

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: P366760

Luminaire Tested: **MSA-SA1B-730-U-SL3**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P366760  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1B-730-U-SL3  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4526 lumens  
Efficiency: N/A  
Efficacy: 102.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1

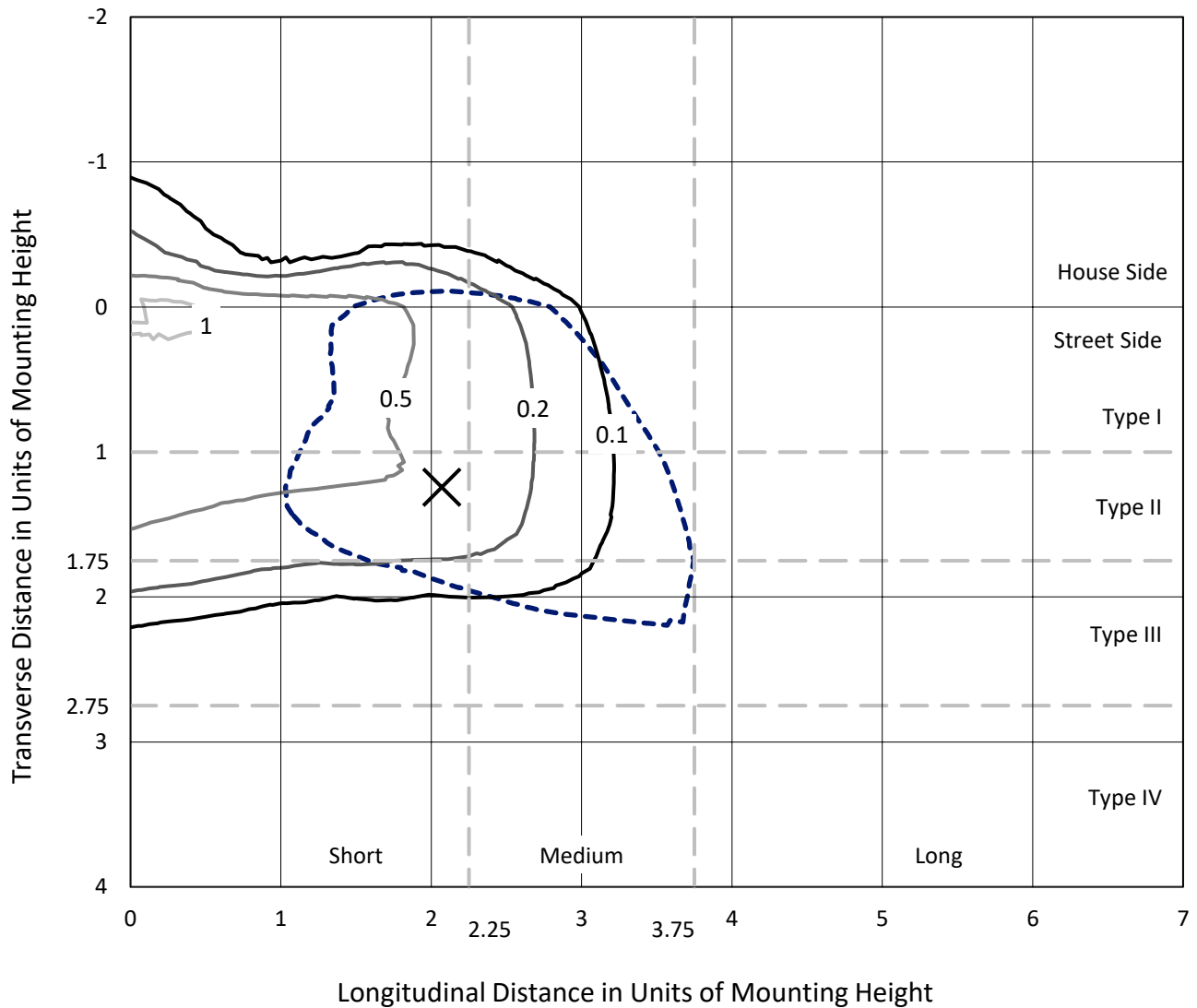
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

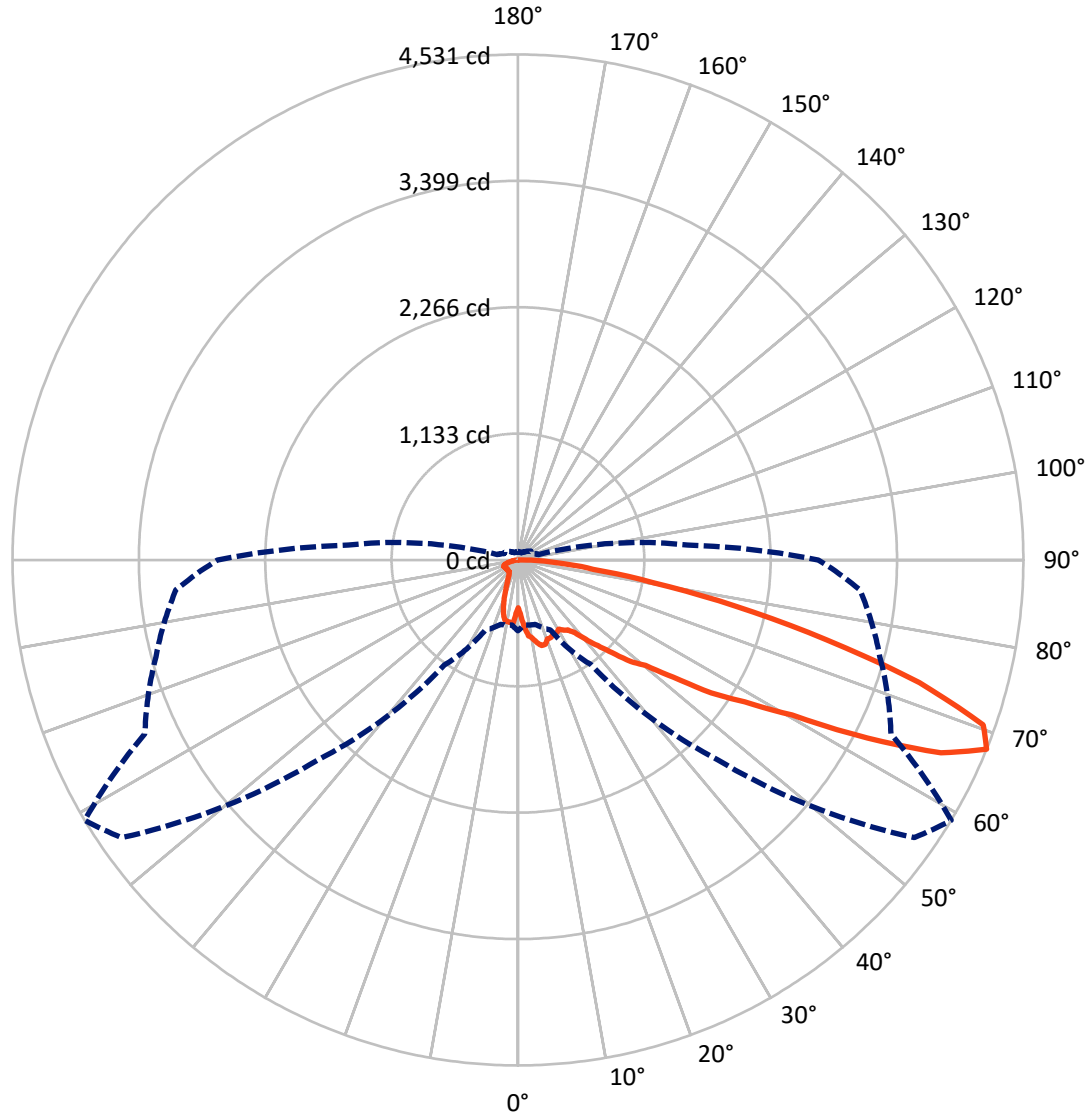
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	681.3	0.0	681.3
	% Fixture	15.1	0.0	15.1
<b>Street Side</b>	Lumens	3844.7	0.0	3844.7
	% Fixture	84.9	0.0	84.9
<b>Total</b>	Lumens	4526.0	0.0	4526.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.9	1.2
10°-20°	165.5	3.7
20°-30°	236.4	5.2
30°-40°	348.3	7.7
40°-50°	588.5	13.0
50°-60°	1024.1	22.6
60°-70°	1305.0	28.8
70°-80°	691.0	15.3
80°-90°	111.2	2.5
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°	4526.0	100.0
0°-180°	4526.0	100.0

**Coefficient of Utilization**



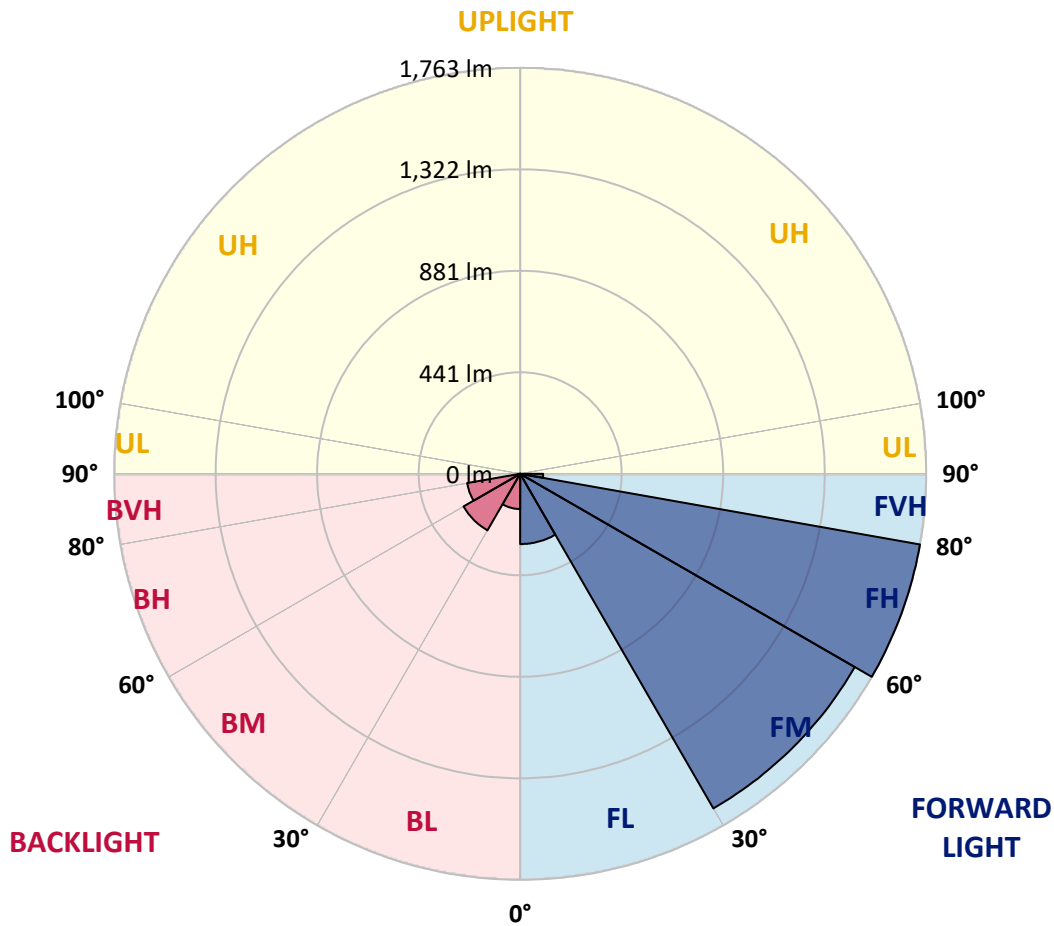
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	305.1	6.7			
FM (30°-60°)	1677.3	37.1			
FH (60°-80°)	1762.6	38.9			G1/1800
FVH (80°-90°)	99.8	2.2			G1/100
BL (0°-30°)	152.8	3.4	B1/500		
BM (30°-60°)	283.7	6.3	B1/1000		
