

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: P400944

Luminaire Tested: **ENT-SA1A-735-U-T4W**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400944
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-735-U-T4W
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2568 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-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

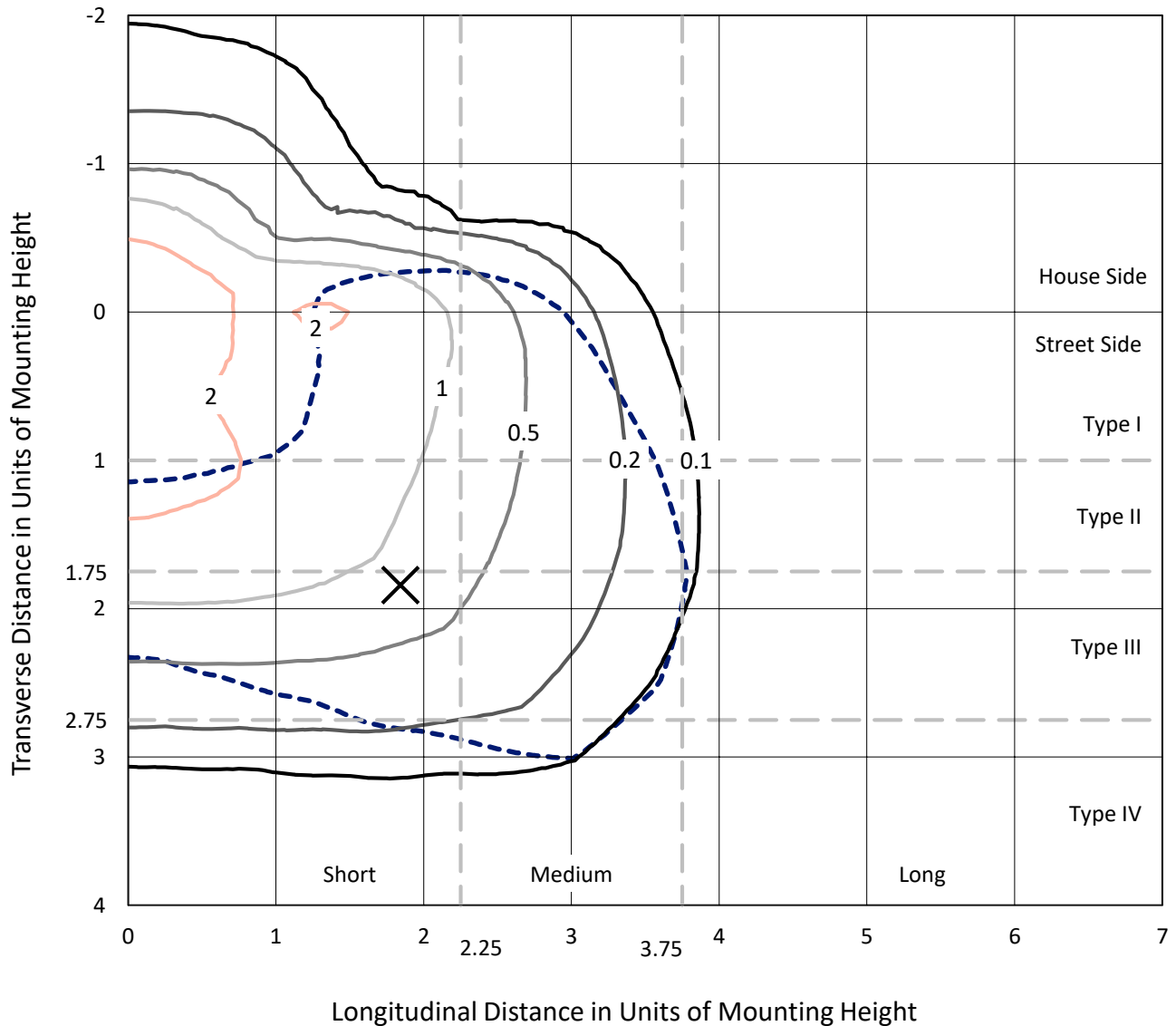


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

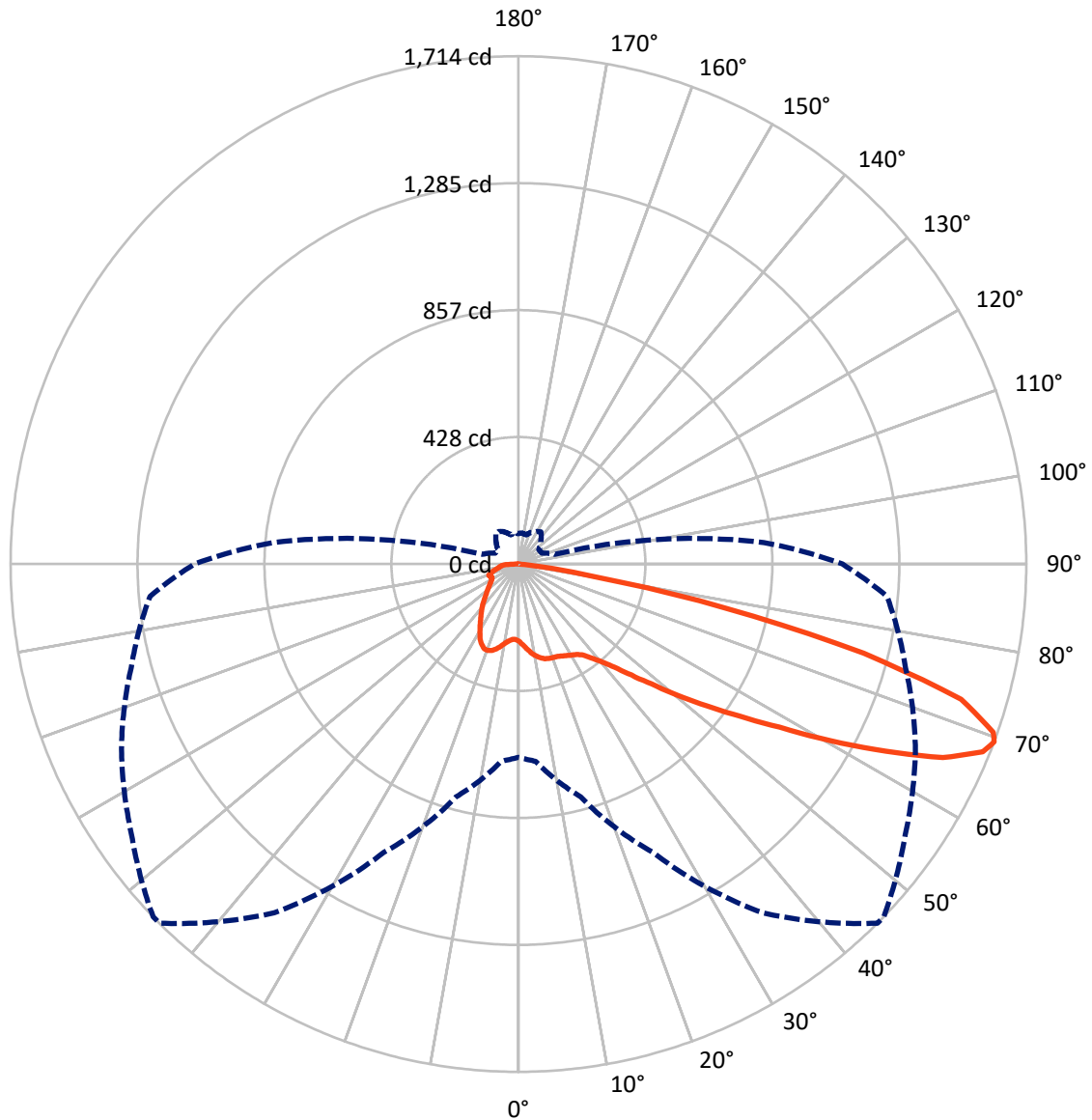


Based on 10 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	604.6	0.0	604.6
	% Fixture	23.5	0.0	23.5
Street Side	Lumens	1963.4	0.0	1963.4
	% Fixture	76.5	0.0	76.5
Total	Lumens	2568.0	0.0	2568.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.5	1.0
10°-20°	88.0	3.4
20°-30°	148.7	5.8
30°-40°	215.2	8.4
40°-50°	324.9	12.7
50°-60°	547.8	21.3
60°-70°	753.7	29.3
70°-80°	417.6	16.3
80°-90°	45.5	1.8
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°	2568.0	100.0
0°-180°	2568.0	100.0



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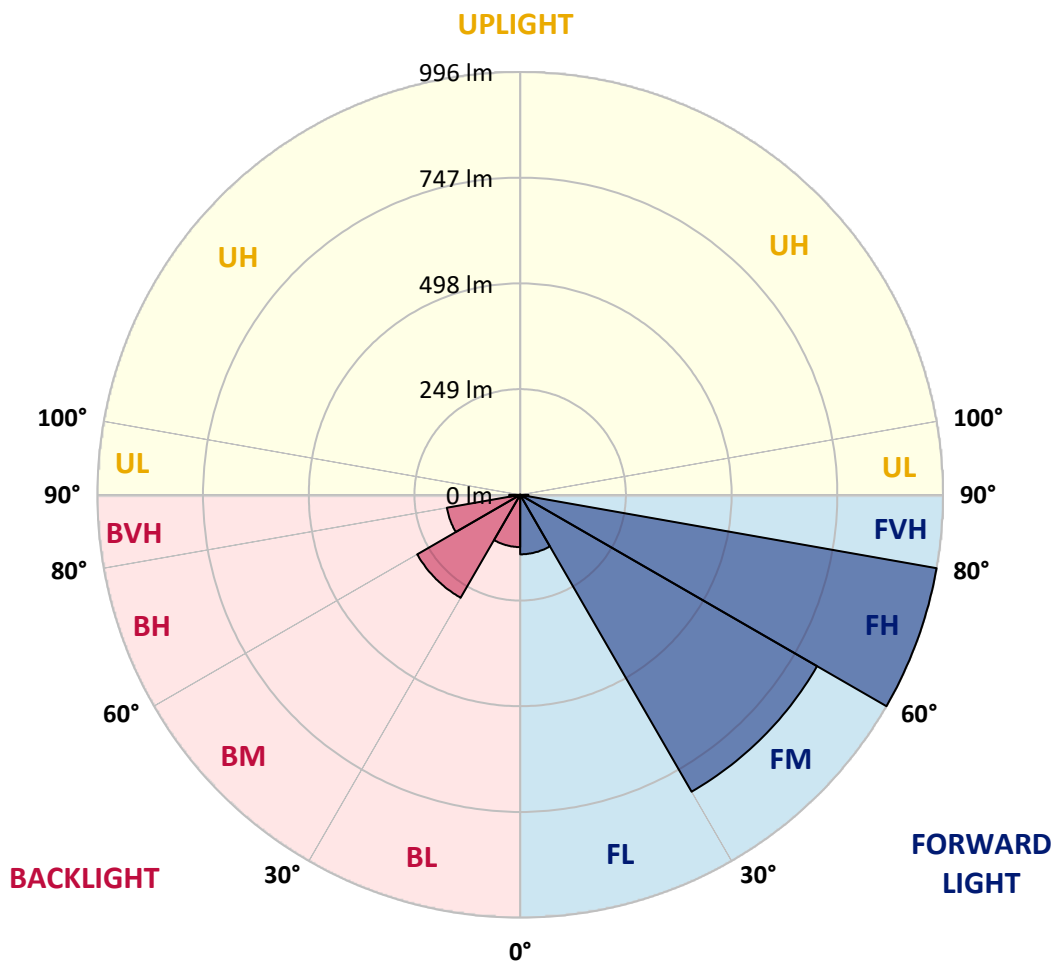
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	140.2	5.5			
FM	(30°-60°)	807.7	31.5			
FH	(60°-80°)	996.1	38.8			G1/1800
FVH	(80°-90°)	19.5	0.8			G1/100
BL	(0°-30°)	123.1	4.8	B1/500		
BM	(30°-60°)	280.3	10.9	B1/1000		
