

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: P401035

Luminaire Tested: **ENV-SA1A-830-U-SL2-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401035
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: ENV-SA1A-830-U-SL2-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 350mA 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: 1756 lumens
Efficiency: N/A
Efficacy: 87.4 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): 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

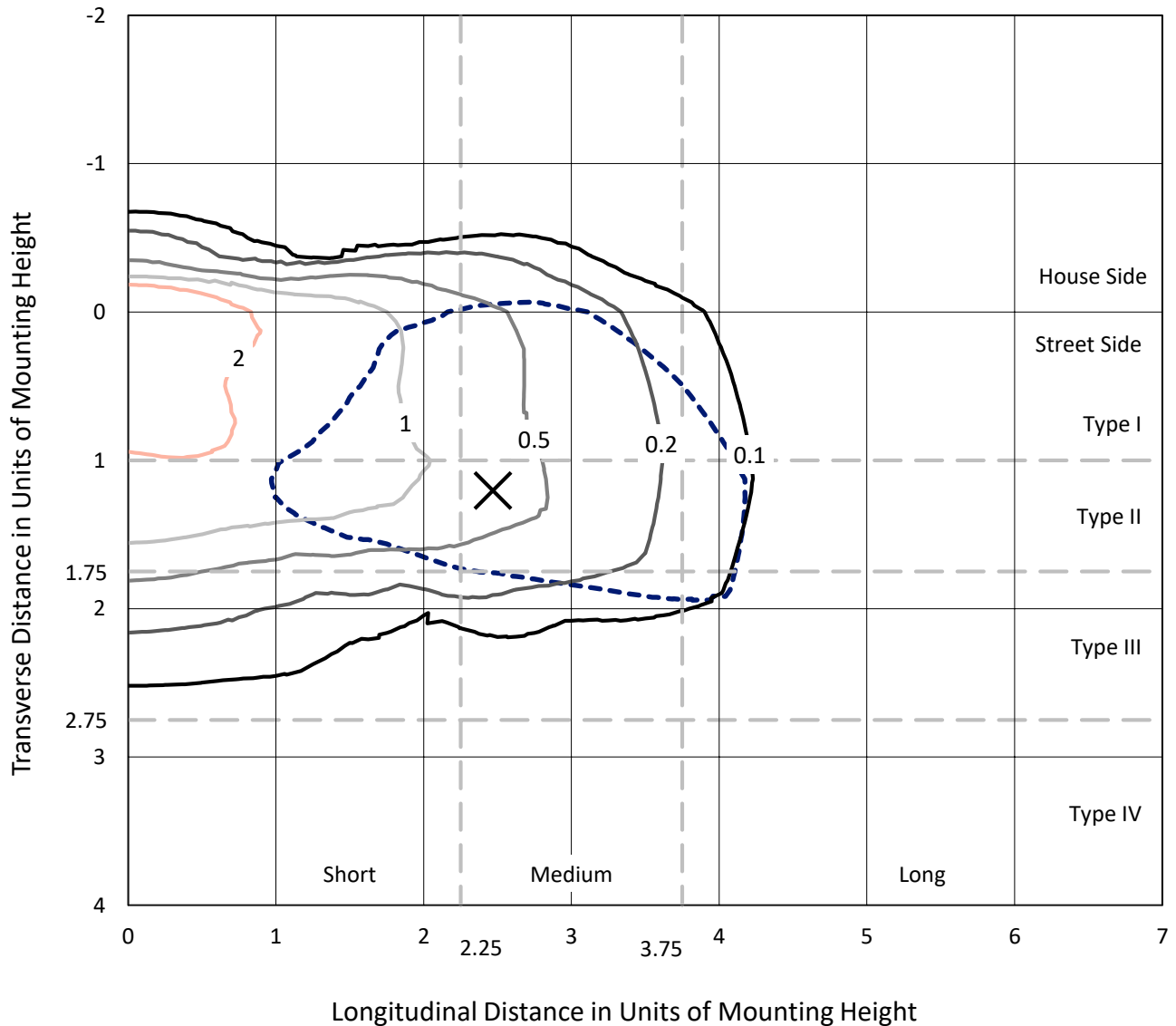


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Iso-Footcandle Lines of Horizontal Illumination

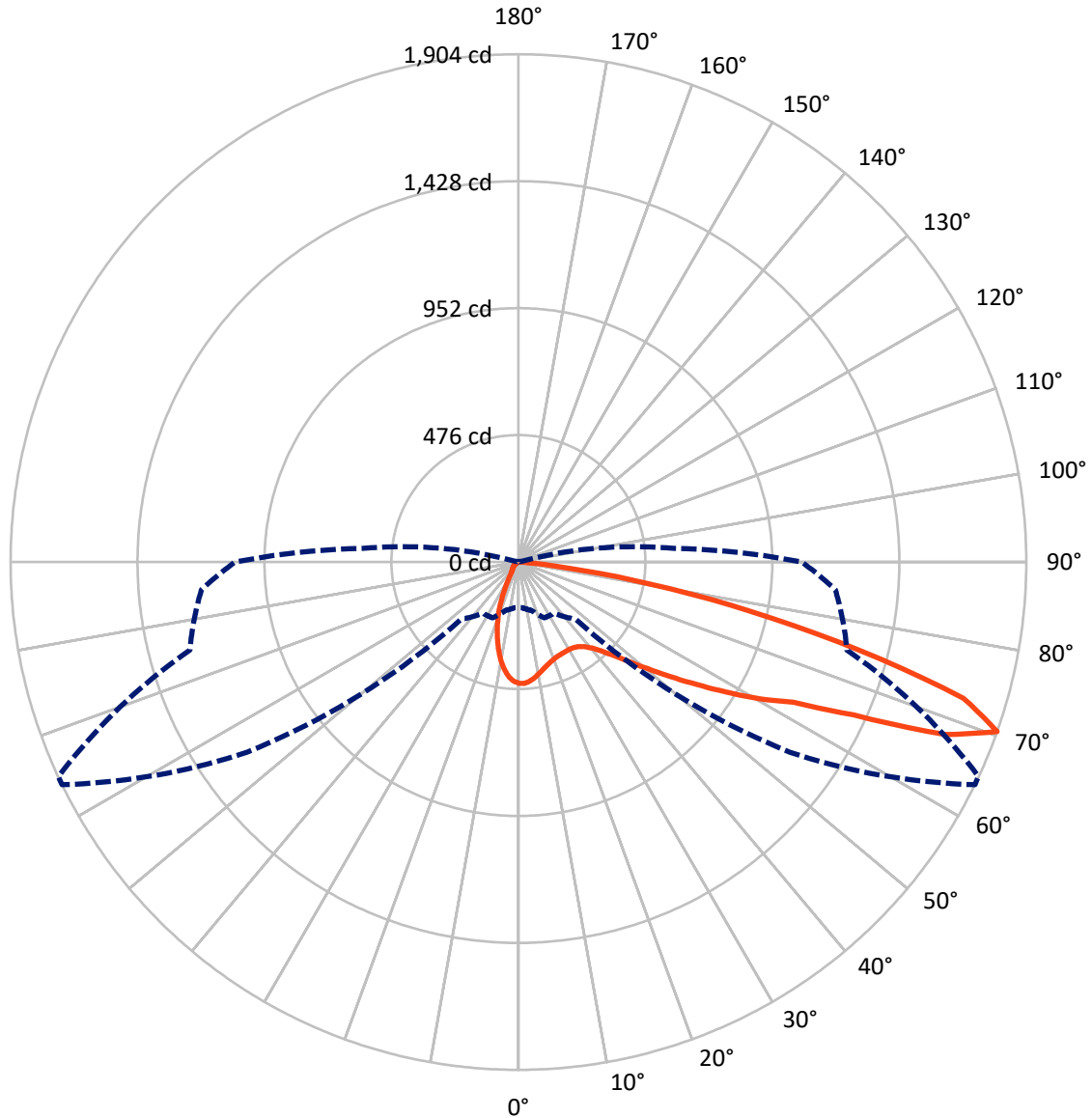
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.5 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
House Side	Lumens	225.6	0.0	225.6
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	1530.4	0.0	1530.4
	% Fixture	87.2	0.0	87.2
Total	Lumens	1756.0	0.0	1756.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.3	2.2
10°-20°	85.0	4.8
20°-30°	117.1	6.7
30°-40°	161.2	9.2
40°-50°	240.3	13.7
50°-60°	379.6	21.6
60°-70°	430.1	24.5
70°-80°	282.4	16.1
80°-90°	22.1	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°	1756.0	100.0
0°-180°	1756.0	100.0



