

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: P401201

Luminaire Tested: **ENV-SA1B-827-U-SL4-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401201  
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-SA1B-827-U-SL4-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 450mA 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: 2068 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

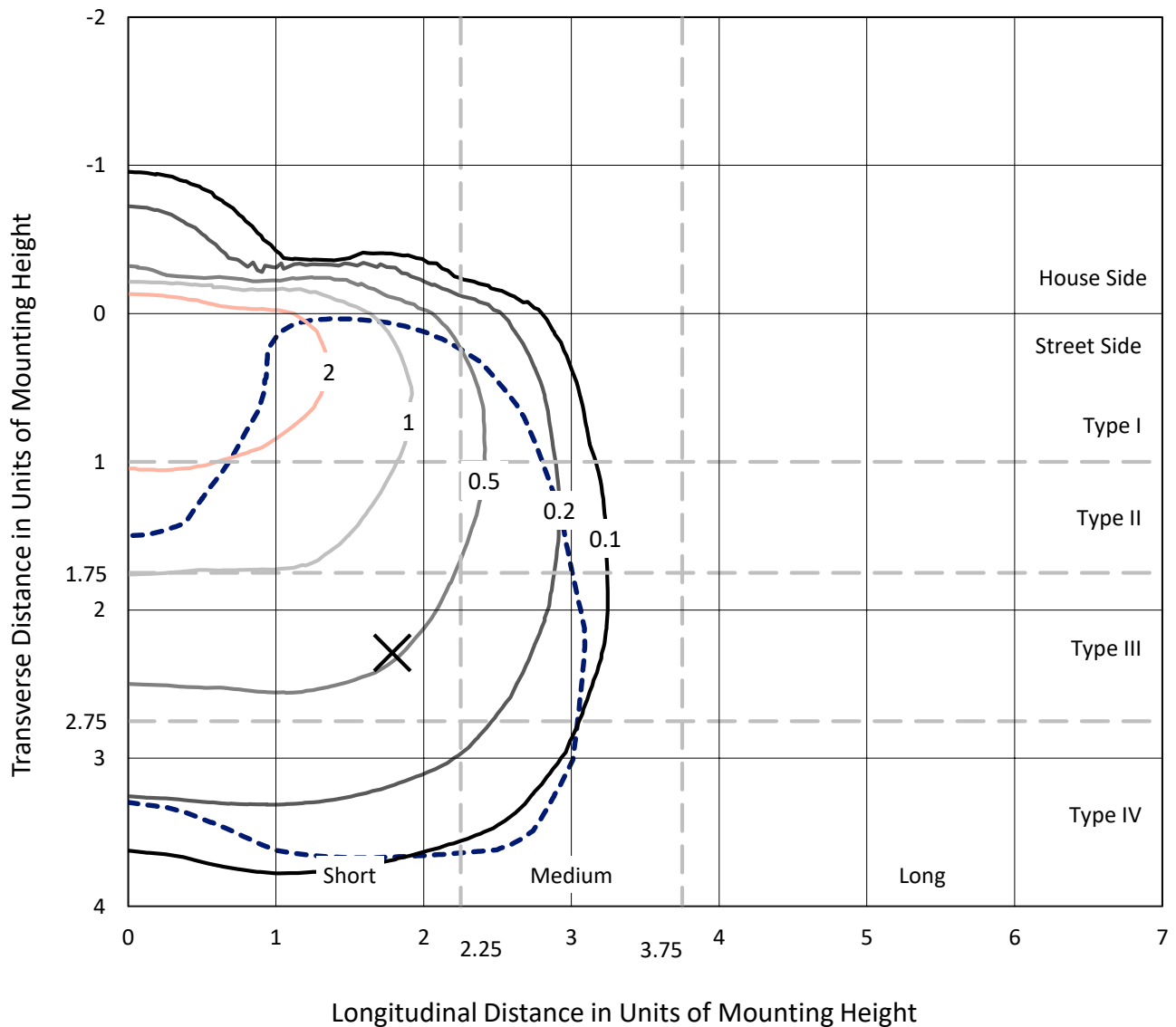


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

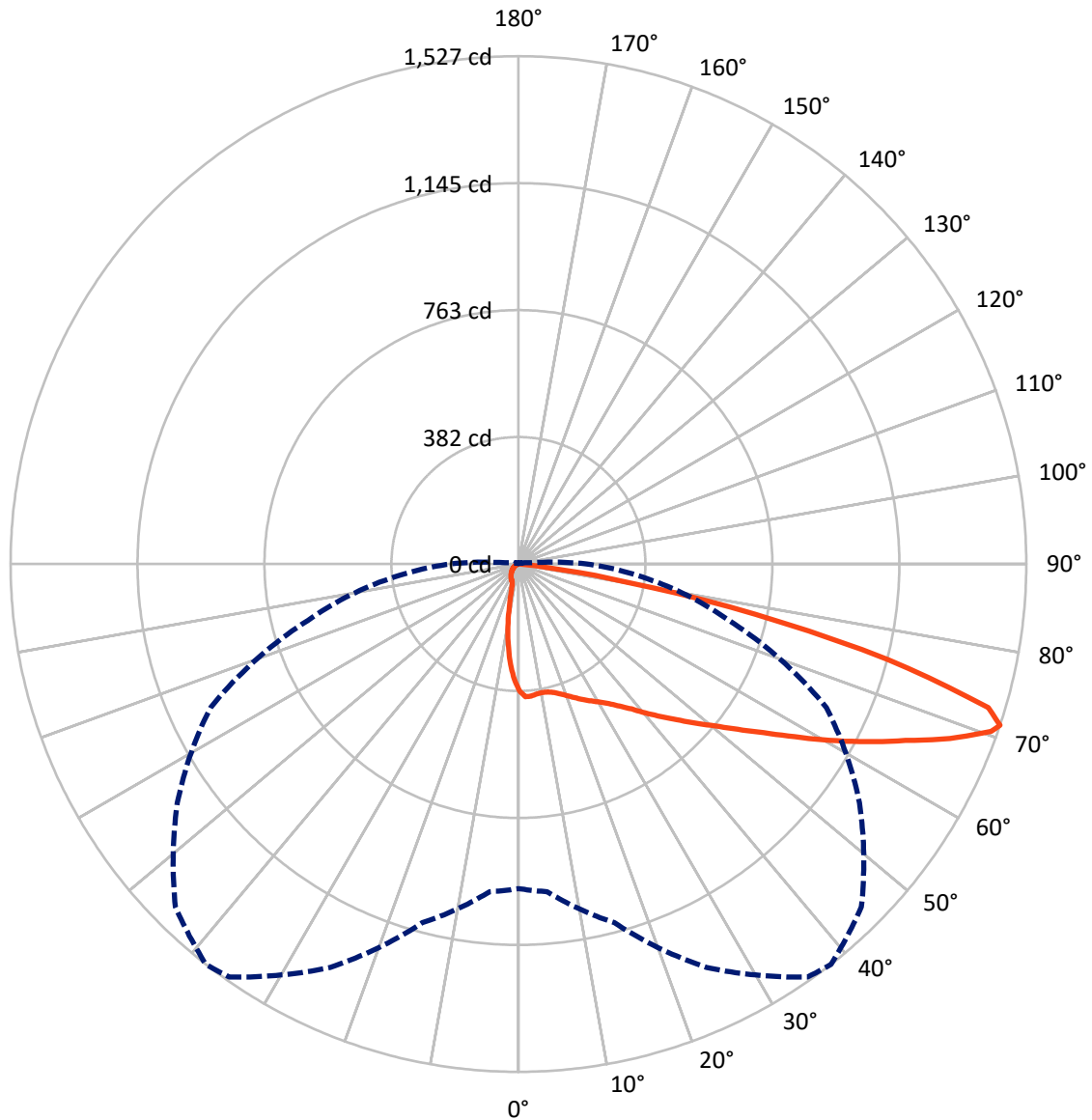


Based on 10 foot mounting height. Maximum calculated value = 3.9 fc  
 Type IV - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	176.6	0.0	176.6
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	1891.4	0.0	1891.4
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	2068.0	0.0	2068.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.2	1.6
10°-20°	78.0	3.8
20°-30°	125.0	6.0
30°-40°	190.2	9.2
40°-50°	296.4	14.3
50°-60°	433.4	21.0
60°-70°	555.9	26.9
70°-80°	339.8	16.4
80°-90°	17.1	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°	2068.0	100.0
0°-180°	2068.0	100.0



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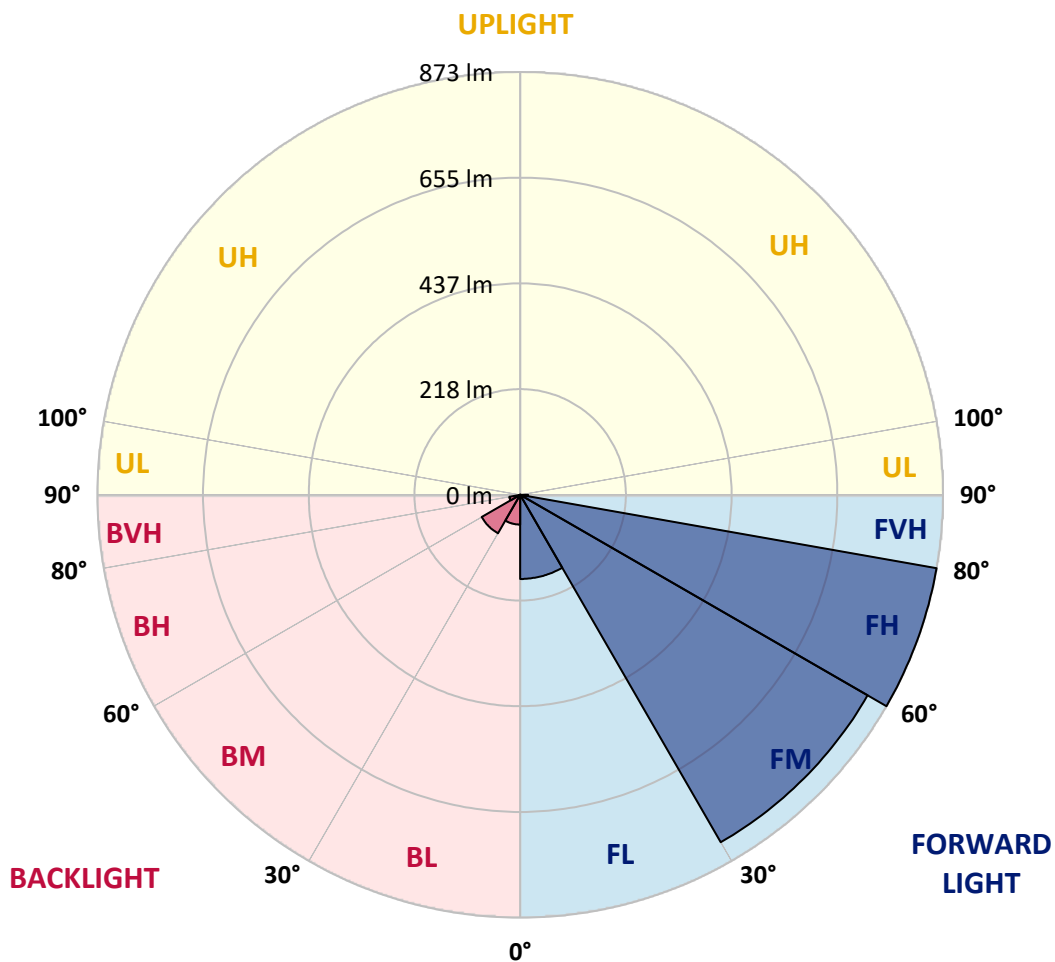
