

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: P401215

Luminaire Tested: **ENT-SA1B-830-U-SL2-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401215  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1B-830-U-SL2-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2202 lumens  
Efficiency: N/A  
Efficacy: 86.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

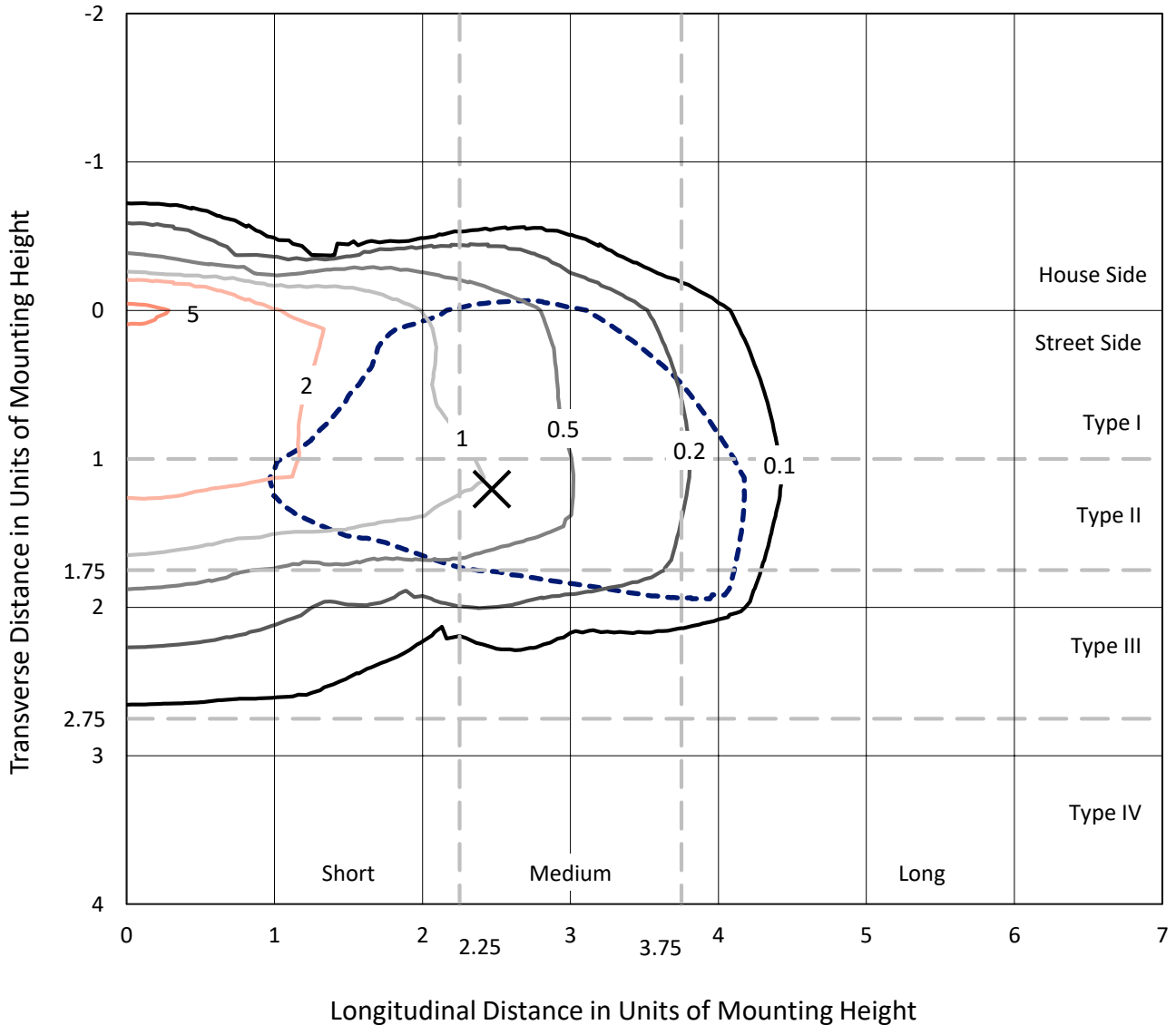
Input Watts (W): 25.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

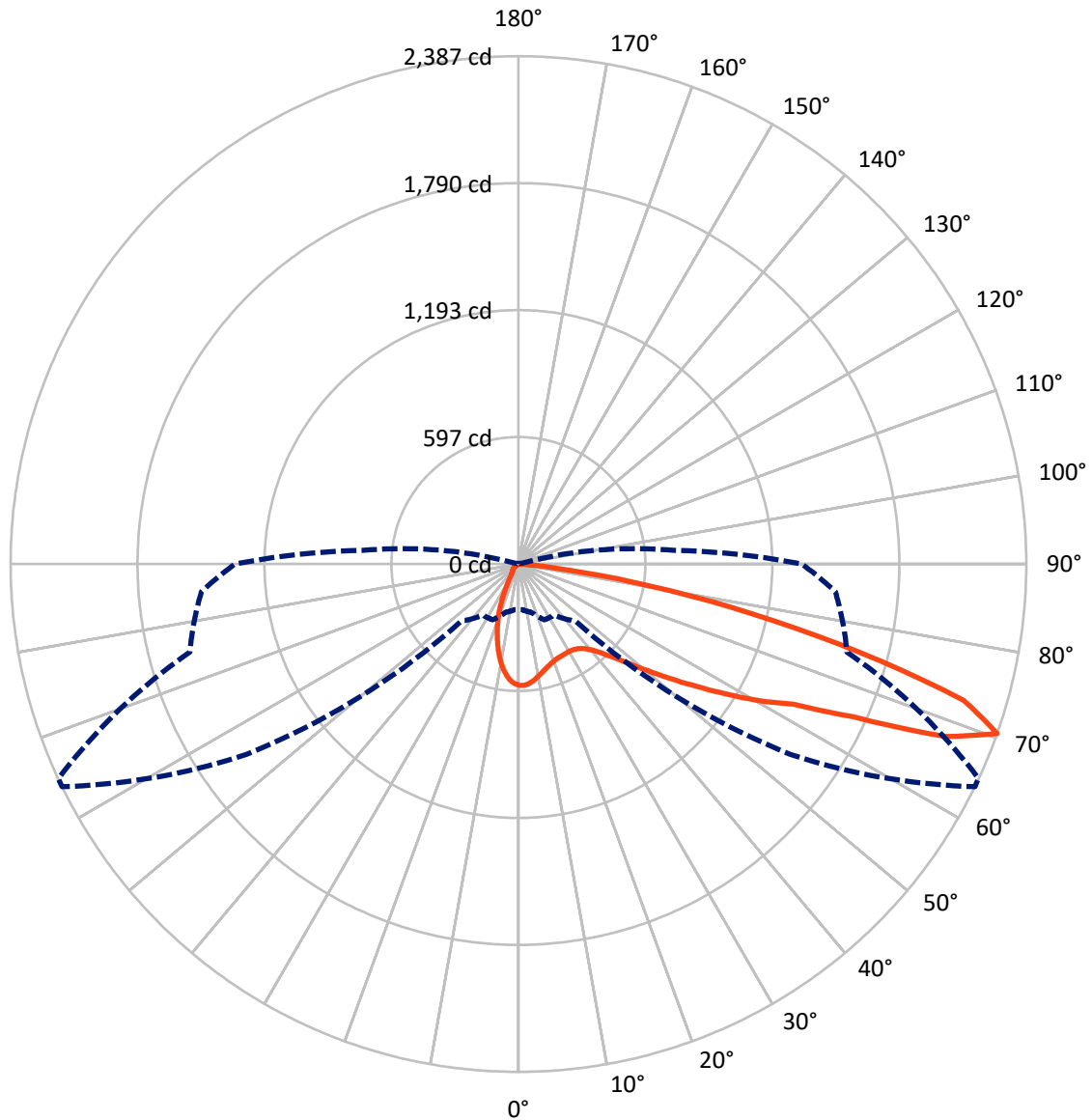
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	282.9	0.0	282.9
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	1919.1	0.0	1919.1
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	2202.0	0.0	2202.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.0	2.2
10°-20°	106.6	4.8
20°-30°	146.8	6.7
30°-40°	202.1	9.2
40°-50°	301.3	13.7
50°-60°	476.0	21.6
60°-70°	539.3	24.5
70°-80°	354.1	16.1
80°-90°	27.8	1.3
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°	2202.0	100.0
0°-180°	2202.0	100.0



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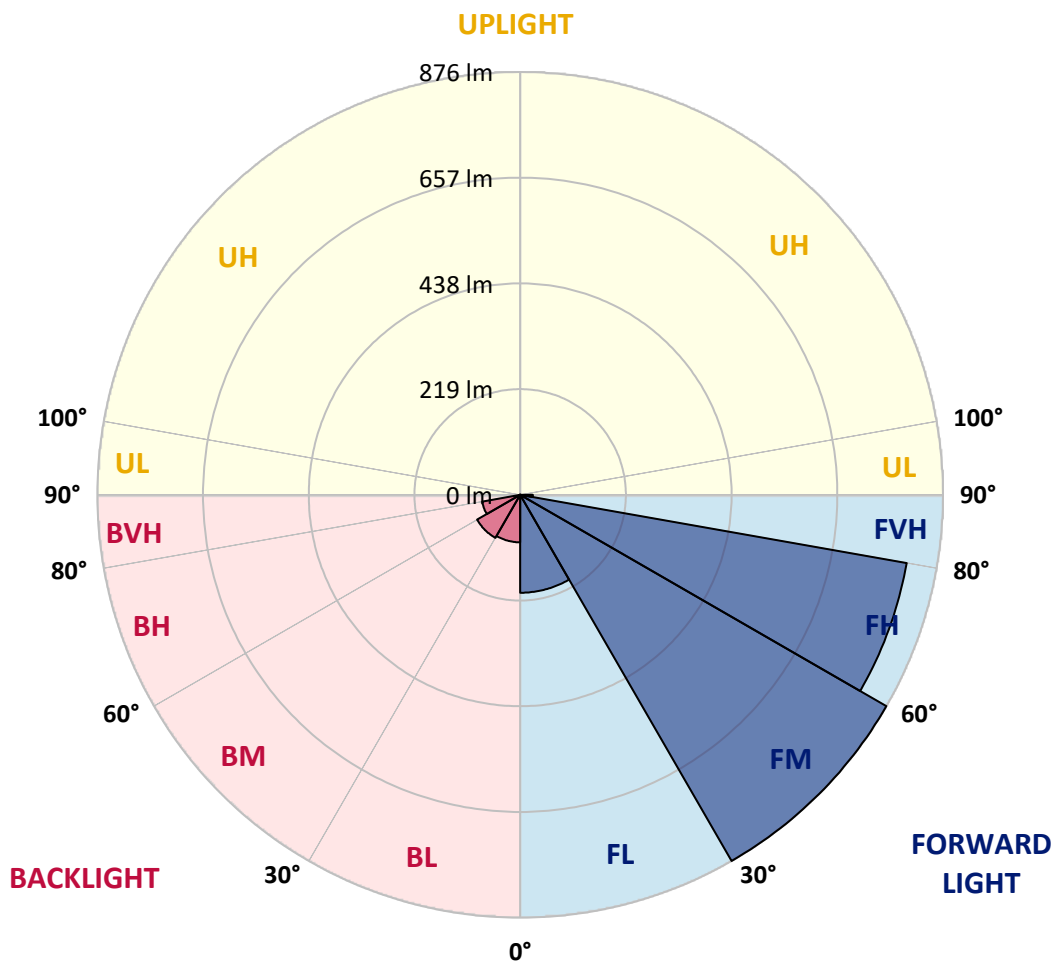
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	203.0	9.2			
FM	(30°-60°)	876.4	39.8			
