

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: P401086

Luminaire Tested: **ENV-SA1B-727-U-T4FT**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401086  
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: ENV-SA1B-727-U-T4FT  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2745 lumens  
Efficiency: N/A  
Efficacy: 108.1 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

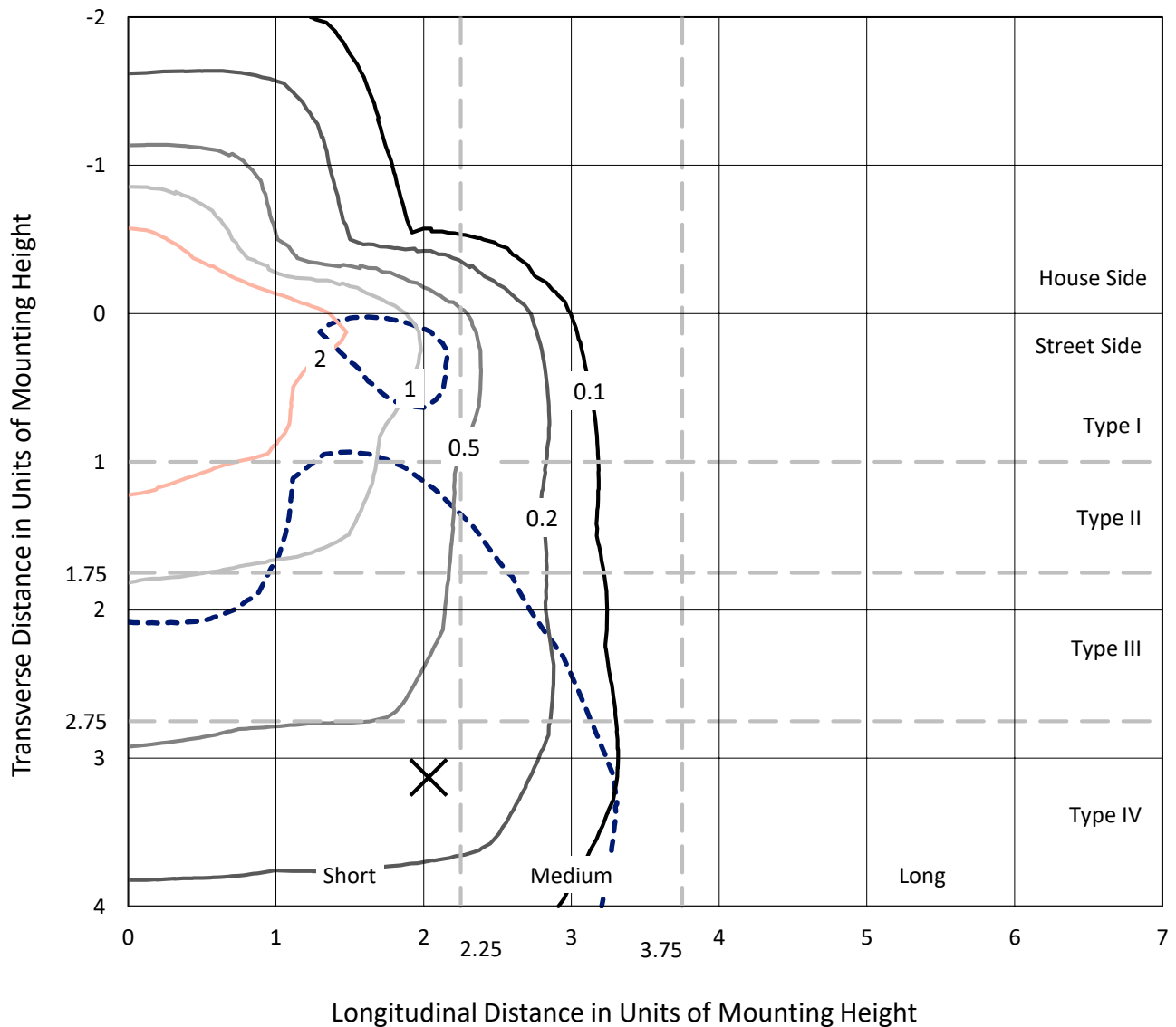
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

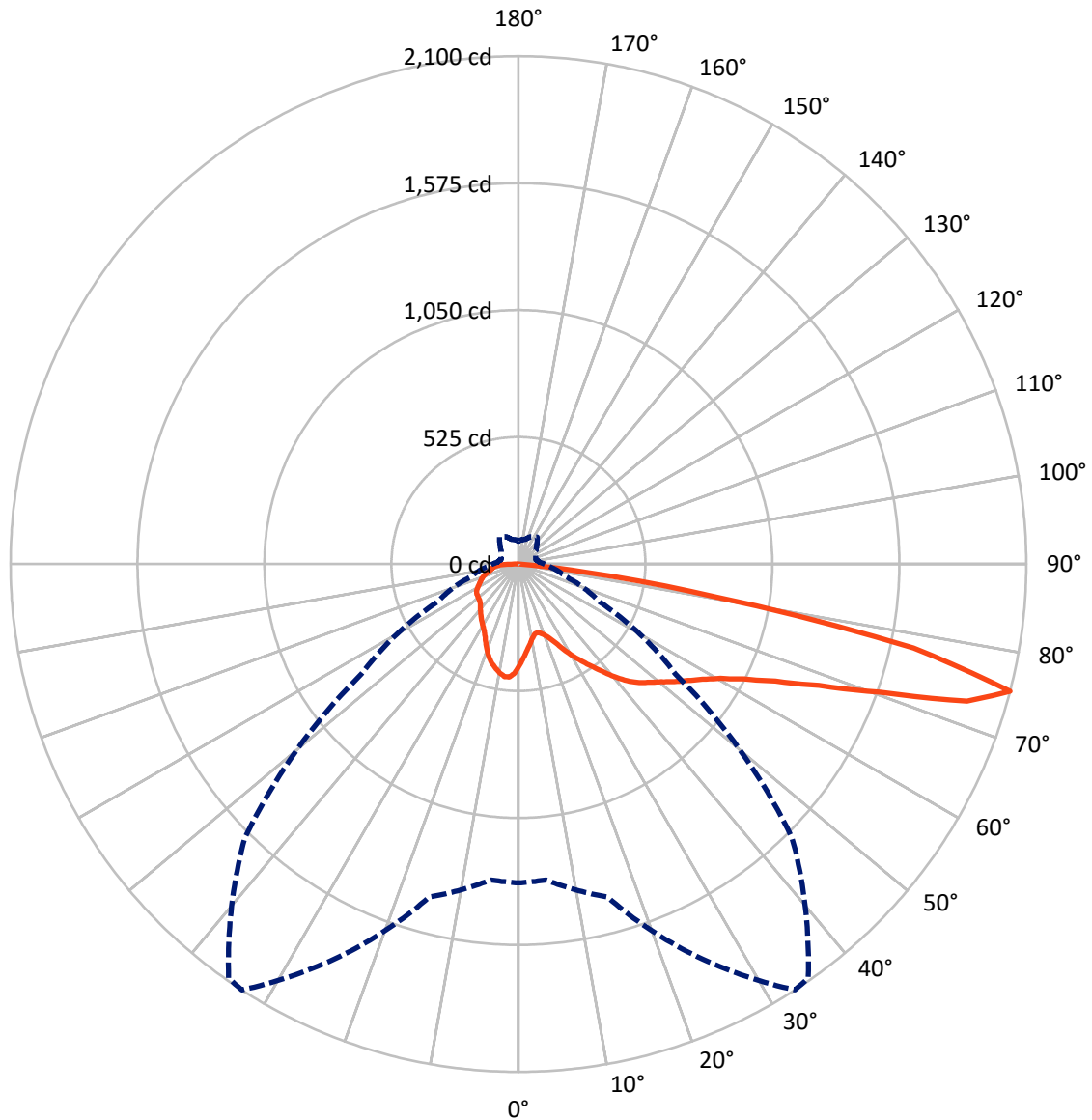
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.5 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	666.8	0.0	666.8
	% Fixture	24.3	0.0	24.3
<b>Street Side</b>	Lumens	2078.2	0.0	2078.2
	% Fixture	75.7	0.0	75.7
<b>Total</b>	Lumens	2745.0	0.0	2745.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.3	1.4
10°-20°	110.5	4.0
20°-30°	183.8	6.7
30°-40°	274.1	10.0
40°-50°	383.0	14.0
50°-60°	511.2	18.6
60°-70°	633.8	23.1
70°-80°	548.0	20.0
80°-90°	61.3	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°	2745.0	100.0
0°-180°	2745.0	100.0



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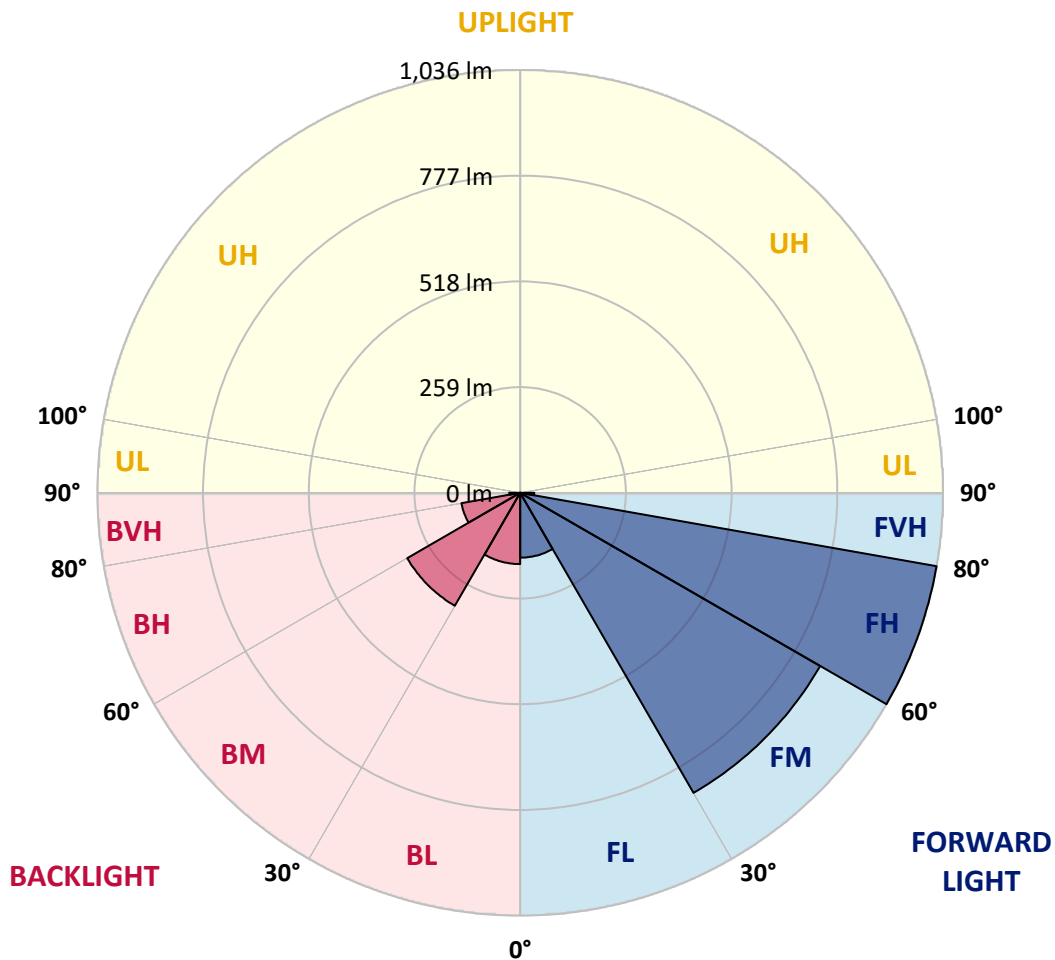
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	158.9	5.8			
FM	(30°-60°)	848.8	30.9			
FH	(60°-80°)	1035.8	37.7			G1/1800
