

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: P400913

Luminaire Tested: **ENT-SA1A-730-U-SL4-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400913
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-730-U-SL4-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2043 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

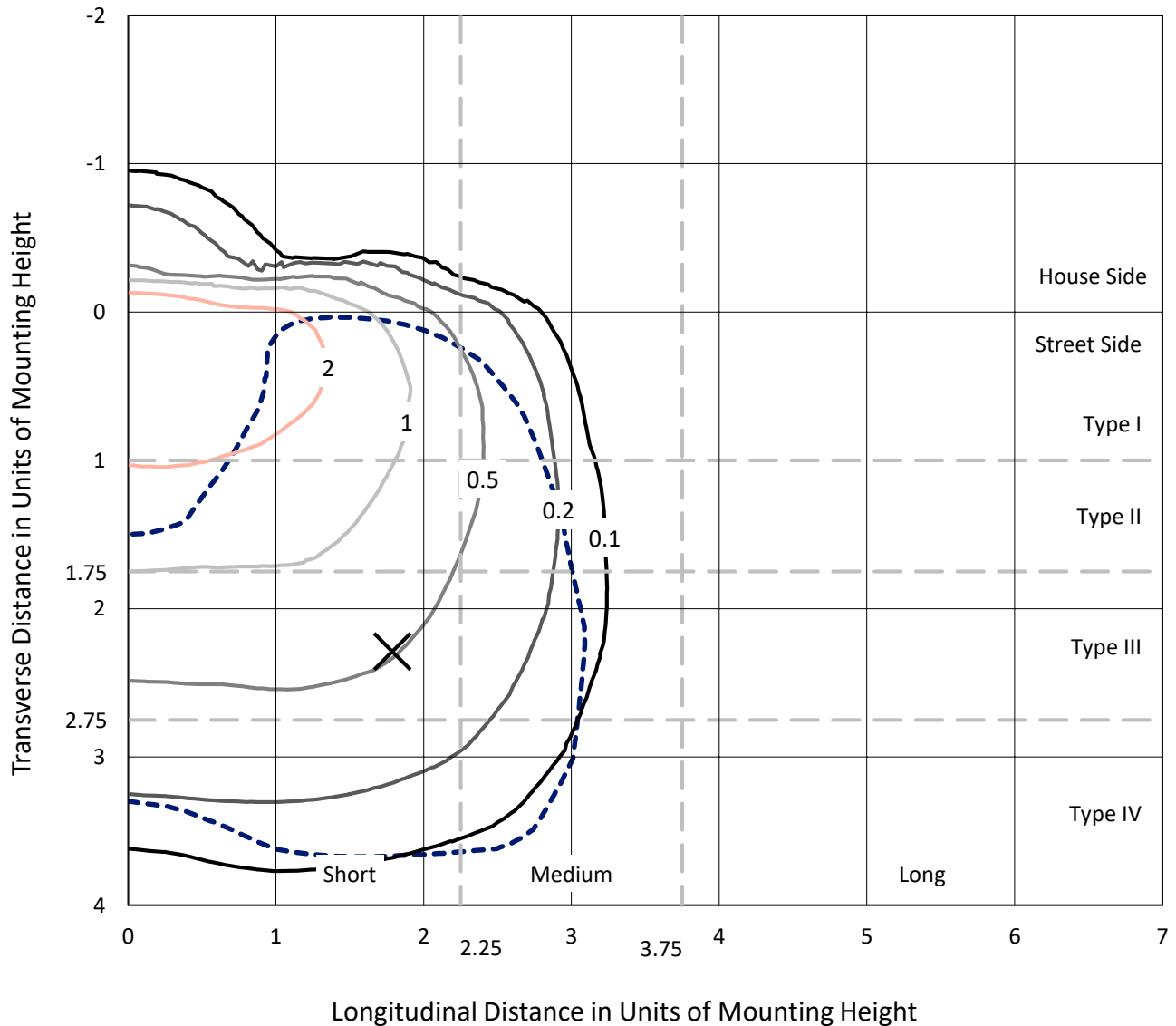
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

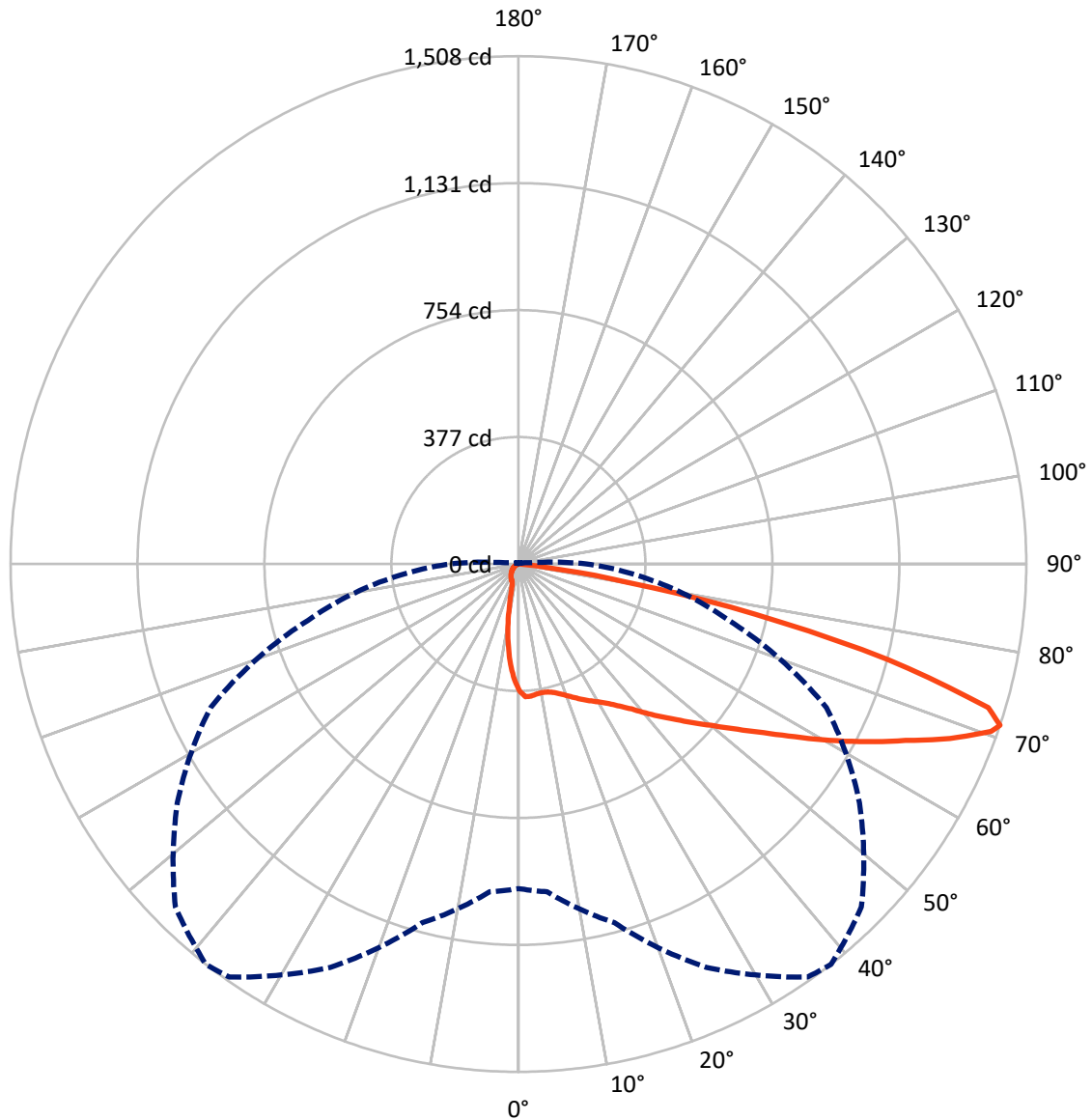
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	174.5	0.0	174.5
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	1868.5	0.0	1868.5
	% Fixture	91.5	0.0	91.5
Total	Lumens	2043.0	0.0	2043.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.8	1.6
10°-20°	77.0	3.8
20°-30°	123.5	6.0
30°-40°	187.9	9.2
40°-50°	292.8	14.3
50°-60°	428.2	21.0
60°-70°	549.2	26.9
70°-80°	335.7	16.4
80°-90°	16.9	0.8
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°	2043.0	100.0
0°-180°	2043.0	100.0



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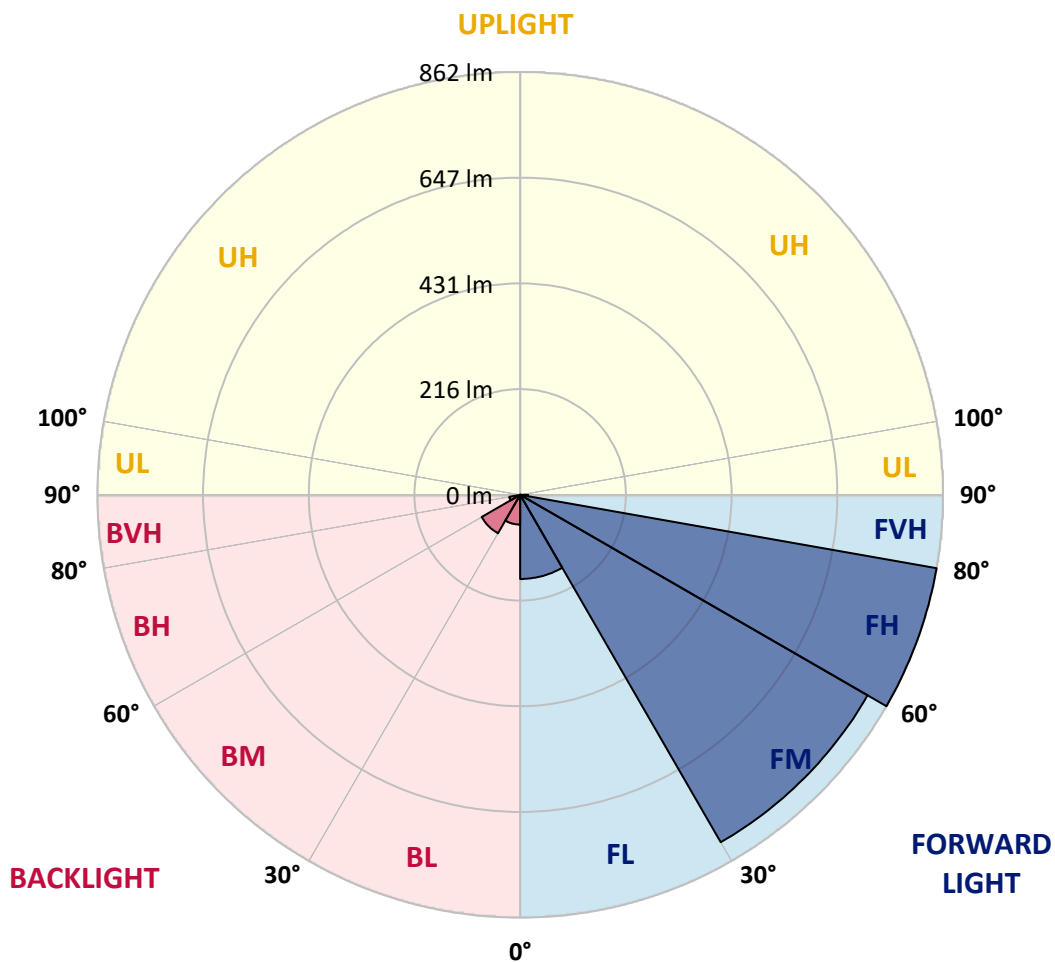
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	171.7	8.4			
FM	(30°-60°)	818.2	40.1			
FH	(60°-80°)	862.5	42.2			G1/1800
FVH	(80°-90°)	16.1	0.8			G1/100
BL	(0°-30°)	60.7	3.0	B0/110		
