

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: P401226

Luminaire Tested: **ENT-SA1B-830-U-T2**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401226
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-SA1B-830-U-T2
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2711 lumens
Efficiency: N/A
Efficacy: 106.7 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

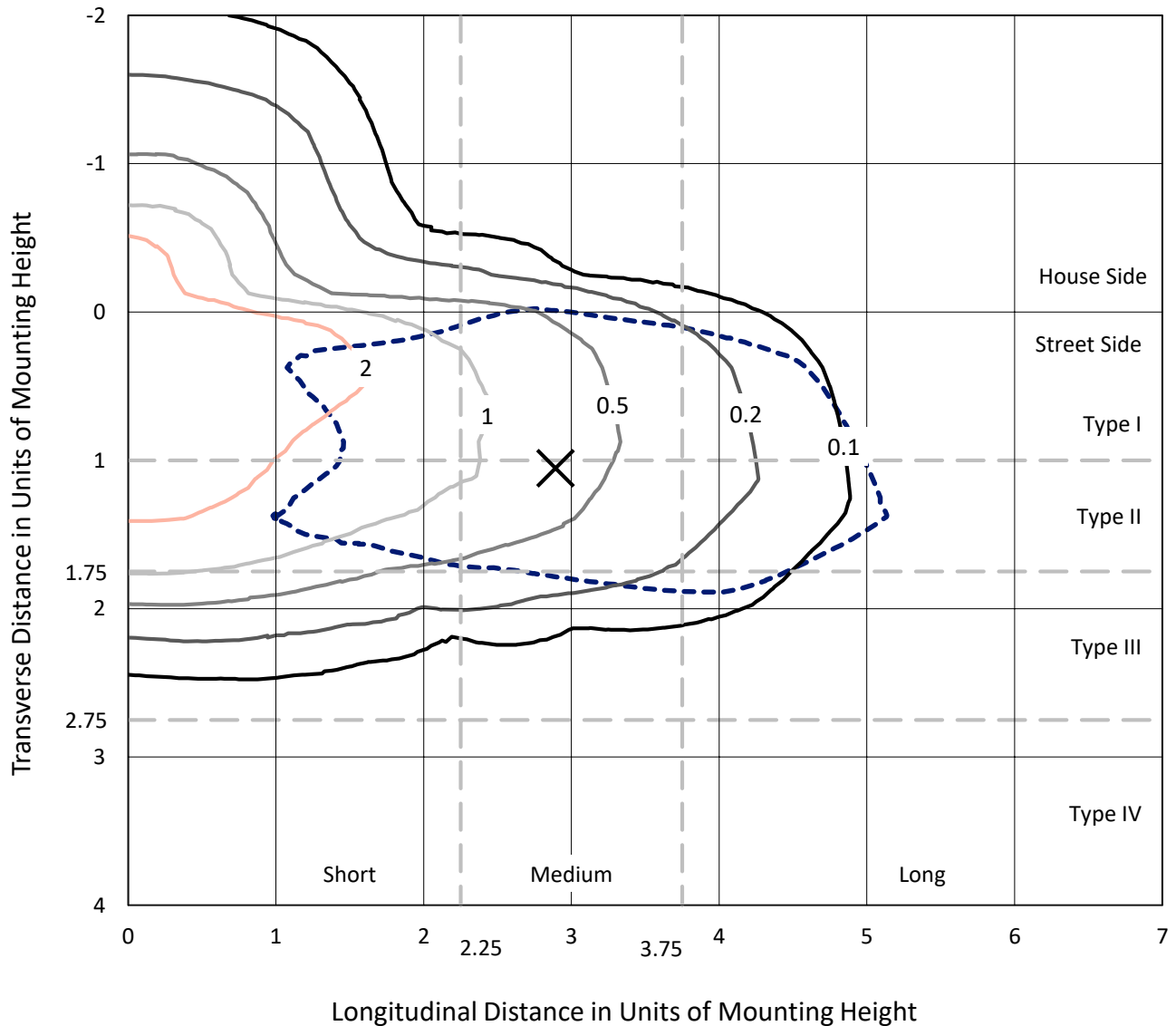
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

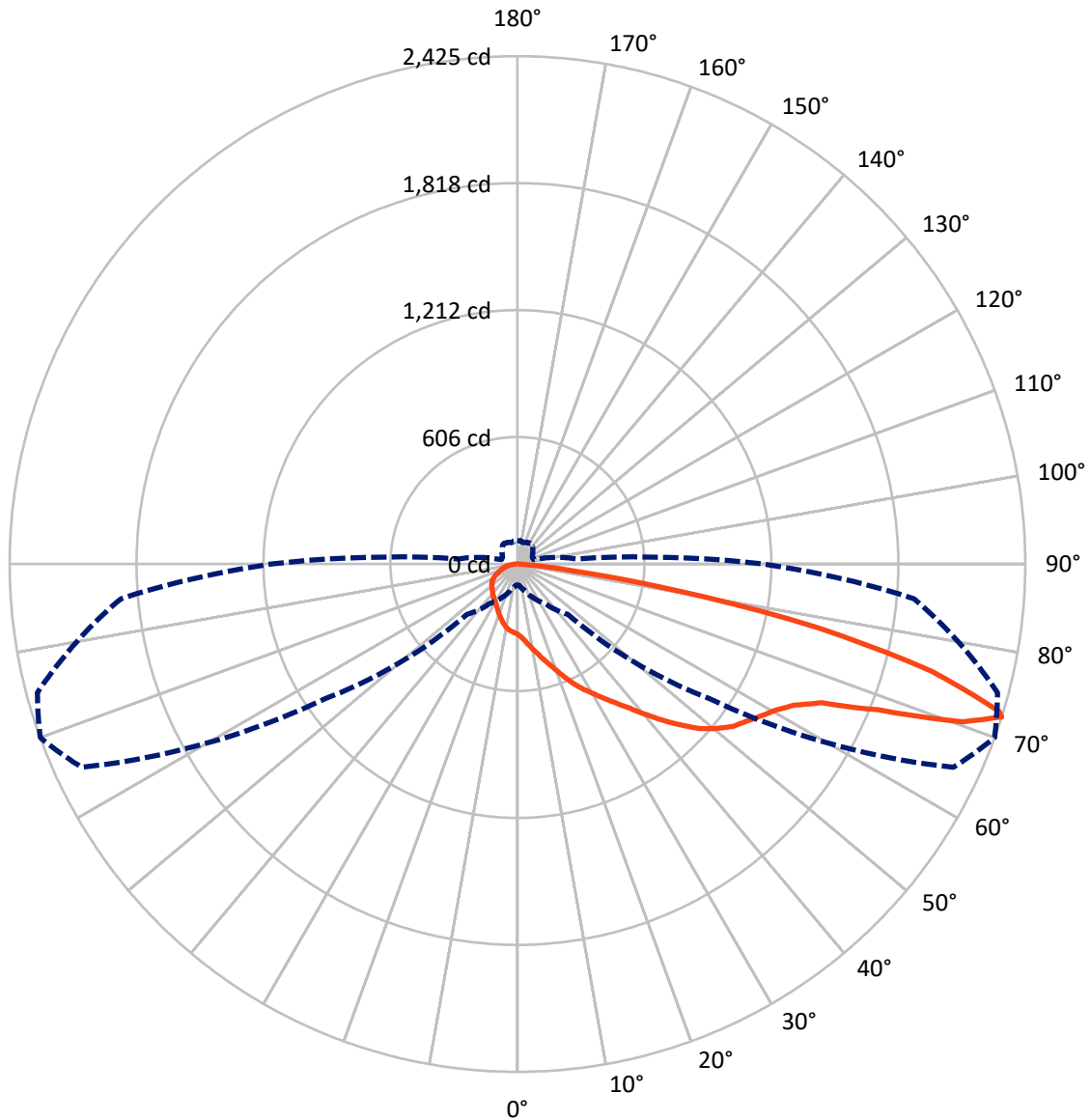
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.7 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
House Side	Lumens	503.7	0.0	503.7
	% Fixture	18.6	0.0	18.6
Street Side	Lumens	2207.3	0.0	2207.3
	% Fixture	81.4	0.0	81.4
Total	Lumens	2711.0	0.0	2711.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.8	1.2
10°-20°	108.3	4.0
20°-30°	191.7	7.1
30°-40°	285.0	10.5
40°-50°	413.5	15.3
50°-60°	564.9	20.8
60°-70°	618.5	22.8
70°-80°	440.0	16.2
80°-90°	55.2	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°	2711.0	100.0
0°-180°	2711.0	100.0



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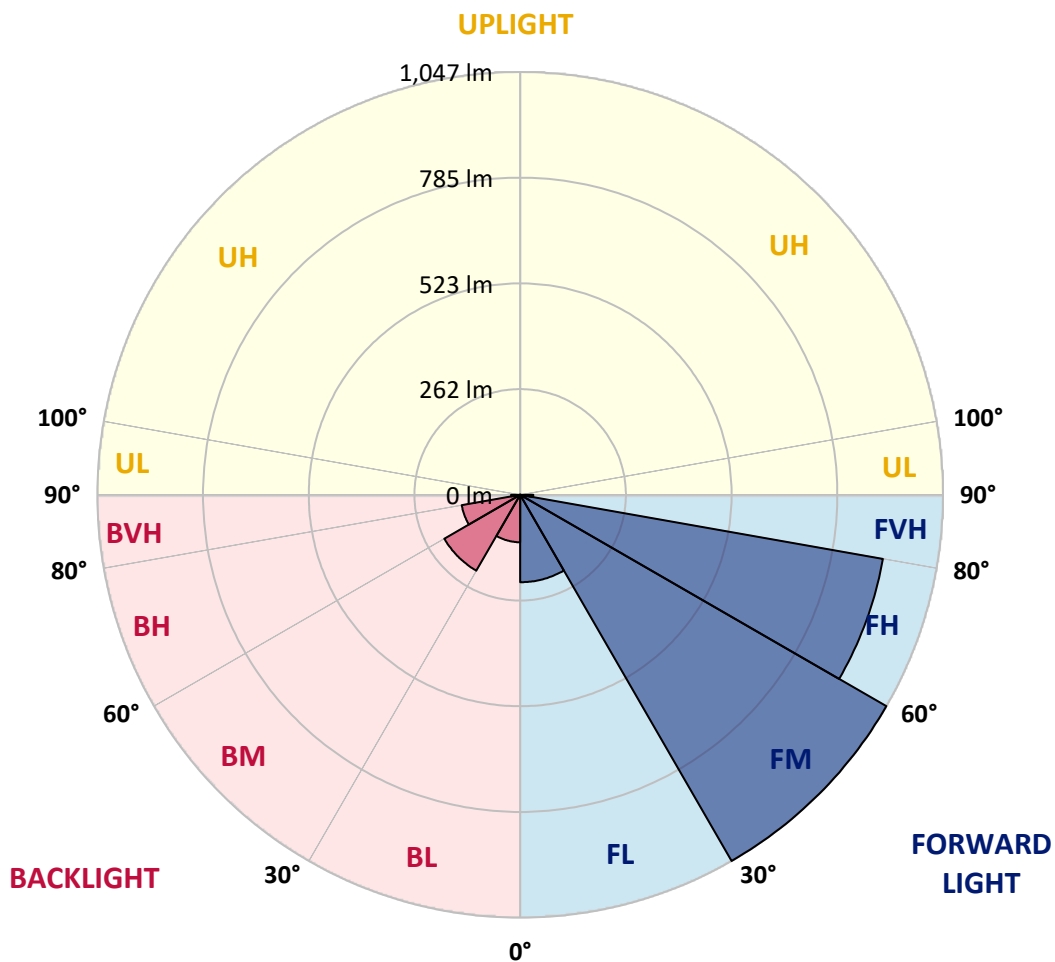
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	216.4	8.0			
FM	(30°-60°)	1046.6	38.6			
FH	(60°-80°)	911.6	33.6			G1/1800
FVH	(80°-90°)	32.6	1.2			G1/100
BL	(0°-30°)	117.4	4.3	B1/500		