FVH	(80°-90°)	34.6	1.3			G1/100
BL	(0°-30°)	174.6	6.4	B1/500		
BM	(30°-60°)	319.5	11.6	B1/1000		
BH	(60°-80°)	146.0	5.3	B1/500		G1/500
BVH	(80°-90°)	26.6	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°	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6
2.5°	381.5	382.3	384.7	387.6	389.2	389.2	393.7	399.0	405.5	411.2	417.4
5°	349.7	350.9	353.0	356.6	361.1	361.9	370.9	380.3	392.1	404.7	416.9
7.5°	318.3	320.8	324.8	329.7	336.7	338.3	350.9	363.6	379.9	399.0	419.0
10°	294.3	295.9	297.9	304.9	313.4	316.3	333.0	348.9	371.3	394.9	421.4
12.5°	287.7	287.7	287.7	291.0	297.9	300.4	317.9	338.3	363.6	392.1	425.1
15°	297.1	296.7	292.2	289.8	293.9	295.9	311.0	330.9	359.5	392.9	432.0
17.5°	318.3	317.1	306.5	298.3	301.2	302.4	312.2	329.3	358.3	396.2	442.2
20°	346.0	343.2	326.9	314.6	314.2	315.1	322.4	334.2	360.3	401.9	453.2
22.5°	382.7	381.1	357.0	338.3	335.0	335.0	338.3	345.6	365.6	408.4	468.3
25°	430.0	425.5	396.6	371.3	364.0	361.9	361.5	361.5	375.0	418.2	487.1
27.5°	478.5	473.2	443.8	409.6	399.8	396.2	389.6	384.7	387.2	428.8	509.5
30°	522.1	514.8	489.9	454.4	439.8	434.1	422.2	412.1	405.5	443.4	539.2
32.5°	546.1	543.3	526.2	494.0	477.3	474.8	455.3	441.8	430.4	462.6	579.2
35°	578.3	574.7	563.7	537.2	517.2	511.1	496.4	480.5	462.2	488.3	629.7
37.5°	608.1	606.1	602.0	583.6	562.5	556.3	542.9	526.2	501.3	526.2	686.4