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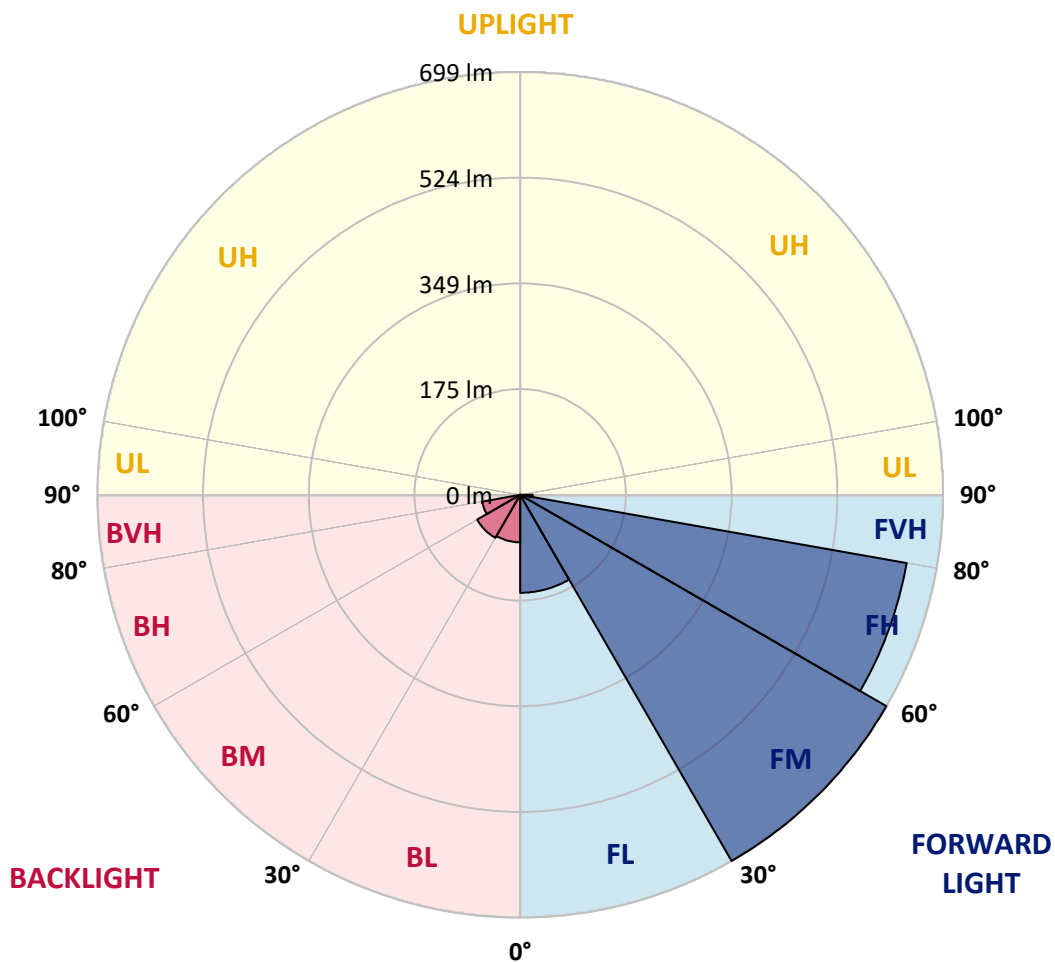
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	161.9	9.2			
FM	(30°-60°)	698.9	39.8			
FH	(60°-80°)	648.8	36.9			G0/660
FVH	(80°-90°)	20.9	1.2			G1/100
BL	(0°-30°)	78.5	4.5	B0/110		
BM	(30°-60°)	82.2	4.7	B0/220		
BH	(60°-80°)	63.7	3.6	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6
2.5°	441.9	441.9	444.1	446.2	447.5	450.9	453.3	455.2	455.2	456.4	454.3
5°	412.6	412.6	414.4	419.7	425.2	432.3	440.4	448.4	449.9	455.8	455.5
7.5°	385.4	387.9	390.9	396.2	402.1	412.6	423.7	437.6	439.1	453.3	456.4
10°	366.6	368.1	369.9	375.8	384.5	396.5	408.5	424.9	427.7	449.0	456.4
12.5°	351.4	351.7	354.5	361.0	369.3	381.1	394.7	412.6	416.0	441.3	455.2
15°	340.6	340.3	343.4	349.6	357.6	369.6	382.9	401.8	405.5	434.8	454.9
17.5°	334.1	334.4	336.9	341.5	349.3	360.7	374.3	392.8	396.5	429.5	456.4
20°	334.1	334.1	335.7	337.8	343.7	353.9	367.2	386.3	390.0	426.2	458.6
22.5°	340.6	340.0	341.2	339.4	342.2	349.3	362.8	382.0	386.0	424.6	462.0
25°	352.3	351.1	352.0	348.0	344.9	348.0	360.1	380.1	384.5	424.9	465.1
27.5°	368.7	368.7	366.9	361.3	353.6	350.2	359.8	378.9	383.2	424.9	467.2
30°	391.6	390.6	387.9	382.3	370.3	358.8	362.8	378.9	383.2	425.2	467.8
32.5°	414.4	415.0	416.6	411.0	394.7	373.7	370.3	381.7	385.4	424.9	466.9
