

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: P367913

Luminaire Tested: **MSA-SA3B-830-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367913
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-830-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8627 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

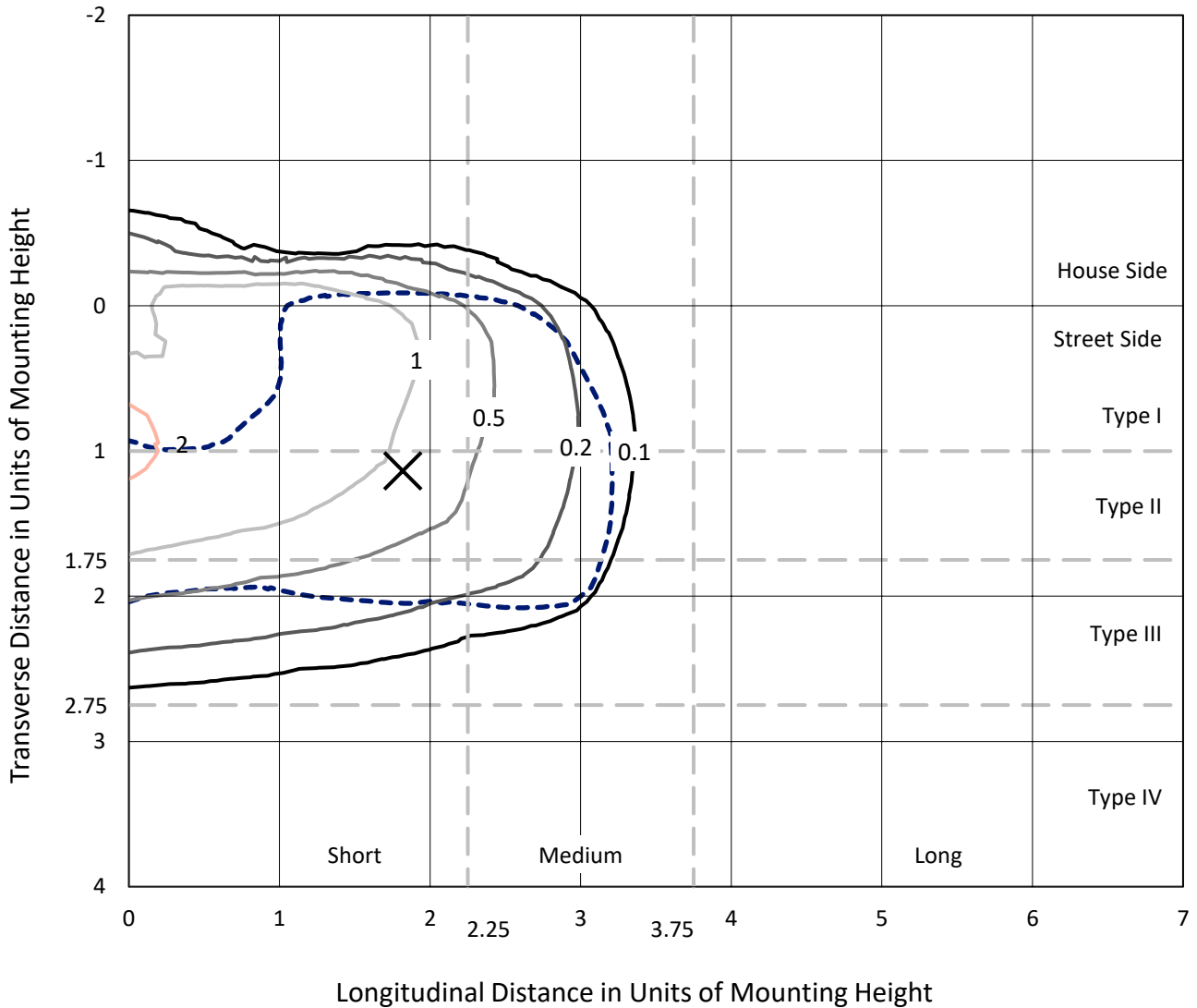
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

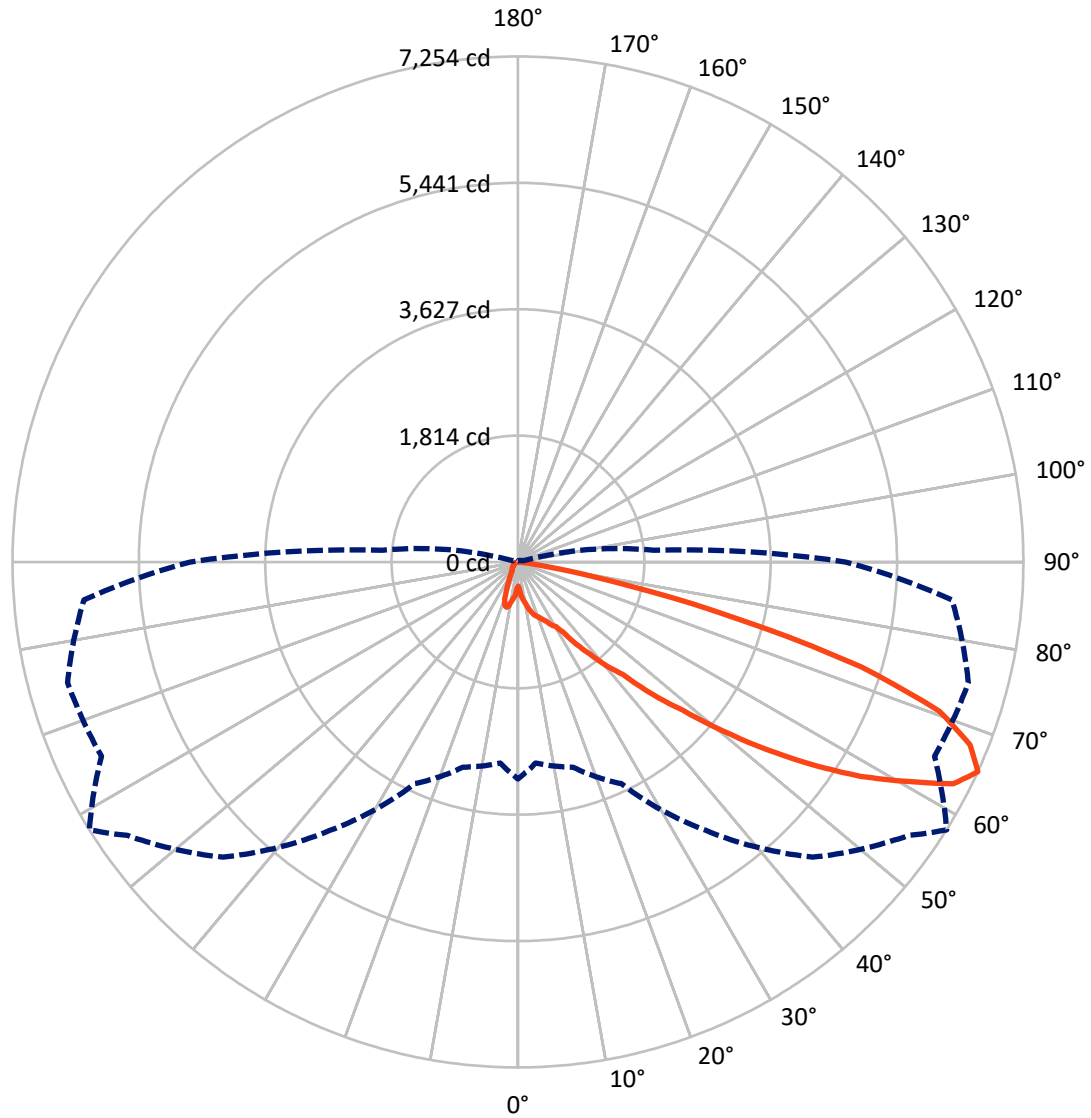
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	851.3	0.0	851.3
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	7775.7	0.0	7775.7
	% Fixture	90.1	0.0	90.1
Total	Lumens	8627.0	0.0	8627.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.5	0.6
10°-20°	177.1	2.1
20°-30°	342.8	4.0
30°-40°	683.9	7.9
40°-50°	1398.1	16.2
50°-60°	2479.9	28.7
60°-70°	2614.4	30.3
70°-80°	847.6	9.8
80°-90°	34.7	0.4
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°	8627.0	100.0
0°-180°	8627.0	100.0

Coefficient of Utilization



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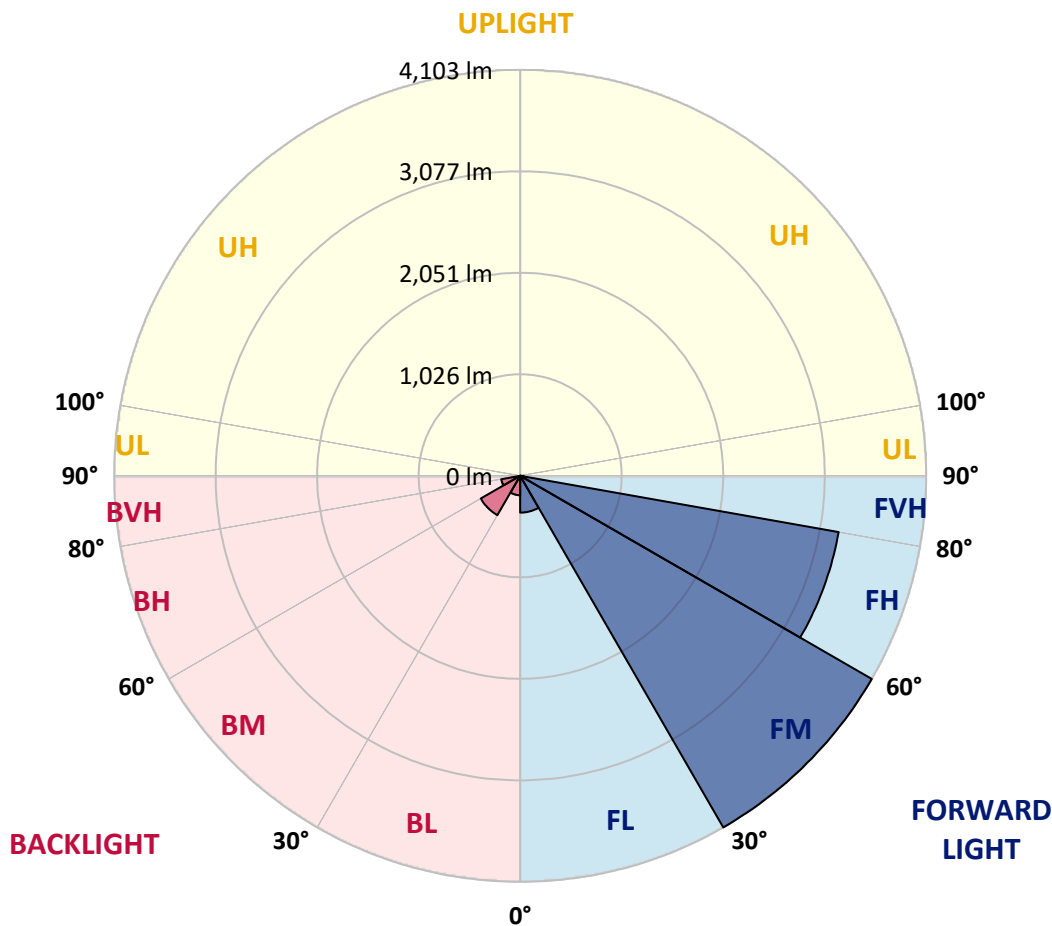
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	372.2	4.3			
FM (30°-60°)	4102.6	47.6			
FH (60°-80°)	3267.8	37.9			G2/5000
FVH (80°-90°)	33.2	0.4			G1/100
BL (0°-30°)	196.2	2.3	B1/500		
BM (30°-60°)	459.3	5.3	B1/1000		
