

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: P366628

Luminaire Tested: **MSA-SA1A-730-U-SL3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366628
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-SA1A-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: 3611 lumens
Efficiency: N/A
Efficacy: 106.2 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

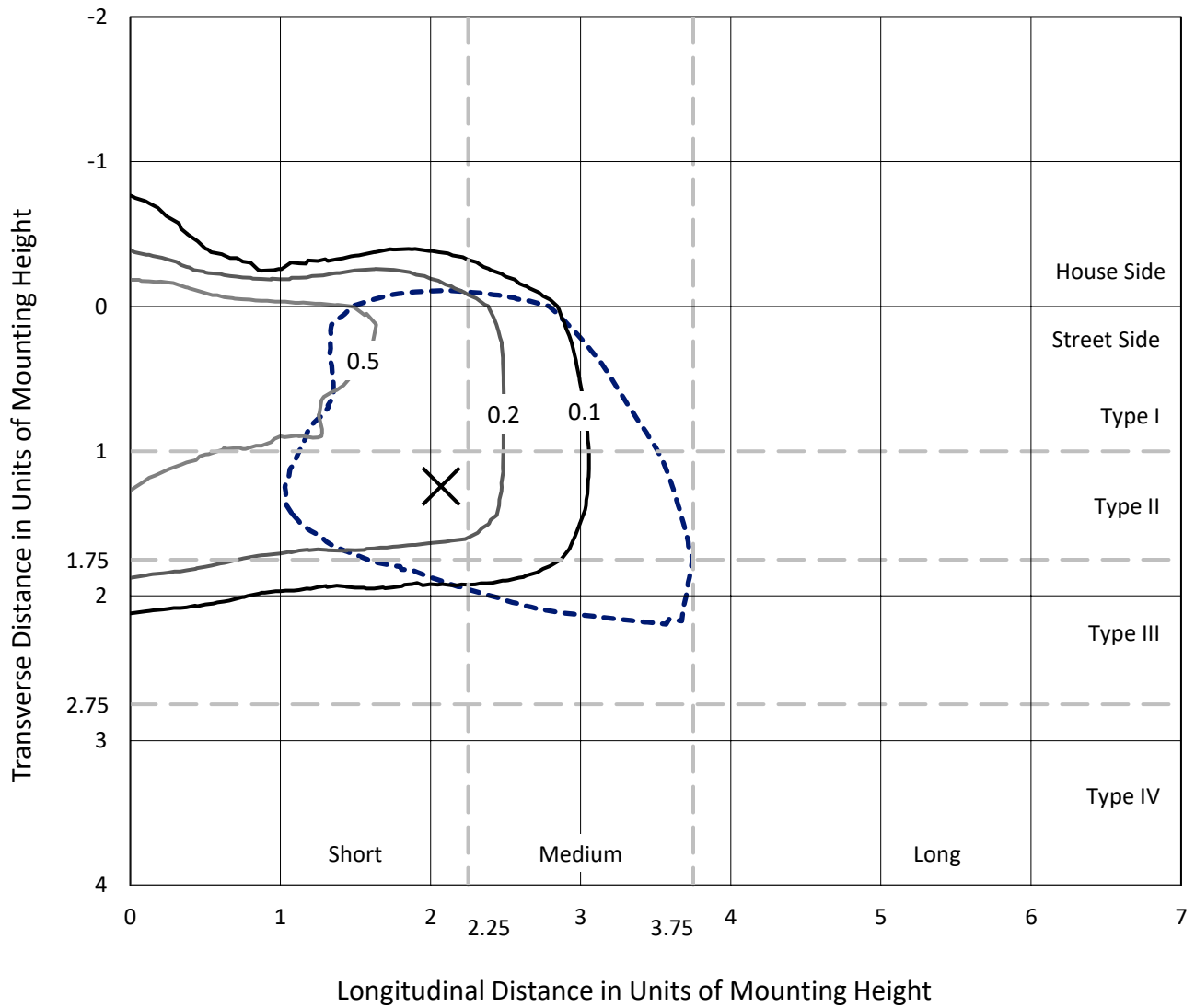
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

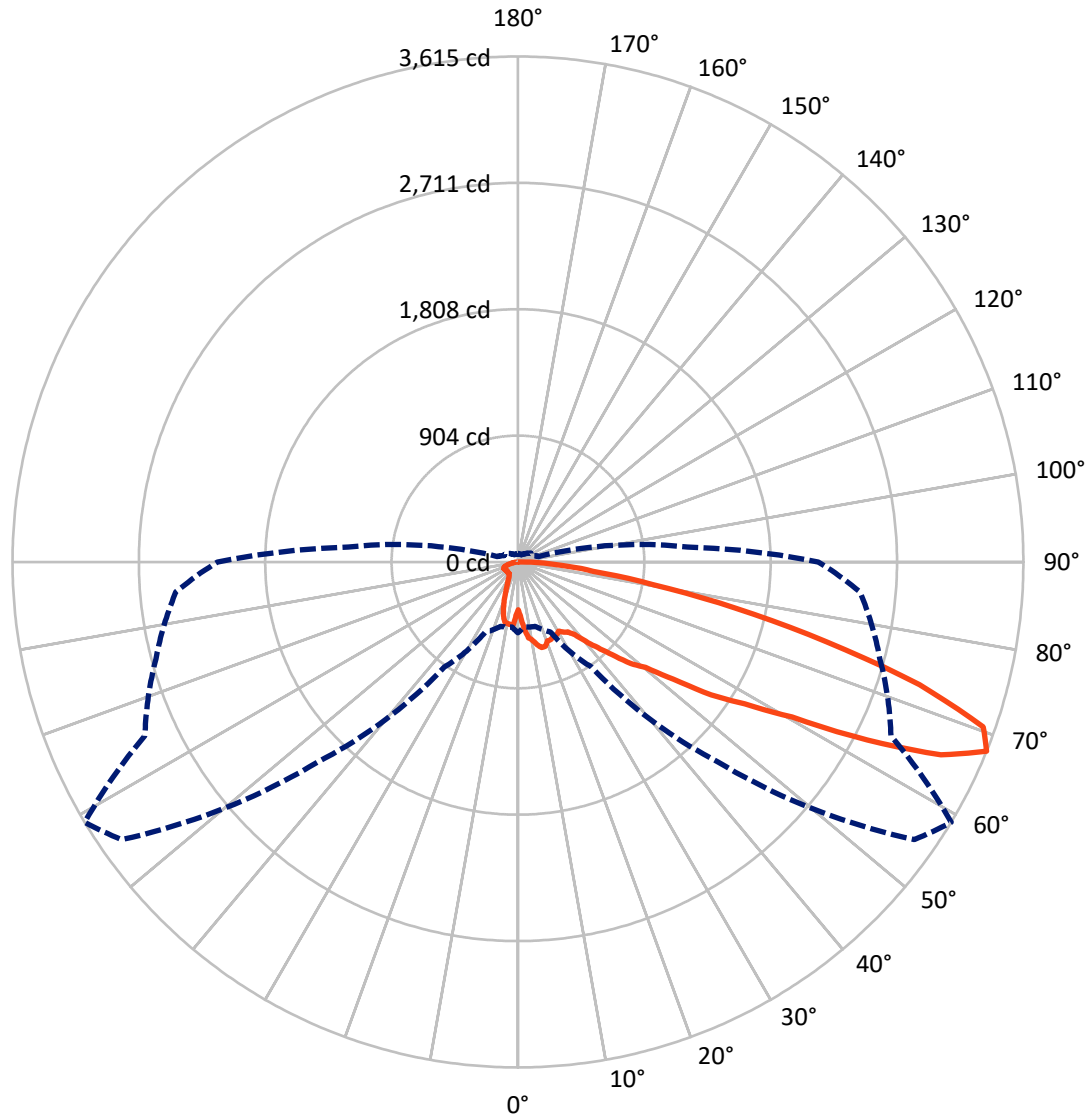
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 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
House Side	Lumens	543.5	0.0	543.5
	% Fixture	15.1	0.0	15.1
Street Side	Lumens	3067.5	0.0	3067.5
	% Fixture	84.9	0.0	84.9
Total	Lumens	3611.0	0.0	3611.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.6	1.2
10°-20°	132.1	3.7
20°-30°	188.6	5.2
30°-40°	277.9	7.7
40°-50°	469.5	13.0
50°-60°	817.1	22.6
60°-70°	1041.2	28.8
70°-80°	551.3	15.3
80°-90°	88.7	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°	3611.0	100.0
0°-180°	3611.0	100.0

Coefficient of Utilization



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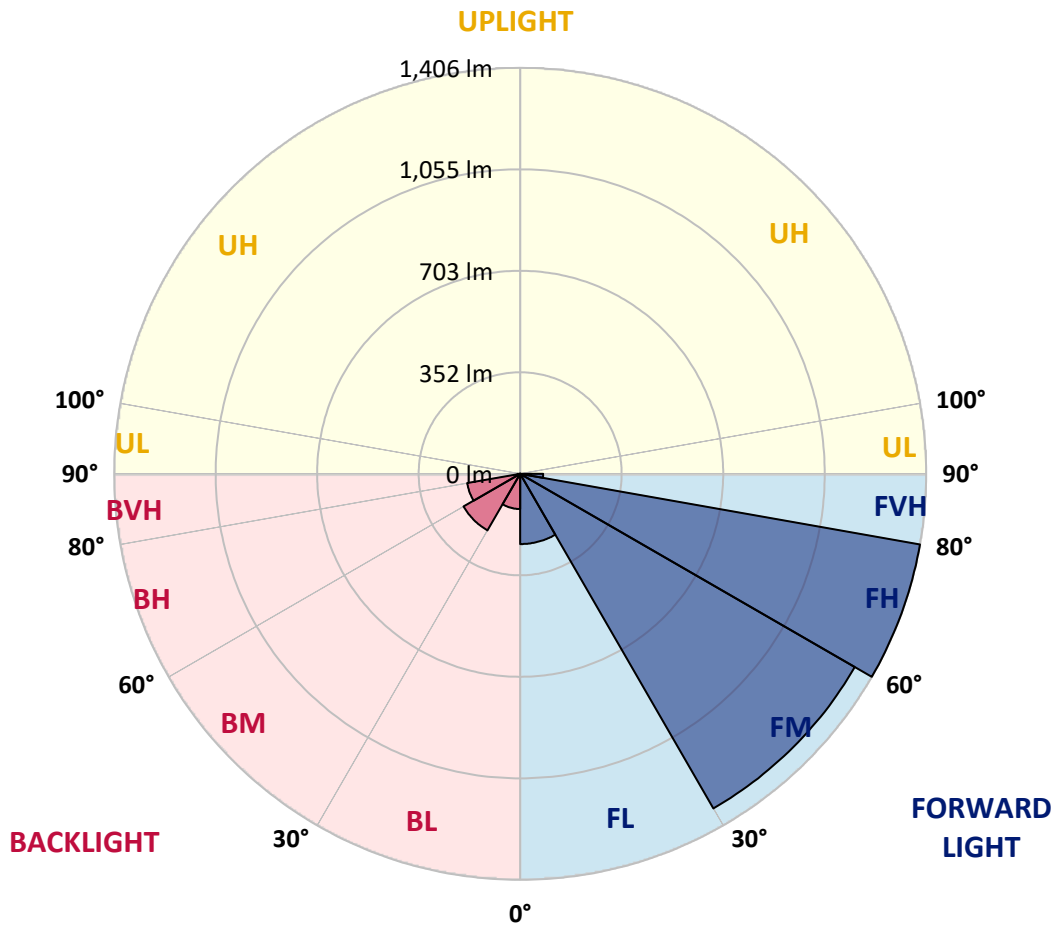
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	243.4	6.7			
FM (30°-60°)	1338.2	37.1			
FH (60°-80°)	1406.2	38.9			G1/1800
FVH (80°-90°)	79.7	2.2			G1/100