35°	437.6	437.9	444.7	445.3	424.3	397.4	382.9	389.1	391.6	428.0	467.5
37.5°	458.0	459.5	472.8	479.3	462.0	428.0	403.0	403.0	404.2	436.3	471.2
40°	480.8	484.8	500.9	515.4	508.6	467.2	432.3	423.4	424.0	451.5	479.6
42.5°	507.4	512.3	533.3	554.3	554.0	515.4	469.4	455.8	456.4	477.7	496.6
45°	541.0	544.4	571.0	597.2	602.8	568.5	516.0	498.1	498.7	517.6	529.6
47.5°	582.1	586.1	611.7	643.2	657.4	632.4	576.5	557.1	555.2	568.5	577.2
50°	635.8	643.6	658.7	688.9	723.2	706.5	647.6	628.1	625.6	636.1	638.9
52.5°	687.1	694.2	700.4	728.2	794.6	798.6	734.6	713.3	710.9	713.3	716.7
55°	694.8	698.8	703.5	741.1	852.3	915.6	833.8	808.5	801.4	796.7	808.1
57.5°	633.4	630.9	646.3	697.6	861.9	1045.0	967.8	918.7	911.9	886.3	874.8
60°	501.5	498.1	512.6	582.7	808.1	1109.2	1153.7	1040.7	1024.0	938.2	927.0
62.5°	352.3	348.3	367.2	408.5	626.9	1096.6	1363.4	1156.2	1123.1	984.2	969.0
65°	271.4	269.6	279.8	289.0	382.6	949.9	1478.9	1381.6	1313.4	1034.2	1014.7
67.5°	212.8	215.2	227.9	254.8	247.0	592.0	1468.1	1725.6	1657.4	1126.2	1113.9
70°	171.1	171.7	187.4	230.4	233.1	301.4	1242.9	1903.5	1902.6	1274.8	1192.6
72.5°	103.4	106.2	131.9	199.2	235.3	230.7	835.6	1744.1	1768.2	1309.3	1075.6
75°	49.7	52.5	68.2	133.7	233.8	224.5	452.1	1320.5	1351.3	1174.1	872.1