BH (60°-80°)	194.3	2.3	B1/500		G1/500
BVH (80°-90°)	1.5	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4
2.5°	421.6	409.0	389.1	392.5	396.4	404.1	397.8	392.0	385.7	377.4	409.0
5°	509.0	488.2	486.2	481.8	478.4	478.0	485.7	483.3	486.7	502.2	518.3
7.5°	541.1	532.4	515.8	522.6	512.0	503.7	538.2	549.4	570.7	578.0	619.8
10°	537.7	525.1	531.9	535.3	542.6	572.7	594.5	606.7	625.1	665.0	656.7
12.5°	553.2	564.4	571.7	572.2	609.6	665.0	680.5	690.7	723.7	739.3	780.1
15°	605.2	623.7	612.0	616.9	629.0	696.5	733.0	755.3	801.9	852.5	862.7
17.5°	679.5	691.2	666.9	649.4	682.9	719.8	785.9	809.2	838.9	956.9	978.7
20°	773.3	793.2	740.7	671.3	715.5	759.2	831.1	842.3	873.8	1027.8	1062.3
22.5°	992.3	962.7	882.6	774.2	761.1	780.6	849.1	892.8	946.2	1067.6	1147.8
25°	1208.5	1198.3	1080.3	959.3	871.9	828.2	919.0	943.3	1030.7	1162.3	1206.5
27.5°	1448.9	1469.3	1272.1	1198.8	1027.3	884.5	962.7	1023.4	1126.9	1196.8	1303.2
30°	1766.1	1733.6	1502.4	1429.0	1233.3	1039.5	1075.9	1079.8	1231.8	1310.5	1411.5
32.5°	2014.8	2035.7	1745.2	1632.5	1476.1	1277.9	1160.9	1211.4	1320.2	1495.6	1591.2
35°	2283.9	2281.9	1998.8	1847.2	1642.7	1472.7	1413.0	1449.9	1586.4	1785.0	1810.3
37.5°	2686.1	2651.6	2317.4	2095.4	1921.5	1776.3	1730.6	1681.6	1822.4	2011.9	2106.6
40°	3065.4	2946.4	2637.5	2374.2	2151.8	2092.5	1927.4	1957.5	1999.3	2249.4	2511.2
