

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: P400985

Luminaire Tested: **ENV-SA1A-750-U-SL4-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400985  
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: ENV-SA1A-750-U-SL4-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5000K, 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: 2243 lumens  
Efficiency: N/A  
Efficacy: 111.6 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

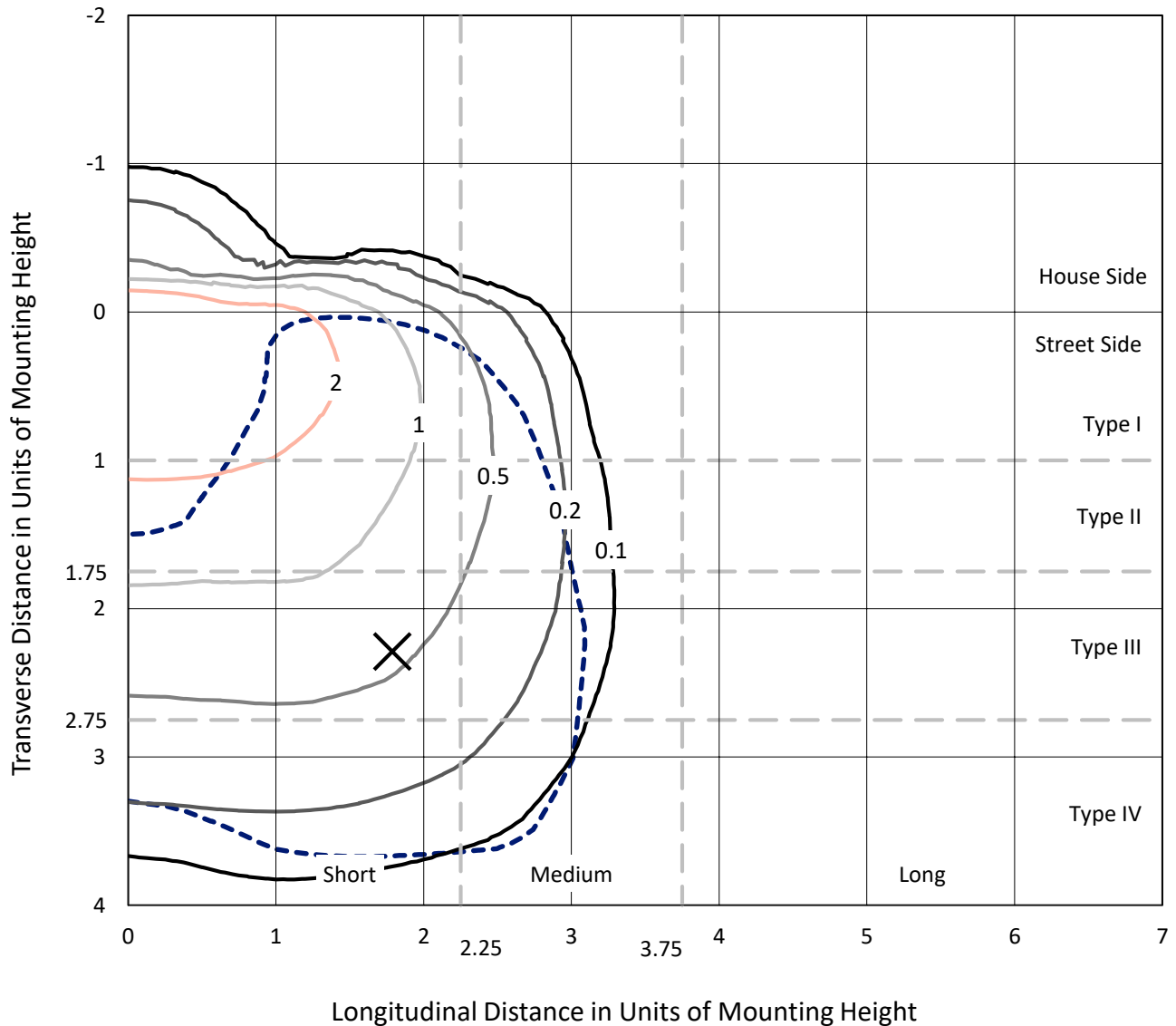


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### Iso-Footcandle Lines of Horizontal Illumination

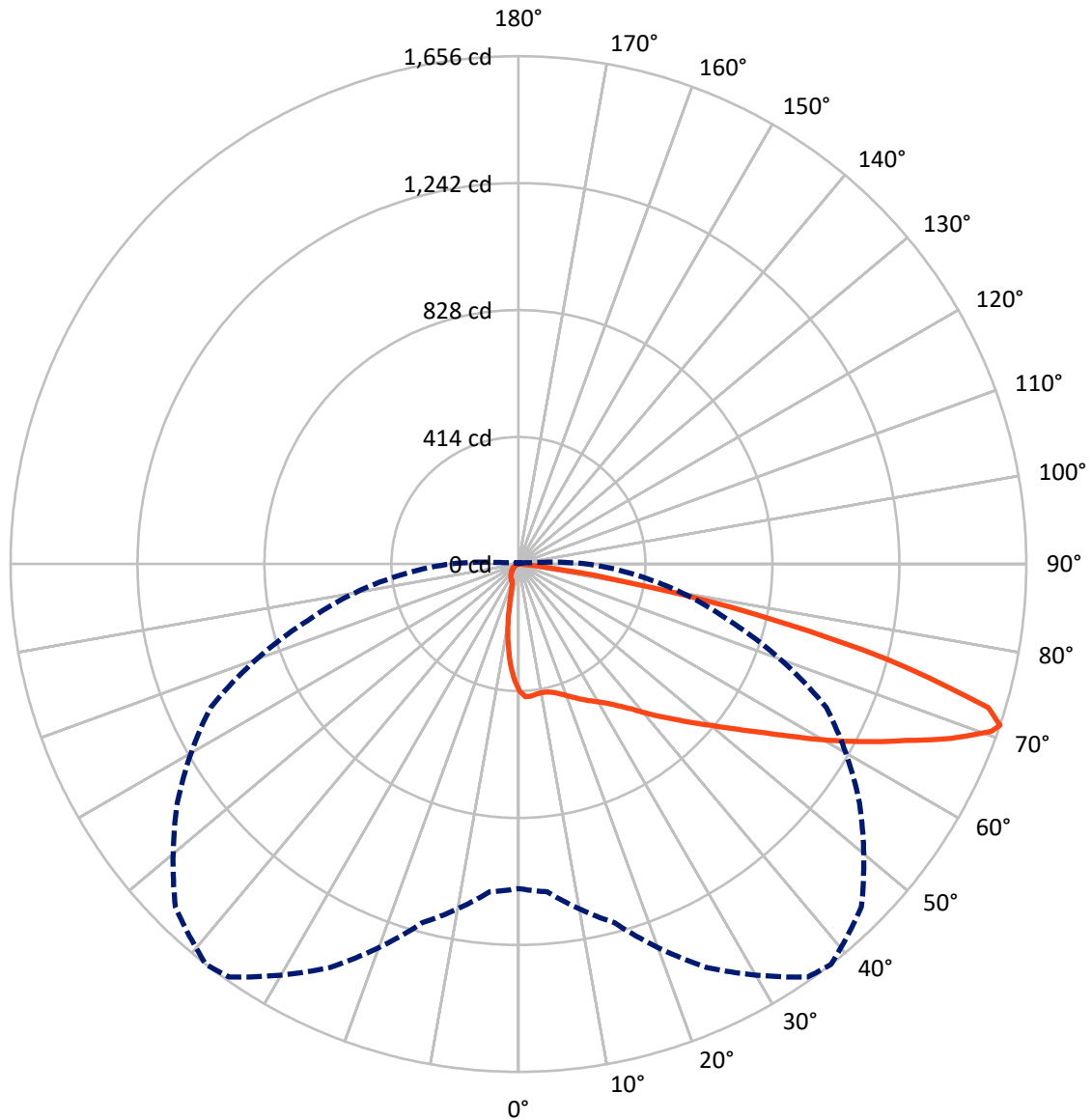
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.3 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
<b>House Side</b>	Lumens	191.6	0.0	191.6
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	2051.4	0.0	2051.4
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	2243.0	0.0	2243.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.9	1.6
10°-20°	84.6	3.8
20°-30°	135.6	6.0
30°-40°	206.3	9.2
40°-50°	321.5	14.3
50°-60°	470.1	21.0
60°-70°	603.0	26.9
70°-80°	368.6	16.4
80°-90°	18.5	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°	2243.0	100.0
0°-180°	2243.0	100.0



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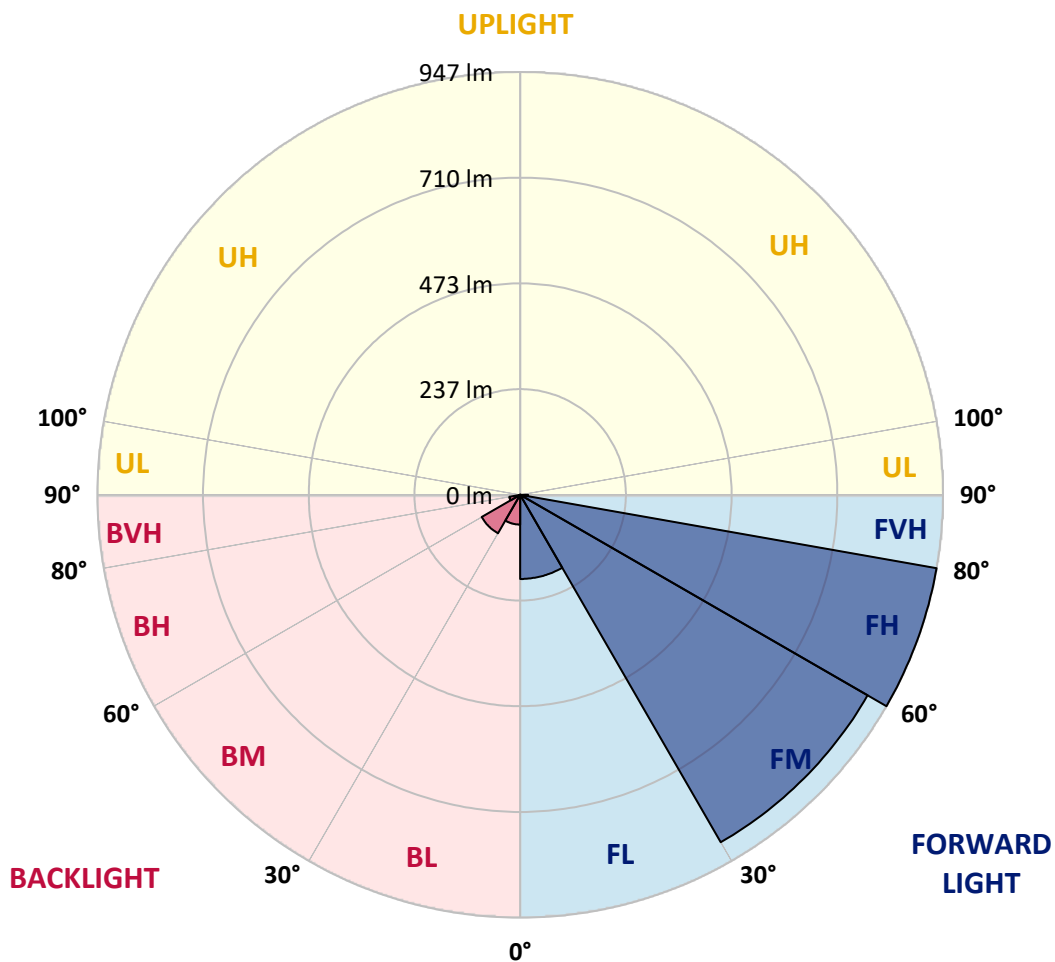