BL (0°-30°)	121.9	3.4	B1/500		
BM (30°-60°)	226.3	6.3	B1/1000		
BH (60°-80°)	186.3	5.2	B1/500		G1/500
BVH (80°-90°)	9.0	0.3			G0/10
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°	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7
2.5°	426.6	406.7	385.6	391.6	403.7	409.2	403.2	397.4	389.9	381.0	411.3
5°	517.4	487.8	483.5	483.4	479.1	462.0	484.0	482.5	491.4	500.5	524.1
7.5°	543.2	532.2	520.3	525.9	504.4	503.4	537.7	547.5	564.6	559.0	590.7
10°	529.9	517.5	523.8	521.5	523.5	546.1	567.1	567.7	586.1	604.1	583.8
12.5°	506.5	507.4	532.4	531.4	563.6	605.7	611.9	607.0	637.0	624.8	642.2
15°	523.2	534.3	528.1	533.4	546.1	599.7	617.1	634.9	663.3	674.4	656.9
17.5°	549.8	555.8	527.6	524.7	550.9	576.3	619.6	634.7	639.2	717.7	693.0
20°	538.5	550.6	523.0	487.7	531.1	564.8	607.5	602.9	624.5	721.0	700.5
22.5°	570.6	550.6	515.5	490.4	505.7	536.6	572.9	603.1	628.6	701.3	711.4
25°	576.7	567.2	534.5	509.6	504.4	515.4	567.1	586.8	630.0	728.2	705.6
27.5°	614.1	599.8	533.1	533.9	508.0	488.6	548.7	590.2	645.6	711.5	719.8
30°	660.4	649.6	565.9	568.9	533.1	497.3	561.3	573.8	654.6	737.6	737.7
32.5°	695.2	714.3	630.3	588.7	576.0	549.2	542.0	598.5	644.1	784.7	768.3
35°	757.8	772.6	679.9	646.5	603.5	573.4	594.3	614.7	688.0	846.7	813.8
37.5°	873.6	856.5	772.0	719.5	703.4	660.0	671.6	657.4	735.7	916.3	902.8
