

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: P401103

Luminaire Tested: **ENT-SA1B-730-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-730-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2211 lumens
Efficiency: N/A
Efficacy: 87.0 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

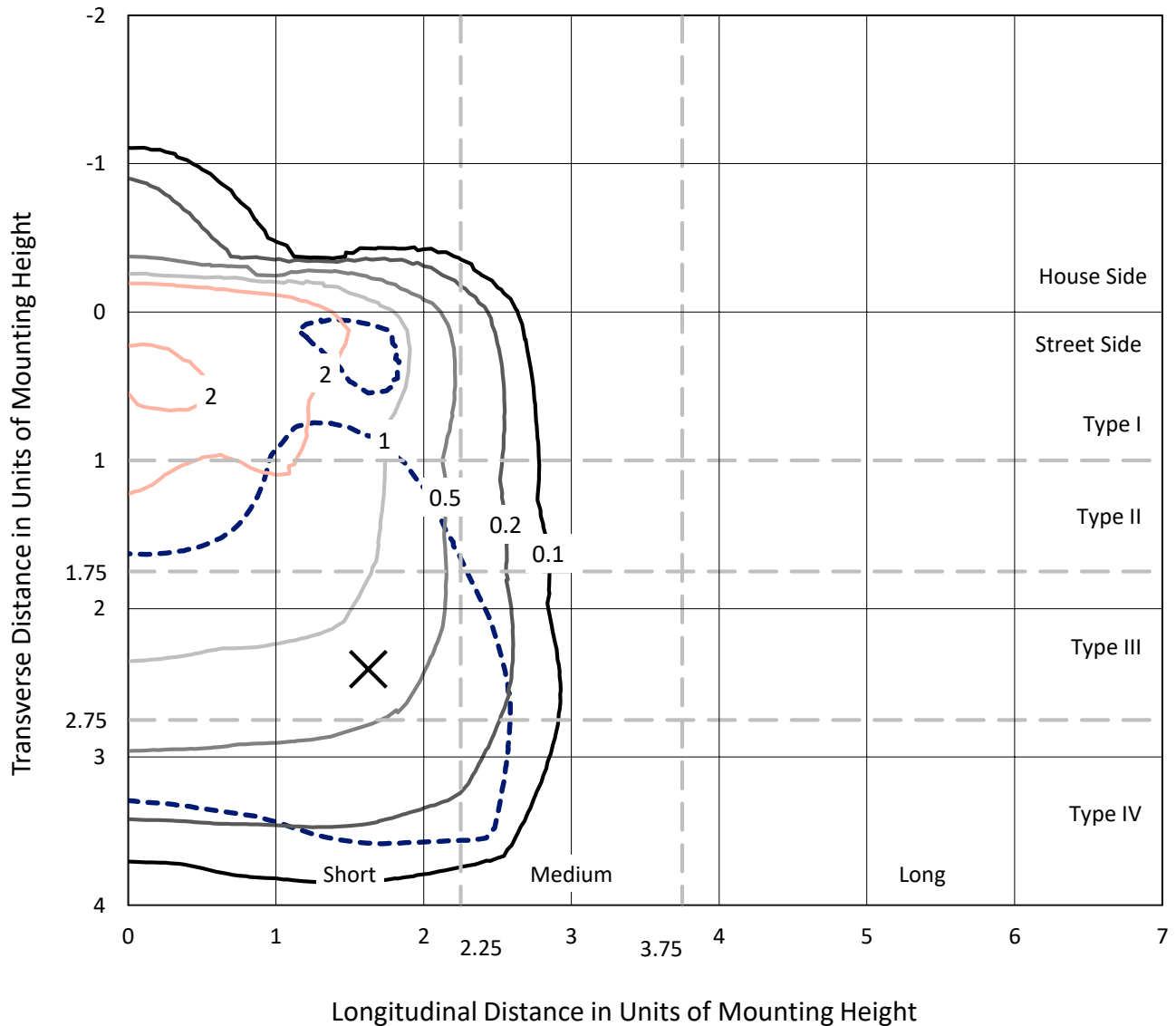
Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

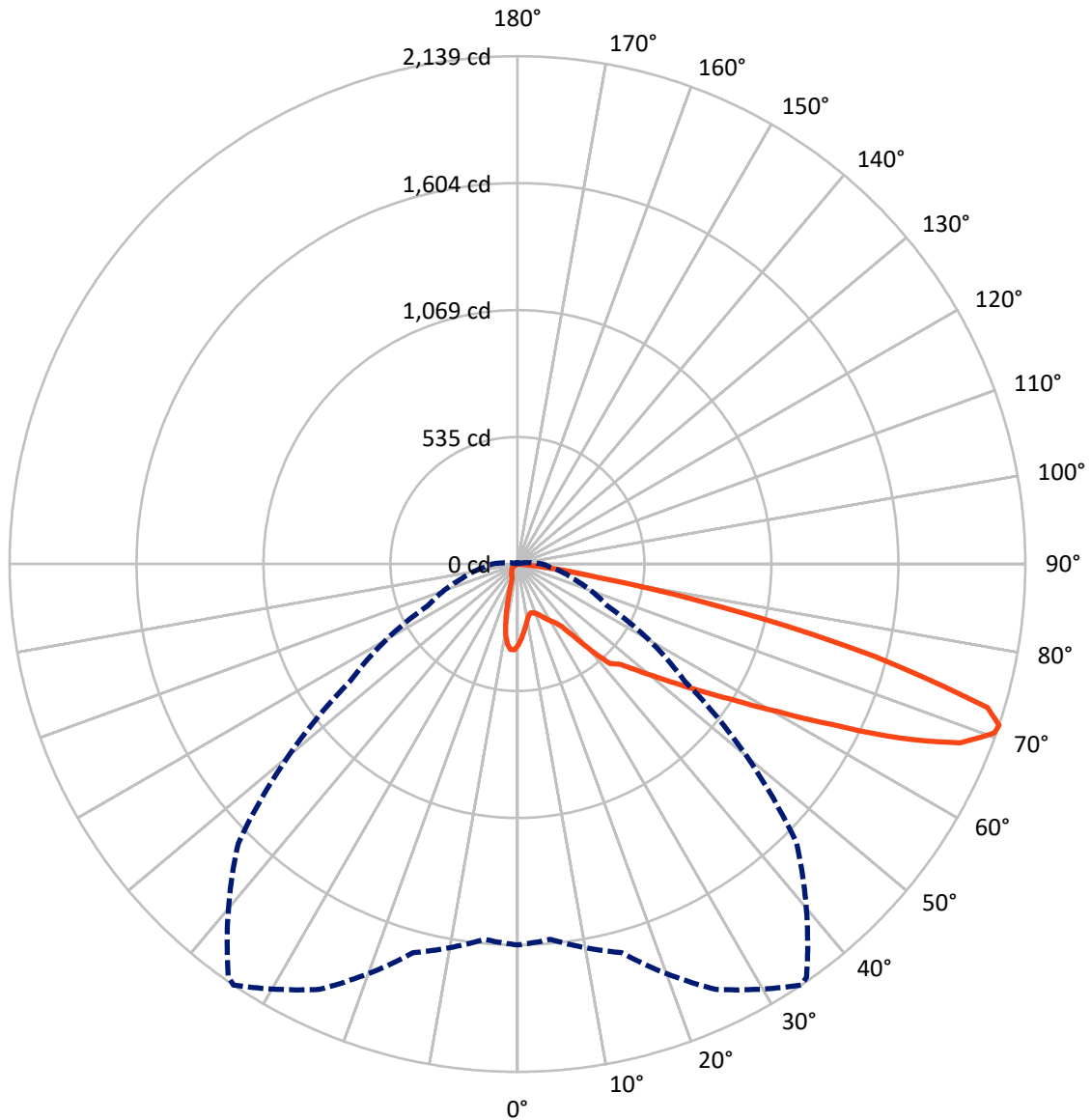
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	244.5	0.0	244.5
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	1966.5	0.0	1966.5
	% Fixture	88.9	0.0	88.9
Total	Lumens	2211.0	0.0	2211.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	1.4
10°-20°	69.2	3.1
20°-30°	103.3	4.7
30°-40°	172.5	7.8
40°-50°	311.6	14.1
50°-60°	494.4	22.4
60°-70°	664.3	30.0
70°-80°	352.5	15.9
80°-90°	13.0	0.6
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°	2211.0	100.0
0°-180°	2211.0	100.0



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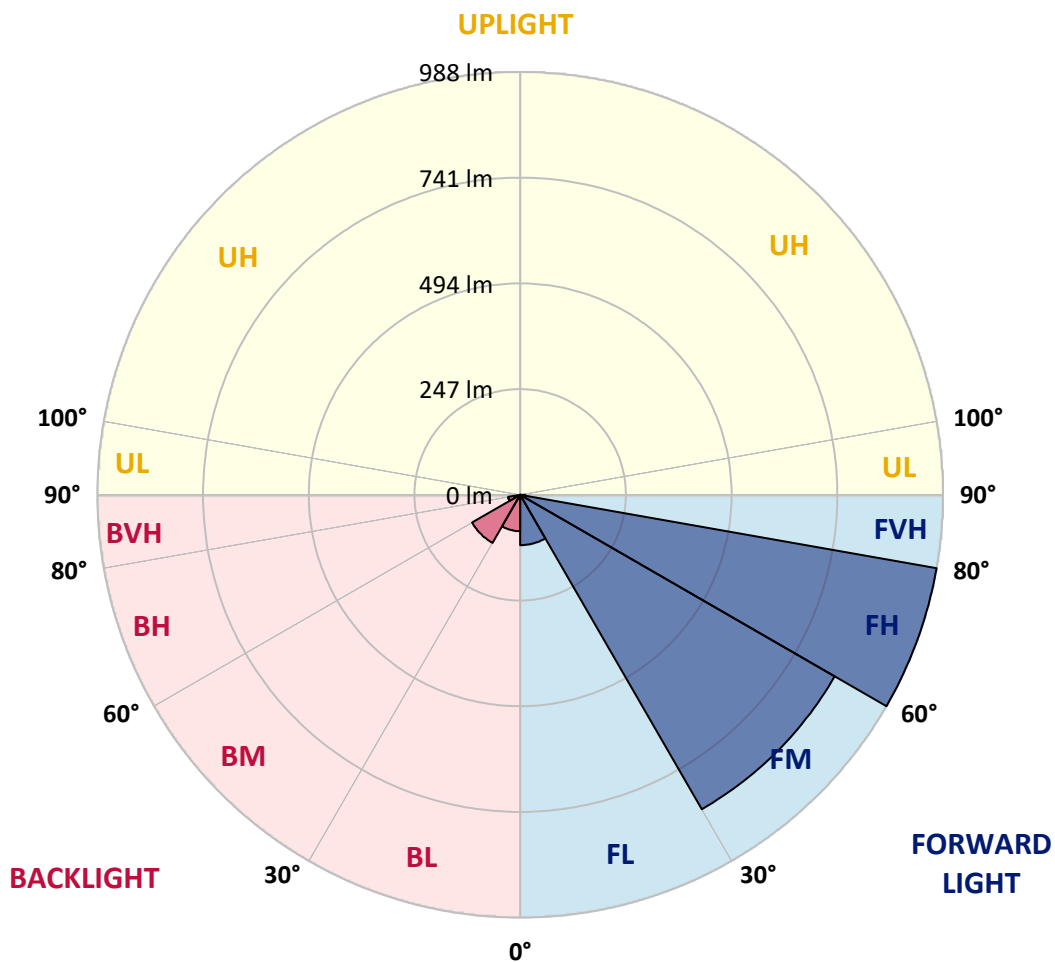
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	117.7	5.3			
FM	(30°-60°)	848.7	38.4			
FH	(60°-80°)	988.3	44.7			G1/1800
FVH	(80°-90°)	11.8	0.5			G1/100
BL	(0°-30°)	85.0	3.8	B0/110		
BM	(30°-60°)	129.7	5.9	B0/220		
BH	(60°-80°)	28.5	1.3	B0/110		G0/110