BH	(60°-80°)	175.2	6.8	B1/500		G1/500
BVH	(80°-90°)	26.0	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°	35°	45°	46°	55°	65°	75°	85°
0°	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7
2.5°	277.1	276.7	277.1	275.6	274.2	272.0	271.2	268.7	266.9	264.3	262.1
5°	297.5	298.6	298.3	296.4	290.6	286.2	286.2	280.7	274.9	269.4	264.3
7.5°	319.8	319.8	317.6	314.0	308.1	301.5	300.8	293.5	285.1	277.5	269.4
10°	335.9	336.6	333.3	328.2	320.9	314.0	313.2	304.8	296.8	286.9	277.1
12.5°	347.2	347.2	344.3	339.5	330.8	324.2	323.4	315.8	307.4	297.2	285.8
15°	353.0	352.3	349.7	344.6	337.0	331.5	330.4	323.8	316.9	306.7	294.6
17.5°	351.9	351.9	349.7	344.6	339.1	334.8	334.0	329.3	324.2	314.3	302.3
20°	347.2	346.8	346.1	342.1	338.4	336.6	335.9	333.7	330.4	322.0	310.7
22.5°	342.8	342.4	341.3	338.8	337.3	338.4	338.4	338.1	337.7	331.1	320.2
25°	345.4	345.0	342.8	339.1	338.8	343.9	344.3	345.4	346.1	340.6	329.3
27.5°	363.2	362.1	355.9	346.4	343.2	349.7	350.5	353.8	353.0	347.2	337.3
30°	398.3	398.7	384.8	364.3	353.4	356.3	356.7	360.3	359.2	354.5	346.4
32.5°	451.2	451.2	428.6	397.6	369.8	364.0	362.9	366.2	370.5	364.3	356.3
35°	518.4	516.6	489.2	441.4	397.9	377.1	376.4	374.9	382.6	376.7	365.1
37.5°	585.9	579.4	552.7	500.1	437.4	402.7	399.7	395.4	399.7	387.3	377.1
40°	640.3	639.2	617.3	564.0	484.1	433.7	431.5	412.2	415.1	405.2	401.2
