

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: P401225

Luminaire Tested: **ENV-SA1B-830-U-T2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401225  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1B-830-U-T2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2061 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - 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

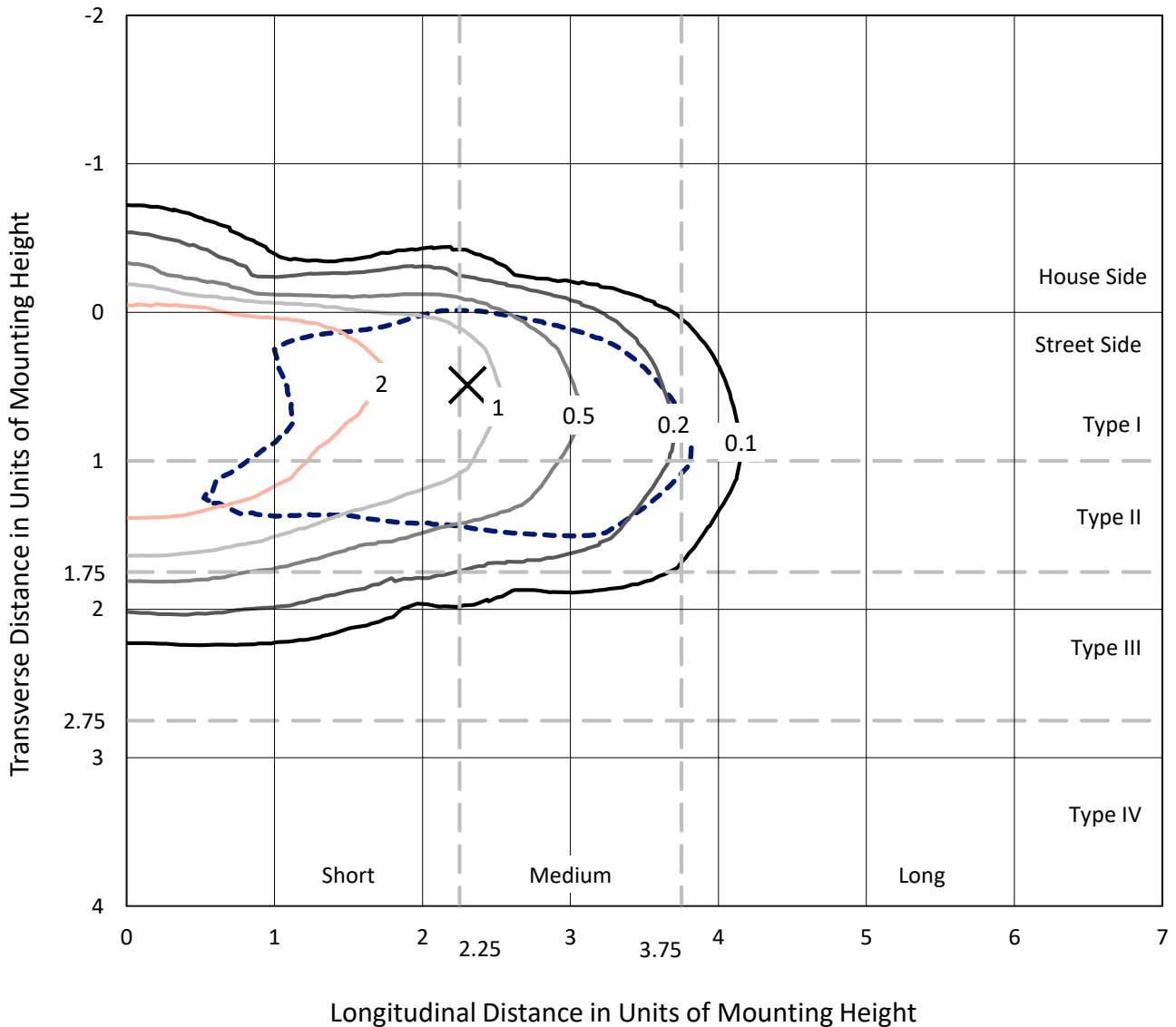


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

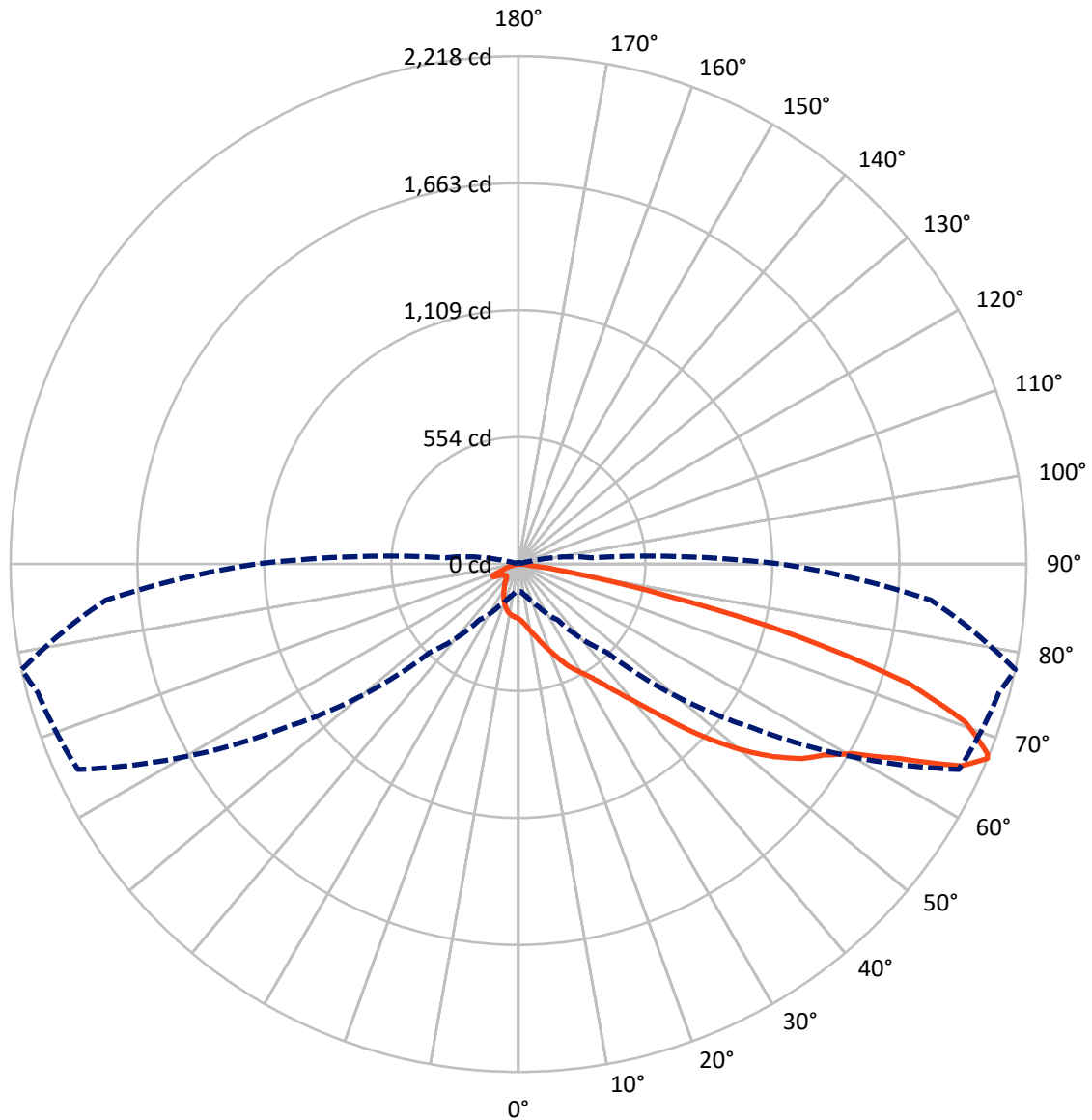


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	145.4	0.0	145.4
	% Fixture	7.1	0.0	7.1
<b>Street Side</b>	Lumens	1915.6	0.0	1915.6
	% Fixture	92.9	0.0	92.9
<b>Total</b>	Lumens	2061.0	0.0	2061.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	23.1	1.1
10°-20°	66.1	3.2
20°-30°	116.7	5.7
30°-40°	205.8	10.0
40°-50°	353.7	17.2
50°-60°	532.5	25.8
60°-70°	524.0	25.4
70°-80°	229.0	11.1
80°-90°	10.1	0.5
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°	2061.0	100.0
0°-180°	2061.0	100.0



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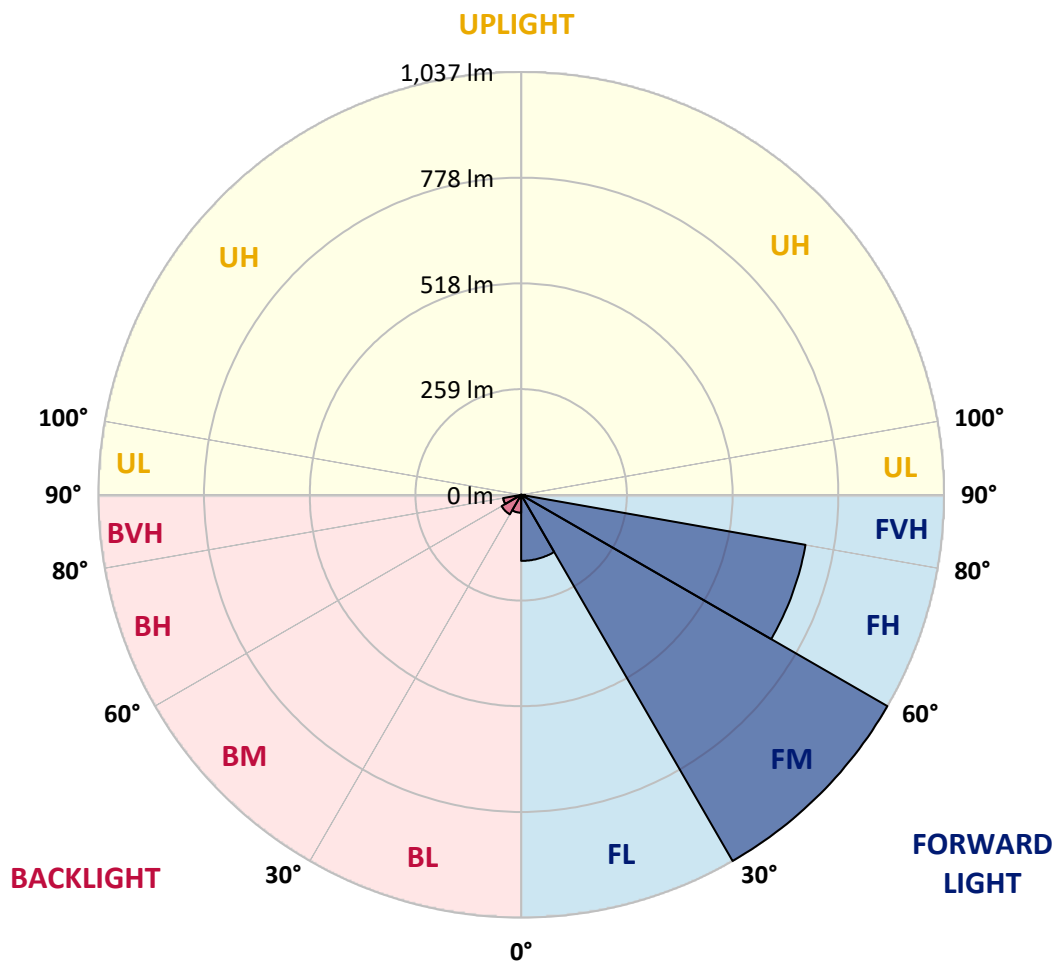
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	161.9	7.9			
FM	(30°-60°)	1036.7	50.3			
FH	(60°-80°)	707.8	34.3			G1/1800
FVH	(80°-90°)	9.1	0.4			G0/10