42.5°	3448.7	3374.8	2962.0	2741.4	2468.0	2327.1	2219.3	2205.2	2403.9	2700.2	2970.7
45°	3954.3	3728.4	3398.1	3204.3	2887.6	2746.3	2659.4	2711.3	2890.1	3322.9	3503.1
47.5°	4378.8	4170.9	3887.3	3592.9	3260.7	3419.5	3256.3	3174.2	3419.5	3866.9	4106.3
50°	4743.6	4511.9	4224.9	4006.8	3952.8	4105.4	3775.1	3805.2	3964.5	4490.1	4625.1
52.5°	5008.8	4765.0	4514.4	4408.9	4630.0	4706.7	4541.1	4474.5	4619.3	5021.4	5087.0
55°	5208.5	4958.8	4763.0	4908.3	5335.7	5310.5	5368.7	5141.4	5279.9	5575.7	5544.6
57.5°	5220.6	4924.8	4810.2	5043.8	5630.6	6021.6	6192.1	5805.4	5884.1	6008.9	5939.0
60°	4838.8	4544.5	4535.2	4867.0	5716.0	6205.7	6578.7	6390.2	6284.8	6377.6	6245.0
62.5°	4078.2	3872.2	3968.4	4335.1	5397.9	6104.1	6784.6	7011.5	6601.0	6621.9	6433.5
65°	3114.0	2897.8	3048.4	3510.4	4702.3	5990.5	6842.9	7254.3	6595.2	6691.4	6252.8
67.5°	2062.4	1937.1	2107.6	2616.6	3738.6	5288.1	6812.8	6999.3	6385.9	6419.9	5582.0
70°	1064.7	1034.1	1172.1	1573.8	2513.6	4062.6	6517.0	6415.0	5960.8	5530.5	4305.5
72.5°	341.0	342.4	475.0	718.9	1355.2	2473.3	5009.3	5149.2	4769.8	4045.6	2628.8
75°	151.1	148.6	198.7	301.6	564.9	1108.9	3112.1	3263.1	2969.7	2225.6	1105.0
77.5°	108.8	105.4	127.3	176.3	279.8	376.0	1459.1	1574.7	1346.4	771.3	253.1
80°	76.7	76.3	92.3	123.9	174.9	167.1	461.0	516.8	413.8	187.0	74.3