42.5°	700.2	700.9	686.3	632.7	539.9	475.7	469.8	439.9	448.3	444.7	442.8
45°	765.9	765.2	754.2	698.0	608.2	534.1	526.8	489.9	507.1	504.9	515.1
47.5°	816.3	820.3	814.1	774.3	689.2	604.9	599.4	554.5	580.5	598.0	617.3
50°	884.9	884.6	867.8	851.3	783.4	695.5	690.0	640.0	677.2	702.8	738.2
52.5°	970.0	967.1	932.4	926.5	898.1	794.4	789.6	737.4	790.7	813.0	884.9
55°	1023.3	1022.9	1005.0	1015.3	1016.0	904.6	898.8	852.4	912.7	938.2	1047.0
57.5°	1067.8	1068.2	1083.2	1118.9	1143.0	1038.6	1036.4	979.8	1040.8	1076.6	1205.1
60°	1102.1	1109.4	1151.4	1233.2	1273.4	1209.5	1200.0	1140.1	1181.0	1195.2	1325.9
62.5°	1088.3	1097.8	1180.3	1300.7	1404.0	1390.5	1387.3	1300.7	1300.4	1293.1	1416.1
65°	978.7	999.2	1129.2	1298.2	1490.2	1574.5	1569.8	1452.2	1411.3	1374.8	1443.1
67.5°	801.0	805.3	962.0	1198.9	1489.5	1690.3	1685.2	1562.5	1480.3	1390.9	1363.9
69°	652.0	668.1	813.0	1073.3	1436.9	1713.6	1713.6	1593.2	1477.8	1352.6	1247.8
70°	564.0	564.8	704.6	973.3	1365.4	1699.8	1703.0	1593.2	1457.0	1302.6	1144.9
72.5°	264.3	280.7	369.1	635.2	1102.9	1562.5	1570.5	1488.0	1336.1	1122.2	859.0
75°	79.2	82.1	123.0	301.2	631.9	1203.6	1221.5	1237.9	1088.3	826.1	529.0
77.5°	47.1	46.7	59.5	102.2	292.4	713.7	721.7	791.8	706.0	459.3	240.2
80°	23.0	23.7	31.8	49.6	109.5	259.2	285.1	370.2	312.9	179.6	88.0
82.5°	7.7	8.4	13.1	20.1	46.4	83.6	92.4	116.1	100.0	65.3	37.6
85°	0.0	0.0	0.4	0.7	2.6	6.2	6.2	13.9	20.8	23.0	12.4