BVH	(80°-90°)	1.2	0.1			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°	34°	35°	45°	55°	65°	75°	85°
0°	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6
2.5°	312.0	308.0	311.5	313.3	314.6	316.4	319.1	323.9	329.3	335.5	339.0
5°	272.0	274.2	275.6	280.5	285.3	286.2	294.7	304.4	316.8	329.3	339.9
7.5°	239.6	239.6	243.6	251.2	259.2	260.0	274.7	287.6	305.3	324.4	341.7
10°	213.9	214.8	217.9	225.4	235.6	237.9	254.3	272.0	294.2	319.1	343.5
12.5°	205.5	205.0	204.6	209.9	218.3	220.5	238.7	260.0	286.2	316.4	347.9
15°	210.8	209.5	206.3	207.2	212.6	214.8	230.8	252.1	281.3	316.0	355.5
17.5°	219.2	217.4	211.7	209.9	215.7	217.9	231.2	249.8	279.6	318.2	364.3
20°	229.4	227.6	218.8	216.6	222.3	224.1	237.9	253.8	280.5	322.6	376.3
22.5°	244.1	241.8	229.0	226.3	232.1	233.9	248.5	263.1	285.8	330.6	392.7
25°	261.8	259.2	242.7	239.2	246.3	248.1	262.7	276.5	294.7	341.3	413.6
27.5°	281.3	278.2	260.9	253.8	261.8	264.5	278.2	293.3	307.5	354.6	441.1
30°	299.1	295.5	278.7	270.7	278.7	280.0	296.4	313.3	328.4	377.2	481.5
32.5°	348.4	339.5	313.3	290.2	295.5	298.2	318.2	344.8	367.4	404.3	533.4
35°	422.0	414.9	383.0	343.0	324.4	325.3	351.0	384.7	394.9	435.8	597.7
37.5°	493.0	486.8	458.8	422.0	386.5	387.8	392.3	424.7	436.7	490.4	676.3