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	173.8	8.4			
FM (30°-60°)	828.3	40.1			
FH (60°-80°)	873.0	42.2			G1/1800
FVH (80°-90°)	16.3	0.8			G1/100
BL (0°-30°)	61.4	3.0	B0/110		
BM (30°-60°)	91.7	4.4	B0/220		
BH (60°-80°)	22.7	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°	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2
2.5°	403.8	402.7	403.8	402.7	400.6	399.5	398.1	394.1	390.6	386.3	379.8
5°	404.5	403.8	403.8	402.4	399.9	398.8	397.4	393.4	388.8	382.3	372.6
7.5°	400.6	400.2	399.5	398.1	395.2	394.5	393.4	388.8	384.1	377.3	365.5
10°	394.1	394.9	394.5	394.5	393.4	392.7	392.0	386.6	381.6	373.7	361.2
12.5°	388.0	388.8	390.6	393.4	394.5	394.9	394.9	389.5	383.4	374.8	361.9
15°	384.1	385.5	390.6	396.3	399.5	400.6	401.7	395.9	388.8	379.4	365.8
17.5°	383.0	385.2	394.9	403.8	409.9	410.6	410.6	403.5	395.9	385.2	370.5
20°	386.6	389.5	402.0	414.6	422.1	422.8	421.4	412.1	403.1	391.3	374.4
22.5°	397.4	399.9	414.2	428.9	436.1	436.8	433.6	420.7	411.0	401.3	379.8
25°	416.0	417.4	432.8	446.8	450.8	451.8	446.5	431.0	419.9	411.0	387.3
27.5°	440.7	441.4	455.4	465.8	466.5	466.2	460.4	444.3	433.2	425.7	398.8
30°	466.5	467.6	479.1	485.9	483.0	481.6	476.5	459.4	449.3	443.6	415.3
32.5°	490.5	491.6	504.1	507.7	501.3	500.2	496.6	478.3	469.7	472.6	438.9