40°	638.3	635.8	634.2	627.7	612.6	608.5	602.0	582.4	549.0	567.8	742.2
42.5°	682.3	677.0	659.9	659.5	660.7	663.9	664.3	642.7	601.2	619.5	791.1
45°	739.7	725.1	686.8	685.5	699.8	708.4	729.1	710.8	655.4	672.5	845.7
47.5°	769.1	754.0	714.5	712.0	730.8	743.4	794.8	776.8	711.6	732.0	902.4
50°	783.4	773.6	738.9	746.7	765.8	778.1	857.1	842.9	769.9	796.4	973.7
52.5°	803.3	787.0	762.6	778.9	807.4	820.0	913.0	910.5	819.2	866.5	1051.9
55°	796.4	787.8	792.3	814.3	850.2	868.9	969.2	969.2	869.4	941.5	1129.4
57.5°	802.1	796.4	833.5	853.1	898.3	925.2	1036.9	1018.9	911.7	1004.3	1181.6
60°	850.6	834.3	863.2	902.0	960.2	986.3	1114.3	1071.1	946.4	1058.5	1190.9
62.5°	936.2	923.2	926.0	970.4	1045.8	1076.0	1190.9	1117.2	969.6	1081.3	1155.9
65°	1078.0	1071.9	1036.9	1063.8	1167.7	1195.0	1286.7	1157.1	963.1	1064.2	1063.4
67.5°	1268.8	1244.3	1197.0	1221.1	1340.9	1368.6	1402.1	1172.2	920.7	961.9	854.7
70°	1426.9	1406.5	1384.9	1448.1	1585.9	1601.0	1522.3	1157.9	817.6	752.8	573.0
72.5°	1527.6	1512.9	1532.9	1718.7	1939.2	1910.7	1640.9	1058.1	637.9	461.0	286.5
75°	1318.5	1311.6	1425.7	1802.7	2100.2	2089.6	1599.7	791.9	370.1	203.0	130.4
77.5°	663.1	738.5	858.8	1279.0	1671.1	1673.1	1165.7	380.7	155.7	113.7	89.7
80°	186.7	189.1	286.5	527.4	834.3	888.9	441.0	129.2	88.9	84.8	66.8
82.5°	44.4	41.2	73.4	156.1	280.0	291.4	132.5	46.5	49.7	53.0	41.2