BH (60°-80°)	233.5	5.2	B1/500		G1/500
BVH (80°-90°)	11.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3
2.5°	534.7	509.8	483.3	490.8	506.0	512.9	505.4	498.1	488.7	477.6	515.5
5°	648.5	611.4	606.1	605.9	600.5	579.0	606.6	604.7	615.9	627.4	656.9
7.5°	680.9	667.1	652.1	659.2	632.2	631.0	674.0	686.2	707.7	700.6	740.3
10°	664.2	648.7	656.5	653.6	656.1	684.5	710.8	711.6	734.6	757.2	731.7
12.5°	634.8	636.0	667.3	666.1	706.4	759.1	767.0	760.9	798.4	783.1	805.0
15°	655.7	669.7	661.9	668.6	684.5	751.6	773.5	795.8	831.4	845.2	823.4
17.5°	689.1	696.6	661.3	657.7	690.5	722.3	776.6	795.6	801.1	899.5	868.6
20°	674.9	690.1	655.6	611.3	665.7	707.9	761.4	755.7	782.7	903.7	878.0
22.5°	715.2	690.1	646.2	614.7	633.9	672.6	718.1	755.9	787.9	879.0	891.7
25°	722.9	711.0	669.9	638.7	632.2	646.0	710.8	735.5	789.6	912.8	884.4
27.5°	769.7	751.8	668.2	669.2	636.8	612.4	687.8	739.8	809.2	891.8	902.2
30°	827.8	814.2	709.3	713.1	668.2	623.3	703.5	719.2	820.5	924.5	924.6
32.5°	871.3	895.3	790.0	737.8	721.9	688.4	679.3	750.1	807.3	983.5	963.0
35°	949.8	968.4	852.1	810.3	756.4	718.7	744.9	770.4	862.3	1061.2	1020.0
37.5°	1095.0	1073.5	967.6	901.8	881.7	827.2	841.8	824.0	922.2	1148.5	1131.6
40°	1179.0	1160.4	1048.9	1012.5	932.7	939.6	921.4	934.4	1002.1	1241.3	1235.9
42.5°	1261.8	1236.9	1142.7	1117.4	1037.8	1004.0	1007.3	1049.5	1125.5	1391.3	1373.4