40°	570.7	560.9	538.7	503.7	479.3	473.5	451.7	474.4	500.6	559.1	761.9
42.5°	606.6	597.3	574.2	576.4	573.8	563.6	520.5	552.0	581.3	659.0	856.5
45°	666.1	647.9	600.4	604.0	600.4	601.3	611.9	657.7	682.9	764.6	963.4
47.5°	721.1	700.3	650.6	647.0	662.5	670.5	727.8	783.2	785.5	856.5	1047.3
50°	771.3	756.2	710.5	710.9	739.3	748.2	862.7	913.3	868.4	927.0	1112.9
52.5°	837.8	816.5	775.7	790.3	834.7	842.7	997.1	1027.3	928.3	990.9	1164.4
55°	899.5	888.0	857.8	879.5	947.4	968.3	1133.8	1115.2	970.5	1047.7	1189.3
57.5°	1000.7	989.6	981.6	992.7	1083.7	1109.8	1272.3	1177.3	1003.3	1085.4	1177.7
60°	1169.3	1158.2	1134.3	1144.5	1262.9	1276.3	1381.0	1240.3	1016.2	1096.1	1132.5
62.5°	1377.4	1363.7	1325.1	1372.1	1491.0	1490.6	1493.7	1273.6	999.8	1064.6	1013.1
65°	1565.1	1546.1	1526.1	1621.9	1766.6	1746.6	1613.5	1277.6	947.9	912.4	783.7
67.5°	1701.8	1694.3	1705.4	1854.9	2010.7	1990.7	1729.8	1222.6	789.0	658.5	484.1
70°	1696.5	1681.0	1751.5	1990.3	2131.8	2115.4	1724.9	1004.7	526.3	348.8	202.8
71°	1604.6	1586.9	1694.3	1977.0	2138.9	2123.4	1662.8	859.6	416.2	246.3	133.6
72.5°	1239.9	1293.6	1464.4	1834.5	2070.6	2050.6	1493.7	658.1	263.6	142.4	67.0
75°	524.5	553.8	869.3	1309.5	1553.2	1543.0	1006.9	304.0	121.1	64.3	25.7
77.5°	134.9	133.1	266.3	561.8	904.4	920.4	464.2	104.3	63.0	45.7	14.6
