

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: P401104

Luminaire Tested: **ENV-SA1B-730-U-T4FT**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401104
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-730-U-T4FT
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 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: 2989 lumens
Efficiency: N/A
Efficacy: 117.7 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

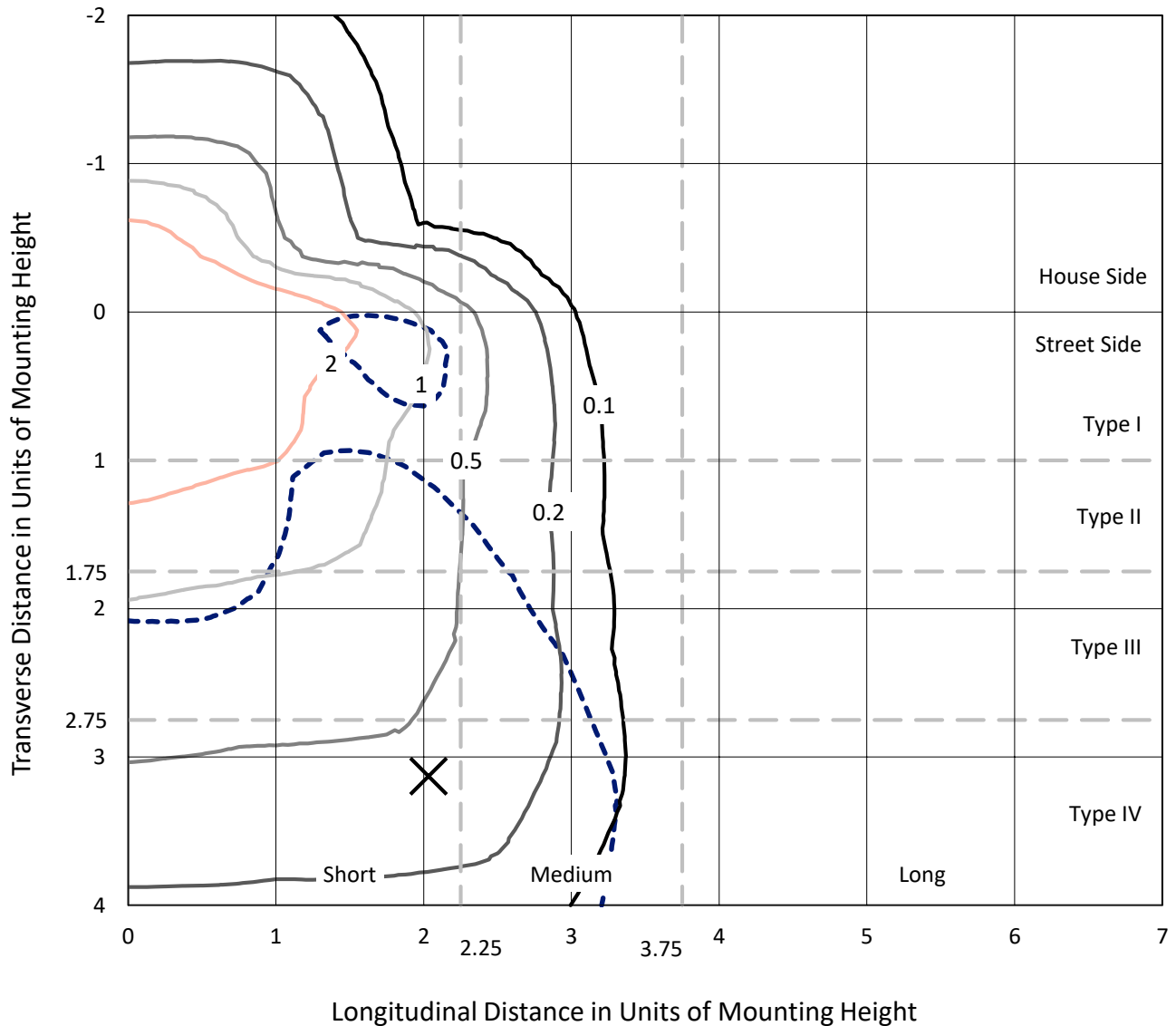
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

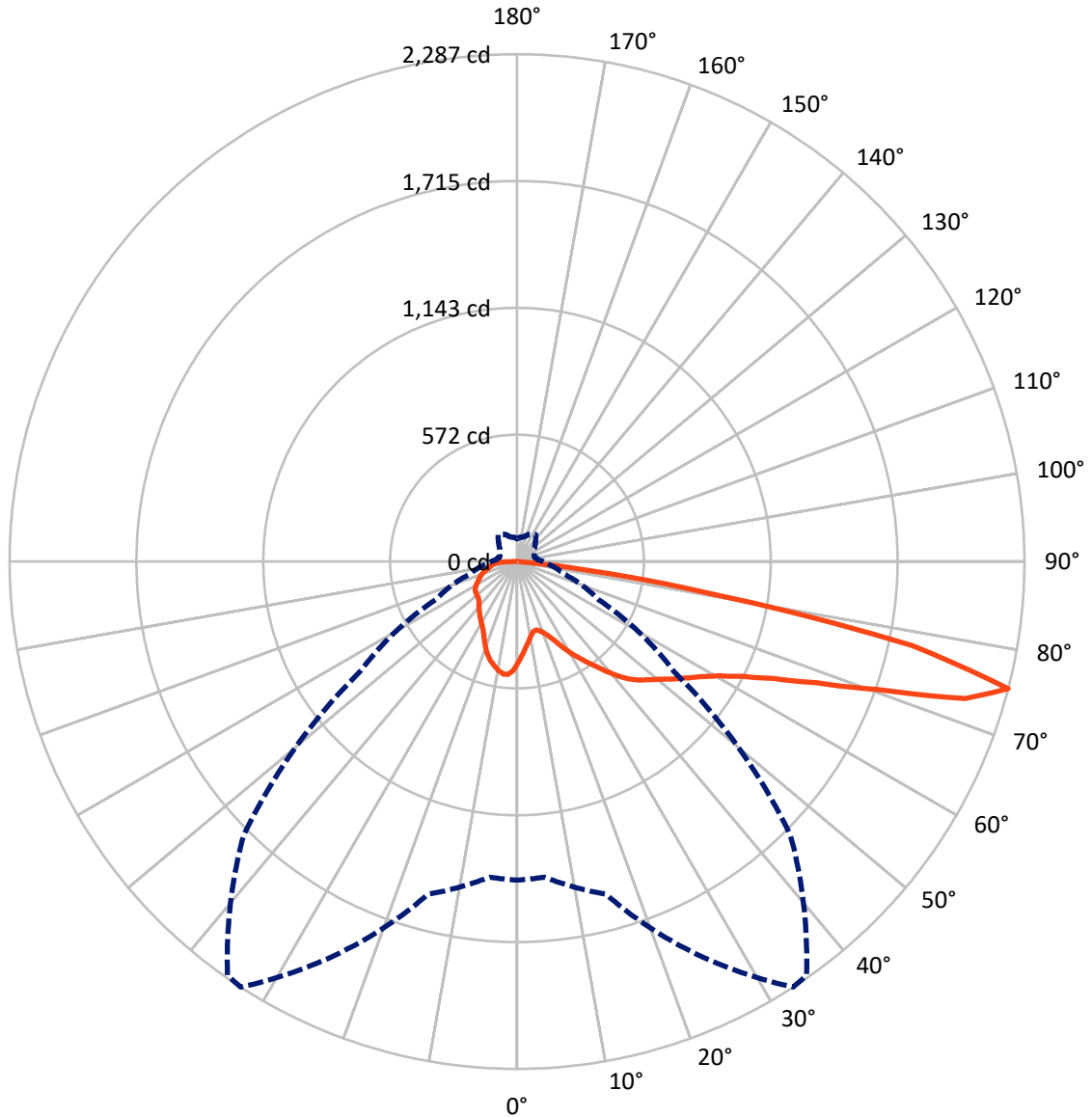
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 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
House Side	Lumens	726.1	0.0	726.1
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	2262.9	0.0	2262.9
	% Fixture	75.7	0.0	75.7
Total	Lumens	2989.0	0.0	2989.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.8	1.4
10°-20°	120.3	4.0
20°-30°	200.1	6.7
30°-40°	298.5	10.0
40°-50°	417.0	14.0
50°-60°	556.6	18.6
60°-70°	690.2	23.1
70°-80°	596.7	20.0
80°-90°	66.7	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°	2989.0	100.0
0°-180°	2989.0	100.0



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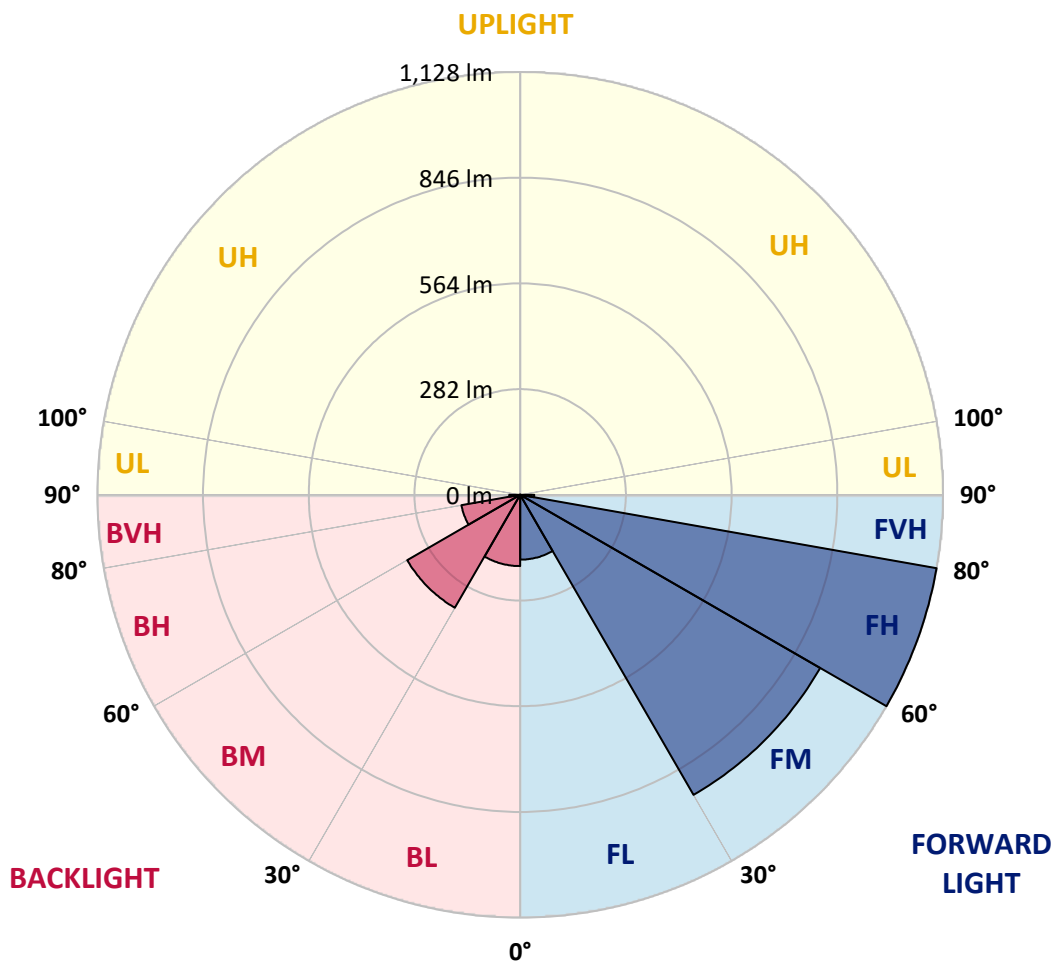
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	173.1	5.8			
FM	(30°-60°)	924.2	30.9			