40°	940.6	925.8	836.9	807.8	744.1	749.6	735.1	745.5	799.5	990.4	986.1
42.5°	1006.7	986.8	911.7	891.5	828.0	801.1	803.7	837.3	897.9	1110.0	1095.8
45°	1072.1	1021.1	988.2	993.6	963.0	907.7	911.5	943.2	1005.3	1246.8	1214.1
47.5°	1122.1	1080.0	1054.3	1047.7	1032.6	1106.5	1073.4	1086.3	1113.7	1368.6	1356.2
50°	1216.8	1167.7	1134.2	1124.7	1176.1	1278.9	1211.6	1183.9	1242.2	1526.1	1519.7
52.5°	1368.5	1307.3	1251.4	1250.8	1325.2	1391.9	1439.3	1391.6	1413.0	1687.4	1705.7
55°	1500.8	1430.0	1379.8	1407.5	1513.4	1554.2	1715.4	1678.0	1660.0	1850.2	1902.7
57.5°	1550.3	1467.5	1434.7	1475.6	1631.7	1841.6	2011.9	1913.7	1896.1	2034.4	2144.4
60°	1441.8	1354.2	1356.2	1433.2	1703.6	2052.6	2336.2	2252.8	2149.6	2263.8	2371.2
62.5°	1132.7	1053.5	1105.1	1222.2	1643.3	2257.7	2770.8	2805.9	2439.3	2454.0	2497.0
65°	769.8	715.1	761.6	876.2	1332.8	2369.5	3184.7	3325.8	2703.1	2578.6	2551.3
67.5°	506.7	467.9	477.0	553.2	917.5	2020.0	3461.5	3615.3	2944.3	2680.8	2455.5
70°	392.3	361.1	357.2	397.1	544.1	1403.4	3297.4	3531.3	3091.2	2585.0	2140.3
72.5°	307.9	284.2	286.3	324.7	421.4	778.6	2551.6	3002.9	2869.9	2229.4	1644.4
75°	240.1	220.7	231.5	275.4	389.7	483.9	1760.5	2279.1	2218.8	1650.8	937.9
77.5°	174.3	161.7	177.2	234.6	366.3	415.1	1095.9	1590.0	1421.4	847.6	321.8
80°	114.3	107.3	120.0	191.3	332.2	399.5	677.3	974.3	702.4	238.1	121.8