77.5°	18.5	21.0	31.5	65.5	173.2	205.7	237.8	890.3	914.7	859.4	590.7
80°	5.9	6.8	12.4	30.0	88.0	169.8	153.2	502.1	518.5	376.1	198.6
82.5°	0.6	0.9	3.4	10.2	34.0	86.5	89.9	189.0	197.3	73.5	40.1
85°	0.0	0.0	0.0	0.0	0.6	0.6	22.2	36.1	29.6	7.1	11.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.9	0.9	0.9	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°	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6
2.5°	453.9	453.9	451.8	448.4	444.1	437.9	436.3	431.4	431.4	427.4	426.8
5°	454.6	452.7	445.6	435.1	420.6	404.8	395.0	384.2	374.9	369.0	369.6
7.5°	454.6	450.5	436.3	413.2	386.0	358.8	338.1	314.1	302.9	295.5	298.9
10°	453.3	446.5	421.8	386.6	343.7	306.0	272.1	244.3	225.1	217.1	210.3
12.5°	450.5	440.7	403.6	353.6	298.6	249.2	202.3	165.8	140.5	127.8	126.3
15°	448.1	434.5	382.3	317.5	247.7	183.1	130.6	95.7	74.1	69.2	69.8
17.5°	447.5	428.6	361.9	279.2	197.9	122.0	75.3	60.8	57.7	56.5	56.2
20°	447.8	423.4	339.7	241.2	140.2	76.0	57.1	53.7	52.5	51.9	51.6
22.5°	449.0	417.5	317.8	201.3	95.7	55.6	51.0	48.8	47.2	46.3	46.0
25°	449.0	411.0	293.4	159.0	62.7	48.8	45.7	42.9	40.8	39.5	39.5
27.5°	448.1	403.6	268.0	120.7	49.7	43.5	40.1	36.4	33.7	32.1	32.1
30°	445.3	394.7	243.6	84.3	43.5	38.9	34.6	30.0	26.6	25.0	24.4
32.5°	441.3	385.1	215.5	59.3	39.2	34.0	29.0	24.1	21.0	19.1	19.1