BL	(0°-30°)	43.9	2.1	B0/110		
BM	(30°-60°)	55.3	2.7	B0/220		
BH	(60°-80°)	45.1	2.2	B0/110		G0/110
BVH	(80°-90°)	1.0	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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3
2.5°	274.5	275.7	274.1	273.0	269.9	266.0	262.1	256.3	250.1	247.8	243.9
5°	308.2	308.2	308.2	305.1	302.4	295.1	286.1	277.2	265.6	261.4	252.5
7.5°	326.0	326.4	327.6	327.6	326.0	321.0	311.3	301.2	283.8	278.0	263.7
10°	328.0	329.5	332.6	337.3	340.7	343.5	337.6	326.8	305.9	298.9	278.0
12.5°	322.9	323.7	328.7	337.3	348.5	359.7	360.1	353.5	330.3	320.6	295.4
15°	311.3	312.5	319.8	333.4	350.8	370.9	382.6	380.6	358.9	347.7	314.8
17.5°	292.7	293.9	303.2	323.3	348.9	378.3	403.1	412.8	387.2	376.4	334.5
20°	292.0	292.3	295.8	310.9	341.1	382.6	423.2	446.1	421.7	410.1	357.8
22.5°	341.5	338.4	330.7	321.0	334.2	381.4	441.4	481.3	464.3	446.1	384.5
25°	396.9	398.0	389.5	366.7	350.0	379.5	455.4	521.2	504.1	485.9	412.0
27.5°	455.0	453.0	445.7	424.8	396.9	393.4	465.4	553.3	542.5	520.4	436.4
30°	511.5	510.0	504.5	483.2	453.0	429.4	473.2	582.4	578.9	554.5	456.1
32.5°	576.2	578.9	571.9	544.0	507.2	478.2	489.8	612.9	623.0	593.2	476.7
35°	651.3	651.3	637.0	611.4	573.5	532.8	523.1	646.6	679.2	647.0	509.2
37.5°	713.2	718.3	709.8	673.0	637.3	594.7	573.8	688.1	748.5	715.9	552.9