FH	(60°-80°)	813.6	36.9			G1/1800
FVH	(80°-90°)	26.2	1.2			G1/100
BL	(0°-30°)	98.5	4.5	B0/110		
BM	(30°-60°)	103.0	4.7	B0/220		
BH	(60°-80°)	79.9	3.6	B0/110		G0/110
BVH	(80°-90°)	1.5	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
2.5°	554.1	554.1	556.8	559.6	561.1	565.4	568.5	570.8	570.8	572.3	569.6
5°	517.4	517.4	519.7	526.3	533.2	542.1	552.2	562.3	564.2	571.6	571.2
7.5°	483.3	486.4	490.2	496.8	504.2	517.4	531.3	548.7	550.7	568.5	572.3
10°	459.7	461.6	463.9	471.3	482.1	497.2	512.3	532.8	536.3	563.0	572.3
12.5°	440.7	441.1	444.5	452.7	463.1	477.9	494.9	517.4	521.6	553.4	570.8
15°	427.1	426.7	430.6	438.4	448.4	463.5	480.2	503.8	508.4	545.2	570.4
17.5°	419.0	419.4	422.5	428.3	438.0	452.3	469.3	492.6	497.2	538.6	572.3
20°	419.0	419.0	420.9	423.6	431.0	443.8	460.4	484.4	489.1	534.4	575.0
22.5°	427.1	426.3	427.9	425.6	429.1	438.0	455.0	479.0	484.0	532.5	579.3
25°	441.8	440.3	441.5	436.4	432.5	436.4	451.5	476.7	482.1	532.8	583.2
27.5°	462.4	462.4	460.0	453.1	443.4	439.1	451.1	475.1	480.6	532.8	585.9
30°	491.0	489.9	486.4	479.4	464.3	450.0	455.0	475.1	480.6	533.2	586.7
32.5°	519.7	520.4	522.4	515.4	494.9	468.6	464.3	478.6	483.3	532.8	585.5
35°	548.7	549.1	557.6	558.4	532.1	498.4	480.2	487.9	491.0	536.7	586.3
