

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: P367499

Luminaire Tested: **MSA-SA2C-760-U-T4W-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367499  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA2C-760-U-T4W-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9300 lumens  
Efficiency: N/A  
Efficacy: 82.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

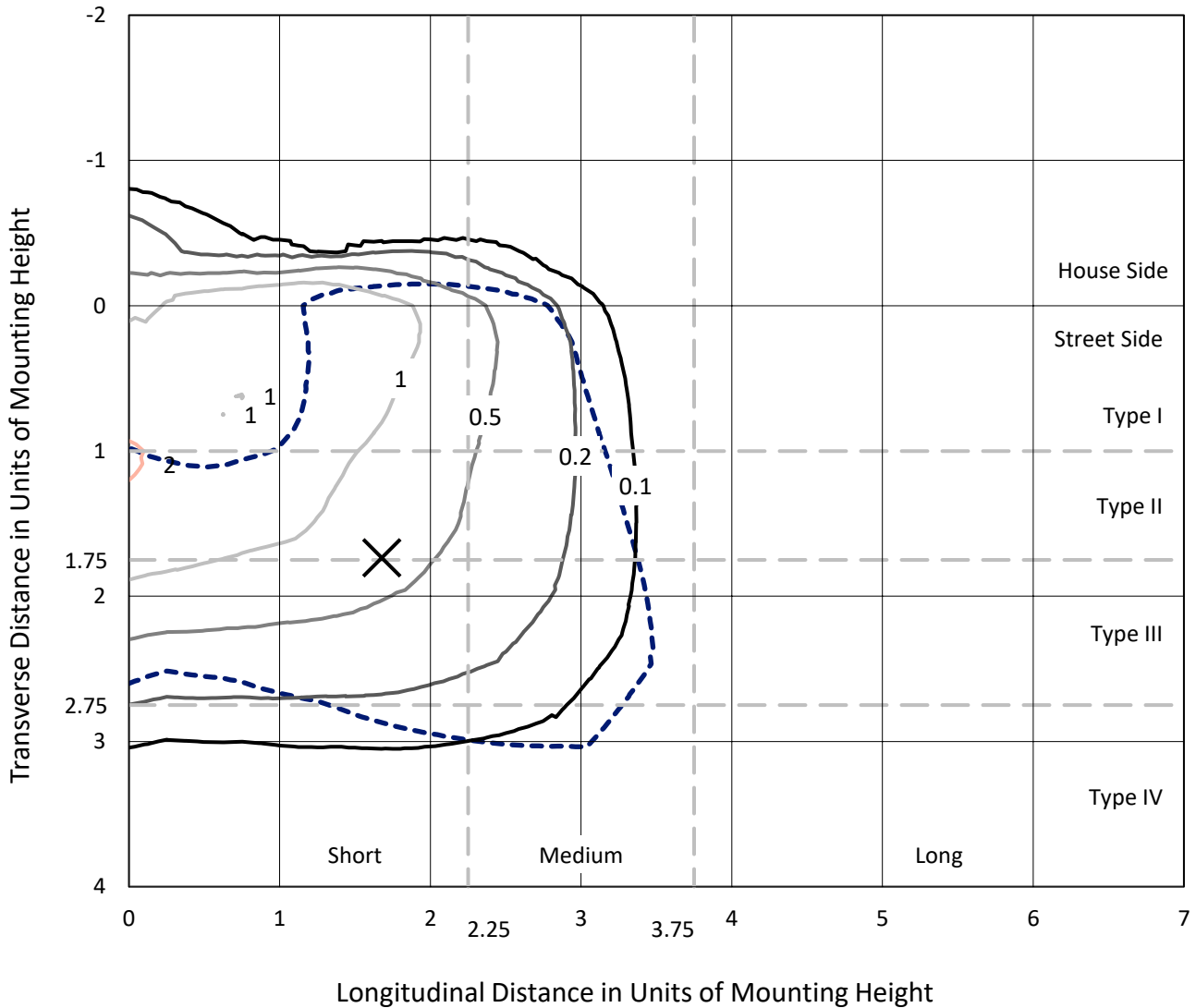
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

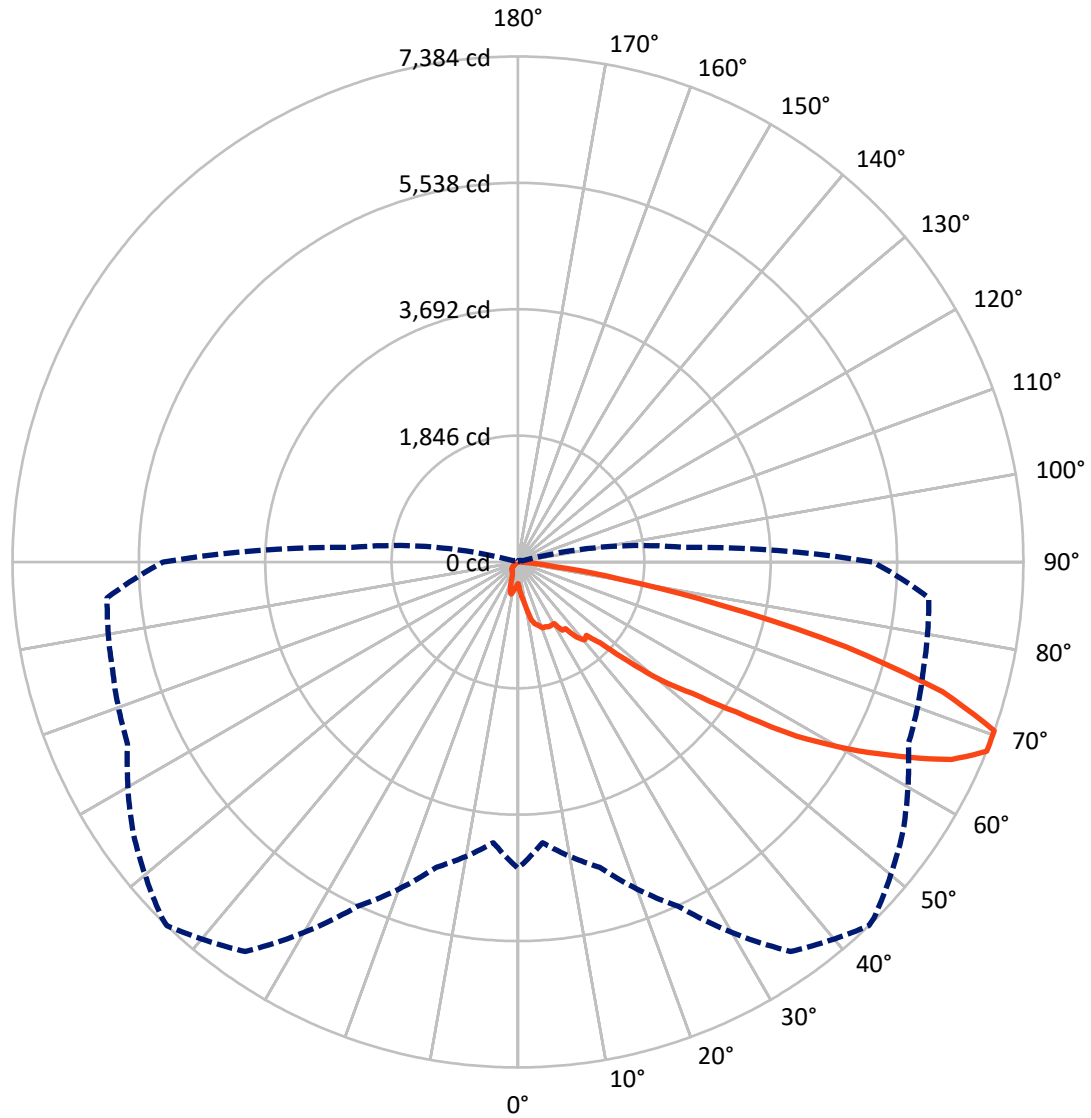
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	944.7	0.0	944.7
	% Fixture	10.2	0.0	10.2
<b>Street Side</b>	Lumens	8355.3	0.0	8355.3
	% Fixture	89.8	0.0	89.8
<b>Total</b>	Lumens	9300.0	0.0	9300.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.4	0.5
10°-20°	194.4	2.1
20°-30°	344.4	3.7
30°-40°	559.8	6.0
40°-50°	1120.3	12.0
50°-60°	2298.3	24.7
60°-70°	3157.2	33.9
70°-80°	1483.9	16.0
80°-90°	95.0	1.0
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°	9300.0	100.0
0°-180°	9300.0	100.0

**Coefficient of Utilization**

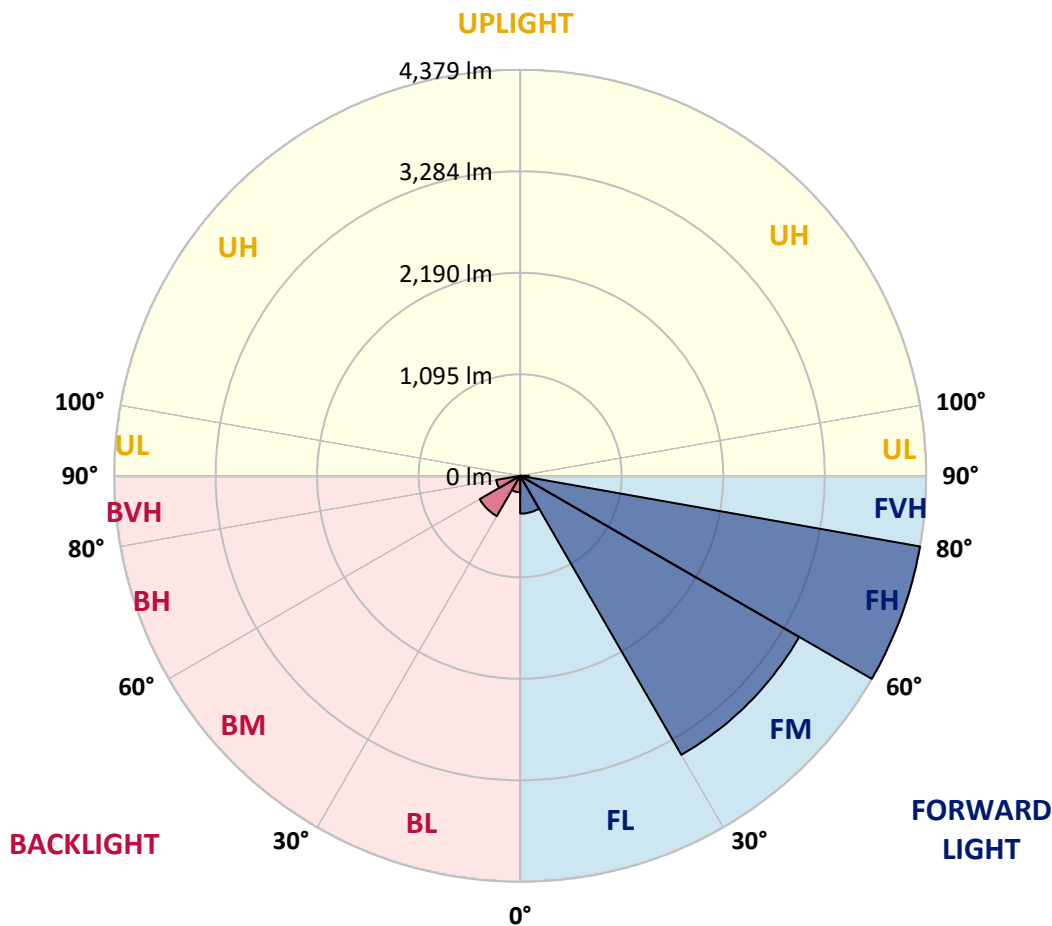


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	407.9	4.4			
FM (30°-60°)	3475.3	37.4			
FH (60°-80°)	4379.0	47.1			G2/5000
FVH (80°-90°)	93.1	1.0			G1/100
BL (0°-30°)	177.4	1.9	B1/500		
BM (30°-60°)	503.2	5.4	B1/1000		