80°	26.2	28.4	75.9	195.3	345.2	354.6	151.3	45.7	42.2	35.9	7.5
82.5°	2.7	3.1	13.3	60.4	115.8	111.8	33.3	17.3	25.7	24.4	3.6
85°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	1.8	6.2	6.7	0.9
87.5°	0.0	0.0	0.4	0.4	0.0	0.0	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°	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6	342.6
2.5°	341.7	345.7	350.1	353.2	356.3	356.8	361.2	360.3	361.7	362.1	361.7
5°	345.7	351.0	359.4	363.9	365.7	362.6	361.7	356.8	355.0	352.8	350.6
7.5°	350.1	356.8	366.5	368.8	362.6	351.0	341.7	329.7	318.6	311.5	312.4
10°	355.0	363.4	371.4	365.7	349.7	327.1	300.9	274.2	250.7	241.8	245.0
12.5°	361.2	371.4	375.0	359.0	327.9	282.2	234.7	194.4	170.0	155.3	153.5
15°	370.5	380.7	376.8	348.4	293.3	221.9	162.9	122.0	98.5	91.0	87.0
17.5°	382.1	391.8	376.8	329.3	244.1	158.9	99.0	74.1	66.6	64.8	65.2
20°	396.3	405.6	375.0	300.4	188.2	97.6	66.1	61.2	61.2	61.2	60.8
22.5°	415.4	420.2	372.3	262.3	129.6	66.1	58.6	58.1	58.6	58.6	58.6
25°	438.4	437.5	367.4	216.6	81.7	56.4	55.9	55.9	56.4	56.8	56.8
27.5°	469.1	459.7	359.0	162.0	57.7	52.4	53.3	54.1	55.0	55.9	55.9
30°	511.7	489.0	345.2	109.6	48.8	48.4	50.1	52.8	54.1	55.0	55.0
32.5°	557.4	519.2	321.7	70.1	44.8	44.4	46.2	50.1	53.7	54.6	54.6
35°	615.1	551.6	286.7	50.6	42.2	41.3	43.0	46.6	51.9	54.6	54.6