85°	0.4	0.4	0.4	0.4	0.4	0.8	4.9	4.9	11.8	15.1	11.8
87.5°	0.0	0.0	0.0	0.4	0.4	0.4	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°	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6
2.5°	420.2	424.3	430.8	436.5	441.4	445.1	450.8	451.6	453.2	454.0	454.9
5°	423.9	431.6	443.8	454.4	461.8	463.8	468.7	468.3	468.7	468.7	468.3
7.5°	428.8	439.4	456.5	468.3	472.4	471.2	469.9	465.4	461.8	460.2	458.1
10°	434.9	447.1	467.1	475.6	473.6	467.1	459.3	451.2	444.7	441.4	440.6
12.5°	441.0	456.9	475.6	478.1	469.9	458.1	445.1	436.1	427.5	423.1	423.1
15°	451.2	468.7	482.6	477.7	463.0	447.9	430.0	417.8	408.0	401.9	401.5
17.5°	463.4	482.2	489.9	475.6	454.4	433.3	411.6	395.8	383.1	377.0	373.3
20°	478.5	496.0	493.6	469.1	441.8	415.7	388.8	369.7	356.6	350.1	348.9
22.5°	495.6	510.3	494.8	458.5	424.7	391.3	361.9	342.8	334.2	329.3	329.7
25°	516.4	527.8	495.2	445.9	400.2	359.1	333.4	324.4	323.2	321.2	322.0
27.5°	542.5	546.1	493.6	428.8	368.9	325.2	310.2	313.8	317.1	315.9	316.7
30°	573.5	568.2	489.9	403.9	330.1	294.3	295.1	303.2	307.7	306.5	306.9
32.5°	609.7	590.2	483.0	373.7	293.5	275.5	282.0	290.2	294.7	294.7	295.1
35°	650.5	616.7	469.5	334.6	267.8	264.1	269.8	276.3	279.2	277.6	278.8
37.5°	693.3	639.5	447.9	291.0	248.6	255.1	258.4	260.0	259.6	257.2	256.0
40°	733.2	657.4	409.2	247.8	232.7	245.8	247.4	242.9	237.6	233.1	230.3