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	188.5	8.4			
FM	(30°-60°)	898.4	40.1			
FH	(60°-80°)	946.9	42.2			G1/1800
FVH	(80°-90°)	17.7	0.8			G1/100
BL	(0°-30°)	66.6	3.0	B0/110		
BM	(30°-60°)	99.5	4.4	B0/220		
BH	(60°-80°)	24.6	1.1	B0/110		G0/110
BVH	(80°-90°)	0.8	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°	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5
2.5°	438.0	436.8	438.0	436.8	434.5	433.3	431.8	427.5	423.6	418.9	411.9
5°	438.8	438.0	438.0	436.4	433.7	432.5	431.0	426.7	421.7	414.7	404.2
7.5°	434.5	434.1	433.3	431.8	428.7	427.9	426.7	421.7	416.6	409.2	396.4
10°	427.5	428.3	427.9	427.9	426.7	425.9	425.2	419.3	413.9	405.3	391.7
12.5°	420.9	421.7	423.6	426.7	427.9	428.3	428.3	422.4	415.8	406.5	392.5
15°	416.6	418.2	423.6	429.8	433.3	434.5	435.7	429.4	421.7	411.6	396.8
17.5°	415.4	417.8	428.3	438.0	444.6	445.4	445.4	437.6	429.4	417.8	401.8
20°	419.3	422.4	436.0	449.6	457.8	458.6	457.0	446.9	437.2	424.4	406.1
22.5°	431.0	433.7	449.3	465.2	473.0	473.7	470.2	456.3	445.8	435.3	411.9
25°	451.2	452.8	469.5	484.6	488.9	490.1	484.2	467.5	455.5	445.8	420.1
27.5°	478.0	478.8	493.9	505.2	506.0	505.6	499.4	481.9	469.9	461.7	432.5
30°	506.0	507.2	519.6	527.0	523.9	522.3	516.9	498.2	487.3	481.1	450.4
32.5°	532.0	533.2	546.8	550.7	543.7	542.5	538.6	518.8	509.5	512.6	476.1