BM	(30°-60°)	90.6	4.4	B0/220		
BH	(60°-80°)	22.4	1.1	B0/110		G0/110
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6
2.5°	398.9	397.9	398.9	397.9	395.7	394.7	393.3	389.4	385.8	381.6	375.2
5°	399.6	398.9	398.9	397.5	395.0	394.0	392.6	388.7	384.1	377.7	368.1
7.5°	395.7	395.4	394.7	393.3	390.4	389.7	388.7	384.1	379.5	372.7	361.1
10°	389.4	390.1	389.7	389.7	388.7	388.0	387.3	381.9	377.0	369.2	356.8
12.5°	383.4	384.1	385.8	388.7	389.7	390.1	390.1	384.8	378.8	370.3	357.5
15°	379.5	380.9	385.8	391.5	394.7	395.7	396.8	391.1	384.1	374.9	361.4
17.5°	378.4	380.5	390.1	398.9	404.9	405.7	405.7	398.6	391.1	380.5	366.0
20°	381.9	384.8	397.2	409.6	417.0	417.7	416.3	407.1	398.2	386.5	369.9
22.5°	392.6	395.0	409.2	423.7	430.8	431.5	428.3	415.6	406.0	396.5	375.2
25°	411.0	412.4	427.6	441.4	445.3	446.4	441.1	425.8	414.9	406.0	382.6
27.5°	435.4	436.1	449.9	460.2	460.9	460.5	454.9	438.9	428.0	420.5	394.0
30°	460.9	461.9	473.3	480.0	477.2	475.7	470.8	453.8	443.9	438.2	410.3
32.5°	484.6	485.7	498.0	501.6	495.2	494.2	490.6	472.6	464.1	466.9	433.6
35°	508.0	508.0	522.1	523.9	518.2	518.2	518.2	496.6	495.2	504.8	466.2
37.5°	528.8	532.4	547.2	546.5	545.5	546.2	548.3	532.0	537.0	553.3	509.0
40°	546.5	551.1	571.0	572.7	577.3	581.2	584.4	575.9	587.6	614.1	563.9