BH (60°-80°)	262.2	2.8	B1/500		G1/500
BVH (80°-90°)	1.9	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3
2.5°	398.5	385.6	367.2	371.3	373.3	379.0	379.5	372.3	351.8	346.2	371.3
5°	558.5	527.2	521.5	509.7	486.2	473.3	470.3	483.1	466.7	461.5	468.2
7.5°	713.3	686.7	657.4	641.5	592.3	562.1	560.5	565.6	568.7	550.8	560.0
10°	816.4	787.2	781.0	743.6	701.0	693.9	690.8	671.3	655.4	642.1	597.4
12.5°	909.7	909.2	920.5	866.7	860.0	867.2	864.6	794.9	779.0	723.1	710.3
15°	1033.9	1064.6	1015.9	970.8	913.3	938.0	931.3	886.7	875.9	838.0	783.1
17.5°	1162.6	1170.8	1089.2	1020.0	1005.1	972.8	979.5	963.6	909.2	939.5	885.1
20°	1165.6	1183.6	1096.4	982.1	1027.7	1026.2	1026.7	1011.3	939.5	1010.3	960.5
22.5°	1208.7	1164.6	1083.6	1010.8	1019.0	1026.7	1034.9	1015.9	1000.5	1018.0	1027.2
25°	1191.3	1173.9	1095.9	1047.7	1040.0	1046.2	1048.2	1072.3	1062.6	1104.6	1081.5
27.5°	1236.4	1211.3	1071.8	1080.5	1053.3	1046.2	1033.9	1114.4	1143.1	1109.8	1171.3
30°	1313.9	1310.3	1113.3	1126.2	1105.1	1042.1	1074.9	1180.0	1215.9	1195.4	1270.3
32.5°	1434.9	1447.2	1234.9	1151.8	1162.6	1190.8	1178.5	1180.0	1270.8	1316.4	1375.9
35°	1606.7	1600.0	1353.3	1249.2	1192.8	1197.4	1214.9	1298.5	1415.9	1412.8	1475.9
37.5°	1944.1	1871.3	1563.1	1348.7	1365.6	1388.7	1375.9	1488.2	1499.5	1503.6	1654.4
40°	2441.6	2344.6	1893.9	1558.5	1395.4	1497.4	1491.3	1519.0	1594.4	1622.6	1842.6