45°	1343.7	1279.9	1238.6	1245.3	1207.0	1137.7	1142.5	1182.2	1260.1	1562.7	1521.7
47.5°	1406.4	1353.7	1321.5	1313.2	1294.2	1386.9	1345.4	1361.6	1395.9	1715.4	1699.9
50°	1525.2	1463.6	1421.6	1409.7	1474.1	1603.0	1518.6	1483.9	1557.0	1912.8	1904.7
52.5°	1715.2	1638.5	1568.5	1567.7	1660.9	1744.6	1804.0	1744.2	1771.0	2114.9	2137.9
55°	1881.1	1792.3	1729.4	1764.1	1896.9	1948.1	2150.0	2103.2	2080.6	2319.0	2384.8
57.5°	1943.1	1839.3	1798.3	1849.5	2045.1	2308.3	2521.7	2398.6	2376.5	2549.9	2687.8
60°	1807.1	1697.4	1699.9	1796.4	2135.3	2572.7	2928.1	2823.6	2694.3	2837.4	2972.1
62.5°	1419.7	1320.5	1385.1	1531.9	2059.7	2829.7	3472.8	3517.0	3057.4	3075.8	3129.7
65°	964.9	896.3	954.6	1098.2	1670.5	2970.0	3991.6	4168.5	3388.1	3231.9	3197.8
67.5°	635.0	586.5	597.8	693.3	1150.0	2531.9	4338.6	4531.4	3690.3	3360.1	3077.7
70°	491.8	452.6	447.7	497.7	682.0	1759.0	4133.0	4426.1	3874.5	3240.0	2682.6
72.5°	385.9	356.2	358.8	407.0	528.2	975.9	3198.2	3763.8	3597.1	2794.3	2061.0
75°	300.9	276.6	290.2	345.2	488.5	606.5	2206.6	2856.6	2781.0	2069.1	1175.5
77.5°	218.5	202.7	222.1	294.0	459.2	520.3	1373.6	1992.9	1781.6	1062.4	403.3
80°	143.3	134.4	150.4	239.7	416.4	500.8	848.9	1221.2	880.3	298.4	152.7
82.5°	84.4	80.6	93.8	162.3	334.7	469.3	566.2	678.6	360.2	126.2	81.1
85°	44.3	41.4	55.6	93.2	230.7	428.5	445.7	406.2	174.0	54.9	38.7