40°	762.0	770.5	770.9	734.5	701.6	673.7	644.7	746.5	835.6	793.8	605.2
42.5°	807.3	808.9	815.5	794.5	761.6	754.3	724.5	815.8	944.4	895.2	674.9
45°	865.0	868.1	864.2	848.8	820.5	830.2	813.5	903.7	1066.8	1025.3	757.0
47.5°	949.8	957.2	951.4	923.5	889.0	907.2	895.2	991.2	1205.0	1154.7	846.0
50°	1029.2	1035.0	1041.2	1032.3	997.8	980.4	965.7	1083.8	1323.5	1280.9	933.6
52.5°	1037.7	1043.1	1077.2	1108.6	1131.4	1085.7	1039.7	1177.5	1433.1	1397.4	1013.7
55°	982.3	985.8	1042.7	1104.7	1209.6	1225.1	1148.5	1270.0	1524.8	1500.4	1067.5
57.5°	828.2	842.9	923.9	1018.7	1190.3	1308.0	1303.0	1377.7	1584.5	1573.2	1136.8
60°	544.0	560.3	657.1	800.7	1047.8	1285.9	1472.5	1539.1	1668.1	1680.5	1258.4
62.5°	281.9	300.9	386.0	513.4	759.3	1119.8	1530.2	1804.4	1828.4	1870.6	1475.3
65°	161.1	165.0	207.5	300.9	470.1	801.9	1460.9	2066.9	2039.4	2125.0	1752.1
67°	119.6	119.6	149.5	204.4	297.8	545.2	1246.0	2122.3	2172.2	2217.5	1807.9
67.5°	107.3	113.1	138.6	188.6	267.2	483.6	1165.9	2107.6	2180.7	2209.0	1788.5
70°	73.6	77.4	99.5	135.1	180.1	251.7	764.3	1864.0	2101.0	2072.3	1620.8
72.5°	44.1	45.7	65.8	97.2	134.4	134.7	417.0	1414.9	1780.4	1780.0	1323.9
75°	27.5	29.0	38.7	65.1	94.1	84.4	192.8	962.6	1278.6	1253.8	887.1
77.5°	15.5	17.8	23.2	35.6	59.6	53.8	81.3	539.4	690.8	648.2	440.6