82.5°	43.2	44.7	64.1	87.4	106.4	83.5	129.7	142.8	139.4	99.6	32.5
85°	20.9	23.3	41.8	63.1	55.9	32.5	46.1	50.0	58.3	57.8	16.5
87.5°	0.0	0.0	17.0	28.7	15.1	4.9	14.1	16.0	15.5	18.5	3.9
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°	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4	345.4
2.5°	415.3	412.4	375.5	378.4	386.6	383.2	386.2	379.4	371.6	403.2	402.7
5°	525.1	503.2	491.6	480.9	482.8	461.0	473.6	479.4	478.4	496.4	501.3
7.5°	621.2	592.1	568.8	546.4	512.4	481.8	500.8	512.9	521.2	552.3	564.4
10°	666.4	642.6	633.4	589.7	565.4	546.4	523.6	507.1	513.9	505.6	513.9
12.5°	765.5	749.5	714.0	669.8	640.7	601.8	516.8	445.9	402.2	402.7	399.8
15°	855.9	854.9	801.9	728.6	644.1	533.3	400.7	311.4	270.1	258.4	254.5
17.5°	973.9	959.3	862.7	754.3	602.3	412.9	273.0	213.2	209.3	216.1	213.2
20°	1049.2	1027.8	892.8	716.9	496.4	279.3	205.9	188.9	200.6	210.3	207.9
22.5°	1124.5	1092.4	915.6	671.3	353.1	204.5	186.0	183.1	190.4	202.5	204.5
25°	1165.7	1159.4	960.3	585.8	241.9	179.2	179.2	178.3	180.7	189.4	188.0
27.5°	1285.7	1200.2	926.8	457.1	187.0	164.7	167.1	166.1	157.4	166.1	166.6
30°	1360.5	1321.2	929.2	325.4	164.7	145.7	152.0	144.3	131.1	138.4	137.0
32.5°	1511.1	1413.0	921.9	219.5	150.1	138.9	129.2	118.0	108.3	111.2	108.8
35°	1686.4	1611.6	823.3	176.3	139.9	122.9	107.3	96.2	86.0	88.4	87.9
37.5°	2035.2	1797.7	741.7	158.8	133.1	112.7	94.7	79.2	73.8	75.3	76.7