82.5°	67.3	64.3	74.8	129.5	267.0	374.4	451.7	541.4	287.4	100.7	64.7
85°	35.3	33.1	44.4	74.4	184.1	341.8	355.6	324.1	138.8	43.8	30.9
87.5°	11.8	11.5	18.8	28.8	69.6	181.5	189.7	153.9	57.2	12.7	6.7
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°	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7	341.7
2.5°	415.5	409.3	374.1	379.0	383.6	381.3	380.0	364.0	362.5	385.2	383.3
5°	523.5	498.1	468.1	466.7	447.0	426.8	430.8	424.3	426.2	435.5	436.4
7.5°	580.6	548.9	520.3	473.8	434.3	402.3	407.3	405.8	401.7	422.8	428.5
10°	579.5	551.3	519.0	462.7	436.1	410.1	378.9	349.3	340.6	330.2	331.1
12.5°	617.7	592.8	522.4	465.0	428.9	384.1	325.6	293.3	262.4	261.8	254.0
15°	629.7	611.3	529.6	451.9	378.6	314.3	253.9	218.8	196.5	192.0	185.5
17.5°	659.8	631.1	507.7	409.3	320.1	245.8	190.8	166.3	164.5	167.6	164.2
20°	661.8	615.1	468.2	346.4	257.2	186.2	155.6	143.4	150.0	157.5	157.2
22.5°	660.1	595.1	434.1	292.9	193.3	149.7	136.3	133.6	139.7	150.9	152.3
25°	643.0	588.5	391.4	240.5	156.8	128.2	124.6	126.2	133.9	147.1	147.1
27.5°	660.9	561.7	337.9	195.7	131.9	114.2	116.8	121.0	126.7	141.7	144.5
30°	655.1	570.6	294.7	157.6	116.3	104.4	110.2	114.5	120.9	136.5	137.9
32.5°	670.7	546.9	258.5	132.5	106.0	100.5	101.9	107.7	116.1	128.4	130.8
35°	694.6	555.6	216.8	119.2	101.0	96.1	98.7	103.3	111.7	123.6	125.6
37.5°	770.8	555.2	188.1	111.9	100.1	95.2	96.4	99.6	109.4	120.3	124.9