37.5°	574.3	576.2	592.9	601.0	579.3	536.7	505.3	505.3	506.9	547.2	590.9
40°	602.9	608.0	628.1	646.3	637.8	585.9	542.1	530.9	531.7	566.1	601.4
42.5°	636.2	642.4	668.8	695.1	694.7	646.3	588.6	571.6	572.3	599.1	622.7
45°	678.4	682.7	716.0	748.9	755.9	712.9	647.1	624.6	625.4	649.0	664.1
47.5°	729.9	735.0	767.1	806.6	824.4	793.1	723.0	698.6	696.3	712.9	723.7
50°	797.3	807.0	826.0	863.9	906.9	886.0	812.0	787.6	784.5	797.7	801.2
52.5°	861.6	870.5	878.3	913.1	996.4	1001.4	921.2	894.5	891.4	894.5	898.8
55°	871.3	876.3	882.1	929.4	1068.8	1148.2	1045.5	1013.8	1004.9	999.1	1013.4
57.5°	794.2	791.1	810.5	874.8	1080.8	1310.4	1213.6	1152.0	1143.5	1111.4	1097.0
60°	628.9	624.6	642.8	730.7	1013.4	1391.0	1446.7	1305.0	1284.1	1176.4	1162.5
62.5°	441.8	436.8	460.4	512.3	786.1	1375.1	1709.7	1449.8	1408.4	1234.1	1215.2
65°	340.4	338.1	350.8	362.5	479.8	1191.1	1854.5	1732.5	1646.9	1296.9	1272.5
67.5°	266.8	269.9	285.8	319.5	309.8	742.3	1840.9	2163.9	2078.3	1412.3	1396.8
70°	214.5	215.3	235.1	288.9	292.4	377.9	1558.6	2386.9	2385.8	1598.5	1495.5
72.5°	129.7	133.2	165.4	249.8	295.1	289.3	1047.9	2187.1	2217.3	1641.9	1348.8
75°	62.3	65.8	85.6	167.7	293.1	281.5	566.9	1655.8	1694.6	1472.3	1093.6
77.5°	23.2	26.3	39.5	82.1	217.2	257.9	298.2	1116.4	1147.0	1077.7	740.8