42.5°	562.5	567.8	593.3	601.4	614.1	619.5	625.5	623.4	649.2	697.7	634.0
45°	583.0	588.7	614.9	634.3	652.0	659.1	672.6	681.8	724.6	779.8	709.7
47.5°	610.3	614.1	638.2	669.0	693.1	705.8	726.7	750.4	802.5	866.9	777.3
50°	647.4	647.8	665.8	705.8	741.6	755.4	791.5	822.3	887.4	943.7	826.2
52.5°	688.5	686.4	700.5	751.1	796.4	815.2	857.7	900.5	966.0	999.3	848.1
55°	727.4	728.5	737.3	799.3	865.5	883.5	937.3	980.9	1037.9	1033.3	860.2
57.5°	772.4	772.0	783.4	852.0	946.2	967.1	1023.3	1059.1	1081.4	1057.7	862.3
60°	814.9	813.8	831.1	915.0	1032.2	1063.0	1113.6	1112.2	1124.9	1073.3	860.5
62.5°	852.7	855.2	885.6	988.3	1128.5	1161.8	1187.2	1169.5	1173.1	1091.3	838.6
65°	898.7	903.3	952.6	1077.2	1247.4	1263.3	1273.3	1244.6	1209.2	1076.8	772.0
67.5°	956.8	970.6	1040.0	1208.1	1371.3	1382.3	1382.6	1289.9	1207.8	1003.5	649.2
70°	979.8	994.3	1104.8	1311.8	1475.7	1489.5	1446.3	1282.8	1112.5	785.8	438.2
71°	963.9	977.0	1103.0	1321.7	1497.3	1508.3	1440.7	1236.4	1008.8	647.4	339.5
72.5°	848.8	882.8	1035.0	1259.4	1458.7	1459.1	1349.0	1127.1	802.5	404.2	170.6
75°	458.4	499.5	758.6	958.6	1125.3	1134.1	1037.9	782.6	388.3	104.8	41.4
77.5°	151.1	170.3	340.2	497.7	705.8	719.6	634.7	347.6	122.5	35.4	21.6
80°	94.9	97.0	115.0	209.2	314.0	325.7	261.2	140.9	55.2	19.5	14.9