35°	514.2	514.2	528.5	530.3	524.6	524.6	524.6	502.7	501.3	510.9	471.9
37.5°	535.3	538.9	553.9	553.2	552.2	552.9	555.0	538.5	543.6	560.0	515.2
40°	553.2	557.9	578.0	579.7	584.4	588.3	591.6	583.0	594.8	621.7	570.8
42.5°	569.4	574.7	600.5	608.8	621.7	627.0	633.1	631.0	657.1	706.2	641.7
45°	590.1	595.9	622.4	642.1	660.0	667.2	680.8	690.1	733.5	789.4	718.4
47.5°	617.7	621.7	646.0	677.2	701.6	714.5	735.6	759.6	812.3	877.5	786.8
50°	655.3	655.7	674.0	714.5	750.7	764.6	801.2	832.3	898.3	955.2	836.3
52.5°	696.9	694.8	709.1	760.3	806.2	825.2	868.2	911.5	977.8	1011.5	858.5
55°	736.3	737.4	746.4	809.1	876.1	894.3	948.8	992.9	1050.6	1045.9	870.7
57.5°	781.8	781.5	792.9	862.4	957.8	978.9	1035.9	1072.1	1094.6	1070.6	872.8
60°	824.8	823.8	841.3	926.2	1044.8	1076.0	1127.2	1125.8	1138.7	1086.4	871.0
62.5°	863.2	865.7	896.5	1000.4	1142.3	1176.0	1201.8	1183.9	1187.4	1104.7	848.8
65°	909.7	914.4	964.2	1090.3	1262.7	1278.8	1288.8	1259.8	1224.0	1090.0	781.5
67.5°	968.5	982.5	1052.7	1222.9	1388.1	1399.2	1399.6	1305.7	1222.5	1015.8	657.1
70°	991.8	1006.5	1118.3	1327.9	1493.8	1507.8	1464.0	1298.5	1126.2	795.4	443.6
71°	975.7	988.9	1116.5	1337.9	1515.6	1526.8	1458.3	1251.6	1021.2	655.3	343.6
72.5°	859.2	893.6	1047.7	1274.9	1476.6	1476.9	1365.5	1140.9	812.3	409.2	172.7