42.5°	3096.9	2966.7	2475.9	1944.1	1539.0	1468.7	1506.7	1559.0	1812.3	1892.8	2133.9
45°	3821.0	3557.5	3056.4	2493.9	1899.0	1681.0	1709.8	1807.2	2158.5	2291.8	2558.0
47.5°	4290.3	4058.5	3631.3	2981.0	2274.4	2160.0	2162.6	2183.6	2565.1	2812.3	3169.3
50°	4698.0	4451.3	4054.9	3490.3	2938.5	2722.1	2672.8	2575.9	3083.1	3421.0	3816.9
52.5°	5273.4	4985.2	4478.5	4087.7	3695.9	3186.2	3168.7	3201.6	3693.9	4049.3	4481.1
55°	5792.3	5442.1	4958.5	4712.3	4559.5	3868.2	3883.1	3938.0	4478.0	4666.2	5071.8
57.5°	6021.6	5642.1	5393.4	5282.6	5201.1	4800.0	4749.8	4717.0	5096.4	5168.2	5690.8
60°	6171.8	5810.8	5698.0	5723.6	5970.8	5545.2	5499.5	5308.8	5608.2	5667.2	6245.7
62.5°	6077.0	5747.7	5771.8	5985.7	6534.4	6254.4	6122.6	5803.6	6026.7	6074.4	6644.1
65°	5479.5	5136.4	5446.2	5963.6	6964.1	6957.5	6896.5	6260.6	6258.5	6319.5	6674.9
67.5°	4475.9	4115.9	4617.0	5550.3	6946.2	7383.6	7354.9	6866.7	6291.8	6128.8	6023.6
70°	3111.8	2799.5	3367.7	4583.6	6327.2	7380.6	7334.4	7273.9	6028.2	5275.4	4670.3
72.5°	1616.9	1445.1	1974.4	3158.5	5043.6	6484.7	6637.0	6537.5	5147.2	3832.8	2750.3
75°	549.2	492.8	814.4	1676.4	3352.8	4951.8	5130.3	5029.3	3495.9	2056.4	1087.7
77.5°	212.8	197.9	291.8	680.5	1682.1	3017.5	3211.3	3108.2	1874.9	753.3	255.9
80°	121.0	116.9	161.0	306.7	741.5	1501.0	1637.4	1485.1	675.9	253.8	66.7