80°	6.2	7.4	13.2	17.0	33.7	32.1	33.3	189.7	279.6	252.1	147.5
82.5°	1.5	1.9	4.6	8.1	13.2	13.2	10.5	51.9	66.2	61.6	37.9
85°	0.0	0.0	0.4	0.4	0.4	0.8	2.7	5.8	7.0	8.1	6.2
87.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.8	1.2	1.2	1.2	1.2
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°	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3	239.3
2.5°	240.8	238.1	232.7	226.9	221.1	216.4	212.6	207.2	206.4	206.4	206.4
5°	245.9	239.7	227.3	214.9	202.5	191.3	183.1	176.6	170.8	168.8	170.4
7.5°	253.2	242.0	220.3	198.6	179.3	163.4	151.8	142.5	138.2	135.9	134.0
10°	262.9	245.5	211.0	179.3	154.9	135.9	123.5	114.6	110.4	107.6	108.0
12.5°	273.4	248.2	199.4	158.4	131.3	113.8	103.4	96.0	89.1	84.8	86.0
15°	283.8	250.1	185.1	139.0	113.1	97.6	82.9	69.7	65.1	64.3	63.9
17.5°	295.4	249.7	169.2	120.8	97.6	75.9	61.2	59.6	59.2	59.2	58.9
20°	307.4	247.8	151.0	105.7	82.1	57.7	55.4	54.6	53.4	53.0	52.7
22.5°	320.6	244.3	134.4	92.5	61.2	52.7	49.6	47.2	45.3	44.1	44.5
25°	332.6	237.7	118.1	80.2	52.3	47.2	43.0	39.5	37.6	36.0	36.4
27.5°	340.7	226.1	104.2	64.7	48.0	41.8	36.8	33.3	30.6	29.4	29.4
30°	341.5	209.5	91.8	53.0	43.8	36.8	31.4	27.5	25.9	25.2	24.8
32.5°	340.7	192.4	82.5	48.8	39.9	32.1	26.7	24.0	22.5	21.7	21.7
35°	344.6	175.0	74.0	44.9	35.6	28.3	23.6	20.9	19.7	19.0	19.0