BM	(30°-60°)	216.9	8.0	B0/220		
BH	(60°-80°)	146.9	5.4	B1/500		G1/500
BVH	(80°-90°)	22.6	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°	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7
2.5°	373.3	371.4	371.8	368.3	366.3	361.7	356.6	351.2	348.5	346.6	340.0
5°	409.7	409.7	411.2	408.5	401.2	393.4	384.5	372.5	367.5	360.5	347.4
7.5°	439.9	440.7	440.7	439.9	433.3	424.8	413.2	398.5	390.3	380.3	359.7
10°	455.4	457.3	458.9	460.0	459.3	454.2	441.1	426.0	414.7	401.6	374.1
12.5°	463.1	463.9	466.6	472.4	477.1	481.0	471.3	453.5	442.2	426.4	389.6
15°	471.7	471.7	474.4	481.7	490.6	501.1	499.9	486.0	474.0	454.2	409.3
17.5°	477.1	478.6	483.7	491.4	503.8	521.2	530.1	522.4	506.9	486.0	430.6
20°	474.0	475.1	485.2	500.3	516.2	538.7	561.1	561.1	546.4	522.4	454.2
22.5°	479.8	481.7	488.7	503.0	524.7	553.8	590.5	603.3	590.5	564.2	481.7
25°	502.3	501.5	507.3	513.1	531.7	567.7	615.7	648.6	637.0	608.0	508.4
27.5°	534.8	534.8	537.9	537.5	544.1	579.3	637.8	688.5	678.8	644.0	530.5
30°	572.3	573.1	572.3	572.0	570.8	595.2	657.5	724.1	719.1	684.6	550.7
32.5°	618.0	620.0	616.9	609.1	604.5	618.0	674.2	764.0	765.6	724.9	570.4
35°	675.3	678.4	666.8	655.6	644.0	650.2	693.5	801.6	817.1	770.6	594.4
37.5°	732.7	737.7	735.8	705.6	689.3	688.9	722.2	848.4	874.4	830.2	628.5
40°	781.1	785.3	787.6	760.2	737.7	736.9	764.4	897.2	944.9	898.8	668.8