82.5°	15.9	19.1	54.2	61.6	110.8	87.8	59.5	71.9	25.8	8.8	12.7
85°	0.0	0.0	0.4	0.4	1.8	0.4	0.4	14.5	1.4	1.4	6.7
87.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	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°	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6	376.6
2.5°	372.4	369.6	363.9	357.9	350.4	344.1	341.9	337.3	335.2	333.4	333.4
5°	362.1	357.2	345.1	332.7	320.7	308.0	296.3	285.3	280.0	272.6	276.1
7.5°	353.6	345.1	328.1	308.7	283.9	258.8	239.3	222.3	208.1	203.5	200.4
10°	347.6	337.0	312.2	282.5	246.4	210.6	180.5	152.6	136.3	126.4	126.4
12.5°	346.9	333.4	301.2	255.6	203.5	155.0	117.9	91.3	78.2	72.2	71.9
15°	349.4	333.1	291.3	231.1	164.2	107.6	73.6	61.9	58.8	58.1	58.1
17.5°	351.5	332.7	279.6	203.5	121.1	70.8	58.4	56.3	55.6	55.2	55.2
20°	353.6	331.0	266.2	172.4	85.7	57.7	54.5	53.5	53.1	52.7	52.7
22.5°	356.5	329.2	252.4	137.0	63.4	53.8	52.0	51.0	50.6	50.6	50.6
25°	360.3	328.1	235.4	103.7	54.5	51.0	49.2	48.5	48.5	48.1	48.1
27.5°	367.8	329.2	217.0	74.3	51.0	48.1	47.1	46.4	46.4	46.0	46.0
30°	378.0	332.4	194.0	58.1	48.1	45.3	44.2	43.9	43.5	43.5	43.5
32.5°	392.6	337.3	168.8	49.6	44.6	42.5	41.4	41.1	41.1	41.1	40.7
35°	414.9	347.6	138.1	45.3	41.4	39.3	38.2	38.2	38.2	37.9	38.2