40°	819.7	587.0	161.9	110.2	99.0	94.7	93.6	97.2	105.0	117.8	121.0
42.5°	911.7	606.4	150.6	109.6	98.9	92.1	91.0	95.2	102.8	114.8	119.7
45°	1008.9	634.1	141.5	109.3	98.4	91.7	88.4	93.6	100.1	111.6	117.2
47.5°	1123.2	692.7	136.5	108.2	97.5	92.3	87.5	90.1	97.3	108.8	114.5
50°	1272.8	770.3	137.6	106.7	98.9	92.4	86.2	87.4	94.0	105.1	110.9
52.5°	1454.8	890.4	144.5	107.3	99.8	91.7	85.5	84.9	90.6	100.4	106.2
55°	1674.0	1060.9	165.1	110.2	99.8	91.5	84.6	81.9	86.2	94.1	99.8
57.5°	1938.6	1258.3	205.5	111.6	99.0	90.6	82.6	77.7	80.3	86.9	92.3
60°	2165.9	1417.6	247.1	112.5	100.5	88.4	78.7	72.5	74.2	79.3	84.0
62.5°	2281.7	1462.3	259.7	111.7	104.7	87.1	73.9	67.0	67.2	71.5	75.7
65°	2303.4	1402.7	209.3	110.9	110.0	86.9	70.5	62.3	61.2	64.3	67.9
67.5°	2148.6	1217.6	151.0	109.3	110.6	86.0	68.2	58.5	55.7	57.8	60.9
70°	1824.3	980.6	126.9	105.9	103.3	81.4	64.3	54.5	50.8	52.3	54.6
72.5°	1360.1	725.5	110.6	98.7	90.0	69.6	58.1	50.0	46.2	47.3	49.0
75°	755.6	387.0	92.6	85.8	73.5	56.3	49.6	44.4	41.0	41.5	43.3
77.5°	251.0	142.8	67.9	68.1	55.5	43.5	40.9	37.9	35.3	35.5	37.0
80°	113.7	79.0	48.7	49.0	38.7	31.5	31.4	30.5	28.8	28.3	29.4
82.5°	66.0	47.9	33.4	31.8	24.9	20.5	22.8	22.3	21.9	20.2	20.5
85°	32.4	25.7	17.4	16.5	13.8	10.3	12.2	12.7	12.2	10.4	10.3
87.5°	8.0	8.4	4.3	4.0	2.3	1.1	1.8	1.8	2.3	1.5	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)