42.5°	813.2	817.1	824.0	807.8	786.9	796.6	810.9	945.6	1020.8	982.4	718.3
45°	848.1	851.2	855.4	846.1	835.3	863.2	869.7	999.5	1096.7	1072.3	776.4
47.5°	885.2	888.3	890.7	883.7	879.8	918.9	927.4	1054.5	1173.3	1165.2	833.0
50°	926.3	927.4	929.8	926.3	927.4	969.7	975.1	1102.9	1234.1	1262.0	891.8
52.5°	996.8	998.3	999.1	982.4	976.6	1001.8	1013.4	1154.4	1287.6	1342.6	943.7
55°	1052.5	1057.9	1082.3	1071.5	1057.6	1024.6	1045.2	1195.8	1325.5	1417.7	997.9
57.5°	1006.8	1019.2	1080.0	1131.1	1170.2	1091.6	1082.7	1238.4	1369.3	1482.4	1061.0
60°	874.0	892.2	980.5	1087.0	1213.6	1245.4	1159.8	1291.4	1416.9	1549.7	1128.8
62.5°	606.0	624.6	746.6	916.6	1140.4	1333.3	1370.8	1385.5	1483.1	1618.7	1217.1
65°	290.4	309.4	410.1	589.4	900.7	1276.7	1616.7	1580.7	1594.7	1706.2	1347.2
67.5°	184.7	194.8	234.3	321.0	523.9	994.4	1705.0	1969.5	1858.8	1907.9	1606.3
70°	135.1	137.5	171.5	222.3	311.0	580.9	1505.6	2341.6	2254.9	2249.5	1918.8
72°	99.9	103.8	130.1	177.4	230.0	339.6	1120.3	2296.3	2424.5	2373.0	1900.2
72.5°	94.1	97.2	120.0	167.7	217.2	298.2	1003.7	2243.7	2403.6	2376.5	1864.6
75°	68.5	70.9	82.1	119.3	168.1	172.7	535.9	1722.1	2041.1	2268.8	1690.3
77.5°	47.2	48.8	54.6	73.2	115.0	116.9	227.3	1175.7	1473.1	1814.2	1300.0
80°	28.7	29.4	32.9	39.9	73.2	69.3	93.7	614.6	768.7	986.3	602.9
82.5°	12.0	12.4	14.3	15.9	31.0	32.9	37.9	200.6	254.4	308.2	173.9
85°	0.0	0.0	0.4	0.4	0.8	3.5	5.4	24.8	37.6	44.9	31.4