40°	2358.2	2108.1	589.7	151.1	121.4	100.5	78.2	67.0	63.6	64.6	66.1
42.5°	2841.0	2354.8	445.4	143.3	109.8	85.0	65.1	57.8	54.4	56.3	57.3
45°	3308.3	2564.6	332.7	136.5	100.1	73.3	54.9	50.0	46.1	47.6	49.5
47.5°	3775.1	2797.8	248.2	125.8	89.4	63.1	47.1	43.7	41.3	41.8	44.2
50°	4192.8	2906.6	195.3	112.7	80.6	54.9	42.7	39.3	38.4	38.9	40.8
52.5°	4499.8	2907.6	164.7	101.0	72.4	48.6	40.3	36.4	35.9	36.9	38.9
55°	4777.1	2829.8	142.8	90.8	65.1	44.2	38.4	35.0	35.0	35.9	37.9
57.5°	4961.2	2687.0	123.9	80.1	58.8	41.8	36.9	33.5	33.0	32.5	34.0
60°	5051.1	2492.3	104.9	70.4	52.9	40.3	35.9	29.6	29.1	28.2	29.1
62.5°	4994.2	2248.4	87.9	60.7	47.1	38.4	31.6	25.7	24.8	22.8	24.3
65°	4703.8	1952.1	74.3	52.0	40.8	32.5	26.7	21.9	19.4	17.0	16.5
67.5°	4109.7	1585.9	62.2	44.7	35.0	26.7	21.9	19.4	15.1	13.1	12.6
70°	3080.0	1082.7	51.5	38.4	29.1	22.8	18.5	17.5	14.1	12.6	11.7
72.5°	1806.9	584.3	43.2	33.5	24.8	18.9	15.1	16.0	14.1	11.7	10.7
75°	721.8	194.3	34.5	26.7	19.9	13.6	12.6	13.1	12.6	10.7	8.7
77.5°	164.7	61.2	26.7	20.9	15.5	8.7	10.2	11.2	11.2	8.7	6.3
80°	51.5	24.3	15.5	13.1	11.2	4.9	7.3	7.8	5.3	2.4	0.0
82.5°	16.5	6.8	5.3	5.3	4.9	1.0	1.5	1.0	0.0	0.0	0.0
85°	6.3	4.4	3.4	3.4	1.9	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	1.9	1.5	1.9	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)