37.5°	675.8	586.2	235.6	42.6	39.5	38.6	39.9	42.6	48.8	53.7	54.1
40°	740.6	616.8	177.1	39.5	36.8	36.4	36.8	39.5	44.4	51.0	52.4
42.5°	805.9	642.6	123.8	36.4	34.6	33.7	34.6	36.4	40.8	46.6	47.5
45°	877.8	671.0	82.5	33.7	32.8	32.0	32.8	34.2	37.3	40.4	40.8
47.5°	930.1	681.2	56.8	30.6	30.2	30.6	31.1	32.0	33.7	34.2	33.7
50°	964.7	675.8	40.8	27.5	28.0	29.3	29.3	29.7	29.7	28.4	28.0
52.5°	990.0	656.3	31.5	23.5	26.2	27.5	27.5	26.6	25.7	24.0	23.5
55°	992.7	612.4	24.9	20.4	23.5	25.7	25.3	23.5	21.7	20.0	20.0
57.5°	959.0	545.8	20.4	17.3	20.4	22.6	21.7	20.0	17.8	16.4	16.4
60°	904.4	477.5	17.3	14.6	16.9	19.1	17.8	16.4	14.2	12.9	12.9
62.5°	803.6	410.0	14.2	12.0	13.8	15.1	14.6	13.3	11.1	10.2	9.8
65°	615.9	312.0	10.7	9.3	10.7	12.4	11.5	10.2	8.9	7.5	7.1
67.5°	370.1	187.7	8.4	7.1	8.4	9.8	8.9	7.5	6.2	5.3	5.3
70°	156.6	80.3	6.7	5.3	6.2	7.5	7.1	6.2	4.9	4.4	4.4
71°	106.5	57.2	5.8	4.9	5.8	7.1	6.7	5.8	4.9	4.4	4.4
72.5°	54.6	29.3	4.9	4.0	5.3	6.2	6.2	5.3	4.4	4.4	4.4
75°	19.5	12.4	4.0	3.6	4.4	4.4	4.9	4.9	4.9	4.9	4.4
77.5°	11.1	7.5	3.6	3.6	3.6	4.0	4.9	5.3	5.8	5.8	5.3
80°	6.2	4.0	2.2	2.7	3.6	4.0	4.9	5.3	6.2	6.2	5.8
82.5°	3.1	1.3	0.4	1.3	2.2	3.6	4.0	4.4	5.3	4.9	4.9
85°	0.4	0.0	0.0	0.4	1.3	1.8	2.7	3.6	4.4	4.4	4.0
87.5°	0.0	0.0	0.0	0.0	0.4	0.9	1.3	2.2	3.1	3.6	3.1
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)