35°	557.7	557.7	573.2	575.2	569.0	569.0	569.0	545.2	543.7	554.2	511.8
37.5°	580.6	584.5	600.8	600.0	598.9	599.7	602.0	584.1	589.6	607.4	558.8
40°	600.0	605.1	626.9	628.8	633.9	638.1	641.6	632.3	645.1	674.3	619.1
42.5°	617.5	623.4	651.3	660.3	674.3	680.1	686.7	684.4	712.7	766.0	696.0
45°	640.1	646.3	675.0	696.4	715.9	723.6	738.4	748.5	795.5	856.2	779.2
47.5°	670.0	674.3	700.7	734.5	760.9	774.9	797.9	823.9	881.0	951.8	853.4
50°	710.8	711.2	731.0	774.9	814.2	829.3	869.0	902.8	974.3	1036.1	907.1
52.5°	755.9	753.6	769.1	824.7	874.4	895.0	941.6	988.7	1060.6	1097.1	931.2
55°	798.6	799.8	809.5	877.5	950.2	970.0	1029.1	1076.9	1139.5	1134.4	944.4
57.5°	848.0	847.6	860.0	935.4	1038.8	1061.7	1123.5	1162.8	1187.3	1161.2	946.7
60°	894.6	893.5	912.5	1004.6	1133.2	1167.1	1222.6	1221.1	1235.1	1178.3	944.8
62.5°	936.2	938.9	972.4	1085.1	1238.9	1275.5	1303.5	1284.0	1287.9	1198.1	920.7
65°	986.7	991.8	1045.8	1182.6	1369.5	1387.0	1397.9	1366.4	1327.6	1182.2	847.6
67.5°	1050.5	1065.6	1141.8	1326.4	1505.5	1517.6	1518.0	1416.2	1326.0	1101.8	712.7
70°	1075.7	1091.7	1212.9	1440.3	1620.2	1635.4	1587.9	1408.4	1221.5	862.8	481.1
71°	1058.2	1072.6	1211.0	1451.1	1643.9	1655.9	1581.7	1357.5	1107.6	710.8	372.7
72.5°	931.9	969.2	1136.4	1382.7	1601.5	1601.9	1481.1	1237.4	881.0	443.8	187.3