80°	7.4	8.5	15.5	37.6	110.4	213.0	192.1	629.6	650.2	471.7	249.0
82.5°	0.8	1.2	4.3	12.8	42.6	108.4	112.7	237.0	247.4	92.2	50.3
85°	0.0	0.0	0.0	0.0	0.8	0.8	27.9	45.3	37.2	8.9	14.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.4	0.8	1.2	1.2	1.2	1.5
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°	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
2.5°	569.2	569.2	566.5	562.3	556.8	549.1	547.2	541.0	541.0	535.9	535.2
5°	570.0	567.7	558.8	545.6	527.4	507.7	495.3	481.7	470.1	462.7	463.5
7.5°	570.0	565.0	547.2	518.1	484.0	450.0	424.0	393.8	379.9	370.6	374.8
10°	568.5	559.9	529.0	484.8	431.0	383.8	341.2	306.3	282.3	272.2	263.7
12.5°	565.0	552.6	506.1	443.4	374.5	312.5	253.6	207.9	176.2	160.3	158.4
15°	561.9	544.8	479.4	398.1	310.6	229.6	163.8	120.0	92.9	86.7	87.5
17.5°	561.1	537.5	453.8	350.1	248.2	153.0	94.5	76.3	72.4	70.9	70.5
20°	561.5	530.9	426.0	302.4	175.8	95.3	71.6	67.4	65.8	65.1	64.7
22.5°	563.0	523.5	398.5	252.5	120.0	69.7	63.9	61.2	59.2	58.1	57.7
25°	563.0	515.4	367.9	199.4	78.6	61.2	57.3	53.8	51.1	49.6	49.6
27.5°	561.9	506.1	336.1	151.4	62.3	54.6	50.3	45.7	42.2	40.3	40.3
30°	558.4	494.9	305.5	105.7	54.6	48.8	43.4	37.6	33.3	31.4	30.6
32.5°	553.4	482.9	270.3	74.3	49.2	42.6	36.4	30.2	26.3	24.0	24.0
35°	547.9	470.9	232.3	56.9	44.5	37.6	30.6	24.4	20.9	19.4	19.0