FH	(60°-80°)	1127.9	37.7			G1/1800
FVH	(80°-90°)	37.7	1.3			G1/100
BL	(0°-30°)	190.2	6.4	B1/500		
BM	(30°-60°)	347.9	11.6	B1/1000		
BH	(60°-80°)	159.0	5.3	B1/500		G1/500
BVH	(80°-90°)	29.0	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°	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0
2.5°	415.4	416.3	418.9	422.1	423.8	423.8	428.7	434.5	441.6	447.8	454.5
5°	380.8	382.1	384.3	388.3	393.2	394.1	403.9	414.1	426.9	440.7	454.0
7.5°	346.6	349.3	353.7	359.0	366.6	368.4	382.1	395.9	413.6	434.5	456.2
10°	320.4	322.2	324.4	332.0	341.3	344.4	362.6	379.9	404.3	430.0	458.9
12.5°	313.3	313.3	313.3	316.9	324.4	327.1	346.2	368.4	395.9	426.9	462.9
15°	323.5	323.1	318.2	315.5	320.0	322.2	338.6	360.4	391.4	427.8	470.4
17.5°	346.6	345.3	333.7	324.9	328.0	329.3	340.0	358.6	390.1	431.4	481.5
20°	376.8	373.7	355.9	342.6	342.2	343.1	351.0	363.9	392.3	437.6	493.5
22.5°	416.7	415.0	388.8	368.4	364.8	364.8	368.4	376.3	398.1	444.7	509.9
25°	468.2	463.3	431.8	404.3	396.3	394.1	393.7	393.7	408.3	455.3	530.3
27.5°	521.0	515.3	483.3	446.0	435.4	431.4	424.3	418.9	421.6	466.9	554.8
30°	568.5	560.5	533.5	494.8	478.9	472.6	459.8	448.7	441.6	482.9	587.2
32.5°	594.7	591.6	572.9	537.9	519.7	517.0	495.7	481.1	468.7	503.7	630.6
35°	629.8	625.8	613.8	584.9	563.2	556.5	540.6	523.2	503.3	531.7	685.7
37.5°	662.2	659.9	655.5	635.5	612.4	605.8	591.1	572.9	545.9	572.9	747.4