87.5°	0.0	0.0	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7	1.1
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°	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7	260.7
2.5°	261.0	260.3	258.8	257.4	256.6	254.8	255.2	254.5	254.1	254.1	254.5
5°	261.8	260.7	258.5	257.0	255.5	254.8	256.6	257.4	258.1	258.1	258.5
7.5°	266.1	263.9	261.4	259.6	259.9	261.0	263.9	266.1	267.2	268.0	268.7
10°	273.4	270.9	267.2	266.9	267.6	270.5	274.5	277.8	280.7	282.6	282.6
12.5°	281.1	277.8	274.9	275.6	278.9	283.3	287.3	291.0	293.5	295.3	295.7
15°	289.5	286.2	283.3	285.1	290.6	295.7	299.4	300.8	301.9	303.7	304.1
17.5°	297.2	294.2	291.7	296.4	301.2	305.2	306.3	305.6	304.1	305.2	305.9
20°	305.2	302.6	301.2	306.3	309.6	309.9	307.0	303.7	300.1	300.1	300.5
22.5°	315.1	311.8	311.0	313.6	312.5	308.1	300.8	295.7	290.6	289.9	291.0
25°	324.5	321.3	320.9	319.1	309.6	298.3	288.4	282.6	278.5	278.9	281.1
27.5°	334.0	331.8	332.2	322.4	301.2	284.0	270.9	266.1	267.2	268.0	270.1
30°	343.5	343.5	345.0	322.4	289.5	263.9	251.5	251.2	254.1	256.3	258.8
32.5°	354.5	357.8	355.2	318.3	273.8	243.5	233.6	234.4	237.7	241.3	243.5
35°	365.1	372.7	365.4	309.2	252.3	224.9	216.8	215.8	218.3	221.6	222.7
37.5°	381.9	394.3	374.2	295.0	230.0	208.5	200.4	197.5	194.9	197.5	197.1
40°	411.1	426.0	380.8	271.2	208.5	193.1	184.7	179.2	173.0	167.6	167.6
42.5°	457.8	467.7	384.4	242.4	186.9	177.8	169.4	161.4	151.9	142.0	142.0