37.5°	545.2	458.1	195.2	49.2	39.9	32.1	24.8	19.7	17.0	15.9	15.5
40°	547.2	448.4	158.8	44.1	35.6	27.1	20.5	16.7	14.3	12.8	12.8
42.5°	558.8	443.0	124.3	40.3	31.8	22.8	17.0	13.6	11.2	10.1	10.1
45°	582.4	446.9	94.5	36.8	27.1	19.0	14.3	10.8	8.5	7.4	7.4
47.5°	621.9	462.4	71.6	33.7	23.2	15.5	11.6	8.5	6.6	5.8	5.4
50°	679.6	493.0	56.1	30.6	19.4	13.2	9.7	6.6	5.0	4.3	4.3
52.5°	762.9	546.0	48.0	27.1	15.9	10.8	7.7	5.0	3.9	3.1	3.1
55°	865.1	613.4	43.4	24.0	12.8	8.9	6.2	3.9	2.7	2.3	1.9
57.5°	948.0	666.8	40.7	20.9	10.8	7.7	4.6	3.1	2.3	1.5	1.5
60°	1021.1	701.3	36.0	17.4	9.3	6.2	3.9	2.3	1.5	1.2	1.2
62.5°	1080.4	723.7	29.8	13.9	7.7	5.0	3.1	1.9	1.5	1.2	1.2
65°	1147.8	741.9	24.4	10.8	6.6	4.3	2.7	1.5	1.2	1.2	1.2
67.5°	1279.8	782.6	18.2	8.5	5.0	3.5	2.3	1.5	1.2	0.8	0.8
70°	1331.3	735.0	14.3	7.0	3.9	3.1	2.3	1.5	0.8	0.8	0.8
72.5°	1133.1	550.3	11.2	5.8	3.5	2.7	2.3	1.5	1.2	1.2	0.8
75°	898.8	371.7	8.9	4.6	3.5	3.1	2.3	2.3	1.9	1.5	1.5
77.5°	573.9	164.6	7.0	3.9	3.5	3.9	3.5	2.3	2.3	1.9	1.9
80°	171.2	39.5	5.0	3.1	2.7	3.1	3.5	2.3	1.5	1.2	1.2
82.5°	37.2	9.3	3.1	1.5	1.9	1.5	2.3	2.3	1.5	1.2	1.2
85°	12.4	3.5	1.9	1.5	1.2	1.2	1.2	1.2	1.2	1.2	0.8
87.5°	0.8	1.2	1.2	0.8	0.8	0.8	0.8	0.4	0.4	0.8	0.8
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)