40°	695.0	692.3	690.6	683.5	667.0	662.6	655.5	634.2	597.8	618.2	808.2
42.5°	742.9	737.2	718.5	718.1	719.4	723.0	723.4	699.9	654.6	674.6	861.4
45°	805.5	789.5	747.8	746.5	762.0	771.3	794.0	774.0	713.6	732.3	920.9
47.5°	837.5	821.0	778.0	775.3	795.7	809.5	865.4	845.9	774.9	797.1	982.6
50°	853.0	842.3	804.6	813.0	833.9	847.2	933.3	917.8	838.3	867.2	1060.2
52.5°	874.7	857.0	830.4	848.1	879.2	892.9	994.1	991.5	892.0	943.5	1145.5
55°	867.2	857.9	862.8	886.7	925.8	946.2	1055.4	1055.4	946.6	1025.2	1229.8
57.5°	873.4	867.2	907.6	928.9	978.1	1007.4	1129.0	1109.5	992.8	1093.5	1286.6
60°	926.2	908.5	940.0	982.1	1045.6	1074.0	1213.4	1166.3	1030.5	1152.6	1296.8
62.5°	1019.4	1005.2	1008.3	1056.7	1138.8	1171.6	1296.8	1216.5	1055.8	1177.4	1258.6
65°	1173.9	1167.2	1129.0	1158.3	1271.5	1301.2	1401.1	1260.0	1048.7	1158.8	1157.9
67.5°	1381.6	1354.9	1303.4	1329.6	1460.1	1490.3	1526.7	1276.4	1002.6	1047.4	930.7
70°	1553.8	1531.6	1508.0	1576.8	1726.8	1743.3	1657.6	1260.8	890.3	819.7	624.0
72.5°	1663.4	1647.4	1669.1	1871.5	2111.6	2080.5	1786.7	1152.1	694.6	501.9	312.0
75°	1435.7	1428.2	1552.4	1962.9	2286.9	2275.4	1741.9	862.3	403.0	221.0	142.0
77.5°	722.1	804.2	935.1	1392.7	1819.6	1821.8	1269.3	414.5	169.5	123.8	97.6
80°	203.3	205.9	312.0	574.3	908.5	967.9	480.2	140.7	96.7	92.3	72.8
82.5°	48.4	44.8	79.9	170.0	304.9	317.3	144.2	50.6	54.1	57.7	44.8