75°	464.0	505.6	767.9	970.3	1139.1	1148.0	1050.6	792.2	393.1	106.1	41.9
77.5°	153.0	172.3	344.3	503.8	714.5	728.4	642.4	351.9	124.0	35.8	21.9
80°	96.0	98.2	116.5	211.8	317.8	329.6	264.4	142.6	55.9	19.7	15.0
82.5°	16.1	19.3	54.8	62.3	112.2	88.9	60.2	72.7	26.2	9.0	12.9
85°	0.0	0.0	0.4	0.4	1.8	0.4	0.4	14.7	1.4	1.4	6.8
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°	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2	381.2
2.5°	376.9	374.1	368.3	362.2	354.7	348.3	346.1	341.5	339.3	337.5	337.5
5°	366.5	361.5	349.4	336.8	324.6	311.7	299.9	288.8	283.4	275.9	279.5
7.5°	357.9	349.4	332.2	312.4	287.4	261.9	242.2	225.0	210.7	206.0	202.8
10°	351.9	341.1	316.0	285.9	249.4	213.2	182.7	154.4	137.9	127.9	127.9
12.5°	351.1	337.5	304.9	258.7	206.0	156.9	119.3	92.4	79.2	73.1	72.7
15°	353.7	337.2	294.9	234.0	166.3	108.9	74.5	62.7	59.5	58.8	58.8
17.5°	355.8	336.8	283.1	206.0	122.5	71.7	59.1	57.0	56.3	55.9	55.9
20°	357.9	335.0	269.4	174.5	86.7	58.4	55.2	54.1	53.7	53.4	53.4
22.5°	360.8	333.2	255.5	138.7	64.1	54.5	52.7	51.6	51.2	51.2	51.2
25°	364.8	332.2	238.3	105.0	55.2	51.6	49.8	49.1	49.1	48.7	48.7
27.5°	372.3	333.2	219.6	75.2	51.6	48.7	47.7	46.9	46.9	46.6	46.6
30°	382.7	336.5	196.4	58.8	48.7	45.9	44.8	44.4	44.1	44.1	44.1