87.5°	14.8	14.4	23.6	36.1	87.3	227.5	237.8	192.9	71.7	15.9	8.4
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°	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3	428.3
2.5°	520.7	513.1	468.9	475.1	480.8	478.0	476.2	456.3	454.4	482.7	480.4
5°	656.1	624.3	586.7	585.0	560.2	534.9	539.9	531.8	534.1	545.8	547.0
7.5°	727.7	688.0	652.1	593.8	544.3	504.2	510.6	508.6	503.5	529.9	537.0
10°	726.3	691.0	650.6	580.0	546.6	514.0	474.9	437.9	426.9	413.9	415.0
12.5°	774.3	743.0	654.8	582.9	537.6	481.4	408.1	367.7	328.9	328.2	318.4
15°	789.2	766.2	663.8	566.4	474.5	393.9	318.2	274.3	246.3	240.7	232.5
17.5°	827.0	791.0	636.4	513.1	401.2	308.0	239.2	208.5	206.2	210.0	205.8
20°	829.5	771.0	586.9	434.2	322.4	233.4	195.1	179.7	188.0	197.4	197.0
22.5°	827.4	745.9	544.1	367.1	242.2	187.6	170.9	167.4	175.1	189.1	190.8
25°	805.9	737.6	490.6	301.5	196.6	160.7	156.1	158.2	167.8	184.3	184.3
27.5°	828.4	704.1	423.5	245.3	165.3	143.1	146.3	151.7	158.8	177.6	181.1
30°	821.1	715.2	369.4	197.5	145.8	130.8	138.1	143.5	151.5	171.1	172.8
32.5°	840.6	685.5	323.9	166.1	132.9	126.0	127.7	135.0	145.6	160.9	164.0
35°	870.6	696.4	271.8	149.4	126.6	120.4	123.7	129.5	140.0	155.0	157.5
37.5°	966.1	695.8	235.7	140.2	125.4	119.3	120.8	124.9	137.1	150.8	156.5
40°	1027.4	735.7	202.9	138.1	124.1	118.7	117.4	121.8	131.6	147.7	151.7