85°	0.4	0.4	0.4	0.4	0.4	0.9	5.3	5.3	12.9	16.4	12.9
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°	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0	458.0
2.5°	457.6	462.0	469.1	475.3	480.6	484.6	490.8	491.7	493.5	494.4	495.3
5°	461.6	470.0	483.3	494.8	502.8	505.0	510.4	509.9	510.4	510.4	509.9
7.5°	466.9	478.4	497.1	509.9	514.4	513.0	511.7	506.8	502.8	501.1	498.8
10°	473.5	486.9	508.6	517.9	515.7	508.6	500.2	491.3	484.2	480.6	479.8
12.5°	480.2	497.5	517.9	520.6	511.7	498.8	484.6	474.9	465.5	460.7	460.7
15°	491.3	510.4	525.5	520.1	504.2	487.7	468.2	454.9	444.2	437.6	437.1
17.5°	504.6	525.0	533.5	517.9	494.8	471.8	448.2	430.9	417.2	410.5	406.5
20°	521.0	540.1	537.4	510.8	481.1	452.7	423.4	402.5	388.3	381.2	379.9
22.5°	539.7	555.6	538.8	499.3	462.4	426.1	394.1	373.2	363.9	358.6	359.0
25°	562.3	574.7	539.2	485.5	435.8	391.0	363.0	353.3	351.9	349.7	350.6
27.5°	590.7	594.7	537.4	466.9	401.6	354.2	337.7	341.7	345.3	343.9	344.8
30°	624.4	618.7	533.5	439.8	359.5	320.4	321.3	330.2	335.1	333.7	334.2
32.5°	663.9	642.6	525.9	407.0	319.5	300.0	307.1	316.0	320.9	320.9	321.3
35°	708.3	671.5	511.3	364.4	291.6	287.6	293.8	300.9	304.0	302.2	303.6
37.5°	754.9	696.3	487.7	316.9	270.7	277.8	281.4	283.1	282.7	280.0	278.7
40°	798.4	715.9	445.6	269.8	253.4	267.6	269.4	264.5	258.7	253.9	250.7