45°	534.1	536.3	385.9	211.7	167.2	162.5	153.7	146.0	133.6	123.8	121.6
47.5°	635.9	626.5	389.5	182.2	150.0	148.9	141.6	132.9	119.4	110.3	109.2
50°	772.8	732.0	405.6	158.4	136.2	137.3	131.8	121.6	108.8	102.2	100.8
52.5°	926.9	865.2	418.0	139.5	124.1	127.4	123.4	113.5	102.6	97.1	96.0
55°	1095.2	993.3	415.1	126.7	115.0	118.6	117.2	108.8	98.9	94.2	93.1
57.5°	1232.5	1083.5	389.5	115.4	105.9	111.0	112.4	105.9	96.7	92.4	91.3
60°	1335.4	1132.8	337.0	105.9	98.6	104.8	108.8	104.0	96.4	93.8	92.7
62.5°	1382.1	1128.4	268.7	98.6	93.1	100.4	109.2	107.0	101.9	103.7	104.0
65°	1355.9	1073.3	201.5	93.1	89.8	101.1	115.4	115.4	107.7	111.0	111.3
67.5°	1221.1	929.1	146.8	89.1	86.5	104.8	127.0	119.7	105.1	107.7	106.6
69°	1093.0	831.3	125.9	86.9	84.0	106.6	132.2	120.5	102.2	105.1	102.2
70°	998.8	742.9	113.2	85.1	82.9	106.6	133.6	119.7	100.8	102.9	99.7
72.5°	710.8	515.8	93.1	81.4	78.9	98.6	131.1	115.7	96.7	94.2	88.0
75°	413.3	285.1	79.2	77.4	69.7	86.5	124.5	111.3	92.7	88.0	83.6
77.5°	173.4	127.4	67.5	70.5	61.7	77.0	116.5	107.0	88.0	81.4	79.2
80°	70.5	63.5	56.2	61.0	53.7	67.9	107.3	99.7	81.0	74.5	71.2
82.5°	36.9	35.0	43.1	49.3	44.5	62.4	101.1	94.6	75.2	68.6	64.6
85°	11.0	14.6	24.5	33.6	34.0	56.2	98.2	87.6	65.3	56.6	55.9
87.5°	0.7	2.9	8.4	17.5	22.3	43.1	79.6	71.9	52.9	44.5	44.9
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)