87.5°	0.0	0.0	0.4	0.4	0.4	0.8	0.8	1.2	1.5	1.5	2.3
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°	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7	335.7
2.5°	336.9	335.4	330.7	326.8	323.7	318.7	318.3	314.4	314.4	313.3	312.5
5°	342.3	337.3	328.0	319.5	313.3	305.9	302.4	298.2	295.5	293.9	294.3
7.5°	349.3	340.8	324.9	310.6	299.0	289.7	284.2	280.7	278.8	278.0	278.0
10°	359.0	345.8	319.9	298.2	283.5	276.5	273.8	273.4	273.8	274.2	274.6
12.5°	369.8	349.3	310.6	283.5	271.8	269.1	270.7	274.2	277.3	278.4	278.4
15°	381.0	351.6	297.8	269.9	262.9	265.6	271.1	277.7	282.7	285.8	286.6
17.5°	392.7	352.0	284.2	257.5	255.2	262.2	271.8	282.3	290.4	295.5	296.2
20°	405.1	351.2	268.4	246.3	247.4	259.1	272.6	286.9	297.8	304.4	305.1
22.5°	418.6	348.1	252.9	235.4	240.9	256.0	271.8	288.5	300.1	307.9	309.4
25°	431.8	341.9	237.4	225.8	236.2	252.9	268.0	282.3	293.5	300.9	302.8
27.5°	438.7	328.8	222.7	218.4	232.7	248.2	259.1	268.7	274.9	279.6	281.5
30°	439.9	310.2	210.7	213.4	228.9	241.6	247.8	249.4	248.2	249.8	247.8
32.5°	437.6	290.0	201.0	209.5	222.7	232.3	233.9	229.2	222.3	212.6	213.0
35°	436.0	268.0	193.2	204.1	214.5	220.7	218.0	210.7	197.5	185.9	185.1
37.5°	438.7	247.8	186.7	197.1	204.1	206.8	202.9	193.2	181.6	171.5	170.4
40°	446.5	233.1	180.5	189.4	192.8	194.8	190.1	181.6	177.0	169.6	168.4
42.5°	461.6	223.1	174.6	180.8	182.4	184.3	179.7	173.9	178.1	176.6	176.6