42.5°	831.7	726.1	387.0	235.7	237.0	256.1	257.4	247.6	236.5	229.0	227.2
45°	865.9	729.6	328.9	208.1	219.2	244.5	248.1	234.8	219.7	210.8	209.5
47.5°	904.9	738.5	271.6	189.1	204.1	236.5	242.3	225.9	209.0	195.7	193.5
50°	957.3	755.4	228.6	174.4	193.5	232.6	240.5	218.8	197.5	182.8	181.1
52.5°	1023.9	780.2	188.6	162.9	185.1	226.3	237.9	211.7	189.1	171.3	168.6
55°	1081.1	789.5	162.9	153.1	176.2	218.8	235.7	209.0	179.7	159.8	156.7
57.5°	1107.3	762.9	144.7	143.3	166.9	209.5	231.2	200.2	169.5	154.0	151.3
60°	1095.3	696.8	130.9	134.5	156.2	197.5	219.7	191.3	162.4	149.6	146.9
62.5°	1042.0	620.4	120.7	126.0	144.2	182.4	206.4	183.3	156.2	144.7	141.1
65°	948.4	536.6	113.2	118.5	133.6	167.8	195.7	174.0	149.1	137.6	134.5
67.5°	774.0	426.9	105.2	111.0	124.7	155.8	186.0	166.4	141.1	133.6	130.9
70°	512.1	287.1	97.6	103.4	115.8	144.2	175.7	158.4	133.6	128.7	125.2
72.5°	235.2	154.4	89.6	95.4	105.6	131.4	162.9	146.5	123.4	120.3	114.9
75°	116.3	95.0	79.9	85.2	93.2	115.8	147.8	136.2	114.1	108.7	102.5
77.5°	84.8	71.0	68.8	74.1	80.8	102.5	131.8	125.6	104.7	97.2	93.6
80°	63.0	55.0	57.7	63.0	69.2	92.8	123.4	117.6	96.7	89.2	86.5
82.5°	38.6	36.8	44.4	50.6	58.1	85.2	117.6	107.4	87.0	79.9	76.8
85°	11.1	13.3	22.6	32.8	41.3	68.8	109.6	94.1	73.2	61.2	59.0
87.5°	0.0	1.3	7.1	15.1	24.4	45.7	84.3	73.7	55.9	45.3	43.5
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)