82.5°	51.3	52.8	89.7	165.6	372.8	529.7	590.8	539.0	283.1	173.8	24.6
85°	11.3	13.8	42.6	92.3	156.4	151.3	158.5	175.9	173.8	127.7	10.8
87.5°	0.0	0.0	13.3	25.1	37.4	24.6	19.5	34.4	53.3	51.3	4.6
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°	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3	313.3
2.5°	375.9	370.8	338.5	336.4	338.5	332.8	332.3	320.5	321.5	348.2	350.3
5°	468.2	442.6	414.9	406.2	398.0	379.5	389.7	389.7	389.7	406.7	411.8
7.5°	551.8	517.4	478.5	445.6	413.8	390.8	406.7	418.0	424.6	446.7	456.9
10°	589.7	555.9	521.0	474.4	449.7	441.0	422.6	412.8	424.6	420.0	425.6
12.5°	670.8	640.0	580.0	531.8	513.3	483.6	429.2	391.3	366.2	362.1	361.0
15°	749.7	730.8	650.3	585.6	521.5	452.8	360.0	309.7	283.1	278.5	279.0
17.5°	849.7	822.6	704.1	611.3	502.6	379.0	278.0	234.9	232.8	244.1	245.1
20°	916.4	871.8	731.3	590.3	440.0	286.7	217.4	207.2	223.6	244.1	242.1
22.5°	980.0	931.8	767.2	571.8	341.0	217.4	200.0	201.0	214.9	236.9	242.6
25°	1022.1	1004.6	811.3	528.7	260.0	188.2	191.3	199.0	210.8	231.8	231.8
27.5°	1148.7	1067.2	806.2	445.1	200.0	175.4	182.6	192.3	198.5	223.6	226.2
30°	1225.6	1199.0	832.8	360.0	175.4	159.0	172.8	181.5	185.6	214.4	215.4
32.5°	1320.0	1261.0	865.1	265.6	163.1	157.9	154.9	161.5	173.3	198.5	200.0
35°	1434.9	1417.4	819.0	208.7	159.0	147.7	141.5	145.1	152.8	169.7	173.3
37.5°	1669.2	1565.7	791.3	179.0	159.0	144.1	137.4	128.2	129.2	141.0	147.7