45°	482.5	218.4	169.6	172.7	174.3	177.4	174.6	169.6	174.3	165.4	163.8
47.5°	509.6	220.0	166.1	164.6	169.2	174.6	171.5	165.4	163.8	147.9	145.2
50°	538.3	228.1	162.6	158.0	163.8	171.2	167.3	157.6	148.3	140.2	138.6
52.5°	572.0	241.6	159.5	150.6	157.6	167.3	164.6	154.1	144.4	138.6	137.5
55°	609.1	254.8	155.7	142.1	149.5	166.1	165.4	151.8	139.0	136.3	135.5
57.5°	651.0	265.6	151.0	132.4	141.3	162.6	161.9	146.4	137.5	135.1	134.8
60°	703.2	278.4	142.9	121.2	133.2	156.1	155.3	143.7	134.0	132.0	131.3
62.5°	774.5	302.0	129.0	110.8	124.7	144.4	149.1	138.2	129.0	128.6	128.6
65°	891.8	347.7	114.6	101.8	115.0	133.2	141.0	132.0	124.3	126.2	126.2
67.5°	1113.7	409.3	99.9	93.3	105.7	122.4	134.0	125.9	119.3	123.1	123.1
70°	1284.9	386.5	88.3	85.2	96.4	112.7	125.1	119.3	113.1	119.7	118.9
72°	1172.2	283.1	80.5	78.6	88.7	104.6	117.3	113.1	106.5	111.9	110.4
72.5°	1125.3	257.1	78.2	76.7	86.4	103.0	115.8	111.5	104.6	110.0	107.7
75°	981.7	216.9	68.2	67.4	76.7	92.6	105.7	103.4	96.4	99.5	97.2
77.5°	812.4	182.8	57.3	58.9	65.4	82.5	95.3	92.9	86.4	86.0	85.6
80°	381.0	101.8	47.2	48.4	55.0	70.5	82.1	80.5	74.4	73.6	72.4
82.5°	110.4	48.8	36.4	37.2	44.1	57.7	70.5	69.7	65.1	63.9	61.2
85°	20.5	15.9	19.7	23.2	32.1	48.0	64.3	62.7	55.8	50.7	46.9
87.5°	1.2	3.1	6.6	11.2	20.5	36.0	51.9	50.7	44.5	38.3	38.7
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)