37.5°	356.2	163.0	65.1	41.0	31.8	24.8	21.3	19.0	17.8	17.0	17.0
40°	372.1	152.9	54.2	37.2	27.9	22.5	19.4	17.4	15.9	15.1	15.1
42.5°	400.0	149.1	45.3	33.3	24.4	20.1	17.8	15.5	13.9	13.2	13.2
45°	441.4	151.0	41.4	29.8	22.1	18.2	15.9	13.6	12.0	11.6	11.6
47.5°	487.1	159.1	38.7	26.7	20.1	17.0	14.3	12.0	10.5	10.1	10.1
50°	538.2	171.9	36.4	23.6	18.2	15.5	12.8	10.5	9.3	8.9	8.9
52.5°	587.0	188.2	34.1	21.3	17.0	13.9	11.2	9.3	8.5	8.1	8.1
55°	624.2	198.6	32.1	19.7	15.9	12.8	10.1	8.9	7.7	7.4	7.4
57.5°	676.1	216.1	29.8	17.8	14.3	11.6	9.3	8.1	7.0	7.0	7.0
60°	781.4	262.9	26.3	16.3	12.8	10.5	8.9	7.4	6.6	6.2	6.2
62.5°	971.1	340.4	22.8	15.1	11.2	9.3	7.7	6.6	5.8	5.0	5.0
65°	1153.9	372.5	19.4	13.2	10.1	8.1	7.0	5.8	4.3	3.5	3.5
67°	1143.8	318.7	16.3	11.2	8.5	7.4	5.8	4.6	3.1	1.9	1.9
67.5°	1116.7	296.6	15.9	10.8	8.1	7.0	5.8	4.3	2.7	1.5	1.5
70°	949.0	207.5	12.4	8.5	7.0	6.2	4.6	3.1	1.5	0.8	0.8
72.5°	770.9	164.6	9.7	7.0	5.8	4.6	3.9	1.9	1.2	0.4	0.4
75°	545.2	101.1	8.5	6.2	4.6	3.5	3.1	1.9	1.2	0.8	0.4
77.5°	269.1	46.5	7.0	5.4	4.3	3.5	2.7	2.3	1.9	1.5	0.8
80°	79.0	15.1	4.6	3.9	3.9	3.5	3.1	2.7	2.3	1.9	1.2
82.5°	17.8	5.4	1.5	1.9	2.7	2.7	2.7	1.9	1.5	0.8	0.4
85°	2.3	1.2	1.2	1.2	1.5	1.5	1.2	0.8	0.8	0.0	0.0
87.5°	0.8	0.8	0.8	1.2	1.2	1.2	0.8	0.4	0.4	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

(END OF REPORT)