42.5°	1142.7	760.1	188.7	137.3	123.9	115.5	114.1	119.3	128.9	143.8	150.0
45°	1264.5	794.8	177.4	136.9	123.3	114.9	110.9	117.4	125.4	139.8	146.9
47.5°	1407.8	868.3	171.1	135.6	122.2	115.7	109.7	113.0	122.0	136.4	143.5
50°	1595.4	965.5	172.4	133.7	123.9	115.8	108.0	109.5	117.8	131.8	139.1
52.5°	1823.4	1116.1	181.1	134.4	125.1	114.9	107.2	106.4	113.5	125.8	133.1
55°	2098.2	1329.7	206.9	138.1	125.1	114.7	106.1	102.6	108.0	118.0	125.1
57.5°	2429.9	1577.1	257.6	139.8	124.1	113.5	103.6	97.4	100.7	108.9	115.7
60°	2714.7	1776.8	309.7	141.0	126.0	110.9	98.6	90.9	93.0	99.3	105.3
62.5°	2859.9	1832.8	325.5	140.0	131.2	109.1	92.6	84.0	84.2	89.6	94.9
65°	2887.1	1758.2	262.4	139.1	137.9	108.9	88.4	78.1	76.7	80.6	85.2
67.5°	2693.0	1526.1	189.3	136.9	138.7	107.8	85.5	73.3	69.8	72.5	76.3
70°	2286.6	1229.0	159.0	132.7	129.5	102.0	80.6	68.3	63.7	65.6	68.5
72.5°	1704.7	909.3	138.7	123.7	112.8	87.3	72.9	62.7	57.9	59.3	61.4
75°	947.1	485.1	116.0	107.6	92.1	70.6	62.1	55.6	51.4	52.0	54.3
77.5°	314.5	178.9	85.2	85.3	69.6	54.5	51.2	47.6	44.3	44.5	46.4
80°	142.5	99.0	61.0	61.4	48.5	39.5	39.3	38.2	36.1	35.5	36.8
82.5°	82.7	60.0	41.8	39.9	31.3	25.7	28.6	28.0	27.4	25.3	25.7
85°	40.7	32.2	21.9	20.7	17.3	12.9	15.3	15.9	15.3	13.0	12.9
87.5°	10.0	10.5	5.4	5.0	2.9	1.3	2.3	2.3	2.9	1.9	1.0
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)