75°	503.3	548.4	832.8	1052.4	1235.5	1245.2	1139.5	859.3	426.3	115.0	45.5
77.5°	165.9	186.9	373.5	546.4	774.9	790.1	696.8	381.6	134.5	38.9	23.7
80°	104.2	106.5	126.3	229.7	344.7	357.5	286.8	154.7	60.6	21.4	16.3
82.5°	17.5	21.0	59.5	67.6	121.6	96.4	65.3	78.9	28.4	9.7	14.0
85°	0.0	0.0	0.4	0.4	1.9	0.4	0.4	15.9	1.6	1.6	7.4
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°	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5
2.5°	408.8	405.7	399.5	392.9	384.7	377.7	375.4	370.4	368.0	366.1	366.1
5°	397.6	392.1	378.9	365.3	352.1	338.1	325.3	313.2	307.4	299.2	303.1
7.5°	388.2	378.9	360.3	338.9	311.7	284.1	262.7	244.1	228.5	223.5	220.0
10°	381.6	370.0	342.8	310.1	270.5	231.2	198.2	167.5	149.6	138.7	138.7
12.5°	380.9	366.1	330.7	280.6	223.5	170.2	129.4	100.3	85.9	79.3	78.9
15°	383.6	365.7	319.8	253.8	180.3	118.1	80.8	68.0	64.5	63.7	63.7
17.5°	385.9	365.3	307.0	223.5	132.9	77.7	64.1	61.8	61.0	60.6	60.6
20°	388.2	363.4	292.2	189.3	94.0	63.3	59.8	58.7	58.3	57.9	57.9
22.5°	391.3	361.4	277.1	150.4	69.6	59.1	57.1	56.0	55.6	55.6	55.6
25°	395.6	360.3	258.4	113.9	59.8	56.0	54.0	53.2	53.2	52.9	52.9
27.5°	403.8	361.4	238.2	81.6	56.0	52.9	51.7	50.9	50.9	50.5	50.5
30°	415.1	364.9	213.0	63.7	52.9	49.7	48.6	48.2	47.8	47.8	47.8
32.5°	431.0	370.4	185.4	54.4	49.0	46.6	45.5	45.1	45.1	45.1	44.7
35°	455.5	381.6	151.6	49.7	45.5	43.1	42.0	42.0	42.0	41.6	42.0