42.5°	763.8	666.8	355.4	216.4	217.6	235.2	236.4	227.4	217.2	210.3	208.7
45°	795.2	670.1	302.0	191.2	201.3	224.6	227.8	215.6	201.7	193.6	192.4
47.5°	831.0	678.2	249.4	173.6	187.5	217.2	222.5	207.5	192.0	179.7	177.7
50°	879.1	693.7	209.9	160.2	177.7	213.6	220.9	200.9	181.4	167.9	166.3
52.5°	940.3	716.5	173.2	149.6	170.0	207.9	218.5	194.4	173.6	157.3	154.9
55°	992.8	725.1	149.6	140.6	161.8	200.9	216.4	192.0	165.1	146.7	143.9
57.5°	1016.9	700.6	132.9	131.6	153.2	192.4	212.3	183.8	155.7	141.4	139.0
60°	1005.9	639.9	120.2	123.5	143.5	181.4	201.7	175.7	149.2	137.4	134.9
62.5°	957.0	569.8	110.9	115.8	132.5	167.5	189.5	168.3	143.5	132.9	129.6
65°	871.0	492.8	103.9	108.8	122.7	154.1	179.7	159.8	136.9	126.3	123.5
67.5°	710.8	392.1	96.6	101.9	114.5	143.1	170.8	152.8	129.6	122.7	120.2
70°	470.3	263.7	89.7	95.0	106.4	132.5	161.4	145.5	122.7	118.2	114.9
72.5°	216.0	141.8	82.3	87.6	97.0	120.6	149.6	134.5	113.3	110.5	105.6
75°	106.8	87.2	73.4	78.3	85.6	106.4	135.7	125.1	104.7	99.9	94.1
77.5°	77.8	65.2	63.2	68.1	74.2	94.1	121.0	115.3	96.2	89.3	86.0
80°	57.9	50.5	53.0	57.9	63.6	85.2	113.3	108.0	88.9	81.9	79.5
82.5°	35.5	33.8	40.8	46.5	53.4	78.3	108.0	98.6	79.9	73.4	70.5
85°	10.2	12.2	20.8	30.2	37.9	63.2	100.7	86.4	67.2	56.2	54.2
87.5°	0.0	1.2	6.5	13.9	22.4	42.0	77.4	67.7	51.4	41.6	39.9
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)