35°	437.0	375.5	185.3	45.4	35.5	30.0	24.4	19.5	16.7	15.4	15.1
37.5°	434.8	365.3	155.6	39.2	31.8	25.6	19.8	15.7	13.6	12.7	12.4
40°	436.3	357.6	126.6	35.2	28.4	21.6	16.4	13.3	11.4	10.2	10.2
42.5°	445.6	353.3	99.1	32.1	25.3	18.2	13.6	10.8	9.0	8.0	8.0
45°	464.4	356.4	75.3	29.3	21.6	15.1	11.4	8.6	6.8	5.9	5.9
47.5°	495.9	368.7	57.1	26.9	18.5	12.4	9.3	6.8	5.2	4.6	4.3
50°	542.0	393.1	44.8	24.4	15.4	10.5	7.7	5.2	4.0	3.4	3.4
52.5°	608.3	435.4	38.3	21.6	12.7	8.6	6.2	4.0	3.1	2.5	2.5
55°	689.9	489.1	34.6	19.1	10.2	7.1	4.9	3.1	2.2	1.9	1.5
57.5°	756.0	531.8	32.4	16.7	8.6	6.2	3.7	2.5	1.9	1.2	1.2
60°	814.3	559.2	28.7	13.9	7.4	4.9	3.1	1.9	1.2	0.9	0.9
62.5°	861.6	577.2	23.8	11.1	6.2	4.0	2.5	1.5	1.2	0.9	0.9
65°	915.3	591.7	19.5	8.6	5.2	3.4	2.2	1.2	0.9	0.9	0.9
67.5°	1020.6	624.1	14.5	6.8	4.0	2.8	1.9	1.2	0.9	0.6	0.6
70°	1061.7	586.1	11.4	5.6	3.1	2.5	1.9	1.2	0.6	0.6	0.6
72.5°	903.6	438.8	9.0	4.6	2.8	2.2	1.9	1.2	0.9	0.9	0.6
75°	716.7	296.5	7.1	3.7	2.8	2.5	1.9	1.9	1.5	1.2	1.2
77.5°	457.7	131.2	5.6	3.1	2.8	3.1	2.8	1.9	1.9	1.5	1.5
80°	136.5	31.5	4.0	2.5	2.2	2.5	2.8	1.9	1.2	0.9	0.9
82.5°	29.6	7.4	2.5	1.2	1.5	1.2	1.9	1.9	1.2	0.9	0.9
85°	9.9	2.8	1.5	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.6
87.5°	0.6	0.9	0.9	0.6	0.6	0.6	0.6	0.3	0.3	0.6	0.6
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)