32.5°	397.4	341.5	170.9	50.2	45.1	43.0	41.9	41.6	41.6	41.6	41.2
35°	419.9	351.9	139.7	45.9	41.9	39.8	38.7	38.7	38.7	38.3	38.7
37.5°	454.3	368.7	108.2	42.3	38.3	36.5	35.8	35.5	35.5	35.5	35.5
40°	497.7	395.9	78.8	39.1	35.1	33.3	32.6	32.2	31.9	31.9	31.9
42.5°	553.6	426.0	57.3	35.5	32.2	30.5	29.7	29.0	28.3	27.9	27.9
45°	611.6	461.9	44.8	32.6	29.4	27.9	27.2	26.2	25.1	24.0	24.0
47.5°	667.9	489.4	38.3	29.4	26.9	25.4	24.7	23.3	21.5	20.4	20.4
50°	703.4	498.0	34.4	26.5	24.4	23.3	22.2	20.4	17.9	16.8	16.8
52.5°	714.5	482.3	30.8	24.0	22.2	21.1	19.7	17.2	14.7	13.3	13.3
55°	718.8	451.8	27.2	22.2	20.1	18.6	16.8	14.3	11.8	10.4	10.4
57.5°	713.4	408.8	24.4	20.1	17.9	16.5	14.3	11.5	9.0	7.9	7.9
60°	695.1	346.5	21.9	17.9	15.8	14.0	11.8	9.0	6.8	5.4	5.7
62.5°	645.7	268.0	19.0	15.0	13.6	11.8	9.3	6.8	4.3	3.6	3.6
65°	566.8	185.6	16.1	12.5	11.5	9.7	7.2	4.7	2.5	2.1	2.1
67.5°	460.4	120.0	12.5	10.4	9.7	7.9	5.4	2.9	1.4	1.4	1.1
70°	289.2	59.5	10.0	7.9	7.9	6.1	3.9	1.8	1.1	1.1	1.1
71°	204.6	40.5	9.0	7.2	7.2	5.7	3.6	1.4	1.1	1.1	1.1
72.5°	92.4	25.4	7.5	6.4	6.1	4.7	3.2	1.4	1.4	1.4	1.4
75°	29.0	14.0	5.4	5.0	5.0	3.9	2.9	1.8	1.8	1.8	1.8
77.5°	19.3	10.7	3.6	3.2	3.9	3.9	2.9	2.1	2.1	2.1	2.1
80°	15.8	5.7	2.1	2.1	2.9	3.6	2.9	2.1	2.5	2.1	2.1
82.5°	15.4	2.9	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)