0	27.6	31.8	168.3	213.5	258.7	145.9
85°	0.0	0.0	0.3	0.3	0.6	2.9	4.5	20.8	31.5	37.7	26.3
87.5°	0.0	0.0	0.3	0.3	0.3	0.6	0.6	1.0	1.3	1.3	1.9
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°	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7	281.7
2.5°	282.7	281.4	277.5	274.3	271.7	267.4	267.1	263.9	263.9	262.9	262.2
5°	287.3	283.0	275.2	268.1	262.9	256.7	253.8	250.2	247.9	246.6	247.0
7.5°	293.1	286.0	272.6	260.6	250.9	243.1	238.5	235.6	234.0	233.3	233.3
10°	301.2	290.2	268.4	250.2	237.9	232.0	229.7	229.4	229.7	230.1	230.4
12.5°	310.3	293.1	260.6	237.9	228.1	225.8	227.1	230.1	232.7	233.6	233.6
15°	319.8	295.1	249.9	226.5	220.6	222.9	227.5	233.0	237.2	239.8	240.5
17.5°	329.5	295.4	238.5	216.1	214.2	220.0	228.1	236.9	243.7	247.9	248.6
20°	339.9	294.7	225.2	206.7	207.7	217.4	228.8	240.8	249.9	255.4	256.1
22.5°	351.3	292.1	212.2	197.6	202.1	214.8	228.1	242.1	251.8	258.3	259.6
25°	362.3	286.9	199.2	189.5	198.2	212.2	224.9	236.9	246.3	252.5	254.1
27.5°	368.2	275.9	186.9	183.3	195.3	208.3	217.4	225.5	230.7	234.6	236.2
30°	369.2	260.3	176.8	179.1	192.1	202.8	208.0	209.3	208.3	209.6	208.0
32.5°	367.2	243.4	168.7	175.8	186.9	195.0	196.3	192.4	186.5	178.4	178.7
35°	365.9	224.9	162.2	171.3	180.0	185.2	183.0	176.8	165.7	156.0	155.3
37.5°	368.2	208.0	156.6	165.4	171.3	173.5	170.3	162.2	152.4	144.0	143.0
40°	374.7	195.6	151.4	158.9	161.8	163.5	159.6	152.4	148.5	142.3	141.4
42.5°	387.4	187.2	146.6	151.8	153.1	154.7	150.8	145.9	149.5	148.2	148.2
45°	404.9	183.3	142.3	144.9	146.2	148.8	146.6	142.3	146.2	138.8	137.5
47.5°	427.7	184.6	139.4	138.1	142.0	146.6	144.0	138.8	137.5	124.1	121.9
50°	451.7	191.4	136.5	132.6	137.5	143.6	140.4	132.3	124.5	117.6	116.3
52.5°	480.0	202.8	133.9	126.4	132.3	140.4	138.1	129.3	121.2	116.3	115.4
55°	511.2	213.8	130.6	119.3	125.4	139.4	138.8	127.4	116.7	114.4	113.7
57.5°	546.3	222.9	126.7	111.1	118.6	136.5	135.8	122.8	115.4	113.4	113.1
60°	590.1	233.6	119.9	101.7	111.8	131.0	130.3	120.6	112.4	110.8	110.2
62.5°	649.9	253.5	108.2	92.9	104.6	121.2	125.1	116.0	108.2	107.9	107.9
65°	748.4	291.8	96.2	85.5	96.5	111.8	118.3	110.8	104.3	105.9	105.9
67.5°	934.6	343.5	83.8	78.3	88.7	102.7	112.4	105.6	100.1	103.3	103.3
70°	1078.2	324.3	74.1	71.5	80.9	94.6	105.0	100.1	94.9	100.4	99.8
72°	983.7	237.5	67.6	66.0	74.4	87.7	98.5	94.9	89.4	93.9	92.6
72.5°	944.3	215.8	65.6	64.3	72.5	86.4	97.2	93.6	87.7	92.3	90.3
75°	823.8	182.0	57.2	56.5	64.3	77.7	88.7	86.8	80.9	83.5	81.6
77.5°	681.8	153.4	48.1	49.4	54.9	69.2	79.9	78.0	72.5	72.1	71.8
80°	319.8	85.5	39.6	40.6	46.1	59.1	68.9	67.6	62.4	61.7	60.8
82.5°	92.6	40.9	30.5	31.2	37.0	48.4	59.1	58.5	54.6	53.6	51.3
85°	17.2	13.3	16.6	19.5	27.0	40.3	53.9	52.6	46.8	42.6	39.3
87.5°	1.0	2.6	5.5	9.4	17.2	30.2	43.5	42.6	37.4	32.2	32.5
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)