40°	1866.7	1834.9	713.9	173.8	151.8	139.0	122.6	111.3	103.6	107.2	109.7
42.5°	2229.2	2082.1	613.9	171.3	145.1	125.6	104.1	92.3	80.5	81.5	85.6
45°	2669.2	2351.8	524.6	168.7	140.5	112.3	87.7	73.8	61.5	62.1	66.2
47.5°	3256.9	2745.1	416.4	161.0	132.3	100.0	70.8	56.4	49.2	50.8	54.4
50°	3924.6	3090.3	329.2	149.2	122.6	88.2	57.4	45.6	43.1	44.6	48.7
52.5°	4521.1	3344.6	271.8	138.5	108.7	71.8	48.2	40.5	39.5	40.5	43.6
55°	5051.3	3492.3	227.2	126.2	93.3	57.9	43.6	37.4	36.9	36.4	38.5
57.5°	5548.8	3534.9	177.4	106.7	75.9	50.3	40.5	34.9	33.8	32.3	33.8
60°	5911.3	3462.1	130.3	85.6	62.1	45.6	37.9	31.3	29.7	27.2	28.2
62.5°	6086.2	3262.6	98.5	68.7	52.8	41.5	33.8	27.2	25.1	22.1	22.6
65°	5920.0	2933.9	77.4	57.9	45.1	34.9	28.7	23.1	20.5	17.4	17.4
67.5°	5184.1	2433.9	65.6	50.3	37.9	29.7	23.6	21.0	16.9	14.4	13.8
70°	3805.2	1750.8	56.4	44.1	32.8	25.6	20.0	19.0	16.4	13.8	12.8
72.5°	2147.7	990.8	48.2	39.0	27.7	21.5	16.9	17.4	15.9	12.8	11.8
75°	819.5	333.8	40.0	32.3	22.6	16.4	14.4	14.4	14.4	10.8	9.2
77.5°	203.1	85.1	31.8	26.2	17.9	10.8	11.8	12.3	12.3	9.2	6.7
80°	55.9	28.7	19.0	19.0	12.8	6.2	8.2	8.2	6.7	3.1	0.0
82.5°	20.5	10.8	6.7	8.2	5.6	2.1	3.1	2.1	1.5	0.0	0.0
85°	8.7	5.6	4.1	4.6	2.6	0.0	0.5	1.0	0.0	0.0	0.0
87.5°	3.6	2.6	2.1	2.1	1.0	0.0	0.0	0.0	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

(END OF REPORT)