37.5°	448.8	364.2	106.9	41.8	37.9	36.1	35.4	35.0	35.0	35.0	35.0
40°	491.7	391.1	77.9	38.6	34.7	32.9	32.2	31.9	31.5	31.5	31.5
42.5°	546.9	420.9	56.6	35.0	31.9	30.1	29.4	28.7	28.0	27.6	27.6
45°	604.2	456.3	44.2	32.2	29.0	27.6	26.9	25.8	24.8	23.7	23.7
47.5°	659.8	483.5	37.9	29.0	26.5	25.1	24.4	23.0	21.2	20.2	20.2
50°	694.9	492.0	34.0	26.2	24.1	23.0	21.9	20.2	17.7	16.6	16.6
52.5°	705.8	476.5	30.4	23.7	21.9	20.9	19.5	17.0	14.5	13.1	13.1
55°	710.1	446.4	26.9	21.9	19.8	18.4	16.6	14.2	11.7	10.3	10.3
57.5°	704.8	403.9	24.1	19.8	17.7	16.3	14.2	11.3	8.8	7.8	7.8
60°	686.7	342.3	21.6	17.7	15.6	13.8	11.7	8.8	6.7	5.3	5.7
62.5°	637.9	264.8	18.8	14.9	13.5	11.7	9.2	6.7	4.2	3.5	3.5
65°	560.0	183.4	15.9	12.4	11.3	9.6	7.1	4.6	2.5	2.1	2.1
67.5°	454.9	118.6	12.4	10.3	9.6	7.8	5.3	2.8	1.4	1.4	1.1
70°	285.7	58.8	9.9	7.8	7.8	6.0	3.9	1.8	1.1	1.1	1.1
71°	202.1	40.0	8.8	7.1	7.1	5.7	3.5	1.4	1.1	1.1	1.1
72.5°	91.3	25.1	7.4	6.4	6.0	4.6	3.2	1.4	1.4	1.4	1.4
75°	28.7	13.8	5.3	5.0	5.0	3.9	2.8	1.8	1.8	1.8	1.8
77.5°	19.1	10.6	3.5	3.2	3.9	3.9	2.8	2.1	2.1	2.1	2.1
80°	15.6	5.7	2.1	2.1	2.8	3.5	2.8	2.1	2.5	2.1	2.1
82.5°	15.2	2.8	0.7	1.1	1.8	2.1	2.1	1.8	2.1	2.1	2.1
85°	6.4	0.7	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.7	1.1	1.4	1.4
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)