37.5°	492.8	399.9	117.4	45.9	41.6	39.6	38.9	38.5	38.5	38.5	38.5
40°	539.8	429.4	85.5	42.4	38.1	36.1	35.4	35.0	34.6	34.6	34.6
42.5°	600.4	462.1	62.2	38.5	35.0	33.0	32.3	31.5	30.7	30.3	30.3
45°	663.4	500.9	48.6	35.4	31.9	30.3	29.5	28.4	27.2	26.0	26.0
47.5°	724.4	530.9	41.6	31.9	29.1	27.6	26.8	25.3	23.3	22.2	22.2
50°	762.9	540.2	37.3	28.8	26.4	25.3	24.1	22.2	19.4	18.3	18.3
52.5°	774.9	523.1	33.4	26.0	24.1	22.9	21.4	18.7	15.9	14.4	14.4
55°	779.6	490.1	29.5	24.1	21.8	20.2	18.3	15.5	12.8	11.3	11.3
57.5°	773.8	443.4	26.4	21.8	19.4	17.9	15.5	12.4	9.7	8.5	8.5
60°	753.9	375.8	23.7	19.4	17.1	15.2	12.8	9.7	7.4	5.8	6.2
62.5°	700.3	290.7	20.6	16.3	14.8	12.8	10.1	7.4	4.7	3.9	3.9
65°	614.8	201.3	17.5	13.6	12.4	10.5	7.8	5.1	2.7	2.3	2.3
67.5°	499.4	130.2	13.6	11.3	10.5	8.5	5.8	3.1	1.6	1.6	1.2
70°	313.6	64.5	10.9	8.5	8.5	6.6	4.3	1.9	1.2	1.2	1.2
71°	221.9	43.9	9.7	7.8	7.8	6.2	3.9	1.6	1.2	1.2	1.2
72.5°	100.3	27.6	8.2	7.0	6.6	5.1	3.5	1.6	1.6	1.6	1.6
75°	31.5	15.2	5.8	5.4	5.4	4.3	3.1	1.9	1.9	1.9	1.9
77.5°	21.0	11.7	3.9	3.5	4.3	4.3	3.1	2.3	2.3	2.3	2.3
80°	17.1	6.2	2.3	2.3	3.1	3.9	3.1	2.3	2.7	2.3	2.3
82.5°	16.7	3.1	0.8	1.2	1.9	2.3	2.3	1.9	2.3	2.3	2.3
85°	7.0	0.8	0.4	0.8	0.8	1.2	1.2	1.6	1.9	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.8	1.2	1.6	1.6
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)